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**NETWORKED DISASTER GOVERNANCE IN VANUATU:**  
**THE ANATOMY OF AN INCLUSIVE AND INTEGRATED**  
**SYSTEM TO BUILD RESILIENCE IN A SMALL ISLAND**  
**DEVELOPING STATE**

Thesis submitted by

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For the degree of Doctor of Philosophy in the Centre for Disaster Studies,  
College of Science and Engineering, James Cook University

# Statement of contribution of others

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## **Thesis Committee**

- Associate Professor Alison Cottrell
- Associate Professor David King

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- Associate Professor Alison Cottrell
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# Permits

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Research associated with this thesis complies with current laws of Australia and all permits necessary for the project obtained (JCU Human Ethics H5296 and H5813).

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# Abstract

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The process of building resilience to hazards encounters complex challenges of gaps and overlaps among government and non-government stakeholders involved in decision-making for and practice of Disaster Risk Reduction, Climate Change Adaptation, Disaster Management and resilience-related Sustainable Development. Networked governance appears to be an appropriate system for the development of decision-making and decision-implementation to address the complexities of resilience-building in Small Island Developing States. The networked disaster governance system of Vanuatu served as a case study to analyse key factors affecting resilience-building, such as high multi-hazard exposure, geographic and ideological distance between decision-makers and aid recipients, and the complexity of the coexistence of local, national, regional and international powers.

The use of both qualitative and quantitative methodologies – Earth System Governance framework, Social Network Analysis and Qualitative Comparative Analysis – identified governance structures supporting the development of resilience. An extensive literature review, data collection and analysis contributed to the development of a conceptual framework to assess the potential of a networked disaster governance system. This framework consists of four pillars: Government–non-government Networking, Cross-sectoral Networking, Networked Leadership and Networked Learning.

The Government–non-government and Cross-sectoral Networking pillars focused on the networking structures and processes that promote cooperative resilience-building. Networking structures included the configuration of institutionalised networks while the networking processes included social networking between individuals, organisations and their networks. The development of a complex set of networks patterned with paired formal and informal ties between the different stakeholders involved in resilience-building resulted in complementary governance configurations (flexible/stable, adaptive/reliable, fragmented/integrated, expertise building /comprehensive approach development).

The Networked Leadership pillar considered whether the legal and formal institutional structure supported shared decision-making and decision-implementation, and how influence was distributed across the system. Social Networking Analysis data and stakeholders' perceptions were used to determine the influence of networks, which highlighted the main strengths of such a system, namely the recognition and promotion of inclusiveness of all levels, sectors and types of stakeholders in decision-making and decision-implementation, building an effective bottom-up-top-down governance system.

The Networked Learning pillar examined the availability and appropriateness of tools to share disaster and climate change-related information across all stakeholders, and their capacities to process this information into sustainable knowledge and appropriate decisions at the individual, organisational and whole system levels. Networked Learning, facilitated by Government–non-government and Cross-sectoral Networking and Networked Leadership, enabled the development of a culture of preparedness, building the level of resilience of communities to climate change and disaster risks.

The occurrence of category five Cyclone Pam challenged the Vanuatu networked disaster governance system. Despite remaining weaknesses, its structure, leadership and processes developed in routine times showed significant potential to prepare communities and organisations for extreme events, and facilitate cooperation during emergencies. The analysis of the system in place in Vanuatu enhanced knowledge of the impact of networked governance to build a more credible, stable, inclusive, adaptive and capitalised system for more effective resilience-building in both routine and disaster times. More broadly, this thesis addressed the international and regional foci of Disaster Risk Reduction, Climate Change Adaptation and Sustainable Development by analysing how the concept of Networked Governance could support the current humanitarian goals of inclusiveness, integration, and consistency between science, policy and practice to build more effectively resilience to hazards.

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## List of key acronyms

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<b>2INDG</b>	Integrated and Inclusive Networked Disaster Governance
<b>CCA</b>	Climate Change Adaptation
<b>CDC</b>	Community Disaster (and Climate Change) Committee
<b>DM</b>	Disaster Management
<b>DRR</b>	Disaster Risk Reduction
<b>ESG</b>	Earth System Governance
<b>FSAC</b>	Food Security and Agriculture Cluster
<b>GPC</b>	Gender and Protection Cluster
<b>INGO</b>	International Non-Government Organisation
<b>M&amp;E</b>	Monitoring and Evaluation
<b>NAB</b>	National Advisory Board on Climate Change and Disaster Risk Reduction
<b>NDMO</b>	National Disaster Management Office
<b>NGO</b>	Non-Government Organisation
<b>PDC</b>	Provincial Disaster (and Climate Change) Committee
<b>PHT</b>	Pacific Humanitarian Team
<b>RRU</b>	Risk and Resilience Unit
<b>SD</b>	Sustainable Development
<b>SIDS</b>	Small Island Developing State
<b>SNA</b>	Social Network Analysis
<b>UNOCHA</b>	United Nations Office for the Coordination of Humanitarian Affairs
<b>UNDP</b>	United Nations of Development Programme
<b>VANGO</b>	Vanuatu Association of Non-Government Organisations
<b>VCAN</b>	Vanuatu Climate Action Network
<b>VHT</b>	Vanuatu Humanitarian Team
<b>VMGD</b>	Vanuatu Meteorology and Geo-Hazards Department
<b>WASH</b>	Water, Sanitation and Hygiene

# Terminology

---

**Adaptiveness:** Ability of systems, organisations and individuals to adjust to internal and external environmental, social and political changes.

**Capitalisation:** Extensive identification, effective mobilisation and optimal use of the capital existing in a governance system.

**Climate Change:** “The Inter-governmental Panel on Climate Change (IPCC) defines climate change as: ‘a change in the state of the climate that can be identified (e.g., by using statistical tests) by changes in the mean and/or the variability of its properties, and that persists for an extended period, typically decades or longer.’” (UNISDR, 2009).

**Climate Change Adaptation:** “Process by which strategies to moderate, cope with and take advantage of the consequences of climatic events are enhanced, developed, and implemented” (UNDP, 2005).

**Disaster Risk:** “Potential disaster losses, in lives, health, status, livelihoods, assets and services, which could occur to a particular community or a society over some specified future time period” (UNISDR, 2009).

**Disaster Risk Reduction:** “Concept and practice of reducing disaster risks through systematic efforts to analyse and manage the causal factors of disasters, including through reduced exposure to hazards, lessened vulnerability of people and property, wise management of land and the environment, and improved preparedness for adverse events” (UNISDR, 2009).

**Governance:** Process of decision-making and implementation involving the diverse stakeholders concerned by a common collective problem and resulting in the development and reinforcement of related policies, institutions, norms and agendas.

**Integrated and Inclusive Networked Disaster Governance:** Cooperative process of decision-making and implementation involving the diverse stakeholders concerned by the collective problems of disaster risks resulting from geological, climate change and hydro-geological hazards. This process relies on a system composed of networks and networking mechanisms, and resulting in the development and reinforcement of policies, institutions, norms and agendas supporting the integration of Disaster Risk Reduction, Climate Change Adaptation and related Sustainable Development towards more effective resilience-building.

**Network (or sectoral network):** This thesis holds a wide understanding of networks, which comprise a range of institutionalised cooperative systems (more or less formal), bringing together stakeholders from diverse organisations and levels around a topic of discussion and/or decision-

making related to resilience-building, and significantly varying in nature, for instance, formal networks, committees, working groups, agreements, weekly gatherings, virtual groups. Therefore, sectoral networks are cooperative platforms, more or less formal, led by Government agencies or non-government groups, considered by one or several of the 260 stakeholders studied in this thesis as key tools to cooperate within and/or outside their field of expertise.

**Networked Leadership:** The leading ability, whether formal or informal, of a network member to participate in building clear and consensual vision and objectives in the benefit of the Vanuatu-Networked-System members without undermining their individual vision and objectives; to motivate and facilitate the effective commitment of the disaster and climate change stakeholders to the networking process for resilience-building; and to address the different cooperation challenges encountered in the Vanuatu-Networked-System.

**Networked Learning:** The ability of network members to capture and process information based on their own and other members' experience in resilience-building into permanent knowledge and resources supporting sustainable inclusive and integrated disaster governance.

**Networking Capital:** Individual and collective, tangible and intangible resources available to disaster and climate change stakeholders to develop and maintain cooperative relationships.

**Resilience:** “Ability of a system, community or society exposed to hazards, [and/or climate change], to resist, absorb, accommodate, and recover from the consequences of a hazard event or of climate change in a timely and efficient manner, including through the preservation and restoration of its essential basic structures and functions” (UNISDR, 2009).

**Routine times:** The expression of routine times is used in contrast to emergency and disaster management periods. Routine times consist in the regular period of governance not subjected to disaster or emergency management.

**Social networking:** Formal and informal mechanisms linking individuals within and/or outside the sectoral networks to which they belong.

**Sustainable Development:** “Sustained, inclusive and equitable economic growth, creating greater opportunities for all, reducing inequalities, raising basic standards of living, fostering equitable social development and inclusion, and promoting the integrated and sustainable management of natural resources and ecosystems that supports, inter alia, economic, social and human development, while facilitating ecosystem conservation, regeneration and restoration and resilience in the face of new and emerging challenges” (UN, 2012, paragraph 1, article 4).

**Umbrella network:** Key sectoral networks empowered by their strategic position to oversee and link all the sectoral networks (institutionalised networking) and the social networking processes (informal networking) involving the 260 stakeholders studied in this thesis. In this study, the

National Advisory Board on Climate Change and Disaster Risk Reduction (NAB), the Vanuatu Humanitarian Team (VHT) and the Vanuatu Climate Action Network (VCAN) are considered umbrella networks for disaster and climate change matters. The umbrella networks are in relation to the 48 satellite sectoral networks working within their specific area of expertise).

**Vanuatu-Networked-System:** The entire governance system comprising the 260 stakeholders and the 54 sectoral networks studied in this thesis, the legal and institutional structure, and all formal and informal mechanisms enabling cooperative resilience-building in the system.



# CHAPTER 1.

---

## Introduction

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### 1.1. Rationale for research on integrated and inclusive networked disaster governance

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#### 1.1.1. Addressing the international foci for resilience-building

##### *1.1.1.a. Increasing focus on integration*

This research arose from the current international debates on the need to consider disaster risks through a broader, more inclusive and longer-term scope in order to better, and more sustainably, build resilience to hazards (UN, 2015a, 2015b). Natural disasters have increased in frequency, intensity and uncertainty throughout the world in recent decades, and will likely continue to increase, due to a simultaneous intensification of severe hazards and exposure (Nolte and Boenigk, 2011; UNISDR and UNDP, 2012; IPCC, 2012, 2014; UN, 2015a). In this increasingly complex earth system, building resilience to hazards faced by communities relies on their “ability [...] to resist, absorb, accommodate, and recover from the consequences of a hazard event or of climate change in a timely and efficient manner, including through the preservation and restoration of [their] essential basic structures and functions” (UNISDR, 2009).

This thesis operates on the premise that the development of such ability relies on four complementary lines of work: Disaster Risk Reduction (DRR), Disaster Management (DM), Climate Change Adaptation<sup>1</sup> (CCA), and less directly and systematically, dimensions of Sustainable Development (SD) related to resilience to hazards (such as food security or gender equality). The rationale to expand the predominant DM focus of aid in the benefit of DRR, and to integrate DRR, CCA and SD agendas for more effective resilience-building has already been widely discussed (e.g. Bankoff, 2001; Wisner et al., 2004; Thomalla et al., 2006; Venton and La Trobe, 2008; Mitchell and Van Aalst, 2008; Schipper, 2009; Scott and Shepherd, 2011; Juhola and Westerhoff, 2011; Mitchell, 2012; Lassa, 2012; UN, 2012; Djalante, 2013; UNISDR, 2013; UN, 2015a, 2015b; UNFCCC, 2015). These different sectors have continual, reciprocal and

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<sup>1</sup> This thesis does not discuss the (controversial) impacts of climate change on disaster risks, but integrates CCA (policies, strategies, plans and projects developed at the different levels) as a line of work affecting the level of resilience of communities. This approach was taken to address the actual prioritisation of CCA in international, regional, national and local agendas for resilience, and aims to assess the impacts of CCA plans on the overriding resilience-building process

mutual impacts. More importantly, these sectors are complementary (table 1.1) towards the development of a comprehensive approach to the overriding goal of resilience-building.

Table 1.1: Complementary approaches of Disaster Management, Disaster Risk Reduction, Climate Change Adaptation and Sustainable Development (Bankoff, 2001; Wisner et al., 2004; Thomalla et al., 2006; Schipper and Pelling, 2006; Venton and La Trobe, 2008; Mercer, 2010; Djalante, 2013; UN, 2015b)

	<b><i>Disaster Management</i></b>	<b><i>Disaster Risk Reduction</i></b>	<b><i>Climate Change Adaptation</i></b>	<b><i>Sustainable Development</i></b>
<b><i>Geographic scale</i></b>	Local	National	Global	Global
<b><i>Perspective</i></b>	Short-term	Mid- and long-term	Long-term	Long-term
<b><i>Approach</i></b>	Humanitarian needs	Exposure	Climate sciences	Humanitarian needs
<b><i>Time scale for decision-making</i></b>	Present needs	Past patterns	Future predictions	Future predictions
<b><i>Origin of vulnerability</i></b>	Hazard	Socio-economic	Climate Change	Socio-economic and political
<b><i>Goal</i></b>	Conducting response and recovery	Building Back Better	Adapting to changing environments	Eradicating poverty and promoting equality

Given this complementarity, resilience-building would benefit from interlinkages and consistency between the different institutions, policies and practices of each of these sectors, both in their development and implementation. Accordingly, the preamble of the Sendai Framework (2015-2030) states that “the intergovernmental negotiations on the post 2015 development agenda, financing for development, climate change and disaster risk reduction provide the international community with a unique opportunity to enhance coherence across policies, institutions, goals, indicators and measurement systems for implementation, while respecting the respective mandates. Ensuring credible links, as appropriate, between these processes will contribute to resilience-building and achieving the global goal of eradicating poverty” (UN, 2015a, article 11).

Likewise, the 2030 Agenda for Sustainable Development (UN, 2015b) echoed the need to address climate change and disaster risks as a support to SD. Most Sustainable Development Goals, and related targets, adopted within this agenda intend to reduce the vulnerability of people, which will affect their level of resilience to hazards, such as goal 2: achieving food security and goal 5: empowering women for shared leadership. More particularly, certain goals and targets directly aim for DRR and/or CCA, for instance:

*Target 1.5: By 2030, build the resilience of the poor and those in vulnerable situations and reduce their exposure and vulnerability to climate-related extreme events and other economic, social and environmental shocks and disasters*

*Target 11.b By 2020, substantially increase the number of cities and human settlements adopting and implementing integrated policies and plans towards inclusion, resource efficiency, mitigation and adaptation to climate change, resilience to disasters, and develop and implement, in line with the Sendai Framework for Disaster Risk Reduction 2015–2030, holistic disaster risk management at all levels*

*Goal 13. Take urgent action to combat climate change and its impacts*

A similar debate took place during the 2015 United Nations conference focused on Climate Change, which resulted in the adoption of the Paris Agreement (UNFCCC, 2015). This decision acknowledges within its opening paragraph the value of the Sendai framework and the 2030 Agenda for Sustainable Development, in particular its goal 13, and continually refers to the importance of integrating DRR and SD into CCA-focused agendas. For instance, it recognises the direct reciprocal link between CCA and SD, stating that “Parties should, when taking action to address climate change, respect, promote and consider their respective obligations on human rights, the right to health, the rights of indigenous peoples, local communities, migrants, children, persons with disabilities and people in vulnerable situations and the right to development, as well as gender equality, empowerment of women and intergenerational equity”. It also focuses on areas related to DRR and DM, such as early warning systems, emergency preparedness, risk insurance, and resilience of communities, livelihoods and ecosystems (UNFCCC, 2015, art. 8).

Such observations and conclusions, however, should not be interpreted as the need for full integration of these sectors to build resilience. On the contrary, a remaining challenge for the sectors of DRR, DM, CCA and resilience-related SD is to build a balance between sectoral integration and fragmentation. Such balance is a prerequisite to allow each sector to efficiently and effectively achieve their respective objectives within their own sphere of expertise, while contributing to a comprehensive and consistent approach.

#### ***1.1.1.b. Increasing focus on inclusiveness***

Another key fragmentation to be addressed in this research concerns the complex configuration of stakeholders involved in these different sectors. Building resilience to hazards involves numerous and diverse stakeholders with different agendas, goals, configurations, methods, scales, levels and sectors (Iwata et al., 2004; Wickham et al., 2009; Watson et al., 2009; Walker et al., 2010; Bhattacharjee and Lossio, 2011; Lassa, 2012). In particular, the involvement of non-government stakeholders has evolved beyond DM into consultations and negotiations for planning, DRR and CCA (Rosenau, 2004; Bevir and Trentmann, 2007; Watson et al., 2009; Walker et al., 2010; Tierney, 2012; Lassa, 2012). Furthermore, despite the remaining authority of central Government, and the strong influence of international and regional agendas in the policy

process, the local level, such as local Non-Government Organisations (NGOs), civil society groups, private sector, is increasingly being recognised as a key factor in effective decision-making and decision-implementation (Rosenau, 2004; Völz, 2005; Pahl-Wostl, 2009; Walker et al., 2010; Juhola and Westerhoff, 2011).

A key lesson learned from the implementation of the Hyogo Framework for Action (2005-2015) is the need to develop a more inclusive approach to disaster risks through a fairer involvement of a diverse groups of stakeholders, such as government agencies, civil society groups, private sector (UN, 2015a). Therefore, recent international discussions and guidelines on DRR, DM, CCA and SD openly promoted inclusive cooperation as a key component of resilience-building (UN, 2015a, 2015b; UNFCCC, 2015). For instance, the Sendai framework credits the involvement of NGOs and civil society groups in effective development of disaster risk understanding (priority 1), at the national and local levels.

However, the substantial differences in decision-making and operational processes of each group of stakeholders hinder reciprocal understanding and effective cooperation. This situation raises the necessity for balanced fragmentation and inclusiveness of the different types of stakeholders in order to build a common approach between the diverse groups for more consistency, while not hampering the specificities and strengths of each group.

#### *1.1.1.c. Linking sciences (knowledge), policies and practices*

Approaches simultaneously aiming at integration and inclusiveness need to develop linkages between knowledge, policies and practices, to support more effective decision-making and decision-implementation, both from the scientific and traditional systems. As defined by Klint et al. (2012), a policy is “the dynamic cooperation of policy actors that have various interests and the consequent legitimation of a shared view through the institutions of government” (p.251), and the policy process is “the act of formulating and implementing policies in such a dynamic environment” (p.251). The policy process, and more particularly its decision-making stage, needs to rely on science (traditional and modern) to be well-informed and appropriate to the actual situation in order to make practice effective.

As illustrated by Tabani (2002), defining ‘traditions’ in a context like Vanuatu is difficult, and often amalgamated with ‘customs’ and ‘*Kastom*’ (comprising not only customs, habits and uses but also ancestral beliefs and culture). For the purposes of this thesis, the ‘traditional’ systems (such as knowledge, leadership, culture, mechanisms) refer to systems based on ancestral – pre-colonial – structures constantly evolving through the indigenisation and absorption of received influences into local systems. ‘Traditional systems’ are expressed in this thesis in contrast to ‘scientific’, ‘modern’ or ‘western’ systems developed externally to the country and used as such.

Changes in the climate, and in the frequency and intensity of disasters have always occurred, and traditional communities have always adapted their way of life to those changes (Campbell, 1990; Gaillard, 2007; Nunn et al., 2007; Mercer, 2010). Many current challenges encountered by vulnerable communities confronted with hazards result from the gradual loss of traditional knowledge, and from the modern dichotomy in DRR and CCA policy-making processes (Kelman and Gaillard, 2008; Mercer, 2010). Traditional knowledge and scientific advances should, therefore, not be seen as conflicting, but complementary (UN, 2012, 2015a).

Accordingly, the recent international discussions on DRR, CCA and SD strongly recognise the need to consider best practices and lessons-learned across the diverse sectors and groups of stakeholders in the decision-making process (UNDP, 2005; UN, 2012, 2015a, 2015b; Carabine, 2015). The gaps between these components, however, remain difficult to address, and are still considered as major barriers to effective DRR in the long-term.

### **1.1.2. Disaster and climate change governance based on networking to build resilience to hazards in vulnerable countries**

As mentioned above, building resilience to hazards relies on strong formal and informal, cross-level, cross-sectoral, Government–non-government cooperation to ensure more effective decision-making and decision-implementation. Such cooperation cannot be enforced, due to the lack of binding agreements and sanctions at the different levels. Therefore, cooperation efforts are predominantly triggered by incentives based on expected relational outcomes. These incentives can emerge with the development of a system promoting good disaster governance. This thesis relies on Lassa’s definition of disaster governance, which is “the way society as a whole manages its full array of disaster risks, which may be triggered by geological hazards (such as earthquakes); climate change and hydro-meteorological hazards (such as floods and cyclones) [...] in order to sustain development, human welfare, and dignity” (Lassa, 2010, p.113).

Strengthening disaster governance at all levels is recognised as a key priority for more effective DRR and SD in the Sendai Framework (priority 2) (UN, 2015a). The general concept of governance experienced a major shift in the 1980s and 1990s with the increasing recognition of the impact of informal arrangements and relationships between government and non-government bodies (Commission on Global Governance, 1995; Tompkins et al., 2008; Walker et al., 2010). As explained by Crocombe (2008) “governance is more about how various pressures and opportunities are coordinated and what is achieved, than about what constitutions or leaders say is or should be done” (p. 507). This increasing decentralisation process resulted in the emergence of multi-level governance mechanisms, promoting vertical cooperation across levels, and horizontal cooperation across sectors and geographic areas (Maldonado et al., 2009; Wickham et al., 2009; Techera, 2013). Governance, therefore, enables relationships between international

donors, central decision-makers, decentralised actors and vulnerable populations, resulting in more appropriate policies and practices for addressing climate change and disaster risks (Maldonado et al., 2009; Ostrom, 2009).

To address such goals, and influenced by the international trend to increase participatory strategies and informal measures, networks became a necessary tool for Governments to exploit existing informal ties with non-government stakeholders in the decision-making process, and to reduce the previous gaps and duplications witnessed among the agendas of the diverse actors. Governance systems are prone to promote the emergence of formal and informal multi-disciplinary networks (social, economic, political, and scientific) (Tierney, 2012). Provan and Kenis (2007) define networks as “groups of three or more legally autonomous organisations that work together to achieve not only their own goals but also a collective goal” (p.231). These networks play a key role in the development and dissemination of information and resources amongst stakeholders involved in the governance system (Juhola and Westerhoff, 2011). The emergence of the concept of networked governance, related to the bottom-up, multi-level and intergovernmental approaches, reflected the recognition of the need for continuous collaborative decision-making having an optimal use of dependent but interconnected networks bridging formal and informal institutions within a complex environment (e.g. Jones et al., 1997; Klijn and Koppenjan, 2000; Kapucu, 2006b; Provan and Kenis, 2007; Juhola and Westerhoff, 2011; Kapucu and Garayev, 2014).

Accordingly, evolving from the concepts of risk governance and disaster risk management, disaster governance contributes to resilience-building through new forms of policy and decision-making based on a multi/cross-sectoral and multi/cross-level approach for disaster research. The approach of disaster governance is still a new concept and under-developed in the disaster and climate change related literature (McEntire and Mathis, 2007; Tierney, 2012). Authors also discuss (global) climate governance, a component of disaster governance, which emerged from discussions on the impacts of climate change observations on policies and decision-making (Bäckstrand, 2008; Mitchell and Van Aalst, 2008; Andonova et al., 2009; Okereke et al., 2009; Dimitrov, 2010; Biermann et al., 2010; Hoffmann, 2011). Disaster governance is then understood in this thesis as the process of making and implementing decisions among the diverse stakeholders involved in the collective problems of disaster risks (resulting from geological, climate change and meteorological-hazards) influencing the development and reinforcement of related policies, institutions, norms and agendas.

Although empirical research on network cooperation for climate change and disaster risks remains rare (Kinnear et al., 2013), previous research has explored the purpose and challenges of disaster governance, and the role of networks. Despite difficulties in collecting Social Network Analysis (SNA) data in highly stressful and unstable, and thus unclear, situations such as disasters (Varda

et al., 2009; Kinnear et al., 2013), much research on disaster networks focused on DM, principally highlighting communication weaknesses within the multi-organisational response, needs in assistance supply and flaws in information sharing and resource allocation (e.g. Comfort and Haase, 2006; Kapucu, 2006a; Robinson et al., 2006; Eisenman et al., 2007; Mei et al., 2008; Malhotra and Kuo, 2008; Varda et al., 2009; Magsino, 2009; Kinnear et al., 2013). Others studied networking during routine times<sup>2</sup> and its impact on integrated DRR and CCA strategies (e.g. Gero et al., 2010; Juhola and Westerhoff, 2011; Benecke, 2011; Scriven, 2013; Howes et al., 2013). Studies analysing the role of networks before (DRR, CCA, preparedness and SD) and after a disaster (disaster impacts and response) within the same system are lacking. Also, although the importance, purposes and outcomes of integrated and inclusive cooperation are recognised, discussions on what concrete supportive institutional structures and mechanisms enable such effective and sustainable cooperation in specific contexts are also still lacking. It is essential for future action and resilience-building strategies to be based on existing effective systems (optimal use of the best practices and lessons-learned), to build upon institutional and cultural heritage of resilience, and having an optimal use of the resources that governance systems have already invested in cooperation.

Governance systems for resilience-building vary based on the specific context of the countries exposed to hazards. Both developed and developing countries are confronted by disaster risks that are expected to increase in the coming decades (IPCC, 2007; UNISDR, 2011; Hanson et al., 2011; Ranger and Fisher, 2013). Although risks in developed countries mainly lie within the economic sphere (both economic activities and infrastructure), vulnerability in developing countries is mainly addressed under the scope of human impacts (Ranger and Fisher, 2013). Developing countries particularly lack institutional structure and human capacity to develop efficient plans (Lal et al., 2012; Ranger and Fisher, 2013).

More specifically, the Small Island Developing States (SIDS) need special consideration within DRR and CCA agendas, due to their low-lying coasts, geographic isolation and environmental dependency, along with economic and political weaknesses, and the critical impact of disasters on their development (e.g. Ali, 1992; Pelling and Uitto, 2001; Barnett, 2001, 2005, 2008, 2010; Wisner et al., 2004; Jayaraman, 2004; IPCC, 2007; Mercer, 2010; Gero et al., 2010; Kelman, 2010, 2011; Walshe and Nunn, 2012; Techera, 2013; UN, 2012, 2015b). Furthermore, the scarcity of national resources to cope with severe hazards results in an increasing dependency on external funds, resulting in higher risk of disasters in general (Birkmann et al., 2011; Welle et al., 2012, 2013, 2014; Welle and Birkmann, 2015).

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<sup>2</sup> Routine times consist in the regular period of governance not subjected to disaster or emergency management.

The SIDS of Vanuatu is considered the most-at risk country in the world (Birkmann et al., 2011; Welle et al., 2012, 2013, 2014; Welle and Birkmann, 2015). The country meets key challenges in resilience-building shared by most vulnerable developing countries in the process of resilience-building, for instance, multi-hazard exposure, resource scarcity, or complex coexistence of local, national, regional and international powers equally influential. In an attempt to address these challenges, a networked disaster governance system emerged in Vanuatu. This thesis aims to investigate this governance system.

The analysis of the potential of this system to more effectively address the different obstacles to resilience-building, such as fragmentation, limited capacities, scarce resources, communication difficulties. This will highlight how such a system may facilitate good governance (principles of credibility, stability, inclusiveness, adaptiveness and capitalisation) in the context of a SIDS. The analysis of the system components (structure, leadership and processes) considers the mechanisms propitious to continuous, inclusive and integrated cooperation, and to a balance between system fragmentation and integration; two factors inherent in the problem of resilience-building. This thesis not only complements past research and current debates on integrated and inclusive disaster risk management but also contributes to more effective networked disaster governance both in theory and practice. This is achieved through 1) the development of a conceptual framework to assess the potential of a system to promote integrated and inclusive governance, 2) the analysis of weaknesses, strengths and impacts of the system mechanisms in place in Vanuatu, and 3) the investigation of a country which embraced its vulnerability factors to build resilience.

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## **1.2. Thesis aim, questions and objectives**

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Hence, the aim of this PhD research is to build knowledge on the potential of networked governance systems for effective resilience-building in the specific context of a SIDS. It presents empirical evidence of a complex case study composed of numerous and diverse co-existent networks of different forms, coverage and levels to address the overriding research question directing this thesis: *How is the process of resilience-building affected by an integrated and inclusive disaster networked governance system operating around formal and informal capital invested in Government–non-government, Cross-sectoral Networking, Networked Leadership and Networked Learning?* This thesis attempts to answer this question by assessing the functional and structural components, and impacts of networking on the process of resilience-building in Vanuatu.



To address this, the research was divided into four more-focused research questions, each related to a research objective as following:

- 1) Question: What are the research components to be studied to assess the potential of a governance system constructed on networking in DRR, CCA, DM and resilience-related SD for more effective resilience-building?

*Objective: To develop a methodology to assess the potential of a system towards better governance for building resilience to hazards*

- 2) Question: How has formal and informal networking promoted inclusive and integrated cooperation, and what factors support the development and sustainability of effective institutions in the specific context of resilience-building in small vulnerable countries?

*Objective: To increase understanding of mechanisms promoting cross-sectoral, Government–non-government cooperation, and shared leadership towards a sustainable resilience-building system in complex environments*

- 3) Question: What are the correlations between continuous cooperation of government and non-government stakeholders across sectors in routine times, and the effectiveness of DM?

*Objective: To increase understanding of the concrete outcomes of proactive integrated and inclusive cooperation on effective DM.*

- 4) Question: How do stakeholders (actors and communities) interact with each other in governance processes of DRR, CCA, resilience-SD and DM to cooperatively institutionalise a culture of preparedness into a networking system propitious to resilience-building?

*Objective: To learn from initiatives to build resilience to hazards in vulnerable countries characterised by simultaneous strong local and national specificities, and international and regional influences, illustrated by the networked system in place in the SIDS of Vanuatu.*

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### 1.3. Thesis structure

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To address the aim, questions and objectives, the dissertation is structured into eleven chapters, from which eight core chapters are divided into two thematic parts.

Hence, chapters 1 and 2 provide an overview and introduce the thesis into the concept of research on resilience-building. Chapter 2 particularly presents the conceptual and methodological process of this thesis, and more particularly the conceptual framework, the Integrated and Inclusive Networked Disaster Governance (2INDG) framework, developed throughout the research. For the purposes of clear and effective analysis, the literature review conducted for this thesis is not considered in a separate chapter but spread across the whole dissertation. Each chapter benefits from its own literature review, setting the specific context of the chapter while reflecting the literature review and results of the previous and following chapters.

Chapters 3, 4, 5, 6 and 7 comprise the first thematic part of this thesis, providing an analysis of the networked disaster governance system in Vanuatu for cooperative DRR and CCA in routine times (before Cyclone Pam, March 2015). This part analyses the mechanisms existing in routine times within the Vanuatu-Networked-System<sup>3</sup> supporting:

- Government–non-government, Cross-sectoral Networking for resilience-building, through the analysis of the set of institutionalised networks (chapter 3) and the social networking processes (chapter 4),
- Networked Leadership, through the analysis of the legal and formal institutional structure promoting shared leadership (chapter 5) and social networking leadership (chapter 6),
- Networked Learning supporting the sustainability of the system (chapter 7).

Chapters 8, 9 and 10, the second thematic part, assess the potential of the Vanuatu-Networked-System developed in routine times (as analysed in chapters 3, 4, 5, 6 and 7) to positively affect the effectiveness of DM (case study of Cyclone Pam) through the analysis of:

- the activation, development and impacts of Vanuatu clusters, key DM networks well established in the Vanuatu-Networked-System, in response to Cyclone Pam (chapter 8);
- the interactions between the external humanitarian actors and the members of the Vanuatu-Networked-System during response to Cyclone Pam (chapter 9);
- remaining challenges and positive impacts of the proactively established Vanuatu-Networked-System (structure, leadership, processes) on building resilience to hazards as witnessed during the response to Cyclone Pam (chapter 10).

Finally, chapter 11 synthesises the potential of the networked governance system in place in Vanuatu to achieve better governance for resilience-building. More particularly, it discusses its impacts on the governance principles of credibility, stability, inclusiveness, adaptiveness and capitalisation of the system, and on the development of a culture of preparedness.

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<sup>3</sup> The expression of “Vanuatu-Networked-System” is utilised throughout this dissertation to nominate the entire governance system comprising the 260 stakeholders and the 54 sectoral networks studied in this thesis, the legal and institutional structure, and all formal and informal mechanisms enabling cooperative resilience-building in the system.

## CHAPTER 2.

# Development of a research framework: The inclusive and integrated networked disaster governance framework

### 2.1. Introduction

The process of research relies on five interlinked position blocks: ontology, epistemology, methodology, methods and sources (Grix, 2002). Clearly understanding and expressing the approach for each block, is essential for scholars to effectively contextualise their findings and analysis (Grix, 2002). Although each block is independent, the whole research process relies on their interconnection. This interrelation between the research blocks adopted by the researcher for this thesis is illustrated by figure 2.1.

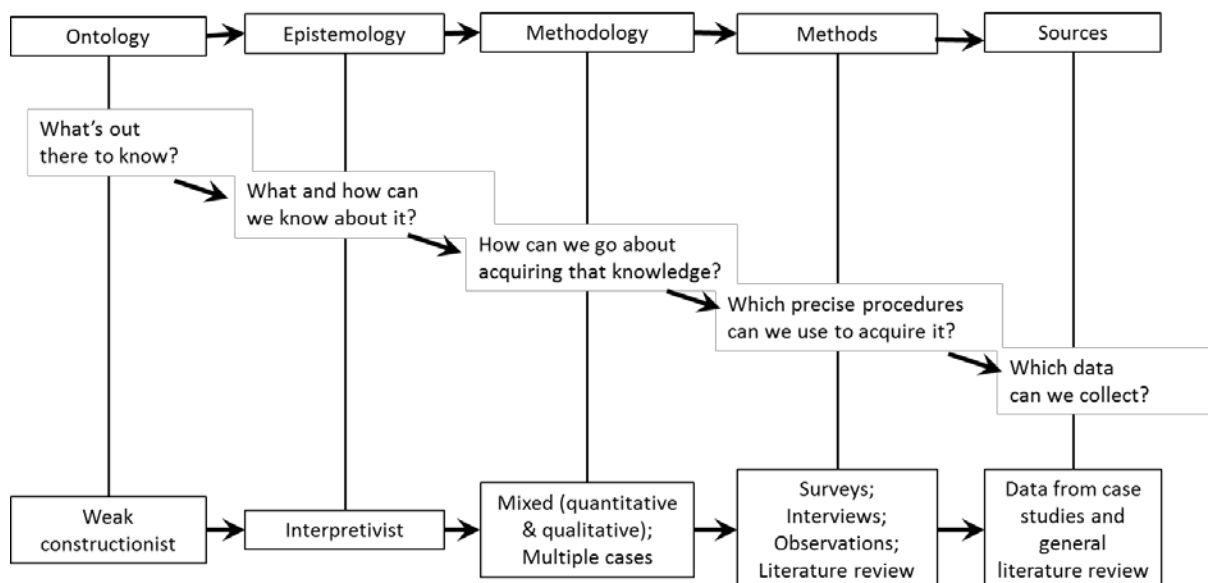


Figure 2.1: Researcher's position for each research building components.  
Source: adapted from Grix (2002) p.180, itself adapted from Hay (2002) p.64.

This chapter identifies and justifies the researcher's positions for each block for the purposes of the research, in order to understand how these supported the development of the conceptual framework of the Integrated and Inclusive Networked Disaster Governance (2INDG). This framework is the foundation for the research, and is used to address the research questions and objectives of this thesis.

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## 2.2. Research approach

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### 2.2.1. Ontological and epistemological positions

The ontological and epistemological positions of a scholar must be developed separately while reflecting each other (Blaikie, 2000; Grix, 2002). Ontology must be considered at the start of all research processes, the chosen ontological position determining how the scholar explores what constitutes the nature of social reality. Bryman (2001) describes two key ontologies that are *objectivism* (the existence of a social reality independent of its social actors) and *constructivism* (the existence and constant evolution of the social reality as determined by the social actors and their social contacts) (Gergen, 1999; Bryman, 2001; Grix, 2002; Charmaz, 2006; Darlaston-Jones, 2007). The existence and meaning of the social and political reality of resilience-building to address climate change and disaster risks rely on the capital of the diverse stakeholders. Indeed, vulnerability is determined as much by the exposure to potential harmful hazards (objective threat), as by the social, political, economic and cultural assets for resilience-building possessed by at-risk communities (social structure). This duality in disaster risks results in a tempered constructivist position, *weak constructivism*, which acknowledges that hazards are objective but cannot be studied isolated from their social context (Lupton, 1999). Furthermore, this particular research directly affected the study of the governance system at several stages. For example, respondents<sup>4</sup> were made more aware of their networking capital<sup>5</sup>, which promoted more cooperation, or decision-makers used research products on networking mechanisms to promote cooperation. The scholar could not, then, claim full objectivity in the course of the research. Consequently, for the purposes of this research on the impact of networks on disaster and climate change governance, the researcher held a weak constructivist position.

In parallel to the reality to be investigated (ontology), how and what the scholar can know about it (epistemology) are to be addressed. The chosen epistemological position determines the theory of knowledge that is to be explored (Grix, 2002). Bryman (2001) proposes two key epistemologies: *positivism* and *interpretivism*. The positivist position states everything is observable and measurable, and thus research methods used in natural sciences can also evaluate the structure of social reality (Bryman, 2001; Grix, 2002). In contrast, the interpretivist position posits that the distinctions between human and nature objects must be acknowledged, therefore, the inherent subjectivity of social and political research must be taken into account within the employed research approach (Bryman, 2001; Grix, 2002). The interpretivist position was

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<sup>4</sup> For the purpose of clarity, the stakeholders who participated in the research surveys and interviews are called respondents, to distinguish them from all the participants of the networking process studied in this research.

<sup>5</sup> Networking capital consists in individual and collective, tangible and intangible resources available to disaster and climate change stakeholders to develop and maintain cooperative relationships.

considered adequate for this research on networked disaster governance because social phenomena explored in this study cannot all be directly measured and may not represent the social and political system as it is ‘objectively’ (differences between perceptions, official/formal theoretical structures and accurate situation).

### **2.2.2. A political ecology approach**

Addressing the need to combine the subjectivity of social phenomena and the objectivity of natural sciences within the political process, and accordingly to the chosen ontology and epistemology positions, the researcher considered the political ecology approach beneficial to build knowledge on governance for resilience-building. Indeed, both concepts of political ecology and disaster governance advocate the need to integrate social, political and natural sciences for effective research on resilience-building (Tierney, 2012).

Political ecology appeared in the 1970s as a reaction to the lack of politicisation of environmental issues (Bryant, 1998). The theory of political ecology emerged from the combination of two major concepts: political economy and human ecology (Greenberg and Park, 1994; Pelling and Uitto, 2001; Wisner et al., 2004; Wisner and Walker, 2005). On the one side, seen as a neo-marxist theory, political economy assimilates authority, capacities for production, and accumulation of wealth, and considers all aspects of life (nature and society) as social constructions (Warrick, 2011). Conversely, human ecology highlights the interaction between the environment and human activities (McDonnell and Pickett, 1990). Nature and society are indeed interrelated, human activities having as much impact on the environment, as environment has on social organisation (Warrick, 2011).

Likewise, research on vulnerability and resilience is complex; impacts of a hazard depend on time, space and social context of the occurrence of this event (Barnett et al., 2008; Barnett, 2008). Consequently, disasters became a recurrent research object for political ecologists in the 1990s (Adger, 1999; Pelling, 1999). An increasing consensus among scholars demonstrates that disaster research cannot, and should not, be addressed only by natural dimensions (hazards) but needs to integrate social, political, cultural and economic dynamics, and their interconnections (O’Keefe et al., 1976; Lupton, 1999; Bankoff, 2001; Oliver-Smith, 2004; Pandey and Okazaki, 2005; Barnett, 2005; Schipper and Pelling, 2006; Warrick, 2011; Adger et al., 2012). Vulnerability is mostly caused by marginalisation, poor access to resources, and lack of protection tools (Hewitt, 1983; Bryant, 1998; Wisner et al., 2004) due to weak or bad governance (Pelling, 1999; Aboagye, 2012), which affects not only the society but also its environment (Aboagye, 2012). The reciprocal impact between nature and society is, therefore, crucial to understanding the triggers for disasters, especially in traditional societies, where subsistence of the communities highly depends on their environment. In this perspective, political ecology questions the interrelation between policies,

vulnerability and resilience-building (Aboagye, 2012). For these purposes, political ecologists aimed to break barriers between international powers and local practices, and between ‘hard’ and ‘soft’ sciences, as well as to focus on the root causes of vulnerability such as power, resource allocation and environmental change (Greenberg and Park, 1994; Dagert, 2001; Aboagye, 2012). These political ecological researchers, (above) explored the needs to, mechanisms for, and outcomes of, the interrelations between the natural, social, political, cultural and economic dynamics. Further research is needed, however, to better understand what governance structures support effective reciprocity between the environment and the social context within studied systems.

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## **2.3. Mixed methodology**

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The development of a methodology is independent from the adopted ontological and epistemological positions. It should, however, reflect the essence of knowledge required by these positions employed. Questioning what research methodology is to be employed is asking oneself “how to go about acquiring the knowledge which exists” (Hay, 2002, p. 5 in Grix, 2002, p.178). In accordance with the chosen ontological, epistemological and political ecologist positions, the researcher followed a mixed-methodology approach. Both quantitative and qualitative strategies were assimilated, combining the Earth System Governance Project (section 2.3.1), the Social Network Analysis concepts (section 2.3.2), and Qualitative Comparative Analysis (section 2.4.6).

### **2.3.1. The Earth System Governance Project**

#### ***2.3.1.a. Emergence of the concept of the Earth System Governance Project***

Addressing the question raised within the political ecology approach, the Earth System Governance (ESG) Project developed a holistic exploration tool for networked systems, which operate within a society where human and natural developments progress interdependently (Biermann, 2007). As in the introduction to this thesis, the conceptualisation of governance is difficult and definitions proposed by scholars vary. The definition of governance proposed by the ESG Project is the whole of “modern forms of steering that are often decentralised, open to self-organisation and less hierarchical than Government policy-making (even though most modern governance arrangements will also include some degree of hierarchy)” (Biermann et al., 2009, p.14-15). Based on this definition of governance, Biermann et al. (2009) define ESG as the “interrelated and increasingly integrated system of formal and informal rules, rule-making systems, and actor-networks at all levels of human society (from local to global) that are established to steer societies towards preventing, mitigating, and adapting to global and local environmental change, in particular, earth system transformation, within the normative context of sustainable development” (p.22).

Several concepts inherent in the ESG definition are central to the focus of this research: first, the interrelation of diverse decision-making and action systems; second, the integration of formal and informal structures; third, the process of networking across levels; and fourth, the need for societies to develop resilience-building and adaptive capacities.

Furthermore, like the ESG Project, this research is interested in complex system configurations, where government actors must continually and increasingly manage the involvement of non-government stakeholders (individuals and groups) at all stages of the decision-making process (Biermann et al., 2009).

### **2.3.1.b. The science plan of Earth System Governance**

In its science plan, the ESG project developed a research framework around three concepts: 1) problem structure, 2) governance principles, and 3) research challenges (Biermann, 2007; Biermann, et al., 2009):

- 1) ESG is grounded in the idea that, due to unprecedented transformations, the earth system meets a problem structure increasingly challenging for decision-makers and scholars. The current transformations of the earth system are *uncertain*, increasingly *extreme and harmful*, and *interdependent* (functionally, spatially and temporally) (Biermann, 2007).
- 2) Biermann (2007) developed a set of four governance principles on which earth systems scholars can base their analysis of governance systems (Biermann, 2007; Biermann et al., 2010; Gero et al., 2010; Djalante, 2013):
  - The *credibility* of the commitment of governments;
  - The *stability* of the ESG structures;
  - The *adaptiveness* of the governance components to adjust to environmental, social and political changes;
  - The *inclusiveness* of all stakeholders including weak Governments and non-government actors at all levels of decision-making.
- 3) Five multi-disciplinary research challenges comprise a conceptual method to analyse governance systems facing the problem structure and proposed governance principles (Biermann, 2007; Biermann et al., 2009):
  - The *architecture* of the governance systems (emergence mechanisms, design of the system, effectiveness and fragility of governance foundations);
  - The *agents* configuration (position, role, power, responsibilities, typologies);
  - The *accountability* and legitimacy of the governance structures (democratic processes of the system);
  - The *adaptiveness* of the governance mechanisms and systems (flexible capacities to respond to natural evolution and new knowledge);
  - The modes of *allocation* of resources (equity in resource access).

Furthermore, to address these three sets of concepts, ESG researchers aim to integrate the current competitive institutional configuration from the global to the local levels (Pratono, 2007). From this perspective, the ESG project revolves around four crosscutting dilemmas: power, knowledge, norms and scale (Biermann, 2007; Biermann et al., 2009) (figure 2.2).

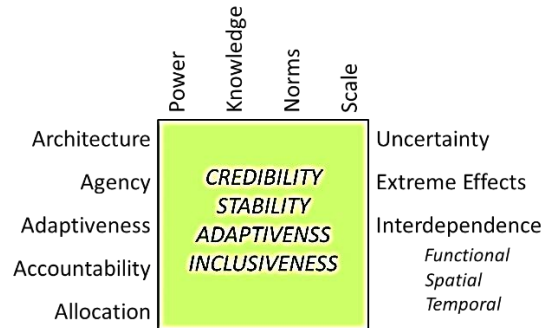


Figure 2.2: Research framework of the Earth System Governance Project (Biermann, 2007; Biermann et al., 2009).

### 2.3.1.c. *Earth System Governance, disasters and climate change*

The ESG framework is beneficial for the analysis of current global challenges, among which are climate change and disaster risks, and their potential solutions (Biermann, 2007; Biermann et al., 2009, 2010). Disaster network structures are complex and need to be deconstructed through multidisciplinary approaches and frameworks. The ESG framework supports the exploration of the drivers, obstacles, and opportunities for effective and efficient disaster governance systems (Biermann, 2007; Biermann et al., 2009, 2010; Gero et al., 2010; Djalante, 2013). ESG researchers used this framework to bring a new perspective to major strategies on DM and post-2015 discussions, both globally and in the Pacific Region (Pratono, 2007; Gero et al., 2010; Djalante, 2013). Through the analysis of the five research challenges around the governance principles, the ESG project increased understanding of the interconnections between communities and climate change and disaster risks, the impact of the cultural context, as well as the barriers and obstacles to good governance for disasters and climate change, within formal and informal networks (Gero et al., 2010; Djalante, 2013). However, further research is needed to understand the specific interdependencies between informal networks and formal networks for effective integration of climate change and disaster risks.

## 2.3.2. Social Network Analysis

### 2.3.2.a. *The concept of the Social Network Analysis method*

Examining the interdependency between informal and formal networks identified the key role of social capital in good governance. Bourdieu (1980) defined social capital as the “whole of existing or potential resources that are linked to the possession of a sustainable network of more or less institutionalised relationships of reciprocal acquaintance and recognition; or in other words linked



to being part of a group, as a whole of agents who do not only have common assets [...] but are also united by permanent and useful ties” (translated from Bourdieu, 1980, p.2).

Social capital is divided into three types of connections (Szreter and Woolcock, 2004; Kawachi et al., 2004; Aldrich, 2012): *bonding social capital* links stakeholders within their common network, *bridging social capital* links stakeholders from different but similar networks that are part of the same system, and *linking social capital* connects stakeholders from different systems. This research explores the three types of social links through a Social Network Analysis, to capture current, and determine new cooperation pathways in a disaster and climate change governance system.

Social Network Analysis (SNA) is a mathematical tool that was developed in sociology to study structures of relationships, connections and exchange mechanisms between people of the same social network (Scott, 1988; Chung et al., 2005; Hossain and Kuti, 2010). A social network is a set of interdependent network members (or “nodes”), whose relationship (or “tie”) patterns can be determined through a SNA (Scott, 2000; Nooy et al., 2005; Lassa, 2012).

SNA is as much a method to collect and analyse data, as a methodology to assess networking strategies. SNA is a very beneficial tool going beyond the simple numeric description of members in a network (Barabási, 2003; Lassa, 2012). Information on what the connection mechanisms are, how a network is structured, how, why and which information is shared, as well as what are the drivers and constraints of coordination, are crucial data to build in-depth understanding on social networks (Borgatti, 2005; Chung et al., 2005; Hossain and Kuti, 2010).

The surveys, interviews, qualitative and quantitative analyses developed for the purposes of this research followed the concepts inherent in SNA: interrelation between nodes and ties, causal links, and interdependency of variables of nodes and ties, as well as concepts of power distribution in a network. Therefore, connectivity mapping and statistics were used in this thesis to determine the nature and patterns of connections between the nodes of the network (such as connections between different types of organisation or different sectors), as well as the position of the nodes (such as to what degree nodes are connected to specific sectoral formal networks, or the potentially most efficient communication pathways within the network).

Also, social network analysts developed several key measures to evaluate the patterns of connectivity and influence of the network members (Bavelas, 1948; Freeman, 1977, 1979; Borgatti, 2005; Chung et al., 2005; Hossain and Kuti, 2010). Several of these key measures were used in this thesis as indicators to determine the position and distribution of the nodes, their influence on each other, their influence on information sharing, leadership within the network, and cross-attribute connectivity (such as between sectors, type of organisations or positions).

First, *Degree Centrality* measures the position of each node within the network (Freeman, 1977, 1979; Borgatti, 2005; Chung et al., 2005; Hossain and Kuti, 2010). *Degree Centrality* calculates the number of ties linked to a certain node; the more ties a node has, the more central it is within the network. When the relationship is not reciprocal, differences can be made between the *In-degree* (number of ties received by the node) and *Out-degree* (number of ties emitted by the node).

Second, *Betweenness Centrality* measures the leadership position of each node within the network. *Betweenness Centrality* calculates how often a node is the link between two other nodes and can then control their exchange (such as information and resources) (Hossain and Kuti, 2010). The nodes with high *Betweenness Centrality* are considered to be network leaders (Lassa, 2012).

Third, *Eigenvector Centrality* measures the level of influence a node has depending on the centrality of the nodes with which it is connected (Borgatti, 2005). *Eigenvector Centrality* measures the level of connectivity of all the network members that are connected to the studied node, and compares it to nodes with the same number of ties. The nodes with high *Eigenvector Centrality* may not have high *Degree* or *Betweenness Centralities* but are connected to strategic extensively connected nodes within the network.

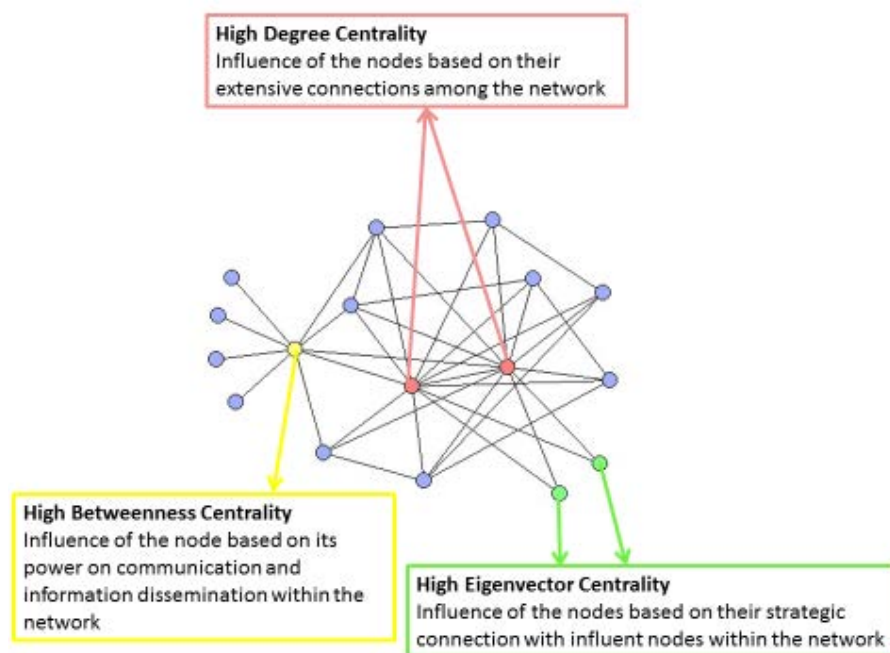


Figure 2.3: Illustration of the three Social Network Analysis centralities used in this thesis to measure leading influence of the network members.

### 2.3.2.b. Social Network Analysis in disaster management and climate change adaptation

The use of these SNA measures and maps in the disaster sector became more frequent in the 2000s; these studies often focused on the organisational level (Hulbert et al., 2000; Comfort et al., 2004; Kapucu, 2005; Comfort and Haase, 2006; Varda et al., 2009; Hossain and Kuti, 2010). When a disaster occurs, multiple organisations, agencies and groups of individuals emerge to take

decisions and actions. Despite the shared objective of humanitarian assistance, their methods, resources, strategies and experiences can often vary significantly (Doreian and Conti, 2012; Kinnear et al., 2013). Therefore, communication, coordination and cooperation are essential between all the actors, to avoid gaps, overlaps or inappropriate decisions (Stephenson, 2005; Völz, 2005; Wickham et al., 2009; Maldonado et al., 2009; Ostrom, 2009; Balcik et al., 2010; Gero et al., 2010; Mercer, 2010). SNA helps to capture these weaknesses, but also the strengths and opportunities within the coordinative system during a disaster. Hurricane Katrina in the United States of America was a particular trigger for the conduct of several SNAs focused on DM which revealed communication flaws in the multi-organisational response, resource allocations and aid delivery (Comfort and Haase, 2006; Robinson et al., 2006; Eisenman et al., 2007; Mei et al., 2008; Malhotra and Kuo, 2008; Varda et al., 2009; Magsino, 2009). Still, empirical research on networked cooperation during disasters remains rare and lacks theoretical implications (Kinnear et al., 2013). Limits of SNAs for disasters are partly due to the complexity of relevant and accurate data collection, and often to an inaccurate distribution of roles and responsibilities in extreme situations (Varda et al., 2009; Kinnear et al., 2013). The importance of and interactions between pre-established networks, communication systems and trusting relationships have already been recognised as key assets for more effective emergency management (Kapucu, 2006a, 2006b). Critical gaps in coordination during a disaster remain a common result of a lack of relationships prior to the disaster (Alvinus, 2010). Therefore, further holistic research on the concrete patterns and consequential impacts of proactive networking for DRR on the effectiveness and efficiency of DM is needed. Through the evaluation of the quantity, degree, nature and strength of ties between people, who may share an interest of action during a future disaster (Varda et al., 2009; Hossain and Kuti, 2010), SNA findings could highlight remaining challenges and strengths of a network system in preparedness and prevention, as well as general resilience-building.

Furthermore, the emergence of DRR, CCA and SD as related priorities in humanitarian programs, such as the Sendai Framework or the Sustainable Development Goals, adds complexity to the distribution of potential stakeholders involved in the field of disasters in general, and of climate disasters in particular. Some recent research has focused on the growing need to analyse networked systems addressing climate change and development, and their interlinkages with disaster risks (Benecke, 2011; Juhola and Westerhoff, 2011; Kinnear et al., 2013). A significant SNA research project conducted in the Pacific Region by Pacific RISA (Corlew et al., 2013) explored climate change communication and information sharing pathways across sectors and types of stakeholders. The Pacific RISA research highlighted the strengths of cooperation ties across the diverse key stakeholders involved in matters related to climate change in the region.

In such research, networks, both at the organisational-formal and individual/organisational-informal levels, are essential, not only to assess efforts in institutional cooperation, but also to

capture the impacts of personal and cultural characteristics in professional linking and information sharing. However, research on informal social networking and its contrast with formal networking processes to address disaster risks is very scarce, both at the individual (Eisenman et al., 2009) and organisational levels. Likewise, SNAs studying the same networking system (its structure and processes) both before and after a major disaster are lacking.

### **2.3.3. Conceptual and methodological research framework for inclusive and integrated networked disaster governance**

Combining the previous approaches and methodologies, the author developed the conceptual 2INDG framework to assess the potential, strengths and weaknesses of networked governance systems to building resilience to hazards, particularly in Small Island Developing States (SIDS). The 2INDG framework is, therefore, used to answer the research question of this thesis: *How is the process of resilience-building affected by an integrated and inclusive disaster networked governance system operating around formal and informal capital invested in Government–non-government, Cross-sectoral Networking, Networked Leadership and Networked Learning?* This section provides insight into the concepts of the 2INDG framework (Figure 2.4).

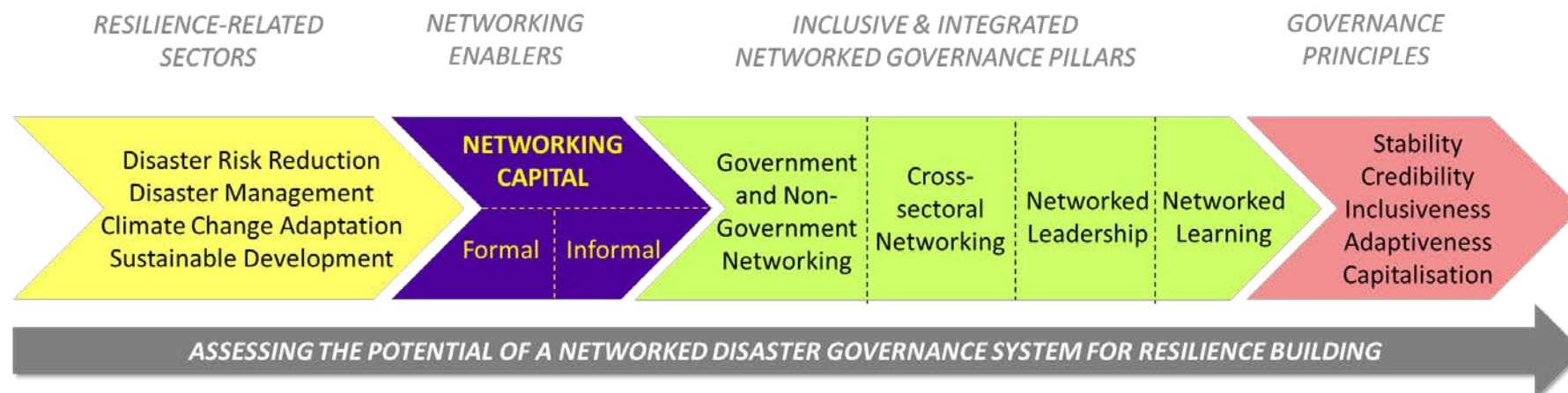


Figure 2.4: The Inclusive and Integrated Networked Disaster Governance (2INDG) research framework, a conceptual framework to analyse the potential of a governance system to build resilience.

Although, analyses of networked governance systems often focus on the social capital of the different actors, the 2INDG framework targets a broader capital. Social capital is a central factor to consider in the assessment of the potential of networking. It is, however, significantly determined by the context in which it is developed (Kapucu, 2006b), and is closely linked to the human, physical, political, natural and financial capitals enabling stakeholders to interact within the earth system. Therefore, this framework introduces the concept of *networking capital*, consisting of all individual and collective, tangible and intangible resources available to disaster and climate change stakeholders to maintain cooperative relationships with each other. Hence, networking capital is the sum of available various capitals that are built by each network member, and invested in networking to benefit all network members, the sectoral networks and the whole system:

- Human and cultural capitals: knowledge, customs, skills, experience, capacities useful for people to network with each other (e.g. traditional mechanisms to take decisions as a community, or sharing of intellectual properties);
- Political capital: goodwill, abilities and power of decision-makers to act for the common good, as well as political frameworks facilitating and harnessing cooperation (e.g. membership of NGOs in government committees set in National Plans);
- Physical and financial capitals: resources facilitating cooperation (e.g. Internet coverage allowing information sharing) or shared as part of strategies related to resilience to hazards (e.g. cash flows for recovery);
- Natural capital: Natural resources to be cooperatively managed for the common good (e.g. marine protected areas) and/or utilised to build resilience to hazards (e.g. the cooperative decisions to allocate lands less exposed to hazards to vulnerable communities);
- Social capital: relationships and networks facilitating the effective exchange of human, cultural, political, physical, financial and natural capitals (e.g. women's groups).

The 2INDG framework considers the existence and optimal use of networking capital existing in the system, both within its formal and informal dimensions (institutions, networks, policies, plans, strategies, norms and customs). The framework takes a holistic approach by considering the interactions and interdependencies between all key sectors connected to disaster governance, in other words connected to DRR, CCA, DM and resilience-related SD, such as meteorology, agriculture or relief.

There are four pillars for good networked governance within the 2INDG framework. These four pillars are both mechanisms for, and outcomes of effective networked governance for resilience-building, and continually evolve through cooperation:

- 1) Government–non-government Networking: Governments are traditionally the governing entity for humanitarian affairs in their own country, but non-government stakeholders are increasingly being empowered to take part in resilience-building, due to the dependency on international aid in developing countries and the need for more flexible governing structures facing the earth system complexity. The 2INDG framework analyses the social networking patterns within networking institutions (chapter 3) and processes (chapter 4), and their impacts on effective cooperation between all types of stakeholders for resilience-building.
- 2) Cross-sectoral Networking: it is essential to assess cross-sectoral relationships to build the holistic approach needed when studying resilience-building, because all sectors connected to climate change, disaster risks and resilience-related SD (such as DM, agriculture, education or health) have simultaneously, more or less, direct and significant impact on the level of resilience of communities. The 2INDG framework analyses the social networking patterns within networking institutions (chapter 3) and processes (chapter 4), and their impacts on effective cooperation across sectors (more or less directly linked to resilience to hazards).
- 3) Networked Leadership: leadership is a major and on-going debate in disaster governance (such as community leadership, women’s leadership or shared leadership). Stakeholder configuration, goals, needs and potential outcomes of sectors related to disasters and climate change continuously evolve, and are increasingly complex elements that need to be addressed through leadership. This situation raises the question of balanced leadership (flexible-stable, adaptive-reliable and inclusive-strategic) within Government–non-government networks. The 2INDG framework investigates the impact of Networked Leadership on inclusive and integrated resilience-building through the analysis of the impact of the legal and formal institutional leadership (chapter 5) and the leadership dynamics using Social Network Analysis (chapter 6).
- 4) Networked Learning: resilience-building relies on the capacity of network members to learn from successes and failures of existing strategies and mechanisms. Effective learning also relies on the development of capitalisation tools and anticipation capacities to support sustainable and continuous resilience-building. The 2INDG framework investigates the potential for Networked Learning through the analysis of the main obstacles to and the available tools for the learning process, as well as the impacts of the Networked Learning processes on the -System (chapter 7).

Finally, the different steps of the framework as described above aim to assess the potential of the system to achieve five principles towards good governance: the principles of ‘credibility’, ‘stability’, ‘adaptiveness’ and ‘inclusiveness’ (based on the ESG Project principles), and the principle of ‘capitalisation’. This last principle is a main result of this research, showing the critical need of addressing capitalisation (see below for definition) as a distinct good governance principle. These five principles are interdependent and consider:

- 1) The credibility of the governance system: analysis of the mechanisms supporting the reciprocal, mutual and continuous commitment of the system members in mitigation and adaptation (Biermann, 2007);
- 2) The stability of the governance system: analysis of the mechanisms supporting the permanence of the established structures within the current and future system members, institutions and plans (Biermann, 2007);
- 3) The adaptiveness of the governance system: analysis of the mechanisms supporting the whole system to adjust to the evolution of external and internal pressures, without affecting its credibility and stability (Biermann, 2007);
- 4) The inclusiveness of the governance system: analysis of the mechanisms supporting the participation of all types of stakeholders more or less directly involved in the system (Biermann, 2007).
- 5) The capitalisation of the governance system: analysis of the mechanisms supporting the effective identification, mobilisation and optimal use of the existing networking capital within the whole networking system.

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## 2.4. Methods

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### 2.4.1. Data collection approach

Methods derive from the chosen methodology to conduct the research, and are the set of technical tools utilised to collect data (Blaikie, 2000; Grix, 2002). Both secondary and primary data were collected for this research. Secondary data were collected from international/regional/national policies, plans, academic work and technical reports. Data on the background of the structure of the Vanuatu disaster governance system in routine times (stakeholders, policies, plans, programs) were primarily available on the website of the National Advisory Board on Climate Change and Disaster Risk Reduction (NAB). Additionally, non-public reports and meeting minutes were provided to the researcher for the exclusive use of this research. Documents concerning governance during the response to Cyclone Pam were mainly collected from the reliefweb website, from the interviewees during fieldwork and during cluster<sup>6</sup> and inter-cluster meetings.

Primary data were collected during interviews, surveys and group meetings. Primary data were divided into two categories: 1) “first-hand” data that respondents provided on their own

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<sup>6</sup> The cluster approach was developed as part of the Humanitarian Reform Agenda in 2005. This approach aims to improve coordination between international, national and local actors for more effective DM, through the establishment of networks of humanitarian organisations (e.g. UN, NGOs) around their sector of expertise. Eleven clusters were considered relevant to DM (logistics, nutrition, shelter, camp management, health, protection, food security, telecommunication, early recovery, education and Water, Sanitation and Hygiene), and are activated depending on the specific needs of each emergency (IASC, 2006).



networking capital, and 2) “second-hand” data that respondents provided on the networking capital of the stakeholders with whom they were interacting. Observations of participants during group meetings served as a source of information to confirm data collected from surveys, interviews and literature review.

Different themes directed the collection of data, as seen above. DRR, DM and CCA were the primary areas of research for this study. Initially, the literature review focused primarily and almost exclusively on these domains and their interactions. However, during primary data collection, respondents introduced other key sectors as part of the networking process for building resilience to hazards. Therefore, several domains linked with SD, mostly from the environmental pillar (such as agriculture or fisheries), were then introduced to the research.

The analysis of the data could have followed two directions: top-down (from the upper/international level to the lower/local level) and bottom-up (from the lower/local level to the upper/international level). As the aim of this research was to understand and compare the actual and the perceived mechanisms and outcomes of networking, a mixed-approach was used. On the one hand, secondary data were analysed through a top-down approach to understand how the national and local strategies and mechanisms emerged, and were adapted from the international and regional levels. Conversely, primary data were collected following a bottom-up approach to understand the perceptions of local and national levels about their interaction with each other and with the regional and international levels. Figure 2.5 illustrates the techniques that were part of the data collection and analysis approach.

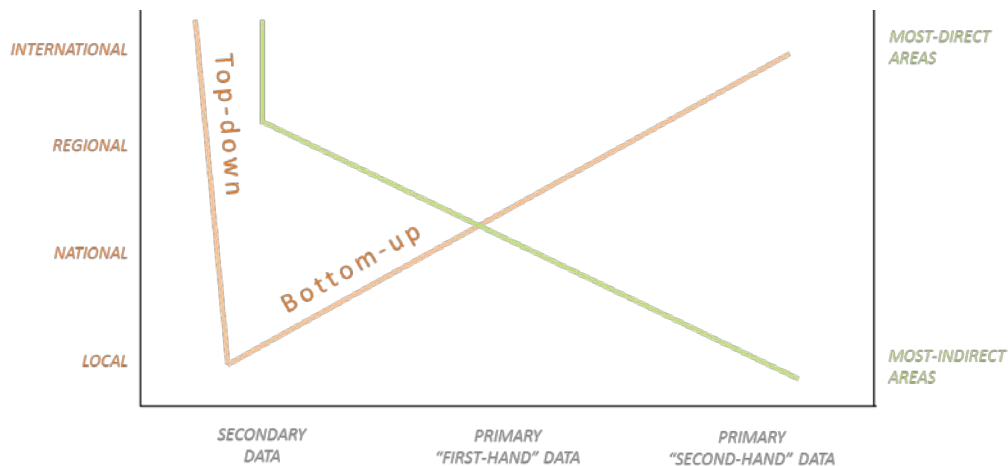


Figure 2.5: The mixed-approach of data collection for the purposes of this research.

#### 2.4.2. Case study research: using the Small Island Developing State of Vanuatu to study networked disaster governance effectiveness

A case study approach was taken for this research. According to Cavaye (1996), the case study method is a tool to “systemise observation” (p.229) and can be addressed in a qualitative, quantitative or mixed method approaches, depending on the targeted data. As highlighted by Stake



challenges inherent in the resilience-building process, this thesis remains essentially an instrumental case study. As illustrated by Stake (2005), the distinction between intrinsic and instrumental case study is often not clear; likewise, this research can benefit the single subject of the Republic of Vanuatu, by highlighting internal successes and failures to develop future strategies, and more complex subjects, such as the group of South Pacific Countries and Territories, SIDS and at-risk countries, by learning from effective and weak mechanisms to address certain challenges to resilience-building.

Hence, the case of Vanuatu plays an illustrative role for key challenges often encountered by at-risk communities and organisations in the process of resilience-building in at-risk countries in general, and in SIDS in particular. These challenges include geographic scattering of exposed communities, lack of optimal use of invested resources, complex multi-hazard exposure, and cultural diversity. The case study of the Vanuatu governance system, strongly based on networking, with consideration of the influence of its geopolitical and cultural context, is therefore utilised to build understanding of the potential of a networked governance system (outcomes, enablers and challenges) to support effective decision-making and practice for resilience-building. With the occurrence of Cyclone Pam in March 2015, the case of Vanuatu is also used to give key insight in the concrete impacts of an established networked governance system on the management of a major disaster<sup>7</sup> involving massive international intervention compared to the size of the stricken country.

Vanuatu is considered the most at-risk country in the world, based on its level of exposure and vulnerability (Birkmann et al., 2011; Welle et al., 2012, 2013, 2014; Welle and Birkmann, 2015), and assessed as particularly vulnerable to climate change (UNDP, 2014). A large majority of the population is indeed exposed to severe weather, climate and geo-hazards. Tectonic hazards are a key concern for resilience-building, with significant exposure of the population to constant earthquakes (11 000 seismic events from magnitude 5 to 8 between 1973 and 2005, with an average of one to two events of magnitudes above 7 per year in the area), and significant risks of tsunamis and volcanic hazards (Campbell, 1990; Galipaud, 2002; Siméoni, 2012). Climatic events are also a constant risk in the country, which has registered at least one cyclone per year since 1959 (Siméoni, 2012). According to the official position of the Government of Vanuatu, these events are increasingly being worsened by climate change (Government of Vanuatu, 2015e). Two years after the start of this research, the occurrence of Category 5 Cyclone Pam illustrated the high exposure of the SIDS to these events.

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<sup>7</sup> The researcher limited data collection on the impacts of proactive networking on resilience-building to the emergency period of Cyclone Pam (from the 13<sup>th</sup> of March to the 31<sup>st</sup> of July 2015)

Simultaneously to high exposure, the communities of Vanuatu present a critical socio-economic vulnerability. Resilience in Vanuatu is challenged by general underdevelopment (ranked 134<sup>th</sup> out of 188 countries of the 2014 Human Development Index), small national Gross Domestic Product (ranked 182<sup>nd</sup> out of 193 countries in 2014), underdevelopment of resources and high population growth. Furthermore, subsistence, both in urban and rural communities, strongly relies on national agriculture (the former relying on markets furnished by rural vendors and the latter relying on their own crops and cattle), and expensive imported products (UNICEF, 2011; Hollema et al., 2015). The size of the available market for a main part of the farming population prevents economies of scale being realised, reducing development opportunities of rural communities often relying almost exclusively on crops (NDMO, 2014). This situation makes Vanuatu communities particularly vulnerable to food security when faced with hazards. The country has been listed as one of the Least Developed Countries in the world since 1985 (UN, 2014), and was to be removed from this list in 2017 (General Assembly resolution A/RES/68/18, 4 December 2013). However, due to the damage costs of Cyclone Pam, affecting almost two thirds of Vanuatu's Gross Domestic Product (ABC, 2015b; Radio New Zealand, 2015i), the country was credited with three additional years to prepare for its removal from the list (General Assembly resolution A/RES/80/78, 9 December 2015).

Additionally, resilience-building in Vanuatu is hampered by fragmentation at several levels which needs to be addressed in resilience-related strategies. First, the most visual fragmentation hindering cooperation in the SIDS consists of its geographic scattering. The 88 island-group of Vanuatu, separated into six provinces, covers a land area of less than 12,500 km<sup>2</sup> but is spread over a maritime exclusive economic zone of around 700,000 km<sup>2</sup> (UNICEF, 2011; NDMO, 2014). Such scattered geography, coupled with limited communication and transportation means, hinders information management in a timely, affordable and equal manner among the communities. These challenges inherent in communication about national planning in the country reinforce the fragmentation of programs conducted by government agencies, NGOs, foreign aid and civil society groups (UNISDR and UNDP, 2012; IFRC, 2012). These difficulties are also deepened by the significant differences in the characteristics between the different geographic areas. Although more than 75% of the population were assessed as living in rural areas (UNICEF, 2011), decisions are mainly made in the cities of Port Vila, capital of Vanuatu, and Luganville, often considered significantly disconnected from the actual needs in the remote areas. This situation is a major issue for effective implementation of resilience-related decisions.

Secondly, the cultural environment of the country is a particularly concrete illustration of the challenging fragmentation of the country hindering resilience-building. The cultural diversity of the country is often illustrated by the overwhelming number of languages spoken across the Vanuatu communities: more than 110 languages (for only a little over 270,000 inhabitants), three

of them being official (Bislama<sup>8</sup>, English and French) (Siméoni, 2012). Cultural diversity between the different islands is reflected in the complexity of leadership. Community organisations may significantly differ depending on the area; a divide is particularly recognised between the north and the south, for instance, concerning material used to build houses, traditional power distribution or cultural beliefs (Siméoni, 2012). Considering these diverse characteristics is essential for DRR and CCA to ensure appropriate and implementable decision-making in the different communities. None-the-less, the strength of the traditional cultural diversity is largely considered a positive asset in the resilience-building process in communities (NDMO, 2014). In addition to internal diversities, the resilience-building process is exposed to cultural fragmentation between the substantial numbers of expatriates involved – long-term and short-term – and the national stakeholders – organisations and communities. This external cultural layer is complex, involving external stakeholders at the strategic level, culturally different from each other (e.g. Fijian/Australian/Chinese) and more or less aware of the SIDS cultural specificities. These cultural fragmentations may have a significant impact on the way resilience-building programs are developed and implemented.

Thirdly, the geographic and cultural fragmentation across the SIDS has hindered political unity across islands throughout the history of the country. The colonial period of Vanuatu (the Franco-British Condominium, then called New Hebrides, from 1906 to 1980) deepened these gaps and resulted in a dichotomy between the communities under the authority of the two colonial powers and those remote communities following traditional customs (Siméoni, 2012). This history still affects the political stability, addressing international and regional pressures at the central level and devolving governance mechanisms to provincial and local governments (Wittersheim, 2006; Warrick, 2011). Furthermore, beside French and British political influences, Vanuatu governance also relies on strategic decisions made remotely, such as by the Pacific Community based in Nouméa or by the regional United Nations offices based in Fiji, and depends on agendas of long-term aid providers (e.g. Australia and New-Zealand) and emerging donors (e.g. China) (Crocombe, 2008). Therefore, Vanuatu is characterised by the co-existence of equally strong, and sometimes conflicting, international, regional, provincial and local levels (Government of Vanuatu, 2015e), making the SIDS a prime example of the impact of networked governance on a complementary, fragmented and centralised decision-making system.

Fourth and finally, operationally, DRR, DM, CCA and resilience-related SD agendas, funds and dialogues remain relatively separated. Therefore, although these different sectors support the overriding governance for resilience-building through significant input of human and financial

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<sup>8</sup> Bislama is “Vanuatu vehicular language talked by most of the Melanesian people of the archipelago. Bislama is currently experiencing a strong Anglicisation and in the process of creolisation” (Translated from Tabani, 2002, p.287)

resources in their specific sector (for instance, high levels of donor and government funds, strong mobilisation of local, national and international staff and civil society), their sustainable positive inputs on the overriding and integrated concept of resilience-building are challenged by these complex fragmentations, which still remain necessary for effective and appropriate decision-making.

Despite these challenges, Ni-Vanuatu (indigenous people of Vanuatu) have always showed a certain level of resilience to the uncertainty and severity of hazards through demonstration of preparedness, response and adaptation capacities (Ali, 1992; Gaillard, 2007; Bolitho, 2015). The high level of risks in the country has always stimulated national, regional and international organisations and communities to carefully consider resilience-building, resulting in the development of a disaster governance system supporting harmony between local needs, national and regional priorities, and international agendas.

Similar to the whole of the South Pacific SIDS, Vanuatu benefits from significant consideration and resource mobilisation in DRR and CCA (UNISDR and UNDP, 2012). Vanuatu is committed to major DRR and CCA agendas, such as the Kyoto Protocol or Hyogo Framework, and the country has developed (and is developing) a legal and institutional structure propitious to integrated and inclusive resilience-building. Vanuatu is accordingly recognised as making significant progress in DRR and CCA. Reports recognise the strong impact of integrated and inclusive cooperation in this process through the establishment of institutions, policies and mechanisms (Government of Vanuatu, 2011; Welegtabit, 2012; Sikivou, 2013, Worthington and Roubin, 2013; Handmer et al., 2014). More particularly, the involvement of non-government stakeholders (especially civil society) has been widely recognised essential in the region, and remains strongly promoted in governance strategies (Lamour, 1998; Gero et al., 2010; UNISDR and UNDP, 2012). The numerous NGOs active in the area are recognised as key actors at the local level; however, these NGOs, like other stakeholders dependent on external funds, often operate under heavy constraints from regional and international decision-makers, resulting in standards and agendas that are not always pertinent to the national and local contexts (Suparamaniam and Dekker, 2003; Maldonado et al., 2009; Gaillard and Mercer, 2013). Furthermore, the human and financial resources already invested in the country in these sectors comprise a significant potential to strengthen the institutional structure through integrated and inclusive cooperation, but are not presently optimally used due to current institutional weaknesses (UN, 2010). A complex governance system developed in the country to build resilience to hazards using the formal and informal networking process happening across levels, sectors and types of organisations. The analysis of the governance structure, processes and mechanisms in place will highlight the strengths and weaknesses, as well as the potential outcomes of such system addressing the diverse challenges in resilience-building.

### **2.4.3. Literature review on disaster governance in Vanuatu**

Literature on disaster and climate governance in general, and in Vanuatu particularly, was abundant and multi-disciplinary<sup>9</sup>. However, a pilot study revealed that the country had experienced significant loss of data when foreign scholars and external actors (which are numerous) left the country without sharing findings with local stakeholders. To address these issues, the Government of Vanuatu developed an endorsement process as an inventory of all relevant on-going projects. Many reports related to these projects, along with relevant policies and plans were found on the National Advisory Board on Climate Change and Disaster Risk Reduction (NAB) portal (national online database for all information related to climate change and disaster risks in Vanuatu – <http://www.nab.vu/>), and provided a resource for this research. Secondary data were collected through the comprehensive review of technical reports, policies and plans, academic articles, newspapers, and research documents.

Many documents were collected during field trips; from government agencies, NGOs, local associations, donors and research institutions. These documents were not available, or difficult to access, on the Internet. These documents comprised drafts of policies, strategies and agreements, project proposals, meetings minutes and technical reports. These documents were considered as sources of primary data to understand the governance system, as well as to capture successful and unsuccessful mechanisms of integration and networking. Moreover, when documents were available both in English and French, the researcher analysed them in both languages to assess the validity of transliteration and understanding of concepts. This work participated in primary data collection for the purposes of the research on communication for better cooperation.

Concerning Cyclone Pam, the researcher used the tool of Google Alerts to receive notifications any time news was released on the web on the progress of Cyclone Pam response and recovery (key words were: Cyclone Pam Vanuatu). This resulted in the examination of hundreds of online news updates (such as press releases, editorials, organisations blogs); after selection of the most relevant information sources, the researcher kept 50 news updates. The review of these news updates and 54 official situation reports (23 from the Government, 15 from the United Nations Office for the Coordination of Humanitarian Affairs (UNOCHA), 14 from clusters and 2 from NGO coalitions) provided primary data and complemented data obtained through interviews, surveys and observations.

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<sup>9</sup> Reminder: The literature review conducted for the purposes of this thesis is not the subject of a single chapter but is spread across the whole dissertation

#### **2.4.4. Surveys and interviews**

Questions in the surveys and interviews were developed following the 2INDG framework presented in section 2.3.3. Qualitative data were collected in interviews, while SNA surveys combined qualitative and quantitative data on the networking process. Surveying for the purposes of this research was divided into three phases: a pilot study, the system before Cyclone Pam, and the system during the emergency period following Cyclone Pam.

##### ***2.4.4.a. Pilot study***

A pilot study was conducted to ensure the relevance of the project before collecting data. This pilot study was very useful for the researcher for different reasons. First, when the author started this PhD research in March 2013, information available on the institutionalised networks in the country was scarce and very difficult to find on the Internet. No academic paper focused on the subject, most of the policies were not yet updated, and most of the available information consisted of a list of technical reports on the NAB portal, which was at that time a difficult tool to use. Upon arrival in Vanuatu and after discussions with key stakeholders, the researcher found that some of the (little) information gathered from the Internet was erroneous. Therefore, the pilot study had been crucial for the researcher to become more familiar with political, professional and social mechanisms in the country, and to gain a better understanding of the Vanuatu climate change and disaster risk networked structure. This knowledge was essential to develop more adequate aims, objectives and methodology for this research.

Second, some of the methods previously described in this chapter were quite new to the researcher. A sample of 25 stakeholders filled in a survey (appendix 2.1) during the pilot study, to evaluate the value and relevance of each question. The researcher tried to have a diverse and relatively representative sample of stakeholders (detailed stakeholders' characteristics in appendix 3.1). This was very useful to estimate the time needed to fill each survey, as well as the clarity of the design of the survey. This pre-survey also helped the researcher to develop a better idea of the structure of the formal and informal networks that needed to be targeted during data collection.

Third, upon arrival, it was evident that the country had experienced many issues with previous foreign researchers. Most of the respondents interviewed during the pilot study, as well as during the main field trips (pre- and post-Cyclone Pam), showed a real concern on the use of the findings. Previously researchers came to the country, collected data, raised (consciously or not) expectations but left without concrete outcomes for the country. In the frame of this thesis, the researcher downloaded findings on the NAB portal, distributed reports, and organised, before and after data collection, individual and group meetings with the main stakeholders to present the practical outcomes of the research for their organisations.



Finally, the researcher was able to liaise with key local organisations during the pilot study. Several showed a great interest in the research and offered to facilitate data collection. SPC/GIZ<sup>10</sup> offered a substantial financial support to lead the field trip pre-Cyclone Pam. Among others, the NAB, Oxfam Vanuatu and SPC/GIZ spread information to their own contact lists, and invited the researcher to present this project objectives during organisational meetings.

#### ***2.4.4.b. Study of the system in routine times<sup>11</sup>***

The first main field trip took place over four months in 2014. Originally, the participants of the research were chosen based on the official list of members of the NAB, VHT and Vanuatu Climate Action Network (VCAN) that are composed of key government and non-government actors from diverse resilience-related sectors. Most of the organisations from this list had projects and programs linked to both DRR and/or CCA. These stakeholders are representatives of their organisation within the networks. Respondents from the NAB were mostly directors or project managers, and predominantly government, while respondents from the VHT and VCAN lists were mainly non-government managers and officers. However, more than 75% of the respondents claimed to have direct links with one, if not the two, other networks.

Then, the researcher extended data collection and invited all staff of each organisation more or less linked with resilience-building to participate in the survey. This increased the participation of government and non-government officers from lower levels of governance.

Ninety stakeholders filled in the survey (appendix 2.2), which was a participation rate of around 30% of the stakeholders approached by the researcher. The SNA of the 90 respondents mapped a total of 260 stakeholders comprising the Vanuatu-Networked-System<sup>12</sup>. Therefore, statistical data included in the SNA covers the Vanuatu-Networked-System (260 stakeholders), but in-depth qualitative data refers to the perceptions of the respondents (90 stakeholders only). The diversity of the 90 respondents was considered a good representation of the Vanuatu-Networked-System in terms of gender, types of organisations and sector (detailed stakeholders' characteristics in appendix 3.2). However, data collection focused predominantly on Efate Island, where effective information flow (bottom-up-top-down) is determined and decisions are made, hence, geographic location may not be representative of the whole spectrum of disaster and climate change actors.

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<sup>10</sup> SPC/GIZ refers to the unit in charge of the Coping with Climate Change in the Pacific Island Region Programme conducted by the Pacific Community (SPC) and the German Cooperation (GIZ) in Vanuatu.

<sup>11</sup> Reminder: Routine times consist in the regular period of governance not subjected to disaster or emergency management.

<sup>12</sup> Reminder: The expression of "Vanuatu-Networked-System" is utilised throughout this dissertation to nominate the entire governance system comprising the 260 stakeholders and the 54 sectoral networks studied in this thesis, the legal and institutional structure, and all formal and informal mechanisms enabling cooperative resilience-building in the system.

Data on decentralised and civil levels were mostly collected as perceived (90 respondents) and observed data (researcher).

#### ***2.4.4.c. Study of the system challenged by the emergency management of Cyclone Pam***

The second field trip took place within the emergency period following Cyclone Pam, before the transition to the recovery phase. The respondents were chosen following a two-step method: first, the researcher interviewed visible key actors who had been listed before departure through an extensive literature review of press releases and situation reports on the response operations; second, the researcher integrated into the research less visible stakeholders met during cluster and inter-cluster meetings. Due to the difficulties encountered by humanitarian actors to allocate time to interviews, only 19 people were interviewed and surveyed (appendix 2.3, and detailed stakeholders' characteristics in appendix 3.3). Substantial data on the system during the emergency management of Cyclone Pam were collected through participant observation during 23 group meetings (10 cluster and inter-cluster meetings, 4 lessons-learned meetings and 9 multi-stakeholders briefing meetings).

#### **2.4.5. Participant observation**

Complementary to surveys and interviews, data were sourced through participant observation. Throughout the different field trips, government agencies and NGOs invited the researcher to take part in ministerial and network briefings, workshops and meetings (of the NAB, VHT, VCAN, clusters and inter-cluster), which was a great opportunity for data collection through observation. Participant observation as a data collection method is highly criticised in the humanitarian sector as it is believed to deprive participants of potential participatory benefits from the study, to be subjective, and to threaten the accuracy of data, as participants might not act naturally under observation; yet, participant observation remains a common method in social sciences. Hay (2000) highlights the benefits of observation such as better understanding the context or capturing perceptions and spontaneous behaviour. For the purposes of this research, participant observation was a key complementary method, used during group meetings to corroborate collected data on perceived leadership, existence and nature of relationships, as well as available mechanisms to communicate between participants.

#### **2.4.6. Data analysis and interpretation**

For the purposes of this thesis, the software UCINET 6 developed by Borgatti et al. (2002) to calculate SNA measures assessing nodes' influence in the network (*In-degree*, *Betweenness* and *Eigenvector Centralities*) and the software Netdraw by Borgatti (2002) to draw the maps were used. Through the analysis of these SNA measures and maps (connectivity and resources sharing),

this thesis addresses the mechanisms and outcomes of formal and informal network processes as a whole.

However, political ecology perspectives suggest that simple quantitative SNA findings are highly limited, and need to be integrated into a qualitative analysis. Once captured, SNA data need to be processed and interpreted to enable improvement of the network (Provan et al., 2005). SNA is often combined with Qualitative Comparative Analysis (QCA), especially in political sciences, to interpret findings beyond a mere quantitative description of the network structure, and to determine causality between a social network and its context (Stevenson and Greenberg, 2000; Yamasaki and Spreitzer, 2006; Magetti, 2009; Fisher, 2011). Ragin (1987) first presented the concept of Qualitative Comparative Analysis in the late 1980s to develop systematic comparative studies for small-scale networks (between five and fifty nodes). SNA and QCA are complementary concepts, the former offering a systematic and visual description, and the latter determining the causality of the structure (Fisher, 2011). The position, ties and power of a node within its network can be measured through a SNA; however, the causal conditions for these characteristics can only be investigated through a QCA. By comparing the structures of different networked systems, QCA determines typologies of networks, as well as the interdependency between the variables of nodes, ties and their evolution (Yamasaki and Spreitzer, 2006; Fisher, 2011).

Furthermore, data collected through SNA are based on the perceptions of the respondents on their own networking capital, the available capacities and integrated sectors within the Vanuatu-Networked-System, the nature of their links with the sectoral networks, and the leaders and decision-makers of the network. Moreover, data on the 260 stakeholders of the Vanuatu-Networked-System were collected only among 90 respondents, hence, QCA was essential to analyse and interpret through the identification and comparison of:

- 1) The mandated cooperation structures, mechanisms and leadership set in the national legal and institutional structure;
- 2) The formal cooperation structures, mechanisms and leadership within sectoral networks;
- 3) The perceptions of the (90) respondents concerning the positions of key nodes, and formal and informal ties within the whole Vanuatu networked system (260 stakeholders);
- 4) The observations of the researcher concerning the key nodes and ties between network members, and between members and outsiders.

Moreover, QCA can support and go beyond the individual and organisational-levels, by reaching a comprehensive whole-network-level analysis. QCA allowed a better understanding of the impacts of structure and outcomes of the networking process in routine times on resilience-building as well as DM.

For the purposes of more effective qualitative analysis and interpretation, quotes from interviews were collated into discussion themes exposed in terms of non-personalised respondents' positions (individual and in groups). The few individual quotes utilised throughout the thesis reflect specific statements considered to be particularly supportive to the analysis. This fully-integrated use of qualitative data in the narrative and findings was considered effective to develop nuanced, evidencing sustained and generalizable research based on a case-study.

## **2.4.7. Validity and ethical consideration**

### ***2.4.7.a. Limited participation***

Participation in the study was limited for different reasons, the main ones being the lack of trust from local actors in a foreigner researcher, the reluctance to give away information on one's own network, and the lack of cost-benefit perspective for the participants. Consequently, data from the surveys and interviews do not represent the full and accurate governance system for climate change and disaster risks in Vanuatu, but only the perception of ninety stakeholders of this system. Therefore, the author does not claim the complete accuracy of the mapped networked system compared to the official structures. However, data from surveys and interviews were analysed as perceptions of a major part of the Vanuatu-Networked-System, which were then compared with further data from literature reviews of strategies, policies and plans, as well as network observations. Also, in a compacted context such as Vanuatu, where staff are limited, most respondents confirmed that the perception of a sample of ninety actors, especially given the balance of organisational types and sectors in this research, should reflect the main formal and informal networking process. Therefore, the researcher believes in the validity of the conclusions while not pretending to have studied the entirety of the governance system of Vanuatu.

### ***2.4.7.b. Confidentiality***

For the purposes of data collection on social networking, names of the respondents were required on the surveys. Given the connectivity purpose of this thesis, it was essential to know the person at the origin of the answers to cross validate data from one social network to another one. From a very early stage though, numeral codes were assigned to names, so names were never used in the analysis stages, and not known by anyone other than the researcher. An information sheet was distributed to respondents who filled in the survey to explain the aim, objectives and potential uses of the research.

### ***2.4.7.c. Research ethics***

The research was approved by the ethical committee of James Cook University (Ethics Approval Number H5296 for data collection before Cyclone Pam and Ethics Approval Number H5813 for data collection during the emergency period following Cyclone Pam). This research was also endorsed by the NAB committee (appendix 1.1). Data were collected following the human ethical

guidelines of James Cook University. The proper processes in research enabled the researcher to widely share information and findings with the respondents and the organisations that may find interest in the research findings. The 2014 fieldwork studying the system in routine times was financially supported by SPC/GIZ. The researcher received the authorisation to use the collected data for this PhD (appendix 1.2).

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## **2.5. Continuous impacts of the research on practice**

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### **2.5.1. Raising awareness**

Eisenman et al. (2009) underlined the need to deliver information on disaster risks in general, and preparedness in particular, to communities through formal and informal networks to ensure that information is culturally appropriate and relevant, as well as understandable and properly understood. In the frame of this research, data were collected on the social networking process among members of formal networks to map the existing and potential pathways for better cooperation and information sharing. Many respondents were surprised by the early findings, realising that they were not aware of many of the existing formal networks that could be of interest for their work. Even more surprisingly, respondents were sometimes part of a formal or informal network without being conscious of it until the data collection, mostly due to a lack of understanding of the concept of networking. These findings had significant positive outcomes on the networking process in Vanuatu.

Simultaneously, the researcher captured latent capacities of respondents and of the people named by respondents. Therefore, the research not only continuously developed and disseminated key information on capacity distribution, but it also made people more aware of their own capabilities. Indeed, in some cases, respondents were forced to think about their capacities to answer the research questions; in other cases, respondents realised that their collaborators were gaining from capacities that they never considered professional aptitudes per se. In both ways, respondents were made more aware of their capacities.

Thus, inadvertently, SNA was transferred from a method to map knowledge about networks to a method to identify, develop and optimally use knowledge. The researcher recommended to the NAB to include SNA questions in the project endorsement form to track capacity distribution. The researcher also recommended key organisations in Vanuatu to lead similar research in more isolated areas of the SIDS to capture local existing and potential cooperation paths.

### **2.5.2. Perceived vs. accurate structures**

As mentioned earlier, this research included the perceived structures of the governance system. In social research, findings are often criticised as being erroneous, subjective and not scientific

because data may be the only discernments of reality of respondents at the time and location when they participated in the survey. For the purposes of this thesis, the survey and interview questions were specifically developed to collect data based as much on objective observation as on perceptions. Indeed, a main part of the data on network structures was collected through a Social Network Analysis, which relied on the individual understanding and knowledge of the respondents on their own networking capital and the Vanuatu-Networked-System. Capturing the perceptions of respondents on their own networking capital and the Vanuatu-Networked-System revealed a disconnection between the planned cooperation structures and the actual networking process. This disconnection was part of the data researched and objectively analysed by the researcher. This disconnection was presented to the stakeholders after data collection, and was considered by most stakeholders to be valuable information to improve their internal and external organisational strategies.

### **2.5.3. The question of capitalisation<sup>13</sup>**

The lack of Monitoring and Evaluation (M&E) in climate change and disaster risk projects is a recurrent issue. The assessment and processing of successful/unsuccessful stories and available local capacities are essential for more effective activities in the future, and yet significantly lacking. As presented in section 2.3.3, the principle of capitalisation is a central concept addressed in this research. The lack of capitalisation is a main barrier to good governance, especially in areas such as the South Pacific, where the high turnover of staff, among other factors, results in an obstacle to sustainable and reliable knowledge, capacities and information sharing.

Research on capitalisation relies on the potential of actors to process networking capital to ensure the understanding and availability of the abovementioned capital in on-going and future operations. Most respondents within the research were aware of the critical need to address the lack of capitalisation of traditional knowledge and existing data, such as duplication of needs assessments, or lack of access to reports of other organisations. However, respondents did not present the same awareness and understanding of capitalisation needs when faced with the loss of capacities and knowledge due to the high rate of turnover, when foreigners leave the country, or when locals change position and do not effectively use the capacities acquired during past work. The lack of capitalisation in these cases was mostly considered as an inherent and unavoidable flaw of the work place in Vanuatu. Therefore, while SNA was originally used as a tool to collect data on relationships among the network; it was a useful method to raise awareness, as well as to capture and optimally use capacities and networking processes existing within and

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<sup>13</sup> Reminder: Capitalisation is understood in this thesis as the extensive identification, effective mobilisation and optimal use of the capital existing in a governance system.

between organisations. The researcher recommended incorporating the SNA tool in project endorsement and evaluation forms to facilitate an effective and on-going capitalisation process.

## CHAPTER 3.

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# **Institutionalised networks: a complex set of platforms propitious to resilience-building**

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### **3.1. Introduction**

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The Social Network Analysis (SNA) conducted for the purposes of this thesis captured 54 sectoral networks. As highlighted by Kapucu et al., 2009, there is often a loose utilisation of the term ‘network’ to identify any coordinative entity that is not a hierarchy or market system. This thesis also holds a wide understanding of ‘networks’, comprising a range of institutionalised cooperative systems – more or less formal – bringing together stakeholders from diverse organisations and levels around a topic of discussion and/or decision-making related to resilience-building, and significantly varying in nature, for instance, formal networks, committees, working groups, agreements, weekly gatherings, virtual groups. Therefore, sectoral networks are cooperative platforms, more or less formal, led by government agencies or non-government groups, considered, by one or several of the 260 stakeholders studied in this thesis, as key tools to cooperate within and/or outside their field of expertise.

Three sectoral networks, referred to as umbrella networks, play a particularly key role in enabling and leading cohesion and communication throughout the whole governance system for climate change and disaster risks, referred to as the Vanuatu-Networked-System. The 51 remaining networks, called satellite networks for the purposes of this thesis, are predominantly locals and nationals, complemented by a few regionals and internationals. The satellite networks actively participate in building resilience to hazards by enabling the development of specialised expertise, knowledge and resources, and facilitating cooperation and capacity-building within their respective sector. All these networks play a crucial role in building better general disaster governance by supporting different complementary cooperation dynamics:

- Across types of stakeholders: all these networks enable an active cooperation between government agencies, NGOs, private stakeholders, civil society members and academics;
- Across sectors: most of these networks operate within one specific sector, and benefit from cooperation to strengthen their expertise. These sources of expertise are then optimally used through the umbrella networks, which disseminate this expertise, developing a more holistic and cohesive vision throughout the Vanuatu-Networked-System;



- Across levels: the local networks are platforms where civil society feels less intimidated to participate than formal government meetings or workshops, which enable the collection of more accurate data directly from the field. The national networks are platforms involving key stakeholders in the development and implementation of national strategies. The regional and international networks facilitate the consistency of national efforts with relevant priorities of higher levels. Thanks to their role in mapping, coordinating and disseminating networking capital developed in the Vanuatu-Networked-System, the umbrella networks support a continuous bottom-up-top-down cooperation;
- Across the cycle of projects: respondents highlighted that these sectoral networks have had significant impact on the way policies were discussed, programs planned and projects implemented. Furthermore, while formal M&E is difficult and significantly lacking, these networks were reported as key facilitators of informal reporting.

This chapter highlights how the heterogeneous structure of the Vanuatu-Networked-System composed of these diverse sectoral networks is propitious to more effective resilience-building through a complementary balance between integration and fragmentation (of expertise development, approach, funds for example), as well as between rigidity and flexibility (in decision-making, cooperation commitment for example). This chapter introduces the 54 networks and analyses their structure, functioning and outcomes. In-depth analysis of the three umbrella networks discusses the strong and specific impacts of their establishment as well as their roles and responsibilities in Government–non-government, Cross-sectoral Networking. The whole set of networks, and their diversity of structure, objectives, membership configurations and leadership forms, play a crucial role in developing the essential complementary integration/fragmentation and rigidity/flexibility, supporting continuous, consistent and comprehensive governance.

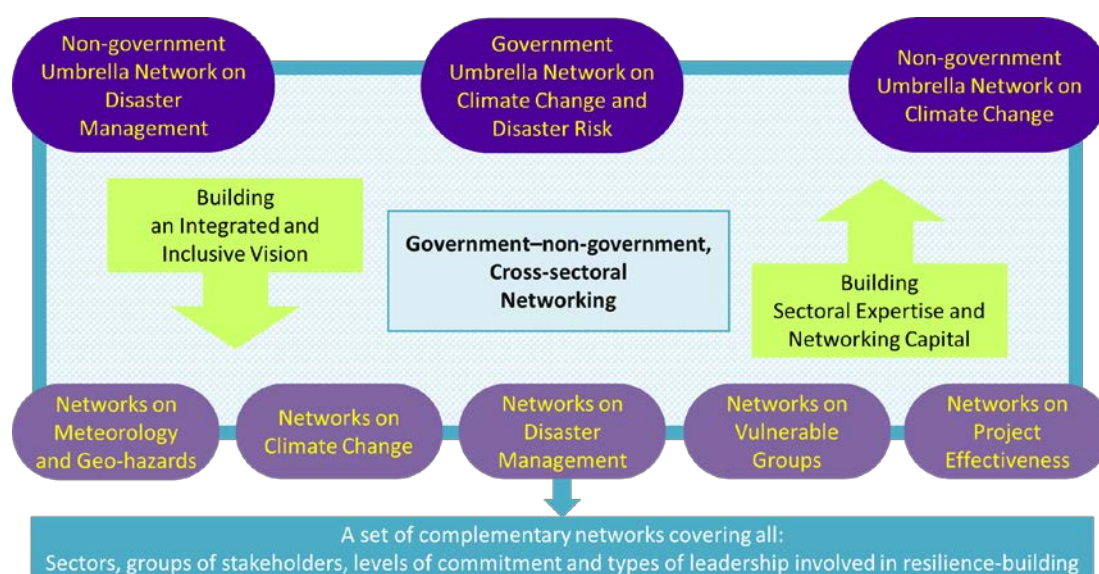


Figure 3.1: A system built on a set of complementary networks propitious to continuous Government–non-government, Cross-sectoral Networking towards effective resilience-building.

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## **3.2. Three umbrella networks with high potential to oversee the networking process**

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### **3.2.1. A government umbrella network for more consistency between strategies to build resilience to all hazards**

#### ***3.2.1.a. Establishment of the Vanuatu National Advisory Board on Climate Change and Disaster Risk Reduction***

The Vanuatu National Advisory Board on Climate Change and Disaster Risk Reduction (NAB) was established in May 2012 and endorsed by the Council of Ministers in October 2012 (decision number 141/2012). The NAB was created to provide a focal point to guide consistency of all policies, positions and strategies on DRR and CCA developed in the country (NAB, 2012a). NAB aimed to bring together two pre-existing bodies, the National Task Force on Disaster Risk Reduction and the National Advisory Committee on Climate Change, which were undertaking policy-making respectively (and separately) for climate change and disaster risks. Acknowledging the recurrent overlapping of work from both these entities, representatives of key government, non-government and donors worked cooperatively on reorienting national strategies and developing the single cooperative institutional mechanism of the NAB. Continuing with this Government–non-government, Cross-sectoral Networking process, a draft of the final structure, roles and responsibilities of the NAB were presented to key stakeholders from different sectors and types of organisations for feedback before endorsement.

#### ***3.2.1.b. A structure based on Government–non-government, Cross-sectoral Networking***

The NAB is a formal institution composed of senior representatives of key leading government agencies and NGOs from resilience-related sectors:

- Government members
  - Director of the National Disaster Management Office (NDMO) (Co-chair)
  - Director of the Vanuatu Meteorology and Geo-Hazards Department (VMGD) (Co-chair)
  - Directors-General of the 13 Ministries
  - Directors of resilience-related departments, such as Agriculture and Rural Development, Local Authorities or Strategic Policy, Planning and Aid Coordination
  - Manager of the NAB Project Management Unit
- Non-government members
  - Vanuatu Humanitarian Team (VHT) coordinator
  - Vanuatu Climate Action Network (VCAN) coordinator
  - Representatives of NGOs
  - Representatives of civil society groups

Members are selected and invited after joint consultation between the Directors of the VMGD and the NDMO, and the rest of the members. Respondents highlighted the need for the NAB to remain a small group to keep discussion fluid, while being representative of the whole disaster governance system in the country. At the time of this research, the private sector and academia did not have permanent representatives in the NAB core group, but remained regular guests or visitors at the NAB meetings.

Given the restriction of NAB membership and the heavy extent of work, support bodies were seen essential to continuously link the NAB with the wider group of government and non-government stakeholders involved in climate change and disaster risk matters. Consequently, a Secretariat, a Project Management Unit, and several working groups were established within the NAB system.

However, due to resource limitations, the NAB Project Management Unit was shouldering the secretariat role at the start of the NAB. This amalgamation resulted in confusion concerning the distribution of responsibilities of the different bodies linked to the NAB. Based on system evaluation reports (in particular UNDP, 2014), government and non-government stakeholders were brought together to brainstorm on the restructuring of the NAB to optimise activities. Discussion primarily revolved around the critical need to mobilise funds and create key positions to establish a separate secretariat.

As another support to the NAB activity, an executive committee was established for emergency matters to ensure that plans related to climate change and disaster risks are implemented with respect to the NAB objectives, and that urgent decisions, when needed to be made, conform to the NAB regulations. The executive committee is representative of the Government–non-government, Cross-sectoral Networking process of DRR and CCA, being composed of the Directors of the NDMO, VMGD, Department of Strategic Policy, Planning and Aid Coordination (under the Prime Minister’s Office authority), Department of Environmental Protection and Conservation, Ministry of Finance, NAB Secretariat and Project Management Unit, as well as representatives of NGOs. Figure 3.2 illustrates the NAB network and linkages with other key bodies.

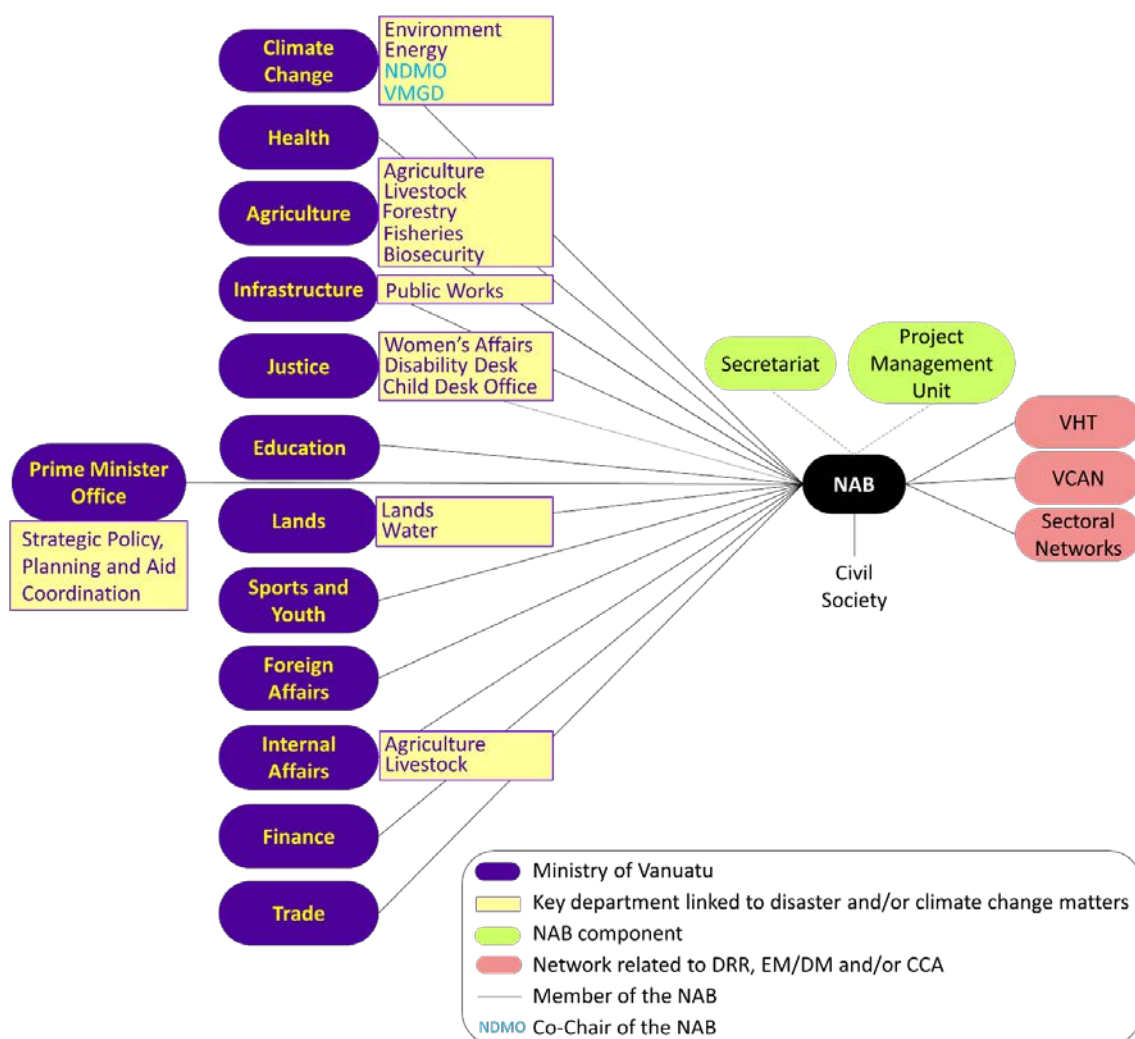


Figure 3.2: NAB-focused networking process.  
Source: adapted from Vachette, 2015b.

### 3.2.1.c. A support for Government–non-government, Cross-sectoral resilience-building

Cross-sectoral Networking is a key enabler to achieve the primary purpose of the NAB, which is “to act as Vanuatu’s supreme policy making and advisory body for all the disaster risk reduction and climate change programs, projects, initiatives and activities” (NAB, 2012a, p.6). The general lack of integration of DRR and CCA, and on a second level of all sectors more or less directly linked with resilience-building, was the principal trigger for the establishment of the NAB. Its main objective is to address cooperation challenges due to the institutional divide between DRR and CCA (with the prior National Task Force on Disaster Risk Reduction and National Advisory Committee on Climate Change). This situation translated into a general lack of coordination, communication and information sharing between all related sectors and stakeholders, resulting in gaps and overlaps of activities (objectives, target communities, timeframe). Simultaneously, the NAB and its related bodies promote strong Government–non-government Networking. Through inclusive policy discussion and decisions during the board meetings, the NAB enforces the

development of continuous strong sharing links between all the types of stakeholders involved in the discussions.

Furthermore, one of the key responsibilities of the NAB is to review, advise and endorse project proposals. This endorsement process aims to promote inclusive and integrated cooperation; projects are often approved providing that the acting organisation links with other appointed organisations that are already leading associated projects. This research, for instance, was endorsed provided that the researcher would liaise with institutions with similar goals, such as the Department of Environment. The endorsement process promotes not only cooperation in project development, but also sharing of developed resources and knowledge with all other stakeholders. Government and non-government respondents highlighted the considerable improvement in access to raw data of other stakeholders for their own projects. Most respondents in this research study recognised the substantial potential of the NAB and its supporting bodies, through the inclusiveness of government and non-government members, in motivating the development of an inclusive and integrated discussion and policy making process, as well as increased project visibility, accountability and transparency. Despite the shared belief that the NAB still needs to evolve, most respondents emphasised the correlation between building trust in the NAB, and the development of credibility and stability of Vanuatu governance.

Finally and more importantly, the establishment of the NAB relieved the NDMO of the responsibilities of decision-making for, and decision-implementation of matters related to disaster risks, and allowed it to focus on its main role of coordinator. Furthermore, the NAB system, and more particularly the NAB secretariat, is the designated focal point to follow up and report on the implementation of the Sendai Framework in the country.

### **3.2.2. A non-government umbrella network for more effective disaster preparedness and response**

#### ***3.2.2.a. Establishment of the Vanuatu Humanitarian Team***

The Vanuatu Humanitarian Team (VHT) is a non-government network established in late 2011, composed of government and non-government humanitarian stakeholders involved in DM and DRR. Prior to the VHT, a similar regional structure, called the Pacific Humanitarian Team (PHT), was established in 2008 at the regional level. The establishment of the PHT aimed to support Pacific Governments in the coordination of aid preparedness, response and recovery, when a disaster overcomes national capacities. Like the PHT, the VHT aims to support the development of a more predictable, reliable and accountable system through the establishment of sectoral clusters that can be mobilised during emergencies.

The highly complex geopolitical, economic, cultural and social context of Vanuatu (section 2.4.2) raises major challenges for coordination, communication and logistics when a disaster strikes.

The NDMO has met difficulties to engage national and provincial government agencies in a cooperative system, as well as to integrate non-government stakeholders and civil society in the process. In 2011, both Tropical Cyclones Vania and Atu particularly highlighted the need for more cooperation between all stakeholders, and triggered concrete discussion around the need for a flexible body facilitating coordination. The NDMO particularly needed support in technical capacities and resources to collect and analyse data, as well as to bring together the numerous organisations operational in Vanuatu into one cooperative body. Therefore, the VHT was established to support the NDMO in its mandated responsibilities to coordinate humanitarian aid and oversee service delivery during response and recovery. The VHT was established with the technical and financial support of UN agencies, and more specifically the UNOCHA, the Humanitarian Aid and Civil Protection Department of the European Commission (ECHO), AusAID, Oxfam and the Red Cross societies present in the country.

The VHT and Vanuatu clusters were the first formal networking mechanism to be established in the country for all the humanitarian agencies to meet and disseminate information from one sector to another one. It was also the first national cooperative humanitarian body in the Pacific.

### ***3.2.2.b. A structure based on Government-non-government, Cross-sectoral Networking***

The VHT structure constantly evolves, from 10 members in 2011 to around 50 in 2015; it brings together national government agencies (e.g. NAB), national NGOs (e.g. Vanuatu Family Health), International NGOs (INGOs) (e.g. CARE International), Red Cross societies (e.g. Vanuatu Red Cross), and donors (UNICEF). Private actors, however, are critically missing as committee members. The VHT assists NDMO in the joint coordination of the Vanuatu cluster system to ensure more effective emergency response (NDMO, 2013b, 2015). The Vanuatu clusters are a loose adaptation of the international cluster approach developed in 2005 as part of the major humanitarian coordination reform lead by the Inter-Agency Standing Committee (IASC, 2006). Like the regional clusters adopted by UNOCHA and the PHT, and unlike the international clusters, the Vanuatu clusters are open-ended structures. Indeed, the Vanuatu clusters remain “sleeping-active” all year long, and conduct capacity-building activities, such as regular meetings, development of standards or simulation exercises, as permanent networks throughout the year, with a particular focus on preparedness. This open-ended nature supports the development of cooperative relationships within and between clusters, whose members recognise the symbolic value of the clusters of Government-non-government, cross-sectoral cooperation. Most respondents involved in the Vanuatu clusters recognised the value of the open-ended nature of these platforms to build capacities for the whole DM cycle (mitigation, preparedness, response, recovery). The open-ended nature and the on-going cooperative activities within the Vanuatu cluster system also developed a feeling of ownership and leadership of the decision-making

process among cluster members, and more specifically non-government actors. This feeling is essential to the effectiveness of operations (Gero et al., 2013).

The Vanuatu clusters were progressively established depending on resources and needs (such as the Food Security and Agriculture Cluster in 2012 or the Gender and Protection Cluster in 2014 – chapter 8). At the time of this research, six national clusters had been endorsed and one (Shelter) established. The Vanuatu clusters are mandated by the Government (particularly the NDMO) to promote cooperation for preparedness in routine times, to coordinate and supervise response activities related to their specific sectors when they are mobilised during an emergency, and to prepare a transition strategy towards recovery after a disaster. Each national cluster has a Vanuatu Ministry as lead agency, and government and non-government VHT members as co-leads (such as Save the Children, Red Cross or UNICEF) (figure 3.3).

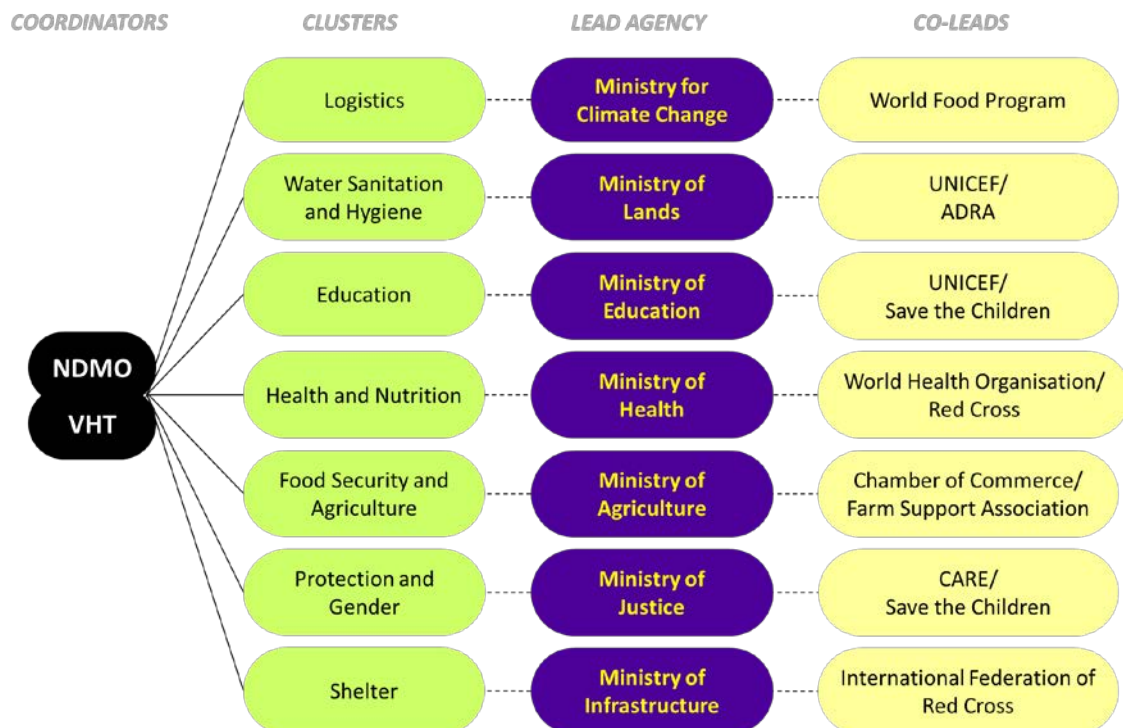


Figure 3.3: Coordinators, lead agency and co-leads of each Vanuatu cluster at the time of this research.

The VHT and Vanuatu clusters are key illustrations of current national efforts of Government–non-government, Cross-sectoral cooperation efforts to conduct coordinated activities. The heterogeneous membership of the VHT and Vanuatu clusters particularly supports the achievement of cross-level integrated goals, through the continuous development of trusting relationships between their members across levels. For instance, the VHT members can reach international and regional organisations (e.g. UNICEF), government officers (e.g. Ministry of Justice), organisations supportive to civil society (e.g. ADRA) and well-established NGOs in the provinces (e.g. French Red Cross). Following continuous inclusive efforts, work is being done to establish co-lead satellites of each cluster at the provincial level, to facilitate coordination directly

on the ground and more accurate two-way information dissemination following a bottom-up approach.

### ***3.2.2.c. A support for Government-non-government, Cross-sectoral resilience-building***

The VHT is a key supportive asset for government-led networks, such as the NAB or working groups. Indeed, the VHT is a flexible forum attracting a wide set of diverse stakeholders (with a weighty coverage of NGOs) to develop relationships, share information, knowledge and resources, and connect with predominant government bodies. Respondents particularly recognised the value of the VHT in better connecting policy-making and project implementation.

The VHT is a formal network recognised by the Government; it is included in key government plans, such as the National Adaptation Programme of Action, the National Tsunami Plan or the Standard Operating Procedures, and has participated in plan revisions and development of the standard operating procedures (national and provincial). Reinforced by this recognition, its integrated structure and a central position within the Vanuatu-Networked-System, the VHT has a strong potential to address the challenge of missing links between standards (for DRR and DM), national Standard Operating Procedures (following international procedures), and national and provincial mechanisms for preparedness, response and recovery. Furthermore, the continual and reciprocal interaction between the VHT and PHT significantly increases the potential of both networks in resilience-building, by combining local, national, regional and international networking capital.

By assisting the NDMO in coordinating relief, response and recovery activities, the main goals of the VHT are to limit time and resource waste, and to ensure appropriate assistance to the affected communities. The role of the VHT coordinator is to oversee the sectoral activities within each cluster, and to facilitate intra- and inter-cluster coordination by incorporating a continuous capacity-building into a bottom-up-top-down and cross-sectoral approach. The Director of the NDMO highlighted the vital role of the non-government VHT members in helping government agencies to deliver the services under their responsibility in an extreme event situation. Government and non-government respondents also suggested that the VHT has played a central role not only in the engagement, but also increasing predominance, of NGOs and civil society groups in the coordination of activities related to disaster risks.

Furthermore, the VHT was widely recognised as a powerful structure to harness international and external initiatives in the country. Representatives of donors, in particular, reported that the VHT and the Vanuatu clusters, by providing sectoral focal points, reduced the tendency of donors to work without sufficient consultation with the rest of the system. The same impacts could be envisaged concerning the private sector, if it were better integrated into the system.



The VHT and the Vanuatu clusters have direct impact on Government–non-government, Cross-sectoral Networking by supporting the development and dissemination of information and expertise among the humanitarian stakeholders, and supervising coordination at both intra- and inter-sector levels. Above all, the VHT has shown a significant capacity to link the national level with the provincial governments and civil society. Indeed, one of the main priorities of the VHT is to facilitate the engagement of local staff in training and mobilisation of communities in preparedness activities. Thanks to a wide recognition of the VHT achieving more effective disaster governance, and more particularly concerning the development of cross-level connectivity, several respondents (from French Red Cross, Salvation Army, UNDP and Ministry of Agriculture) reported to an increasing willingness to get involved in the VHT, despite their previous tendency to see more efficiency in solitary work.

Respondents also emphasised the crucial achievements of the VHT in promoting the needs of certain sectors in the discussion, and more particularly in stimulating discussion around gender protection. For instance, the network promoted the involvement of women in assessment teams, which helped to have a more accurate set of statistics on needs in the communities. Similar efforts are being discussed for persons with disabilities. Gender and disabilities protection remain challenging sectors.

In 2012, Cyclone Jasmine was the first cyclone to which response was jointly led by the NDMO and the VHT. According to government and non-government respondents, compared to previous events, response to Cyclone Jasmine highlighted the significant potential of the VHT, such as:

- Promoting joint preparedness activities across levels, types of stakeholders and hazards appropriate to the vulnerability context, for instance, simulation exercises of volcanic eruption in Tanna Island where Mount Yasur is a serious threat;
- Setting clear distribution of roles and responsibilities before, during and after a disaster;
- Motivating inclusive cooperation;
- Supporting response in a better timely and coordinated manner;
- Better linking government agencies, NGOs, civil society and donors continuously;
- Integrating women in assessment teams;
- Facilitating communication between ground actors and donors.

In summary, through a more integrated and inclusive coordination system, the VHT and Vanuatu clusters facilitate coordination, transparency and accountability of requested and delivered aid. Furthermore, the open-ended nature of the VHT and Vanuatu clusters, contrary to the international cluster approach, have real potential in linking DM, DRR and SD, through continuous capacity-building.

However, the former VHT national coordinator recognised that a key remaining challenge encountered by the network is the lack of an effective approach for the transition between response and recovery across the Vanuatu clusters. Furthermore, despite an apparent and recognised impact of the VHT on more effective disaster governance, Cyclone Pam highlighted remaining challenges met by the VHT to address major disasters (section 10.2.4.c).

### **3.2.3. A non-government umbrella network for more collaborative work to address climate risks**

#### ***3.2.3.a. Establishment of the Vanuatu Climate Action Network***

For many years, numerous local, national, regional and international stakeholders have been working on CCA in Vanuatu, whether on specific climate change projects or on climate change components of projects focused on disaster risks or SD, without cooperating with each other. The Vanuatu Climate Action Network (VCAN) coordinator reported that prior to the establishment of the network, information, knowledge and resources were not shared, which was leading to duplications and gaps. Similar issues had already been reported in the international and regional climate change communities, leading to the establishment of an international Climate Action Network (CAN), a regional network, the Climate Action Network Pacific Islands (PICAN), as well as national units (Tuvalu, Kiribati, the Cook Islands and Niue). Late 2012, the Vanuatu Climate Adaptation Network (renamed Vanuatu Climate Action Network in 2014) was then established based on international and regional expertise and lessons-learned.

#### ***3.2.3.b. A structure based on Government-non-government, Cross-sectoral Networking***

The establishment of such a national unit aimed to better structure cooperation on climate change initiatives and projects across levels. The VCAN is strongly recognised for effectively bringing together international, regional, national and local NGOs involved in climate change resilience-building projects in Vanuatu, and helping them to link with related government agencies.

The VCAN has a non-government coordinator and secretariat (Oxfam), supervising VCAN meetings, newsletters and email listings. Membership and meetings are open to everyone on request, and decisions on the network activities are made by consensus after consultation and feedback of the network members. Although current members are predominantly non-government stakeholders, there is an active linking process with related government agencies. The VCAN counts around 20 regular members, all participating in the development of the network annual plan to ensure the development of an integrated and inclusive approach appropriate to the specific context.

The VCAN has close linkages with the NAB and VHT. VCAN representatives sit within the NAB and VHT committees; complementary, NAB and VHT representatives sit within the VCAN

committee. Furthermore, numerous VCAN members are also members of the VHT and/or NAB. These interlinked structures allow non-government VCAN members to pass information and project proposals to the highest level of decision-making of the Ministry for Climate Change, Meteorology, Geo-Hazards, Environment, Energy and Disaster Management (referred to as Ministry for Climate Change) and other related Ministries.

### ***3.2.3.c. A support for Government-non-government, Cross-sectoral resilience-building***

The main goal of the VCAN is to facilitate cooperation towards resilience-building of communities exposed to climate-related challenges in Vanuatu. The VCAN members reported that the network plays a concrete role in resilience-building to climate change, but also to all hazards, participating in general SD, through the development of adaptive capacities, more efficient and consultative decision-making, and more appropriate policy development. To achieve these objectives, the VCAN facilitates coordination, information and knowledge sharing, as well as lesson learning and good practice development between the non-government and government stakeholders. The VCAN continuously supports the development of common tools, resources and technical advice sharing between the network members, as well as a more systematic consultation of the civil society with project development and implementation.

The slow, and yet increasing involvement of government stakeholders in the VCAN has significantly supported the inclusiveness process. The VCAN facilitates communication and cooperation between NGOs, the NAB, its Project Management Unit and donors on climate change matters, as well as academics by organising inclusive learning events for all members, for instance, guest presentation on research on the impacts of climate change. Respondents recognised the key role played by the VCAN in increasing awareness of the whole climate change system, concerning for instance, the role and responsibility distribution for climate change resilience-building, the diverse approaches and methods addressing climate change matters, impacts of climate change on their environment.

Similar to the VHT, the VCAN raised opportunities for inclusive cooperation; non-government members particularly realised the potential for collaboration with government agencies to counterbalance the competition for funding between NGOs. Furthermore, several non-government stakeholders found that before the VCAN, government stakeholders had little and sometimes erroneous awareness of roles and mechanisms of NGOs. The VCAN has also significantly increased government and non-government general awareness of the potential and outcomes of inclusive networking.

Beside a clear role in inclusiveness, the VCAN also plays a vital role in building an integrated approach to resilience, focusing on increasing understanding of the different dimensions related to climate change (monitoring, adaptation, mitigation), and their links with all sectors. The VCAN

works on bringing together all sectors working on projects and programs related to these dimensions, and supports a better national consensus on terminologies, concepts, visions and approaches. The VCAN also aims to ensure that all sectors and their specific needs are better considered in the development of national plans and policies related to climate change. Respondents from the agriculture, environment, health and gender sectors recognised the significant role of the VCAN in the process of mainstreaming climate change priorities into their lines of work more appropriately, and vice versa.

The VCAN is a younger network than the VHT, and has not yet been able to tie as well with other national and local entities. Its credibility and legitimacy with the respondents, however, seemed equally strong in its potential to influence Government–non-government, Cross-sectoral Networking, as well as to motivate climate change discussions between satellite networks and influence high level of decision-making.

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### **3.3. A profuse set of networks**

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#### **3.3.1. A mix of networks with individual objectives towards a consensus goal**

The three umbrella networks are complemented by 51 networks involved in different dimensions of resilience-building, for instance certain sectors, certain phases or certain groups. These 54 networks facilitate cooperation within the Vanuatu-Networked-System around their own sector of expertise (individual objectives), participating in the overriding goal of building resilience to hazards (consensus goal).

Consensus means that all members of the network have the same goal and agree on the process to achieve it. The consensus needs to transcend all levels of the network to build a sustainable system. Shared values are indeed a main driver of collaboration and network development (Kapucu, 2006a). They enable more agreement on the operational process and can prevent conflicts. Shared values and common goals are major collaborative drivers in the provision of services (Kapucu, 2006a; Provan and Kenis, 2007; Klijn et al., 2010; Vasavada, 2013). However, a decision to commit to a network relies on the potential for individuals to achieve their goal through cooperative actions within networked systems compared to the competitive market-approach. Hence, network members weigh up the potential impacts of networking on the achievements of their specific goal and values before and during their involvement, compared to solitary work. In the case of emergencies, for example, sharing the value of protection, emergency managers can consider inter-organisational collaboration as a significant asset to utilise existing capital (Kapucu, 2006b) and deliver services to communities more effectively (Kapucu, 2006a).

They may then let better-equipped actors operate, although this will decrease their visibility and action field, and thus potentially self-interest.

Furthermore, although network members share an overriding goal, they remain independent organisations with their own specific goals and objectives that can be numerous, multiple, varied and inconsistent (Klijn et al., 2010). Therefore, the differences in consistency and adequacy between the network overriding goal and individual goals, values and objectives are key determinants in the decision to participate in the network (Perkin and Court, 2005; Nolte et al., 2012). Hence, shared and consensual goals should be developed following a continuous and cooperative bottom-up-top-down consultative approach, and be endorsed by all levels. Consensus on a goal does not automatically address the challenge of integration of organisations that share this goal but are structurally and culturally different. Moreover, organisations' approach to a common problem may vary depending on their type (Kapucu and Garayev, 2011). Mismanagement of these differences may result in a weakening of cooperation.

Therefore, consensus does not always result in cooperation; actors need to understand and assess complementarity between 1) the positive impacts of collaboration on the achievement of that shared goal (such as no duplication of operations or waste of resources) and 2) the cost of networking for their organisation. Individual objectives (and related self-interests) are the root of willingness for actors to join a network; members wish to increase their access to resources and to facilitate the dissemination of their own resources, while reducing competition.

Reflecting on the balance between shared consensual goals and individual objectives and self-interest, respondents highlighted the key impact of their active involvement in the sectoral networks existing within the Vanuatu-Networked-System. For all respondents, getting involved in one or several of the 54 sectoral networks attests to their commitment to the overriding goal of resilience-building. However, the choice of the networks in which they interacted was strongly motivated by their individual self-interest and individual objectives (whether personal or of their organisations). Being part of a network based on its sectoral embeddedness allowed the respondents to reinforce their specialised networking capital within their own sector or interest, while developing the transferability of this capital outside of the related sector through the rest of the system. Respondents also highlighted the key value of the Vanuatu-Networked-System as a whole, and its composite networks, in building a certain flexibility addressing the fluctuating expertise needs for resilience-building.

### **3.3.2. A wide coverage of sectors propitious to building resilience to hazards**

Following is a classification of the 51 satellite sectoral networks into themes of interest. This classification only serves the purpose of understanding the different sectoral dimensions covered

by the process of networking, and does not reflect a strict separation of the networks into formal subgroups.

Satellite networks focused on the management of geological and hydro-meteorological hazards:

- Vanuatu Rainfall Network
- Cooperative tsunami warning systems for Vanuatu and New Caledonia
- Melanesian Volcano Network (MVN)
- National Seismic and Volcanic Monitoring Network

Satellite networks focused on matters related to climate change hazards:

- Vanuatu NGO Climate Change Adaptation Consortium
- 350 Vanuatu
- National Youth Symposium on Climate Change
- Vanuatu Environment Advocacy Network (VEAN)
- National REDD Technical Committee
- COP working group
- Development Partners for Climate Change
- Asia Pacific Adaptation Network (APAN)
- Cities and Climate Change Initiatives for Asia Pacific
- Pacific Climate Change Roundtable
- Climate Action Network Pacific Islands (PICAN)

Satellite networks focused on Disaster Management:

- National Disaster and Climate Change Committee
- National Disaster Recovery Committee
- Provincial Disaster and Climate Change Committees (referred to as Provincial Disaster Committees in this thesis) (PDCs)
- Area Council Disaster and Climate Change Committees
- Municipal Disaster and Climate Change Committees
- Community Disaster and Climate Change Committees (referred to as Community Disaster Committees in this thesis) (CDCs)
- Vanuatu Health Cluster)
- Vanuatu Logistics Cluster
- Vanuatu Food Security and Agriculture Cluster (FSAC)
- Vanuatu Water, Sanitation and Hygiene (WASH) Cluster
- Vanuatu Education Cluster
- Vanuatu Gender and Protection Cluster (GPC)
- Vanuatu Shelter Cluster

- Pacific Humanitarian Team (PHT)
- FRANZ agreement (agreement between France, Australia and new Zealand)
- Pacific Disaster Risk Management Partnership Network

Satellite networks focused on people in situations of vulnerability:

- Vanuatu Civil Society Disability Network
- Vanuatu Youth Livelihoods Network
- Gender Partner Group
- Education Partner Group

Satellite networks focused on facilitating the development of more effective and appropriate programs, projects and activities related to building resilience to hazards:

- Community-based Disaster Risk Reduction Standardisation working group
- Traditional Knowledge working group
- Climate Change and Disaster Risk Reduction working group
- Seeds and Tools working group
- Fruit and Vegetable Association
- Livestock Industry Group
- Pacific Local Government Association
- Pacific Solution Exchange
- Small Aid Donor Committee
- Thursday Non-Government Organisations Kava
- Vanuatu Association of Non-Government Organisations (VANGO)
- Vanuatu Christian Council (and related COP working group)
- Program Quality Network
- Alliance of Small Islands States
- Australian Volunteers Network
- Vatu Mauri Consortium

The extensive co-existence of the 54 networks and their diversity represent significant governance capital. As a whole set, not only the different topical dimensions of resilience-building are covered, as illustrated in this section, but their different institutional configurations and systems enable all stakeholders to get involved in the process by offering a set of platforms fitting dissimilar types, levels, sizes and leadership styles as seen in the next section.

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### **3.4. A diversity in institutional characteristics supporting flexibility**

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#### **3.4.1. Diverse membership configurations**

One of the main structural components of a network that fundamentally strengthens or weakens network effectiveness and efficiency is the configuration of members. The network membership configuration determines the availability of resources and capacities, individually and collectively, to operate and collaborate, as well as their interconnectivity, which eventually affects the potential of the network (Kapucu et al., 2010a). Therefore, the development of the network configuration (size, type, sectoral embeddedness, and nature of ties) is a key question to be addressed to assess the individual and collective potential of a network on its own, and within the Vanuatu-Networked-System. The special feature of the Vanuatu-Networked-System is its set of significantly heterogeneous networks, supporting a certain flexibility in the involvement of individuals given their own evolution in size, availability and position, as well as given the specific needs at a specific time. For instance, the system can simultaneously address the need for a restraint discussion within a specialised small group for the development of specific food security project at the local level, and the need for a holistic consultation for the development of an overriding resilience-building program at the regional level.

##### ***3.4.1.a. Diversity in the type of members***

The main difference between all these networks concerns the type of membership promoted by each group. The types of the members will have a critical impact on collaboration (Nolte et al., 2012), given that the appropriateness of the human, technical and financial resources to the operations may determine the success of the operations (Kapucu et al., 2010a). DM is especially concerned about the need for specific resources to be deployed in a timely manner and appropriate to a certain time and to a specific local context despite the inherent high level of stress. In such a situation, the configuration of the network members determines the potential for decision-making in a timely and appropriate manner to address the specific local context (Kapucu, 2009; Kapucu and Garayev, 2014).

The configuration of the network members is also a key element in the policy process to ensure that resources are allocated efficiently and effectively, and that discussions will find an echo into the practice level. Both the type and the size of the members significantly influence leadership, for example, large and public organisations have a higher predisposition for assuming leading roles (Nolte et al., 2012). However, to ensure the commitment of all members, network strategies have to promote equality-building depending on an effective and relatively accurate representation of government/non-government and small/large organisations.

The empowerment of small non-government stakeholders as a group is a particular objective of several networks (e.g. VCAN, Vanuatu Christian Council or the Seeds and Tools working group).



A key example is the Vanuatu Association of NGOs (VANGO), established in 1991, which currently counts around 45 NGO members and covers more than 90 affiliated civil society groups. In 2004, VANGO and the Government signed a Memorandum of Understanding, under which VANGO members receive technical support to access donor funding, such as the European Union Non State Actors program (UN, 2010). Considered as spokesman of a large number of local NGOs, and as a major link between the national, provincial and local levels, VANGO is recognised as a great asset for government/non-government cooperation, and for raising the voice of small local associations. However, VANGO has lost influence in the last decade due to deficiencies in leadership and commitment to cooperative initiatives. Based on the IDRL report (IFRC, 2012), the position of VANGO became highly precarious mostly because of the lack of assisting funds. After receiving support from the New Zealand Aid program, VANGO was hoping to regain its influence and credibility as a coordinator of NGO and as an intermediary between NGOs and the NDMO (IFRC, 2012). However, most respondents reported that the establishment of the VHT and VCAN critically undermined the influence of VANGO. Indeed, through their active role with the entirety non-government and government consortiums, networks, committees and working groups, the VHT, and even more consequently, the VCAN, overshadowed the role of VANGO in bringing NGOs together, and linking non-government and government stakeholders. To address these challenges, VANGO is working on reinforcing its leadership with a new roadmap focusing on good governance and collaboration. Several respondents (both government and non-government) questioned the real relevance for VANGO to remain active given that the other networks are more specialised and visible at the national and regional level (and thus may attract more funds). However, the potential disappearance of VANGO was particularly feared by respondents from local associations. Also, VANGO is still widely recognised for its particular potential in accessing the local level of governance, hence, to date no official discussion on its dissolution has taken place. This raises, however, the central question for all networks of the lack of institutional sustainability in Vanuatu, where ad-hoc systems are continually established for each new challenge instead of empowering existing structures (section 4.5 questions this risk of fracture).

Furthermore, VANGO, along with other key networks and organisations, supports the Vatu Mauri Consortium, which is a recently established network representing major civil groups (women, youth, chiefs and faith based organisations). The Vatu Mauri consortium supports the strategic involvement of civil society, and collaboration between several networks and organisations focused on community resilience-building, such as the Vatu Mauri Council of Chiefs or VEAN. The Vatu Mauri Consortium works on facilitating the access of local organisations to development funds targeting micro-projects based on the experience of communities and associations, by empowering civil society to act as leaders in resilience-building. Government

agencies, and more particularly the NAB, recognise the exceptional value of a forum such as the Vatu Mauri Consortium to better connect with the decentralised levels.

Likewise, the Vanuatu Christian Council is also recognised by the Government for its potential in linking with civil society. The Vanuatu Christian Council brings together seven churches present in the country: the Presbyterian Church, the Catholic Church, the Church of Christ, the Apostolic Church, the Anglican Church, the Assemblies of God, and the Seventh Day Adventist. By networking through the Vanuatu Christian Council, the churches acquire a central leading place in integrating civil society into the decision-making and decision-implementation processes (section 5.3.4). Due to their strong local non-government membership, these networks became focal points for other networks (e.g. NAB), donors (e.g. UNDP) and key organisations (e.g. Ministry of Justice) to connect with small associations, isolated areas or marginalised civil society groups.

Likewise, several networks predominantly target inclusiveness of civil members to connect their knowledge and understanding with the decision-making level. The Vanuatu Rainfall Network, for instance, is a national network, coordinated through the VMGD, actively engaging communities in rainfall monitoring throughout Vanuatu (more than 80 rainfall gauges were installed across the archipelago). The direct engagement of local communities was motivated by the desire of the Vanuatu Meteorology Services to have the most accurate and updated information on rainfall data possible (Shing, 2012). This initiative has a significant positive impact on resilience-building as, along with community leaders, it involves civil groups often considered more vulnerable to hazards (women, widows and youth). Going beyond empowerment in decision-making, this network conducts useful training and brings new sources of remuneration, positively affecting the resilience of the parties involved. The Vanuatu Rainfall Network closely works with the VCAN to implement coordinated activities, and disseminate more consistent information within the communities. Government respondents recognised the key role of the Vanuatu Rainfall Network in civil empowerment, through collaborative, low-cost, community-based projects in building a reliable climate database (Malsale and Thompson, 2014).

The Program Quality Network is also recognised for its impact on the empowerment and better involvement of civil society. The Program Quality Network is one of the three networks established within the Governance, Leadership and Accountability Program supported by Oxfam. The Program Quality Network brings together a wide range of members: INGOs (such as CARE international), local NGOs (such as Youth Challenge Vanuatu), government agencies (such as the Ministry of Health), faith-based associations (such as Vanuatu Church Partnership Program), and independent consultants (Oxfam, 2013). The responsibility to organise meetings rotates between members, which not only distributes resource investments but also helps to develop a feeling of ownership among all members.

The inclusion of vulnerable groups occurs in several networks, reflected by, and reflecting the general increasing integration of people in situations of vulnerability in projects related to disasters and climate change. Women's and youth groups are starting to be recognised as potential powerful actors instead of victims only. The Gender Partner Group coordinates initiatives targeting women's empowerment across all provinces. Likewise, the Vanuatu Youth Livelihoods Network, along with other youth empowerment networks builds capacities of young people to become engaged in the decision-making process.

Awareness of the need to integrate issues associated with disabilities in policies and plans is increasing; but, due to limited human resources and capacities, the process remains slow and the implementation lacking. The Climate Change-focused networks particularly work on inclusiveness and capacity-building of youth to take part in project development and implementation at the national level, and to represent the country at the international level, such as the 350 Vanuatu, the National Youth Symposium on Climate Change or the Development Partners for Climate Change. Likewise, the COP working group strengthened capacities of various civil group representatives (such as youth or women) to be Vanuatu delegates at United Nations Climate Conference in December 2015 in Paris. Increasing civil leadership is further discussed more in-depth in section 5.3.4.

Furthermore, a key asset of the Vanuatu-Networked-System is the existence of networks supporting information sharing and coordination between donors. Local respondents often considered the "big donors" (such as the World Bank or UNDP) as entities more preoccupied by short-term value-for-money than by long-term resilience-building potential. In general, donors were considered as network members with whom relationships were limited to project timeframes, and with whom it was difficult to network. An expatriate<sup>14</sup> reported his feelings about the general reluctance of donors to share information and coordinate between each other, as well as being transparent and accountable to aid recipients and NGOs. To address these issues, sectoral networks were established in Vanuatu for the specific purpose of donor cooperation. For instance, the Small Aid Donor Committee meets monthly to continually map donor projects and share information. The main goal of this committee is to limit funding overlaps and activity duplications. Many respondents (from government agencies, NGOs and donors) acclaimed this committee for its capabilities to address collaboration and coordination difficulties between donors due to diverse individual interests and agendas. Despite a recognised potential, several respondents deplored the lack of commitment of members to committee meetings. Hence, several government and non-government respondents highlighted the need to find mechanisms to

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<sup>14</sup> For the purpose of clarity, short-term foreign actors working in Vanuatu only in the frame of response to and early recovery from Cyclone Pam are referred to as 'internationals', to distinguish them from the long-term foreign actors working and living in Vanuatu in routine times referred to as 'expatriates'.

capitalise on the network outcomes. Respondents also questioned whether it should evolve into a more binding forum for donors. Likewise, Development Partners for Climate Change is an informal network initiated in Fiji that several Ni-Vanuatu respondents regularly followed to better understand the possible information sharing pathways between donors.

Another achievement of the Vanuatu-Networked-System of Vanuatu is the integration of networks focused on the optimal use of the potential of the private sector. Three networks particularly play a crucial role in the inclusiveness and cooperation of private stakeholders in SD efforts: the Seeds and Tools working group, the Fruit and Vegetable Association and the Livestock Industry Group. Activities conducted by these networks aim to support Vanuatu biosecurity, for instance, advising decision-makers to prevent the dissemination of animal and plant disease, as well as to protect the national market, for instance, cooperating to be more competitive and limit the intrusion of foreign businesses. These networks showed key capacities to address emergency needs as a group during the response to Cyclone Pam (section 8.5.1).

#### ***3.4.1.b. Diversity in the level of coverage***

Disaster governance in Vanuatu is strongly facilitated by an established set of decentralised committees for climate change and disaster risk decision-making and project implementation; hence, complementary to the National Disaster Committee, similar committees were implemented at the community, provincial, area council and municipal levels. These networks play a vital role in effective governance for disaster preparedness, response and recovery phases (sections 5.3.2.b, 5.3.3.b, 5.3.4.a and 10.3.3.c).

Conversely, several networks aim to act at, and benefit from, the regional and international levels, while increasing the visibility of local and national capacities. These networks therefore have a supranational membership approach. The particular influence of international and regional agendas for CCA is very strong in Vanuatu, leading to the establishment of national satellites of regional and international climate change networks. Hence, respondents witnessed their active and beneficial involvement in Pacific collaborative institutions (Pacific Climate Change Roundtable, Asia Pacific Adaptive Network, Cities and Climate Change Initiatives for Asia Pacific). Furthermore, several Vanuatu climate change networks were developed based on regional and international networks:

- VCAN based on PICAN and CAN;
- 350 Vanuatu based on 350 Pacific and 350.org;
- Vanuatu REDD Technical Committee based on the REDD Partnership;
- VEAN based on the Pacific Environmental Advocacy Network.

Likewise, respondents highlighted the value of the National Tsunami Warning Centre for local and national threats, as well as the Pacific Tsunami Warning Centre and the Cooperative Tsunami

Warning Systems for Vanuatu and New Caledonia for broader risks. For more than 10 years, the VMGD has been cooperating with the New Caledonian Institute of Research and Development (Institut de Recherches et Développement – IRD) to develop common tools to share information and knowledge, on subjects such as earthquake monitoring, warnings and response (SPC, 2011).

Vanuatu is also part of several other Pacific networks on hazard monitoring and early warning systems, such as the Melanesian Volcano Network (MVN). Vanuatu hosted the 2012 workshop for the Melanesian Volcano Network bringing the Solomon Islands, Papua New Guinea and Vanuatu. The MVN is a formal network with a strategic plan prioritising the development of:

- collaborative pathways between the NDMO, donors, NGOs and community-based organisations;
- data sharing tools (e.g. ORSNET for seismic data) to build extensive regional and national databases;
- common risk awareness and understanding;
- a regional framework for early warning systems;
- a regional agreement on the legal distribution of roles and responsibilities across levels and hazards;
- a common approach on community preparedness and capacity-building (Yates, 2014).

The MVN also develops the capabilities of its members by promoting South-South collaboration, such as with the Caribbean, and cooperation with recurrent partner countries, such as Australia (Yates, 2014). These last networks are essential to resilience-building in Vanuatu as they ensure that climate change preoccupations do not overshadow priorities related to non-climate hazards (e.g. volcanic eruptions) that remain serious threats, and key components of the general resilience-building process in Vanuatu.

Furthermore, a set of central networks in the whole disaster system is the Vanuatu clusters, inspired by the international cluster approach. As seen above (section 3.2.2), the Vanuatu clusters are coordinated by the VHT for more effective disaster aid using the local and national capacities. These networks are a loose adaptation of the international and regional clusters that organise and lead disaster preparedness and response by sector. This system aims to avoid duplications and gaps in service delivery, and promote coordination between all humanitarian organisations. Eleven international cluster categories exist (WASH, Education, Early Recovery, Emergency Telecommunication, Food Security, Protection, Health, Camp Management and Coordination, Emergency Shelter, Nutrition, Logistics), and may be mobilised in an emergency, depending on the specific needs of the disaster, until the end of the emergency period. The Vanuatu clusters play a key role in Government–non-government, Cross-sectoral Networking across levels; indeed, like the international cluster clusters, they enforce all local, national, regional and international experts to be involved in intra- and inter-cluster discussions. However, contrary to

the international clusters, the Vanuatu clusters remain active permanently, and significantly act in long-term resilience-building. Furthermore, in routine times, the clusters' membership also greatly benefits the Vanuatu-Networked-System, through a strong inclusiveness (government and non-government, from international consultants to civil society groups), as well as key complementarity between sectoral fragmentation (for expertise capitalisation) and integration (for effective coordination). Respondents affirmed that the Vanuatu clusters are essential proactive platforms for organisations to access an inclusive and integrated list of potential collaborators, and to develop more holistic projects. The impacts of the clusters as proactive networks for effective DM are the centre of attention of chapters 8, 9 and 10.

#### ***3.4.1.c. Diversity in sizes***

Finally, the size of the members and of the networks also has a significant impact on collaboration, as it affects the amount of information, resources and ties that can support the networking process and outcomes (Provan and Kenis, 2007; Bodin and Crona, 2009; O'Brien, 2010; Nolte et al., 2012; Vasavada, 2013). The 54 networks are of significantly different sizes, some of them having hundreds of members, such as the Australian Volunteer Network, and others having only a handful of participants, such as the Small Aid Donor Committee. Most networks are open venues, welcoming the application of any relevant stakeholder as well as inviting non-members to participate in meetings. This openness aims to broaden the perspective of the members on the Vanuatu-Networked-System, as well as to expand the coverage of the network, and increase the amount of available resources. This is crucial to effective resilience-building as having sufficient resources is a condition for operations success. Some of the smallest networks particularly suffer from a lack of resources to organise their own networking activities, such as the Gender Partner Group. Belonging to the Vanuatu-Networked-System is then a crucial asset for these small units to close gaps by benefiting from formal and informal resource sharing pathways through their members who belong in bigger networks, such as stakeholders who are members of the VHT and the Gender Partner Group.

Likewise, certain networks significantly benefit from the level of influence of their members within the Vanuatu-Networked-System. Indeed, several respondents highlighted that certain networks strongly rely on a small part of their members who bring in significant amounts of networking capital and crucial visibility, such as the Vanuatu NGO Climate Change Adaptation Consortium composed of the main NGOs present in Vanuatu.

While the size increase of a network and/or of its members is linear, the networking capital increase is exponential, which raises the expectation of a better-resourced network to conduct activities. However, tension occurs when the amount of available resources exceed the capacities to manage them. Indeed, when the number of actors included in the network increases, more time and resources will be allocated from each member to maintain relationships, until members are

overwhelmed or discouraged by the amount of resources to be invested in the process compared to the amount of resources directly invested in the outcomes (Provan and Kenis, 2007). Similarly, several local network representatives highlighted the desire to remain small platforms to maintain a certain flexibility and trusting relationships between members (e.g. decentralised Disaster Committees or the Vanuatu Civil Society Disability Network) or to ensure effective discussion and work with a restricted number of participants (e.g. the Quality Program Network or the Community-based Disaster Risk Reduction Standardisation working group).

The size of the network also determines the communication mechanisms that need to be put in place. As more actors are involved in the network, the more complex and confused information flows and communication becomes; network effectiveness may then reduce (Bodin and Crona, 2009; Kapucu et al., 2010a).

### **3.4.2. Diverse leadership types**

The different challenges potentially encountered within a network, such as the ones highlighted above, are to be addressed through effective network leadership and coordination. Leadership in a network may be of different forms (composed of single or compound of actors, self-appointed or nominated) but equally requires the development of mechanisms addressing the functional challenges inherent in collaborative systems. Provan and Kenis (2007) identified three forms of institutionalised networked governance based on leadership:

- The “participant-governed networks” (Provan and Kenis, 2007, p.234), which are led by all the network members themselves as a group
- The “lead organisation-governed networks” (Provan and Kenis, 2007, p.235), which have identified and nominated a member who is the best equipped to lead the collaboration;
- The networks with a “network administrative organisation” (Provan and Kenis, 2007, p.236), which have created an ad-hoc administrative unit to lead the collaboration between networks members.

The three types of networked governance structures are represented in the whole Vanuatu system. For instance, the Program Quality Network, Small Aid Donor or Thursday NGO Kava are participant-governed networks; the VHT, VCAN, Vanuatu clusters or Vanuatu NGO Climate Change Adaptation Consortium are lead organisation-governed networks; and the NAB, VANGO or Vanuatu Christian Council are led by a network administrative organisation. The functional components of a network, such as trust, commitment, goals and consensus, have a significant impact on the choice of the form of network.

In the participant-governed networks, the levels of trust and mutual commitment must be very high to ensure the sustainability of the networks. Conversely, in cases where the level of trust is low, and the fear of lack of mutual and reciprocal commitment is high, a more centralised form is

needed (Provan and Kenis, 2007; Nolte et al., 2012). For instance, a NAB representative highlighted the relative reluctance of the vast number of stakeholders involved in projects related to climate change and disaster risks to invest resources in the NAB monitoring processes. Therefore, it was crucial for the network to have a central mechanism of control to supervise the whole system.

The homogeneity, or heterogeneity, of the goals also determines the inclination for a certain form of networked governance. If individual goals do not differ significantly from each other and from the shared goal, a participant-governed network can be effective. For instance, the FRANZ agreement adopted a system of rotating leadership, so the coordination responsibility and cost lie with all participants. If networks, such as the clusters, were established around the coexistence of a homogeneous goal, shared objectives but heterogeneous methods then a “lead-organisation” can help to optimise single activities while ensuring the understanding of the umbrella objective. In the case of heterogeneous individual goals, a centralised leader may be preferred to ensure that no specific goal is achieved to the detriment of others. In the case of a lead organisation-governed network, the risk is for the lead organisation to put forward, consciously or not, its own goals and interests (Dedeurwaerdere, 2005; Provan and Kenis, 2007). For instance, the Vanuatu Civil Society Disability Network and the Vanuatu Youth Livelihoods Network are two networks, established within the Governance, Leadership and Accountability Program and coordinated by Oxfam. This allows these two networks to benefit from Oxfam’s position as the VHT and VCAN coordinator in terms of organisational coverage and networking lessons-learned. However, it also raised the concern that these networks are of benefit to Oxfam, instead of all the network members (section 10.2.4.c).

More centralised leaders can also show advantages for managing complex situations. Kooiman (2003) found that in periods of emergencies, a governance system that is respondent-governed is weak, while a hierarchical and centralised form of governance will be able to better cope with the urgency and uncertainty of the situation. For instance, the PHT is an ad-hoc network, active in countries only in time of emergencies to ensure the most optimal emergency operations.

Moreover, when networks get larger, complexity increases as it involves more ties and parameters to manage. As all members still play an operational role in both the respondent-governed and lead-organisation forms, it will be easier for the network administration organisation to manage larger groups, such as the Alliance of Small Islands States, given that its role within the network is limited to managerial strategies.

The form of leadership of a network can evolve. When participative governance becomes more difficult, for various reasons such as the network becoming larger or commitment is decreasing, the leadership system may become more centralised. For instance, following different difficulties



encountered by the VHT to coordinate the response to Cyclone Pam, many respondents raised the question whether the leadership form of the VHT should be more centralised to benefit from a stronger authority and credibility. Although it is uncommon for a network lead by an administrative organisation to become a less centralised structure (Provan and Kenis, 2007), the investment of leading a network may be too overwhelming and need to be spread more among all members. For instance, observing the difficulties met by the VANGO coordinator to secure the position of the network within the Vanuatu-Networked-System, a NGO representative raised the question whether the different members should be more active in leading the network activities to support the VANGO coordinator. Many respondents highlighted the relative reactive capacities of the different composite of the Vanuatu-Networked-System to develop leadership mechanisms depending on the evolution of needs. The diversity of and interactions between the numerous networks were considered as key enablers of the adaptive capacities of the system.

The 54 sectoral networks presented in this chapter are essential platforms to promote Government–non-government, cross-sectoral cooperation. Through these structures, the cooperation process happens both formally and informally. These formal (mandated) and informal (non-mandated) relationships between the network members compose a dense social networking occurring within and between the sectoral networks. The following chapter considers how individual social networks support Government–non-government, cross-sectoral cooperation by participating in continuous reciprocal impacts between formal and informal relationships.

## CHAPTER 4.

# Social networking: a cooperative process for effective and continuous resilience-building

### 4.1. Introduction

The Vanuatu-Networked-System and more particularly its subgroups (the different sectoral networks), described in the previous chapter, are institutionalised sets of formal and informal relationships between the different network members. The identification and analysis of the patterns of these relationships provide insight into weaknesses and strengths of the individual connections, their sectoral networks and the Vanuatu-Networked-System. Such information is crucial to highlight the existing and potential mechanisms essential to effective strategies for resilience-building. This chapter highlights how strongly social networking contributes to continuous Government–non-government, Cross-sectoral cooperation, and consequently to the development and sustainability of an integrated and inclusive Vanuatu-Networked-System. This chapter analyses the complex dimensions of social networking, which comprise complementary formal and informal relationships between the 260 stakeholders studied in this thesis, within and/or outside the sectoral networks to which they belong. The ties between the different network members are studied through different scopes: between individuals, between organisations and between networks, in order to have a comprehensive knowledge of the different dynamics of social networking. More particularly, a lack of individual commitment to networking may jeopardise the effective of total cooperation effectiveness and initiate a fracture in commitment to the networking process; therefore, the extent of social networking also determines the sustainability of the Vanuatu-Networked-System.

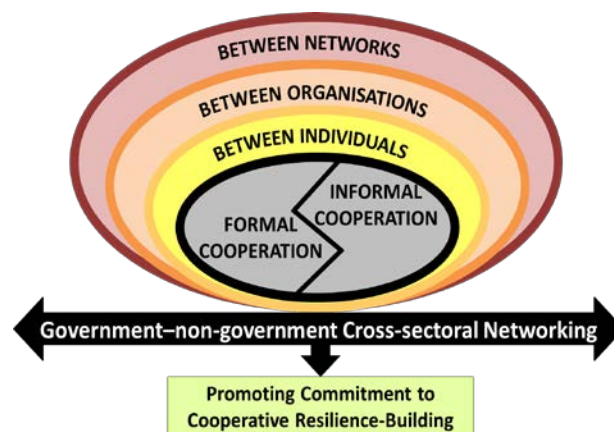


Figure 4.1: A cooperation process propitious to stronger commitment to cooperative resilience-building.

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## 4.2. Social networking or the complementarity of formal and informal relationships

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The co-existence of formal and informal institutions within and between organisations has been the focus of research for many decades (Krackhardt and Stern, 1988; Robins et al., 2011). Juhola and Westerhoff (2011) propose definitions to distinguish formal and informal institutions, formal institutions being the legislation and regulations that control the actions of members, while informal institutions are social guidelines that influence the actions of members. Social Network Analysis (SNA) was recognised as a key method to capture and better utilise the potentially invisible informal networking process (Cross et al., 2002).

Networking capital<sup>15</sup> is introduced here as an enabler of formal and informal collaborative relationships. Informal ties are non-mandated relationships, whether at work or in private life, such as friendship or informal consultancy. Informal relationships are significant pathways for information dissemination, especially in time of emergencies, when communication needs to happen quickly (Kapucu, 2011). Furthermore, informal relationships are highly active at the local level (Perkin and Court, 2005), where the project implementation process often matters more than project results for sustainable outcomes for community development.

Accordingly, the 54 networks in Vanuatu (chapter 3) rely on the continuous and significantly strong informal networking between the 260 stakeholders studied (and presumably a wide amount of unstudied stakeholders), and their impacts on formal cooperation. More than 62% of the respondents (almost 92% of the NGO respondents) spontaneously mentioned the significant role of informal discussions and personal relationships built during face-to-face meetings for their work. Expatriates reported that in general, and more specifically in cultural contexts such as Vanuatu, it is difficult, if not impossible, for two stakeholders to cooperate if they have never met in person before, and built a trusting relationship. An important part of the expatriates surveyed reported for instance, the Thursday NGO Kava as a very useful platform to have more informal discussions with stakeholders they would not meet within the professional sphere and learn about the activities conducted by the numerous NGOs in the country.

The nature of the relationships is a key factor in the choice of collaborators. Almost one quarter of the local respondents named a relative (who is more or less direct family) as a main collaborator. Likewise, several respondents highlighted that expatriate couples are often composed of one partner working for a NGO and the other for another NGO, a government agency, a donor, or a private company. This situation creates more networking pathways for information sharing. A main challenge, however, is that informal sharing of information and

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<sup>15</sup> Reminder: Networking capital consists in individual and collective, tangible and intangible resources available to disaster and climate change stakeholders to develop and maintain cooperative relationships.

experience seems to be slowed down because of the dichotomy between expatriate social networks and Ni-Vanuatu social networks. International volunteers deployed in government agencies reported that networking between Ni-Vanuatu and expatriates happened during official meetings and within project activities, but not for its own benefit outside the project sphere.

Both informal and formal dynamics – relationships, distribution of roles and responsibilities, and practices – are essential for effective decision-making and actions (Krackhardt and Stern, 1988). Although informal and formal relationships are two distinct links between actors, they are often interdependent (Ranson et al., 1980; Robins et al., 2011). Focusing on the policy process, formal structures build common authority orientations and guidelines, while, focusing on policy implementation, informal structures act on a practical level through flexible contacts and communications adapted on the moment of action. Therefore, the combination of formal and informal relationships may address challenges inherent in the rigidity of formal structures on one side and the flexibility of informal structures on the other side. The formal institutions may encounter difficulties in showing adaptiveness and flexibility as required in contexts of disaster and climate change risks, and can benefit from a complementary involvement of social institutions (Juhola and Westerhoff, 2011). On the other hand, the impact of flexible informal relationships is limited if they are not supported by stable premeditated formal authority structures, limiting their concrete impact on formal decision-making (Krackhardt and Stern, 1988; Pahl-Wostl, 2009). This combination facilitates the development of a more comprehensive and inclusive governance system adapted to building resilience to hazards and climate change in complex environments.

Accordingly, recognised as key instruments in building resilience to hazards in Vanuatu, informal relationships rely strongly on institutionalised networks to support the sustainability and effectiveness of their outcomes. As highlighted by Provan and Kenis (2007), informal networks are ad-hoc systems, developed spontaneously, when formal and rigid structures are deficient at the moment of need. The Vanuatu-Networked-System is a complex combination of formal networks created (mandated) to specifically reach a certain goal, formal networks which are the institutionalisation of spontaneously developed informal ties that showed value to achieve a shared goal, and informal networks developed spontaneously with time for a secondary goal and/or as a result of personal interaction. The links between and reciprocal recognition of these different groups are propitious to the adaptiveness and flexibility of the Vanuatu-Network-System to have an optimal use of the entire networking capital existing in the system.

An example of a key network that emerged from the desire to optimise informal cooperation is the Vanuatu NGO Climate Change Adaptation consortium, leading the Vanuatu NGO Climate Change Adaptation program funded by AusAID. The Vanuatu NGO CCA consortium brings together local NGOs and INGOS (such as the Vanuatu Rural Development and Training Centres Association, CARE International or Vanuatu Red Cross – supported by the French Red Cross and

the Red Cross Climate Centre). The main goal of the consortium is to build community resilience, and better integrate lessons-learned in the policy process by facilitating better coordination and information sharing among non-government stakeholders and connections with the government level. The consortium has a holistic approach of capacity-building for climate change, from community engagement, education, and development of standardised messages, to lobbying among national and provincial governments (Maclellan et al., 2012). The consortium focuses on the involvement of all civil group representatives of the society (men, women, boys, girls, persons with disabilities, youth and elderly) in the decision-making process, across levels of governance, using the benefits of long-term informal networking (Maclellan, 2015). The long-term developed inclusive network between the consortium members resulted in the development of a common approach to resilience-building: the Vanuatu Community Resilience Framework (Maclellan, 2015). This framework is a key operational tool for organisations to lead consistent resilience-building among communities, with communities. Respondents particularly credited these successes to:

- 1) the institutionalisation of informal relationships through the consortium, giving more weight and visibility of the network members as a group;
- 2) the capitalisation of long-term informal relationship-building over decades between members before coming together through the consortium, preventing difficulties in the development of networking mechanisms within the network;
- 3) the wide leadership recognition and influence of the consortium coordinator (Oxfam), whose position in other networks across levels and sectors (e.g. Vanuatu Humanitarian Team (VHT), Vanuatu Climate Action Network (VCAN), Program Quality Network) supports continuous formal and informal links across diverse active systems;
- 4) the focus on strong cooperative, integrated and inclusive development of the consortium.

The institutionalised networks acting for disasters and climate change in Vanuatu (chapter 3) facilitate cooperation, information sharing and discussions between their members (binding social capital). Links are also tied between sectors (linking social capital). These linking ties range from very formal (NAB, VHT and VCAN being main channels) to informal (based on individual social capital). In this chapter, the informal cooperation process is examined from the perspective of social networking to understand the characteristics, trends and impacts of long-term, continuous, collaborative pathways between institutionalised networks, organisations and individuals outside the mandated links, stimulating and stimulated by professional cooperation.

### 4.3. Social networking through the institutional perspective

The Vanuatu-Networked-System is characterised by a general strong active networking system involving the key institutions involved in disaster and climate change matters. These links are both mandated formally by the roles and responsibilities of the organisations, and happening informally thanks to long-term building of trust and relationships between network members. Figure 4.2 is a simplified illustration of the key official relationships within the disaster and climate change system in Vanuatu.

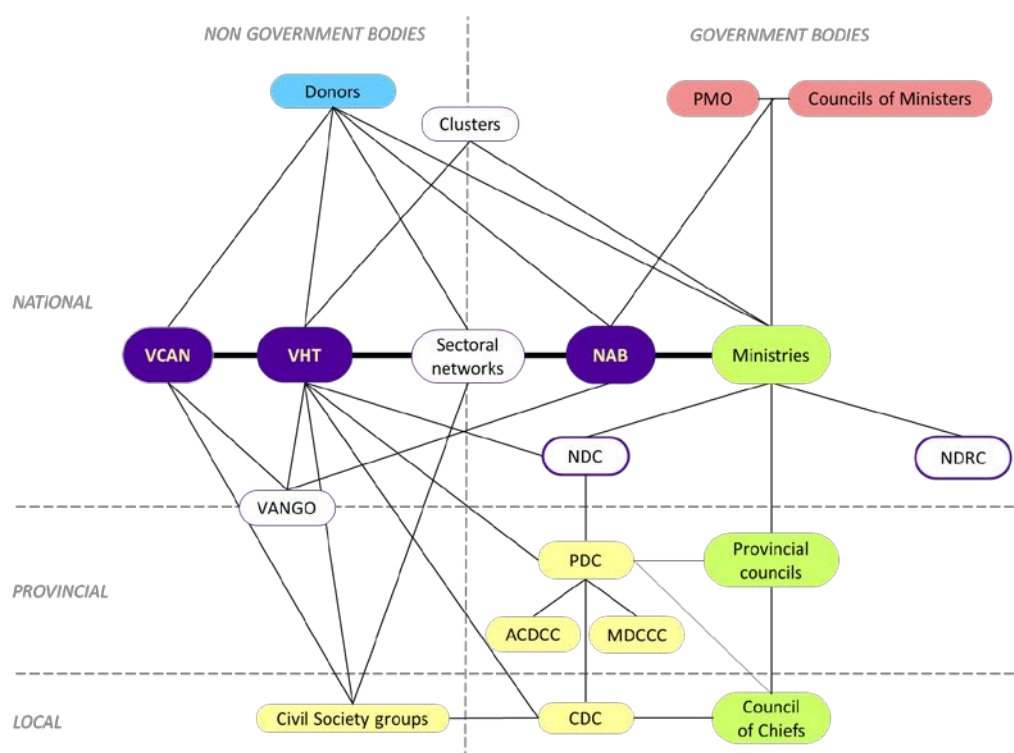


Figure 4.2: Simplified disaster and climate change governance system in Vanuatu.  
Source: adapted from Vachette, 2015b.

As displayed in figure 4.2, the key institutions directly involved in disaster and climate change matters are well interlinked, opening significant pathways for collaboration within the Vanuatu-Networked-System. The VHT and NAB in particular have central positions that link the government and non-government institutions. The specific roles, responsibilities and impacts of these institutions are studied in the following chapters. The policies, plans and mandates of these institutions make cooperation a priority (section 5.2).

The social networking process in the country particularly happens around the three umbrella networks (National Advisory Board on Climate Change and Disaster Risk Reduction – NAB, Vanuatu Humanitarian Team – VHT, and Vanuatu Climate Action Network – VCAN). The umbrella networks work closely together, and can be considered as composing the overarching coordinative body for the rest of the sectoral network, while being able to integrate isolated organisations and individuals involved in climate change and disaster risk matters. These three

platforms were established around the same time (from late 2011 to late 2012) and evolved simultaneously; thus, they were able to build cooperative connections from the start. Representatives of the VHT and VCAN are members of the NAB, and vice versa. Through their representation in the NAB, both the VHT and VCAN can participate in the development of the Ministry for Climate Change, and support the NAB Project Management Unit work by linking appropriate information to NGOs and civil society. Respondents particularly reported the significant role of the VCAN in the increasing involvement of civil society in the NAB decision-making process.

The NAB and its Project Management Unit built a strategic network to support a Government–non-government, Cross-sectoral approach for disaster and climate change work. Inclusiveness is supported by the active participation of Ministries and Departments, international institutions and donors, the VHT and VCAN coordinators, NGOs, Red Cross Societies, community leaders (chiefs, churches) and private sector. The NAB Project Management Unit conducts a strategic approach with close links with decentralised units (with decentralised networks such as Department of Local Authorities, Provincial Disaster Committees – PDCs, Community Disaster Committees – CDCs, community leaders and civil society groups), as well as planning and coordination units (e.g. Department of Strategic Policy, Planning and Aid Coordination, VHT, VCAN or working groups), and all-inclusive datasets (NAB, 2014).

In order to build stronger Government–non-government, Cross-sectoral cooperation utilizing the structures of the umbrella networks, the VHT international coordinator proposed, in mid-2014, to invite a representative of each Vanuatu cluster to the NAB meetings. This had potential to continuously build relationships and facilitate a clearer distribution of responsibilities through the direct involvement of practitioners in the decision-making process. This could have significant positive impact on DM briefing, and on longer-term resilience-building (DRR, CCA and SD).

Along with direct pathways between each other supported by their links with key institutions (figure 4.2), the umbrella sectoral networks benefit from an extended social networking coverage through the participation of their members in other platforms, multiplying the potential of formal and informal cooperation. Indeed, the multiple involvement of network members in different sectoral institutions, and more specifically in some of the 54 networks studied, facilitates the dissemination of networking capital from one network to another, greatly increasing the amount of potential benefits of social networking outcomes. The NAB, VHT and VCAN, given their umbrella capacities, play an essential role in the optimal use of this plethora of networking capital by linking the satellite networks. Figure 4.3 illustrates the potential of collaboration and coordination pathways between networks, and more particularly the central positions of the three umbrella networks to gather, capitalise and disseminate the networking capital existing within the 54 networks.

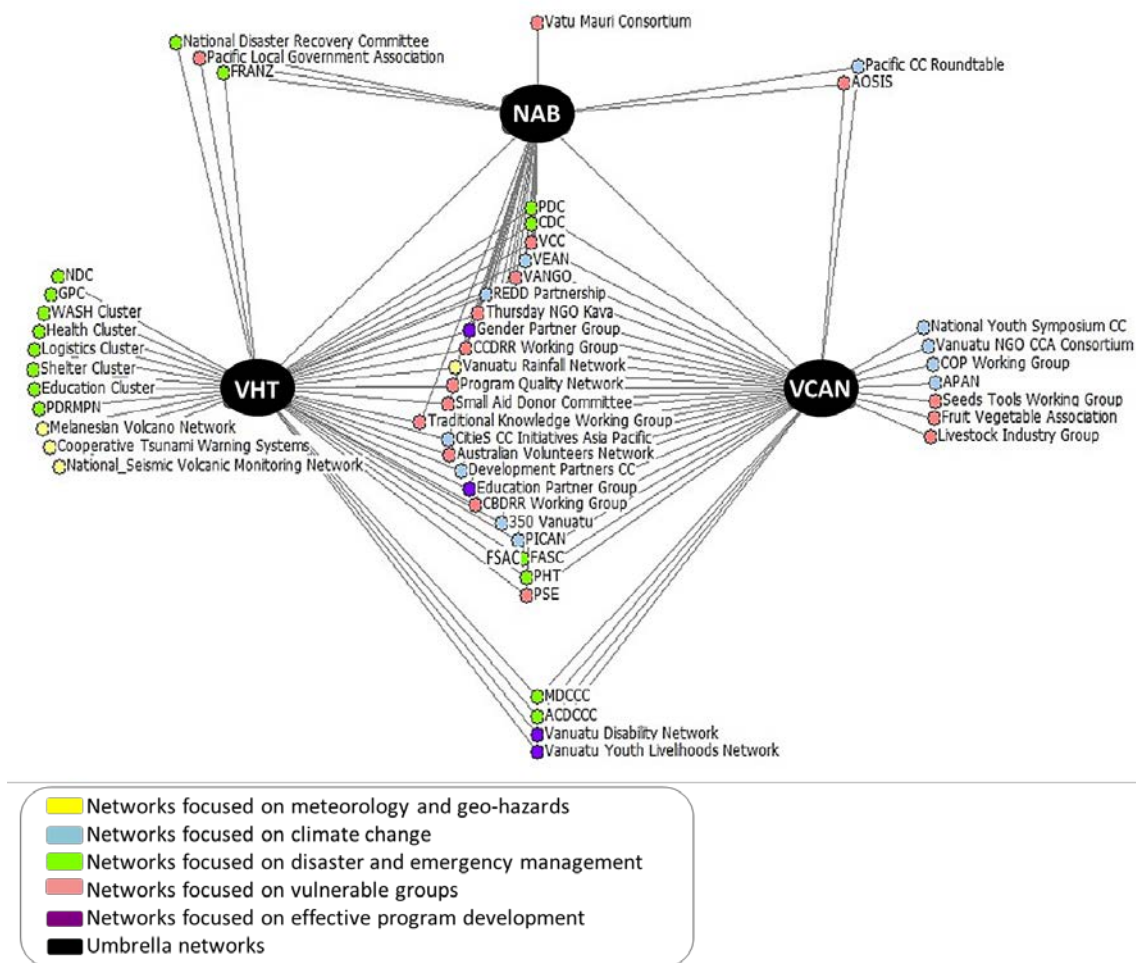


Figure 4.3: The network of networks: social networking through participation of network members in more than one of the 54 networks studied creating exchange ties between the institutions.

As displayed in figure 4.3, the particular linkages between the three umbrella networks and the satellite networks raise opportunities for continuous and wide dissemination of the networking capital existing within the Vanuatu-Networked-System. It also illustrates the potential for the discussions and reflections developed at the level of the small networks to be brought to a strategic level with the strong involvement of the NAB, VHT and VCAN, in policy making, national position building, and program development (see the following chapters).

Many government and non-government respondents considered the VHT as the most settled, recognised and central structure supporting the disaster and climate change networking process in Vanuatu. Figure 4.4 is a simplified illustration of long-term direct cooperative links that the VHT established with other key institutions at the different levels.



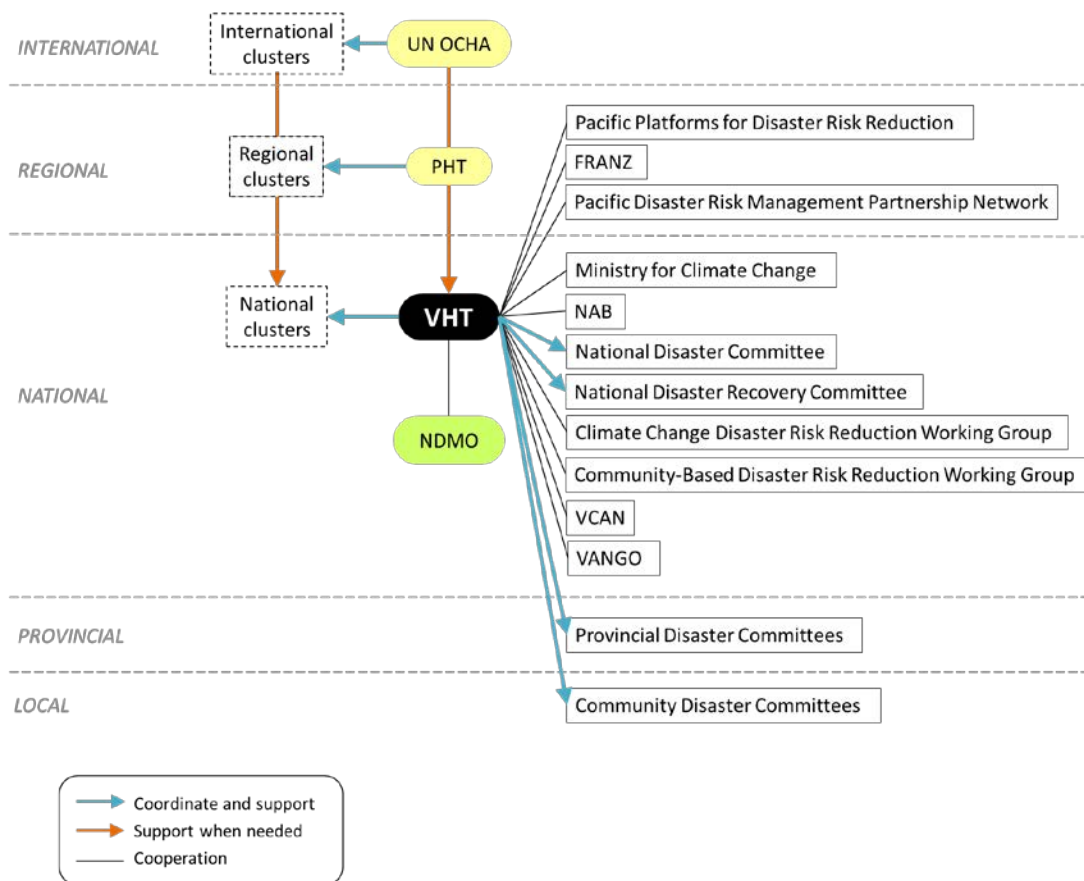


Figure 4.4: VHT-focused simplified networking process.  
Source: adapted from Vachette, 2015b.

As seen earlier (section 3.2.2), the VHT and Vanuatu clusters have direct links with the regional level (Pacific Humanitarian Team–PHT, regional UNOCHA office, and regional clusters), not only during disasters when regional and international aid is requested, but also before disasters for preparedness and planning activities. At the decentralised levels, the VHT focuses specifically on building the capacities of the PDCs and CDCs. At the national level, the VHT is linked to many non-government and government agencies through its members. It has mandated relationships with the National Disaster Management Office (NDMO) with which it co-leads coordination of disaster risk activities. The VHT works closely with several essential networks such as the National Disaster Committee, National Disaster Recovery Committee, key working groups and VCAN. For instance, the VHT is cooperating with the Community-based Disaster Risk Reduction Standardisation working group to standardise the tools used to develop the CDCs. Each of these networks has its own members and networks, which extends the social networking potential of the VHT. The emergence of the VHT contributed greatly to the development of credibility and legitimacy of the whole disaster governance system in the country (Gero et al., 2013) (Although, the own credibility of the VHT was weakened during and after the response to Cyclone Pam, as seen in chapter 10).

The coverage of the three umbrella networks presents significant potential in continuous fluid sharing between actors. Indeed, more than 70% of the respondents had personal direct links with the NAB, 64.5% with the VHT, and 55.5% with the VCAN. The coverage of these networks, however, is even more significant given the predominance of their influence through the social networking process existing within the Vanuatu-Networked-System. Figure 4.5 and table 4.1 illustrate the coverage and influence potential of the NAB, VHT and VCAN within the Vanuatu-Networked-System, by showing the degree connection of the 260 stakeholders with each network.

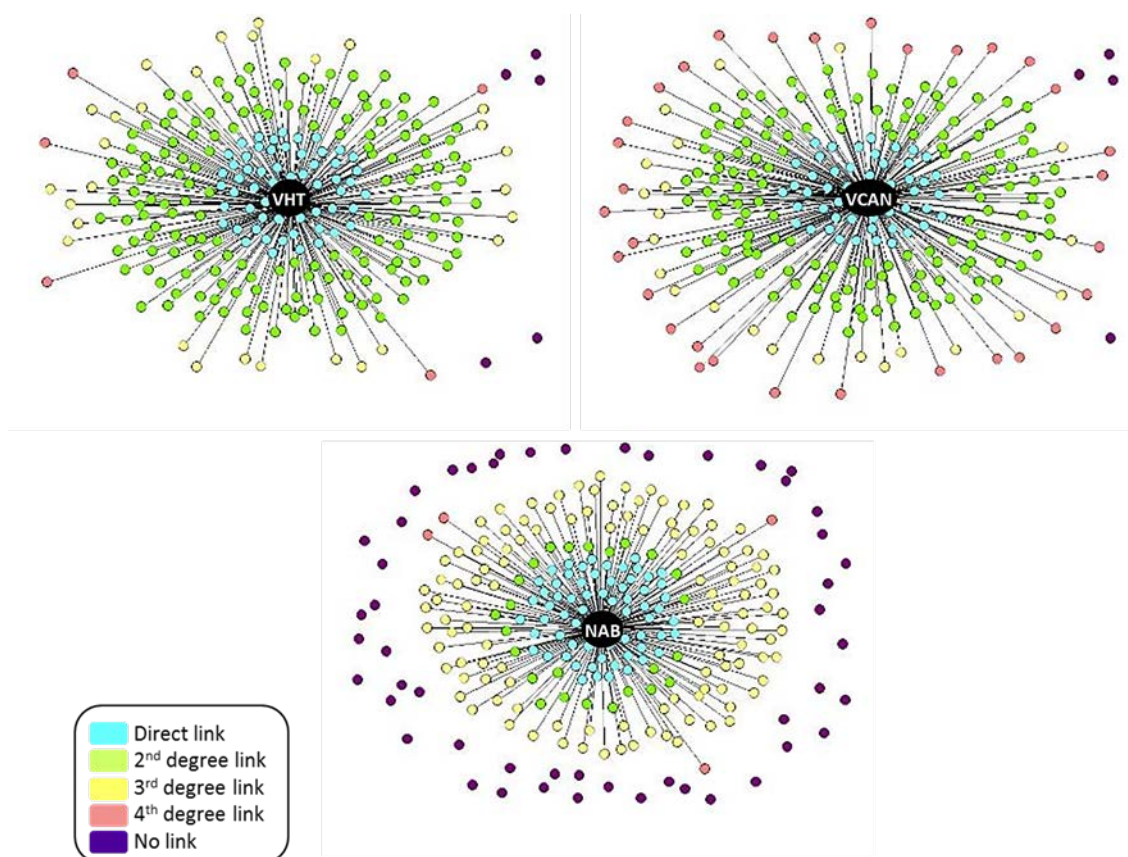


Figure 4.5: Visual degree connection of the 260 stakeholders with each umbrella network (NAB, VHT and VCAN) illustrating their possible coverage and influence over the Vanuatu-Networked-System members.

Table 4.1: Numerical degree connection of the 260 stakeholders with each umbrella network (NAB, VHT and VCAN) illustrating their possible coverage and influence over the Vanuatu-Networked-System members.

	<i><b>NAB</b></i>	<i><b>VHT</b></i>	<i><b>VCAN</b></i>
<i><b>Stakeholders with a direct connection</b></i>	24.5%	22.5%	19.5%
<i><b>Stakeholders with a 2<sup>nd</sup> degree connection</b></i>	9.5%	62.5%	58%
<i><b>Stakeholders with a 3<sup>rd</sup> degree connection</b></i>	45%	11%	9%
<i><b>Stakeholders with a 4<sup>th</sup> degree connection</b></i>	1.5%	2%	12%
<i><b>Stakeholders not connected</b></i>	19.5%	2%	1.5%

Figure 4.5 and table 4.1 display the diverse characteristics of the 260 stakeholders studied in this thesis based on the degree of their links with the three umbrella networks. Direct link means that the stakeholder is personally involved within the network activities. A second degree link means that the stakeholder directly cooperates with another stakeholder who has a direct link with the network; a third degree linked stakeholders networks with a second degree linked-stakeholder; and a fourth degree linked-stakeholder networks with a third degree linked-stakeholder. The VHT and VCAN have high potential to almost cover the Vanuatu-Networked-System with, respectively, 98% and 98.5% of the stakeholders having a link, and more specifically 87% and 79% having a first or second degree link. In general, the main fluctuations of network coverage at each degree remain consistent within the general context of the Vanuatu disaster and climate change governance system:

- Government representation is slightly more important in the government-led NAB than the non-government-led VHT and VCAN;
- NGO representation is slightly more important in the non-government VHT and VCAN than the government-led NAB;
- Donor representation is relatively equivalent in all networks;
- Tertiary Education and Research Institutes are better represented in the NAB than the VHT and VCAN;
- The VHT benefits from more direct and first degree linked-stakeholders than the NAB and VCAN, and a better government representation than the VCAN; this illustrates the long-lasting mandated cooperation between the VHT and different government disaster agencies and committees, as well as the cluster members, as well as the established reputation of the VHT comparative to the VCAN, more recently formed;
- Civil society members have direct links with the VHT, but only second and third degree links with the NAB and VCAN, which can be explained by the intensive relationships between the VHT and the CDCs, as well as the well-established cooperation between the VHT and NDMO to conduct training and simulation exercises in communities (section 7.2.2.c);
- The stakeholders not linked to the VHT and VCAN are also not linked with the NAB, and are government officers from the Provinces; this illustrates a networking gap between the provinces and Port Vila often mentioned by respondents.

Hence, the three umbrella networks are in key positions to cover and facilitate networking capital dissemination within the Vanuatu-Networked-System, and to have a significant influence in resilience-building (as illustrated by figures 4.2, 4.3, 4.4, 4.5 and table 4.1).

The social networking process presented in this section is layered. Individuals are able to build their own expertise while cooperating in their own institution and sectoral networks, which simultaneously have the potential to:

- gather sectoral networking capital for their members;
- disseminate sectoral networking capital to the members of the other networks;
- capture other sectoral networking capital from the members of other networks;
- channel a bottom-up-top-down development and sharing of the networking capital across sectors and levels for the benefit of continuity between policy making and practice.

Social networking happening across institutions then allows the optimal use of this process to support effective disaster and climate change governance in Vanuatu. The institutional networking is, therefore, greatly supported by another layer of social networking occurring at the individual level outside their own institution.

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## 4.4. Social networking through the individual perspective

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### 4.4.1. Ties within the Vanuatu-Networked-System

The dense social linking between network members is a real credit to the networked structure and the networking process happening in Vanuatu. Figure 4.6 illustrates the social networking interactions within the whole Vanuatu-Networked-System (left) and the system limited to the 90 respondents (right).

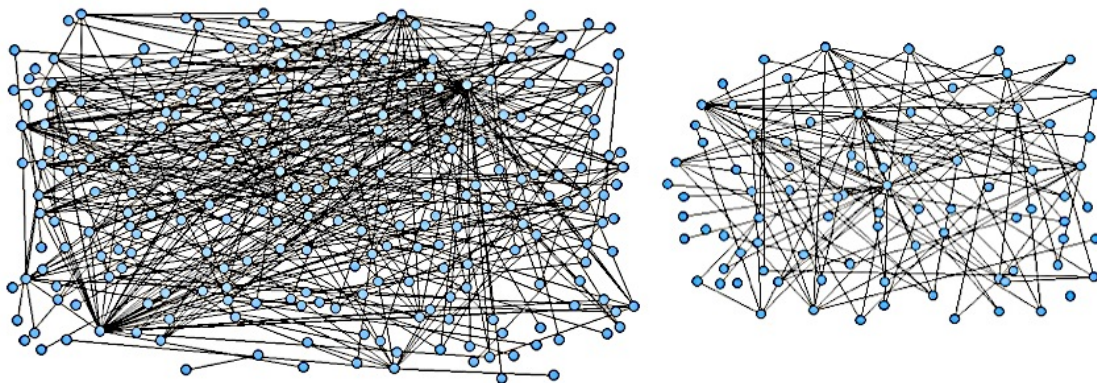


Figure 4.6: Random layout illustrating interactions within the Vanuatu-Networked-System (left) and between the 90 respondents only (right).

The Vanuatu-Networked-System studied in this thesis was composed of 260 nodes and 417 ties. Quality of the interactions was assessed based on the reciprocity of the ties, the perceived reciprocal value and the reciprocal perception of the nature of the relationships. More than 75% of the social networking ties mapped in the Vanuatu-Networked-System were valued as crucial for work effectiveness (41.5% were essential and 32.5% were very important). Less than 0.5% of the ties were valued as not very important for work. The directions of ties show well-balanced reciprocal efforts for coordination from all types of organisations, for instance, considering the

connections between a NGO representative and a government representative: 56.5% of these ties were Government-NGO directed (illustrating the strong recognition of the value of non-government actors by government actors) and 43.5% were NGO-Government directed.

Almost 78% of the ties were weighted with a dimension of informal advice, very valuable for work, which confirmed the essential role played by informal mutual help in the networking process. The utilisation of existing relationships to benefit from each other's networks and collaborators was also a main point in social networking, with 73% of these ties being weighted by the value of accessing the networking capital of others.

Almost 70% of the 417 ties were considered reciprocal, meaning that respondents publicising the ties perceived to be both givers and receivers in the relationship. However, because not all of the 260 stakeholders studied in this research participated in the survey, it was not possible to evaluate the accurate reciprocity of the relationships studied. If considering only the survey respondents (90 nodes and 163 ties), only 22% of the relationships were actually reciprocal, meaning that both stakeholders had the same perception of nature and direction of their cooperation. This low rate of reciprocity, however, means that a wide majority of the relationships mapped between respondents was not considered equally valuable for their work by both stakeholders involved. Several of the most central nodes tended to neglect the reciprocity of the relationships and the benefits they gained from their relationships with others.

Despite this relative lack of reciprocity in the nature and direction of the links, the Vanuatu-Networked-System provides a significant potential for cooperation if these links were to be better framed (through the institutionalised and resourced networks). More specifically, this potential is all the more crucial for effective disaster governance as these social links occur strongly across all types of organisation (section 4.4.2) and sectors (section 4.4.3).

#### **4.4.2. Government–non-government focused ties**

Although, the Government is responsible for leading disaster response and answering to the needs of the community, for decades the Government of Vanuatu has officially recognised the key role played by NGOs, Red Cross, private organisations and civil society, and the need for better cooperation with them (Carter, 1987). As illustrated in figure 4.7, the Vanuatu-Networked-System relies on a strong networking process between different types of organisations.



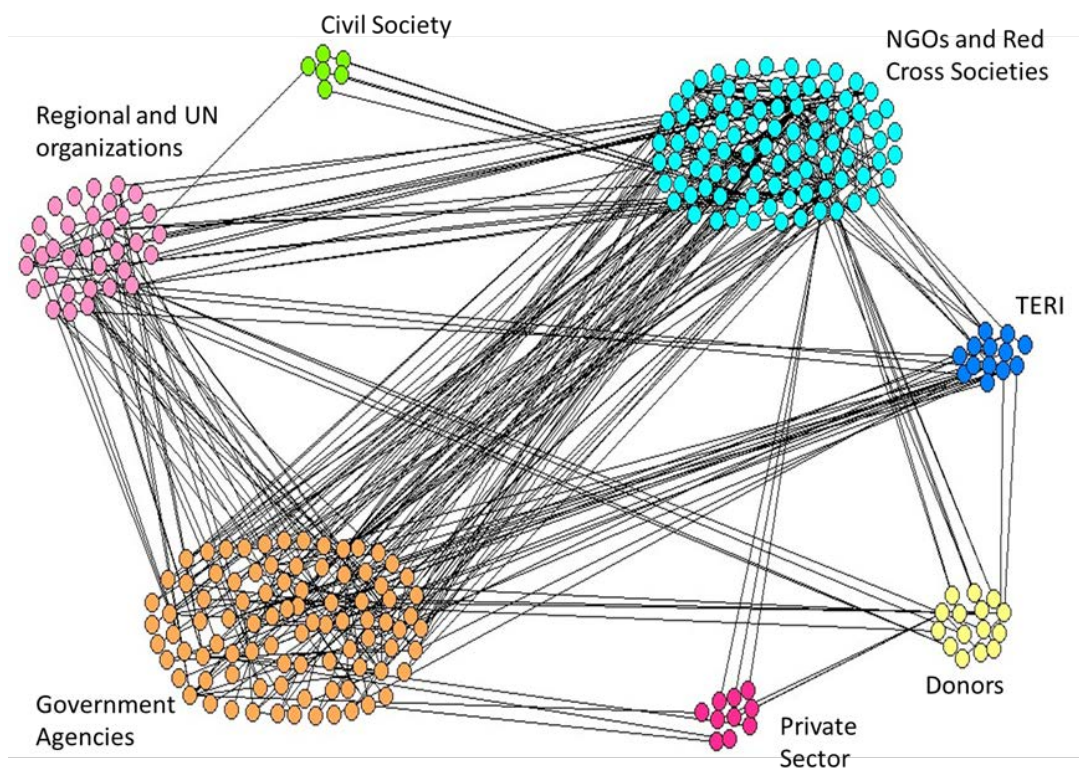


Figure 4.7: Networking ties between individuals across types of organisations.  
Source: adapted from Vachette, 2014.

The Vanuatu-Networked-System that has been studied can be considered as an appropriate representation of the disaster actors in the country, relatively well-balanced between government stakeholders (35% of all Vanuatu-Networked-System members) and non-national-government stakeholders (NGOs 36%, Regional Organisations and regional United Nations offices 12%, donors 6%, Tertiary Education and Research Institutes 5%, private sector 4% and civil society members 2%). The Vanuatu-Networked-System displays links between government and non-government stakeholders (37% of the 417 ties), between government stakeholders (15%) and between non-national-government stakeholders (48%). More than half of the ties within the system involve only government agencies and/or NGOs (Government/Government 15%, Government/NGO 16.5%, NGO/NGO 22%), and less than 8% of the ties exclude government agencies or NGOs. This illustrates the strong visibility and leadership of the government agencies and NGOs in collaborative efforts in the country.

However, this also illustrates the lack of visibility of other actors in collaborative efforts. Despite a significant lack of representation of the private sector, civil society and academia in the Vanuatu-Networked-System, most respondents acknowledged the potential of these actors in leadership and learning. In particular, the Government has different agreements with private companies for communication (e.g. Digicel) and transport (e.g. Vanuatu Airline) to participate in disaster preparedness and response. The few private stakeholders captured in the network

mapping were equally linked with NGOs and government agencies. Likewise, although civil groups are directly involved in shared leadership (section 5.3.4) and within sectoral networks (section 3.4.1.a), they were not very visible within the SNA. The few civil society stakeholders captured in the SNA were members of CDCs, and were recognised for their expertise in DRR/DM and Community Development. They were linked only with non-government stakeholders, predominantly from NGOs. This general lack of perception of the links between the private sector and civil society within the Vanuatu-Networked-System is likely due to the relative novelty of the discussions about their systematic and long-term integration, and their consequent relative nonappearance in plans and policies. This makes it more difficult for the recognition of these stakeholders as actors, as well as the positioning of less formal actors.

Perceptions of the cooperation trends varied based on the type of organisation of the respondents. Several coordinators and members of non-government led-networks, in particular the VCAN, reported a significant improvement in cooperation between NGOs, but witnessed a weaker tendency for government agencies to cooperate with NGOs. On the contrary, most of the government stakeholders considered government–non-government cooperation to be improving faster than cooperation between different Departments and Ministries. Respondents from the private sector and Tertiary Education and Research Institutes reported a more visible willingness of government than non-government stakeholders to integrate them in discussions. On the contrary, donor representatives reported a greater inclination of NGOs to seek their involvement than government agencies. Respondents explained these differences by the NGOs’ motivation for funds more than expertise (according to a government respondent), and by the fear of losing control versus the benefit of external powers (according to a NGO respondent).

The SNA highlighted that critical gender cooperation trends also tended to depend on the type of organisations of stakeholders. Indeed, while non-government males easily worked both with government and non-government females, while government males had significantly less cooperation links with government and non-government females (illustrative SNA map in appendix 5.3). Several hypotheses were developed by respondents to explain this tendency:

- 1) “In our [agriculture] Department, men don’t have incentives to network with us [women], except if it is specifically mandated by the project”
- 2) “It is easier to talk with other men to take decisions because women always argue with each other.”
- 3) “Women in NGOs have access to power positions and they are the ones men in the Government cooperate with. In government agencies, women cannot reach power. Cooperation between men and women in the Government often relies on women working for men not with them.”

- 4) “I used to work for the Government, and I never felt confident enough to talk with my [male] co-workers. Now that I work for CARE International, I feel more confident about my role and feel easier [to network] with men from my own organisation and other NGOs.”
- 5) “They [government males] sometimes have to work with women in their agencies but they do not have any obligation to work with women from NGOs.”

This situation raises challenges to be taken into account in cooperation strategies. Both government and non-government respondents highlighted that recognition in gender equality significantly fluctuates between the different stakeholders in Vanuatu, which critically fragments the potential of intervention of men and women in the networking process. This situation is also reflected in leadership visibility, as women were not strongly perceived as leaders (section 6.2.3).

#### 4.4.3. Cross-sectoral focused ties

In parallel to networking across types of stakeholders, networking across sectors is significantly dense within the Vanuatu-Networked-System. The SNA, conducted for the purposes of this thesis, captured 20 different sectors in which stakeholders worked on matters related to building resilience to hazards (table 4.2).

Table 4.2: Distribution of sectoral expertise of the 260 stakeholders involved in building resilience to hazards

<i><b>Main sectors of expertise of stakeholders working on projects to building resilience to hazards</b></i>	<i><b>% of the whole networked system members</b></i>
1. Disaster Risk Reduction and Disaster Management	14.2
2. Community Development	13.5
3. Climate Change Adaptation	10.4
4. Agriculture, Livestock and Food Security	9.2
5. Environment, Biodiversity and Forestry	6.9
6. Integration of Climate Change and Disaster Risks	6.1
7. Education	5
8. Policy and Public Administration	4.6
9. Fisheries and Marine Resources	3.8
10. Meteorology and Climate Sciences	3.8
11. Water Management	3.5
12. Communication, Information and Knowledge Management	3.1
13. Gender	3.1
14. Planning	2.7
15. Program Management	2.7
16. Others	2.3
17. Monitoring and Evaluation	1.6
18. Health	1.1
19. Energy	0.8
20. Traditional Knowledge and Culture	0.8
21. Logistics	0.8



Based on the sample of the 260 stakeholders, some sectors have a predisposition of being dominated by certain types of organisations, the most notable illustrations were:

- the Fisheries and Marine Resources sector, which was covered only by government agencies (90%) and research institutes (10%);
- the Health sector, which was only covered by NGOs (66.5%) and government agencies (33.5%);
- the Planning sector, which was covered only by government agencies (85.5%) and donors (14.5%);
- the Meteorology and Climate Sciences sector, which was covered only by government agencies (70.5%), regional organisations (20%) and research institutes (10%);
- the Program Management sector, which was not covered at all by government agencies.

Furthermore, some sectors showed special gender trends, considering that females represented 40% of respondents and 38% of the Vanuatu-Networked-System:

- the Fisheries and Marine Resources sector was fully covered by male stakeholders (100%);
- the Water Management sector was fully covered by male stakeholders (100%);
- the Community Development sector was relatively well-balanced (with 54% of female stakeholders);
- the Education sector was relatively well-balanced (with 47% of female stakeholders);
- the Integration of CCA and DRR sector was relatively well-balanced (with 45% of female stakeholders);
- The Gender sector was predominantly covered by female stakeholders (87%);
- The Communication sector was predominantly covered by female stakeholders (83%).

According to respondents, the absence of female stakeholders in the Fisheries and Water Management sectors was due to the difficulties for women to access education in these specialities. Given the traditional male predominance of some of these domains cross-gender cooperation is unlikely.

More than three quarters of the 417 ties (79.6%) within the Vanuatu-Networked-System were involved across sectors; this highlights the on-going and increasing efforts for integrating and mainstreaming knowledge of climate change and disaster in Vanuatu, as advocated by international, regional and national bodies for a holistic approach to resilience-building. However, respondents reported the need to develop a comprehensive approach as only the third most common incentive for Cross-sectoral Networking. The first most common incentive was the existing trusting relationships built between stakeholders during past projects (chapter 7 addresses the impact (and potential) of turnover on integrated expertise-building in Vanuatu). This means that previously mandated relationships during which trust was built significantly supports social networking. The second most common incentive given was the value of gaining through

cooperation from others' networking capital, such as knowledge about a community context or experience with a donor that does not have a direct link with the sector in which they are involved but that is relevant and could have positive impacts on their projects. Respondents particularly emphasised the key role of the different sectoral networks, and more specifically the satellite ones, to continuously feed relationships and trust building by supporting a permanent and optimal flow of networking capital between stakeholders without disruption as it often occurs at the organisational level due to high turnover.

The incentives for cross-sectoral cooperation were therefore different from cross-types of organisations. Indeed, as seen previously, government–non-government cooperation is motivated by the awareness of positive impacts of inclusive decision-making on project implementation. On the contrary, Cross-sectoral Networking tends to be more social-driven rather than professional-driven. Indeed, cross-sectoral cooperation was more often an “accidental” outcome of collaboration between people with whom they previously built a relationship when they were working in other sectors or organisations, or within their personal sphere.

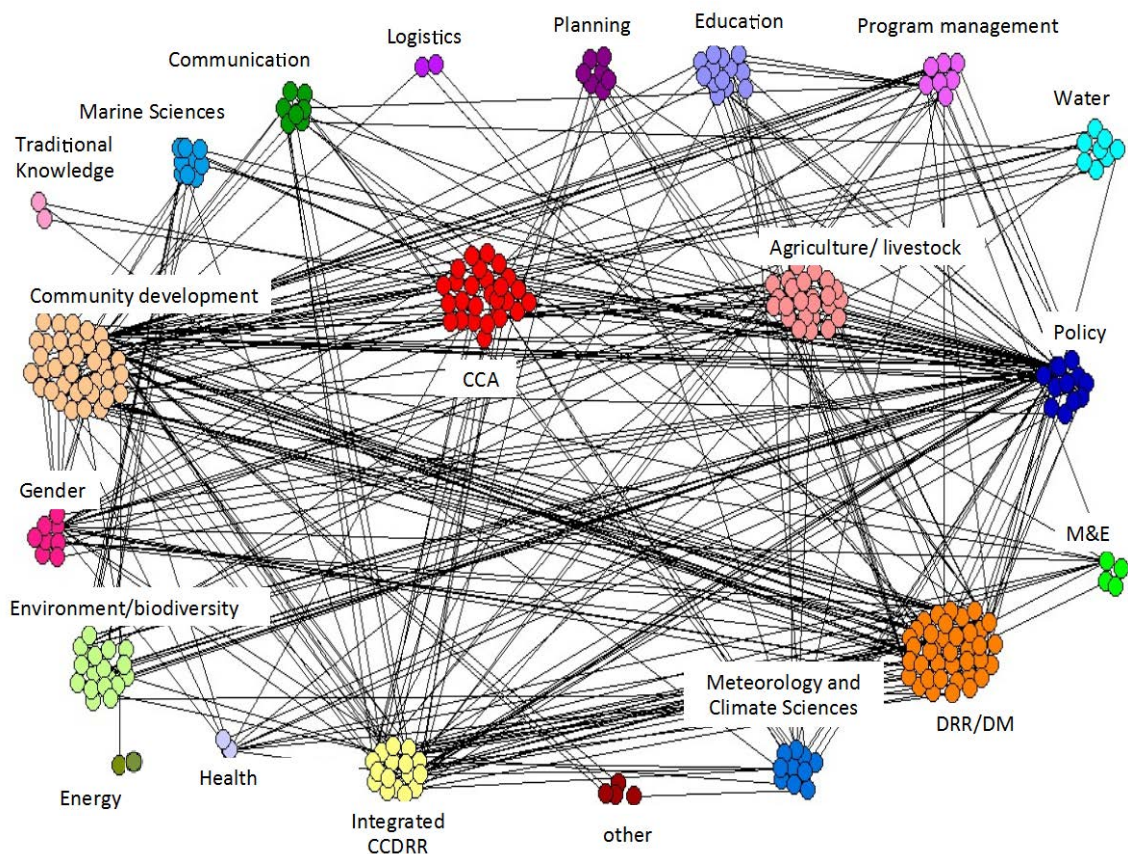


Figure 4.8: Interaction of the 260 Vanuatu-Networked-System members across sectors.  
Source: Vachette, in press.

As displayed in figure 4.8, ‘Community Development’, ‘CCA’, ‘DRR/DM’, and ‘Policy and Public Administration’ are strongly connected with each other, and with the rest of the Vanuatu-Networked-System. This may be explained by the very strong emphasis on community

development in all organisations, and the increasing recognition of the need to rely on DRR and CCA expertise for disaster and climate change related matters. The centrality of Policy and Public Administration gives credence to the efforts of policy-makers to oversee and stimulate cooperation within the Vanuatu-Networked-System. This may also be partly explained by the active involvement of high level government staff (such as the direct cooperative participation of the diverse Ministry Directors-General and Departments Directors in the establishment and evolution processes of the Ministry for Climate Change and NAB).

In contrast, 'Energy', 'Traditional Knowledge' and 'Health' are particularly underrepresented sectors in the Vanuatu-Networked-System compared to the planned system. At the time of the SNA data collection, the Department of Energy had not yet moved in the same building as the other Departments of the Ministry for Climate Change, and was a very small Department with few staff. Allocating time, staff and resources to networking was then very difficult for the Department. Concerning the Health sector, respondents highlighted that Health stakeholders tend to be reluctant to participate in constant cooperative mechanisms, especially if there was no immediate, clear and concrete incentive or reason for collaboration. This trend is not specific to Vanuatu, as international respondents witnessed in other regions similar lack of engagement from the Health sector with the rest of the humanitarian arena, often staying within its own system.

The lack of identification of expertise in traditional knowledge within the Vanuatu-Networked-System is not representative of the latest national strategies stressing the value of traditional knowledge (e.g. Government of Vanuatu, 2015e). The SNA did not capture the recent approach of development and integration of a traditional knowledge within formal agendas reported in interviews and meetings. This lack of accurate perception is partly due to the fact that all network members who have expertise in the traditional dimension of DM, DRR and CCA (except for two stakeholders based in remote islands) did not consider such knowledge as a central professional expertise, but only "as a side [competence], significant, but not essential for work [effectiveness]" (VMGD officer). However, these two officers who claimed expertise in traditional knowledge reported that most stakeholders approaching them for collaboration precisely aimed to benefit from this specific expertise to develop more effective projects.

The SNA revealed that the CCA sector strongly relies on outside expertise, with almost 66.5% of the CCA experts within the Vanuatu-Networked-System being from outside Vanuatu, compared to only 32.5% for the DRR/DM experts. The constant multi-hazard risks (e.g. volcanic eruption or cyclones) are indeed well established priorities in strategic plans, while climate change remains a new concept in the country. In most cases, DRR/DM respondents were not distinguishing expertise in DM from expertise in DRR. This reflects a certain misunderstanding of the differences between DM and DRR concepts, as well as the interchangeability of actors between the two domains. Following the Vanuatu cluster procedures, stakeholders conducting DRR

operations in routine times are mobilised to conduct DM operations during disasters. This raises key opportunities to better connect disaster lessons-learned and DRR planning and strategies.

Therefore, in general, the Vanuatu system is characterised by a dense Cross-sectoral Networking system. However, intra-sectoral links remain fragile (with only 20.4% of the ties linking stakeholders from the same sector), especially between government stakeholders. This could be a major obstacle to effective resilience-building. Although integrated expertise is essential to cover the comprehensive concept of resilience, sectoral expertise needs first to be strongly developed on its own before being integrated. A lack of intra-sectoral cooperation may weaken the potential of each sector and of the Vanuatu-Networked-System with a lack of foundation expertise for each sector. If sectoral expertise weakened within the system, cooperation outcomes would dramatically decrease in effectiveness, and general commitment to the process would be endangered.

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## **4.5. Addressing commitment to make the networking process and outcomes more sustainable**

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### **4.5.1. The question of commitment**

Exchange of knowledge, information and resources, reduction of conflicts and competition, goal consensus, and trust building are key foundations and outcomes of effective and sustainable networking (Juhola and Westerhoff, 2011). The positive impacts of these elements, however, rely on the continuous and trustworthy commitment of all network members. Many difficulties within a network can emerge if efforts for commitment and accountability are not clear and sustainable (Juhola and Westerhoff, 2011). While the anticipation of the potential benefits motivates many actors to participate in the creation of a network, efforts tend to slow down or even stop once the first objectives have been reached and long-term involvement is required, or if benefits take too long to appear (Provan and Kenis, 2007; Ramalingam et al., 2008). Communication, and more specifically information and resource sharing, with proactive mechanisms established, significantly promotes the effectiveness of decision-making and the sustainability of commitment of members (Kapucu, 2006a, 2006b; Nolte and Boenigk, 2011). Commitment depends on the balance between 1) the level of individual contribution required to achieve outcomes, 2) the expected outcomes, and 3) the actual outcomes.

If information and resource sharing is not mutual, reciprocal and constant, members may reduce their participation. This problem is the effect of free-riders, when members of the network benefit from others' inputs without investing anything themselves in the process. The free-rider problem is a serious obstacle to continuous commitment as it may result in a vicious circle, influencing other members to become free-riders themselves or to withdraw from the network. Highlighting

this issue, respondents talked about “profiteers” (NDMO, VMGD and Vanuatu Red Cross officers) “smart people” (Ministry of Agriculture) and “leeches” (SPC/GIZ and Ministry of Justice officers)<sup>16</sup>. Respondents reported that this demonstrated a lack of leadership, and led them to restrict their own efforts in cooperation. Free-riding is possible because commitment of members to a network is voluntary (Bodin and Crona, 2009), and networks, which are flexible systems, do not develop sanctions to control members, or to reduce the risks of opportunism (Ostrom, 1999; Dedeurwaerdere, 2005) and inequality (Nolte et al., 2012) among members. Furthermore, despite the high cost required to maintain relationships (O’Brien, 2010), outcomes remain significantly unpredictable due to this flexibility; thus, it is difficult to promote potential outcomes in the long term to encourage members to commit. Hence, respondents highlighted that although the flexibility of the system was a key incentive to invest resources in cooperation when needed at a specific time within a project, it was also a particularly weak catalyst to attract cooperative efforts in the long-term. Therefore, due to the lack of a command and control system, Networked Leadership (chapters 5 and 6) is essential to tackle these issues of self-interest overcoming common goals, lack of trust, and unreliable commitment, not only in the development of networks but also in the sustainability of the network.

#### **4.5.2. A fragile engagement in the Vanuatu-Networked-System**

As mapped in chapter 3, disaster governance in Vanuatu relies on a dense and active networked system for DRR, DM and CCA; however, the lack of commitment from stakeholders to existing structures remains a significant threat to its effectiveness. Recent studies indicated the inconsistency of the engagement of stakeholders in the NAB meetings (Handmer et al., 2014; UNDP, 2014); most of the other sectoral networks are confronted by similar issues. Despite the general recognition of the value of the 54 networks for the effectiveness and efficiency of such platforms, a lack of attendance was witnessed among all stakeholders, sometimes critically (e.g. the Small Aid Donor Network), weakening individual network sustainability and consequently the Vanuatu-Networked-System. Respondents reported several reasons for this fragile commitment.

Firstly, the private sector and academia were particularly highlighted as groups of stakeholders less inclined to commit to the system. Their irregular and scarce participation was understood as a consequence of the lack of their formal integration as permanent members of the core group of the networks. This was particularly reported for the NAB, in which these two groups were only invited as speakers or observers at the meetings even if their key role in DRR and CCA is

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<sup>16</sup> Respondents often reported the issue of free-riding, but given the sensitivity of the problem, the researcher could not clearly identify the free-riders. Therefore, although it would have been interesting, it was impossible to assess the position of and role played by these free-riders following Cyclone Pam.

increasingly being recognised. This lack of credit was a particular disincentive for stakeholders of these two groups to invest resources in different networks (the NAB, but also the VHT, Traditional Knowledge working group, or the Gender Partner Group as reported by respondents).

Secondly, in general, the overload of organisational and network meetings, and the confusion around the sectoral interconnections within DRR, DM, CCA and SD were considered as major obstacles to the commitment of members. Many low-level officers explained that they were often not participating in meetings because they did not expect direct relevance of the discussions to their day-to-day work, and did not believe they would have any information or knowledge to share. These same respondents saw informal exchanges on these same topics as valuable for their work. Most of these respondents admitted that the official status of organisational meetings and umbrella network meetings made them reluctant to formally show their commitment to a topic not directly linked to their work. The satellite networks, however, are seen as less formal platforms with a strong emphasis on the process of relationship-building, and less pressure on accountability and long-term engagement. Hence, network members of the satellite networks reported a greater ease to participate and share ideas in these satellite networks than in their organisations or platforms with wider participation.

Thirdly, almost 17% of the respondents spontaneously cited shyness and the lack of self-confidence as hindrances to information sharing in the country. Respondents attributed these feelings to the local culture, where stakeholders will dramatically limit their involvement in discussions and decision-making when meetings and formal gatherings take place in an unfamiliar location (not their own building). Furthermore, one national respondent highlighted that the abundant involvement of foreigners in the DRR, DM and CCA sectors tended to make “white discussions” (VMGD project manager), in which locals may not feel comfortable being involved.

Fourthly, time was a main reason given for the inconsistent engagement in the networking process. In general, respondents (mostly Ni-Vanuatu) reported that the lack of human resources was a weightier obstacle than the lack of financial resources. Allocating time to meetings for individuals, and finding a time suitable to everyone were real challenges. An Australian Red Cross expatriate reported that she often needed to plan more than a month ahead for meetings involving more than two people if they were coming from different organisations. Furthermore, a majority of respondents raised the concern that networks revolving around the same theme, such as networks focused on Climate Change, were involved in the same issues, discussions and programs, and often brought together the same core of stakeholders. This was a major disincentive over time to attend meetings that seemed repetitive. Adding to the number of events, the time allocated by the donors for a project completion often does not account for time to be invested in long-term relationship-building before and during projects. Hence, stakeholders often cannot afford to attend to meetings that are not mandated by the project. The VHT, VCAN and Climate

Change and Disaster Risk Reduction working group decided to address the challenge of time consumption by starting joint meetings in March 2014. The problem remained, however, across all levels through the Vanuatu-Networked-System.

Finally, the lack of trust and competition for funds, which are common challenges in humanitarian cooperative systems (Stephenson, 2005), were also considered as critically affecting the flow of cooperation between the different stakeholders and organisations. The SNA revealed that in the case of disaster and climate change governance, lack of trust tends to happen between different types of organisations, while competition for funds happens more between sectors. According to respondents, issues of trust and competition emerged in the system due to the general lack of continuity in efforts; many respondents pointed out that once organisations obtained funds to develop and start projects through the networks, cooperative efforts were not pursued at the implementation stage, until more resources needed to be invested.

#### **4.5.3. Evolution of and fracture in networking commitment**

All these commitment hindrances resulted in the gradual loss of recognition of the value and credibility of the sectoral networks themselves, as well as of their ability to support coordination efforts in practice. Commitment to networking mechanisms, however, evolves over time; although its evolution varies for each stakeholder, general trends could be seen from the SNA conducted in this study. Understanding these trends may help leaders to better control and promote commitment within the Vanuatu-Networked-System.

When a network emerges, members show an active interest and strong involvement in the preparation of its agendas, goals and meetings. However, these networks, for which efforts and heavy investments are needed to build functional cooperative mechanisms (Handmer et al., 2014), can take a long time to show encouraging positive outcomes. In the geopolitical, economic, cultural and social context of Vanuatu, respondents also explained that networks often showed positive outcomes only on certain levels, such as community level or project level, which might undermine the general visibility of the system effectiveness. If outcomes fail for too long, incentives decrease and members may reduce cooperation efforts.

Initial investment in networking mechanisms periodically results in cooperation outcomes supporting the cooperation potential, such as the development of common tools for communication, or a specific project lead jointly by different members of the Vanuatu-Networked-System. If network members consider that the cooperation outcomes are not equivalent to the invested efforts, their engagement in the network and in the next project will gradually decrease. Conversely, positive outcomes from networking motivate commitment to existing and future common projects. Although new investments (strategies or resources) in the networking process promote engagement, if positive outcomes are slow or lacking, the impact of

each new investment on commitment will gradually decrease. Beside cooperation outcomes, the occurrence of an external event (such as a serious disaster) may have impacts, positive and/or negative, on the engagement of network members in meetings and group activities. Chapters 8, 9 and 10 highlight the impacts of existing networks on the effectiveness of response and early recovery following Cyclone Pam.

Sectoral networks and networking mechanisms emerge when a new strategy, challenge or program requires the support of a new cooperative structure. The emergence of these new cooperative structures should not, however, negatively affect the whole cooperative process within the Vanuatu-Networked-System. Indeed, even if an existing network witnesses a reduction of its sphere of influence when another similar network emerges, its activities should benefit from the general coordinative improvements within the Vanuatu-Networked-System. Fracture in networking commitment is initiated when the emergence of a new network does not compensate the loss of influence of the existing networks. Network members do not commit to the new network as much as expected while reducing their commitment to the previous networks they belonged to. Furthermore, while a network grows in a linear manner through the emergence of new subgroups and mechanisms, the number of potential relationships increases in an exponential manner (Kapucu, 2006a, 2009). A significant increase in relationships can result in the weakening of members' trust, thus commitment, in the whole network (risk of fracture due to overwhelming networking process) (Provan et al., 2005). Such situations may undermine the effectiveness and legitimacy of each sectoral network, and therefore the potential of the Vanuatu-Networked-System. This fracture has not yet happened in Vanuatu, but is close to being reached in some areas, for instance, the weakening of the sphere of influence of VANGO with the emergence of the VHT and VCAN (section 3.4.1.a).

Reaching this fracture may have negative impacts on the effectiveness of the previous, but also of the newly established networks, as well as on the credibility, legitimacy and authority of the Vanuatu-Networked-System. It is crucial for decision-makers to consider this fracture in commitment, and the risk of the collapse of the system, in their cooperation strategies to prevent the system fracturing. When the fracture of one or several network(s) is initiated, threatening the system to collapse, discussions on the restructuring of the system are essential to develop a more effective system. Figure 4.9 illustrates the evolution of networking commitment.



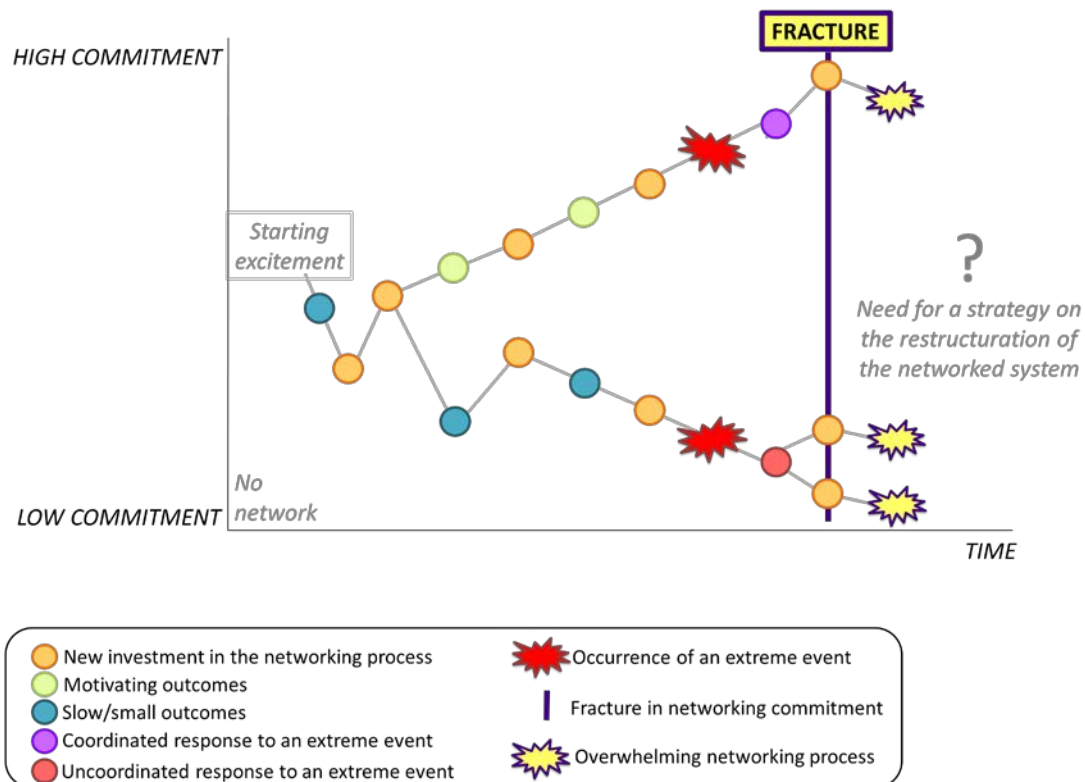


Figure 4.9: Evolution of network members' commitment to the networking process.

#### 4.5.4. Social Network Analysis: A promoter of networking commitment

The unreliable – or unfair – commitment of certain stakeholders to their networks produces a vicious circle encouraging other members to reduce their own investment in the process. The fracture in commitment is initiated when network members estimate that, due to this situation, networking costs will be higher than networking value. General commitment to the implicated network, and possibly other related networks, decreases. This trend is starting to be witnessed in VANGO activities.

Furthermore, investment in building relationships across sectors and across types of organisations can be time and money consuming; NGOs and lower government levels particularly meet difficulties in allocating money for this work. Additionally, it can also be difficult to concretely measure such long-term investments. This raises issues in terms of accountability. Donors in particular often request NGOs and small associations to clearly articulate the value-for-money of coordination and networking. This research highlighted that SNA findings can address these issues, by serving as visual and mathematical accountability of efforts in building better governance. As highlighted by Cross et al., 2002, “a picture is worth a thousand words” (p.39). Handmer et al. (2014) also pointed out the importance of concrete benefits of integrated cooperation on the ground to continuously motivate network members to take part in the process, while ensuring that each sector remains at the same level of consideration. The SNA can capture organisations and sectoral networks where an individual and/or organisation can promote its

existing networking capital, and attract formal collaboration with other organisations that may increase its influence. The SNA findings can also be great tools to increase awareness of an organisation and/or individual of its own network, and develop future projects more effectively. For instance, following the SNA conducted for the purposes of this research, the Department of Local Authorities realised that many links that should have been perceived as crucial by other network members had not been captured. This means that relationships may exist but were not visible within the Vanuatu-Networked-System. From these findings, the Department of Local Authorities was better equipped to improve its cooperation strategies, and to plan projects based on its actual active network. Hence, capturing formal and informal, existing and potential Government–non-government, cross-sectoral cooperation pathways, SNA findings generate key information to improve DRR and CCA efforts. SNA was particularly found to support networked governance and to be a well-adapted tool for contexts such as Vanuatu, where local oral culture and informal relationships often confront international strategies and rigid protocols.

However, the challenges related to commitment to the networking process need to be addressed through more effective leadership. In general, such a complex and constant networking structure, as described throughout this chapter, requires particular leadership mechanisms, which are explored in the next two chapters. Chapter 5 analyses the impact of the legal and formal institutional foundations of the Vanuatu governance system on integrated and inclusive cooperative resilience-building. Complementary to chapter 5 and following the analysis of this chapter on social networking patterns, chapter 6 analyses leadership dynamics using SNA.

## CHAPTER 5.

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# **Legal framework and institutionalised multi-level leadership: Formal support to integration and inclusiveness**

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### **5.1. Introduction**

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As highlighted in the previous chapter, building a long-term integrated and inclusive cooperative system is essential for better disaster governance. Such a system, however, encounters many challenge, such as the lack of appropriate capacities, donor pressures or territorial behaviour, and requires strong but flexible, legal and institutional mechanisms to control Government–non-government, Cross-sectoral Networking.

As highlighted by Maclellan et al. (2012), the uncertainty of disasters and climate change enforces the emergence of new decision-making mechanisms, as well as the need for leaders to build capacities adapted to complex disaster and climate change governance requirements. Furthermore, the traditional leadership system relying on concentrated policy control and command (one leader) is increasingly being recognised as inappropriate to the humanitarian sector (Knox, 2014). Focusing on the climate sector, Bäckstrand (2008) highlights that policy making in the humanitarian governance system is now exposed to non-government influences, such as market pressures or civil involvement. Therefore, Knox (2014) talks about an “empowered leadership” (p.10) to illustrate the key impact of the whole inter-organisational and social leadership system around the official main leader to help him/her shoulder mandated responsibilities. Likewise, Lassa (2010) highlights that the concept of disaster governance emerged from the need to approach DRR decision-making through a multi- and cross-level approach.

For the purposes of this study, the concept of leadership correlates with the ALNAP definition of humanitarian leadership, which is “the function of providing a clear vision and objectives for the humanitarian response; building a consensus that brings aid workers together around that vision and objectives; and finding ways of collectively realising the vision for the benefit of the affected population, often in challenging and hostile environments” (Knox, 2014, p8). Studying (good) leadership mechanisms is therefore essential to understand the potential of a system to achieve effective Government–non-government, Cross-sectoral cooperation, both in policy development

and implementation in DRR, DM and CCA (Kapucu and Van Wart, 2008; Kapucu et al., 2010b; Handmer et al., 2014). Extending from the ALNAP definition of humanitarian leadership and the concepts of networked governance, this thesis focuses on the study of Networked Leadership, defined as the leading ability, whether formal or informal, of a network member to participate in building clear and consensual vision and objectives for the benefit of the Vanuatu-Networked-System members. This leadership occurs without undermining their individual vision and objectives; to motivate and facilitate the effective commitment of the disaster and climate change stakeholders in the networking process for resilience-building; and to address the different cooperation challenges encountered in the Vanuatu-Networked-System. Networked Leadership comprises all the influential nodes in the Vanuatu-Networked-System, relying on the reciprocal consideration and support between 1) the legal and multi-level foundations and 2) social networking leadership (Social Network Analysis (SNA) measures and perceived leadership) (figure 5.1.). This chapter focuses on the first point: the formal sphere of Networked Leadership by analysing the legal framework and the formal multi-level leadership structure of the Vanuatu-Networked-System, supporting integrated and inclusive resilience-building. The following chapter will focus on social networking leadership.

This chapter highlights the strong potential of the Vanuatu-Networking-System to achieve good Networked Governance through the development of a legal framework propitious to integration and inclusiveness, and the complementary participation in the decision-making process of national, provincial and local institutions.

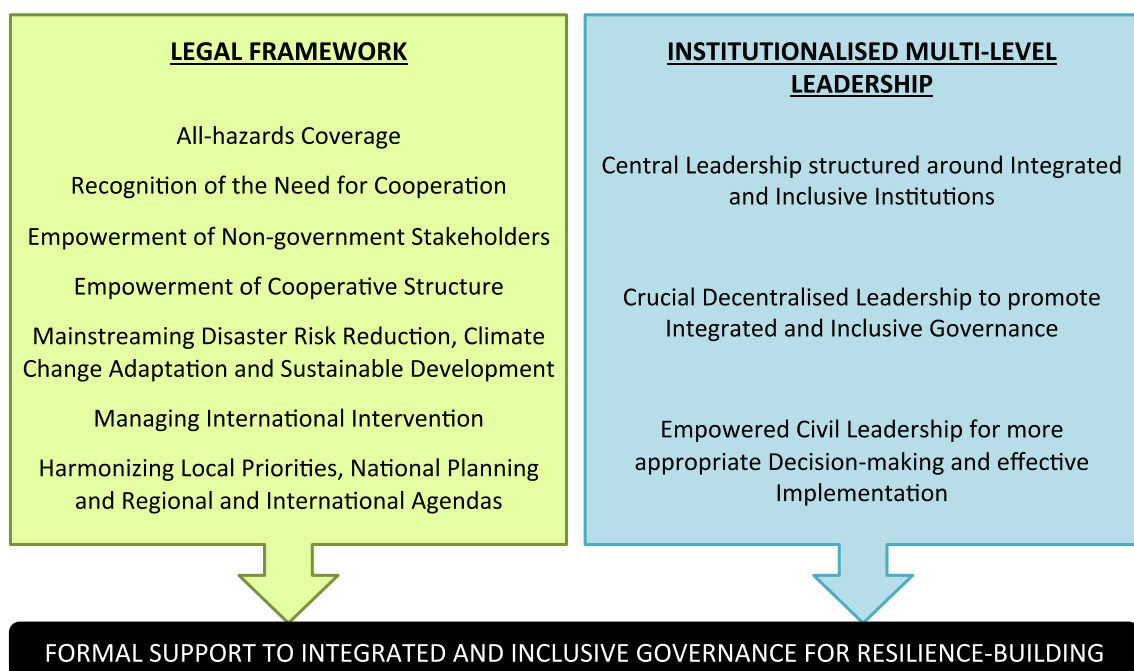


Figure 5.1: Input of legal and institutional foundations on shared leadership in the development of the Vanuatu-Networked-System for resilience-building.

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## **5.2. A pro-networking legal environment**

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### **5.2.1. The importance of the legal background to the study of leadership in Vanuatu**

The concept of leadership, as defined in section 5.1, focuses on the development of a governing system (vision, objectives, structure, mechanisms) shared and accepted by all stakeholders involved. Such development may occur both in the formal and informal spheres. Studying whether and how policies and plans support integration and inclusiveness in the process of resilience-building is essential to understand the potential of the governance system to make effective and appropriate decisions.

The analysis of the Vanuatu legislation highlighted that mechanisms and policies supporting the development of a Government–non-government, Cross-sectoral Networking approach operate across levels and across sectors. Project reports, articles, policy amendments and plan reviews, however, highlighted a general issue of formal implementation of their legislation. In contrast, the SNA showed that implementation at the informal level was relatively effective, benefiting from mechanisms that slightly differed from the endorsed official strategies. Respondents stated that the sectoral networks played a central role in this dynamic. Furthermore, government and non-government respondents recognised that inclusiveness was mostly facilitated by informal networking, building over time the foundations required for inclusive and integrated cooperation to be reflected into the institutional and legal structures. For instance, both a NGO country Director and a representative of the Ministry of Agriculture reported how long-term informal involvement in ecosystem protection over the last decade triggered the official and extensive integration of the role of non-government stakeholders (NGOs, private sector, civil society and academia) in the Vanuatu Forest Policy 2013-2023.

In Vanuatu, the main challenge in formal policy implementation is the lack of strong and sustainable legal institutional structures. As shown in the Mauritius assessment (UN, 2010), the weaknesses of the political structure limit the development of a cohesive approach that could support the effective, sustainable, transparent and accountable implementation of the policies and plans. Already highlighted by Maclellan et al. (2012), the integration process in Vanuatu requires significant changes in the policy environment, such as merging strategic plans with overlapping themes, developing focal points of authority, developing formal legislation, and developing M&E tools. As seen throughout this thesis, there is a reciprocal impact between these strategic policy mechanisms and the networked structure in place, gradually implementing the integration and inclusiveness sought.

Another challenge to the implementation of policies is the oral nature of the Vanuatu culture. As highlighted by Ali (1992), the purpose of written disaster plans may make sense to western actors

but their impact is limited in a country such as Vanuatu, where communities communicate in more than 70 non-written languages. International respondents, mostly aid workers during Cyclone Pam response and recovery, reported a certain frustration when working with local staff who had never read any of the plans, Standard Operating Procedures and other disaster response guidelines existing in the country. The effective impact of such policies and plans on aid, both for the local actors and the recipients, would then require social change. The question whether the Vanuatu society wants this social change is a recurrent discussion, especially as the protection of traditions and customs is omnipresent in recent national debates.

Although written material might not be utilised by a part of the society, it may be used as a significant tool to raise the visibility of the system, and express its relative resilience, at the international and regional levels (Ali, 1992). The recent national strategies were developed based on regional and international priorities, with the willingness of leaders to make the national governance system not only more effective for community resilience-building, but also more visible, legitimate and consistent to all stakeholders across levels, and in particular to donors. This partly explains why most plans and policies are exclusively written in English although all local staff may not be fluent in this language. Government respondents confirmed that it was to ensure that donors, and the plethora of Australian and New Zealand stakeholders involved in the country, could more easily refer to the documents.

### **5.2.2. National legal and regulatory framework for climate change and disaster risks**

The Vanuatu-Networked-System lies within an extensive legal framework supporting integrated and inclusive disaster governance (Government of Vanuatu, 2015e). Klint et al. (2012) distinguish the explicit policies, which are developed for the direct purposes of climate change, from the implicit policies, which are developed within another sector but are indirectly linked with climate change matters. This section explores the explicit legal frameworks of disaster governance as well as the implicit frameworks, to address the comprehensive approach of resilience-building.

The first national disaster plan in Vanuatu, the Disaster Preparedness Plan for Vanuatu, was released in January 1986 (Carter, 1986). Although many colonial documents reported major destruction related to disasters that required the intervention of international aid on several occasions during the Condominium (period before independence), the colonial powers never introduced national plans for preparedness or response (Ali, 1992). Independence in 1980 and the occurrence of a series of devastating cyclones in the second half of the 1980s, finally triggered the new Government to take leadership in disaster planning. In a memorandum in support of the Disaster Preparedness Plan for Vanuatu, the key role of NGOs, and the need for the Government to cooperate with non-government stakeholders across levels was already explicitly stated on

several occasions. The role of non-government stakeholders was officially recognised with the recommendation to provide non-government representatives in the National Disaster Coordinating Committee, renamed National Disaster Committee, with one representative of the Red Cross and one representative of all NGOs (Carter, 1987, para.156). This recommendation aimed to better channel international aid and acknowledged that most INGOs settled in the country had long-term relationships established throughout the islands of Vanuatu (Carter, 1987, para.83). It also expected to avoid coordination issues between government and non-government stakeholders (Carter, 1987, para.155 and 156). Furthermore, this first disaster plan already explicitly recognised the need for integration of disaster preparedness and management into “day-to-day affairs” and development, opening the pathways for cross-sectoral consideration and the development of a comprehensive approach to resilience-building. Soon after the development of the first disaster preparedness plan, the Presbyterian Church of Vanuatu developed in 1989 a Disaster Guideline as one of the first non-government DM strategies in the Pacific Islands (Ali, 1992). The value of the Disaster Guideline was more a “symbolic rather than practical” document (Ali, 1992, p.294) to claim the competencies of the Vanuatu churches for community preparedness

As provided in the National Disaster Act of 2000, and reviewed in 2006, the current National Disaster Plan is to be reviewed annually to update the Standard Operating Procedures. The National Disaster Plan is supported by national support plans developed for each type of hazard, such as the National Cyclone Support Plan or the National Tsunami Support Plan, and Provincial Disaster Plans. The Director of the National Disaster Management Office (NDMO) highlighted that discussions started within the Government to review the National Disaster Act to formalise national efforts to mainstream DRR, CCA and SD.

The International Disaster Response Laws, Rules and Principles (IDRL) were adopted in 2007 during the 30th International Conference of the Red Cross and Red Crescent (IFRC, 2011). The IDRL are “guidelines for the domestic facilitation and regulation of international disaster relief and initial recovery assistance” (IFRC, 2011, cover). These guidelines are to help Governments develop laws and national plans related to disaster risks. Vanuatu was the first Pacific country to lead an IDRL assessment in 2010-2011, facilitated by the Vanuatu Red Cross Society and the International Federation of Red Cross, and with the support of the NDMO. The former NDMO Director highlighted the need to assess the existing legal disaster system endorsed by all agencies, to be better prepared for an anticipated increase in complexity of disasters affecting the country (IFRC, 2010). At the time of the national IDRL study, Vanuatu had not experienced a major disaster, and therefore, the disaster governance system in place had not actually been tested. Thus, the national IDRL study reported the potential legislative gaps in the case of a catastrophe (IFRC, 2012). The national IDRL study highlighted the lack, both in the National Disaster Act and the

National Disaster Plan, of clear role distribution between Ministries to manage international aid in case of an emergency (IFRC, 2012). At the time of this research, a revised National Disaster Act had been drafted but not approved by the Council of Ministers. Based on the 2012 IDRL study, the dissemination of key plans was lacking, such as the National Disaster Plan, National Disaster Support Plans or Provincial Disaster Plans (IFRC, 2012). Although several NDMO respondents reported relative progress in this area, the lack of knowledge and awareness of the legal documents related to disaster response among national stakeholders was identified by international actors as a major challenge during Cyclone Pam response.

The need to mainstream DRR and CCA in the long-term plans of Ministries has already been reflected in different development strategies (such as the ‘Planning Long Acting Short’ agendas 2009-2012 and 2013-2016 or the ‘Priorities and Action Agenda’ 2006-2015). More particularly, the Priorities and Action Agenda (PAA) was the national strategy for development based on the Millennium Development Goals, with a specific focus on economic growth. The PAA primary goal was to achieve “an educated, healthy and wealthy Vanuatu”. However, respondents highlighted that this plan, although generally promoting economic growth, had unequal benefits among the community, at the expense of rural areas, and limited the success of the implementation of Millennium Development Goals priorities implementation (Forsyth, 2014). A supplement to the PAA, the Supplementary PAA on Disaster Risk Reduction and Disaster Management for a Safe, Secure and Resilient Vanuatu, introduced in 2006, specifically focused on DRR and DM. Based on the National Disaster Act and linked to the supplementary PAA, a DRR and DM National Action Plan was introduced for 2006-2016. The supplementary PAA and the National Action Plan both aimed to redefine the national strategies to better mainstream disaster and climate risks into SD. The implementation and operationalisation of this mainstreaming, however, has not yet been successful in most Ministries (UNDP, 2014).

Although the PAA focused on the three components of SD (economic, social and environmental), it was considered as an agenda highly focused on economic development. It was then decided in 2013 to bring environment protection more into the centre of focus. To partly address this issue, the National Adaptation Program of Action (NAPA) (2009-2015) was introduced as part of the development of the national framework for CCA and SD. Within the Global Climate Change Alliance program and with substantial funding from the European Commission and UNFCCC, the NAPA development was under the responsibility of the Director of the VMGD. The NAPA was partly a guideline to mainstream climate issues in national discussions. For example, the ‘National Climate Change Adaptation Strategy for Land-Based Resources 2012-2022’ (non-endorsed) was developed based on key national strategies among which the NAPA. The NAPA, however, was designed to address “the urgent and immediate concerns of Vanuatu in relation to adaptation to climate change for Vanuatu” (Government of Vanuatu, 2009, p.9) and lacked



recognition of longer-term priorities such as social and cultural priorities, as well as community engagement in the development of adaptation strategies (UNDP, 2014).

A task force composed of government and non-government representatives across sectors (government Departments, NGOs, private sector, academia and donors) was established to conduct the development of the plan replacing the PAA with the first objective to bring the environment, social and cultural perspectives forward: The National Sustainable Development Plan (NSDP) (2016-2030). Several consultative workshops with cross-sectoral representatives from government agencies, NGOs, private sector and civil society, were organised during the development of the NSDP draft (Forsyth, 2014). These platforms particularly helped build understanding and ownership of the new plan among all stakeholders. The NSDP was built around four themes: 1) economic well-being, 2) human and social development, 3) natural resources and SD, and 4) cultural well-being. Furthermore, to reinforce the inclusiveness and integration process, the NSDP aims to help national policies and plans align with regional strategies related to DRR, CCA and SD integration.

Several Ministries and Departments have already developed an integrated approach with co-existent priorities related to disaster risks, climate change and SD into their plans and policies (e.g. Ministry of Health, Ministry of Education, Department of Agriculture, Department of Water). Data management and strategy implementation, however, remain difficult (UNDP, 2014) partly due to a lack of leadership. Respondents raised the need for leadership support from the National Advisory Board on Climate Change and Disaster Risk Reduction (NAB) and its Project Management Unit to help Vanuatu ministries implement these strategies. Klint et al. (2012) already found implicit support for CCA across Vanuatu ministry strategies, such as tourism policies, and argued that explicit adaptation processes had to be integrated in the different strategies. Complementarity between fragmentation and integration is in question; although CCA and DRR are areas having cross-sectoral impacts, not all ministries can (and should) explicitly invest in CCA and DRR, due to the general scarcity of resources, and the remaining need to develop sectoral expertise. The establishment of the Ministry for Climate Change and NAB should help to build focal leadership and an explicit policy environment for CCA and DRR to guide the integration of the implicit strategies developed by each Ministry. This should develop an effective complementary policy environment: fragmented to leave focused Ministries and integrated to support mainstreaming DRR, DM and CCA across sectors.

Although the value of investing in DRR, and not only DM, is generally recognised, DRR is absent from the National Disaster Act. It has been discussed whether to amend the National Disaster Act to officially recognise the responsibility of the NAB for DRR, but at the time of this research this amendment had not yet been validated. Following Cyclone Pam, leaders revived dialogue about the amendment of the National Disaster Act, as well as of other policies, to better adapt the

national strategies with the current national priorities. To achieve this objective, the Risk Governance Assessment conducted in 2013-2014 (UNDP, 2014) particularly recommended official recognition of the NAB responsibility for DRR in the National Climate Change and Disaster Risk Reduction Policy.

The development of the National Climate Change and Disaster Risk Reduction Policy (2015-2030) was essential for strengthening the credibility, legitimacy and sustainability of the disaster and climate change institutions in place, and more particularly of the Ministry for Climate Change. Since its creation, one of the main on-going challenges encountered by the Ministry for Climate Change has been the lack of strategic plans linked to the long-term national policies and approaches, such as the PLAS or the PAA (UNDP, 2014). The parallel development of this integrated policy and the NSDP addressed the need for cross-sectoral DRR, CC and SD priorities. The Director of the NDMO particularly raised the concern that the development of the integrated policy might give the feeling that mainstreaming of DRR, CCA and SD was achieved, which would prevent other legislation evolving for the benefit of integration. He highlighted the potential of the networked governance system, and more particularly of the three umbrella networks, to provide a strong institutional framework overseeing general legislation evolution and implementation.

Indeed, policy development and implementation is the main challenge encountered at all governing levels. The traditional hierarchical political system alone cannot control policy application. In the networked system, the policy process is extended beyond the Government with mechanisms of formal and informal negotiations, discussions and collaboration with non-government stakeholders. Because key practitioners are included in the policy process, they will be more inclined to consider the policy legitimate and to implement it in their practice (Lewis, 2011). Moreover, as seen above, the governing system needs to evolve at the same time as its society, and the relationship between government and non-government actors (Lewis, 2011). In the policy process, networks are developed, consciously or not, to be appropriate tools for policy application (Perkin and Court, 2005). Non-government networks are, thus, essential for non-government actors to be sufficiently empowered to have an influence on policy-making (Perkin and Court, 2005). In parallel, joint-networks that bring together government and non-government actors can help both sides to refine policy expectations and understanding based on the specific political context to make policies more legitimate. Therefore, the whole Government–non-government, Cross-sectoral Networking system existing in Vanuatu is strongly empowered by the Networked Leadership that simultaneously resulted in and from the networking process. Indeed, the Vanuatu-Networked-System benefits from the co-existence of leaders across levels and sectors, which are strongly connected and cooperating for resilience-building.

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### **5.3. Institutionalised multi-level leadership for more effective resilience-building**

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#### **5.3.1. The conceptualisation of good leadership in Vanuatu relies on a multi-level structure**

Good leadership was spontaneously recognised among most respondents as an essential enabler for effective resilience-building. The respondents conceptualised key characteristics essential to leaders to support good leadership. These characteristics included political goodwill, taking of responsibility, trust, representativeness (of the whole society), humility, and development of community representatives' self-confidence. No specific trend based on the respondent attributes, whether they were government or non-government, international or local, empowered or grassroots, women or men, was captured in their references to good leadership characteristics. This highlights a shared and commonly built understanding of good leadership. Interestingly, respondents systematically emphasised the need for the identification, recognition and empowerment of leaders from the national, local and civil levels, and their interaction to achieve each of these characteristics as presented in this section.

Political goodwill for transparent and accountable cooperative decision-making was considered as one of the main characteristics of good leadership. Respondents highlighted that political goodwill depended on the direct involvement of leaders representing the different stakeholders (decision-makers, local actors and the different at-risk communities) in the process of decision-making. This involvement was considered essential for the development of accurate and comprehensive leaders' understanding of the context in which cooperation evolves, conditioning political goodwill to conduct transparent and accountable decision-making for resilience-building.

The taking of responsibility on the part of leaders for the decisions made and operations conducted was considered as another characteristic of good leadership, complementing political goodwill. Respondents highlighted however that this taking of responsibility had to be distributed across levels. They considered that leaders from all levels of governance had to be made equally accountable to ensure effective strategy development and implementation as well as service delivery in the different communities without discrimination.

The development of trust among all stakeholders was also considered a particularly key priority that had to be pursued by leaders to achieve good leadership. Stakeholders must trust the leaders' willingness and capacities to shoulder their responsibilities in order to develop trust in strategies and decisions, and ensure their effective implementation. Building such trust however was recognised as one of the hardest tasks in leadership, especially during crises. Respondents

considered direct interactions between leaders from all levels of governance as conditions to the development of such trust.

Furthermore, respondents often associated good leadership with the fair representation of the diversity of the society within the governance structure. This fair representation was seen as a condition of the respect without discrimination of the community as a whole, and the inclusion of all actors, communities and civil society groups. The positive impact of inclusive decision-making through a multi-level leadership in Vanuatu has been well-appreciated for decades (e.g. ADB, 1991; Ali, 1992), with the recognition of the key role of NGOs, community leaders and civil groups, and the private sector in support to the government policies and plans. Respondents considered the identification, empowerment and direct involvement of leaders from all levels of governance, and their interaction, within the decision-making process, as essential to achieve fair representation and consequent good governance.

This fair representation of the diverse communities, supported by the integration of leaders from all levels of governance, was also a key asset to achieve another characteristic of good leadership: humility. Respondents believed that interactions, and confrontation, between diverse leaders – official and non-official, central and decentralised – prevented leaders focusing on their own interests or the interests of only a part of the system members. The development of leaders' humility was then facilitated by multi-level cooperation within the decision-making process.

Finally, the lack of self-confidence of local officers and communities to interact with the decision-makers was often considered as an obstacle to good leadership. This prevented leaders developing an accurate understanding of CCA and DRR priorities for the different communities, which may prevent them from ensuring that strategies were appropriate to the specific needs of certain groups. Respondents believed that authorities had to identify, recognise and empower leaders from all levels of governance to develop trusting relationships with them and build the self-confidence of local and community representatives to get involved directly within the decision-making process.

Empowered by the supportive legal framework (section 5.2), and accordingly to the shared understanding of the need for a multi-level leadership exposed in this section, the mandated leaders within the Vanuatu-Networked-System are from all levels. The following sections analyse the distribution of leadership between the national, local and civil levels.

### **5.3.2. Key national level decision-makers enabling all-inclusive resilience-building**

#### ***5.3.2.a. Ministry for Climate Change, Meteorology, Geo-Hazards, Environment, Energy and Disaster Management***

##### **The Ministry and NAB**

The Ministry for Climate Change, Meteorology, Geo-Hazards, Environment, Energy and Disaster Management (referred to as Ministry for Climate Change) was established in 2013. It exercises its leadership in developing strategic climate change and disaster policies by leading cross-sectoral discussions and decision-making (e.g. disaster preparedness, economic growth, food security). The establishment of the Ministry for Climate Change is a symbol of the national commitment to integration and inclusiveness for livelihoods protection and resilience-building. Bringing together key Departments, such as Environment and Energy with Meteorology and Humanitarian Assistance, the Ministry for Climate Change facilitates the development of a cross-sectoral and cross-level approach; for instance, the integration of disaster risk priorities into environment protection strategies, and vice versa. Representatives of the Ministry for Climate Change stated that the Ministry particularly benefited from its strategic components, the NAB and its Project Management Unit, supporting cross-sectoral consultation and coordination.

However, leadership of the Ministry for Climate Change is weakened by the fragmentation of the plans developed by each of its Departments, which have already been effectively operating for decades under other Ministries, and critically miss common directives from the Ministry. This is mainly due to the lack of strong strategic long-term planning at the Ministry level (UNDP, 2014). Furthermore, the full transfer of the Departments under the new Ministry was still facing challenges at the time of this research. For instance, as highlighted by the Risk Governance Assessment (UNDP, 2014), the budget of the Department of Energy had not yet been fully transferred from its previous Ministry (Lands), and the establishment of decentralised units of the Department of Environment was considered a duplication of institutions that already existed in the provinces.

Furthermore, although cooperation between the VMGD and the NDMO was supported by a long history of networking, cooperation with and within the two other Departments (Environmental Protection and Conservation, and Energy) remained more difficult. Representatives of these two Departments reported that they were well established within their previous related ministries, and were willing to benefit from the resources already invested in building these trustful relationships, instead of investing new resources for new relationships under the Ministry for Climate Change leadership. The exchange of raw data and information between the four Departments is seen as the most significant missing link. Data sharing is partly limited by the limitations of data held in each Department. For instance, the Risk Governance Assessment (UNDP, 2014) found that the

database of Department of Energy remains informal and data collection is relatively inconsistent. To strengthen its database, the Department of Energy started to cooperate and share data with the National Statistics Office (UNDP, 2014).

Both government and non-government respondents stressed the need for leaders to better address data sharing issues, which could trigger stronger incentives for stakeholders to cooperate under, and strengthen, the Ministry for Climate Change authority. Indeed, the fragmentation of the various Departments and the absence of a common legal framework seemed to affect the credibility and legitimacy of Ministry for Climate Change leadership among respondents. It also raises the challenge of perceived duplication of mandate (UNDP, 2014). Also, the recognition of the Ministry for Climate Change was lacking, at the time of this research, which was more than two years after the establishment of the Ministry. The central national government website (<https://governmentofvanuatu.gov.vu>) gathering information on all the Ministries did not mention the Ministry for Climate Change, and had not updated the relocation of the NDMO, VMGD, Department of Environment and Department of Energy from their previous respective ministry.

The changes in the departmental organisation induced by the emergence of the Ministry for Climate Change had generally confused the role played by all Ministries and key stakeholders (Handmer et al., 2014). Furthermore, Ministry for Climate Change representatives highlighted that the implementation and operationalisation of the Ministry development took a long time, such as the late physical move of Departments, move of budgets or allocation of resources. These difficulties were partly explained by the general constant need for the Ministry for Climate Change to justify and clarify its position to the rest of stakeholders.

Despite these problems, throughout the three years of this research, the new institutional structure gradually became better understood and recognised by government and non-government stakeholders. Its networking facilitator, the NAB, specifically, was increasingly being perceived as an essential institution to support inclusiveness, integration, transparency and accountability for disaster and climate change matters. The former Minister for Climate Change declared that the establishment of the Ministry, along with the NAB, Vanuatu Humanitarian Team (VHT) and Vanuatu Climate Action Network (VCAN), raised Vanuatu as a leader in the Pacific region to address SD challenges through a comprehensive approach. The former Ministry Director-General added that with the main goal of the Ministry being to optimally use resources invested in resilience-building, innovative ways were needed to pursue efforts. Several high level government officers highlighted that following the positive efforts to include non-government stakeholders, the main challenge of the Ministry is to consolidate coordination between donors, and cooperation with the private sector. The NAB, supported by the UNDP Pacific Risk Resilience Programme, is particularly working on finding pathways to recognise and optimise the role of the private sector in disaster preparedness, response and recovery, as well as CCA. The

sectoral networks were generally recognised as potential key venues to control and support the development of such pathways at their sectoral level. Furthermore, respondents particularly highlighted the leadership potential of the VCAN and VHT to harness and disseminate the satellite networks achievements, up to the Ministry for Climate Change and NAB platforms, and more particularly to the two Departments directly controlling strategies for climate change and disaster risks (the VMGD and the NDMO).

### **The Vanuatu Meteorology and Geo-Hazards Department**

Prior to 2000, the Vanuatu Meteorological Services, mandated by the Meteorological Act 1989, lacked a strategic plan, and, thus, developed a 10-year development plan (2000-2009) with the support of the World Meteorological Organisation and the Australian Bureau of Meteorology. This strategic plan showed positive early results on developing ownership and capacity-building within the Department (VMGD, 2014). In 2011, the Vanuatu Meteorological Services became the Vanuatu Meteorology and Geo-hazards Department (VMGD), divided into seven divisions:

- Climate;
- Climate Change and Disaster Risk Reduction;
- Weather Forecasting and Services;
- Geo-Hazards;
- Observations;
- Information Communications, Technology and Engineering;
- Administration and Corporate Services (VMGD, 2014).

Before being integrated into the Ministry for Climate Change in 2013, the VMGD was part of the Ministry of Infrastructure and Public Utilities, along with Public Works Department, Ports and Harbour Department and Civil Aviation Authority.

As declared by the former Minister for Climate Change in his foreword of the VMGD Strategic Development Plan 2014-2023, the VMGD acknowledges the need for a cooperative system based on sectoral integration and inclusiveness of all stakeholders. To achieve this, the VMGD recognises the significant impact of cooperation across levels, with different ministries and non-government stakeholders, including civil society members. For these purposes, the VMGD strategy (VMGD, 2014) was developed in concordance with international, regional and national plans, such as the Pacific Island Meteorological Strategy (2012-2021) or the PAA (2006-2014). The main objective of the VMGD is to provide all hazard data on Vanuatu and the Pacific Region, to contribute to resilience-building and SD (VMGD, 2014). The VMGD is to be the leader in climate change and disaster monitoring, early warning systems and other technologies development, as well as promoting cooperation across levels, to support decision-making and implementation of mitigation projects in Vanuatu and the Pacific region (VMGD, 2014). In its

new strategic plan (2014-2023), the scope of the VMGD focuses on a better integration, and highlights the impacts of its services on the wide range of sectors involved in CCA (such as Food Security or Water and Sanitation).

The approach taken by the VMGD respondents particularly recognises the advantages of investing in networking to increase its impact on relevant activities. For instance, the VMGD strongly supports the Vanuatu Rainfall Network, supporting Government–non-government, cross-sectoral cooperation for weather monitoring, particularly through the extensive active participation of civil society members. Another example is the Climate division of the VMGD, which chairs the NAB Project Management Unit. This position was often reported, however, as highly confusing for many stakeholders, who mistook the NAB Project Management Unit as a sole VMGD component, instead of an independent institution.

### **The National Disaster Management Office**

The National Disaster Management Office (NDMO) is the mandated governmental agency to develop and implement policy for DM, from preparedness and long-term recovery for both natural and anthropogenic disasters. The NDMO was established by the 1986 Disaster Management Plan. Before the Ministry for Climate Change, the NDMO was part of the Ministry of Internal Affairs, along with the Corporate Services Department, Department of Local Authorities, Vanuatu Police Force, Department of Immigration, Department of Labour and Employment Services, Electoral Office, and Civil Status Office. The roles, responsibilities and composition of the NDMO were determined in the National Disaster Act in 2000, and reviewed in 2006 (Government of Vanuatu, 2006a). The NDMO acts as the Secretariat of the National Disaster Committee, and is responsible for issuing alerts, leading response coordination and implementing the decision-making of the National Disaster Committee, and developing and updating the Standard Operating Procedures with the support of diverse partners (NDMO, 2013a).

One of the key responsibilities of the NDMO was the establishment of the National Emergency Operation Centre. This establishment was first proposed in the 1987 Report on Disaster Management following Cyclone Uma (Carter, 1987). This centre was reported by respondents as crucial to facilitate NDMO responsibility of information management for effective response. The lack of operational standards within the National Emergency Operation Centre resulted in difficulties in response to Cyclone Uma and hindered the effectiveness of National Disaster Committee (Carter, 1987, para. 138). After Cyclone Uma, a sectoral standardisation of the National Emergency Operation Centre was proposed (Administration/Finance; Services; Construction; Medical and health; Commerce; Logistics; Agriculture) (Carter, 1987, para.55). Through this proposition, Carter highlighted the potential of sectoral activities for more flexible and appropriate response, and introduced the idea of a clustered system to lead operations. It was



only in 2013, with international and regional support that a fully equipped operational National Emergency Operation Centre was launched (Vanuatu Daily Post, 2013). The National Emergency Operation Centre plays a key role in warning, international assistance monitoring and response coordination. The centre works closely with the VHT, illustrating the existing close formal and informal links between the NDMO and VHT. This tie ensures more effective consideration of available non-government resources, facilitates information sharing between the government entity and the non-government actors, and promotes government–non-government collaboration on the ground.

Overall, the NDMO is responsible for supervising humanitarian aid (national and international) through the Vanuatu cluster system. Since its establishment, the NDMO has been in charge of linking government and non-government stakeholders for disaster matters, and has built a strong relationship with civil society for disaster preparedness, response and recovery. For instance, in close collaboration with non-government stakeholders and more specifically VHT members, the NDMO developed the roles and responsibilities of the CDCs, as well as standards for all stakeholders (such as community assessment or communication material). The NDMO and VHT work together on training and disaster simulation exercises to build capacity of CDCs and provincial departments, as well as develop education programs to empower communities and build their understanding of disaster risks (Government of Vanuatu, 2006b).

The lack of a strategic plan has often been blamed for the weakening of the credibility and visibility of the NDMO (UNDP, 2014). Participating in networks allows the NDMO to have access to a wider range of expertise more or less directly linked to disaster risks, and to the whole set of stakeholders involved in DRR and DM. The Director of the NDMO recognised the positive impact of the sectoral networks (more specifically the umbrella networks) on its leadership, by building its capacities, increasing its range of actions, and reinforcing its visibility and credibility as disaster risk coordinator.

### ***5.3.2.b. National Disaster Committee***

The 1985 National Disaster Plan established the National Disaster Co-ordinating Committee, which became the National Disaster Committee (NDC), in charge of decision-making on priorities and role distribution during a response to a disaster (Carter, 1987, para.52). The NDC was supported by a Central Control Group, which was in charge of effective implementation (Carter, 1987, para.52). The NDC determines the extent of needs in the response, and whether the state of emergency needs to be declared. When required the NDC, through the Ministry of Internal Affairs, sends a request for international aid to the Ministry of Foreign Affairs (NDMO, 2004). International assistance may intervene only once the Government sends this official request for international aid. The 2012 IDRL study, however, showed that the lack of awareness of legal documents leads to difficult communication and lack of clear role distribution between all

mandated stakeholders in times of response (IFRC, 2012). This lack of clear mechanisms to declare a state of emergency and request international aid may have major repercussions on the effectiveness of rapid international intervention (IFRC, 2012).

In its chapter 267, the National Disaster Act provides the composition of the NDC:

- The Director-General of the Ministry for Climate Change (Chair);
- the Director of the NDMO (Secretariat);
- the Police Commissioner;
- three non-government representatives (one of whom must be a woman).

The National Cyclone Support Plan 2015-2016 (NDMO, 2015a) added that these permanent members are to be supported by:

- A Chief Executive Officer endorsed by the Vanuatu Red Cross Society;
- the Directors-General of strategic Ministries (Prime Minister's Office, Ministry of Lands, Ministry of Agriculture, Ministry of Finance, Ministry of Infrastructure, Ministry of Health, Ministry of Education, Ministry of Justice);
- the Directors of strategic Departments (Strategic Policy Planning and Aid Coordination, Meteorology and Geo-Hazards, Local Authorities, Finance, Foreign Affairs, Agriculture, Education, Health).

In terms of integration, the most significant impact of the NDC is that its membership is very similar to the NAB committee (section 3.2.1.b). This situation supports continuity of discussions and decision-making between DRR, DM and CCA; the NAB leading cooperative preparedness and resilience-building, and the NDC leading cooperative response and recovery.

### ***5.3.2.c. Inclusive task forces***

The VHT and VCAN jointly worked on non-government discussions on the National Sustainable Development Plan (NSDP) and the Strategy for Climate and Disaster Resilient Development in the Pacific (SRDP). Many respondents reported that, through their representation in the NAB, the VHT and VCAN are particularly useful platforms for small associations involved in various projects on climate change and disaster risks, to have access to government information and resources. The two non-government networks were also considered as key representatives of non-government stakeholders to disseminate NGOs inputs in discussions on the NAB agenda and on the policy process. Respondents finally highlighted the legitimacy of these two networks as leadership venues, because representatives from both the VHT and VCAN have participated in the restructuring of the NAB and its Project Management Unit, as well as in the development of key national policies and strategies, such as the NSDP.

Likewise, task forces are often used in Vanuatu to control and promote inclusive and integrated decision-making. The effectiveness of the task forces is both a consequence and incentive of the

day-to-day Government–non-government, Cross-sectoral Networking process. The task forces are often composed of the same set of organisations and agencies across all Ministries, Departments and NGOs and across levels. This informal development of a core of representatives across levels and organisations particularly help the Vanuatu-Networked-System build stronger Networked Leadership. Key examples of task forces established in the country to support inclusive and integrated decision-making are:

- In 2009, a task force was established to collaboratively monitor the development and implementation of the National Action Plan. The task force discussed the priorities for the plan implementation, such as integrating traditional knowledge, documenting historical meteorological, hydrological and geological data, or reviewing mechanisms of information sharing and communication for DRR and DM;
- In 2014, a task force was established for the NSDP. This task force benefits from a strong mixed-consultation, with a balance of government and non-government members, from all sectors more or less related to economic, environment and social development (i.e. most sectors);
- In 2014, the establishment of a task force for the NAB reinforcement brought together government and non-government stakeholders across all related sectors.

### **5.3.3. Decentralised leadership for more appropriate decision-making in resilience-building**

#### ***5.3.3.a. Department of Local Authorities***

The Department of Local Authorities is part of the Ministry of Internal Affairs. The Department of Local Authorities headquarters sit in the main province, Shefa, and aims to ensure cohesive policies and plans among the six provinces in planning, service delivery, rural development, and capacity-building for local authorities. The Department of Local Authorities is a central government agency supervising consideration of communities and their needs in the strategies developed and projects conducted in the country. Among other projects, the Department of Local Authorities is involved in a cooperative program for resilience-building, led by the VMGD and including several Ministries (such as the Ministry of Agriculture). This project, the Increasing Resilience of Communities for Climate Change and Natural Hazards Program, has four goals: institutional strengthening (in particular the NAB Project Management Unit), community resilience, food crops and rural water security. Within this program, the development partners are to facilitate the access for communities to small grants from the World Bank. The particular role of the Department of Local Authorities in this program is to harness activities to ensure that they all address the actual needs of the communities and are appropriate to the local context. The original mechanisms put in place by the World Bank within this program were the allocation of money to local banks and heavy requirements of financial reporting. This system was not adapted

to the context of Vanuatu, where communities do not all have easy access to banks and/or where communities and bank staff do not always have the capacities to fulfil the financial reporting requirements. The Department of Local Authorities, with support of the Ministries, advocated the need to rethink these mechanisms to increase communication and capacity-building in rural areas for funding allocation, as well as include NGOs in helping the communities to undertake financial reporting to donors. This program is a concrete example of the potential pathways for government cooperation between Ministries to cover a comprehensive resilience-building program, while taking into account the specific local needs and acknowledging the key role of non-government stakeholders.

The Risk Governance Assessment underlined the difficulties of the Department of Local Authorities to achieve its objectives due to limited resources, lack of capacities and absence of legal plans (UNDP, 2014). This study also showed a gap between the legal framework as provided in the Amendment of the Decentralisation Act (following a bottom-up approach) and its actual implementation and operationalisation (following a top-down approach). This results simultaneously from the lack of the Department of Local Authorities resources to lead the shift of approach, and in the reduction of the sphere of influence of the Department of Local Authorities (UNDP, 2014).

### ***5.3.3.b. Provincial councils and Provincial Disaster Committees***

In 1994, the Small Island Developing State (SIDS) of Vanuatu was divided into six provinces, namely, from north to south: Torba, Sanma, Penama, Malampa, Shefa, Tafea; each of these provinces being governed by a provincial council. A second level of decentralisation takes place at the area level, administered by area councils. Independent from, but in coordination with area councils, three municipal councils were established to administer the three main towns of Vanuatu, Port Vila, Luganville and Lenakel, respectively in the provinces of Shefa, Sanma, and Tafea.

The distribution of the specific roles and responsibilities at the decentralised levels was determined in the Decentralisation Act 2006 (Government of Vanuatu, 2006a – amended in 2013). The main goal of the provincial councils is to administer, in relative autonomy from the national level, the different affairs related to everyday life, and particularly concerning disaster and climate change risks and SD affairs, in their respective province. The decentralised councils are indeed in charge of agendas essential to resilience-building, such as primary education and health care, and infrastructure (such as roads). Although the Decentralisation Act 2006 clearly divides the roles and responsibilities, the limited and unequal resources in the provinces challenge the implementation of the Act (UNDP, 2014). Therefore, to support the implementation of the Act, the Technical Advisory Commissions were recently established in all provinces, as another administration platform responsible for the coordination in their domain of expertise at the

decentralised levels. Their effectiveness, however, is also limited by a certain lack of resources and capacities (UNDP, 2014).

Decentralisation for DM was first introduced in the 1985 National Disaster Plan, with the establishment of the Regional Disaster Co-ordination Committees and the Local Government Disaster Co-ordinating Committees. Between December 1985 (endorsement of the National Disaster Plan) and Cyclone Uma in 1987, 11 Regional Disaster Co-ordinating Committees, along with their respective area committees, had been established (Carter, 1987, para.13). The Local Government Disaster Co-ordinating Committees were recognised as key networks to lead assessments in support of the National Disaster Co-ordinating Committee (Carter, 1987, para.65).

The National Disaster Act (Government of Vanuatu, 2006b, part 3 para. 11-1) provides the PDCs, which were established in the six provinces, based on long consultations between the NDMO and the Secretary-General of each province (NDMO, 2013b). Respondents highlighted the central role played by the VHT in support of the NDMO in the empowerment and capacity-building of the PDCs to become key networks and conduct more effective disaster response. To facilitate disaster plan implementation, the PDCs are supported by Provincial Emergency Operations Centres, which were established by the Secretary-General in each province, with the support of the NDMO and VHT.

The head of each PDC is the Provincial Disaster Controller (position filled in by the Secretary-General in their respective provinces), who is supported by a Disaster Operation Officer (filled in by the Provincial Police Commander or Officer-in-charge) and a secretariat, named Provincial Disaster Coordinator, nominated by the Secretariat-General after consultation with the NDMO (NDMO, 2013b). The responsibilities of the Provincial Disaster Coordinators as provided in the Standard Operational Procedures are to activate the Provincial Emergency Operation Centres as decided by the NDMO, to monitor agency resources allocation during response operations, and to update both ground agencies and the Planning and Intelligence Officer in their respective provinces (NDMO, 2013a).

The PDCs are composed of representatives from government agencies and NGOs (NAB, 2012b):

- Provincial council;
- Provincial agencies of the:
  - Ministry of Agriculture, Forestry and Fisheries,
  - Forestry department,
  - Ministry of Education,
  - Public Works Department,
  - Department of Rural Water Supply;
- Police;

- NGO provincial offices;
- International Federation of Red Cross.

As described in the plans, the PDCs lead the development of the Provincial Disaster Response Plans, the promotion of disaster awareness and preparedness activities in their respective provinces, the coordination of response operations at the level of their provinces, the liaison with the NDMO to ensure accurate data exchange, and the allocation of substantial provincial resources for disaster response (NDMO, 2013b). The VHT and the NDMO have been working together to develop standards to be used by all PDCs (e.g. assessment forms, M&E and Information, Education & Communication material).

The Area Council Disaster Committees are composed of representatives of the Ministries, Area Councils, NGOs and community (such as church, chiefs or women's groups) to facilitate cross-level discussions. Complementary to the existing decentralised Disaster Committees, the National Cyclone Support Plan 2013-2014 (NDMO, 2013b) highlighted the need for municipal committees in the towns of Port Vila, Luganville and Lenakel to better address urban challenges. The five levels of Disaster Committees were considered key transitional levels for more effective decision-making for preparedness, response and recovery.

The VHT is working to establish a coordination structure in each province, similar to the Vanuatu cluster system (Griffiths, 2013). This initiative aims to facilitate direct emergency decision-making and cooperation between national and international actors mobilised in the affected area.

### **5.3.3.c. Chiefs**

Customary institutions are major foci in strategies for development in general, and resilience-building in particular. Under the Vanuatu Constitution (Government of Vanuatu, 1988), the National Council of Chiefs, officially renamed Malvatumauri Council of Chiefs (Government of Vanuatu, 2013), is composed of more than 20 elected custom chiefs, who make their "own roles of procedure", to fulfil their role of guardians of community capital (Government of Vanuatu, 1988, art.29). The Council of Chiefs is a symbol of the national willingness to rebuild traditional power after the colonial period, and supports a greater transparency in government decisions (Siméoni, 2012). The role of the Council of Chiefs remains consultative, and its main responsibility is to supervise and advocate for the protection of customs, traditions, traditional culture and languages (Government of Vanuatu, 1988, art.30). The Council of Chiefs is often consulted by the Government for national issues related to customs, and advise any legal proposition within the Parliament (Siméoni, 2012). The Council of Chiefs is a recognised key leader in connecting traditional knowledge with the decision-making level (Government of Vanuatu, 1988).

Different types of traditional leadership were recognised by researchers (Siméoni, 2012). In the North, the systems of chiefdoms are based on competition open to all men (“big men” hierarchy in the North-East and religious hierarchy in the North West), whilst in the South, the systems of chiefdoms are based on titles transmitted through generations (Siméoni, 2012). This dichotomy between the types of chiefdoms, however, is mostly symbolic as influences of competition and titles transcend all provinces, and community consultation, consensus and power decentralisation remain significant determinants in decision-making (Siméoni, 2012).

Building local networks with all and the whole of communities is very useful for effective implementation of resilience-building projects. To facilitate community mobilisation, however, the engagement of chiefs is crucial. Priorities for better natural and cultural preservation of heritage sites were proposed during the development of the National Sustainable Development Plan. It was then considered essential to involve chiefs in the decision-making process, in collaboration with national and regional government agencies, and NGOs.

Based on the 2011 UNICEF atlas of social indicators in Vanuatu, more than 75% of the population of the country lives within remote communities, where traditions are omnipresent and Chiefs are key agents in leadership (UNICEF, 2011). In some of the most isolated communities, the chief and the associated traditional governance structure are the only system perceived by their respective communities. In time of emergencies, the pressure on Chiefs to take the best decisions for the whole community can be very high.

However, although the literature and policy review as seen in this section highlighted the key role of Chiefs, and despite the government and non-government respondents’ general recognition of the role of Chiefs in the decision-making process, no evidence of their connectivity with the rest of the Vanuatu-Networked-System was found through SNA data collection and analysis. Contrary to civil society groups who play an increasing active role in consultation, decision-making and practice (section 5.3.4.b), it seems that Chiefs are principally perceived for playing a representative role.

#### ***5.3.3.d. Remaining challenges for decentralised leadership***

Despite the clear distribution of roles and responsibilities among all decentralised leaders (as stated above), and like the national level, the provincial level suffers from a lack of sufficient and sustainable resources to implement disaster plans, and to lead effective activities. Due to the extensive layered administration, fragmented and not clearly visible in all provinces, it is very difficult not only at the national, but also the provincial levels, to control the many projects in the country. The Risk Governance Assessment (UNDP, 2014) found that many international, national and local agencies were implementing projects without notifying the respective provincial councils.

These difficulties are partly due to the lack of legal obligations for the provincial Departments to be accountable to the provincial councils (UNDP, 2014). Some provinces have put in place coordination mechanisms to limit the loss of information on implemented projects, such as in the Tafea province where monthly meetings, directed by the Secretary-General, map on-going activities, and a Financial Services Bureau monitors the funds allocated in the province (UNDP, 2014).

Furthermore, inconsistencies in the terminology used in the different legal frameworks create confusion during operations, especially for external aid; this was particularly witnessed during the response to Cyclone Pam. Bodies are given different names and acronyms in different plans and in practice, for instance, 'PDC', 'PDCCC' and 'PDMC' are used for the same Provincial Disaster Committees, also named Provincial Disaster and Climate Change Committees. Sometimes, the same document inverts the different acronyms. For instance, the National Support Cyclone Plan 2013-2014 consecutively uses 'PDC' and 'PDCCC' for Provincial Disaster and Climate Change Committee, and 'MDC' and 'MDCCC' for Municipal Disaster and Climate Change Committee. This illustrates the difficult process of prompt integration of climate change matters in a traditional disaster structure. This also explains remaining challenges to build a common approach and the inclusion of external stakeholders, as these differences bring lots of confusion.

Respondents recognised the significant impact of the sectoral networks on effective informal decentralisation. More formally, the NAB is closely working with the provincial councils to facilitate a better decentralisation of the addressing of climate change. The NAB is seen as being a significant enabler for the integration of climate change into provincial agendas, by promoting a change in the ways to manage disaster and climate change projects in the provinces.

#### **5.3.4. Strong inclusiveness of the civil level in leadership in the Vanuatu-Networked-System for resilience-building**

##### ***5.3.4.a. Community Disaster and Climate Change Committees***

The VHT, Vanuatu Red Cross and INGOs, such as CARE or World Vision, closely cooperated with the NDMO and Provincial governments on the establishment and standardisation of the Community Disaster and Climate Change Committees, called Community Disaster Committees (CDCs), at the local level. The CDCs are involved in the VHT data collection process in the provinces to ensure more accurate information, and adaptive decisions and recommendations. After a disaster, the inclusion of the CDCs, in complement to the PDCs and provincial Governments, achieves more transparent and informed rapid assessments during stressful events. The CDCs are to be a fair representation of their respective communities; therefore, CDCs are composed of representatives of the different civil groups existing in their communities, such as



women, farmers, local businesses, people with disabilities and youth. Their objective is to ensure that all groups are effectively assisted at preparedness, response and recovery stages, depending on their specific needs, and with a particular attention to the vulnerable groups.

Determined by the guidelines set by the NDMO, the CDCs have a wide range of responsibilities, from the identification of climate change and disaster risk priorities in the community to building community awareness on 'Building Back Better/Safer'. The main goals of the CDCs are to ensure the good development of the disaster and climate change related projects, led by NGOs and other organisations, in their respective communities. The CDCs have the responsibility to advocate for, raise understanding of, and ensure sharing of information on DRR and CCA among the whole community. Furthermore, the CDCs are in charge of gathering data essential for DRR and CCA policies and programs, such as on crops or rainfall. This bottom-up flow of data is essential, given the difficulties encountered at the national level for gathering accurate data in all the provinces. Furthermore, most respondents admitted that following a disaster, the CDCs are the best positioned platforms for conducting the first impact and needs assessments, and to facilitate the work of the rapid technical assessment teams; the objective being to provide the most accurate data to the operational level.

In collaboration with the local Governments, other decentralised Disaster Committees and local NGO offices, the CDCs participate in the development of a wide range of community-based plans (e.g. response plans, DRR plans, preparedness plans, warning plans, evacuation plans, CCA plans, school safety plans). Based on local knowledge, these plans are seen, especially by on-the-ground NGOs and civil society, as better-adapted and more appropriate plans than the national plans. The community disaster plans, however, like the committees, need to better integrate climate change in their agendas. Although commonly named "Community Disaster Committees", the networks had been recently renamed "Community Disaster and Climate Change Committees", which illustrates the strong awareness and efforts at the civil leadership level to mainstream DRR and CCA.

#### ***5.3.4.b. Civil society groups***

##### **Churches**

The 5-year national review of the Mauritius Strategy (UN, 2010) highlighted the recognition by the Government of Vanuatu of the key position of the churches in leadership (UN, 2010, p.22). Vanuatu is characterised by a strong involvement of churches in providing public services and taking part in decision-making for affairs related to climate change and disaster risks. Their continuous and trustful relationships with the communities put them in an ideal position to implement projects, and gather actual needs directly on the ground.

Most of the current churches present in Vanuatu arrived in the country during the colonial period, and have maintained a strong influence after independence, with the appropriation by Ni-Vanuatu groups of the western political mechanisms held by the churches (Ali, 1992). Churches remain a central symbol of power in Vanuatu, whether through membership for the majority of the Vanuatu population (with around 83% of the population being Christian based on U.S. Department of State, 2007) or by rejecting it as a symbolic opposition to the colonial heritage (such as the Yakel village in Tanna promoting traditional beliefs against western religion).

Founded in 1967, the New Hebrides Christian Council, renamed the Vanuatu Christian Council, is a NGO bringing together seven churches present in the country: the Presbyterian Church, the Catholic Church, the Church of Christ, the Apostolic Church, the Anglican Church, the Assemblies of God, and the Seventh Day Adventist. The goal of the Vanuatu Christian Council is for the member churches to work together towards their common goals of community service. Vanuatu Christian Council representatives reported that over the years the network developed strong relationships with key stakeholders involved in DRR and CCA, from the government sphere (Department of Forestry, VMGD, Department of Environment, Department of Agriculture, Department of Lands, Department of Trade, State Law Office and Chamber of Commerce) and from the non-government sphere: VANGO, Live and Learn Vanuatu, and Transparency Vanuatu. The Vanuatu Christian Council is also strongly linked to other sectoral networks, such as the REDD Technical Committee or Vatu Mauri Consortium. Furthermore, the Vanuatu Christian Council benefits from its trusting links with VANGO and the wide community coverage of its seven church members; this makes the Vanuatu Christian Council a key network facilitating information sharing and connection between the decision-making level and civil society.

Moreover, many NGOs in Vanuatu are faith-based or faith-related (Ali, 1992), and all have more or less explicit resilience-building agendas. Church representatives are CDC members, and the Vanuatu Christian Council often attends the meetings of the umbrella networks. This correlates with the traditional involvement of the churches in disaster planning, as pastors and other church leaders were key members of the NGO Disaster Coordinating Council, NGO Disaster Management Committee, and NGO preparedness and awareness workshops right after independence (Ali, 1992). Additionally, as mentioned earlier in this chapter, the Presbyterian initiative to develop Disaster Guidelines in 1989 shows the desire of faith-based groups to benefit from their privileged relationships with the communities to gain some leadership. Furthermore, the mobilisation of churches by the Government for providing evacuation centres, and the empowerment of churches and their networks to participate in effective response during Cyclone Pam confirmed the potential of such systems in contexts like Vanuatu to lead more effective operations.

## Women

Women are another key group to take into account for decision-making for effective DRR and CCA. The idea to empower women is not new and not specific to Vanuatu, or to the Pacific; however, according to women representatives, real discussions around the role of women are relatively new and fragile in Vanuatu. Vanuatu is characterised by co-existent matrilineal and patrilineal systems (Siméoni, 2012, map p.222), making the development of a national strategy for gender balanced leadership more difficult (these dynamics must be carefully considered during the development of the objectives of projects focused on women's empowerment, for more effective and positive project outcomes). However, the general increasing recognition of the need for a better gender balanced leadership in resilience-building increases at the strategic level. This was illustrated with almost half of the delegation representing the country at the COP19, the 2013 United Nations Climate Conference, was women (Government of Vanuatu, 2015d); this representation was pursued in the following conferences.

At the community level, women are increasingly being empowered through their primary role in the micro-economy system of the country (UN, 2010). On several islands, women's groups have come together to apply for small grants and generate income for the whole community. The Department of Women's Affairs (Ministry of Justice) coordinates, among other programs, the Women in Shared Decision-Making (WISDM) program that aims to empower women in the political sphere. For instance, this program supported in 2014 the election of five women in the Port Vila Municipal Council (AusAID, 2014).

However, women remain largely underrepresented at the higher levels of governance, which is a major limitation for general women's empowerment. Respondents, both from the national and the regional levels, credited this situation to critical tensions existing between the different agencies and groups focused on gender protection (and more specifically between the leaders of these organisations), hindering women to achieve leading positions. Another view, held by a majority of respondents, is that women's leadership is strong but occurs at an informal level of the decision-making process. Indeed, in most remote areas, community dialogues and decisions about households and the whole community are mainly conducted by women, but are then reported by men in Nakamals and at the national level. Respondents reported that in some islands, such as Pentecost, chiefs would not take decisions without consulting women beforehand. The informality of women's participation in decision-making, however, can raise some issues if men do not properly channel the information and decisions, resulting in a lack of accurate data on the community needs, and more especially on vulnerable groups, such as the elderly or people with disabilities.

A national Council of Women was established a few months before the independence declaration to bring together all women's groups acting in Vanuatu, to pool efforts and support women's

protection and empowerment. This council is currently known to be facing several challenges, partly due to internal conflicts with other agencies focused on women, such as the Department of Women's Affairs. Another major challenge, mentioned by most respondents working on women's protection, is the geographic coverage limitations of the organisations working on gender. Although some agencies and associations have decentralised offices in the rural areas, training is often offered in Port Vila. It can be difficult for some women to find the money to travel to the capital city and participate in activities aimed at women's empowerment.

### **Building future climate change and disaster leadership**

Youth groups are key venues to significantly enlarge the scope of coverage of the different resilience-building projects. Indeed, Vanuatu is a young country, with 58% of the population under 25 years old (UNICEF, 2011). Youth in Vanuatu is recognised as an active and adaptive group with potential for a positive engagement in decision-making related to disaster and climate change risks and SD in the country (UN, 2010). Along with women, youth were also represented in the Vanuatu delegation at the United Nation Climate Conferences (e.g. Government of Vanuatu, 2015d).

The community-based organisation Transparency Vanuatu, through the Yut Blong Konstituensi program, aims to strengthen the capacity of youth to participate in political discussions, and to increase the understanding of youth concerning the principles of good leadership (AusAID, 2014). The Pacific Leadership Program (PLP), initiated in Vanuatu in 2008, supports Youth Challenge Vanuatu in its Future Leaders Program, not only on Shefa but also on other islands (AusAID, 2014). For the purposes of its general capacity-building objective, the PLP promotes a cooperative involvement of numerous government agencies and NGOs, such as Leadership Vanuatu, the Bible Society or the Department of Women's Affairs (AusAID, 2014).

Cooperation between government and non-government stakeholders across sectors to educate the future generation of leaders in CCA and DRR is well demonstrated by a project aiming at the inclusion of climate change and disaster subjects in the school curriculum. Starting in 2012, this project is an initiative supported by the Ministry of Education, NAB, Vanuatu Institute of Teacher Education, Save the Children and SPC/GIZ. It aimed to integrate DRR and CCA topics, directly related to the context of Vanuatu, into the curriculum for years 7-10 (NAB, 2013). The project brought together 25 curriculum writers, from very diverse organisations (government agencies, NGOs, tourism industry and academia) (NAB, 2013).

Another project held in schools is the Climate Zone competition in secondary schools, which used the VHT and VCAN networks to bring together a wide range of project developers, and to include questions both on climate change and disaster risks. This competition, firstly initiated in Vanuatu in late 2012, was considered by many government and non-government respondents as a key tool

to increase the visibility of the potential of the future Vanuatu leaders at the regional level, as national winners represented Vanuatu in the regional competition in Fiji (NAB, 2013).

#### ***5.3.4.c. Civil society as a whole***

##### **Influential communities but limited involvement**

Traditional disaster response systems, developed before the colonial system, focused on civil capacities to support food security and relief assistance from one community to another. However, relief gradually switched from the civil to the national, regional and international levels (Campbell, 1990). This induced a fracture between the “new” decision-makers (national leaders and donors) and the traditional way to address needs (chiefs and communities). However, the recent shift of the national focus from economic development to environmental protection (section 5.2.2) re-introduced the need to better utilise local capacities and traditional knowledge.

Respondents from high levels of decision-making recognised that one of the main challenges in the policy process is the lack of government awareness of community expectations, beliefs and values (traditional) when working on adaptation and mitigation. Most government respondents acknowledged the significant role of community representatives in the sectoral networks, decision-making workshops and organisational meetings to reflect the different community points of view, and to pass on information to their communities. However, there is still a need for stronger networking pathways being developed with the rural communities in regards to CCA and the national goal to mainstream CCA, DRR and SD.

Several government officers affirmed that the most visible improvement of disaster and climate change governance from networking efforts is the increasing awareness and understanding, as well as participation and engagement of the communities. This situation has not only allowed building community capacities for preparedness, response and recovery, but also for basing the development of strategies and plans on the traditional knowledge of preparedness and self-recovery. Traditional knowledge and inputs from civil society groups are strongly recognised by the Government as key assets to optimise existing resilience dimensions (Government of Vanuatu, 2015e). Government and non-government respondents reported that community representatives and members particularly value the numerous opportunities to participate in networks to share their local knowledge about disaster and climate approaches, visions, practices and events in Vanuatu.

The Nakamals are the traditional governance platforms used for community meetings, ceremonies, decision-making, and conflict resolution. They are built following traditional knowledge about cyclone resistance (UNESCO, 2015), and traditionally, only men can meet in Nakamals to drink kava and discuss topical matters (Siméoni, 2012). These platforms are seen as the central body in a community, and therefore should recognise, and be recognised for, their

roles and responsibilities in resilience-building. The need to give authority to the Nakamals to approve or reject any customs-related projects after Environmental and Social Impact Assessments was discussed during the development of the National Sustainable Development Plan.

According to many government and non-government respondents, civil society is particularly well represented in the development of key institutions (e.g. NAB) and policies (e.g. the National Sustainable Development Plan). This involvement is strongly enabled by the networked structure in place. Although VANGO representatives underlined the lack of recognition from the Government of the numerous informal and ad-hoc networks existing in the rural areas, most local respondents acclaimed the sectoral networks for their capacity to stimulate leadership and technical capacities among the whole community. However, the same local respondents highlighted that these networks are often not well recognised and utilised by donors in the development of their projects, hindering the inclusion of civil representatives and their knowledge.

Thanks to their wide community coverage, the influence and potential of the churches, women's groups and youth groups as key platforms for civil leadership is recognised throughout the recent policies, plans and reports focused on the Vanuatu governance system (e.g. UN, 2010; UNICEF, 2011; Maclellan et al., 2012; AusAID, 2014; Government of Vanuatu, 2015e). Despite the strong leadership of civil society groups in connecting communities and official decision-makers, several government and non-government respondents highlighted the need to develop better understanding and capacities to generate more interest in Community of Practice activities throughout the whole SIDS.

The land policies (varying in each province) particularly reveal leadership niches for civil society. Based on the customary ownership rule, the Constitution of Vanuatu provides that lands, and their respective resources, belong to communities and traditional owners (Government of Vanuatu, 1988, art.73). This situation enforces the inclusion of the communities in dialogue on DRR, CCA and SD, and raises the need to offer more funding opportunities directly to the communities in these sectors (Maclellan et al., 2012). This opportunity for civil leadership is challenged, however, by recurrent conflicts between the different communities concerning the ownership of custom lands. For example, there is an on-going dispute over the land where Mount Yasur stands.

Social Media, and more particularly Facebook pages also allow civil society to take a leading role in discussions on topical issues. The Yumi Toktok Stret listed more than 60 Vanuatu social network groups led by civil society members supporting the share of information, perspectives and knowledge on political, economic and social issues (<https://yumitoktokstret.wordpress.com/social-network-listings/>). This highlights that, despite a

generally limited access to Internet and social media (section 7.2.2.b), the few community representatives who have this access are younger and more inclined to actively use these tools to engage with, and advocate community issues, such as resilience, education, domestic violence and urbanisation. Naupa and Howlett (2011) highlighted that Vanuatu benefits from a freedom of expressions that allows civil society to criticise leaders' choices more freely than in other Pacific countries. However, the real impact of these discussions on the policy-making process remains highly limited, partly due to the limitations of a wide majority of the Vanuatu society having access to these platforms. Therefore, traditional channels need to be better linked with the new social media opportunities to include all community members in collective debate, and participate in social and political change (Naupa and Howlett, 2011). By combining face-to-face networking and the regular use of modern communication tools (such as emails), the different sectoral networks are in a particularly strong position to participate in this process.

### **Optimizing existing institutions**

The 5-year national review of the Mauritius Strategy (UN, 2010) highlighted a slow return to consideration of traditional institutions such as Chiefs, churches, women's groups and youth groups. The report (UN, 2010) stresses the community influence, talking about the Vanuatu "Hidden Power" or "Power of Faith" (p.22), which is the individual willingness to participate in general well-being.

The association 'Leadership Vanuatu' acts to increase the capacity of various leaders in Vanuatu. Communities, chiefs and churches are considered as primary support for more accurate and appropriate decision-making. The association philosophy is that leaders should be representative of all segments and the whole of communities, and be accountable in their service delivery. To build good leadership, Leadership Vanuatu facilitates networking of a wide range of leaders and champions across levels (national, provincial and local) and across sectors (social, economic, environmental). These cooperative efforts aim to build capacities of existing and future leaders, by strengthening their understanding of the principles of accountability and transparency, by promoting regular dialogue across levels, and by more systematically including civil society into decision-making processes. This association, however, was not captured as a main actor by the SNA conducted within this research. No respondent claimed cooperative links with Leadership Vanuatu for the purposes of their projects in resilience-building. Although this does not mean that Leadership Vanuatu is not included in the process, it strongly suggests that the Vanuatu-Networked-System could benefit from the association's sphere of influence in building leadership capacities for resilience-building.

VANGO was particularly recognised as a key network that needed to be better utilised, given its critical loss of influence with the emergence of other networks (section 3.4.1.a). Maclellan et al.

(2012) reported that VANGO was considered as a great leader in transferring information from the ground to the national government. However, the manager of the Global Environment Facility Small Grants Programme pointed out that VANGO influence in the policy process could be enhanced if sectoral integration of ground information was better managed (MacLellan et al., 2012). For the purposes of this research, a major part of the respondents regretted the general lack of visibility of VANGO in the Vanuatu-Networked-System, and therefore, the loss of their linkages with NGOs and civil society groups. The lack of visibility of VANGO within the mapped system can be interpreted as the weakening of its position and its relationships among the network (Provan et al., 2005). However, given the difficulties in reaching certain islands, it is indeed essential to optimally use information collected by aid agencies during their work, and VANGO can facilitate this process. Respondents reported that since 2012, through the establishment of the three umbrella networks, VANGO has been participating in meetings and improving information sharing during meetings. VANGO coverage at the local level, through its own network and its membership in the Vatu Mauri Consortium tackles the on-going challenge of VANGO loss of its sphere of influence. Respondents who reported the loss of influence of VANGO were divided into two groups, the first claiming that national strategies should empower VANGO to regain its leading position, while the second thought that given the limits of its capacities VANGO could be better utilised as an umbrella network member instead of a leader.

### **Public consultation**

Government agencies tend to be increasingly dependent on other actors in the policy process (Juhola and Westerhoff, 2011). In terms of global policy making and practice, the use of civil society participatory methods is being increasingly encouraged within the resilience-building sphere, bringing non-government actors to the centre of policy-making (Pahl-Wostl, 2009; Juhola and Westerhoff, 2011). Government respondents highlighted that although government agencies recognise the value of such methods, they often do not have the required resources and flexibility to lead participatory projects, which tends to promote cooperation with non-government actors, who are then better positioned within the whole decision-making process.

Respondents suggested that government inclination to include civil society in discussions and decision-making emerged at all levels, from policy development to project implementation. A common instance often reported by respondents was the discussions in 2012 around the establishment of the NAB and its Project Management Unit, as drafts of the new institutional and legal foundations had been open to public feedback. This illustrated the strong consideration of civil ownership from the Government in the process of mainstreaming DRR and CCA.

Likewise, a public forum was held mid-2014 to promote civil consultations and understanding in the development of the National Sustainable Development Plan 2016-2030. This forum aimed to



bring together representatives of all the non-government stakeholders, including NGOs, local associations, private sector, civil society groups and community leaders. The opportunity was provided to representatives of NGOs, Women, and People with Disabilities to give presentations and lead debates. Several respondents acclaimed the forum attendance, which had been higher than expected. The respondents highlighted that this high attendance was a good indicator of the will of civil society to participate in debate related to resilience-building, and better understand the process of decision-making. The desire to strengthen traditional identity in its whole – its economy, culture, leaders, values, beliefs and knowledge – within the decision-making process rose in most discussions of the Forum. The need to better take into account protection of environment and traditions to build a sustainable society transcended all discussions, showing that these two distinct areas could also impact on each other.

### **A focus on the process and not the outcomes**

However, despite the presence of civil groups, such as women's or churches, and the increasing recognition of their influence in the communities, channels to empower these groups are still lacking. First, a general lack of understanding by the communities of the governance structure prevents them from effectively participating in decision-making. As part of the Governance, Leadership and Accountability programme (Oxfam), a survey covering almost 150 people from different groups (local government, women, youth, church, chiefs, NGOs, local associations, media) aimed to capture their perceptions and understanding of the nature of civil society. This project showed a lack of political and institutional knowledge and understanding. A key example was the fact that many participants of the survey integrated the Government in civil society.

Second, these civil groups often miss capacities and resources to effectively integrate the national governance system. A particular limit, generally recognised among all organisations and agencies, is the inequality of locations where capacity-building projects are implemented. This makes the most isolated communities less capable of being involved in discussions and decision-making.

Third, it often happens that informal leaders and spokesmen, who are not chiefs, are nominated within a community to link the whole community with the upper levels – provincial and national. It is crucial but extremely difficult for donors to identify these informal leaders, and to include them in development of projects. Respondents highlighted that through the observation of participation in the different sectoral networks, it is possible to capture these unofficial leaders, as they will often report information from their respective communities in these platforms.

Klint et al. (2012) found that mechanisms to involve civil society in decision-making in Vanuatu were very positive but lacking in terms of consultation from the start of the development of the policies. Incentives for civil society in general, and the private sector in particular, to participate in workshops were faulty, such as late notice or no visible outcomes. Furthermore, workshops

seemed to focus more on informing civil society than on cooperatively developing policies. Klint et al. (2012) also highlighted the lack of sustainable engagement in the consultative and collaborative process, notably because of a lack of transparency and accountability in the long-term. Similarly, Handmer et al. (2014) found that civil society was increasingly being involved in discussions, but could be better empowered to participate in the policy making, to support the implementation stage (Handmer et al., 2014).

According to Klint et al. (2012), this situation highlights that consultation and collaboration efforts focus more on the process rather than the outcomes. In the last few years, however, there has been an increasing recognition of the value of traditional knowledge for disaster preparedness, DRR and CCA. This may support a significant change in the way civil society gets involved, bringing them not only into the position of information recipient during the process but also into the position of real actors and leaders for effective outcomes. The capabilities of traditional communities to cope with disasters, which existed before the Condominium and the introduction of western habits, are widely recognised, from resistant traditional houses to food security (Campbell, 1990). In the last few years, government and non-government projects have been conducted to collect information and community reflections on traditional knowledge, such as on disaster resistant crops or traditional shelters, with the ultimate goal to integrate them in plans and strategies of the Ministries. A key sectoral network to support the process, was the collaborative Traditional Knowledge working group established and coordinated by the VMGD to specifically focus on the documentation and utilisation of traditional knowledge. The working group was not only considered by respondents as crucial to generating traditional knowledge, but also to disseminate this capital to the rest of the sectoral networks and to the decision-making level.

This chapter identified the legal and institutional foundations promoting and regulating Government–non-government, cross-sectoral cooperation to build more effectively resilience to hazards. However, although such legal and institutional components aim to address the challenges of inclusiveness and integration at all levels, their implementation and concrete impact on resilience-building can be faulty due to leadership deficiencies in representing the knowledge and priorities of all relevant stakeholders into the decision-making. Therefore, in addition to the set of sectoral networks (chapter 3), complex social networking (chapter 4), and complementary to the legal and institutional foundations, an informal, and thus more flexible, level of decision-making is crucial. The co-existence of formal and informal levels of leadership is indeed vital to support essential complementarities between fragmentation and combination, freedom and constraints, as well as flexibility and rigidity. The following chapter analyses the informal leadership of key network members based on their influence in the Vanuatu-Networked-System determined by their position in the social networking process.

## CHAPTER 6.

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# **Social networking leadership: Evaluating leadership dynamics using social network analysis**

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### **6.1. Introduction**

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Inclusive and integrated leadership (i.e. a set of leaders bringing together representatives of all sectors, levels and types of organisations) is essential to address the social and political changes required for effective decision-making in resilience-building. As seen in the previous chapter, this thesis focuses on Networked Leadership. This leadership is defined as the capacity of a network member, whether formal or informal, to participate in building clear and consensual vision and objectives for the benefit of the Vanuatu-Networked-System members; to motivate and facilitate the effective commitment of disaster and climate change stakeholders in the networking process for resilience-building; and to address the different cooperation challenges encountered in the Vanuatu-Networked-System. Networked Leadership comprises all of the influential nodes in the Vanuatu-Networked-System, relying on the reciprocal consideration and support between 1) the legal and multi-level foundations and 2) social networking leadership (SNA measures and perceived leadership). This chapter focuses on the informal development of Networked Leadership based on the social networking process.

Indeed, individual social networking, through informal influence of key social networking stakeholders within the Vanuatu-Networked-System, plays a role in the development of integrated and inclusive leadership which is as significant as the mandated power that operates. As introduced in section 2.3.2.a, three SNA measures were utilised for the purposes of this thesis to evaluate the potential influence of each network member based on their position and connections in the Vanuatu-Networked-System. In addition to the mandated leading positions and SNA measures of leadership, another indicator of leadership influence relies on the respondents' perception of influential network nodes.

Hence, this chapter aims to evaluate the complementarity of the mandated leadership (chapter 5), with the leadership dynamics based on the process of social networking occurring within the Vanuatu-Networked-System. To evaluate these leadership dynamics, the four Social Networking Leadership indicators are used:

- In-Degree centrality (SNA measure),

- Betweenness centrality (SNA measure),
- Eigenvector centrality (SNA measure), and
- Perceived leading influence (respondents' perceptions).

By analysing Social Networking Leadership in complement to the previous chapter on the formal legal and multi-level institutionalised leadership, this chapter discusses the potential of nodes to impact on the process of resilience-building solely through their cooperative efforts. Table 6.1 summarises the research questions and description of mandated leadership (whose structure was analysed in the previous chapter) and the four Social Networking leadership indicators discussed throughout this chapter. This table highlights the complementarity of the different indicators to cover the different pathways for stakeholders to influence decision-making within a network: mandated authority, high connectivity with the whole system, power on information dissemination, strategic connections, and recognition and credibility among the rest of network members.

Table 6.1: Research questions and description of indicators assessing Networked Leadership.  
Source: adapted from Vachette, 2015a.

<i><b>Indicator</b></i>	<i><b>Research question</b></i>	<i><b>Description</b></i>
Mandated leadership	What are the professional position and functions of the stakeholder?	Leading functions due to the stakeholder's position in his/her organisation
In-degree centrality	How many times did other network members name the stakeholder as main formal and/or informal collaborator?	Predominance of the stakeholder based on his/her extensive and numerous connections, and recognition of his/her input by the other network members
Betweenness centrality	How many times is the stakeholder positioned between two other network members?	Power of the stakeholder on communication and information dissemination within the network
Eigenvector centrality	How central are the network members connected to the stakeholder?	Influence of the stakeholder on decision-making based on his/her strategic connection and cooperation with central and influent actors in the network
Perceived leading influence	How many times did other network members name the stakeholder as main decision-makers within the network?	Other members perceive the stakeholder as main decision-makes within the network

## 6.2. Measuring leadership with social networking indicators

### 6.2.1. Social networking leadership

This section analyses the social networking leaders, in other words the most influential nodes of the Vanuatu-Networked-System based on their positions in the networking process during the

research. Three SNA measures of centrality (In-degree, Betweenness and Eigenvector described in table 6.1 and analysed in-depth in section 6.2.2) improve our understanding of the existing and potential mechanisms for good governance. These SNA measures are strong indicators for the main influence and control of each stakeholder of the Vanuatu-Networked-System captured in this thesis, and need to be compared to the perceived leaders to verify whether perceived and mandated leadership trends are consistent.

The identification of nodes as social networking leaders highlighted the leadership potential of certain organisations, agencies and networks in the resilience-building process. Table 6.2 features the most influential nodes, designated with their respective institutions, captured by the social networking leadership indicators. Statistical centrality data of nodes presented in table 6.2 can be found in appendices 4.1, 4.2 and 4.3 SNA maps illustrating the organisational influence based on In-degree centrality and perceived leadership position can be found in the appendices 5.1 and 5.2.

Table 6.2: Social networking leaders: Most influential nodes nominated by their institutions in resilience-building in Vanuatu based on their position in the networking process within the Vanuatu-Networked-System in 2015

<b>Rank</b>	<b>In-degree</b>	<b>Betweenness</b>	<b>Eigenvector</b>	<b>Perceived</b>
<b>1</b>	SPC/GIZ	SPC/GIZ	SPC/GIZ	NDMO
<b>2</b>	NAB	VCAN	VCAN	VMGD
<b>3</b>	VCAN	NAB	VCAN	NAB
<b>4</b>	NAB	NAB	NAB	Ministry of Climate Change
<b>5</b>	Ministry of Climate Change	NDMO	Department of Environment	SPC/GIZ
<b>6</b>	VHT	ADRA	Red Cross Societies	VHT
<b>7</b>	CARE International	VCAN	CARE International	Communities
<b>8</b>	VMGD	Department of Local Authorities	NAB	Community leaders
<b>9</b>	VCAN	Red Cross Societies	Farm Support Association	Department of Fisheries
<b>10</b>	VMGD	VHT	Vanuatu Rural Development Teaching Centres Association	Donors

	Government nodes
	Non-government nodes

The central position of the three umbrella networks was reflecting their strong representation as groups among the leaders captured by the four indicators of social networking leadership. Furthermore, all social networking leaders are members of at least one umbrella network. This reflects the key potential and responsibilities of these networks to utilise their centrality to reach

the maximum number of stakeholders concerned with disaster and climate change affairs (as already seen in section 4.3).

Except for the Department of Local Authorities and the Fisheries Department, all government agencies represented by the social networking leaders fall under the authority of the Ministry for Climate Change, illustrating the recognised and perceived leadership of the Ministry in disaster and climate change related affairs. Based on these SNA findings, SPC/GIZ<sup>17</sup> was a key network member, being the first stakeholder in the three SNA indicators and the first perceived non-national-government decision-maker. Recognised among most government and non-government respondents as a key promoter of the development of the Ministry for Climate Change, NAB, Vanuatu Climate Action Network (VCAN) and SPC/GIZ strongly supported the authority of the newly born Ministry and umbrella networks.

Importantly, half of the social networking leaders are non-government. This confirms the significant influence and authority of non-government stakeholders on the processes of cooperation, integration and inclusiveness within the Vanuatu-Networked-System. However, social networking leadership of non-government nodes raises concerns among government and non-government officers about the credibility and legitimacy, and thus the sustainability, of the Government in its roles and responsibilities related to governing disaster and climate change affairs (it is seen in chapter 10 that the leadership credibility of mandated government agencies was questioned across organisations agencies during the management of Cyclone Pam).

Furthermore, the lack of visibility of the Prime Minister's Office and its Department of Strategic Policy, Planning and Aid Coordination in social networking leadership, and to some extent in the social networking process, was a challenge raised by this SNA. Although mandated to supervise and coordinate the diverse Ministries and non-government institutions in the country, the Prime Minister's Office and its Department of Strategic Policy, Planning and Aid Coordination were not present in the coordinative system. This result does not mean that they are completely absent in the actual governance system, but highlights that they are not perceived as active collaborators. This lack of visibility could be interpreted as a critical weakness of the Vanuatu-Networked-System (Provan et al., 2005), despite a mandated leading role in the process. This may result in a gap between the distribution of mandated actors and the actual cooperative process. This lack of proactive relationship-building between the Prime Minister's Office, the Department of Strategic Policy, Planning and Aid Coordination and the rest of the Vanuatu-Disaster-Networked-System had major impacts on the response to and recovery from Cyclone Pam (section 10.2.4.b).

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<sup>17</sup> SPC/GIZ refers to the unit in charge of the Coping with Climate Change in the Pacific Island Region Programme conducted by the Pacific Community (SPC) and the German Cooperation (GIZ) in Vanuatu.

## 6.2.2. Using the SNA measures

### 6.2.2.a. *In-degree Centrality*

*Degree Centrality* measures the extent of coverage over the whole system based on the amount of the stakeholder's ties with other network members. Since not all 260 network members participated in the research, *Degree Centrality* has limits, measuring higher centrality to respondents (registering *Out-degree* connections – how many ties come from them, and *In-degree* connections – how many ties reach them) compared to non-responding stakeholders (registering only *In-degree* connections). Therefore, for the purposes of leadership assessment, only *In-degree* connections were considered, reflecting the recognition of others on the centrality of the different stakeholders.

This resulted in very high *In-degree Centrality* of non-government nodes from SPC/GIZ, Oxfam (through its coordination role of the VCAN and VHT) and CARE International. SPC/GIZ is considered by a wide number of respondents as a significant and visible advocate of CCA priorities in the country. It has strong links with the Government, and is well recognised for its influence across levels. Oxfam is particularly seen as a key organisation for cooperative resilience-building due to its coordinative role within several networks (VHT, VCAN, but also National Civil Society Disability Network, National Youth Livelihoods Network). Likewise, CARE International is a network coordinator (Gender Partner Group) and a member of many of the sectoral networks. Staff from CARE International were widely recognised among respondents for their work in DRR and general resilience-building, as well as its well-established relationships with communities and civil society groups.

The most *In-degree-central* government nodes were staff from the NAB, VMGD, National Disaster Management Office (NDMO), Department of Agriculture and Ministry of Education. These agencies are the officially mandated departments in charge of matters related to disaster risks, climate, agriculture, forestry, fisheries and education. This illustrated the strong potential of integrated disaster risks, climate change and development with these strategic government agencies in central positions to the process of networking. This strategic position helped these departments build and disseminate significant expertise, while supervising their integration within the Vanuatu-Networked-System.

### 6.2.2.b. *Betweenness Centrality*

*Betweenness Centrality* measures the control stakeholders have on information dissemination. This centrality refers to boundary spanners, people who play a key role in information dissemination (flow and nature of information) within their network and with the rest of the system (Kapucu, 2006a). The most *Betweenness-central* nodes in the Vanuatu-Networked-System were representatives of SPC/GIZ, VCAN and NAB, which is consistent with *In-degree*

*Centrality* findings. It is crucial that these organisations shoulder their responsibility for fostering cooperation within the Vanuatu-Networked-System. They have a significantly wide network, and poor information dissemination on their part would affect the whole network.

Two nodes were part of the 10 most *Betweenness-central* stakeholders in the Vanuatu-Networked-System despite low *In-degree Centrality*, illustrating the position of their organisation as networking connectors in the Vanuatu-Networked-System. The first, from the faith-based NGO ADRA, is an essential link between faith-based local non-government stakeholders and the highest strategic levels. The second one, from the Department of Local Authorities, is a vital link between national and provincial stakeholders involved in the network. These two nodes, and consequently their organisations, have key responsibilities towards stakeholders with less access to cooperation at the highest level of decision-making, and who significantly depend on them for fast and accurate information dissemination. Staff from ADRA were reported to be particularly well involved in the umbrella networks, and many of the other sectoral networks; this position develops its potential in disseminating information across all levels. Conversely, officers and project managers from the Department of Local Authorities recognised that their agency encountered difficulties in allocating time to social networking (such as participating in meetings), and were aware of a waste of its potential to liaise and facilitate discussions among its own network.

#### **6.2.2.c. Eigenvector Centrality**

*Eigenvector Centrality* measures the level of influence a stakeholder has based on the centrality of its collaborators. This measure identifies nodes raising their level of influence using an efficient strategy of cooperation: ties with highly central nodes. High *In-degree-central* nodes from SPC/GIZ, VCAN and NAB were, statistically, better positioned to be linked with the other most *In-degree-central* stakeholders than other nodes, explaining their high *Eigenvector Centrality* within the system. However, three nodes demonstrated particularly efficient collaboration, registering significant low *In-degree Centrality* (they have relatively few connections with the rest of the network) but high *Eigenvector Centrality* (they are linked to the most central nodes of the network):

- Department of Environment,
- Farm Support Association,
- Vanuatu Rural Development Teaching Centres Association.

Respondents from these organisations reported that they had low expectations of the potential for extensive cross-sectoral collaboration to achieve their goals. Representatives of these organisations showed their concern that the integration process (DRR, CCA and SD) may have negative impacts on the development of expertise in their sectors (respectively environment,



agriculture and education). However, if they are not considering integration as an asset for their work, these organisations have potential to build important knowledge and resources useful for integrated and inclusive governance within the Vanuatu-Networked-System. Thanks to this strategy of a few, yet central connections, these organisations were able to access a significant part of the networking capital available in the whole network to focus on their expertise building. Respondents from other organisations confirmed that these organisations were recognised for their key expertise among the Vanuatu-Networked-System. In return, their connections allow them to transfer this knowledge to a wide part of the rest of the system while investing small amount of resources in cooperation, by using the network of their connections. However, these two channels strongly depend on their connections and the sectoral networks having access to the others' networking capital and able to disseminate theirs.

### **6.2.3. Using network member perceptions**

In addition to their key collaborators, respondents were asked to name the three main decision-makers for disaster risk and climate change affairs in Vanuatu. With a total of 40 nominations, the notion of 'decision-makers' was interpreted in different ways, mostly as:

- who has the mandate to make decisions,
- who is the most influential in decision-making, or
- who determines the success of negotiations, and project endorsement and implementation.

Out of the 40 different key decision-makers named by respondents, 50% were specific individuals and 50% were organisations or agencies. More than half (55%) of these decision-makers were non-government, which demonstrates the strong leadership of non-government stakeholders for disaster and climate change matters in Vanuatu.

Out of the 20 individuals nominated, only 4% were women, who were all from NGOs. This illustrates the difficulties for all women, and particularly government employees, to gain leading positions and recognition. Furthermore, 85% of the individuals named as decision-makers were locals. The 15% of expatriates nominated as main decision-makers had a strategic position in their organisation, and scored high *In-degree Centrality*. Most respondents who nominated these expatriates thought that these stakeholders played a primary role in empowering their respective organisations, and their departure would significantly affect the organisations position within the Vanuatu-Networked-System. This highlighted the key leaders' responsibility to recognise the impact of networking capital and to ensure the continuity of organisational outcomes to build a sustainable governance system.

Representatives of civil society and donors were also named as decision-makers. Hence, the perceived leadership indicator demonstrated the complexity of shared leadership in Vanuatu. Respondents justified these choices by the fact that project development depended on donors,

controlling funds allocation, while project implementation depended on communities, whose goodwill determined the actual outcomes of the projects on their resilience in the long-term (by accepting, or not, to actually process the project products).

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### **6.3. Social networking leadership: building complementary processes**

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#### **6.3.1. Balance between fragmentation and integration**

Good governance is hindered by recurrent gaps between policies and programs development, and their implementation. The differences of the approaches and plans undertaken by the diverse organisations involved have often been targeted as the main reason for unsuccessful project outcomes. Networking as a means to control and coordinate implementation agendas is a crucial factor in the effectiveness of projects. Integrated leadership and integrated discussion, bringing together all types of actors across sectors, helps to address these challenges. Supported by legal mainstreaming through the National Climate Change and Disaster Risk Reduction Policy (Government of Vanuatu, 2015e), the Vanuatu disaster and climate change governance system has significant potential for integration. The system particularly benefited from the establishment of the NAB, considered as a key enabler to better harmonise the different approaches and initiatives of all organisations (UNDP, 2014). Likewise, provincial and local networks and committees also participated well in developing an integrated vision of national disaster and climate change strategies. In general, the different sectoral networks facilitated the involvement of all ministries and departments, as well as non-government actors in the decision-making and planning processes.

The NAB also reinforced its leadership with the development of endorsement processes for programs, projects and materials (section 7.2.2.c). Through these processes, the NAB controls the appropriateness and consistency of Information, Communication and Education materials and project outcomes for resilience-building. The NAB endorsement processes aim to ensure consideration of lessons-learned from, and across, all sectors in the policy process. Most respondents recognised the value of the NAB as a focal point, where representatives of the different Ministries and non-government stakeholders could participate in the development and endorsement of the projects led in the country.

The integration and inclusiveness processes during the development of policies and projects related to DRR and/or CCA, however, may endanger clear leadership in their implementation, as responsibility distribution may not be as visible and well defined among organisations. The concept of full integration also raised concrete challenges among local stakeholders, as the difference between climate change and “normal” weather events is not clearly understood at the

local level. For instance, the Director of the Farmer Support Association indicated that there was a tendency to force traditional actors to address agricultural problems through the scope of climate change, when it should be the other way around. Principles and processes adopted at the local level for environmental and disaster issues already address priorities related to climate change. Consequently, most local respondents expressed concerns about the integration process. From their point of view, the new national policies and major international programs raise the same issues as before, such as food security, but classify them under the climate change scope, confusing sectoral levels and practice in general. A local association project manager added that this new focus on climate change was hindering more general affairs related to livelihoods from being considered comprehensively, such as WASH. This situation may potentially jeopardise the sustainability of the system.

To effectively build expertise, it is important to allow each sector to have its own system of work and networking. A certain level of fragmentation is necessary for the development of sectoral capabilities and knowledge. Government and non-government respondents confirmed the particular benefit of having access to a heterogeneous set of networks with a simultaneous access to specialised and general networking capital to focus on their own area of expertise. Hence, the networked structure facilitates expertise building while developing a comprehensive scope.

In general, the different networks developed leadership capacities by participating in the development of this comprehensive vision around their respective sector, particularly by bridging the gap between policy, academic research and humanitarian practice. Thanks to the networks, there is more informed feedback to all stakeholders on policy development, international negotiations and commitments reflecting a wider perspective from all stakeholders. The networks have guided a crucial change in planning and resources allocation, to optimally use the complementarity between specific expertise and holistic approaches in order to have a more comprehensive system for resilience-building.

More particularly, the NAB was widely recognised to be in the most strategic position to shoulder the leadership role with responsibilities to supervise the effective and fair exchange of fragmented data and information between and across sectors and types of organisations, to ensure the development of appropriate projects. The government decision number 141/2012 provided the NAB with the authority to “act as Vanuatu’s supreme policy making and advisory body for all climate change and disaster risk reduction projects, initiatives and activities” (NAB, 2012a, p.6). Simultaneously, an amendment to the National Disaster Act was drafted to formally recognise the NAB authority in DRR and CCA governance (amendment not yet endorsed at the time of the research).

The NAB strategy, recognising the critical need of a dualistic system based on a fragmented process coordinated by an integrating approach, stated that terms of reference related to DRR and CCA projects were to be developed at the sectoral level, with government and non-government consultation, and then submitted for endorsement by the inclusive NAB committee. All Ministries granted to the NAB the specific role of leading coordination and integration. However, government and non-government respondents stressed the need to limit the NAB's responsibility in policy development to its coordinative and mainstreaming mandate. Indeed, the NAB responsibility is not to develop sectoral policies and visions, which must remain under the fragmented approach to ensure the appropriateness and value of the policies, but to endorse the sectoral policies if they comply with its comprehensive vision. Furthermore, almost half of the respondents (42%) spontaneously highlighted the significant potential of the cross-sectoral and inclusive nature of the NAB committee to support transparency, accountability and neutrality in its process of endorsement (UNDP, 2014). Furthermore, the NAB supports complementarity and consistency between government/non-government strategy-making and government/non-government strategy-implementation. Indeed, the implementation of disaster-and-climate-change-related decisions is monitored by the NAB Project Management Unit: the operational entity overseeing the program financing, project appropriateness, activities coordination, and capacity-building outcomes, within all disaster and climate change related projects.

The other sectoral networks, and particularly the two other umbrella networks, the VHT and VCAN, also play a strategic dual role in supporting inclusive sectoral information sharing, discussions, decision-making and implementation across levels, while bridging with other networks. The whole set of networking venues supports organisations and individuals in combining their day-to-day expertise building and need to be embedded in the whole resilience system. This system builds a complementary balance between fragmentation for sectoral accuracy and integration for a sustainable comprehensive approach.

More particularly, the Vanuatu cluster system adopted by the Government (section 3.2.2) was also considered as a crucial networking asset for resilience-building. The Vanuatu clusters support the development of a strong humanitarian leadership held by government agencies (ministries being the leading agency of each Vanuatu clusters), significantly and visibly supported by non-government stakeholders, United Nations and VHT members being co-lead of the clusters (section 3.2.2.b). However, the terminology used for the cluster leaders in Vanuatu policies and plans (e.g. NDMO, 2015a) was often reported as confusing: with a government "lead" and a non-government "co-lead". There was a lack of consensus between government and non-government stakeholders whether these nominations meant that it is a co-lead or a lead/assisting-lead system. This lack of clear humanitarian leadership positioning raised tensions during response operations

following Cyclone Pam, which delayed decision-making and hampered cooperation (section 10.2.4).

### **6.3.2. Balance between rigid and flexible cooperation**

In parallel to developing a balance between fragmentation and integration, the Vanuatu-Networked-System presents real potential to better balance rigidity and flexibility. Government and non-government respondents reported that the different networks in place in Vanuatu had greater potential to facilitate dissemination of the networking capital than mandated organisations. These networks do not fall under the control of a single organisation or agency, but rely on both formal, provided by the mandated structure in which they are integrated, and informal mechanisms. By acknowledging the value of both formal and informal networking, the Vanuatu-Networked-System supports the development of a strong feeling of ownership and credibility of the process of resilience-building among network members. Informal relationships were strongly recognised as key mechanisms to bypass existing leadership mechanisms when a situation, such as a disaster, requires more flexibility (Kapucu and Garayev, 2011; Demiroz and Kapucu, 2012). Formal and institutionalised networking structure and processes, though, ensure a certain stability, and thus reliability, and visibility, supporting more effective cooperation (chapters 3 and 5).

Complementarity between formal and informal relationships is inherent in the context of Vanuatu, which equally relies on hierarchical and decentralised systems. Government officers highlighted that the hierarchical system in Vanuatu remains strong and accepted by most stakeholders; however, it limits their range of actions and the possibility for inter-organisational communication. The Vanuatu-Networked-System addresses these issues by utilising shared leadership mechanisms fully integrated in the traditional hierarchical structure (section 5.3) to promote government–non-government cooperation, and support sharing of authority and responsibility between the diverse members. Hence, by developing reciprocal consultation channels between all levels of governance, the structure of the Vanuatu-Networked-System – positions, roles and connectivity of its umbrellas networks and satellite networks – prevents stakeholders calling into question final decision-making. Therefore, although, networks are non-mandatory and non-binding layers of decision-making, many officers and non-government actors, but also representatives at high levels of authority recognised the significant impact of the networks in developing rigid yet flexible, and thus more effective, leadership.

A complementary balance between rigidity and flexibility of the networked system is all the more important in resilience-building, as the occurrence of disasters remains relatively uncertain and unpredictable, while there is a need for prompt centralised decisions during emergencies (Moynihan, 2008; Kapucu and Garayev, 2011; Demiroz and Kapucu, 2012). Therefore, a primary

incentive for government decision-makers to cooperate with non-government stakeholders is to benefit from their relative flexibility in project management.

Conversely, Maclellan et al. (2012) found that the inflexibility of donors was a major obstacle for a vulnerable and under resourced country like Vanuatu, limiting the access to funding, and the appropriateness of the implementation process. These issues were also recognised by the donors themselves (Maclellan et al., 2012). The NAB Project Management Unit aims to address these questions by promoting dialogue between officers mandated by donors, government agencies and NGOs. Respondents mentioned several cases where this network allowed the mandated officers and the national organisations to cooperate and advocate for amendments to the program terms of reference financed by external funds. They also explained how cooperation was often motivated by the need to identify and address the “grey areas” (cooperation vacuums) within the programs to adapt the operations to the specific context of the targeted communities without breaking donor requirements.

Furthermore, to optimally use the system in place, government and non-government stakeholders questioned whether networks, such as the Small Aid Donor Network, should evolve into a more binding cooperative platform to promote a better coordination between all donors (section 3.4.1.a). The NAB is already effectively enforcing cooperation through the project endorsement process, but its authority remains limited as donors sometimes by-pass the process in the provinces. The question of requiring participation in the Small Aid Donor Network would be an additional layer of control, and monitoring requirements would involve resources that are currently lacking.

To develop a complementary rigid and flexible system, simultaneously addressing emergency needs and building resilience in the long-term, it is essential to proactively build strong leadership. Handmer et al. (2014) highlighted the potential of proactive networking to ensure more effective disaster response, prevention and recovery, with pre-determined coordination pathways. Respondents reported that network meetings identified niches, where resources needed to be invested to build preparedness not only for emergencies, but also for international calls for tenders on major cross-sectoral programs. In general, respondents agreed that good leadership was determined by the morality of leaders enabling this common long-term preparation, ensuring the sustainability of the system. Respondents highlighted that such good leadership was achieved when all of the government and non-government stakeholders involved integrated the cooperative government–non-government, cross-sectoral approach into their day-to-day activities. However, a non-government officer highlighted that while local organisations had a short-term approach in their work, activities being project-funded and often targeting day-to-day pragmatic resilience, higher levels of decision-making were relatively disconnected from day-to-day community needs,

hindering long-term resilience-building. Respondents reported that the Vanuatu-Networked-System built complex mechanisms to bridge both approaches.

### **6.3.3. Addressing the internal and external pressures on the system**

#### **6.3.3.a. Internal pressures**

##### **Expertise capitalisation<sup>18</sup>**

The Vanuatu 5-year assessment of the Mauritius Strategy (UN, 2010) highlighted the lack of visibility in a major part of the activities led in the country, with 80% of the population conducting informal activities, which are difficult to track. This situation hinders capitalisation of local expertise.

Leaders must be able to identify and optimally use existing expertise useful for DRR and CCA. However, a key challenge is that ‘CCA’ and ‘DRR’ are not fully recognised as proper sectors, compared to water sanitation or gender for instance (UNDP, 2014). This situation brings two simultaneous difficulties: first, controlling coordination between all individuals and organisations claiming to be experts; second, identifying and monitoring existing expertise. Most of the DRR and CCA staff in Vanuatu have varied specialities, for instance, in health or program management, and often have had one or several previous positions linked to another speciality (partly due to turnover as seen in section 7.2.1.b). It is then often difficult for leaders to track expertise, and categorise stakeholders within specific domains of expertise. Furthermore, DRR and CCA are considered to be everyone’s responsibility, building a very disparate working sphere, where everyone works – or claims to be working – on DRR and CCA related projects. There is, then, a challenge to harness and focus expertise valuable to DRR and CCA.

Most respondents spontaneously mentioned the crucial role of good leadership for capitalisation of expertise and capacities. While expertise requirements must be identified based on the specific needs of a situation or project, leaders also need to find incentives for expert participation and commitment to the networking process (section 4.5). Klijn et al. (2010) stress the role of a network coordinator in this dual task. For this, leaders, with the support of the coordinators of the diverse networks, need to have a better understanding of the needs of the networks (integrated leadership) and the needs of specific activities requiring special expertise (fragmented leadership). Furthermore, network coordinators should support the leaders by controlling capitalisation expertise at their respective levels, identifying what existing expertise is not used optimally and what expertise needs to be built. Armed with this information, leaders could better monitor the development of projects and improve strategies to build expertise. The Vanuatu networking

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<sup>18</sup> Reminder: Capitalisation is understood in this thesis as the extensive identification, effective mobilisation and optimal use of the capital existing in a governance system.

structure in place has the potential to help leaders have a wider perspective and understanding of the available expertise in the system for effective capitalisation of that expertise.

### **System sustainability**

To effectively capitalise on expertise, leaders rely on the permanence of the established system. Continual and reliable involvement of leading organisations and agencies in existing networks builds their visibility and credibility. For instance, the Director of the NDMO highlighted that the permanent position of the Department in the VHT and NAB helped the other organisations to have a better general understanding of the NDMO role in coordination, and to facilitate the development of humanitarian expertise. Simultaneously, a VMGD project manager also confirmed the potential of the NAB to build credibility and potential for its department in its role of coordinator and leader in matters related to meteorology. However, although networks help to build credibility, visibility and stability of their members, the stability of the networks themselves depends on the evolution of the Vanuatu-Networked-System.

The first challenge encountered by the different networks is the general institutional instability in the country. Handmer et al. (2014) already reported the tendency in Vanuatu to build new institutions instead of adapting existing structures to changes in the system. The 54 sectoral networks captured in this research are an illustration of this challenge, particularly due to a certain lack of adaptiveness. More than half of the respondents (64.4%) expressed their doubt concerning the adaptability of the networks they were part of to overcome the difficulties of integrating new initiatives or new sectors in their agenda, and would prefer to establish another institution ad hoc and in parallel to the existing structures. This tendency was confirmed during the management of Cyclone Pam with the lack of capitalisation of existing networks (section 10.2.3). This lack of sustainability raises a major issue for leadership in building the stability, credibility, adaptiveness and capitalisation of the Vanuatu-Networked-System.

In some cases, however, the establishment of networks addressed the pressure of sustainability by suiting the changing humanitarian context. Existing structures were not considered to be able to adapt; most respondents who were members of the NAB stressed the example of the non-government umbrella network. Indeed, at its establishment, the NAB was considered as a duplication of existing mechanisms in the Prime Minister's Office and Ministry of Finance in its role of project endorsement (UNDP, 2014). However, these existing mechanisms failed in controlling many organisations and donors acting directly at the provincial levels. Furthermore, the NAB replaced two committees (section 3.2.1.a), which were already recognised as relatively effective cooperative platforms in their respective sector, with established pathways between government agencies. These two institutions, however, could not integrate each other's agenda to mainstream inclusiveness policies and strategy processes at the international, regional and



national levels. The legitimacy and authority of the NAB were therefore simultaneously controversial and accepted, as its establishment was appropriate and needed but was substituting established recognised leading institutions.

In other cases, the establishment of networks benefited the sustainability of other established networks. For instance, with the empowerment of the PDCs and CDCs by the NAB and VHT, the linkages between the provincial and national levels strengthened, which simultaneously reinforced the credibility of the NAB in its overriding leading position. The status of the NAB as DRR and CCA decision-maker, supported by the wide coverage of the VHT, VCAN and other sectoral networks among NGOs and civil society, gives key leaders (members of the NAB committee, section 3.2.1.a) the potential to advocate the use of established formal and informal institutions, and to optimally use existing networking capital. Furthermore, the authority of the satellite networks was strengthened by the establishment of the umbrella networks, which developed integrated strategies endorsed by a wide part of government and non-government stakeholders. For instance, the Climate-Change-Disaster-Risk-Reduction competition for schools, developed under the NAB, VHT and VCAN supervision, engaged many stakeholders who used the networking capital within their networks, and exceeded expectations.

Good Networked Leadership is necessary to ensure that the emergence of new networks and networking mechanisms benefit the sustainability of the Vanuatu-Networked-System. Reinforcing the leadership of non-government stakeholders is essential to support the development of policy that will be effectively implemented, which is a condition for system stability. Furthermore, reinforcing the Networked Leadership may develop a shared ownership and prevent NGOs developing their projects disregarding government long-term plans. The development of Networked Leadership would also reduce the risks for individuals to disrupt the networking process, as they feel more engaged. Therefore, by developing a Networked Leadership structure, across sectors and across types of organisation, the Vanuatu-Networked-System has the potential to tackle the general lack of sustainability in the country.

### **Island favouritism**

Networked Leadership, and more particularly legally shared leadership, is particularly promoted by the specific geographical and historical context of Vanuatu, which enforced the decentralisation and empowerment at the island level for participation in decision-making. However, simultaneously, the distance between the islands also limits good governance. Indeed, many government and non-government respondents, and more particularly members of the smallest networks, reported a certain lack of transparency in project site selection.

Two provinces, Shefa and Tafea, tend to attract all activities. The establishment of the NAB was particularly motivated by the recurrent situation where similar projects were led by different

government agencies and NGOs in the same provinces, islands and even sometimes communities. For instance, a VMGD officer related how its department developed a project from Port Vila and realised at the implementation stage that a similar non-government project had been conducted in the same communities a few months earlier. This example illustrates the need not only for better communication between actors, but also for a fairer coverage of all areas, provinces, islands and communities of the disasters and climate change-related projects.

Several respondents, from government agencies (NDMO, Department of Local Authorities) and non-government organisations (Oxfam, Council of Women, Vanuatu Christian Council) explained this issue as a consequence of a lack of leadership capacities within the system to monitor the allocation of projects, and control fairness. Furthermore, respondents in leading and managerial positions in the Ministry of Justice, Ministry of Agriculture, Save the Children, and Live and Learn Australia justified the “favouritism to some provinces” (Department of Local Authorities respondent), especially Shefa and Tafea, by the pressure of time imposed by the donors, impeding the possibility of making time for relationship-building with new provincial councils and local organisations.

The issue of distance (less than 12,200 km<sup>2</sup> of land area over more than 700,000 km<sup>2</sup> of sea area), and its related transport and communication difficulties, was also highlighted as a major factor maintaining the preference for some islands at the expense of others, facing the same, if not more, risks but being significantly more isolated. An officer from VMGD pointed out that the remoteness of certain islands makes transport and communication channels unreliable. Choosing such islands for project-funded activities can be risky, as the range of actions taken can be random and unpredictable, while timelines for project outcomes can be strict. Furthermore, in some areas, transport options are scarce and significantly costly, which makes them less attractive to donors in terms of value-for-money. Indeed, an officer from the Department of Local Authorities highlighted that most projects are developed and monitored from Port Vila. The actors involved in this project are often based in the capital city and have to frequently go into the field to conduct their projects, although it would be more cost-efficient to be based on the field and come to Port Vila only to report on the activities. This situation not only favours areas that are more easily accessible from Port Vila, but it also supports an increasing concentration of decision-making and information in Port Vila and the covered islands, at the expense of the most isolated island areas.

Another major challenge to a fair coverage is the lack of basic raw data on rural areas. The lack of provincial vulnerability assessment is often pointed out as the main challenge to extend outreach to more remote areas. Furthermore, the most recently available census at the time of data collection dates back to 2009, and was widely known among actors as to be significantly outdated and inaccurate, especially for the most isolated areas. Data on remote areas often rely on information disseminated informally and ad-hoc informal analyses, making it difficult to develop

and conduct effective and appropriate projects. The occurrence of Cyclone Pam triggered a discussion of the need to conduct an in-depth census to gather more accurate core data, on which project development could rely. A Department of Local Authorities representative stressed that such a project requires the empowerment of provincial and civil leaders. Provincial and local networks, particularly the CDCs, were reported as key assets to empower and integrate local leaders in the process. Therefore, the pathways between the satellite networks and the more centralised umbrella networks (section 4.3) have the potential to reduce the impact of distance, gathering data from remote areas without increasing costs.

Furthermore, well-led engagement of isolated organisations and associations in the networks allows them to build a stronger feeling of ownership of the system. Therefore, although organisations will always meet a certain level of competition for project funding and implementation, the feeling of ownership and belonging in the Vanuatu-Networked-System increases inclinations to cooperate. As activity mapping was being led during a Vanuatu Shelter Cluster meeting within the third month after Cyclone Pam, members of the network felt a strong attachment to the group benefit beyond their organisational gain. Instead of emphasizing the visibility of their respective organisations by mapping the areas where they were present, they mapped the disregarded areas to support a wider and fairer network coverage.

### **Addressing challenges to the commitment of network members and leaders**

As seen previously (section 4.5), a key internal pressure on the effectiveness of the Vanuatu-Networked-System is the lack of commitment to network meetings. The NAB particularly experienced poor attendance from the start (UNDP, 2014). A main reason is that the NAB is predominantly perceived to be a project of the NDMO and VMGD (NAB's co-chairs at the time of this research). When the NAB was created, the two departments were under different ministries, respectively Internal Affairs and Infrastructure, but were brought together at the creation of the Ministry for Climate Change. Therefore, many respondents considered that the NAB was under the sole leadership of the Ministry for Climate Change, although all Ministries were equal members. This perception led to a lack of ownership from stakeholders outside of the Ministry for Climate Change, preventing their strong commitment to network affairs. To address this challenge, discussion was raised concerning sharing the chair with the Prime Minister's Office. This chair transfer would enable its Department of Strategic, Planning and Aid Coordination to better shoulder its coordination role for aid related to disaster risks and climate change. It would also establish the NAB at a more strategic policy level, and develop stronger leadership within all Ministries.

Non-government and government officers also highlighted the controversial lack of appropriate commitment of leaders to resilience-building. Respondents perceived that the involvement of

politicians depended on funding opportunities, such as the recent focus on climate change, and could therefore not be reliable and on-going. Climate change respondents were particularly concerned about a change in the international focus – from climate change to another humanitarian concern – that may occur before climate change programs had concrete outcomes. Furthermore, the highest level of Government was often considered to develop links with the private sector only for financial motives instead of capacity-building. A few respondents also pointed out the leaders' desire for visibility as the main incentive to invest in humanitarian aid at the expense of long-term resilience.

Several government and non-government respondents reported that the sectoral networks are essential to address these issues, and play a part in regulating the commitment of leaders. For instance, a non-government project manager highlighted the impact of the networks in raising more opportunities for visibility at the national, regional and international levels. The project manager talked about a “win-win situation”, witnessing the increasing involvement of leaders in cooperative mechanisms to benefit from this visibility, for the profit of all stakeholders in the system. Likewise, a government officer (NDMO) reported that since the establishment of the NAB, VHT and VCAN, political games to obtain visibility through short-term aid decreased, and cooperation to obtain visibility through national planning for resilience-building increased.

However, respondents highlighted the lack of incentives for the central government to invest in resilience-building due to a dominant system of external assistance, especially Australia, New Zealand and France. Several officers thought that policies were needed to equip and enforce government agencies to control and monitor donor programs. Respondents particularly highlighted the need to strengthen the NAB to reinforce and promote national leadership.

However, general political instability challenges leadership, compromising these objectives. Motions of no confidence are frequent in Vanuatu with a continual waltz of parties at the highest levels of the Government. This instability is significant as it often prevents Governments completing their agendas. The whole set of sectoral networks have the potential to address this instability to some extent. Respondents reported a relative stability of the networks throughout the different changes of Government. Many government and non-government respondents trusted that the networks, although not continually active or optimally used, were sustainable platforms for uninterrupted discussions.

Interestingly, officers indicated a level of governance stability supported by the political instability. Indeed, during changeover of political power, business continuity tends not to be disrupted at lower levels of governance because officers “are used to these changes” and “do not let them affect [the course of their] work” (representative of the Ministry of Infrastructure). The officers added that the Vanuatu-Networked-System, its networking structure and Networked

Leadership, supported lower levels of governance to develop stability preventing main impacts of the Government changeovers. For instance, a motion of no confidence occurring during the emergency period after Cyclone Pam, directly followed by a motion of no confidence by the outgoing Government, did not seem to have a critical impact on response. Respondents reported that they knew their positions, responsibilities and collaborators within the clusters and other networks, and continued their relief activities without disruption.

### **6.3.3.b. *External pressures***

#### **Framework to control international assistance**

In parallel to the cited internal pressures, respondents highlighted external pressures that needed to be addressed through Networked Leadership. Most of these pressures were linked to donors and requirements inherent in their aid programs. In the early 1990s, a Pacific participant to a regional conference on disaster mitigation already objected to a donor on international aid: “Don’t ask us what answers we want until we know what questions to ask” (Ali, 1992, p.310). Local respondents reported the tendency of donors to develop strategies and offer directed aid funds before need assessments in the country. This issue is not new nor restricted to Vanuatu. For example, Crittenden and Lea (1989) highlighted the disconnection and lack of consideration between planners’ and donor’s work and recipients’ understanding and needs in Papua New Guinea, the former making decisions for the latter. Several non-government respondents also regretted that the agendas of the Ministries were often developed based on multilateral and bilateral aid programs, and not the contrary.

Development and humanitarian projects in Vanuatu strongly rely on foreign support, predominantly from Australia, New Zealand and France, but also the European Union, the United States of America, Japan, Germany and China. The dependence on international aid for disaster response and risk reduction is partly a heritage of the missionary period (Campbell, 1990; Ali, 1992). In the Banks Islands for instance, the first international disaster aid dated back to 1874 (before the establishment of the Condominium in 1906) and consisted of food relief from the Solomon Islands Melanesian Mission (Campbell, 1990). International aid immediately resulted in a social change, with the emergence of expectation of external assistance (Campbell, 1990). The establishment of collaborative international channels, such as the FRANZ agreement signed in 1992, formalised arrangements and ensured international aid when needed (Vachette, 2013) (section 10.3.3.d).

Likewise, the Government of Vanuatu benefits from many bilateral and multilateral partnerships and Memoranda of Understanding with INGOs and relief agencies. Thanks to these links, the NDMO, like the other departments, continually receives substantial international support in the form of many short term positions filled by Australian and New Zealand staff and volunteers, for

example, the Australian Government facilitated a 6-months advisory position, filled by the Australian Civilian Corps, during the 2014 cyclone season (NDMO, 2014). Foreign aid is continuously and significantly increasing in the country (UN, 2010; Maclellan et al., 2012), and there is a great need for better coordination between all donors. However, SIDS, such as Vanuatu, often meet difficulties in managing the influx of bilateral and multilateral funding agreements and support for donors to coordinate their work (Maclellan et al., 2012).

Consequently, Vanuatu signed the 'Cairns Compact on Strengthening Development Coordination in the Pacific', which is an agreement between Pacific countries, based on the international protocols developed in the 'Paris Declaration on Aid Effectiveness' to control and coordinate the allocation of international funds. The overall process of integration and inclusiveness is strongly supported by locally established INGOs (e.g. Red Cross Societies) and foreign diplomatic missions (such as the Australian High Commission), which are strongly involved in networking development, such as the establishment of sectoral networks. The United Nations offices (e.g. UNDP, UNICEF), the World Bank and the German Agency for International Cooperation (GIZ) are donors particularly involved in DRR and CCA and mitigation in Vanuatu (Maclellan et al., 2012).

The 'Port Vila Declaration on Aid Effectiveness: a Joint Commitment of Principles and Actions between the Government of Vanuatu and Development Partners' sets non-binding quantitative targets to make aid more effective. This joint commitment is to support consistency between international and regional conventions (the Paris Declaration, the Accra Agenda for Action, the Cairns Compact) and national protocols (PAA, Planning Long, Acting Short – PLAS, national disaster plan and support plans). The PLAS (2013-2016) also aims to set indicators relying on an approach to mainstream development, environment, climate change and disaster risks (PLAS - National Strategic Priority 4). The Port Vila Declaration on Aid Effectiveness relies on principles set in the Paris Declaration on Aid Effectiveness: ownership, alignment, harmonisation and simplification, results management, and mutual accountability. These principles aim to strengthen government leadership to better control and coordinate international assistance. The Port Vila Declaration particularly highlighted the leadership potential of the Department of Strategic Policy, Planning and Aid Coordination. However, many respondents deplored its lack of visibility in the networking process, which was confirmed by the SNA of this research, which tends to discredit its commitment to coordination and cooperation. Also, as provided in the national disaster plan and support plans, the National Disaster Committee is in charge of advising the Government on situations and consequent potential requests for international assistance, to be the liaison between Ministries and international aid, to continuously evaluate needs, and to be accountable to donors.

### **Remaining challenges inherent in international assistance**

Despite the different documents to control international aid, the pressure of donors on the allocation of funding remains a challenge to the country. The Risk Governance Assessment highlighted the tendency for donors to conduct sectoral projects instead of supporting “whole-of-government initiatives (UNDP, 2014, p.32). Simultaneously, funding programs accessible to NGOs with limited resources (the majority of local NGOs in Vanuatu), also often target specific sectors. Although, this sectoral focus may support expertise building, it can also prevent local NGOs from investing in integrated initiatives, and undermine efforts to build integrative capacities of the government and non-government stakeholders. It is then essential for leaders to enforce a balance between funding opportunities in fragmented projects aimed at sectoral expertise and combining projects to build cross-sectoral resilience-building.

Maclellan et al. (2012) highlighted the cooperation difficulties created by donors, who often offer small funds enabling the development and implementation of small projects only. Donors enforce competition between NGOs instead of motivating cooperation to apply to large funding programs. This competition prevents willingness to share information and knowledge. To address this issue, NGOs among the Pacific countries have started the process of forming alliances to bid for larger project funding on CCA (Maclellan et al., 2012). More than half of the respondents (65.6%) spontaneously reported the vital role played by the sectoral networks in finding new potential collaborators and developing a shared vision and objectives to build these alliances.

Respondents from INGOs well established in the country, such as Oxfam or Save the Children representatives, often pointed out the pressure from their own organisation (the parent company), limiting their range of actions and the adjustment of the projects to the context of Vanuatu. The question of value-for-money is a specific constraining request from donors to their local implementing agencies. The process of networking can be costly and time consuming; however, it can be difficult to produce value-for-money figures on cooperation outcomes.

Several respondents also pointed out the danger of precise numerical figures released by donors, such as the UNDP “Every dollar spent reducing people's vulnerability to disasters saves around seven dollars in economic losses” (UNDP, 2012, p.2) or the European Union’s “every euro spent of DRR activities saves between four and seven euros that would be spent to respond to the impact of disasters” (EEAS, 2015). Although, these numerical figures aim to give a scale, within a specific context, to show the potential of long-term investment in resilience-building, six local managers showed their concern about their staff not understanding the “relativity” and “contextualisation” of such numerical figures. Likewise, several respondents (12%), both from non-government and government organisations, confirmed that they already led one or several project-funded activities, whose fund allocations and targets were global, and not properly

adapted to the local context. They associated this issue to the lack of leadership of the Government of Vanuatu to control, select and adapt funding opportunities.

To address these issues, the umbrella networks were perceived as valuable assets to promote and better control liaison between development partners and field officers throughout the cycle of programs (from the development of principles and terms of references to the evaluation of outcomes). Inclusive consultation is supported by the context of Vanuatu (scattered but small) but relies on the existence of well-determined channels across levels and organisations. Respondents considered the key potential of umbrella networks in a strategic position to effectively allocate funding opportunities to facilitate the development of such channels. The sectoral networks in general have already proven their value in managing and controlling large funds obtained at the strategic level for benefit at the implementation level. For instance, VANGO managed the Global Environment Facility-UNDP Small Grants Programme, significantly facilitating the process for all recipients (MacLellan et al., 2012).

Another challenge inherent in donor requirements is the high rate of turnover of international staff, many of them being short-term allocated staff or short-term volunteers from development partners. This situation significantly weakens the sustainability of the system, and the effectiveness of project outcomes. Many local respondents criticised the lack of sustainable leadership for controlling international involvement and developing long-term strategic national programs. Although the networks, and the social networking process, may be useful mechanisms to tackle these issues, the sectoral networks are themselves subjected to the lack of funding sustainability preventing long-term supervision of international strategies implemented in the country. For instance, ECHO funds supporting the VHT ceased in 2014, which raised concerns among many respondents who are part of the umbrella network. At the time of this research, the position of the VHT coordinator was only funded until 2017; respondents (members and non-members of the VHT) shared their concern about this lack of long-term perspective for the network leadership, which slightly weakened its credibility. The VHT coordinator explained that the sustainability of the network was a main focus of work; one option being to work more closely with established networks, such as VANGO.

### ***6.3.3.c. Building legitimacy of the system***

The different internal and external pressures that challenge the effectiveness of resilience-building also raise the question of legitimacy of the Vanuatu-Networked-System, and more particularly, of the decision-making process. Due to growing debates around climate change, and international economic and environmental dependencies, the scope of extreme environments is increasingly taking place on a supranational level, involving a wide range of significantly diverse decision-makers and actors. The continuous and complex re-structuration of powers, the lack of reliable commitment and the increasing earth system uncertainty weaken the legitimacy of the



Government monopoly in policy development and community services provision (Risse, 2004). Furthermore, sectoral problems, such as environmental or economic, can overwhelm the centralised decision-making sphere (Perkin and Court, 2005). These challenges raise opportunities for non-government stakeholders from all levels (international, regional, local, communities) to question the national government's capacities to make decisions sufficient and/or appropriate to the situation, and to intervene in decision-making. Moreover, non-government actors are increasingly developing advocacy and operational mechanisms to get involved in the policy process. In particular, the rising involvement of international information and communication technologies enhances multi-stakeholder discussion and information exchange, and expands the potential power and influence of non-government actors on the policy process.

By developing a framed multi-level policy process such as the Vanuatu-Networked-System, the Government can address these challenges by controlling the structure of the system through cooperative channels, eventually strengthening its legitimacy among all participants (Perkin and Court, 2005; Bäckstrand, 2008). Indeed, by linking with local government and non-government actors to make decisions on global and local matters, such as climate change impacts on environment or major destruction after a disaster, government agencies could increase their accountability, their "*goodwill-to-protect-citizens*" status, and their legitimacy overall.

The networked governance systems are particular structures propitious to effectively integrate flexible actors in the rigid policy process. Furthermore, through such structures, the responsibility of policy development does not lie with the Government anymore but with a complex sets of diverse stakeholders (Klijn et al., 2010). Respondents particularly highlighted the substantial impacts of the three umbrella networks, as well as several satellite networks (such as the working groups) in the systematic integration of non-government stakeholders in decision-making, and developing a shared ownership of policies.

However, including non-government stakeholders in a process that traditionally lies with the Government does not completely address the challenge of legitimacy of the system. Building the legitimacy of a social order relying on a democratic participation in the policy process can be challenging when authority does not fall under a traditional government-dominated system (Risse, 2004; Bäckstrand, 2008; Juhola and Westerhoff, 2011). This raises the question of how to build legitimacy of the networked system, where authority is fragmented and weak, and where the informal relationships between members make accountability mechanisms uncertain and complex (Bäckstrand, 2008). Therefore, networked systems require a complex set of diverse and multiple mechanisms that will address the specific needs of networked accountability and legitimacy (Bäckstrand, 2008). Government and non-government respondents reported that the networking structure and the Networked Leadership supported strong continuous two-way channels of consultation and decision-making. This system, therefore, developed a bottom-up-top-down

approach throughout the whole process of resilience-building, propitious to the development of top-down as well as bottom-up mechanisms for accountability.

The existing system also addresses another challenge, that is, the distinction between internal and external legitimacies (Provan and Kenis, 2007). Internal legitimacy requires actors to legitimate their participation among the other members who may be potential competitors. External legitimacy is the recognition by outsiders of the potential of the network members as a group. The two legitimacies can have reciprocal negative impacts when external and internal expectations are in conflict (Provan and Kenis, 2007). Legitimacy, whether it is internal or external, is essential for the sustainability of the system. Respondents found that the networking structure in Vanuatu was supportive of the balance of the two legitimacies. First, as seen previously, the respondents reported that being involved in the networking process was particularly beneficial for their work, while increasing their influence and visibility at the international and regional levels. Second, the networks promote sharing across levels (from the international to the local) helping each level to better understand and integrate all approaches, eventually reducing expectations and tensions. Third, national respondents (internal) and international respondents (external) reported, and supported, the visible outcomes of the networking process on the rationale of cooperation within such a system. Indeed, the commitment of the diverse stakeholders in the networking process illustrates on the one side the adaptiveness of government stakeholders confronted to increasing non-government involvement in decision-making, and on the other side the potential of non-government stakeholders for making appropriate and effective decisions.

As seen throughout this chapter, Networked Leadership is a composite governance pillar covering: official shared leadership (a hierarchical decision-making process strongly recognising the power of decentralised levels), social networking leadership (complementary Government–non-government, cross-sectoral influences) and the networking structure (a strong foundation of sectoral networks, formal and informal mechanisms and social ties to control the effective development and dissemination of an integrated and inclusive networking capital). As such, Networked Leadership significantly supports complementarity between fragmentation and integration, and between binding and flexible cooperation, while addressing critical internal and external pressures. Therefore, the Vanuatu-Networked-System, gifted with a supportive Networked Leadership system, has a real potential to address the challenges inherent in resilience-building, such as complex community needs or the difficulties in having an optimal use of the existing networking capital. More specifically, building good leadership appropriate to the targeted context, like Networked Leadership in the case of Vanuatu, has a particular impact on the process of learning. The following chapter addresses the question of individual, organisational and Networked Learning within the Vanuatu-Networked-System.

## CHAPTER 7.

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# **Towards Networked Learning: Mechanisms for constructive cooperation within the Vanuatu-Networked-System**

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### **7.1. Introduction**

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The networking structure (sectoral networks - chapter 3 - and social networking processes - chapter 4) and Networked Leadership (mandated shared leadership - chapter 5 - and social networking leadership – chapter 6) support good governance appropriate to the context of Vanuatu, through a fair and continuous representation of, and dialogues between, all stakeholders. The long-term outcomes of disaster governance on resilience-building, however, depend on the mechanisms utilised by leaders and actors to share and process information on these decisions and projects. Informal networks were found to be particular assets in the learning process (Pahl-Wostl, 2009). This brings the concept of learning as a key component of networked governance (Dedeurwaerdere, 2005; Pahl-Wostl, 2009). Learning is understood as the ability of stakeholders to capture and process information based on experience (such as encountered challenges, project objectives and outcomes, concept development) into permanent knowledge and resources to be used in future projects. To be effective, learning needs to be a conscious, continuous, mutual process that has an impact both on political decision-making and practice (Taylor, 2002; Kapucu et al., 2010b).

Extending from this concept, Networked Learning is defined as the ability of network members to capture and process information based on their own and other members' experience in resilience-building into permanent knowledge and resources, as well as informed decision-making, supporting sustainable inclusive and integrated disaster governance. Therefore, Networked Learning depends on the mechanisms available to identify, capture and disseminate networking capital<sup>19</sup> across the Vanuatu-Networked-System, and on the capacities of network

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<sup>19</sup> Reminder: Networking capital consists in individual and collective, tangible and intangible resources available to disaster and climate change stakeholders to develop and maintain cooperative relationships.

members to understand, process and utilise effectively this networking capital in cooperative resilience-building.

This chapter aims to understand the potential of the Vanuatu-Networked-System to support Networked Learning. The first section of this chapter highlights the interaction between the learning process and the networking process. It first shows that the network members meet challenges in sharing and processing information, limiting the possibility of Networked Learning. However, it shows that the Vanuatu-Networked-System developed tools to better share and process information for more effective resilience-building. Hence, this chapter also analyses, in the second part, how the Vanuatu-Networked-System has particular potential to facilitate Networked Learning, both at the individual and whole system levels.

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## **7.2. The learning process dependent on the networking process**

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### **7.2.1. Challenges limiting Networked Learning opportunities**

#### ***7.2.1.a. Difficulties in sharing information***

##### **The language question**

Understood as the capacity to process information into knowledge and informed decision-making, Networked Learning strongly depends, as a first step, on the mechanisms for information sharing, communication and cooperation. Effective communication and information sharing play therefore a key role in effective decision-making for the management of complex environments involving different types of stakeholders (Kapucu, 2006a, 2006b). Challenges in the networking process will have impacts on the potential for information sharing and communication, and hence Networked Learning. It is therefore essential to understand what these challenges are in order to improve the members' ability to learn. The first major challenge for networking in Vanuatu was considered to be the language used to share information, which determines effectiveness of cooperation. Humphries (2013) presented examples of situations where the lack of adaptation to the local languages hindered actions (Mozambique), and where communication led in a local language facilitated response (Haiti). Likewise, the choice of language for communication and information sharing is a key challenge in Vanuatu; most inhabitants understand only two of the three official languages, (Bislama, English and French) and one of the community languages and dialects, which Siméoni (2012) estimates between 100 and 113. The language divide is also supported by the external assistance ever-present in the country, international aid still being strongly divided between English and French speaking stakeholders. This challenge is particularly evident during network meetings where there is a constant alternation between languages, more particularly between Bislama (spoken by Ni-Vanuatu and long-term expatriates) and English (for expatriates who have just arrived). Although this demonstrates the desire to integrate everyone

into the discussions, both Ni-Vanuatu and expatriates related that it also hampered continuous and in-depth discussions when half of the group could not fully understand what was being said. Simultaneously, official meetings including regional and international participants take place almost exclusively in English, limiting understanding and ownership of discussions, and thus participation, of locals.

Also, although it was widely recognised that material to be disseminated to communities should be written in Bislama, many resources are still only available in English, and translations remain ad-hoc. Several government and non-government respondents highlighted the particular difficulties in translating, succinctly and faithfully, the scientific concepts and terminology. Indeed, many objects and concepts external and unfamiliar to Vanuatu do not have a name in Bislama; a full sentence is sometimes needed to name an object or concept. A famous example is the musical instrument, the piano named in Bislama: *Wan bigfala blak bokis hemi gat waet tut mo hemi gat blak tut, sipos yu kilim smol, hemi singaot gud*, literally translated by ‘one big fellow black box, who got white teeth and black teeth, and suppose you “kill him small” (hit it lightly) he will sing nicely’ (Youth Challenge, 2009).

Furthermore, translated terminology, in particular terminology related to resilience-building, encounters issues of multiple use. For instance, the new Bislama Dictionary translates **awareness** as *save* (from the medieval English pidginisation of the French *savoir* (to know) into ‘savvy’, defined as shrewdness and practical knowledge and which is the source in the South Pacific) (Crowley, 2003). However, *save* also means **knowledge**, **understanding**, and **expertise** (Crowley, 2003). Furthermore, *save* is also used to express physical abilities (*mi no save kam tumora*: I can’t come tomorrow), permission (*mi save karem foto blong yu?* May I take your photograph?), and habits (*mi no save smok*: I don’t smoke) (Crowley, 2003). Moreover, coupled with other words *save* translates single words, such as *save ebisi*: literate (*ebisi*: alphabet), *save rod*: find out the hard way - *rod*: literally road), *tok save*: inform (*tok*: talk), or *no save bilivim*: incredible (*bivilim*: confidence) (Crowley, 2003).

To address these issues, English words are widely borrowed and directly used in project development and implementation conducted in Bislama. However, English words might be used with a certain meaning that slightly differs from their original definition. ‘Awareness’ for instance is often used by organisations in their activities in Bislama with communities. Ni-Vanuatu and expatriate respondents explained that communities have a special understanding of the word ‘awareness’. Used in Bislama, ‘raising awareness’ is not understood as ‘information dissemination to increase community knowledge of a situation’, but is mainly understood as ‘community engagement in the construction of the information’ and in learning activities conducted by organisations. ‘Awareness’ is therefore strongly connected with the notions of community participation and capacity-building. This situation often leads to confusion of

outsiders who intervene for awareness-raising activities in the country, and impedes well-informed communication with local organisations and communities.

Furthermore, several respondents reported that communication issues are mostly due to a lack of appropriateness of the information to the level of understanding of the recipients. Indeed, the levels of understanding vary significantly depending on the target audience. Respondents complained that communication terminologies and protocols developed for the purposes of disaster and climate change projects were not flexible, and were difficult to understand without extensive training. Non-government and government respondents pointed out that the level of education of the targeted audience is often not taken into account in information dissemination. Furthermore, in addition to a lack of adaption to the level of understanding, in the rural areas the information spread to the provincial workers is often not directly relevant to their tasks; resources invested in understanding the concepts are then not in direct benefit to the accomplishment of their tasks.

Respondents also reported that all organisations had their own terminology for similar concepts, which raised confusion and prevented cooperation (Government of Vanuatu, 2015d). Non-government respondents highlighted that communities were often confused by the simultaneous use of these different terminologies, such as ‘climate change adaptation’, ‘climate change mitigation’, ‘disaster risk management’, ‘disaster management’, ‘emergency management’, ‘disaster risk reduction’, ‘disaster risk mitigation’, ‘resilience-building’, ‘capacity-building’, which all reflected the same objectives from the point of view of the communities.

Finally, there is also confusion around the expression “*climate change and disaster risk reduction*” commonly used at the national level (e.g. the ‘National Climate Change and Disaster Risk Reduction Policy’, the ‘National Advisory Board on Climate Change and Disaster Risk Reduction’, or the ‘Climate Change and Disaster Risk Reduction working group’). Several local respondents (nine) understood this expression as the objective to actually reduce climate change in the country, although leaders, coordinators and managers (16) reported that these institutions predominantly focused on CCA.

### **A country built on oral traditions not familiar with formal communication pathways**

Vanuatu is an “oral country” (NAB, Oxfam and Red Cross representatives); reading has been only recently introduced to the culture, and is not widely mastered in the provinces. As such, many local respondents highlighted the general irrelevance of reports and documents to spread information through the provinces, which makes written material for sharing information and knowledge relatively ineffective. As discussed in section 5.2.1, the value of written disaster plans may be more a symbol of local capacities to cope with disasters for outsiders, rather than being

operationalised tools (Ali, 1992). Hence, respondents confirmed the crucial need to integrate oral tools to spread information and knowledge among communities as a central part of the activities.

Furthermore, most local respondents, both from government and non-government agencies, reported that a significant part of their work was achieved at informal levels: “off-record” (NDMO project officer), “off-report” (Save the Children project manager) and “off-official” (UNDP project officer). Coordination and information sharing happens during informal meetings and personal gatherings, and decision-making is pursued while drinking kava (Maclellan et al., 2012). For instance, a VMGD local officer declared: “I don’t speak during group meetings because there are too many people, but I have many food meetings after the meetings to exchange views and information”.

Knowing existing informal and oral collaborative pathways is then vital for sustainable and effective cooperation. However, the non-binding and “underground” (to quote a NDMO volunteer) nature of informal cooperation investment makes highly difficult to effectively monitor and capitalise informal cooperation outcomes. Therefore, informal cooperation capitalisation must be thoroughly considered and strategised through a flexible cooperative system to ensure governance effectiveness and continuity. The choice of terminology and language used in information and knowledge sharing and reporting is at the heart of the dilemma. Many respondents mentioned that they were not sharing their resources, doubting the value of their resources as other organisations did not use the same terminology or language, and therefore would not use existing findings.

Furthermore, the complex decentralisation and power fragmentation between formal and informal leadership raised complexity in transparency and accountability, which limits the potential of Networked Learning. Therefore, the Risk Governance Assessment (UNDP, 2014) highlighted the need to empower the provincial departments, local associations, PDCs and CDCs in managing informal networking capital existing in their respective areas of actions.

Ni-Vanuatu respondents reported the emergence of a long-term informal and oral system in parallel to the official resilience-building sphere. This parallel system aimed to connect the oral mechanisms appropriate to the country context with the more rigid donor domain on which the country depends. Indeed, respondents reported the pressure from donors to provide value-for-money and to work on certain areas to get funds which often prevented actors spending resources and time on raising their understanding of the complex concepts in DRR and CCA. The actors were also tempted to adapt their terminology to the short-term donors or to the ‘fashionable’ agenda. Furthermore, donors tend to invest in pilots and small projects instead of long-term projects, limiting the potential of in-depth learning, and of integration of climate change and disaster risks into broader development of Vanuatu (Maclellan et al., 2012; Handmer et al., 2014).

This also relates to the lack of consideration of long-term planning, and climate change uncertainty not being well integrated in DRR and CCA capacity-building (Fletcher, 2013). Respondents reported that the significant gap between planning and practice resulted from the lack of effective processes for turning information and knowledge into learning and sustainable networking capital. This issue was considered mostly due to lacking utilisation of tools appropriate to the local communication pathways. Furthermore, although lessons-learned are generally drawn, reflection is not well targeted, not complete and too general, and therefore not optimally useful for the respondents working in the context of Vanuatu; this illustrates the limits of positive outcomes of learning on practice.

### **Lack of reciprocal understanding between the different groups of stakeholders**

Adding to lack of commitment, involvement in Networked Learning is hindered by a reciprocal lack of understanding between local and international principles and practices, which limits their ability to effectively process information. A review of the Pacific Humanitarian Team (PHT) performance showed that the cluster approach was particularly confusing and members needed time to better understand their positions and role within the cluster structure (Griffiths, 2013). The general lack of understanding of the cluster concept was observed in Vanuatu during Cyclone Pam response as shown in chapter 9. Furthermore, VMGD, NDMO and NGO respondents highlighted that the complexity of the concepts of DRR, DM, CCA and SD is the main challenge to achieving good governance in Vanuatu. More critically, the difference between the concepts remains very vague and confusing for local staff.

The significant increase of funding opportunities for DRR, CCA and SD in the last few years stimulated a great number of organisations to focus on these areas even though their staff did not always have a proper understanding of the requisite concepts. Because they may not fully control these concepts, staff can meet difficulties in showing flexibility in the way they disseminate knowledge among the diverse communities. Several respondents indeed perceived that Climate-Change-and-Disaster-Risk information spread among the communities was not always appropriated to their level of understanding, which hampers local awareness-building. Additionally, a project officer from the Ministry of Agriculture reported that using technology to spread information on DRR and CCA could be very confusing for the communities, as the change of tools was sometimes assimilated unconsciously to the emergence of new threats to be tackled, and not just a new communication tool for similar threats. A gap of learning between trained actors and untrained communities lies in the lack of understanding of concepts at the specific local level. For communities, a cyclone is a cyclone, and learning does not depend on the origin, intensity or frequency of the event, but on the impact on their livelihoods. Learning is better facilitated if communities can relate to the information spread during training and capacity-building workshops by focusing presentations on concrete hazards that actually confront their



livelihoods instead of abstract DRR and CCA concepts (MacLellan et al., 2012). The divergence of perspective between the expectations of the communities and the planning of organisations may therefore hinder the potential of learning.

### ***7.2.1.b. Difficult processing of existing networking capital***

#### **A complex system: Constraints of resources to manage an overload of resources**

As mentioned above, networks are platforms where network members can exchange information, resources and discussion. There is a consensus that no single organisation can be fully independent from the other actors in its sphere of action, as they all possess respective data and resources that sometimes can only be shared and obtained through social networking (e.g. Klijn and Koppenjan, 2000; Klijn et al., 2010; Vasavada, 2013; Kapucu and Garayev, 2014).

By participating in networks that bring together government and non-government stakeholders from across sectors and levels, organisations increase their access to the amount of human, financial and technological resources, and to more active flows of information and knowledge (Perkin and Court, 2005; Nolte et al., 2012). The structure of the Vanuatu-Networked-System is propitious to the capitalisation of this composite capital, through more or less regulative and coordinative management mechanisms (Provan and Milward, 2001; Kapucu, 2009; Comfort et al., 2012; Kapucu and Hu, 2014).

Networked disaster governance also addresses the challenge of prioritising information in a complex environment. Thanks to new technologies, sources of information have significantly increased; actors can be easily overwhelmed by the amount of information or the quantity and diversity of potential sources to consider. By bringing together actors with similar goals, networks can be seen as selective mechanisms providing information of direct interest to the actors. Studies show, however, that there can be an optimal point in a network where additional information has a negative effect on the efficiency of operations, depending on the specific context and structure of the network (Bodin and Crona, 2009).

Aside from access to wider resources, the prospect and potential of innovation within a system such as a network is a primary motivation for participation, particularly for private stakeholders (Klijn et al., 2010; Scriven, 2013). Through networking with different actors, private actors can benefit from a larger potential of creativity through the interaction of new and different perspectives, experiences and intellectual resources. It can also reduce the innovation costs that are supported by the whole network (Scriven, 2013)

Simultaneous to the overload of available resources and information, there is a lack of resources allocated to administer this increasingly complex system. Indeed, the overload of organisations involved in DRR, CCA, DM and SD, and the constraints of resources and time are obstacles to networking and cooperation, and thus learning. Besides, investments in communication and

cooperation do not always result in learning, if more resources are not allocated in the long-term management of the shared information.

Furthermore, the more organisations there are, the more knowledge fragmentation there is, making it difficult for stakeholders to have visibility of available knowledge and social capital. Most organisations are based in Port Vila; hence, transport and preparation of field visits can be significantly time consuming. Many respondents pointed out that the number of field visits and amount of work is often overwhelming, and it can be difficult to have adequate time to participate in network meetings to give feedback. Moreover, several locals highlighted the difficulties of administrative work related to the projects that already overload staff with work that is not 'concrete' resilience-related activity. The pressures of deadlines set by donors limit the time allocated to M&E, networking, as well as sharing information and lessons-learned with other organisations. Likewise, the limited number of staff resulted in the same individuals in the same meetings, and several project officers highlighted that they could receive up to one individual meeting, group meeting or workshop invitation per day. Because of work commitments, it is often difficult to find a date to gather even a few stakeholders. The lack of commitment and "respect of the others' efforts" (NGO representative) also prevent the creation of strong trusting relationships and for initial benefits of networking to be witnessed. The constant interruptions of networks in remote areas in the provinces due to resource pressures make networking benefits random. This situation limits stakeholders' incentives to invest in, and commit to Networked Learning (similar to networking commitment – section 4.5.2).

### **Lack of capacity to use existing tools**

In addition to the constraints of resources to effectively process the networking capital, learning was considered particularly challenged by the lack of training for local staff to understand and use inter-agency documents (UNOCHA, 2013). Indeed, even when stakeholders had access to documents and information on others' social capital, there was a lack of capacity to know how to use this information in different projects. Many project managers complained about the lack of conscious learning efforts from officers.

Furthermore, as mentioned earlier, there were very weak, if any, M&E mechanisms in most organisations. When organisations needed to write reports for their donors, such as value-for-money reporting, or for the Government, such as for the Prime Minister's Government Annual Development Report, evaluations were often ad-hoc, non-comprehensive, inadequate and inconsistent. Central assessments of skills and capacities for DRR and CCA were also particularly lacking in the Ministry for Climate Change to identify needs in matters of disasters and climate change projects (UNDP, 2014). The lack of M&E was a limit to the understanding of what capacities need to be developed. Simultaneously, the absence of a common capacity-building

framework at the Ministry level was another main challenge to the development of operational staff, making training random and not easily monitored (UNDP, 2014).

There was also no central information sharing, limiting the learning potential of others' experiences and findings. Indeed, despite the existence of tools supporting Networked Learning, such as the NAB portal, many stakeholders did not know how to efficiently and properly use ICT, or have ICT equipment to allow knowledge transfer.

### **Lack of awareness of their own and others' capacities**

Stakeholders are not necessarily aware of the social capital of others nor do they realise how the others' networking capital can be used for their own work. This is wasted potential not only of continuous and reciprocal learning, but also optimal use of outcomes and experiences from past projects for on-going or future projects. As seen earlier, there is a general void in the mapping of all the disaster and climate change related activities and organisations involved in the sectors, which partly triggered the emergence of the NAB. This resulted in a loss of continuous and conscious learning processes in terms of others' social capital. Furthermore, by the time information and knowledge cross provinces they are often out-dated, such as change of contacts, change of context, or institutional changes.

Additionally, stakeholders are not always aware of their own potential. "People know way more than what they think" (VCAN coordinator). This situation was observed and highlighted by many government and non-government respondents. Although capacity-building is greatly needed, there is a greater and more urgent need for training to use existing capacities. Several respondents from small NGOs did not believe they could raise interest on their own work at the national, regional and international levels. They mostly expressed their concern about skills required to communicate outside of their own level. Many locals study and are trained outside of Vanuatu, but rarely obtain a long-term position within their expertise when they return to Vanuatu, due to the limitations of the national system. Several expatriates highlighted that locals sometimes lack the capacity to adapt knowledge acquired outside of the country to the context of Vanuatu, while locals stressed that expatriates did not always adapt their knowledge and way of working to the local culture. This relates to the lack of relationships between Ni-Vanuatu and expatriates (section 4.2). Indeed, learning happens in silos, where exchange of knowledge and lessons-learned happen within groups of expatriates, groups of Ni-Vanuatu, groups of stakeholders from the same levels, without crossing, which prevents the development of comprehensive Networked Learning.

The SNA conducted in routine times found that many Ni-Vanuatu had key capacities they were not aware of. For example, a NGO respondent, claiming expertise only in agriculture and gender, did not realise that she was considered an expert in water management. Indeed, although several other respondents claimed they were often benefiting from her knowledge in water management,

she considered it only as a side interest. This resulted in an inability to capitalise capacities in an integrative way. This also relates to another main challenge to Networked Learning: as stakeholders are not well conscious of the informal use of their capacities, documentation and reflection on these cooperation pathways are difficult, if not impossible, and will not appear in M&E reports.

### **Waste of networking capital**

In addition to the lack of awareness of existing capacities, learning is also limited by the fact that people are not able to communicate their ideas and knowledge to others. The issues with communication, the lack of understanding of concepts and the lack of awareness of the value of learning make it difficult to know what resources to use. Furthermore, the lack of resources and the heavy investments required for learning weaken the propensity to spend time and resources in capitalising networking capital.

Moreover, a recurrent issue emerging from the co-existence of so many organisations is what Maclellan et al. (2012) call “workshop fatigue”. Indeed, as shown in chapter 4, the lack of commitment to collaborative platforms is due to an overload of platforms and meetings which may result in a disincentive to commit and invest in networking. Furthermore, the overlap of agendas and discussion topics in these different platforms but with different terminologies raises confusion and disillusion among the network members concerning the outcomes of their investments in cooperation.

A VMGD project officer regretted that many organisations implement projects that have the same objectives. For instance, the main criticism that arose both from organisations and civil society is the duplication of similar assessments. To address this issue, the Vanuatu Humanitarian Team (VHT) and the NDMO started a project of coordinated and joint needs assessment, with the support of UNOCHA, following its operational guidance of Multi Sector Initial Rapid Assessments. However, many organisations are still leading their own assessment, whether because it is prescribed in their mandate set by the donors or headquarters, or because they could not have access to existing reports and data.

Leaders and donors are highly criticised for neglecting resources and institutions already available to gain more visibility by creating new material. The NAB portal (described section 7.2.2.b) is an example of the lack of buy-in and use of existing resources, as, although created for all government and non-government stakeholders to share, many stakeholders admitted often using the NAB portal only when mandatory. There were also some ethical issues highlighted by a few respondents, who explained that some organisations sell their materials to other organisations, requesting sometimes a higher price than the cost required to develop similar materials.

Organisations are then tempted to create their own data and material, instead of buying others, even if this means that this will not add any value to the communities.

Also, the lack of institutional sustainability in the country is a major challenge for learning, as information and knowledge sharing are not reliable and are difficult, if not impossible, to achieve when institutions are weak or collapse. The Vanuatu-Networked-System in place in Vanuatu is weakened by a certain lack of commitment, partly due to institutional instability (section 6.3.3.a). However, the system also developed key instruments to address the different challenges limiting cooperation.

### **The impacts of turnover**

The strong dependency on the donor sphere also raised the question of staff turnover among many respondents (Ni-Vanuatu, expatriates and internationals). Turnover in Vanuatu was reported as one of the main challenges of good governance and an obstacle to the development of capacity for long-term system learning. Turnover is the rotation of staff, which can be significantly resource consuming and disruptive for organisations. Three groups of people are concerned by the high rate of turnover in Vanuatu:

- 1) Local staff,
- 2) Long-term international staff,
- 3) Short-term international volunteers and advisors.

Local staff and expatriates often change positions because most non-government and many government activities are project-funded, and cannot ensure the sustainability of the positions once funds are cut. Short-term external technical advisors are often hired by the Government and NGOs to build capacities and develop institutions when needed (UNDP, 2014). Red Cross volunteers, Australian Volunteers International and the New Zealand Volunteer Service Abroad, as well as the United States Peace Corps, among others, send a number of volunteers, in general for one or two years, to support development, disaster and climate change related projects. Red Cross and Peace Corps volunteers are particularly appreciated for their close work and relationships with the communities. INGOs, such as Oxfam or CARE International, also often seek their workforce from volunteers.

Likewise, government agencies have many Australian and New Zealand volunteers helping departments develop technical and institutional frameworks. A humanitarian actor in the country for the response to Cyclone Pam expressed his surprise to see the number of expatriates (staff and volunteers) with a governmental email address “gov.vu”, showing the reliance of the government on international expertise.

The constant involvement of short-term technical advisors at the strategic level also results in the development of institutions that are not consistent with national long-term strategies (UNDP,

2014). Furthermore, key plans and policies are often developed by internationals (more or less short-term), who do not always have time to supervise their implementation. When expatriates leave the country, there is little transfer of knowledge to new volunteers or with the rest of the organisation/agency. This explains the lack of implementation of these documents. Also, respondents pointed out the difficulty to track the changes of personnel in other organisations due to the constant turnover. This situation results in the constant outdatedness of contact lists available in the government agencies.

Furthermore, NGOs, most being project-funded, are particularly concerned about the cost and implication of turnover. The loss of social capital when a project ends and staff must leave has significant impact on the influence an organisation can have at the national level. The former country director of Vanuatu Live and Learn explained that, to address this challenge, they were trying to rotate their local staff on projects to train them to multitask in order to have the same staff work on new projects once funding of their own project ends. Likewise, Save the Children developed general capacity of its staff to fulfil diverse disaster response tasks and have access to information in case mandated actors are absent or not reliable during a disaster.

Turnover also has significant impact on the effectiveness of the sectoral networks, as participation in the network meetings is not mandated, and therefore visible, within projects. For instance, a French Red Cross respondent, who had just arrived in Vanuatu, admitted to not being aware which networks his predecessor was a member of, or even who, specifically, he was cooperating with for his work. This disruption of social capital significantly hinders continuous and reliable cooperation between organisations, as well as resulting in the loss of vital feedback information on projects. This is also a disincentive for network members to invest in the networking process knowing that discussion follow-ups can be random from one meeting to another one. Resulting in the constant disruption of available networking capital within the Vanuatu-Networked-System, turnover affects the main criteria for the learning network: continuity, reciprocity, and impact on practice.

Nonetheless, if well managed, turnover could have a significant positive impact on networking potential. Many Ni-Vanuatu respondents reported that prior to their work position at the time of data collection, they had already worked in one or another sector, and/or within another type of organisation. As seen earlier (chapter 4), the trusting relationships built over time mainly compose the social and informal networking process. Consequently, the high rate of turnover could strongly support intensive networking between government and non-government stakeholders across sectors if networking capital is capitalised before each change of position. The Vanuatu-Networked-System was recognised to have the potential to support this capitalisation; however, as seen in the following section, the prospect of learning and its capitalisation is hindered by the general lack of stakeholders' consciousness of this potential.

### **Lack of understanding of the value of learning**

As highlighted by Handmer et al. (2014), there is a general lack of learning from past events in Vanuatu society, mostly because documents gathering information relating to these events are often not accessible or visible. Many expatriates reported that there is a general lack of understanding of the value of sharing knowledge and resources at the national level. This lack of understanding is considered as a direct consequence of faulty leadership. In particular, non-government stakeholders consider that their inability to conduct learning activities results from the lack of Government acknowledgement of resource limitations of local groups, restraining their participation in lessons-learned-workshops.

Respondents examined many factors explaining the lack of willingness to share social capital. Territoriality of individuals and agencies is the main obstacle to sharing, mostly because building social capital requires investment, but also because, as described by many respondents, information and networks are power. To clarify: although sharing helps to network, the balance between what a network node will disseminate and what it will obtain is carefully considered by all network members.

Another limit to learning for locals is the intense lack of sharing of previous research conducted by foreigners. In 2013, the Vanuatu National Cultural Council (VNCC) led a one-year ban of international research to cope with the loss of samples and data, more specifically in marine sciences and traditional knowledge, as international researchers left with data collected in the country without following the VNCC Research Policy and sharing all finding with the Ministries (VNCC, 2013). The moratorium ceased in 2014 after an inventory of more than 60 on-going research projects in the country (Radio New Zealand, 2014). Access to previous research is very limited and findings are not well enough mapped to avoid duplication of work. Several respondents deplored the lack of awareness that sharing failures is useful, if not more useful, than successes. Lessons-learned-workshops are valuable platforms available for organisations to share their successes, but the more formal these workshops are, the less tempted stakeholders are to share their failures. Hence, it is important to keep an informal dimension to the exchange in order to motivate comprehensive learning.

## **7.2.2. Mechanisms for more effective Networked Learning**

### ***7.2.2.a. Physical dynamics propitious to social networking***

Addressing the diverse challenges still encountered by the network members to share and process information, different tools and mechanisms developed within the Vanuatu-Networked-System to facilitate networking and capacity-building for resilience-building. Consistent with the causal effect between physical closeness and communication (Monge et al., 1985), the effective development of the Vanuatu-Networked-System relied on the physical rapprochement between

network members. Indeed, many respondents (especially Ni-Vanuatu) pointed out the importance of physical closeness to enable social networking. The physical interaction significantly determines the flow of information sharing in the country. A representative of the Disability Desk from the Ministry of Justice, for example, pointed out that due to lack of human resources it was very hard to go to all the meetings that could be interesting for their work; however, sitting in the same building of Women's Affairs the two units built stronger relationships than with any other government departments. After the Women's Affairs moved away from the building, the two departments saw a slight decrease of their constant interaction and cooperation; however, the established strong collaborative pathways remained and were perceived as an enabler of project development on several occasions.

Oxfam Vanuatu is another example of the impact of physical closeness on cooperation. Being coordinator both of the two non-government umbrella networks (VHT and VCAN – sections 3.2.2 and 3.2.3) Oxfam has played a key role in building cooperative pathways between the two networks. The VCAN was developed after the VHT and used its experiences to be quickly and effectively operational. The VHT and VCAN officers reported that they often shared information informally during lunch or in other informal events in the course of their work, and helped each other. This particularly helped to identify potential overlaps in their disaster and climate change coverage. Other networks, such as the Vanuatu Civil Society Disability Network or the Quality Program Network are partly coordinated by Oxfam. Oxfam staff involved in these two networks highlighted the easiness to benefit from the expertise and influence of the VHT and VCAN coordinators through informal discussions in Oxfam corridors with their co-workers.

The recently established Ministry for Climate Change also benefited from physical closeness to reinforce its effectiveness. The different agencies composing the Ministry (VMGD, NDMO, NAB, Department of Energy and Department of Environment) already existed but were physically separated, which was pointed out as the main challenge to developing a common ministerial strategy. As seen previously, the departments gradually moved together in the same building, which promoted their cooperation, in particular the Department of Energy was considered better integrated in the networking process after its move in 2015. An NDMO respondent attested that regularly “meeting in corridors” staff from the other departments was a significant cooperation tool, as professional interactions and exchanges feel more natural, spontaneous, and continuous, and less intrusive and constraining than official meetings. To facilitate information sharing and coordination with the non-government arena, the VHT desk was also moved to the Ministry for Climate Change building in 2014. This was particularly recognised as a step towards a better government engagement in the VHT, and towards stronger VHT participation within the Ministry decision-making process.



Respondents highlighted that the dynamics of discussions and information sharing during meetings could significantly vary depending on several factors. First, the weight of the traditional hierarchy influences information sharing during meetings. When Ministry or Department Directors chair a meeting, discussions are more formal and less in-depth, with a very weak spontaneous involvement of local staff in discussions. The sectoral networks, and more specifically the satellite local ones, such as the CDCs or Gender Partner Group, are platforms where meetings are less formal and discussions flow more easily, facilitating the involvement of local officers and civil society. Simultaneously, the strong inclusive composition of the NAB meetings enable the transfer of perspectives and approaches from these satellite networks to the higher levels of policy making, in which members of small networks could not easily participate. Second, in meetings where foreigners are numerous, local officers tend to be less inclined to intervene in the discussions without being specifically requested. The participation of foreign stakeholders in discussions also affect the normal distribution of role based on gender. Third, Ni-Vanuatu respondents confirmed that their feeling of belonging and ownership of the process tends to wane when they attended a meeting in the building of another agency, modifying their participation (direction and amount of information sharing). Hence, the choice of the hosting venue had significant impacts on the participation and outcomes of the meetings, and therefore was largely determined by the desire to address the meeting agenda.

#### ***7.2.2.b. Information sharing tools***

##### **The role of online social networking**

Most respondents spontaneously acknowledged the significant impact of online tools to promote social networking, especially in urban areas. More particularly, email lists and newsletter systems, especially the VHT Newsletter, VCAN Digest and NAB Quarterly Publication of the Vanuatu Update, were considered very useful to remain visible and regularly in contact, and to efficiently share information with interested stakeholders. A specific newsletter mentioned by NGOs and small donors as extremely useful for work efficiency was the “Trip Network” email list, in which all planned trips in the provinces are shared among network members, giving opportunities to pool resources.

Furthermore, a national database, the NAB portal, connected to the Pacific Climate Change portal, was launched, to better link the country with the regional level. The NAB portal is an online platform where government and non-government stakeholders are (strongly) invited to share all information related to DRR and CCA in the country. The NAB portal equitably publishes policies, meetings and workshops invitations, project reports or academic work, as well as a publicly accessible contact list and event calendar. The main goal of the NAB portal is to be an online focal point to gather all international, regional, national and local references potentially useful for the effectiveness of DRR and CCA in the country. Over the three years of this research, the impact

of the NAB portal on the Vanuatu-Networked-System has evolved. The NAB portal was launched in 2012, but by the time of the first field trip in 2013, a significant part of the respondents had not heard about the NAB portal, or had heard about it but never visited it. By 2014, most respondents acknowledged the value of a focal forum that is open to all government, non-government and civil stakeholders. Respondents particularly highlighted the value of the wide range of information available on the website. Indeed, when going through project endorsement, stakeholders acting in disaster and/or climate change projects are required to update their findings on the portal, which is a useful tool to avoid duplications and motivate cooperation. Several NGOs also applauded the value of the portal in reducing costs to advertise job vacancies and in enlarging potential respondents to their workshops and training. The NAB portal is also used as a transit forum for stakeholders to post information that is not of direct interest for their own contacts, but that may be useful to others. In general, the NAB portal was recognised as a useful tool to raise awareness about the large and complex scope of stakeholders and sectors involved in DRR and CCA.

However, although the potential of the NAB portal was generally acknowledged by all stakeholders, its use remained very limited because of the complicated structure of the website, and most respondents highlighted that the NAB portal should be more “user-friendly”. Respondents also complained about the overwhelming amount of published information, which was sometimes duplicated and/or out-dated. Another challenge was the difficulty accessing the NAB portal from several government agencies, due to the department Internet restrictions, or slow connections. The workshop mid-2014 for the NAB development partly emphasised the desire of most stakeholders to increase their use of the portal, and therefore the need to better map the website, and hire an information manager to work on published information. Since time available to attend meetings can be scarce, stakeholders recognised the need to better promote the NAB portal as an interactive tool between meetings. There was a consensus that it a central knowledge management system to monitor and evaluate data, allowing all stakeholders to continuously exchange perspectives on projects, and to consciously build integrated understanding of disaster and climate change governance in Vanuatu.

However, after Cyclone Pam (March 2015), respondents witnessed a sharp decrease of the use of the portal, as much by seekers as publishers. The events calendar was not updated, information on Cyclone Pam was mostly published by the Vanuatu Food Security and Agriculture Cluster only, while the other Vanuatu clusters used the pages of the international clusters (e.g. [www.sheltercluster.org](http://www.sheltercluster.org)) or international platforms (e.g. [www.humanitarianresponse.info](http://www.humanitarianresponse.info)). Furthermore, no international respondent had been informed about the existence of the NAB portal, which hindered the optimal use of this tool, even though the disaster related information the portal gathers could have been extremely useful for external actors to cope with their lack of

national context (often pointed out as a main challenge by local actors in the effectiveness of response and early recovery operations – as seen in chapter 10).

In general, networking through the use of online social media is increasingly attracting members despite the significantly limited access outside of Port Vila (Naupa and Howlett, 2011). Naupa and Howlett (2011) found that the majority of Internet users in Vanuatu are between 18 and 34 years old, are strongly involved in discussions on development issues in the country, and easily take part in online information sharing and debates. Many Facebook pages are dedicated to resilience-building and development. Almost 48% of the respondents used, daily or weekly, Facebook pages to discuss disaster, climate change and development-related topics. The most visited pages were Facebook Vanuatu Climate Change, Facebook Yumi toktok stret, Facebook VMGD, and Facebook Pacific UN Women. Following Cyclone Pam, several Facebook pages facilitated the sharing of information, pictures and updates on the response and early recovery activities. A specific page was also created for people looking for relatives and friends whom they could not contact directly.

Despite regular visits on Facebook pages, many respondents admitted, however, that they do not give a lot of credit to the value and accuracy of information, especially when the page does not belong to an established organisation. In general, the positive impact of email lists, portal and online social network on integrated and inclusive cooperation remains limited due to the unequal use of Internet in the country. On one side, the natural territoriality of information ownership may limit staff access to all the information available, such as the firewall of the different government departments limiting the access of outside pages and websites. On the other side, there is the lack of access to Internet outside of the work place. The scarce and difficult communication with the remote islands or remote communities was pointed out as being even more obstructed by the paradox of increasing reliance on Internet for information sharing at the national level and an obstacle for regular contact. In 2011, only 8% of the total population, and less than 2% of rural households, had Internet access (Naupa and Howlett, 2011; UNICEF, 2011). In 2015, Internet access had not significantly improved and access to “modern communication tools” remains highly limited. Furthermore, although Internet outreach slightly improved in the “big towns” outside Port Vila, such as Lenakel or Luganville, individual access in households remained almost non-existent. For instance, the French consular agent pointed out that although there may be easy Internet access, many French inhabitants were not registered in email lists and did not have an email address, which made it very difficult to inform them on a regular basis (French Embassy, 2014). The inequality of Internet access and the relational culture of the country based on oral exchange result in a significant reliability on more traditional mechanisms of communication.

## Exploitation of more traditional communication tools

One of the information-sharing networks utilised by respondents for disaster and climate purposes is the Pacific Solution Exchange (PSE) forum. The PSE recognises the need to integrate several types of communication tools to motivate sharing. The PSE, therefore, exploits both online and face-to-face networking mechanisms, bringing together government and non-government stakeholders from all levels with crosscutting topics related to climate change and development. PSE is considered a network offering a wide range of sharing mechanisms allowing the different types of members to share information, knowledge, and reflection using their preferred tools, such as alert emails, online discussions and face-to-face gatherings.

Beside online tools, phone and radio remain the main, if not the only, tools used in rural settings. Unlike Internet, mobile phones cover a wide extent of the provinces. In this situation, phone messaging is a significant tool in disseminating information to rural households. To support the NDMO, the VHT led several training sessions for short code messaging and information campaigns for the public. The role of SMS texts in DM has developed for more than a decade, exploding during the 2004 tsunami to collect donations. Since then, the use of SMS texts for alerts and response has been significantly increasing in exposed countries, both developed (e.g. Australia) and developing (e.g. Philippines). For instance, during Typhoon Haiyan, SMS texts were used to get information on the hazard path, evacuation centres and victims (Cottle, 2014). Short phone messages are particularly valuable communication channels in Vanuatu, as phone coverage is wide. Hence, mobile phones cope with Internet limitations and geographic distances to distribute information (texts and short vocal messages).

The SMS texts system was officially integrated in the National Standard Operating Procedures as a resilience-building tool (NDMO, 2013a). For these purposes, the national system ‘166’ is a toll-free number that releases voice recorded and text information on hazards (cyclone, tsunami, volcanic) and disasters to civil society. Based on the guidelines set in the Standard Operating Procedures (NDMO, 2013a), 166 messages are brief, regular and in Bislama to be understood by a large majority of civil society. In routine times, the VMGD, in collaboration with the Department of Agriculture and other organisations, such as SPC/GIZ, continually releases general informative SMS texts, crucial for building resilience (Box 1).

### **Box 1. Example of informative SMS to build resilience**

**Received on May, 27<sup>th</sup> 2015 from Vanuatu Meteorology and Geo-Hazards Office**

“Meteo dipatment i advisem public se wan drae taem (El Niño) i stap kam mo bae i stap kasem early 2016. Sevem wota mo plantem kakai we i grow gud long drae taem. Yumi mas pripea gud nowia”

*VMGD notifies the public that a dry weather (El Niño) is coming and will remain until early 2016. Save water and plant food that grows easily in dry weather. We must all prepare well.*

Phone messaging is an example of successful public-private cooperation, as the Government had developed an agreement with the company Digicel to manage 166. An agreement between the French Embassy, a long-lasting donor in Vanuatu (Vachette, 2013), and the telecom company, TVL, is being discussed to exploit the significant potential of short message systems.

The traditional radio also remains a widely used tool in disaster warning and information dissemination, particularly thanks to its wide reach across the country. In 2008, Radio Vanuatu was restructured to enlarge its provincial reach. The way radio messages for disaster warning and response should be developed and sent is clearly described in the Standard Operational Procedures (NDMO, 2013a), illustrating the recognition of this communication tool. Radio is also used in long-term integration and inclusiveness building. Indeed, Radio Vanuatu plays an interesting role in preparedness, as well as in increasing awareness and understanding on DRR and CCA, particularly the two programs “Talk Back Show” and “Voice blo Province”, where topical discussions include experts and relevant civil society members.

### ***7.2.2.c. Enforcing continuous learning***

#### **Network meetings**

As seen previously, informal non-binding cooperation is highly productive in Vanuatu. Network meetings, and more specifically satellite networks, are ideal platforms to promote and benefit from collaborative informal social networking pathways without raising the feeling of binding relationships and investments.

Network meetings are significant assets in conscious, continuous, reciprocal learning. Constant interaction between stakeholders is indeed recognised as essential to support learning (Bodin and Crona, 2009; Kapucu et al., 2010b). It is therefore essential to address the challenges linked with the unreliable attendance to meetings, and consequent lack of commitment to the whole networking process (section 4.5). To address these challenges, network coordinators and leaders need to better stress the learning value meetings represent, developing incentives interactive presentations and constant training opportunities.

Regular network meetings also address the challenge of turnover, as network members often keep an informal interest in their previous activity and often remain network members even if their new position is in another area of expertise. This supports a certain sustainability of expertise, knowledge sharing and relationships that may not happen at the organisational level because of turnover.

Occasionally, the VCAN also facilitates presentations of international or regional research projects on climate change, such as Oxfam Australia Climate Change programs, during network meetings. This was recognised as a real asset in educating staff on climate change matters. Respondents from small local associations and NGOs (e.g. Farm Support Association)

highlighted that VCAN meetings were key mechanisms to be informed of activities related to climate change and disaster risks in Vanuatu. Likewise, the links between the umbrella networks, the satellite networks and the diverse stakeholders result in optimal use of all learning opportunities, such as training and workshops. Also, on-going or planned projects where they can utilise their expertise support a more effective use of their networking capital.

Furthermore, network meetings, especially the umbrella networks, make government and non-government actors sit and listen to each other's projects, ideas and activities. This allows a constant awareness of all conceptual and practical advances in the diverse sectors related to resilience-building. This general learning process, however, relies on the availability and transferability of specialised learning pathways that help stakeholders to channel the development of their knowledge (Bodin and Crona, 2009). This process gradually addresses the lack of conceptual understanding, since the expertise of each sector, as well as the bridges between them, are continually identified and discussed. Since the establishment of the networks, most respondents noticed a general significant advance in the understanding of seasonal climate and DRR and CCA theories, and a better incorporation of these concepts in projects and activities. Furthermore, there is a real updating of information enabled by the continuous relationships between network members (through meetings, newsletters, contact lists) to share knowledge, experiences, findings, questions and discussions. The Vanuatu Food Security and Agriculture Cluster meetings, for instance, was described as key platforms to share with all stakeholders data and experiences on crop varieties resilient to climatic variations.

Moreover, the oral nature of the Vanuatu culture is a real asset for networking and cooperation, since relationships are easily built during informal and formal group meetings, community gatherings and ceremonies. Vanuatu is a family- and social-supportive environment. Networks recognise the particular input of informal relationships and gatherings to share lessons and knowledge, and investing in building a network culture, such as food and drinks after meetings or group activities. Overall, most networks take a community-based approach, by sharing experience and lessons-learned from the field to develop more effective projects, supporting continuous empowerment of civil society to be self-reliant and more resilient. Adopting community-based processes (MacLellan et al., 2012), the networked approach advocates resilience-building *with* communities, instead of *for* communities. Network meetings relate to the inherent culture of Vanuatu promoting face-to-face oral interactions.

Therefore, the Vanuatu-Networked-System, scaled in several layers of network meetings from integrated to specialised network meetings, is a key asset to developing complementary social networking between a comprehensive governance system for resilience-building (integration) and specialised knowledgeable network nodes (fragmentation), essential for effective governance (Bodin and Crona, 2009).

## **Monitoring and Evaluation**

As seen earlier, information is not always well evaluated, and therefore not useful for Networked Learning and capitalisation purposes. There is a need to evaluate the efficiency of information production and dissemination, as well as to be aware of utilised capacities and cooperative pathways, to build an effective system. The networked mechanisms of project Monitoring and Evaluation (M&E) were highlighted as vital opportunities to learn about available existing capacities and collaborative pathways of other members, and therefore, opportunities to cooperate for the success of projects. Expertise may also be found among external organisations, which already have strong ties with national entities this allows an optimal use of existing cooperative links, such as between the Papua New Guinea National Agriculture Research Institute and the Vanuatu Department of Agriculture. Continually monitoring projects is essential to make this type of cooperation visible for the Vanuatu-Networked-System.

Consequently, a consensus about the need to build capacities for M&E transcends all departments and organisations in Vanuatu (UN, 2010; Oxfam, 2012; NDMO, 2013a; Handmer, et al., 2014; NAB, 2014; UNDP, 2014). M&E was recognised as one of the key national priorities in the crosscutting issues section of the Vanuatu Climate Change and Disaster Risk Reduction Policy (Government of Vanuatu, 2015d). The lack of M&E is not a problem specific to Vanuatu, and is a current challenge often pointed out in development projects. The real impacts of projects on communities remain widely unknown, especially for the longer term. Although the succession of similar projects in similar areas is often explained by the lack of coordination between organisations, it also demonstrates the lack of visible outcomes of the projects on the communities, due to the lack of effective M&E. The NAB was gradually recognised for its strategic role to lead M&E and reporting on disaster and climate change related activities. The NAB Project Management Unit established a specific position for M&E, and provides core conceptual and technical assistance for M&E to be incorporated in organisational and departmental strategies.

Most sectoral networks have developed a major change in the way projects and programs are managed by strongly advocating M&E. A M&E unit was also established in the Prime Minister's Office to cooperate with its Department of Strategic Policy, Planning and Aid Coordination and the different Ministries to follow the M&E of policy implementation and facilitate ministry reporting to the high levels of governance (Council of Ministers, Prime Minister's Office) (UNDP, 2014). The Risk Governance Assessment conducted in 2013 found that the lack of a corporate plan within the Ministry for Climate Change and its departments limited the development of M&E. Based on the NAB discussion paper #4 (NAB, 2014), the M&E division of the NAB has the responsibilities to develop updated DRR, DM and CCA M&E systems,

guidelines, frameworks and activities, as well as to manage a cross-sectoral monitoring database and liaise with M&E related technical advisors (such as Information technology experts).

Many respondents pointed out the challenges to conduct M&E and the consequent negative impacts on learning, despite the M&E units within the Prime Minister's Office and NAB. However, they often witnessed strong informal and mutual help among network members when meeting difficulties in evaluating and reporting on their activities. Informal M&E sharing between network members were considered key mechanisms to capture lessons-learned at the different levels of projects, building accurate core data for Networked Learning.

### **Endorsement processes for resilience-related projects and Information, Education and Communication material**

Supporting the different efforts to monitor projects and activities, the Information, Education and Communication (IEC) endorsement process aims to supervise consistency, accuracy and reliability of all disaster and climate change related IEC materials developed by government agencies, NGOs, community groups, donors and private stakeholders. The IEC endorsement process was motivated by the observations that IEC material was often developed in one language only, not adapted to the general community low literacy, and limited in effective provincial dissemination (Oxfam, 2012).

This process has a key impact on learning. Aside from controlling the accuracies of the material, the IEC processes help capture and share resources, as well as ensure continuity, clarity and transferability of knowledge. IEC materials are submitted to the NAB Project Management Unit, who can consult Departments (such as agriculture or health), the VHT and VCAN members, as well as PDCs and CDCs for advice on the material to ensure their accuracy before endorsement. This illustrates the on-going process of learning from existing expertise.

Similarly, a process of project endorsement is conducted by the NAB to monitor all programs and projects related to disaster and climate change matters in Vanuatu. This process supports more consultation during the whole life of the project. The main goal of the NAB project endorsement is to avoid activity duplication and to effectively spend funding, as well as to ensure that projects are based on existing knowledge. All NAB members may recommend linkages with existing institutions or projects before endorsement. These recommendations often support strong Government–non-government, cross-sectoral cooperation. Furthermore, non-government respondents reported that the endorsement processes provided insight into Government views, resulting in more systematic consultation during project development. This enabled a strengthening of the legitimacy and credibility of the NAB leadership. The NAB credibility gradually increased since it succeeded in making key government and non-government stakeholders go through the endorsement processes. NDMO representatives, however, reported



that this credibility was fragile and may be threatened by the remaining international and regional NGOs and donors, who directly implement their Climate-Change-and-Disaster-Risk-related projects in the rural areas without registering first within the Prime Minister's Office and NAB.

Therefore, developing appropriate IEC materials are increasingly becoming the priority of sectoral networks. In particular, the Climate Change and Disaster Risk Reduction working group, previously known as the Information Education and Communication working group, plays a crucial role in the effective development of disaster and climate change related programs. The Climate Change and Disaster Risk Reduction working group, coordinated by the NDMO, brings together, in parallel to the NAB meetings, government agencies and NGOs to develop common objectives and frameworks. Furthermore, this working group has been a significant channel to raise stakeholders' understanding of the integrative and inclusive processes happening in the country. Respondents from both government and non-government arenas highlighted the substantial benefits of participating in the working group with a significant increase of interactions with each other after the working group's initial results. This working group is therefore an interesting network illustrating the benefits of cooperation. Moreover, respondents recognised the great value of this working in policy making, as it facilitates broad discussion around policy implementation and practice between government and non-government CCA and DRR stakeholders, and gives them direct access to the NAB level. Government project managers, particularly, acknowledged the achievements of the working group in motivating and controlling cooperation between lower officers, non-government stakeholders and community-based organisations.

### **Capacity-building activities for learning: simulations, workshops and training**

The process of learning relies on the development of learning resources, such as common knowledge and resources, collaborative pathways, and appropriate communication and sharing tools. However, this process significantly depends on the capacities of organisations and communities to develop their understanding of and potential to effectively participate in the process of resilience-building. These capacities enable organisations and community to better identify, understand and process knowledge and resources essential to the learning process. Hence, capacity-building activities, such as simulations, workshops and training, were identified as primary assets in learning. Consequently, the different networks actively enable learning by organising a wide range of capacity-building activities in DRR and CCA for organisations and communities.

Several disaster simulations were facilitated by the VHT to support the NDMO at the national and provincial levels, facilitated by UNOCHA (UNOCHA, 2013). Experience is an essential learning tool in any context, but is extremely valuable in a context that is not a written culture

such as Vanuatu (sections 5.2.1. and 7.2.1.a). With the cluster approach having a complex structure and mechanisms, operational experience and exercises are extremely valuable for stakeholders to become more familiar with the process and optimise actions when an emergency occurs. The Vanuatu Red Cross highlighted that being part of the regional clusters led by the PHT during cyclones Vania and Atu in 2011 greatly helped to raise understanding of the system (Griffiths, 2013). Therefore, to build experience before the occurrence of an actual disaster, VHT leads periodic simulations involving different islands, communities, staff and hazards. The simulations were organised with an average of 200 respondents, and on different hazards. These simulations allow building capacities of leaders at the provincial level, as well as underlining the weaknesses of the VHT as coordinator. One of the key observations of a volcanic disaster simulation organised in Tanna was that provincial leaders did not fully understand the VHT principles, roles and responsibilities. The simulation was also an opportunity for the NDMO and VMGD to test the impact and understanding of standardised short messages (alert, response). The first simulation jointly supervised by the NDMO and VHT took place late 2012 in four provinces. It was supported by a wide range of donors and NGOs (Oxfam, 2012), demonstrating strong coordination pathways and a common desire to lead cooperative learning activities. This simulation targeted the test of communication through short code messaging, the activation of the National Emergency Operations Centre in Port Vila, and the conduct of the Rapid Assessment Process, as well as the identification, involvement and empowerment of vulnerable groups, more specifically children and women (Oxfam, 2012). The simulation was following a number of workshops and training led throughout the year by the different organisations, and tested the practice of developed skills and capacities. In cooperation with the NDMO, VHT conducted several training sessions for the Vanuatu clusters leads and co-leads. During the assessments led after Cyclone Pam about “what went well and what went wrong”, PDC and CDC members, as well as Vanuatu cluster members, pointed out the benefit of the simulations previously conducted to provide better knowledge on how to support preparedness and response. This illustrates the learning value of such activities. Aware of this value, international funds are specifically allocated to simulations, such as the New Zealand Consortium of NGOs planning simulation exercises in several Pacific countries, including Vanuatu, to share best practices and lessons-learned at regional, national and local levels (PHT, 2012).

Government and non-government respondents agreed that there is a general need for capacity-building of implementers of DRR and CCA projects. Short course training and workshops are regularly organised by government agencies and NGOs all through the year. Through the networks, climate change and disaster matters are becoming clearer to the Rural Training Centres across the provinces, which increase their training capacities and opportunities with the support of VCAN members, the Vanuatu Rural Development Training Centres Association and GIZ in

particular. Respondents observed the crucial input of the different sectoral networks in raising awareness among local stakeholders across provinces, concerning the opportunities and value of such training and workshops, as well as in facilitating their participation, for instance, covering transport costs.

These learning activities are various, and often target a certain group of the communities to focus on capacities targeted for building. For instance, part of the responsibilities of the training division of the NAB is to conduct workshops, such as on M&E systems or Impact Assessment process, and technical training, such as on development planning, database and GIS (NAB, 2014). To address the issue related to turnover, networks have a real impact in building capacity to raise understanding on how to use the wide range of capacities in a single project. Based on the VCAN terms of reference, in its role of network coordinator Oxfam is to organise learning platforms to raise interest and discussions among VCAN members and other stakeholders involved in climate change matters.

A main challenge facing short course training and workshops for building capacity in DRR and CCA is the lack of reliability and stability of funds allocated to these purposes. Many major disaster and climate change related programs require significant capacities to develop and implement activities but do not assign budgets for capacity-building in the country. Members of the studied networks pointed out the value of the networks as platforms enabling capacity-building through informal guidance and resources pooling to organise common training and workshops.

It is important essential to build capacities at the community level to conduct effective implementation of activities related to disasters and climate change (Kapucu and Van Wart, 2008; Kapucu et al., 2010a) and to enable community processing of information into Networked Learning. However, it is difficult and costly for organisations to build capacity of all communities. Organisations may also have limited resources to build capacity of their own staff. Networks can optimise capacity-building by targeting scaled trainees to train and transfer knowledge throughout the whole range of stakeholders, as well as increase opportunities of learning by enlarging the range of shared experiences. The umbrella networks have the benefit of covering a wide range of potential trainees, and to have access to high-level integrated expertise. The umbrella networks have close links with networks and organisations at the international and regional level, which opens opportunities for outside expertise to support trainers. The VMGD, for instance, has strong partnerships with the equivalent departments in other pacific countries and territories (VMGD, 2014); consequently, network members benefit from lessons-learned and expertise of these institutions through the involvement of VMGD in Networked Learning activities.

Training and workshops organised by the umbrella networks build general and more specific capacities, and develop integrated understanding. The satellite networks have the benefit of being intimate platforms, where lower levels of governance are known and feel more confident participating. Furthermore the satellite networks have a real local expertise in their respective sectors, and can give targeted training specifically developed for the audience. Members of the satellite networks are often invited to the platforms organised by the umbrella networks and by organisations and departments related to their specific sectors; hence, they are able to transfer at lower levels (often provincial, local officers and civil society) the networking capital built at higher levels (often international, regional, national directors, managers and officers).

Training and workshops, however, are greatly challenged by the inconsistency of terminology and concepts. The differences in material, methods and terminology used by all the organisations have significantly hindered the learning process both on the organisational and individual level. Therefore, VMGD and NDMO started to work on the standardisation of terminology and translation of scientific language on climate, disasters, and climate change, to build capacity and a common understanding. The VHT assisted the standardisation of assessment forms led by the NDMO and the different Vanuatu clusters. All networks support the Government in developing common terminology and concepts to consistently express and share knowledge between actors and communities. Following the examples of the booklets for standard messages developed in Papua New Guinea, the Government of Vanuatu relied on its networked system to collect data and ensure the utilisation of standard messages already developed (e.g. Save the Children Vanuatu's standard action messages), and establish a set of national information and action standard messages. The provincial level, through networks and more specifically the PDCs and CDCs, were involved in the development of this capital, integrating the actual field needs with the decision-makers. For example, PDCs transmitted communities' request to have the simplest messages, with only one idea per message. The networks are key tools supporting the alignment of national approaches with the provincial and local ones, especially through the empowerment of the PDCs and CDCs to collect community visions. The Climate Change and Disaster Risk Reduction working group brings together the technical expertise of departmental agencies, more specifically NDMO and VMGD, as well as non-government stakeholders, such as the Red Cross societies, to develop standardised documentation on disasters and climate change. This working group is closely working with the Community-based Disaster Risk Reduction Standardisation working group to better integrate traditional knowledge into materials. This last working group helps the NDMO to finalise templates and documents to be used in the future.

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### **7.3. A governance system propitious to Networked Learning activities supporting more effective resilience-building**

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#### **7.3.1. Optimising complementarity between traditional and western knowledge to build appropriate networking capital**

The different mechanisms in place in the Vanuatu-Networked-System provide the potential for the system to conduct Networked Learning, by building common, appropriate networking capital. One of the strengths of the Vanuatu-Networked-System in this process is the recognition and efforts pursued to integrate traditional and western knowledge, which ensure that stakeholders' learning relies on a comprehensive, appropriate and relevant networking capital. Still, effectively bridging traditional and western knowledge for accurate learning remains challenging.

As seen previously, with Vanuatu culture being orally based, written materials are not optimal appropriate for information and knowledge sharing with rural communities (sections 5.2.1. and 7.2.1.a). Conflicts with “western people” who want to codify customs often rise and undermine learning potential. Several Ni-Vanuatu explained their opposition to written policies, plans and codes by the difficulties in controlling what provisions will be specific to Vanuatu and not simply a copy of international and outside documents. For these purposes, advocacy is rising for the need for local government staff to take charge in writing and publication of documents instead of relying on expatriates and volunteers as has often happened. Local responsibility for better accuracy and ownership of the documents was emphasised during the development of the recovery framework developed after Cyclone Pam. Learning from traditional knowledge for the development of the policies and plans supports ownership and legitimacy, and therefore sustainability, of the governance system.

The consideration of traditional knowledge, and more particularly the complementarity of traditional and modern knowledge, is increasingly recognised in disaster research (e.g. Gaillard, 2007; Mercer et al., 2012; Cook, 2015; Kelman et al., 2015). However, the risk of loss of local information and knowledge, especially traditional) is increasingly important because of the significant involvement of international and regional actors, as well as the high turnover rate. Traditional knowledge has been subject to loss for decades due to the oral nature of its dissemination mechanisms, the rise of urbanisation and loss of traditional beliefs. In this situation, written material is a crucial way to capture and document information to learn from existing networking capital, and develop sustainable and transferable knowledge. Thus, there is a need for complementarity between written materials and oral tools disseminating the same information to illustrate the current development of a comprehensive expertise on disaster risks and climate change. This will help to have an optimal use of both traditional and western knowledge, which is a process essential to effective activities in DRR and CCA (e.g. Gaillard, 2007; Mercer et al.,

2012; Cook, 2015; Kelman et al., 2015). Maclellan et al. (2012) highlighted that learning from both western and indigenous knowledge to create an effective system is difficult but possible.

The Risk Governance Assessment (UNDP, 2014) highlighted the lack of systems able to capture and document traditional knowledge on DRR and CCA in Vanuatu, which was worsened by the lack of information management at the provincial levels. The Cultural Centre has a team of investigators mandated to address these issues, by collecting and documenting data related to customs, traditional culture and knowledge (Siméoni, 2012). The Cultural Centre is a forum with the great potential to assimilate the ‘western’ documenting mechanisms with a traditional perspective. However, the Cultural Centre has insufficient resources (human and financial) to cover the whole country and track researchers not registering their projects with the Government. The moratorium conducted in 2013-2014 (section 7.2.1.b) helped to strengthen leadership of the Cultural Centre in its responsibility to document traditional culture.

Although efforts are made to document ‘on paper’ traditional culture, the impact of such a resource is limited at the national and local levels. A NGO respondent explained that all Ni-Vanuatu will listen to, discuss, remember and transfer something being said or told, and most will be willing to transfer it, while printed information will be read and learned only by a very small proportion of the population.

The Climate Change and Disaster Risk Reduction and Traditional Knowledge working groups were established to facilitate integration of traditional knowledge disseminated orally at the community levels, and modern knowledge relying on written material at the decision-making level. These two working groups capture traditional daily living habits linked to DRR and CCA mechanisms, and capitalise them for all levels. The flexibility of these networks is particularly valued by the Department of Local Authorities in increasing opportunities to capture lessons-learned at the community levels, and hence to strengthen the learning potential. Through the rest of the networks, these data are accessible to all stakeholders willing to develop DRR and CCA initiatives. The main goal is to ensure a global pooling of lessons-learned and knowledge to develop the most appropriate and effective activities.

Likewise, with the support of different sectoral networks, and their established communication pathways with civil society, the VMGD is working on documenting traditional climate knowledge to integrate with scientific climate data, to ensure that final information shared with the communities is adapted, comprehensible and consistent; so far more than 500 traditional strategies to cope with climatic variations have been collected (UNDP, 2014).

Through its visible interest in capturing, learning from and using traditional knowledge, the NAB is recognised as a major vector of traditional social capital. Several government respondents highlighted that the NAB was significantly helping to raise the interest of local governments in

protecting traditional DRR and CCA initiatives. Several networks, committees and working groups especially focus on capturing and learning from traditional knowledge, and most networks aim to use lessons-learned from traditional communities for more effective and appropriate activities. There is a strong effort to use local and customary institutions and reinforce their existing capacities, instead of establishing ad-hoc institutions for disaster- and climate change-related projects. The NAB therefore works closely with the Technical Advisory Commissions existing in each province. These Commissions are composed of provincial and national government stakeholders and established to help government coordination at the provincial level (Government of Vanuatu, 2015d). These commissions are ground technical bodies that support the protection of local institutions, especially the CDCs, and promote traditional knowledge. With the support of the Commissions, the NAB aims to bridge groups that operate within traditional customs.

Respondents also highlighted the vital role in traditional knowledge promotion of two small sectoral networks: the Community-based Disaster Risk Reduction Standardisation and the Traditional Knowledge working groups. The overriding goal of the working groups is to motivate cooperation of government and non-government stakeholders in building stronger common bases on which DRR programs could be developed. These networks have helped to reduce duplications, but more specifically addressed the general confusion and lack of traditional knowledge consideration into DRR projects. Respondents recognise initial achievements of these working groups in the development of common standardised tools. Community-based Disaster Risk Reduction Standardisation working group particularly has been working on the development of standardised DRR terminology, templates for community profiles, assessment forms and response plans, and standardised DM packages based on the Vanuatu National Training Council standards.

The different instruments developed within the Vanuatu-Networked-System to capture, disseminate and process appropriate capital strongly support all involved stakeholders to learn from their own and others' knowledge and experience. By supporting this Networked Learning, the Vanuatu-Networked-System strengthens its potential, effectiveness and sustainability.

### **7.3.2. Overcoming difficulties in understanding and awareness of the complexity of project management**

There was a general consensus between all respondents that cooperation was hindered by the relative lack of understanding of DRR and CCA complexity, and of the potential input of the diverse stakeholders, covering different sectors, different types of organisations and different skills. The networks promoting the involvement of government and non-government members, such as the NAB or Vanuatu clusters, have greatly advanced NGOs' understanding of government initiatives, and vice versa.

The participation of scientific organisations in network meetings helped to educate project leaders about seasonal and climate change trends. Scientists working for the Government noticed a significant improvement in the way government agencies, NGOs and civil society groups were leading disaster and climate change related projects, and better integration of precise data in the development of the goals. In general, there is a need to raise technical understanding and clarify the differences between climate change and natural weather phenomena and other natural hazards, such as earthquakes and tsunamis. Being part of networks that are partly composed of experts allows all stakeholders to enrich project proposals by better understanding how to include relevant international commitments and conventions such as climate change, land degradation, and environment protection. However, the lack of ties with academia was recognised as a remaining gap in utilising technical understanding. Therefore, several stakeholders from NGOs underlined the need to better include academia in cooperation efforts to develop better-informed and reflective projects. Overall, the impact of the networks on the general understanding and on the optimal use of resources significantly supported more comprehensive projects for community development, not only targeting DRR but also long-lasting issues affecting development, such as agriculture or education.

Both government and non-government stakeholders also highlighted the vital role played by the networks to address their difficulties in understanding the political machinery involved in the decision-making process. Being involved in formal networks discussions, and having a direct or indirect (through representatives) link with the NAB, helped stakeholders receive informal feedback on matters relating to policy development and negotiations. Simultaneously, including NGOs and civil society in policy discussions has proved to bring more flexibility, which is important for the effectiveness of the whole process.

### **7.3.3. Networked Learning and long-term trusting relationships**

As seen across different challenges to social networking and learning, effective sharing between network members can be hampered by a lack of reliability in the network structure and relationships. The development of trust in the network sustainability and in the diverse networking processes is therefore a priority prior to the occurrence of a disaster.

Shared values and goals, and desire to learn from one's own and others' experience do not ensure the sustainability of the network. Without any hierarchical system of control in the networked governance system, accountability and sustainability rely on the informal evaluation by each member of the input and influence of the other members (Bäckstrand, 2008). Therefore, the effectiveness of cooperation within the governance system is determined by the qualities of relationships, and more specifically trust, which replace the contractual incentives of more



traditional governing systems (Koppenjan and Klijn, 2004; Stephenson, 2005; Provan et al., 2005; Nolte and Boenigk, 2011).

Trust is the ability of stakeholders (network members) to rely on one another in complex situations (Das and Teng, 2001; Stephenson, 2005). Many scholars consider trust as a main condition for cooperation, whether as networking incentive or network outcomes, especially in the context of hazardous environment such as disaster response (e.g. Perkin and Court, 2005; Stephenson, 2005; Kapucu, 2006a, 2006b; Provan and Kenis, 2007; Kapucu et al., 2009, 2010a; O'Brien, 2010; Kapucu and Garayev, 2011; Demiroz and Kapucu, 2012; Vasavada, 2013). More particularly, trust is a main incentive (or hindrance if missing) for cooperation between the different types of stakeholders –government, non-government, private, civil – who do not always have an equal role in traditional structures (Nolte and Boenigk, 2011). Also, trust is a critical determinant of the strength, nature and direction of the ties within the network (O'Brien, 2010). Trust also supports the sustainability of the network; however, often the lack of commitment to the network weakens trust building beyond network members.

Trust-building, however, raises some challenges. Willingness to share resources and fairness of access to resources cannot be controlled unless threats of sanctions ensure transparency and accountability (O'Brien, 2010). Since networked governance does not have any sanction mechanisms to control or force members to share information and resources, goodwill or self-interest is the only sharing enabler. Therefore, trust outcomes can be highly uncertain for network members.

Moreover, trust between network members can take a very long time to form (Stephenson, 2005). Many factors will influence trust building, such as reputation and legitimacy of the individuals and their organisations (O'Brien, 2010). Trust builds slowly over time, mainly relying on the respective experience of the trustees and the trusted actors. The willingness to collaborate with each other is highly influenced if actors have already worked together or have information on past collaborations, building trust in each other prior to the disaster (Kapucu, 2006a, 2006b; O'Brien, 2010; Nolte and Boenigk, 2011; Nolte et al., 2012).

The question of slow trust building is a key problem in the situation of DM, as actors and organisations have to suddenly work in parallel and coordinate with others, who they do not know, with whom they have never worked, or who they actually do not trust. O'Brien (2010) hypothesises that humility, experience with weak-tied networks and learning capacities are main characteristics of the organisations who can rapidly develop trust, as it is often needed in the case of a disaster. Moynihan (2009) identifies that the presence of a stable group of response actors during preparedness activities develops trust ties and relationships that are needed under the stress of emergencies. This research also found that a disaster may develop an existent connection (not

valued as trusting) between stakeholders into a relatively trusting relationship, highlighting the significant impact of proactive networking (section 10.3.2).

When reporting the key challenges of cooperation, most respondents mentioned the significant role played by trust in their perception of the value of information received, and thus in their propensity to use it for Networked Learning. For instance, the lack of trust in the accuracy of data disseminated through Facebook (section 7.2.2.b) prevented respondents from processing this information into reliable knowledge. Ni-Vanuatu respondents predominantly talked about the efforts of building trust to describe external social features – which they believed had positive impacts, such as ties with external stakeholders or implementation of external capacity-building programs – and rarely local social feature, where existing ties and trust seemed more natural and less consciously constructed. As seen throughout this thesis, the Vanuatu-Networked-System (its structure, leadership and processes) supports continuous exchange between network members building trusting relationships with external stakeholders, and optimally utilising existing relationships between Ni-Vanuatu, which results in Networked Learning. These impacts were widely observed during the response of Cyclone Pam as seen in chapters 8, 9 and 10.

### **7.3.4. Networked Learning and visibility**

#### ***7.3.4.a. Visibility of the potential of the system***

Despite an increase of information and knowledge sharing across the networks, awareness of existing projects and capacities are still lacking and hampering the learning potential. Most of the respondents reported that one of the major barriers to cooperation was the lack of visibility; for instance, the visibility of numbers of stakeholders, projects and activities, their impacts, the leading structure. The different instruments explored in the previous sections aim to facilitate the capture of key information and knowledge within the whole network addressing these issues. Many efforts shouldered by the Vanuatu-Networked-System particularly showed positive impact in increasing the visibility of its structure and potential.

For instance, in 2012, the VHT started to undertake a provincial mapping of projects, and the NAB started to enforce the centralisation of information on all activities through its project endorsement process; however, the dissemination of collected information to the diverse organisations remained relatively ineffective. Although respondents insisted that the umbrella networks should increase their capacity to transfer resources throughout the whole network, most of them recognised that all networks played a key role in gathering information on projects, and reducing risks of duplication and gaps, to optimise individual learning and promoting the learning process at the Vanuatu-Networked-System.

All sectoral networks were recognised as key promoters of discussions around current and planned projects led by the members of other organisations. Discussing projects is an opportunity

for all members to better plan their own projects, based on feedback and resource pooling as a group. Simultaneously, this ensures more transparency and accountability of on-going projects by exposing everyone's work to all network members. Network discussions around projects also facilitate mapping the different utilised standards, and harmonise understanding and methodologies.

Although most respondents (more than 93%) had heard about the NAB, VHT and VCAN before this research, all respondents only knew between one and ten of the 51 satellite networks. There was a consensus between respondents that being more aware of all existing networks would significantly increase visibility of the system's potential, considerably raising the opportunities to share specialised information, implement projects and expand on platforms where organisations can publicise their projects. These venues for information sharing and processing and cooperation were considered to be key conditions to Networked Learning.

#### ***7.3.4.b. Visibility of the potential of system members***

The structure of Vanuatu-Networked-System was considered particularly able to better empower members at the national, regional and international scenes, by increasing their visibility and supporting Networked Learning. Coming together around the same organisational skeleton (a network), organisations, especially the smaller ones, increase their visibility and weight, more than they ever could individually (Perkin and Court, 2005). The challenge is to build into the framework of this network a consensus, as well as fluid communication and resources exchange. External legitimacy, supported by the participation in a network, is essential for the sustainability and evolution of small or less powerful players. External legitimacy can also be a factor to maintain commitment as members can continually witness evidence of the positive outcomes of networking on their reputation and of the viability of the network (Provan and Kenis, 2007).

The different networks operating in Vanuatu provide unprecedented opportunities of visibility for the individuals, organisations and country at all levels. A respondent from UN Women declared that being part of gender focused networks, such as the Gender Partner Group and the Vanuatu Gender and Protection Cluster (GPC), gave her the chance to be part of the assessment process after cyclone Lusi in 2014, bringing 'gender' into areas other than violence. Being part of these networks allowed her to bring up front information that is normally not central in many sectors.

Furthermore, NGOs with very limited funds do not have the profile of activities required to be present and visible at global events. For instance, Vanuatu Live and Learn is project-funded, often with small funds, and therefore has a limited potential to extend to activities outside of project agendas. Being part of the VCAN provides an opportunity for members to be visible at higher levels, and even allowed small organisations to be part of major events, for instance, Live and Learn being part of the Vanuatu Advisory Team for the UNFCCC discussions. Through the

VCAN, not only the voices of local NGOs and civil society groups, but also of vulnerable groups, were heard at the 2013 United Nation Climate Conference as the Vanuatu 15 member delegation included, along with government, NGO and private stakeholders, three women, and youth representatives from the VCAN. This opens opportunities for Vanuatu organisations to be directly represented at the international level, without depending on donors, and build capacities essential to identify, capture and process information and knowledge into learning.

It can also be difficult for local associations and civil society members to have weight in national discussions to share and efficiently receive information from the different levels of governance, which limits their learning potential. By coming together in specialised networks and working groups that are NAB members, small organisations can increase their political influence. The VCAN also brought together small organisations that are well linked with civil society to develop Community Questions to be integrated into the international, regional and national policy process (e.g. the draft National Climate Change and Disaster Risk Reduction Policy). Furthermore, being part of satellite networks, organisations may have access to specialised and detailed training to increase understanding of the national and international political system, such as the mandatory NAB endorsement process. Also, by increasing the visibility and representation of smaller organisations, networks balance power in negotiations between them and donors. It highlights the potential of having an optimal use of local experts and support national learning process, instead of relying on external expertise.

### **7.3.5. From the individual to the collective learning to build resilience**

As seen above, the Vanuatu-Networked-System provides individual stakeholders with key mechanisms building capacity to effectively share information, understand and process this information into useful knowledge, cooperate and develop the visibility of the system's potential. This results in the learning from one's own and others' experience in the process of more effective resilience-building. Although learning depends on the individual capacities to process information, it can only be achieved if adequate structures exist to lead the learning efforts at the network level (Kapucu et al., 2010b). Essentially, learning happens at the individual level, as organisations do not have the cognitive ability to learn; however, organisational learning can occur when individual learning is well incorporated in the organisational approach (Taylor, 2002; Kapucu et al., 2010b).

Networks are key catalysts to harness learning, both at the integrated and fragmented levels. A consensus arose among respondents about the fact that the whole networking process happening in Vanuatu, whether formal and informal, within and outside institutionalised networks, significantly supported the development of common concepts related to learning. Furthermore, networking needs to be resourced to be effective, but it also relies on the individual capacity to

consider resources invested at the collective level in terms of individual capacity-building. The role of good Networked Leadership is to raise awareness of the value and reward of learning during and after a disaster for resilience-building. Many respondents agreed that a stronger leadership in learning should be developed in Vanuatu, and more specifically at the levels of the NAB Project Management Unit and the Ministry for Climate Change, to focus more on capacity-building, knowledge transfer and data documentation.

Moreover, the development of capacities related to disaster risk and climate change depends on a flexible, yet reliable integration of individual actors within the Vanuatu-Networked-System. These dynamics depend on the flexibility of the system itself. By nature, networks provide complementarity between the necessary structure and flexibility to achieve this goal (Kapucu et al., 2010b); it is therefore a well-adapted structure for simultaneous integrated and fragmented learning. Respondents reported that the networking structure provided significantly valuable complementarity between flexible and stable, as well as fragmented and integrated networking capital, essential for their work.

Furthermore, developing disaster and climate change knowledge needs to be strategically planned. Indeed, organisations go through three phases after a crisis, which determines the potential of learning: defensiveness (restrained learning), openness (optimal learning) and forgetfulness (lost learning) (Kovoor-Misra and Nathan, 2000). The concept of a learning network as defined is a system influx with capacities to create a system favourable to self-reflection, trust building, experience sharing, inclusiveness, and lessons-learned in a sustainable way, and avoiding losses of important networking capital. Cooperative relationships, continuously and gradually built in routine times within these networked structures, decrease the risk of collective and individual lack of sharing during a crisis (weakening defensiveness), utilise the collective and individual inclination to understand what happened (supporting openness), and capitalise collectively and individually lessons-learned (limiting forgetfulness).

For all these purposes, the sectoral networks, maintained by intra- and inter-network ties, are powerful cooperative systems where, if well led, individual learning can be translated into group learning, and vice versa. A learning network-focused approach promotes effective disaster governance by developing and maintaining the system with networking capital. Following such a process, network members can adapt the existing and flexible networking capital to their specific needs, while building a common and reliable networking capital available to others and into the future.

The Vanuatu-Networked-System, its structure, leadership and processes, as captured in chapters 3, 4, 5 and 6, are strongly developing into a learning network as defined above, and can be considered as the “most effective system [for good disaster governance] in [the context of] a

scattered vulnerable SIDS like Vanuatu” (NGO respondent). Therefore, despite challenges remaining, the Vanuatu-Networked-System existing in Vanuatu proved to have significant potential in supporting the four good networked governance pillars developed within the Integrated and Inclusive Networked Disaster Governance (2INDG) framework (Government–non-government Networking, Cross-sectoral Networking, Networked Leadership and Networked Learning). As established in the 2INDG framework, these pillars affect (whether positively or negatively) the overriding five good governance principles (credibility, stability, inclusiveness, adaptiveness and capitalisation, as will be seen in chapter 11). To have a positive impact on these principles, the Vanuatu-Networked-System, which was developed in routine times, needs to be similarly reliable in time of crises. The next three chapters analyse the impacts of the proactive development of the Vanuatu-Networked-System when challenged by the response and early recovery context that emerged following Cyclone Pam.

## CHAPTER 8.

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# **Activation of the Vanuatu clusters: Responding to Cyclone Pam using the disaster management networked system**

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### **8.1. Introduction**

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On 13 March 2015, a state of emergency was declared for all the provinces of Vanuatu, a few hours after the impact of Cyclone Pam (NDMO, 2015d; UNOCHA, 2015b, 2015o). Cyclone Pam was considered one of the strongest cyclones in the Southern Pacific region and the worst experienced by the country. The cyclone produced consistent winds around 250kmph (and gust peaks of 320kmph in some areas) with storm surges (RRU, 2015b; REACH, 2015; UNOCHA, 2015a, 2015n), as well as gusts, causing major damage to private and public buildings and infrastructure, and on key livelihoods (Government of Vanuatu, 2015b; Solomon Star, 2015).

A month after the cyclone, 188,000 (almost 75% of the whole population) people were estimated to have been affected by the disaster, and still in need of aid (Government of Vanuatu, 2015b; UNOCHA, 2015n). As highlighted in section 2.4.2, the geopolitical, economic, cultural and social context of Vanuatu made aid distribution highly complex. A NGO representative declared that because of the logistical challenges in Vanuatu and difficult contact with affected remote areas, Cyclone Pam was much more complex to manage than Typhoon Haiyan, the most severe storm recorded in the history of the Philippines (BBC, 2013; Agence France-Presse, 2015). To address these issues, international assistance quickly intervened in the operations, through established cooperative mechanisms, such as the Vanuatu clusters and the FRANZ agreement.

As seen in section 3.2.2, the open-ended Vanuatu cluster system has been developing since 2012. When Cyclone Pam struck, six Vanuatu clusters had been established (Health; Water, Sanitation and Hygiene - WASH; Food Security and Agriculture; Logistics; Gender and Protection; Education), and were coordinated by the National Disaster Management Office (NDMO), with the strong support of Vanuatu Humanitarian Team (VHT). The Vanuatu Shelter Cluster was created for the purposes of Cyclone Pam (section 8.3), as well as numerous working groups to facilitate the operations (section 8.5).

Based on the Pacific Humanitarian Team (PHT) mandate, regional clusters are deployed when the Vanuatu clusters are overwhelmed by the extent of the disaster. Soon after the first warnings

of Cyclone Pam, the PHT and the regional clusters gathered to assess available resources and plan potential intervention (UNOCHA, 2015b). Throughout the whole response, the PHT met regularly to share information, to communicate with donors and regionally based actors, and to monitor the progress of the operations (UNOCHA, 2015b, 2015g). Despite the extent of destruction following Cyclone Pam, the existence of the national clusters avoided the mobilisation of the regional clusters on Vanuatu territory (Barber, 2015). No national Humanitarian Coordinator exists in the country, so the regional resident coordinator had to be mobilised (UNOCHA, 2015e).

For the purpose of the research, although analysis covered challenges and achievements of the whole cluster response, this chapter focuses on three Vanuatu clusters: the Vanuatu Food Security and Agriculture Cluster (FSAC), the Vanuatu Shelter Cluster and the Vanuatu Gender and Protection Cluster (GPC). The strategic choice of these three specific clusters aimed to cover the key challenges throughout the whole cluster system. Food security, Shelter and Protection of vulnerable groups were particularly critical needs in the response to Cyclone Pam (UNOCHA, 2015a; Government of Vanuatu, 2015b). Furthermore, while coordination and communication mechanisms, and legitimacy of the Vanuatu FSAC were well established among its members and the rest of the actors, the newly emerged Vanuatu Shelter Cluster struggled to be recognised. For its part, the Vanuatu GPC was well-recognised as the key platform integrating cross-cutting protection issues into relief activities, although it encountered internal cooperation challenges.

This chapter analyses the development, strengths and weaknesses of these three key clusters, illustrating the main challenges of the response to Cyclone Pam and the potential of networking on DM. The analysis includes the dynamics of the emergence of cooperative institutions in disasters within and as in support of the DM government agencies and Vanuatu clusters. Under consideration are the Vanuatu FSAC, Shelter cluster, GPC, and technical sub-networks.

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## **8.2. The Vanuatu Food Security and Agriculture cluster**

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### **8.2.1. What was at stake?**

A major part of the crops (such as yam, cassava (manioc), banana, coconuts, coffee) (69%), forestry (16%), livestock (9%) and fisheries (6%), which ensure livelihoods throughout the whole SIDS, were destroyed by Cyclone Pam (RRU, 2015b). A loss of VUV 6.062 billion was estimated for the agriculture sector alone (RRU, 2015b).

The different communities of Vanuatu are highly dependent on agriculture, livestock and fisheries products for their subsistence. Most Ni-Vanuatu living in rural areas rely on farming, whether for their own consumption or cash income from sales at urban markets (UNOCHA, 2015a). More than three quarters of Port Vila inhabitants rely on food sold at the market almost exclusively



resourced by production in the provinces (Hollema et al., 2015). Furthermore, sustainable methods of preservation and refrigeration can be significantly limited in remote communities, making them vulnerable to weather fluctuations.

The extensive destruction of crops and of the market infrastructure has therefore endangered the subsistence of the whole Vanuatu society. The distribution of food aid (e.g. rice, pasta, fish cans) ended in June, as the first seeds distributed through the Vanuatu FSAC had just started to produce (Bolis, 2015). Also, as crops were almost fully destroyed, the harvest potential for the year was significantly limited, threatening livelihoods in the long-term (UNOCHA, 2015a).

Given the scale of the disaster, full agriculture recovery is expected to take up to ten years, significantly affecting the whole economy, as the agricultural sector represents 25% of the national GDP (RRU, 2015b). As part of the Government Recovery Plan, \$7.675 billion was allocated for agriculture recovery alone (RRU, 2015b).

### **8.2.2. Development of the cluster: from the Food Security Agriculture Cluster to Risk and Resilience Unit**

The Vanuatu FSAC was established late 2012, led by the Department of Agriculture and Rural Development and co-led by SPC/GIZ and the Food and Agriculture Organisation of the United Nations (UNOCHA, 2015c; RRU, 2015a). Bringing together government and non-government actors, the Vanuatu FSAC manages food aid throughout the affected islands, as well as coordinating short-term recovery of food security and agriculture in Vanuatu.

International assistance through the Vanuatu cluster system was considered essential, given the damage to the agriculture sector, to ensure food aid, seed and tool distribution, and land preparation in a simultaneous and timely manner (UNOCHA, 2015a; Gero and Thiessen, 2015). Therefore, the initial Vanuatu FSAC responsibilities were to control a fair access to food, the rehabilitation of agriculture-related livelihoods, and food security and agricultural assessments in all the affected communities, with specific attention to vulnerable people (UNOCHA, 2015a).

Soon after Cyclone Pam, the Vanuatu FSAC members established the Risk and Resilience Unit (RRU), a long-term network under the leadership of the Department of Agriculture (RRU, 2015a). Supported by SPC/GIZ and the Food and Agriculture Organisation of the United Nations, human and financial resources were specifically allocated to the RRU. However, the difference between the Vanuatu FSAC and RRU was confusing for many respondents (internationals but also Ni-Vanuatu and expatriates<sup>20</sup>). Indeed, respondents expressed their misunderstanding as the RRU

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<sup>20</sup> Reminder: For the purpose of clarity, short-term foreign actors working in Vanuatu only in the frame of response to and early recovery from Cyclone Pam are referred to as 'internationals', to distinguish them from the long-term foreign actors working and living in Vanuatu in routine times referred to as 'expatriates'.

reported that the RRU was established and active before Cyclone Pam struck (RRU, 2015b), while they witnessed the establishment of the RRU two months after the occurrence of the cyclone. This misunderstanding may be explained by the general confusion about the name of the network. The RRU report (RRU, 2015b) states: “RRU - then called the Food Security & Agriculture Cluster”, hence, the network mandated to manage food aid had simply changed its name from FSAC to RRU. However, all reports and documents produced by the other Vanuatu clusters or the inter-cluster coordinator still used the name FSAC until the end of the humanitarian assistance, while the name RRU was used for the purposes of long-term recovery strategies. Therefore, RRU was not widely recognised as a proper Vanuatu cluster.

The development of the cluster into the long-term RRU extended the potential of cooperation of the network. Hence, RRU focused simultaneously on the development of a response/early recovery agenda for future disasters (as part of the FSAC agenda), and of a long-term agenda for food security and agricultural rehabilitation (as part of the Department of Agriculture agenda). Correspondingly, the network was mobilised to address the late 2015 El-Niño, which was expected to affect the food security of the country. This additional outcome of RRU, compared to FSAC was considered essential to support the transition from response to long-term recovery, and integration of DM and SD. However, despite several months of activities, confusion about the difference between the FSAC and RRU remained among other stakeholders, as both the names continued to be confused in core documents, for instance “Chair, Food Security & Agriculture Cluster” for one member, “RRU coordinator” for another member in meeting minutes (RRU, 2015c, p.1).

The general confusion was exacerbated by the change of attitudes of RRU members towards the Vanuatu cluster system after the evolution of the network. Indeed, while the FSAC was still an active component of the Vanuatu cluster and inter-cluster mechanisms, the emergence of the RRU and its related long-term strategies weakened the incentives for Ni-Vanuatu and expatriates to participate in the Vanuatu cluster and inter-cluster meetings. Therefore, although the response phase was not completed, the Vanuatu FSAC participation evolved towards a “white” network (Department of Agriculture respondent), which meant that the network was dominated by internationals, as Ni-Vanuatu and expatriates tended to invest more in the long-term agenda. A SPC/GIZ respondent also reported that the relative disregard of the Prime Minister’s Office towards the cluster approach weakened the attractiveness of the response/early recovery agenda. Furthermore, the lack of prioritisation of the specific agricultural needs by key disaster government agencies (e.g. the Prime Minister’s Office or National Disaster Committee), some NGOs and donors, affected the potential of the FSAC agenda (RRU, 2015a; Gero and Thiessen, 2015). One of the RRU representatives explained that the lack of recognition of the cluster as a

legitimate tool from the Prime Minister's Office gradually discouraged the Vanuatu FSAC from using the mechanisms of the Vanuatu cluster system.

### **8.2.3. Weaknesses of the network challenging its effectiveness**

Beside the confusion linked to the evolution of the network, NGO representatives also reported confusion concerning food, seed and tool distribution, not only among the communities but also among food security actors. This issue was mainly due to the lack of common guidelines set within the network. Respondents also regretted a lack of shared standards concerning food rations. Indeed, the amount of distribution conducted by certain organisations raised expectations that could not be fulfilled by others, which developed a sense of unfairness from communities who received smaller rations. Consequently, a need for more transparency of Vanuatu cluster distribution channels for NGOs was highlighted in the RRU report, seeking to avoid the co-existence of different distribution methods, and ensure stronger coordination between all food security actors (RRU, 2015a). Most respondents agreed that the network had a strong potential to develop these standards, bridging local understanding and knowledge with international perspectives and support.

### **8.2.4. Positive impacts of the network on response effectiveness**

#### ***8.2.4.a. Framing the Response***

Despite the challenge of confusion within the network, most cluster respondents agreed that the networked coordination system allowed an adequate distribution of food security material. Up to 180,000 people received food aid in a timely manner, within the first month following Cyclone Pam (UNOCHA, 2015o). The simultaneous distribution of food aid and livelihood rehabilitation materials (e.g. non-genetically-modified seeds (Radio New Zealand, 2015d), tools, transport to market) was considered by several respondents to be possible because of the existence of such a strong network which limited waste of resources and time while pursuing the aim to build agricultural resilience. The strong link between the Vanuatu FSAC and the Department of Agriculture actors supported the Government goal to optimally benefit from a short-term international intervention to empower the national system for long-term agriculture recovery and resilience-building.

Furthermore, a Vanuatu FSAC representative expressed the value of such a network to optimise response. With stakeholders being aware that there is “no place for duplication” (FSAC respondent), it was significantly beneficial for their relief activities to be part of a clear system with clear mechanisms to include all stakeholders in the assessment for food security and in a coordinated response. Based on the RRU report (RRU, 2015a), the network was able to take on

its leadership role to plan coordinated response and recovery. The Vanuatu FSAC was recognised as the focal point for, and by, all food security and agriculture-related stakeholders (RRU, 2015a).

#### ***8.2.4.b. Value of proactive and continuous cooperation between the network members***

The open-ended nature of the Vanuatu FSAC resulted in significant benefits from preparedness activities conducted before Cyclone Pam. Indeed, the Vanuatu FSAC members – supported by the cluster structure – developed preparedness, warning and response key messages for communities. This proactive cooperative work supported warnings and information dissemination in a timely manner (RRU, 2015a). Starting a week before the cyclone, the Vanuatu FSAC members regularly sent, as a group, radio and text messages appropriate to the needs and understanding level of the threatened communities.

Furthermore, Vanuatu FSAC members highlighted the strong participation of NGOs in preparedness activities, supported by continuous proactive relationship-building with each other and with the Department of Agriculture. Also, strong coordination with local actors from the provinces was recognised as one of the main achievements of the Vanuatu FSAC, thanks to the long-lasting trust that had developed between Port Vila and provincial actors. A Department of Agriculture representative credited the strong relationships established before Cyclone Pam between local agriculture actors and donors with more effective response, preventing a waste of time and resources on negotiations with the international humanitarian actors.

#### ***8.2.4.c. A network significantly promoting inclusiveness***

Like the other Vanuatu clusters, the FSAC brought together government actors (e.g. Department of Agriculture) and non-government stakeholders (e.g. SPC/GIZ). The RRU agenda specified that NGOs and the private sector (individuals and groups) were to be mandated to lead recovery services (RRU, 2015b). The FSAC showed a stronger involvement of the private sector compared to other clusters (section 8.5.1). They relied on the input of the private actors, such as farmers, traders, market vendors, exporters, who had accurate knowledge of the availability of local goods. This cooperation was beneficial to the general response but also to the private actors, who lobbied and advocated the utilisation of local goods, and limited the overwhelming shipment of international goods. Academia was also particularly well represented in the Vanuatu FSAC, with the mobilisation of a set of researchers, already working with the Ministry of Agriculture before Cyclone Pam, to conduct research on the best strategies to follow, such as seed distribution. Inclusiveness was particularly facilitated in the FSAC by recognising the need to lead meeting conversations in Bislama, supporting a strong participation of Ni-Vanuatu (decentralised staff and civil society), compared to other Vanuatu clusters where member representation was often primarily international.

However, despite a theoretical consideration of the gender question and an equal gender representation in the Vanuatu cluster (RRU, 2015a), a member of the Vanuatu GPC observed that the Vanuatu FSAC failed to provide women with seeds, although women are in charge of the gardens in most communities. According to several respondents, this failure is due to the lack of women's empowerment at the decision-making level of the Vanuatu clusters. The Vanuatu GPC representative explained that although represented, women did not always find it easy to actively participate in the discussions, resulting in women's needs being neglected.

#### ***8.2.4.d. Towards the future as a group***

As highlighted previously, the network developed an agriculture recovery strategy (RRU, 2015b), a draft of which was widely distributed to all relevant actors to ensure a coherent and harmonised resilience-building across donors and actors. The exit strategy conducted through the RRU recovery plan is composed of a cooperative set of more than 65 government agencies, NGOs and civil society groups (Government of Vanuatu, 2015b). The RRU activities aim to evolve into a holistic approach. During an inter-cluster meeting, the Vanuatu FSAC representative reported the integration of El-Niño consideration into the network activities. Respondents highlighted that it is the concept of open-ended Vanuatu clusters (permanent networks promoting continuous networking) that had facilitated the integration of long-term consideration into an emergency structure. However, the sustainability of the network depends on funding to ensure that RRU will remain after the two-year timeframe of the current funding (currently ensured by SPC/GIZ in the condition that the network will be fully integrated in the agenda of the Ministry of Agriculture).

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### **8.3. The Vanuatu Shelter cluster**

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#### **8.3.1. What was at stake?**

The Flash Appeal, issued on 24 March 2015, (UNOCHA, 2015a) estimated 75,000 people (around 30% of the population) were in need of shelter. However, based on a vulnerability assessment conducted by the Vanuatu Shelter Cluster (referred to as the REACH assessment) more than 80% of households claimed to have serious damage to their housing from the cyclone and 65% were subjected to temporary displacement (REACH, 2015). Furthermore, the PDNA concluded that the reconstruction of housing was the first need after Cyclone Pam (35% of the whole recovery budget) (Vanuatu Shelter Cluster, 2015a).

A main limitation to reconstruction was the shortage of building materials, both traditional in remote areas (e.g. banana leaves) and modern in urban areas (e.g. nails). Communities considered shelter assistance slow and late, or non-existent, especially in the peri-urban areas (REACH, 2015). The REACH assessment estimated 1,236 households had not been able to proceed with reconstruction due to this gap.

### **8.3.2. Development of the network**

As soon as the disaster struck, the NDMO recognised the need to consider shelter as a priority, and requested support from the PHT and the regional Pacific Shelter Cluster. The month before Cyclone Pam, contact had already been made with the Pacific Shelter Cluster and the International Federation Red Cross to discuss the possibility of a national Shelter Cluster (Vanuatu Shelter Cluster, 2015a, 2015b). Thanks to this proactive action, a Shelter working group was quickly and easily established in the days following Cyclone Pam. Due to overwhelming needs to address shelter concerns, the Shelter working group, under the leadership of the Vanuatu logistics cluster, quickly evolved into a Vanuatu Shelter Cluster, under the leadership of the Public Works Department, supported by the International Federation of Red Cross as a cluster co-lead.

As the emergency period ended, the Vanuatu Shelter Cluster was officially established but not yet endorsed. A Strategic Advisory Group, to transition from response to recovery, and a technical working group, to discuss the concepts of Building Back Better and Building Back Safer, were established under the leadership of the Vanuatu cluster. These two subgroups, like the main cluster, brought together key government and non-government stakeholders, to support well-considered recovery and to develop shelter cluster standards to optimise future intervention.

As an exit strategy to transit from the emergency period to short-term and long-term recovery and for the purposes of building a sustainable network in routine times and monitoring the recovery process, the Vanuatu cluster group developed a Housing working group. This working group aimed to ensure long-term impacts of the network on development. The Housing working group was developed under the shared leadership of the Public Works Department and Department of Local Authorities, with the coordination support of UN Habitat and the NDMO and remote technical support from the Pacific office of the International Federation Red Cross, ensuring the appropriateness of its activities to specific local needs (Vanuatu Shelter Cluster, 2015a). The main goal of the establishment of the Housing working group was to follow the rehabilitation of private and public infrastructure, as well as to develop 'Building Back Better/Safer' awareness and training across the SIDS.

### **8.3.3. Weaknesses of the network challenging its effectiveness**

#### ***8.3.3.a. The lack of foundations for effective activities***

Newly established, the tasks of the Vanuatu Shelter Cluster were not well understood by the rest of the stakeholders when compared to other clusters that already had previous occasions to expose their agendas. This general misunderstanding of the network strategy was considered as one of the most significant obstacles to the visibility and transparency of its activities. The Vanuatu Shelter Cluster goal is to monitor the resilience of individual and community housing, the distribution of Non-Food Items related to building, the integration of 'Building Back Better/Safer'

concepts, and the liaison between humanitarian sheltering and long-term safe building (Vanuatu Shelter Cluster, 2015a). However, many actors from other Vanuatu clusters and community members often mistook the mandate of the Shelter Cluster. For instance, many thought that it was in charge of buildings used as evacuation centres (Government, churches, schools), which actually fell under the leadership of the Evacuation Centre working group, section 8.5.1).

The activities of the network were also limited by the lack of basic building standards related to disasters at the Government level, for instance, there is no cyclone standards in the Building Act of 2013. This gap complicated decision-making on ‘Building Back Better/Safer’. Although necessary, the development of national building codes in Vanuatu can be difficult, given the significant differences of geography and exposure between all islands (Christie and Laboukly, 2015).

Another key challenge to shelter recovery, rapid “Band-Aid repairs” (Shelter Cluster coordinator), following poor standards, or not adapted to the specific risks, were witnessed after Cyclone Pam in different communities, especially those which did not wait for decisions to be made at higher government levels (NDMO, 2015m, 2015p). The network, therefore, was torn between the need for reconstruction for safety in a timely manner, the need for discussions, standards development and capacity-building for resilient shelters, and the need to do no harm to local knowledge. This last component was central to the Vanuatu Shelter Cluster team, whose ground principle was to ensure that reconstruction strategies would not neglect valuable local knowledge. This particularly added to complexity in the development of standards and building codes to be integrated into traditional building methods.

#### ***8.3.3.b. A network not proactively established***

As it emerged only after the occurrence of the cyclone, the Vanuatu Shelter Cluster met some difficulties in terms of being considered equal to other clusters. Indeed, as the network was not an official Vanuatu cluster at the occurrence of the cyclone, and although it acted as a cluster under the name of Shelter working group, it missed recognition. The network co-lead reported that, during several weeks after Cyclone Pam, the Vanuatu Shelter Cluster was still not treated equally with the other clusters during inter-cluster meetings. This situation prevented the network delivering effective assistance, and for its activities to impact on the whole response process. This situation also partly resulted from a misconception of the extent of shelter damage. Certain respondents reported that food and water were the main priorities of most humanitarian organisations in the early days, resulting in inappropriate activities in communities that had food and water stocks but no shelter.

The credibility and weight of the network was also further weakened by the constant confusion around its name both by members and outsiders of the network until the end of the emergency

period. It was alternatively called ‘Shelter Cluster’, ‘Shelter working group’, and even ‘Shelter Cluster working group’.

Furthermore, Vanuatu Shelter Cluster members highlighted that the network had not had time to develop common principles, such as the definition of household, how and how many toolkits should be distributed, and to whom the toolkits should be given. Also, the differences of distribution between shelter-focused agencies developed a feeling of inequity among communities, for instance, one kit given for three households by one organisation and for five households by another organisation, or kits given to individual households by one organisation and to community groups by another organisation).

### ***8.3.3.c. Tensions between network members***

Differences between institutional standards and working plans raised tensions between the different members of the Vanuatu Shelter Cluster, such as between IOM and UN Habitat – the former being specialised in operational shelter and evacuation safety, and the latter being a longer-term planner. The co-existence of diverse organisations, working at different rhythms, and following different agendas made coordination and cooperation complex.

Internal conflicts also existed between the different national government agencies acting under the leadership of the Vanuatu Shelter Cluster, such as Public Works Department, NDMO or National Housing Corporation. Due to these tensions, the question of who would lead the cluster in the long-term raised lively debate. Several agencies could have equally major impacts on the course of the Vanuatu cluster operations, which made the choice difficult. The Public Works Department, for instance, approves all building permits, which could be a key support for effective monitoring of the concepts of ‘Building Back Better/Safer’. Meanwhile, the Department of Local Authorities already has strong relationships with UN Habitat and with all provincial councils, which could be a key support for effective monitoring of housing standards throughout the whole SIDS, even in remote areas. The choice of the network lead will determine the approach and agenda of the network, and therefore will affect the network potential for disaster preparedness and future response. At the time of this research, the final lead had not yet been confirmed.

Shelter assistance also raised tensions between the different groups of the communities. First, between people staying in government-approved shelters where aid was distributed and people staying in informal or private shelters, who received little assistance (section 10.2.4.b). Second, between Port Vila and the provinces, as the Vanuatu Shelter Cluster team was often caught in the capital city with meetings, and met difficulties in proceeding with the same analytical and consultative process in more isolated affected provinces. To address this issue, members made on-going efforts to widen provincial coverage, building coordination pathways with area councils,



CDCs and other community groups (Government of Vanuatu, 2015a), as well as conducting meetings, training and a workshop held in the Tafea province.

Finally, several local respondents involved in housing reported that the Vanuatu Shelter Cluster was at first overloaded with international staff, and did not feel local insight was well considered. However, this issue was explained by the novelty and confusion around the status of the Vanuatu Shelter Cluster. As members were difficult to identify and mobilise, some outsiders questioned the credibility of the cluster. However, at the time of this research, the slow development of the cluster membership into a more local-owned network was well supported by the other clusters.

### **8.3.4. Positive impacts of the network on response effectiveness**

#### ***8.3.4.a. A key asset for effective cooperation***

The Vanuatu Shelter Cluster invested strongly in inclusive governance to ensure appropriate response and recovery planning. Meetings were open to everyone, and invitations were sent to diverse stakeholders (local/provincial/national/international, government/non-government, shelter/other sectors). Therefore, although the Vanuatu cluster took time to gain legitimacy and credibility, most respondents acclaimed the input of the network for cross-sectoral, Government–non-government communication, coordination, and information and knowledge sharing.

An online assessment of the network by its own members, conducted after the emergency phase, showed that all members acclaimed the coordination services. Also, 90% of the network members positively evaluated the technical guidance and information management provided within the cluster.

To facilitate an inclusive approach, allocation maps were developed from the tool 3W – Who does What Where (UNOCHA, 2006) – provided by each agency, and then submitted for approval and discussions. These maps not only reduced duplication and gaps, but also increased cooperation incentives, as network members found these visual tools great assets to concretely examine how to pool resources and cover all areas. Furthermore, network members positively appreciated these network products, which they could use in time of M&E, and value-for-money reporting to their donors and head organisations.

The Vanuatu Shelter Cluster team also aimed to build a harmonised “shelter identity” between all the diverse members, by building relationships outside of basic decision-making and service delivery. For instance, they created a “Vanuatu Shelter Cluster Cyclone Pam” t-shirt for the network members, organised network dinners and group visits to the museum to build a network understanding of the traditional housing mechanisms. These efforts were acclaimed by respondents in the development of trust among the network members (Ni-Vanuatu, expatriates

and internationals) preparing a prompter and easier activation of network projects in the long term.

#### ***8.3.4.b. Towards a sustainable system 'owned' by civil society***

Long-term activities were limited by the lack of 'Building Back Better/Safer' methods, and trained builders and carpenters in the country. This was highlighted as a main obstacle to conduct effective reconstruction, and sustainably build resilience (Government of Vanuatu, 2015a).

Therefore, the Vanuatu Shelter Cluster conducted several 'Building Back Better/Safer' workshops and training for potential local trainers. The trainers were to be gender-balanced, and scattered across the different communities to promote a sustainable inclusive governance system.

Furthermore, the network members decided to identify champions among civil society to be deployed in communities, and to monitor the outcomes of 'Building Back Better/Safer' training. To optimise these initiatives, capitalising existing structures is essential. The network members recognised the value of linking these champions with the CDCs to build long-term networking pathways between planning, preparedness and response. Network members also highlighted the need to conduct awareness training crossing traditional and modern housing approaches. Connecting with traditional knowledge-focused networks, such as the Community-based Disaster Risk Reduction Standardisation working group, could be a strong asset to achieve this goal.

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### **8.4. The Vanuatu Gender and Protection cluster**

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#### **8.4.1. What was at stake?**

Disaster situations increase the risk of conflict, violence and abuse among communities, because of the loss of safe livelihoods, the increase of stress and needs, forced stays in evacuation centres, and the breakdown of services in health, schools, law-enforcement and security forces. Displacement (forced or not) and shelter losses (formal or informal) have a particular impact on the increase of crime, violence, abuse and human exploitation (Government of Vanuatu, 2015a). With 65% of households affected by temporary displacement (REACH, 2015), protection was a real concern during Cyclone Pam to address rise in conflict, tensions, theft, offences against children, physical abuse and violence in the different affected areas (Government of Vanuatu, 2015a). These issues particularly concern more vulnerable groups (women, children, elderly, people with disabilities, and marginalised people) (International Planned Parenthood Federation, 2015; Government of Vanuatu, 2015b). Despite a generally increasing recognition of these issues, vulnerable groups had not been well prioritised in the response to Cyclone Pam (NDMO, 2015o). However, serious threats to the protection of vulnerable groups were recognised, such as the closure of the markets by the Government, which deprived women of their sole income (VCC, 2015b). There was also a lack of safety for women and children to seek food and water and to use

sanitary services after their original facilities were destroyed (Government of Vanuatu, 2015a), as well as the lack of accurate data on the number of people with disabilities.

Furthermore, Vanuatu GPC representatives highlighted the failure to acknowledge the complexity of fair distribution of goods and services. Indeed, aid was often given to chiefs or community leaders, who did not always distribute it fairly among community members. Also, there were reports from previous disasters that men sold the food they received instead of giving it to their families (VCC, 2015b). Despite this knowledge, GPC members reported that the Vanuatu FSAC still had not developed stronger and fairer distribution channels for women to directly collect aid. Also the RRU reported that single women and widows were not on the distribution lists used by area councils (RRU, 2015a). A better use of established networks and civil groups, which would have had accurate information on the targeted communities, could have supported a more equitable access to aid.

Finally, a UN Women respondent explained that human and financial resources for protection are generally lacking in Vanuatu, but this issue was particularly exacerbated during Cyclone Pam. Most of the affected communities did not have enough police presence, and female police officers were virtually non-existent – traditional leaders often being the empowered trouble-solvers (Government of Vanuatu, 2015a). This situation limited venues for women to report any type of violence and/or abuse.

#### **8.4.2. Development of the network**

The Vanuatu GPC was established in 2014, led by the Ministry of Justice and co-led by CARE International and Save the Children. The Vanuatu GPC goals are to ensure that affected communities are treated fairly, with respect and dignity, throughout humanitarian assistance, as well as to prevent violence and abuse. Across its activities, the Vanuatu GPC aims to better integrate vulnerable groups into the whole decision-making process.

The Vanuatu GPC had already been mobilised during previous actual emergencies (e.g. Cyclone Lusi) but also for simulation exercises in various provinces. The value of such an open-ended network to integrate monitoring and advocacy of gender and protection across all disaster and climate change related sectors was widely recognised among stakeholders.

#### **8.4.3. Weaknesses of the network challenging its effectiveness**

##### ***8.4.3.a. Fragmentation and tensions within the network***

Although established a year before Cyclone Pam and officially utilised along with the other Vanuatu clusters during previous events (e.g. Cyclone Lusi, simulation exercises), the Vanuatu GPC was not always recognised as an official Vanuatu cluster. For instance, the first UNOCHA Situation Report (UNOCHA, 2015b) stated that there were only five clusters in Vanuatu,

excluding GPC. Likewise, Vanuatu GPC representatives reported that the other clusters seemed to consider the GPC work as useful but relatively secondary to response needs.

The gender and protection question seemed to suffer from fragmentation, which tended to be more intense than the other sectors. As seen in section 3.3.1, there were already several networks focused on women, youth/children and people with disabilities, established in the country. Agendas often overlapped, and were subject to internal tensions. Cyclone Pam confirmed this tendency, as a significant number of small agencies (local and international) worked in parallel on the concept of protection, not always with a strong awareness of this concept, resulting in delays, duplications and gaps in the response.

Tensions existing before Cyclone Pam between the different organisations working on gender were particularly exacerbated during the response. Several respondents – volunteers and staff – (from the Council of Women, Ministry of Justice, and other Vanuatu clusters) reported the faulty management of the funds from the central Government to the Department of Women's Affairs, which is the acting leader of the Vanuatu GPC, reducing member trust in the leadership capacities of the network, and therefore preventing member commitment to cooperation. These tensions contributed to fragmentation of the members, and significantly delayed and limited the effectiveness of the network operations.

Furthermore, data on vulnerable women, elders, children and people with physical disabilities were collected after the cyclone across key documents (e.g. Flash Appeal, Humanitarian Action Plan, lessons-learned reports). However, a representative of the Disability Desk (Ministry of Justice) reported that data could significantly vary between NGOs, government agencies, donors and civil society groups. This situation particularly complicated decision-making and project development as a group.

#### ***8.4.3.b. A network focused on one component of its members***

During the response to Cyclone Pam, respondents witnessed a certain focus from the Vanuatu GPC on the gender cause at the expense of the other protection concerns, more specifically of people with disabilities. The NDMO recognised in its SitRep (NDMO, 2015m) that people with disabilities were not properly taken into account in planning and service delivery. Likewise, a report from the Ministry of Lands (Ministry of Lands, 2015) highlighted that aid was not always adapted to the needs of children and people with disabilities.

Some respondents highlighted that the elderly were also not well considered within the delivery of assistance. However, older people significantly depend on their family, which may be perceived negatively in extreme situations (Government of Vanuatu, 2015a). Although the need to better consider people with disabilities was at the centre of attention during meetings and lessons-learned, respondents deplored a total ignorance of the elderly cause.

These gaps in the response towards certain categories of more vulnerable people forced the emergence of working groups on the side, under the leadership of the GPC (section 8.5.1). These working groups not only aimed to promote fairer aid delivery, but also to raise communities' understanding of the whole protection concept, and hence support a better representation and visibility of all vulnerable groups.

#### **8.4.4. Positive impacts of the network on response effectiveness**

##### ***8.4.4.a. Mainstreaming protection across the response***

Despite weaknesses of the network in collaborating and equally covering all vulnerable groups, most respondents from other clusters acknowledged the value and potential of the GPC. They confirmed the need for a specialised network to advocate, promote and monitor the mainstreaming of protection within their own cluster activities, and across the whole response and recovery process, to ensure “equity”, “fairness”, “effectiveness”, “compassion”, “understanding”, “safety” and “dignity” for all victims.

The Vanuatu GPC established a tent in the courtyard of the NDMO, which offered a crucial safe venue for women seeking aid from central agencies. Within two months after Cyclone Pam, the NDMO reported that the Vanuatu GPC tent had listed 400 women to monitor for assistance. Also, the Vanuatu GPC deployed people (such as women, young people, elders that were trained for such an extreme situation) in assessment teams to ensure that the most vulnerable people were well considered in the process (UNOCHA, 2015o; NDMO, 2015h). Likewise, representatives of the Vanuatu GPC were present during meetings of other clusters (e.g. shelter, education), to give insight on, and ensure consideration of protection concerns. The disability desk more particularly facilitated the participation of people with disabilities in other cluster meetings. The participating disabled people reported that there had been significant opportunities for them to be better considered and empowered than during the previous disasters. However, these initiatives were limited by resource scarcities and transport difficulties.

##### ***8.4.4.b. Cyclone Pam as an opportunity to strengthen consideration of Most-Vulnerable-People***

The increase of risks towards the most vulnerable people underlined the significant need to develop more effective integration strategies into the decision-making process for resilience-building, such as the active involvement of women in fishing committees existing in many communities, or an easier access to education facilities for children with disabilities. Also projects that had been discussed before Cyclone Pam were further developed and better promoted after Cyclone Pam, such as a disability rehabilitation centre that could be used as an evacuation centre adapted for people with disabilities.

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## **8.5. Technical sub-networks: Emergence and development of sectoral working groups for more effective operation**

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In disaster times, it is not uncommon to witness the emergence of organisational and civil groups spontaneously leading disaster response and early recovery activities (Stallings and Quarantelli, 1985; Majchrzak et al., 2007). Emergent groups are characterised by the novelty of the ties within the group and the novelty of activities taken in charge (Stallings and Quarantelli, 1985). Although informal civil leaders emerged following Cyclone Pam, this section focuses on the emergence of institutionalised networks, supported by the pre-existent structure, to better understand the reactive development of the system in place. Indeed, soon after Cyclone Pam, many subgroups emerged at all levels and across sectors, in parallel or under the leadership of the cluster to ensure a more comprehensive and effective response.

The Government rapidly captured a need to reinforce the existing response structure by government-led technical working groups. The difficulties in conducting efficient assessments (section 10.2.2) enforced the creation of an Assessment working group by the NDMO with the assistance of UNOCHA staff and the United Nations Disaster Assessment and Coordination (UNDAC) team for Information Management (NDMO, 2015f; UNOCHA, 2015o). Likewise, the NDMO established a Distribution working group to facilitate logistics and delivery of M&E for all actors during Cyclone Pam response (NDMO, 2015h). Working groups were also formalised to support better information management and sharing, the Information Management working group and the Emergency Telecommunication working group, to collect reliable information and disseminate information and key messages, throughout all the affected areas (UNOCHA, 2015m; Government of Vanuatu, 2015b). The Infrastructure Multi-Sector working group supported the inter-cluster cooperation efforts, by bringing together the Public Works Department, Ministry of Health, Ministry of Education, donors, as well as Ni-Vanuatu, Australian, New Zealand and Fijian Defence Forces, under the leadership of the NDMO and the National Disaster Committee to facilitate infrastructure needs assessment, rehabilitation and standards development (NDMO, 2015i, 2015k, 2015l, 2015o; Government of Vanuatu, 2015b).

A key government-led working group emerging from the response to Cyclone Pam was the Evacuation Centre working group (which then transitioned into the Internally Displaced Persons working group – NDMO, 2015j; UNOCHA, 2015h; Government of Vanuatu, 2015b). The extent of evacuation and displacement that occurred after Cyclone Pam had never been experienced in Vanuatu, and therefore, raised the need for external technical and advisory support (UNOCHA, 2015a). Under the shared leadership of the NDMO and the Ministry of Justice, the Evacuation Centre working group aimed to address the lack of tools for evacuation and displacement tracking, of clear roles and responsibilities for distribution, and of shelter standards, as well as the difficulties inherent in safe evacuation and shelter management (NDMO, 2015d, 2015f, 2015l,

2015s). The transition to a broader network (Internally Displaced Persons working group) aimed to facilitate the gradual closure of the evacuation centres, without threatening the work achieved in safety and protection of displaced people (UNOCHA, 2015h). To develop a comprehensive approach, this sub-network brought together members of the Vanuatu GPC, the Vanuatu Shelter Cluster, the Vanuatu WASH cluster, the Vanuatu Logistics Cluster, the IOM and the Vanuatu Red Cross (UNOCHA, 2015c; NDMO, 2015d). The development of such a working group was essential for long-term resilience-building and disaster risk management in Vanuatu, as displacement and evacuation protection was a major gap in the national plans.

The Vanuatu clusters also formalised sub-networks to facilitate and optimise their activities. The Vanuatu WASH Cluster established a short-term Water Trucking working group, under Oxfam leadership, to supervise the re-establishment of water supply systems in affected areas (NDMO, 2015q), as well as a technical sub-network to lead the transition towards recovery and rehabilitation (NDMO, 2015r). Likewise, the Vanuatu Health Cluster established disease surveillance groups across the affected areas, a Nutrition working group to develop good nutrition strategies and campaigns, as well as other technical subgroups to strengthen the positive impacts of the cluster on health safety (e.g. information management, international involvement, logistics) (NDMO, 2015q, 2015r; UNOCHA, 2015m). The scale of needs also motivated the Vanuatu GPC to develop working groups. The Vanuatu GPC encountered particular difficulties due to its focus on gender protection at the expense of child and/or disability protection (section 8.4.3). Therefore, aside from a Gender-based Violence working group, a Child Protection working group and a Disability working group were formalised under the leadership of the Ministry of Justice, with the support of the Vanuatu GPC and Vanuatu Education cluster, to increase the visibility of all vulnerable groups (NDMO, 2015l, 2015n). All these working groups generally aimed to develop specific key messages, guidelines, contact lists and materials appropriate to each vulnerable group, as well as a better integration of Protection lines into planning (NDMO, 2015o, 2015r, 2015t).

The Church working group was also a key emergent service delivery network, at the request of the NDMO and VHT (VCC, 2015a). The working group was a product of an established network, the Vanuatu Christian Council (sections 3.4.1.a. and 5.3.4.c), aiming to support the development of a recovery strategy and support a more inclusive response among the affected communities, while strengthening preparedness of the whole Vanuatu society (Caritas Australia, 2015). Like the Vanuatu Christian Council, the Church working group brought together all Faith-Based Organisations acting in Vanuatu. Consequently, similar to the Vanuatu Christian Council, the working group potential relied on the significant active network of all church members among communities. The Church working group represented an essential asset for the central Government and the NDMO as it was a pathway to information concerning donations, needs and

challenges directly from the communities, and more specifically from the most isolated affected areas. The government agencies, as well international humanitarian aid, such as World Food Program, also recognised the key position of the working group members for the purposes of communication with communities, by disseminating key messages to the faithful of the churches (VCC, 2015c, 2015d). Simultaneously, the Church working group was a key sub-network for the Vanuatu Christian Council to advocate the effective use and repair of churches that had been mobilised as evacuation shelters (more than 50 churches), despite the reluctance of government and non-government stakeholders (Willie, 2015). Vanuatu Christian Council members expressed the need to include church repairs in the general recovery strategy. Indeed, churches in Vanuatu are not only religious and spiritual places, but also counselling and social venues (VCC, 2015a); thus, they are crucial tools for general psychological and social recovery, and need to be viewed accordingly.

Existing networks were also significantly empowered, capitalised and integrated as sub-technical advisory networks within the Vanuatu cluster system. The Vanuatu FSAC recognised the key role of the private sector in effective response, and relied on the Seeds and Tools working group, Livestock Industry Group and Vegetable Association (section 3.4.1.a) to develop the Vanuatu cluster strategies and plans (RRU, 2015a). These networks played a vital role in assessments, appropriate prioritisation, decision-making and effective operations. For instance, Seeds and Tools working group supported the Government and Vanuatu FSAC in the development of guidelines for bio-security safety (VCC, 2015b).

The emergence of subgroups may have had a critical impact on the course of the response. As the homogeneity of sizes, sectors and goals among members supports the creation of collaborative norms (Duit and Galaz, 2008), subgroups can be created within a network to optimally benefit from the work of more homogeneous members. These subgroups are platforms where members have more ties with each other than with the rest of the network and the outsiders (Bodin and Crona, 2009). Subgroups can emerge for different reasons, such as specific goals, geographical proximity, operational division or more subjective social closeness; the whole network then becomes a network of subgroups (Bodin and Crona, 2009). Also, according to Kapucu (2006a, 2009) while the increase of network members is linear, the increase of potential relationships between these members is exponential. Hence, the larger a network gets, the denser ties are, making coordination more complex and increasing chances for subgroups to form. These subgroups require the development of their own mechanisms, and more particularly a mechanism to ensure information and resource sharing with the external environment – whether it is within the whole network or with outsiders. Therefore, each subgroup will have to invest in the development of bonding ties (within the same subgroup), bridging ties (with different members of the whole network, or with another subgroup) and linking ties (with outsiders of the network)



(Aldrich, 2012). Bonding ties are essential to strengthen trust, reciprocal and mutual commitment, and exchange of specific information and resources (Bodin and Crona, 2009). Bridging and linking ties promote the exchange of wider information and resources, on which collective initiatives may rely (Bodin and Crona, 2009), and which might be useful to export the inputs of the subgroups. Respondents highlighted that the co-existence of many sectoral networks before Cyclone Pam, succeeding in simultaneous bonding, bridging and linking networking (as demonstrated throughout this thesis), was a great asset to support the same dynamic among the different subgroups that emerged during the disaster.

The creation of so many subgroups can also make the whole network fragile, as members might lose the overriding goal that committed them to the whole network at the start (Ramalingam et al., 2008). In such a situation, bridging ties play a vital role in building more cohesion in the whole network. Respondents reported that the number of subgroups following Cyclone Pam was overwhelming and reduced the visibility of the existing structure as a whole system. They explained that due to the scale of response needs, bridging ties were not the priority of the clusters, but pre-existing informal and social ties (chapter 4) reduced the risk of complete disruption between stakeholders from different clusters.

The emergence of subgroups also raises the challenge of equality between actors among the whole network, while Nolte et al. (2012) found that equality, or lack of it, influences coordination. Despite the lack of hierarchical power distribution within a networked governance structure, power inequalities can still emerge (Bäckstrand, 2008; Bodin and Crona, 2009; Gore, 2010). Bodin and Crona (2009) identify a form of centralised network, the “core-periphery network”, where a subgroup of better-connected members emerges and constitutes a core that is the only connection reachable by the peripheral members within the whole network. The core then has access to a wider set of information and resources and becomes more powerful and essential to its members. This type of governance limits the risk of subgroup dispersion and conflict; however, the dissemination of resources relies on a more or less impartial elite and limits the adaptive capacity of the whole network (Bodin and Crona, 2009). Also, the emergence of many subgroups complicates the development of equality mechanisms. In time of emergencies, it can be difficult to monitor the involvement of network members. Some members are active at all levels of the network division, others interact only with certain other subgroups, others limit their outreach to the members of their subgroups, and others remain isolated. Therefore, it is crucial to evaluate the position of all members to understand and assess their potential impact on the network process and outcomes. Respondents did not witness any dramatic inequalities between the different networks and subgroups. Proactive work on building understanding on sectoral expertise and cross-sectoral cooperation, as well as on strategic positioning of the network members in the Vanuatu-Networked-System seemed to have prevented such difficulties.

The establishment and capitalisation of the sub-networks described in this section were essential to the viability and effectiveness of the operations conducted. They significantly benefited the existing response structure; however, respondents highlighted that these new platforms were often considered additional layers of cooperation, compromising commitment to the older platforms and seemed to be a potential factor of risk to reach a fracture in networking commitment (section 4.5). It is then crucial for the sustainability of the whole network that these new working groups find a stable position within the Vanuatu-Networked-System, and ensure that their activities do not overlap with existing strategies.

As illustrated in this chapter, despite remaining challenges, the Vanuatu clusters showed particular strengths in addressing the different response needs. As seen in section 3.2.2, the specificity of the Vanuatu clusters compared to the international clusters is their permanent activation as a network. Their mobilisation during Cyclone Pam therefore highlighted another challenge inherent in any major disaster: the co-existence of international and national actors. However, although international aid intervention generally results in the activation of ad-hoc clusters, the situation of the Vanuatu clusters ensured internationals had to integrate with an already-established cluster system. This situation raised the question of interaction between short-term aid and the Vanuatu-Networked-System. The next chapter analyses the mutual perceptions and interactions between Ni-Vanuatu, expatriates and internationals during the emergency period following Cyclone Pam.

## CHAPTER 9.

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# Vanuatu-Networked-System & International Aid: Working together

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### 9.1. Introduction

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It was recognised that no regional structure would have had the capacity to manage a disaster of the scale of Cyclone Pam without external support (UNOCHA, 2015o). The Vanuatu-Networked-System, coordinated by the National Disaster Management Office (NDMO) and supported by the Vanuatu Humanitarian Team (VHT), had never previously experienced such a disaster. Respondents (both from government agencies and NGOs) believed that their institutions did not have the capacities (human, material and strategic) to address a disaster of the scale of Cyclone Pam. Very few local organisations had a post-disaster structure and strategy. This situation made international assistance essential.

Consequently, for the first time, the Government of Vanuatu requested international assistance to respond to Cyclone Pam (Barber, 2015). The Vanuatu-Networked-System was already supported by a significant presence of long-term international humanitarian actors, who were well-aware of the geopolitical, economic, cultural and social context of Vanuatu, but could meet difficulties in networking with Ni-Vanuatu (section 4.2). In the few days following the cyclone, the Vanuatu-Networked-System had to manage the arrival of more international humanitarian actors than ever before (Barber, 2015). This external intervention within the cluster system aimed to facilitate the Government shouldering its leading responsibilities, while increasing human and material resources to manage the emergency period, but resulted in a massive involvement of actors not acquainted with the context of Vanuatu. This situation changed the dynamics between Ni-Vanuatu, expatriates and internationals<sup>21</sup>.

This chapter analyses the perceptions of the different groups of stakeholders – Ni-Vanuatu, expatriates, internationals, decision-makers, officers and aid recipients – of each other, highlighting key challenges and incentives to cooperate with each other.

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<sup>21</sup> Reminder: For the purpose of clarity, short-term foreign actors working in Vanuatu only in the frame of response to and recovery from Cyclone Pam are referred to as ‘internationals’ to distinguish them from the long-term foreign actors working and living in Vanuatu in routine times referred to as ‘expatriates’.

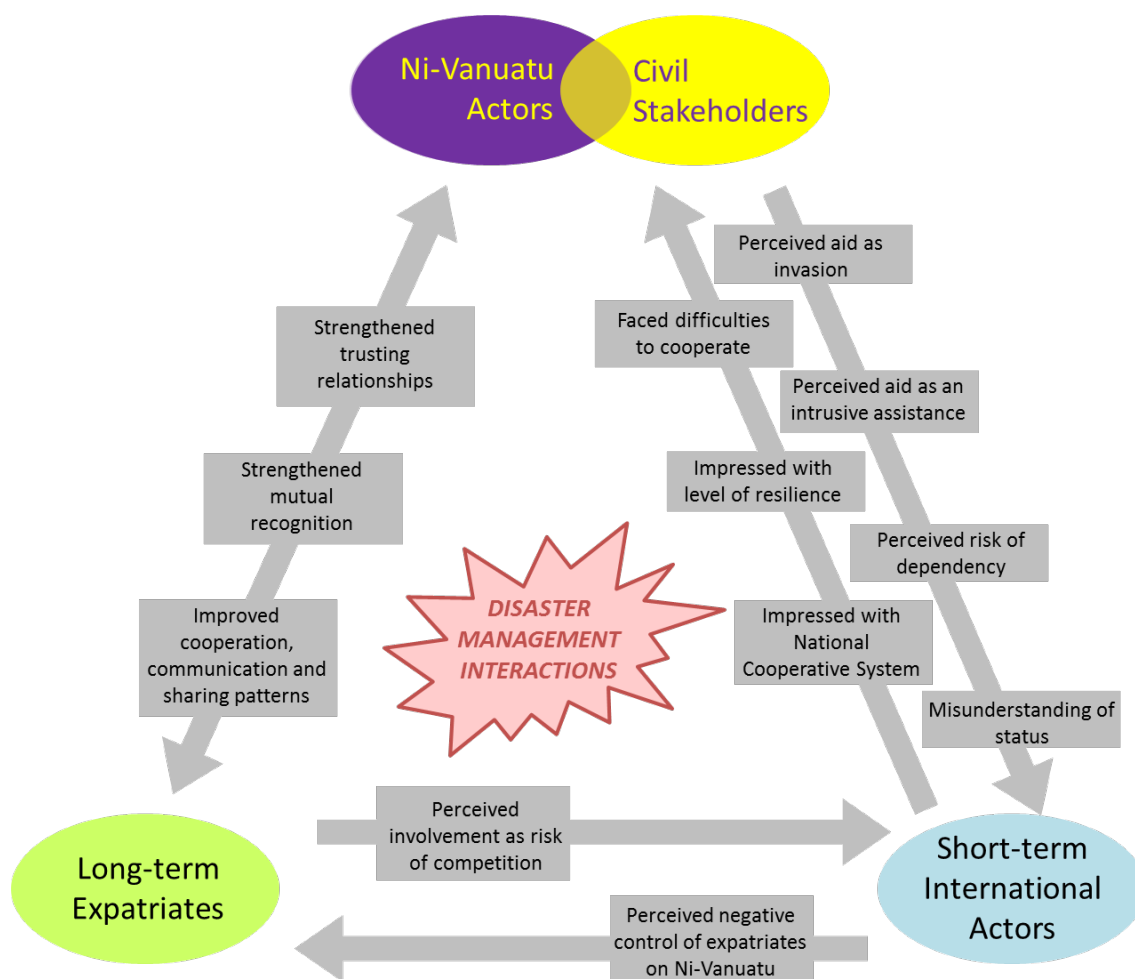


Figure 9.1: Perceptions between the different groups of stakeholders affecting cooperation during the management of the response to Cyclone Pam.

## 9.2. Perception of the internationals towards the nationals

### 9.2.1. Impressed with civil resilience

#### 9.2.1.a. A well-prepared civil society

As seen in the previous chapters, the Vanuatu-Networked-System significantly invested in preparedness and capacity-building. Most international respondents were impressed with how well prepared communities seemed to have been, and with the relatively low human impact on the population compared to the risks, such as fatalities, psychological trauma, and disruption of daily life. For instance, an international respondent expressed his amazement: “I can’t believe their spirit, morale and ability to move forward after losing everything. I understand they are used to cyclones but this [experience] only can’t really explain how they could resist [the consequences of] Cyclone Pam and keep smiling” (INGO officer).

After Cyclone Pam, most respondents attempted to understand the level of Ni-Vanuatu’s resilience witnessed during the cyclone despite their high vulnerability (as measured by the

WorldRiskIndex in Birkmann et al., 2011, Welle et al., 2012, 2013, 2014 ; Welle and Birkmann, 2015). Although the level of income positively affects the mortality risk during disasters (Strömberg, 2007), Vanuatu, at the 46<sup>th</sup> rank on the least developed countries list in 2014, registered a significantly low number of fatalities during the category 5 Cyclone Pam (eleven – UNOCHA, 2015c, 2015o), motivating respondents to speculate on resilience factors.

Although fragmented and highly heterogeneous, no apparent difference in level of resilience existed between the most isolated island and the urban areas. Internationals strongly credited the different decentralised networks existing in routine times, and more particularly the CDCs, for resilience achievements based on complementary integration and fragmentation of the different levels of governance. Many communities across the affected areas benefited from awareness, preparedness and capacity-building activities cooperatively conducted by government and non-government stakeholders, for instance, a simulation exercises in Tanna was conducted by the NDMO and VHT, or CDCs were established in Erromango by CARE. The positive outcomes of these efforts on the impact of Cyclone Pam were widely recognised (Government of Vanuatu, 2015b; Tafea PDC and CARE International, 2015; Potter, 2015; Bolitho, 2015; Dominey-Howes, 2015).

Warning and response SMS texts, already used in different countries for major disasters (e.g. typhoon Haiyan in Philippines), were particularly acclaimed for their outcomes in the preparedness of, and response to Cyclone Pam. International members of the Vanuatu Food Security and Agriculture Cluster (FSAC) highlighted the key role played by SMS texts in information sharing as proactive and continuous preparedness and response messages were simultaneously and continually sent. For instance, crop advice were sent during the emergency period to prepare for El-Niño, expected six months after (box 1 section 7.2.2.b). In the case of Cyclone Pam, the slow movement of the hazard allowed enough time to utilize the existing early warning system. More particularly, early, regular and detailed warning SMS texts reached around 120,000 people (half of the whole Vanuatu population) (RRU, 2015a). Coverage was well scattered throughout the islands, as private companies constructed networks into less commercially attractive areas, in the primary interest of expanding vital information dissemination (Perry, 2015b). Thanks to this wide coverage, complemented with traditional and social networking communication and supported by institutional and civil networks empowered within the Vanuatu-Networked-System, the information in SMS texts reached a major part of the society.

Ni-Vanuatu and expatriates reported that communities took seriously the threat of Cyclone Pam. Communities cautiously listened to warnings, and carefully followed community disaster plans where they existed. Furthermore, some Ni-Vanuatu respondents reported that formal and informal recognition, empowerment and capacity-building for local and civil leadership (section 5.3.4 and

7.2.2) during routine times supported mobilisation of pre-established communication mechanisms in a timely manner using civil networks.

#### ***9.2.1.b. A culture of self-reliance***

Relief items (e.g. tarpaulins, tools kits, hygiene kits, water containers) had been allocated to threatened areas before the cyclone (Blank, 2015; Dominey-Howes, 2015); Ni-Vanuatu respondents witnessed a strong civil leadership in the effective distribution of these resources. Ni-Vanuatu and expatriate respondents who had directly worked with communities reported that most communities benefited from a strong disaster memory, supporting civil leadership. Indeed, the affected communities had never experienced the scale of Cyclone Pam but are exposed to regular cyclones and other natural hazards (floods, volcano eruptions and earthquakes) (Siméoni, 2012), building extensive familiarity with risks among Ni-Vanuatu (Van Rooyen, 2015a). This experience, and the traditional oral knowledge transfer between generations, better prepared affected communities for such an event. Internationals were impressed with how conversant all Ni-Vanuatu were with disasters, and with their everyday integration of the risk. This phenomenon is reflected in the Vanuatu-Networked-System and its integrated approach, building Ni-Vanuatu resilience for unprecedented events, despite their level of vulnerability.

Several internationals expressed interest in the local culture of self-reliance and the numerous self-recovery initiatives. The Vanuatu culture is predisposed for such enterprises. Many Ni-Vanuatu and expatriates reported that affected communities did not wait for assistance from relief activities. Several humanitarian actors, who arrived in the affected areas soon after the cyclone, observed that response and early-recovery activities had already, and effectively, started within the first hours following Cyclone Pam without waiting for any external directive. Community leaders (chiefs, churches, civil society groups) played an active role in the self-response and self-recovery undertakings. The formal recognition of civil leadership within the established Vanuatu-Networked-System (section 5.3.4) showed particularly positive outcomes during Cyclone Pam. Ni-Vanuatu respondents emphasised the empowerment of the different community leaders to support informal civil response, complementary to formal operations, and the integration of traditional norms into simultaneous and subsequent official activities conducted by relief organisations.

The Vanuatu traditional culture prioritises community security over individual well-being; hence, within the first days following Cyclone Pam early-recovery in remote areas targeted the repair of common areas (e.g. churches, Nakamals, schools, common kitchens) instead of primarily focusing on individual relief. This prevented disruption to daily services, and significantly supported a more effective individual and community response and recovery. Cross-community cooperation also happened; for instance, in Tanna remaining food was aggregated for more effective distribution to the different communities (Perry, 2015a). Moreover, communities

prioritised the recovery of their livelihoods before the repair of their shelter, preventing the disruption of their income activities considered essential to their survival and recovery (REACH, 2015). Therefore, before the full reconstruction of housing, civil initiatives prioritised crop harvesting, using informal food networks (Perry, 2015a).

Civil self-reliance and cooperation were partly induced by the specific geography of Vanuatu, especially in remote islands, as “the more rural and isolated communities are, the more resilient they are” (NGO expatriate). As these communities already rely on themselves and local resources in routine times, a disaster may affect their own resources but not their incentive to work on their own and to capitalise all local resources before calling for external assistance. The established civil networked system integrated into the Vanuatu-Networked-System supported the capitalisation of civil resources and capacities. As a Vanuatu Shelter cluster international member declared: “I have never seen in any other country such a self-recovery dynamic. We need to channel this energy not undermine it”.

However, some of the civil initiatives could have used more support and advice from external expertise. For instance, early reconstruction conducted by communities themselves did not always use strong material or follow disaster-proof techniques (section 8.3.3.a). Therefore, it is essential to integrate local capacities and scientific expertise, without altering the traditional culture of community self-reliance. Addressing this goal, CDCs and other civil society networks, supported by the Vanuatu cluster, ensured that their strategy would support, and not stifle, these civil initiatives. The recognition of spontaneous civil leadership for response and early-recovery raised discussions within Vanuatu clusters on how to plan future capacity-building for community preparedness and self-recovery without risking the increase of dependency on external support. Stronger mechanisms supporting a continual two-way capacity transfer between all levels are now needed, supporting a bottom-up-top-down system of professional and civil cooperation. Such a goal requires networking complementarity between fragmentation and integration of leadership already existing in the Vanuatu-Networked-System (as discussed in chapters 3, 4, 5 and 6).

#### ***9.2.1.c. Capitalisation<sup>22</sup> of traditional knowledge***

As seen throughout this thesis, the Vanuatu-Networked-System invests in the integration of traditional knowledge to build resilience. Community initiatives before, during and after Cyclone Pam highlighted the strong potential of traditional knowledge in disaster warnings, preparedness and response. The NDMO recognised traditional observations of major event threats, and considered them in more or less formal strategies, for instance, sea-dwelling birds flying on land, which is known to happen only before and during cyclones (McLachlan, 2003; Sama, 2015).

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<sup>22</sup> Reminder: Capitalisation is understood in this thesis as the extensive identification, effective mobilisation and optimal use of the capital existing in a governance system.

Likewise, simultaneous to traditional signs of cyclone threat, communities reported to the NDMO alarming signs in yam roots (Sama, 2015), predicting a serious drought happening six months later (ABC, 2015c, 2015d). PDCs and CDCs played a vital role in ensuring that such information was transferred to the decision-making level. For example, the transmission of drought observations to stimulate proactive drought preparedness by government agencies during on-going response to Cyclone Pam. The general government recognition of traditional observations strongly depends on the acknowledgment that remote communities trust this knowledge and base their decisions on it. For instance, an elder explained that his community was observing whether ants were moving when making the decision to evacuate (Purvis, 2015).

Furthermore, remote communities often evacuated to traditional community shelters (e.g. caves or Nakamals - community gathering venues) to the wonder of international respondents, who later recognised the safety of such shelters compared to other options in the country. However, CDC representatives regretted the lack of integration of these shelters into official planning to ensure their consideration in the process of preparedness.

A NGO respondent reported the relative reluctance of affected communities to use modern materials, technologies or strategies to rebuild after Cyclone Pam, and considered it as a concern for long-term vulnerability (REACH, 2015). Discussions after Cyclone Pam revolved around the idea that, following a bottom-up-top-down approach; it was not a matter of one method or the other, but of capturing the complementarities of modern and tradition knowledge. Despite generally recognising the value of traditional knowledge, preventable damage resulted from its lack of capitalisation during the response to Cyclone Pam (Ministry of Lands, 2015; Ministry of Education, 2015; Tafea PDC and CARE International, 2015). Thus, the damage due to Cyclone Pam stimulated a stronger integration of traditional building knowledge, modern principles and new technologies. Indeed, on one side, modern 'Building Back Better/Safer' principles were considered key factors of resilience, which needed to be introduced in the national strategies (Sama, 2015; Ministry of Education, 2015). Conversely, although traditional housing was damaged by the cyclone (REACH, 2015), the material and techniques used for traditional houses presented significant resilience attributes to be capitalised. First, despite the usefulness of tin roofs and gutters for storage of clean water in tanks in some communities, traditional materials are less dangerous if blown away; also, reconstruction with such material is significantly easier, cheaper and faster for communities. Second, traditional walls are low, deep in the ground and with ventilation channels, and attached to low roofs, increasing resistance to the wind; in some areas, traditional buildings resisted better than hard built structures (Sama, 2015).

Many respondents (Ni-Vanuatu, expatriates and internationals) concluded that resilience should not be built at the expense of the local culture, and that planning needs to capitalise on useful traditional knowledge (e.g. building techniques, warnings, evacuation mechanisms).



Reconstruction is a sector where the integration of modern and traditional knowledge must be a priority, in order to build safer shelters while preserving the cultural principles concerning housing, which vary across the different communities (Christie and Laboukly, 2015). International members of the shelter cluster particularly showed their support for the integration of traditional knowledge in preparedness, response and recovery planning and discussion. For these purposes, the Vanuatu Shelter Cluster, its subgroups and its long-term strategy sought continual learning from traditional knowledge. For instance, Vanuatu shelter cluster members created networking ties with Tanna and Shefa cultural centres, and received external consultants who specialised in mixing traditional and modern techniques.

### **9.2.2. Impressed with national capacities in cooperation**

International respondents showed their particular appreciation for the central Government's efforts to include non-government and international stakeholders in the decision-making and implementation processes. Within the first days after Cyclone Pam, the NDMO provided national and local human and material resources to diverse actors (e.g. free access to Internet, meeting rooms), which greatly supported informal cooperation. International respondents described that in general, despite the cooperation mechanisms supported by the cluster principles, there is rarely, if ever, a genuine pooling of resources during major disasters. They were thus impressed by the significant collaboration and coordination happening throughout the Vanuatu clusters.

Contrary to expatriates who reported difficulties of sharing with Ni-Vanuatu before Cyclone Pam (section 4.2), international respondents witnessed strong willingness from Ni-Vanuatu, and more particularly the central government stakeholders, to network and cooperate with outsiders. They observed the positive impact of established networking pathways existing between government and non-government stakeholders. Comparing his previous experience (and more particularly the 2010 Haiti earthquake), an INGO respondent found that Cyclone "Pam revealed to the world and the international humanitarian aid [the potential of] vulnerable countries in facing major disasters when the government recognises the capacities of non-government [stakeholders]."

Finally, an expatriate reported that "this coordination [was] not an accident" but the result of proactive government–non-government relationship-building (Van Rooyen, 2015a, p.1). Indeed, the international intervention benefited from the cooperative and trusting ties established between the central level of decision-making, and the decentralised and non-government levels of action. For instance, the UNDAC team used existing networking pathways with key actors to conduct their operations (UNOCHA, 2015o). Many respondents reported that the mobilisation of local human and material resources had been significantly facilitated by the existing networks. Indeed, thanks to the networks, the international stakeholders had a clear idea of available local resources

to which they could have access, while local stakeholders were experienced in participating in resilience-building activities.

### **9.2.3. Difficulties in cooperating with locals**

Despite general support for the integration of traditional and modern initiatives, as well as Government–non-government Networking, international respondents highlighted that there remained significant challenges in cooperation. International respondents witnessed weaknesses within the operational environment. Disaster response was indeed limited by the absence of clear official planning. Different Vanuatu cluster members reported the lack of contingency plans and reliable stocks. Furthermore, international respondents particularly deplored the lack of Ni-Vanuatu actors' understanding of and familiarity with key existing operational plans (e.g. national Standard Operating Procedures). Consequently, roles and responsibilities distributed across governing structures were not always well shouldered (Ministry of Lands, 2015). Internationals particularly blamed the lack of a clear legal structure and resources at the provincial level for the response difficulties; these observations were also reported during different Vanuatu cluster lessons-learned-workshops (e.g. WASH, Shelter, Logistics, Food Security and Agriculture).

Vanuatu is often subjected to disasters but rarely to the scale of Cyclone Pam. Therefore, despite relative civil preparedness for uncertain and extreme events (section 9.2.1.a), existing disaster planning does not effectively consider scenarios with massive international involvement. Government control of the international intervention – and more specifically the coordination role of the NDMO and the supervising role of the National Disaster Committee – is stated in legal documents, (CAP 267 of the National Disaster Act, section 6.9 of the National Disaster Plan, section 20.0 of the National Cyclone Support Plan 2015-2016). However, detailed mechanisms to manage massive international involvement remain deficient. Furthermore, although the Vanuatu cluster approach is acknowledged in disaster plans, the lack of in-depth description of the cluster concept and mechanisms prevent Ni-Vanuatu from fully measuring and comprehending the challenge. For instance, the Vanuatu Shelter Cluster coordinator mentioned the difficulties of finding national contact pathways with the national cluster leader. Legal deficiencies in the management of international assistance were identified as key obstacles. For instance, a FSAC representative highlighted the impact of the lack of clear guidelines for seed importation and distribution on aid effectiveness. Consequently, distribution of roles and responsibilities between established Vanuatu-Networked-System members (nationals and expatriates) and outsiders (internationals) was unclear during Cyclone Pam, confusing operations in the field.

Also, given the relatively low impact of the more regular disasters in the country (e.g. earthquakes, floods), and due to limited local resources, national planning neglects the development of

supportive structures that may be essential for communities; for instance, there is a lack of post-disaster trauma counselling facilities in the country (Gero and Thiessen, 2015). Cyclone Pam triggered discussions on consolidating the existing disaster networked governance system to be better operationalised during major disasters, without undermining the structure to address regular smaller and slow-onset disasters.

Moreover, internationals highlighted the limited local technical capacities as a main factor of response difficulties, such as the limitation of national capacity in water treatment to address water security (UNOCHA, 2015e). Several international respondents were particularly concerned by the established NDMO logistics unit's lack of capacity to manage its roles and responsibilities, mostly due to the lack of experience of major disasters, inducing a loss of credibility of the NDMO and its leadership (NDMO and WFP, 2015). International respondents also reported a certain lack of rigour with the conduct of operations partly due to the lack of local capacities. For instance, the Vanuatu Logistics cluster coordinator reported the lack of updated inventory and the loose control of access to the warehouse. An international respondent also illustrated this problem reporting the arrival of thousands of cans of tuna while the purchaser could not be traced. Barber (2015) highlighted another example of the lack of rigor, as the official procedure to request international assistance (as provided in the National Disaster Plan) was not strictly followed, resulting in ineffective DM activities. Furthermore, Ni-Vanuatu and expatriate respondents, supported by the analysis of established INGOs (Barber, 2015), highlighted that several international tools had been introduced during Cyclone Pam (such as the 3W – Who does What Where, UNOCHA, 2006) without proper training, preventing proper and optimal use of these tools by local staff.

Internationals believed that the deficiencies in human and material resources, were the main factors contributing to this lack of local capacity and obstacles to capacity-building. These deficiencies included particularly the small number of staff trained in health, the lack of staff available for 'Building Back Better/Safer' training, the absence of storage facilities, and the inexistence of communication tools in the provinces. Consequently, internationals perceived that their intervention had lower impact than it could have had if Ni-Vanuatu had more capacity to receive, integrate and learn from the international aid. Simultaneously, Ni-Vanuatu perceived other obstacles to effective response that directly resulted from the international intervention.

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### **9.3. Perception of the nationals towards the internationals**

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#### **9.3.1. A feeling of invasion**

In general, Ni-Vanuatu respondents described the arrival of international assistance as an overwhelming intervention, often not pursued with respect to the national context. Illustrating this

feeling, the term “invasion” was often used by civil group representatives, local government officers and NGO actors. The first observation shared by most Ni-Vanuatu respondents with the researcher was the overwhelming (vast and fast increasing) number of stakeholders getting involved in the response to Cyclone Pam. Previously they never had worked simultaneously with so many actors. Ni-Vanuatu respondents witnessed significantly increasing complication, confusion and duplication as soon as the first international teams landed, instantly multiplying the number of responders. This challenge was also reported in response analyses as a main obstacle to effective cooperation and relief planning (Barber, 2015; Ministry of Lands, 2015; The Australian, 2015; Martin, 2015). An expatriate added that national leaders seemed to have been overwhelmed by the bureaucratic complications due to the co-existence of so many diverse actors. The overload of actors limited the national capacity to control the organisations conducting operations outside national supervision, which weakened leadership and credibility among other organisations.

Alongside the massive increase of actors, Ni-Vanuatu respondents reported that some international participants ignored, and consequently undermined, the national potential. Indeed, existing capacities and expertise were not effectively considered and utilised by the international assistance (Ministry of Lands, 2015). To quote a local NGO respondent, the international actors “stole [their] work”. Several Ni-Vanuatu respondents stated that the arrival of international aid stifled effectiveness of the early response of local cooperative operational pathways. Civil initiatives particularly suffered from the involvement of “foreigners, who justified their intervention because they were better [equipped] than communities to lead relief” (civil group respondent).

Respondents assumed that internationals did not support the use of local capacities because it would have requested resources and time, while relying only on their own networking capital was easier. Ni-Vanuatu respondents reported that the weakened national leadership met difficulties forcing internationals to use local capital. Furthermore, the NDMO and VHT seemed to have lost their leadership capacities to the benefit of the international actors (Barber, 2015). A certain frustration rose among national leaders witnessing internationals shouldering dominant roles and responsibilities, and making key decisions (Barber, 2015). A Prime Minister’s Office representative complained about the tendency of international actors to follow their strategies without complying with the plans of recipient countries (Richards, 2015). This allegation was supported by recurrent observations that government channels were not well followed by a significant number of actors (Barber, 2015; Richards, 2015). Likewise, a civil group representative reported that the “international invaders, especially the United Nations, wanted [to conduct the operations] their own way because they gave the money”.

Linked to this observation, several Ni-Vanuatu respondents questioned the motivations of international intervention. International actors were often suspected of basing their activities on their own political agendas, contributing to a mismanagement of resources, such as during the 2010 earthquake in Haiti (Zanotti, 2010). Furthermore, several civil group representatives were concerned by a lack of transparency and predictability of international assistance. A Prime Minister's Office representative declared that international humanitarian aid was often led by a sole desire of visibility, as "everybody wants to park a sign and say 'We did this!'" (Radio New Zealand, 2015a). This position was reported through the media (Radio New Zealand, 2015a; Richards, 2015), which, based on an INGO respondent, prevented national government stakeholders and civil leaders from building trust with international humanitarian actors. The questionable international involvement developed a feeling of intrusion among Ni-Vanuatu.

### **9.3.2. A perception of intrusive assistance**

#### ***9.3.2.a. No understanding of the context***

Ni-Vanuatu respondents reported failure of the internationals to adapt to the specific cultural context. Barber (2015) also found a lack of respect and understanding for the context of Vanuatu when internationals conducted their operations.

Respondents explained that the different challenges highlighted in the previous sections resulted from the lack of understanding and knowledge of the national context. For instance, very few internationals knew the roles and responsibilities distribution set by national plans, such as the mandatory submission of assistance proposal to the Ministry of Foreign Affairs (MFA) before starting any relief activity (Barber, 2015).

Most international respondents who had recently arrived (less than a week before being interviewed) emphasised that it was very difficult to capture the disaster governance structure in place in the country. The role of VHT – and Pacific Humanitarian Team (PHT) – was particularly misunderstood, especially among internationals. Similarly, the distribution of roles and responsibilities between the different key organisations in charge of aid management, such as the NDMO, the Department of Strategic Policy, Planning and Aid Coordination or the Ministry of Foreign Affairs, seemed to be relatively unclear to internationals. The cultural context also lacked acknowledgement from internationals, many of them intervening for the first time in a Melanesian country. As related by Barber (2015), the UNDAC team, in particular, reported the difficulties for newcomers to learn about the cultural context in a timely enough manner for appropriate operations to be made.

Consequently, Ni-Vanuatu respondents shared their concerns regarding certain international projects and activities. For instance, during a Shelter Vanuatu cluster meeting, an international member highlighted the need to establish national standardised hygiene and kitchen kits, ignoring

the major differences between all affected areas, for instance, some communities have common kitchens while others have individual cooking facilities. Another example was the relative reluctance of internationals to cooperate with faith-based groups denying the potential of the churches and their networks in effective operations. Another example was the lack of flexibility within the informal governance structure established in the country, and its lack of consideration in international planning. Furthermore, several Ni-Vanuatu pointed out that the determination by internationals to obtain accurate data for planning could not capture the social development happening on the informal level of Vanuatu governance. Aid conditions and timelines set by donors, especially within the Humanitarian Action Plan, were also considered to be inappropriate and unrealistic in the context of Vanuatu (Barber, 2015; RRU, 2015a). As highlighted by Barber (2015), the concept of the Humanitarian Action Plan, and its rigid approach to response, was not well adapted to the context of Vanuatu, and could have been replaced by more contextualised planning developed internally with the support of external expertise and advice.

### ***9.3.2.b. Loss of national ownership***

Consequent to the challenges identified in the preceding sections, Ni-Vanuatu respondents regretted the loss of ownership of the disaster governance system activated during the emergency period. Communication and decision-making mechanisms used during Cyclone Pam particularly weakened local ownership of the operations. Already highlighted as an obstacle to the participation of Ni-Vanuatu in the decision-making process during routine times (sections 5.2.1 and 7.2.1.a), their participation in the development of operations was limited because most meetings, reporting and key message campaigns were conducted in English, following a rigid format. Vanuatu cluster meetings were too structured and formal for locals to feel comfortable. Likewise, the effectiveness of communication with communities was limited because key messages were too long, leading local leaders to advise one simple idea per message to ensure the understanding of communities.

The international intervention also dramatically altered the way activities were conducted in routine times. For instance, expatriates members of the Shelter cluster observed that the strong presence of foreigners, and more particularly of “white men”, during ‘Building Back Better/Safer’ training in a small community changed the way local men and women interacted. Ni-Vanuatu and expatriates expressed their concern about the concrete learning potential of these activities, since this disruption with normal social organisation could prevent communities from perceiving the link between the training principles and their everyday life. Furthermore, as reported by Barber (2015), internationals significantly took over national DM bodies (e.g. the Emergency Operation Centre), weakening the national ownership of these structures. Although this situation often happened during major disasters, it was particularly disapproved of during Cyclone Pam, due to the lack of national experience with massive international intervention, and more importantly due

to the recognised, but relatively overlooked, potential of the disaster governance system in place (Barber, 2015).

### **9.3.3. Inducements to address the risk of dependency**

Despite the well-regarded community self-reliance, and adding to the international disregard of local networking capital, Ni-Vanuatu witnessed a loss of local capacities and self-recovery initiatives compared to previous disasters. The Church working group observed that the involvement of civil society in road cleaning, neighbourhood support and food sharing happened less systematically after Cyclone Pam than after Cyclone Uma in 1987 (VCC, 2015e). Also, to some extent, national actors observed the first signs of dependency development after the first waves of service delivery, when communities were waiting for more aid instead of taking initiatives (Ministry of Education, 2015). Furthermore, a Vanuatu cluster member noticed that the departure of several key internationals (e.g. Vanuatu Health cluster co-lead) before the end of the emergency period, due to the end of their mobilisation, weakened continuity of operations and the planning of transition to recovery.

The unavoidable risk of dependence that emerged among recipient communities during and after Cyclone Pam were recognised by Ni-Vanuatu. For example, the Vanuatu Education Cluster team itself predicted a void when the Vanuatu cluster co-lead was due to leave (NDMO, 2015t). Also, aid following Cyclone Pam raised jealousy and expectations among non-recipient communities. Indeed, response and recovery operations had positive impacts on the general development of recipient communities. For instance, houses reconstructed following ‘Building Back Better/Safer’ principles or distributed non-food items better equipped recipient communities for their everyday life activities, compared to surrounding villages, which may not have been as affected by Cyclone Pam,

Furthermore, Cyclone Pam highlighted pre-existing issues of dependency on Fiji to make key resilience-related decisions and manage donor programs. Cluster leads and co-leads illustrated this issue during an inter-cluster meeting reporting the pressure from Fiji headquarters in the allocation of money for Cyclone Pam response and recovery. Respondents credited these dependency risks to the increasing loss of traditional community norms, as well as the growing reliance on external sources.

Moreover, the frustration of national leaders with international control (section 9.3.1.) was generally shared by officers and communities confronted by the assumption remaining that resilience-building needs to have external support. In the most remote areas in particular, the process of resilience-building is strongly ingrained and controlled by the society in which it functions effectively. Even if not driven by harmful motivations, such as the internationals’ desire “to channel [the] energy” or their frustration with the reluctance of certain affected communities

to use useful modern materials (as seen in sections 9.2.1.b and 9.2.1.c), external aid was sometimes perceived as a risk to see external approach imposed and grassroots leadership for resilience-building suppressed.

The international intervention during Cyclone Pam triggered serious discussions among Ni-Vanuatu stakeholders on reinforcing local capacities to build a sustainable self-reliant system to effectively build resilience. These discussions revolved around, relied on and were maintained by observations of remaining local self-reliance, on which work must be pursued. An international Vanuatu Shelter Cluster member witnessed less community dependency on external assistance than in other affected countries, such as Tonga, where people waited for the Government to start reconstruction. Ni-Vanuatu respondents strongly expressed their pride in what was achieved by the civil and local stakeholders before the arrival of internationals, and throughout the response in parallel to the official operations. The strong desire to (re)build stronger self-reliance relied on the general discontent of communities concerning the international intervention as described by local associations and civil groups. A central government representative reported that communities would have preferred international assistance to be limited to food and non-food items delivery, and capacity-building to use these items, to prevent any long-term dependency on external support. To address dependency risks, Ni-Vanuatu respondents stressed the need to better capitalise on the established disaster networked governance system, and the capital existing within the system, which could have prevented these dependency risks and challenges.

Effectively pooling resources existing across sectoral networks and empowering the umbrella networks to build capacities could prevent the different witnessed and feared vacuums emerging after the retreat of international aid. For instance, military logistics assistance played a significant role in service delivery, as national transportation, such as planes, boats, trucks and individual means, remained limited. Therefore, a key question was to build national transportation capacities to prevent the need to request such massive external logistics support (UNOCHA, 2015m); this would have positive impact on the general economic development of the country in routine and disaster times. Also, a sustainable and internal system for capacity-building, and more specifically institutions supporting the training of trainers, was often highlighted as necessary for resilience-building in the country, reducing reliance on external expertise (NDMO and WFP, 2015; UNOCHA, 2015o).

This confirms that work must be done on the integration of external response expertise in support of, and not at the expense of stronger self-reliance. As explained by the international Vanuatu Shelter Cluster coordinator, resilience-building relies on “humanitarian actors doing the minimum to encourage communities to be self-reliable”. According to such a principle, a Vanuatu FSAC representative reported that the cluster sent a text a few days after Cyclone Pam to encourage



people not to wait for aid but to start self-recovery activities and proceed with planting the remaining seeds.

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## **9.4. Long-term vs. Short-term aid**

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### **9.4.1. Key role of well-established NGOs within the Vanuatu-Networked-System**

Channelling reconstruction activities through NGOs that are well-established in the stricken areas and have strong ties with key government agencies can assist in meeting challenges inherent in external intervention (Zanotti, 2010). The Vanuatu-Networked-System was already supported by a significant presence of medium- and short-term international humanitarian actors, who were well-aware of the geopolitics of Vanuatu, but could meet difficulties in networking with Ni-Vanuatu (section 4.2). The massive international intervention had positive impacts on the ties between expatriates and Ni-Vanuatu, with the recognition of the need to capitalise the existing relationships existing between the well-established NGOs, the Government and the communities.

Their long-term presence in the country supported these established NGOs in consolidating their presence in preparedness, and in being the first responders during a disaster (Barber, 2015). Furthermore, thanks to their continual acquaintance with the communities, they have an appropriate understanding of the specific context, supporting their credibility as key and useful actors in the country.

The key position of these well-established NGOs, which built a strong and central position within the networked disaster governance system before Cyclone Pam (Social Network Analysis (SNA) measures analysed in section 6.2), was illustrated by their visibility in reports and media coverage, for instance:

- 1) Vanuatu Oxfam, with 25 years of experience in the country (Barber, 2015), had staff (more specifically the VHT and Vanuatu Climate Action Network (VCAN) coordinators) at the 3<sup>rd</sup>, 5<sup>th</sup> and 10<sup>th</sup> highest SNA In-degree position, the 2<sup>nd</sup>, 7<sup>th</sup> and 10<sup>th</sup> highest SNA Betweenness position, the 2<sup>nd</sup> and 3<sup>rd</sup> highest SNA Eigenvector position, and the 6<sup>th</sup> highest perceived leadership position. Respondents acclaimed the role of Oxfam staff in coordinating VHT and considered the NGO as a central actor for effective response working on key sectors, such as water distribution (NDMO, 2015q), gender protection (UNOCHA, 2015e) or the capitalisation of existing networks (e.g. the church network, NDMO and WFP, 2015).
- 2) CARE International, with 30 years of experience in Melanesia (Barber, 2015) and 10 years in Vanuatu (Perry, 2015a), had staff at the 6<sup>th</sup> highest SNA In-degree position and 7<sup>th</sup> highest SNA Eigenvector position. During the response to Cyclone Pam, CARE International staff were recognised as key players in most clusters, more particularly in food security (Perry,

2015a) and shelter (Vanuatu Shelter Cluster, 2015c), and for their crucial connections with the most isolated areas (Tafea PDC and CARE International, 2015).

Expatriates working for well-established NGOs witnessed a change in the way they were perceived by Ni-Vanuatu. Before Cyclone Pam, they were often considered as organisations strongly connected to their foreign headquarters distinct from local NGOs and associations, while they witnessed their instant integration in the “us” against “them” after the cyclone.

Ni-Vanuatu actors widely utilised the Government–non-government, Cross-sectoral Networking process in place before Cyclone Pam to communicate indirectly with short-term international relief stakeholders through expatriates. For instance, the French Red Cross and the Vanuatu Red Cross played a key role in ensuring that the International Federation of Red Cross had access to the communication channels and resources existing with the government agencies and communities. The International Federation of Red Cross and Fiji Red Cross also substantially benefited from the support of the in-country, context-aware volunteers and staff of the established Red Cross Societies (Wilson, 2015). Likewise, a representative of the Salvation Army reported how the pre-established position of his organisation within the Vanuatu-Networked-System particularly helped short-term staff to get in contact with communities and other stakeholders, to quickly gain understanding of the context, and to identify needs.

Furthermore, internationals who were not well established, witnessed the strengths of the ties created between these organisations and the national system. Barber (2015) reported how Mercy Corps (non-established NGO in the country) acknowledged the significant impact of existing capital (resources, networks and capacities) developed within the Vanuatu-Networked-System. Barber (2015) presented the logic for humanitarian assistance to rely on the priority of the in-country capital, and to ensure that newcomers (actors working for less established organisations) integrate and coordinate within the established system for a more effective response.

#### **9.4.2. Challenges inherent in co-existence of internationals and expatriates**

##### **9.4.2.a. Tensions**

These different positions between expatriates and the less established internationals were reflected in tensions arising between the two groups. Indeed, several internationals reported that they met more reluctance from, and difficulties in working with expatriates than with Ni-Vanuatu. An international respondent thought that expatriates might have considered international newcomers more directly as competitors than Ni-Vanuatu actors. Also, an expatriate reported that expatriates often act as mentors within their organisations, continually using their own capacities and credibility to lead their Ni-Vanuatu co-workers. The respondent was concerned that this tendency may result in a latent loss of national leadership, which became more visible during the

response. The intervention of internationals following their own agendas to coordinate with national authorities weakened this power structure between expatriates and Ni-Vanuatu, raising the question whether informal shared leadership should be more formal to be continually enabled.

Internationals also regretted that local organisations in Vanuatu cluster meetings were often represented by expatriates and not by Ni-Vanuatu. Several expatriates confirmed that their national co-workers considered the cluster activated during Cyclone Pam as international tools different from the regular clusters in routine times, and preferred to be represented within the Vanuatu clusters, leading to the international predominance in cluster meetings (Vanuatu Shelter Cluster, 2015b). Caught in a vicious circle, the fewer Ni-Vanuatu were present in meetings, the fewer the remaining Ni-Vanuatu felt comfortable participating in these “white meetings” (local NGO representative). Internationals thought that this situation was a barrier to effective cluster achievements, particularly coordination among all actors and appropriateness of operations to the specific context. Furthermore, internationals found their projects undermined by expatriates, who seemed to be unresponsive to new and smaller players’ involvement.

#### ***9.4.2.b. Difficulties for Ni-Vanuatu to distinguish short-term from long-term aid***

The tensions were partly fed by the difficulties for Ni-Vanuatu to distinguish the positions of expatriates and internationals, mostly concerning the attributes and goals of the Vanuatu cluster system (which also resulted from the misunderstanding of internationals concerning the differences between the Vanuatu cluster system in place and the international cluster approach). Indeed, as reported by internationals the main role of the international cluster principle is to facilitate coordination between all stakeholders, within- and cross-sector, under an inclusive leadership and government control. Hence, all international respondents confirmed the short-term nature of their involvement. Ni-Vanuatu stakeholders, however, missed a clear understanding of this concept; more used to expatriates staying in the country for medium- and long-term projects.

For instance, a representative of the Vanuatu Logistics cluster reported that the position of the Vanuatu Logistics cluster within the whole response system was particularly unclear. Ni-Vanuatu stakeholders tended to rely on the network members to manage operations that were the responsibility of the NDMO logistic unit, due to a general confusion between three key institutions: the NDMO unit (a legal government agency), the WFP Logistics Cluster (an international facilitator part of the global cluster system) and the Vanuatu Logistics Cluster (a non-government network coordinated by the NDMO and the WFP) (NDMO and WFP, 2015). The National Disaster Act, the Vanuatu Logistics Contingency Plan and the Standard Operating Procedures provided the framework for cooperation, but due to strict separation of the NDMO logistics unit and the Vanuatu Logistics cluster, there was a general confusion among actors around the legal status and function distribution of the three institutions (NDMO and WFP, 2015). This lack of clear positioning of the Vanuatu cluster slowed down the work of the network, as

resources were continually spent clarifying the role of the network to other stakeholders. Like the Vanuatu Logistics cluster, international representatives of other clusters reported a major misinterpretation among the Ni-Vanuatu actors, and more critically decision-makers, of the Vanuatu clusters mandate.

There was a lack of understanding of the stay duration of the international humanitarian actors, and of the mobilisation of Vanuatu clusters in the response. Indeed, clusters are entities to be deactivated once the emergency response period is officially over. In Vanuatu, the end of emergency response, approximately 3 months after Cyclone Pam (UNOCHA, 2015a), marked the end of international intervention, and the return of the Vanuatu clusters' focus on routine times activities. International respondents witnessed a certain hostility from government and local representatives, who thought that the internationals acting within the Vanuatu clusters aimed to stay and work in the country after the emergency period. This lack of understanding of roles raised the misinterpretation that these actors would be new long-term expatriates, thereby increasing work competition.

There was also an obvious lack of awareness of roles and responsibilities of Vanuatu clusters (Ministry of Education, 2015). For instance, during the Vanuatu Logistics Cluster lessons-learned-workshop, several beneficiaries criticised the Vanuatu cluster for not having shouldered its position as focal point to negotiate commercial shipping prices that could have facilitated operations. Such a responsibility is not part of the Logistics cluster mandate. Another example was the different requests made towards the Vanuatu Shelter Cluster that did not fall under its mandate, such as rebuilding schools (under the responsibility of the Ministry of Education, with potential advice from the Vanuatu Shelter Cluster concerning 'Building Back Better/Safer' principles), or monitoring health risks in shelters after the distribution of tarps (under the responsibility of the Ministry of Health or part of a multi-sectoral recovery project).

Furthermore, Vanuatu cluster representatives (Vanuatu Shelter Cluster, Vanuatu WASH Cluster) reported that the networks were not well recognised for their responsibilities to supervise sectoral coordination and facilitate the activities of the cluster members. Therefore, several national government agencies and NGOs considered the Vanuatu clusters as additional (useless) layers of communication, and would work directly in the communities without going through the Vanuatu clusters. The Vanuatu FSAC also reported that many stakeholders, not members of the clusters, did not understand that the cluster meetings were open to everyone and were not exclusive platforms (RRU, 2015a). This lack of awareness weakened the potential of the networks to facilitate coordination across the whole response system.

During an inter-cluster meeting towards the end of the emergency period, participants highlighted that the general misunderstanding of the potential of the Vanuatu cluster was due to a lack of

proactive knowledge-building concerning the system in the response phase. As highlighted earlier, locals distinguished the permanent clusters working on resilience from the clusters mobilised during the response, although these networks were the same in planning. This may be induced by the tendency to erect new venues for each event. It is therefore essential to build capacities of local cluster members to evolve from routine cluster to response cluster, and vice versa, to prevent disruption of the resilience-building process. The inclusive and integrated approach for cooperative leadership of the NDMO and VHT was seen as a key to develop this continuity and support the cluster members to shoulder their own roles and responsibilities in routine and response times without disruption.

However, as seen in the next chapter this leadership was questioned following the course of the response to Cyclone Pam. Indeed, as seen in this chapter, a disaster of the extent of Cyclone Pam in a developing country brings together very diverse stakeholders, forcing them to cooperate. In the case of Vanuatu and Cyclone Pam, these interactions emerge within the established Vanuatu-Networked-System. Forced cooperation between nationals, expatriates and internationals in an extreme environment is never exempt from impacts on existing structures. Therefore, the next chapter exposes the potential of the proactively established Vanuatu-Networked-System through the analysis of impacts of the system (its structure, leadership and process) on DM for Cyclone Pam, and vice versa.

## CHAPTER 10.

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# **Vanuatu-Networked-System & Cyclone Pam:**

## **A high potential not fully reached**

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### **10.1. Introduction**

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As seen in the previous chapter, the scale of Cyclone Pam resulted in the involvement of an unprecedented number of national and international stakeholders. Following the UN principles set within the cluster approach, the national Government remained the primary decision-maker in terms of coordinated response and early-recovery, with the support of the Vanuatu Humanitarian Team (VHT).

This chapter analyses how the management of Cyclone Pam highlighted remaining challenges within the Vanuatu-Networked-System, more particularly communication and data collection difficulties, already captured by the analysis of the system in routine times. The scale of the disaster and required management activities also revealed that the mobilisation of structures and leadership established in routine times could be improved (section 10.2). The chapter also discussed that Cyclone Pam revealed the great potential of the Vanuatu-Networked-System to build an effective governance system, showing significant positive impacts of its proactive networking structure and processes (section 10.3).

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### **10.2. Remaining challenges in response revealing weaknesses in the Vanuatu-Networked-System**

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A number of challenges in the system remain evident, and were emphasised during the management of Cyclone Pam. This section particularly addresses the key challenges in communication, data and information accuracy, capitalisation of networks and leadership.

#### **10.2.1. Communication difficulties**

Inappropriate communication and information sharing have negative impacts on effectiveness of response because operations may become efficient and/or inappropriate for community needs, or not conducted in a timely manner (Nolte and Boenigk, 2011). Although, the Vanuatu-Networked-System was seen as propitious for information sharing and communication, the extreme situation created by Cyclone Pam identified remaining challenges, both with communities and between actors.

### *10.2.1.a. Lacking communication with communities*

Communication with communities was revealed as the main gap in the Vanuatu-Networked-System (Government of Vanuatu, 2015a, 2015b; NDMO, 2015r; UNOCHA, 2015n). Respondents witnessed a general lack of awareness in communities concerning planned strategies, operations and timeframes, resulting in a predominance of community initiatives for self-recovery. Although communities have access to the most accurate information on local needs and resources, they may not be able to make well informed decisions (Government of Vanuatu, 2015a). For instance, a NGO respondent reported shelter risk in a community of Tanna. Unaware of the discussions on reconstruction strategy in Port Vila, the community members rushed into reconstruction with weak materials. When aid workers assessed needs, shelter was not considered as a priority anymore by the community members. The NGO respondent expressed his concern that these reconstructed houses increased the general vulnerability of these communities compared to before Cyclone Pam, and would not be resilient in another disaster.

Furthermore, communities were not well prepared to gain optimal benefit from the intervention of international aid. Visits of relief organisations in remote areas were often not expected by communities, systematically preventing marginalised and vulnerable people from accessing services. Respondents reported that this issue mostly happened in communities without a CDC, depriving them of a focal point for the central decision-making level to inform about assistance.

This gap in top-down information dissemination was mostly explained by the remoteness of certain affected communities, and their lack of communication tools – whether existing communication channels had been disrupted by the disaster or the communities were missing communication resources before Cyclone Pam (RRU, 2015a; NDMO, 2015l; UNOCHA, 2015d, 2015k; Tafea PDC and CARE International, 2015; Australian Government, 2015; Garric, 2015). Along with phone calls and word of mouth, radio was the communication tool most utilised by communities to obtain information (REACH, 2015), and yet, major gaps in information disseminated on the radio remained (RRU, 2015a). Also, public information disseminated through media was confusing for communities due to a lack of consultation with authorities resulting in the simultaneous publication of different figures, for instance, on casualties or available resources, depending on the sources, in particular the National Disaster Management Office (NDMO), UNOCHA, national and international newspapers, or national and international radios. Additionally, existing tools were not always appropriate for the affected communities, preventing communities, and especially the most vulnerable groups, identifying and understanding relevant information. For instance, information was often disseminated in English, following rigid protocols and was too complex: several key ideas in a single message. Conversely, bottom-up communication between communities and relief actors was also lacking. Many respondents

underlined the need to build stronger community consultation channels to discuss strategies and priorities.

To address these challenges, the NDMO, with the support of the VHT and Pacific Community, worked on Information Management training and workshops for key organisations and Vanuatu clusters. Also, towards the end of the emergency period, an external advisor on ‘Communication with Communities’ came to assist the NDMO and the Vanuatu clusters in the development of two-way communication tools, and the provision of key messages adapted to the specific needs of the different affected communities. Following this initiative, key messages were broadcast in Bislama on the Talk Back Show (topical program already utilised for preparedness, section 7.2.2.b) summarizing Vanuatu clusters achievements, reporting remaining available resources, and sharing recovery strategies. Many expatriates and Ni-Vanuatu respondents agreed that such resources had to be developed appropriate to the different groups for future events, such as messages specifically adapted to children.

The Vanuatu-Networked-System in place before Cyclone Pam could significantly address the need to strengthen communication with communities, using the existing civil leadership and inclusive consultation mechanisms promoted by most sectoral networks. For instance, one of the key communication channels between actors and communities in Vanuatu is the network of the churches. Although the national and local authorities recognised and empowered the potential of churches to link with communities, the international stakeholders remained highly cautious in empowering the churches network. The whole network must, therefore, ensure that all its key players are visible to any external intervention to optimally benefit from proactive networking efforts.

#### ***10.2.1.b. Complicated communication between actors***

One of the main communication challenges obstructing coordination between the different actors was the lack of a uniform cooperative system, and of a centralised data and information management system (Ministry of Education, 2015; Ministry of Lands, 2015; NDMO and WFP, 2015). This absence of common foundations contributed to major difficulties in information sharing and exchange. For instance, actors relied on two official SitRep series – one being the NDMO and the other UNOCHA – that were published simultaneously, and often compiled similar information in a dissimilar manner. This particularly confused Ni-Vanuatu stakeholders, already unfamiliar with the format of a SitRep in particular, and disinclined to use written materials in general (sections 5.2.1 and 7.2.1.a). Respondents felt that the lack of harmonised reporting at the most central units of response to Cyclone Pam (NDMO, UNOCHA and Vanuatu clusters) hindered investment in information sharing with other actors. Inter-cluster communication and information sharing was significantly limited by this situation, as information direction and flow were not clear and lacked legitimate control (Ministry of Lands, 2015; RRU, 2015a). This division



of communication channels led to an overwhelming number of meetings, which operated as a disincentive to networking, slowing down coordination and networking commitment (Vanuatu Shelter Cluster, 2015b; Baber, 2015).

Furthermore, Cyclone Pam revealed the lack of designated communication focal points in the different Ministries in case of emergencies. Indeed, although contact lists and organisation membership lists existed within each Vanuatu cluster, several respondents (Ni-Vanuatu, expatriates and internationals) reported major challenges in finding a collaborator when trying to address general observations or requests to ministries and departments, especially the NDMO.

More critically, international respondents witnessed that focal points were missing at the provincial government level for Vanuatu cluster members. This lack was a particular disincentive to prioritising the remote islands for international actors mostly based in Port Vila. Conversely, respondents observed a lack of communication and feedback from provincial actors. Several local NGO respondents reported that communication between Port Vila-based and provincial-based actors was significantly weakened by unequal recognition of decentralised networks by the central Government and INGOs. Therefore, depending on their main partners (government or non-government), international actors did not have the same networking channels available. Most lessons-learned-workshops (e.g. WASH Cluster, Logistics Cluster, Shelter Cluster and Tafea PDC) highlighted the need to develop awareness, capacities of national and provincial actors, and to strengthen two-way communication mechanisms to promote the coordination of actors across levels.

Furthermore, a lack of transparency and awareness of the organisations involved and existing networking capital prevented the Vanuatu-Networked-System to reach its full potential. For instance, representatives of the Disability Desk reported that international actors, donors and private stakeholders, but also many Ni-Vanuatu staff, did not seem to be aware of their existence. Likewise, the general lack of awareness of the National Advisory Board on Climate Change and Disaster Risk Reduction (NAB) portal by most international respondents wasted the potential of the tool. Although the NAB portal was not developed as a response-tracking tool, the portal gathered all key information on the Vanuatu-Networked-System in Vanuatu, which could have effectively stimulated cooperation and communication between organisations. Key reports following the response to Cyclone Pam recommended the setting-up of a national web platform, similar to the existing NAB portal, open to all stakeholders willing to share information on disaster governance initiatives (e.g. Barber 2015; UNOCHA, 2015o). The question of improving and using the NAB portal for future events instead of creating another page did not seem to be raised, confirming the issues around capitalisation in the country.

### **10.2.2. Lack of accurate data and information**

The lack of accurate data was by far the most often highlighted challenge by respondents to effectively estimate and plan service delivery needs (e.g. NDMO, 2015m; UNOCHA, 2015d, 2015j, 2015o; Vanuatu Shelter Cluster, 2015b; Tafea PDC and CARE International, 2015; Ministry of Lands, 2015; Government of Vanuatu, 2015b). On one side, inaccurate pre-cyclone data particularly complicated the development of response plans and strategies throughout the emergency period. The most recent available census dated from 2009, and compiled inexact, incomplete and out-dated data on households in the affected areas. A Ni-Vanuatu respondent added that whole communities were missing from their respective area council list. Furthermore, some sectoral data were particularly lacking before Cyclone Pam; for instance, the Vanuatu Food Security and Agriculture Cluster (FSAC) co-lead reported that an agricultural census did not exist. On the other side, inaccurate post-cyclone data that were collected, complicated, slowed down and obstructed appropriate service delivery in all ways. Collection of data and information was particularly difficult post-disaster.

As actors rapidly found that national statistics were unreliable, Vanuatu clusters attempted to support the NDMO and decentralised authorities to gather accurate data (NDMO, 2015m). However, national data took a long time to come, especially concerning information difficult to capture in a context such as Vanuatu, for example, the number of people without a shelter. Therefore, many organisations started to conduct their own surveys without coordination. Added to the lack of effective data and information sharing, this situation led to unnecessary duplication of activities (UNOCHA, 2015i; Vanuatu Shelter Cluster, 2015b; RRU, 2015a; Ministry of Education, 2015). This not only resulted in a waste of resources, but also in fatigue and loss of faith in the system within communities subjected to serial assessments with too few outcomes, as reported by many respondents (Ni-Vanuatu, expatriates and internationals), and highlighted during Cluster lessons-learned-workshops (e.g. Shelter, Food Security and Agriculture, Gender and Protection). Respondents partly explained this lack of coordination by a failure of leadership within the Vanuatu-Networked-System.

To address these issues, joint assessment efforts were made to build common sets of data. The NDMO and other key actors, supported by the UNDAC and UNOCHA, promoted the development of multi-disciplinary inclusive assessment teams and joint rapid assessments across the different affected islands (Government of Vanuatu, 2015a; UNOCHA, 2015f, 2015g, 2015o; NDMO, 2015g, 2015i; Tafea PDC and CARE International, 2015). The 3W – Who does What Where (UNOCHA, 2006) – were introduced in the country, and a specific 3W matrix was developed not long after the occurrence of Cyclone Pam. However, challenges remained in data collection. To start with, the 3W concept and process was not well understood and managed by local actors. There was inconsistency in the 3W entries, preventing the development of a reliable

and comprehensive product. A NGO respondent also reported that it seemed to be a tendency for organisations to over-declare their activities in 3W, seeing in such attempts an opportunity to claim for more funds. Additionally, complaints were raised about the precision of information collected. For instance, actors would report activities without specifying where they were conducted. Another example is how internationals would report operations conducted in “the island of Port Vila” (which would be Shefa) instead of “the town of Port Vila”, giving the erroneous idea that the full island was covered by the activities. Furthermore, key information conveyed from the remote islands to the central level was conflicting, which made decision-making particularly difficult (Ministry of Education, 2015).

Another challenge was the unequal coverage between provinces and between the different categories of civil society. For instance, assessments in remote communities (UNOCHA, 2015d; RRU, 2015a) and related to gender (UNOCHA, 2015g) were particularly lacking. Also, respondents reported that data collected among communities were sometimes not the information required for planning. For instance, substantial resources were spent to assess food needs in areas where communities had food reserves but no shelter, while communities with food needs waited for food assessments.

The general lack of accurate and comprehensive data and information had a major impact on effective operations. On several occasions, information disseminated to communities was incorrect. For example, when seeking support at the NDMO, communities were erroneously told that World Vision had stocks of tarpaulins, which put the NGO in a difficult situation. Some information remained unreliable until the end of the emergency period due to the difficulties of collecting data, such as the number of people who sheltered with families and friends, the displacement patterns or the scale of assistance provided in the informal settlements (UNOCHA, 2015d, 2015o). A respondent illustrated the difficulties in effectively planning operations due to the unreliability of information disseminated by the Government, such as the early notice that all national aerial assets had been damaged while functioning charters were still available. The lack of accurate data and information, and the consequent delayed aid, not only affected the effectiveness of operations, but also their legitimacy among communities. Indeed, a respondent reported that these issues enforced fragmented actions, which weakened the credibility and visibility of the humanitarian intervention.

Participants of Vanuatu cluster and inter-cluster meetings often reported these issues leading to data and information inaccuracy, and constantly highlighted the need to re-assess data needs. To address these issues, recommendations to empower provincial officers to conduct data collection aimed to facilitate and ensure more inclusive assessment findings (Ministry of Education, 2015). The Vanuatu-Networked-System could support such an initiative as the decentralised networks could easily identify champions in their respective communities and link them with skilled

umbrella and national networks members for training. The Vanuatu-Networked-System could also ensure a better involvement of private sector experts, whose knowledge was not effectively captured in assessments (RRU, 2015a).

Finally, assessment outcomes could have been improved easily by ensuring a prompted response, as the period between assessment and service delivery was often too long (RRU, 2015a). Such an objective requires strong capacity-building and cooperative work, and could be achieved if the Vanuatu-Networked-System potential had been reached. However, as seen in the following section, this was not the case during Cyclone Pam response.

### **10.2.3. Lack of capitalisation<sup>23</sup> of key networks**

#### ***10.2.3.a. The Vanuatu cluster system***

Ni-Vanuatu and expatriates reported that the intervention of internationals within the clusters during Cyclone Pam weakened the local ownership of the networks. Several Ni-Vanuatu respondents reported that they did not feel comfortable working within the United Nations cluster principles. Likewise, expatriates themselves, who have been working for long in Vanuatu, could be intimidated by international expertise during the cluster meetings (Barber, 2015). Also, in the provinces, the lack of permanent provincial cluster units, except in Tanna and Santo, and the lack of inclusion of local organisations in the national systems clearly limited the sense of ownership of the provincial actors of the Vanuatu cluster system. This explains the reluctance of these actors to participate in Vanuatu cluster cooperation outside mandatory meetings. Furthermore, most meetings happened in Shefa and the Vanuatu clusters leads were based in Port Vila, which raised concerns whether provincial needs would be fully captured. Lessons-learned from the Vanuatu Education cluster found that provincial units of the Vanuatu Education cluster could have prevented these issues by giving legitimacy to provincial cluster leads in service delivery (Ministry of Education, 2015). Although such organisation is not planned in the international cluster principles, the Vanuatu DM structure – interconnection between mandated agencies, PDCs, open-ended clusters, decentralised sectoral networks and umbrella networks – is propitious to the development of such structures. These structures could induce the emergence of new networks, or the empowerment of existing systems such as the PDCs (to prevent networking fracture, section 4.5).

In general, the relative novelty of the Vanuatu cluster system in the country was a main limit to reaching its potential. Indeed, although a number of Vanuatu clusters were already established in the country when Cyclone Pam struck, the networks remained significantly new, and their

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<sup>23</sup> Reminder: Capitalisation is understood in this thesis as the extensive identification, effective mobilisation and optimal use of the capital existing in a governance system.

mechanisms were not fully understood. Although Ni-Vanuatu respondents observed that information sharing during Cyclone Pam has been the most efficient dissemination during a disaster in Vanuatu, many organisations, especially government agencies, were lacking in capacity for information management adjusted to the Vanuatu cluster system. This problem was directly related to the novelty of the networks in the country. Therefore, there was a vacuum of information within the first weeks of the response, which limited inter- and cross-cluster cooperation. The Vanuatu clusters quickly requested support for information management, and more particularly for the capitalisation of assessment findings or 3W tracking (UNOCHA, 2015o). Positions in information management (whether local or external advisors) were gradually created in organisations during the response, depending on available funds, to support the NDMO and VHT in their coordination roles. Constant support to use information management products was also offered to actors who did not feel comfortable using new tools, such as 3W or distribution tracking mapping.

Essentially, the lack of optimal use of the national Vanuatu cluster system was due to the feeling of many Ni-Vanuatu that the ‘clusters’ (networks mobilised during Cyclone Pam), somehow differed from the ‘Vanuatu clusters’ (open-ended national networks active before the event). Although Ni-Vanuatu respondents understood that they were the same venues, dramatic changes within the network dynamics operated with a predominance of international mechanisms. A NGO director reported that Vanuatu cluster leadership was significantly international-influenced despite the official leading position of national ministerial representatives.

Therefore, Ni-Vanuatu respondents described a lack of ownership of the Vanuatu cluster system during Cyclone Pam, highlighting that this issue had not been raised in past events where no massive international assistance was needed, such as Cyclones Jasmine and Lusi. Moreover, respondents reported that despite the cluster effectiveness during these past events, the challenges raised during Cyclone Pam, weakened their faith in the national Vanuatu cluster system.

Hence, this highlighted the need to develop the Vanuatu cluster system in such a way that the same networks can be equally effective when intervention remains nationally and locally conducted with limited resources (during smaller events), and when international involvement significantly raises human and material resources invested (during major events). The Vanuatu-Networked-System existing in the country should be empowered to address this challenge through complementary integrated and fragmented leadership relying on the umbrella and sectoral networks, as well as potential strategic fusions of sectoral networks for less unnecessary fragmentation. Furthermore, although recognised as essential, links between the clusters and other networks were deficient, especially with the PDCs and CDCs, where capitalisation was also lacking during the response to Cyclone Pam.

### ***10.2.3.b. The Decentralised Disaster Committees***

Needs prioritisation is never an easy task. Food and water security are often the most evident priorities addressed by first responders. However, the significant differences in needs between all the affected communities can particularly complicate the development of an emergency strategy adapted to all the different affected areas. Ni-Vanuatu respondents confirmed that a better use of PDC and CDC members in early assessment could have detected the critical and urgent shelter need in a timelier manner, such as in Tafea Province. Respondents also often deplored the unnecessary amount of resources used for needs assessment by international and national organisations while data already existed within PDCs and CDCs (Vanuatu Shelter Cluster, 2015b).

Mainly, PDCs and CDCs failed to reach their full potential because of a predisposing lack of pre-established plans and strategies, preventing a clear distribution of roles and responsibilities. Indeed, although these arrangements were planned in the National Cyclone Support Plan (NDMO, 2013b, 2015a), it was not well owned by the members of the committees. Likewise, the Area Council Disaster and Climate Change Committees were not capitalised during the response to Cyclone Pam, mostly because of this lack of planning. A recommendation from the Tafea PDCs was to set up stronger committees at the Area Council level for future events, as they could be key venues facilitating communication and information dissemination at the decentralised levels (Tafea PDC and CARE International, 2015).

To address the lack of plans, decentralised government agencies were invited to play a more active role in the development and strengthening of PDCs and CDCs (Barber, 2015). This could prevent some of the significant malfunctions witnessed in the involvement of the committees during Cyclone Pam, such as monitoring NGO movements and activities (WASH respondent), conveying data collected by communities back to the decision-making level (Vanuatu FSAC co-lead), using NDMO assessment templates (Tafea PDC and CARE International, 2015), coordinating with government authorities (Tafea PDC and CARE International, 2015), and civil society engagement in the response (NDMO respondent).

Furthermore, most Ni-Vanuatu respondents reported that the civil networks existing in the provinces and traditional communication pathways between centralised and decentralised, formal and informal decision-makers had not been optimally used to disseminate and collect information. CDCs were considered to be the best positioned networks to mobilise these civil subgroups and to reinforce their visibility and capitalisation, but failed to complete the task, which in turn prevented these civil groups benefiting from CDCs as intermediaries with higher levels of decision-making.

Finally, decentralised disaster committees clearly lacked capacities related to funding to effectively manage relief without assistance. Therefore, discussions raised the issue about opening bank accounts for PDCs to better organise and control service delivery for their respective communities (Tafea PDC and CARE International, 2015). Respondents (internationals and decentralised staff) showed interest in such a proposition to empower these networks that are well positioned to adjust aid to specific community needs. However, a NDMO respondent showed some concerns about accountability and transparency, as PDCs currently remain too weak, unstable and unequal to shouldering such a responsibility. Furthermore, such empowerment may question the nature of the PDCs, originally established as simple venues for civil representatives to assist government and non-government actors in their work.

The general lack of capitalisation of existing networks (they were not optimally utilised) was considered as a main cause of the different challenges presented throughout this chapter, preventing the Vanuatu-Networked-System reaching its full potential. This lack of capitalisation made diverse stakeholders question leadership of the system in general, and of central players in particular (next section). The question of legitimacy and credibility of the system and its leadership had been strongly influenced by the scale of assistance, and consequent international intervention.

#### **10.2.4. Pre-cyclone leadership stretched to the scale of assistance**

##### ***10.2.4.a. The key role of leadership during disaster management***

Governments are the traditional leaders in the policy process; however, certain complex situations, such as disasters or global climate change, can induce the development of a less hierarchical leadership (Nolte et al., 2012). This evolution is induced by the need not only of more flexibility, but also of better and more inclusive policy development and implementation. The Vanuatu-Networked-System is a key alternative to traditional hierarchical systems addressing this requirement for less rigid and constraining leadership.

However, Networked Leadership encounters many challenges, despite, and sometimes due to the flexible nature of the Vanuatu-Networked-System. One of the main challenges encountered by network leaders is that any member at any level can decide to disrupt the networking process by withdrawing from his/her position (Moynihan, 2009), which might have more or less impact on the process, depending on the role of the member in the network. Therefore, Networked Leadership needs to address this inherent challenge in maintaining cohesion of the network. The leadership efficacy in tackling this challenge relies on the availability of resources compared to the size of the network, the quality of relationships between network members as well as shared values, understanding and expectations (Kapucu and Garayev, 2014).

Formal networks – whether they are mandated or the institutionalisation of spontaneous networking ties – are created to give more structure to the heterogeneous and scattered configuration of stakeholders emerging in complex situations. DM, for instance, brings together diverse and numerous actors, who share the same overriding goal, but have different methods, specific goals, values and resources. This situation often leads to major difficulties in the absence of effective leadership to frame the operations, promote and support cooperative attempts, and limit conflicts. Communication and information sharing are particularly critical arenas on which leaders must focus. If they are not reciprocal and fluent, operations will likely slow down or cease, and members will be prone to withdraw from the Vanuatu-Networked-System. The role of the leader is to develop communication mechanisms that will prevent language barriers, a lack of appropriate tools or a rupture in the chain (Nolte and Boenigk, 2011). However, to ensure the sustainability of the network, leaders have the responsibility to simultaneously promote information flow, reciprocal and mutual knowledge sharing, and learning mechanisms (Gore, 2010).

Trust (as seen in section 7.3.3) is also a major, yet challenging, factor of networking effectiveness, relying on the perceptions of reciprocity and mutuality in the process. Leaders must proactively address the problems of free-riders to prevent the decrease of commitment within the network structure, and the loss of trust between members (Moynihan, 2009). However, control mechanisms for trust and commitment within a flexible structure such as a network are scarce and weak, if not inexistent. Leaders must foster trust and reliable commitment building for the continuous promotion of shared values and goals. It is a constant campaign to get members to share their resources, as well as develop understanding of the members concerning the purpose and potential outcomes of the networking process (O'Brien, 2010).

Despite positive impacts of effective leadership, network leaders can meet issues of legitimacy. Leaders of networked governance are not always elected democratically by all network members (Bäckstrand, 2008) but are often 'self-elected' or 'appointed'. The extent of control of the network leaders is limited to the willingness of participants to recognise the legitimacy of their control (Moynihan, 2009). Similar to decreases in commitment, the perceived misuse of resources or the lack of prompt outcomes may affect legitimacy. Leadership legitimacy is also threatened by the flexible nature of networks and their complex configuration of members, as leaders will encounter major challenges in predicting accurately the potential network outcomes. If leaders cannot clearly identify the evolution and potential impacts of a network on its members and the external environment (Gore, 2010), members may question the position of the leaders. As seen in chapters 5 and 6, the Vanuatu-Networked-System benefits from a Networked Leadership structure (mandated and social networking leadership), which promotes inclusive decision-making and shared responsibility. Such a system has the potential to address the needs of effective DM



leadership. The following two sections analyse this potential, by highlighting the recognition of government and non-government leaders, supported by the strengthening of their authority across the Vanuatu-Networked-System in routine times. However, these sections also reveal the remaining challenges encountered by these leaders in the specific context of management of the response to Cyclone Pam to effectively shoulder their roles and responsibilities, resulting in the questioning of their authority among stakeholders.

#### ***10.2.4.b. Government authorities during Cyclone Pam***

##### **A recognised leader**

Most actors acknowledged the central role of the Government of Vanuatu in decision-making throughout the response to the disaster (Radio New Zealand, 2015h). Likewise, the Humanitarian Action Plan (Government of Vanuatu, 2015b) recognised the significant achievements of the Government in its leading role during early response to Cyclone Pam, particularly praising the coverage of service delivery (such as food to all affected people, blankets to more than 90,000 people or the establishment of learning venues to ameliorate education disruption). Moreover, the established supportive disaster legal structure (chapter 5) was recognised as a key element of good leadership during the response to Cyclone Pam (UNOCHA, 2015o; IFRC, 2015; Ministry of Lands, 2015).

Respondents assumed that this recognition was partly supported by the continuous reminder within reports and documents released during Cyclone Pam of the leading position of the government agencies. For instance, the second NDMO SitRep stated that within the mandate of the Vanuatu clusters, the network coordinators and members were to share information and report to the NDMO about planning and activity implementation (NDMO, 2015c). Likewise, the fourth NDMO SitRep stated that the Vanuatu clusters were to report to the National Emergency Operational Centre in charge to register publicly all surveys and assessments conducted, and findings, as well as any products developed, such as maps or contact lists (NDMO, 2015e)

The central role of the government agencies in legal decision-making also supported its strategic position to address the challenges and gaps highlighted during Cyclone Pam (RRU, 2015b). Most respondents (Ni-Vanuatu, expatriates and internationals) agreed that the Government had to lead discussion and legislation for short-term and long-term recovery. This leadership was recognised for the whole of recovery decisions, such as information management, agriculture rehabilitation or infrastructure reconstruction, particularly due to the potential serious long-term impacts of Cyclone Pam on service delivery and markets (RRU, 2015b).

Government agencies managed communication to inform and harness donors. A directive issued to harness the international assistance was for any external organisations to submit information on activity plans (such as the terms of reference or detailed contact lists) to the NDMO before

arriving in the country (UNOCHA, 2015g). A Vanuatu FSAC representative reported that, despite a few organisations bypassing the legal structure, aid agencies involved in food security generally supported and complied with the NDMO accounting system (through the Vanuatu FSAC).

Also, a month after the occurrence of Cyclone Pam a donor forum was held to report on the development of the Recovery Plan (UNOCHA, 2015m). Towards the end of the emergency period, the Prime Minister's Office organised briefing meetings with NGOs to introduce and explain the Recovery Plan requirements. More particularly, these meetings aimed to reinforce the Government's leadership by requiring all actors to submit their recovery projects to respective Ministers for approval (Government of Vanuatu, 2015c). Consequently, many respondents reported that the government agencies had to, to some extent, effectively shoulder these responsibilities.

Internationals particularly credited effective operations to the consensus among government agencies in charge of DM about what was needed and appropriate to do. This resulted in the strong support by involved non-government stakeholders for the Government decisions, especially concerning the management of international aid. To control and optimally benefit from international aid, the Government released a directive enforcing external assistance to request approval and integrate into the national structure (NDMO, 2015g). This directive was well-appreciated among Ni-Vanuatu and expatriate stakeholders. Also, the shared government and non-government desire to empower civil groups, supporting civil coalitions not to accept everything donors wanted, such as the Seeds and Tools working group protecting the national market, contributed to the recognition of the central Government leadership by all stakeholders.

Addressing public criticism on the Government's response management, the UNDAC, which worked closely with the NDMO, provided the perspective that the achievements of government agencies were positive compared to the scale of this unprecedented disaster and the geographical context of the affected areas (Dateline Pacific, 2015). The UNDAC team leader declared that "the Government of Vanuatu, their National Disaster Management Office and the Prime Minister's Office is very strong, they're almost certainly one of the stronger if not the strongest disaster management system in this region and they've performed magnificently" (Dateline Pacific, 2015). Likewise, representatives of the Government publicly reacted to critics made against the Government's role of response leader during Cyclone Pam (Radio New Zealand, 2015f). Also, the Prime Minister addressed the critics who suggested Government opportunism to control aid, and assured that "the Government [was] committed to transparency" (Radio New Zealand, 2015a). National respondents, however, deplored the lack of capitalisation by donors of the established network, the Small Aid Donor Committee, which could have facilitated regular coordination and information sharing for a more transparent response to Cyclone Pam.

The NDMO was particularly acclaimed for its achievements in managing such an unprecedented disaster and massive external intervention (McDonnell, 2015; Barber, 2015; Ministry of Lands, 2015). For instance, a Vanuatu Gender and Protection Cluster (GPC) representative observed that the NDMO played a key role in ensuring that gender protection was better mainstreamed across sectors and across the different phases of the response. Also, the NDMO supported the connection of international leaders with the existing structure. Indeed, the NDMO introduced the key external advisors and actors to the VHT coordinator (such as the Pacific Regional Shelter cluster coordinator) as soon as they arrived in the country, and promoted this link during the whole response period, to better harness the mobilisation of the Vanuatu clusters. Furthermore, to maintain continuous leadership, the NDMO held regular briefings to Vanuatu cluster members and donors, as well as supervising the assessments conducted in the country (Barber, 2015).

### **Stretched leadership**

In complex situations such as an emergency, the optimal use of available national resources can be very difficult. Respondents (both from NGO and government agencies) reported that there was a generally accurate idea of available resources thanks to proactive information sharing throughout the Vanuatu-Networked-System. For instance, thanks to the strong established communication channels and proactive briefings, the Government of Vanuatu had a clear idea of the military assets made available through the FRANZ agreement. However, respondents highlighted that these resources could not be optimally used due to a lack of Government capacity to deploy and use these assets. A Fijian advisor added that due to communication flaws from the central Government, resources that could have had a significant impact on the response effectiveness were not optimally used, such as the Australian means of transport - boats and planes. Likewise, during the Vanuatu Logistics cluster lessons-learned-workshop, participants generally agreed that various government documents could have been better disseminated and communicated. For instance, topographical maps existing within the Ministry of Lands were not spread among the different actors despite their need for operations in the remote islands, resulting in the intervention of MapAction and the duplication of the maps. Similarly, several national respondents reported that the NDMO had not proactively shared the National Cyclone Support Plan 2015-2016 (NDMO, 2015a) with the rest of the actors; the updated document was only distributed at the end of the emergency period and not widely. Therefore, operations were conducted following the National Cyclone Support Plan 2013-2014 (NDMO, 2013b). Although this might not have limited the effectiveness of decisions, it was recognised as a waste of existing resources and an example of Government not optimally using its capital.

Likewise, several NGO respondents reported that existing links between government and non-government stakeholders were not capitalised during the response to Cyclone Pam. For instance, the Government had a Memorandum of Understanding with private companies that could have

facilitated the operations but did not notify actors until late into the emergency period. This was also considered as a missed-opportunity, credited to a lack of NDMO leadership. The lack of capitalisation of ties existing between the Government and NGOs partly resulted from the misunderstanding and misperception of the value of the cooperative humanitarian system at higher levels of the Government. This lack of understanding was seen as a consequence of the lack of involvement of these levels, and more specifically the Prime Minister's Office, within the Vanuatu-Networked-System in routine times. Many respondents regretted the lack of flow of proactive networking efforts in the response due to one node having the power to disrupt the whole mechanism. This situation highlighted the need to better focus on certain nodes of the Vanuatu-Networked-System to ensure the sustainability of the cooperation outcomes. Respondents, however, raised some concerns about whether the integration of these nodes into the system may weaken the current complementarities within the governance system (formal/informal, government/non-government, central/decentralised), which support effective leadership in routine times and for the management of smaller disasters.

Respondents also highlighted the need to better manage and capitalise resources and information. Networking capital (relationships, capacities, knowledge, material resources) existing at the provincial levels particularly seemed to be underused, if not ignored in the major decisions for response and recovery. For instance, local networks and coordination skills were not well integrated into the response (Ministry of Lands, 2015). Strategic agencies and networks developed specifically for the integration of the local level into the decision-making process (such as Department of Local Authorities or CDCs) were considered by the highest level of Government as key collaborators and advisors in the service delivery process (VCC, 2015e). The Vanuatu Shelter Cluster lessons-learned-workshop highlighted that affected areas had various significant resources, such as cars or communication mechanisms, which were ready to be operationalised but the central level never activated their deployment.

Likewise, the Government encountered difficulties in ensuring information flow within the whole response system, despite efforts to host briefings and to control information sharing between all actors. Respondents acting in the remote islands (more specifically in Pentecost) reported that they felt neglected, and sometimes ignored, by the Government coordinator within the whole information sharing process, consequentially making inappropriate decisions. Stakeholders highlighted that difficulties for field actors to conduct operations during the response to Cyclone Pam were partly due to the lack of NDMO capacity to control information sharing, such as unclear communication flow or deficient data collection (Ministry of Education, 2015; Ministry of Lands, 2015; NDMO and WFP 2015). Also, a NGO respondent noted that information from NDMO was often confusing and conflicted with information previously disseminated. Several NGO respondents, supported by official reports (e.g. Ministry of Education, 2015), reported that major

issues of leadership conflicts between the different government agencies, and more particularly between the NDMO and the Prime Minister's Office, resulted in significantly inconsistent and contradictory decision dissemination. Due to this lack of clear control of information sharing, some respondents admitted not investing (or rather "not wasting" to quote a NGO respondent) resources in seeking information about on-going and planned activities conducted by the other organisations.

These different tensions concerning government capacities resulted in inconsistencies in the decision-making process, and affected legitimacy of the Government to lead the response and recovery. Several Ni-Vanuatu respondents reported that the Government particularly mishandled assessment data. For instance, organisations had been regularly told by the Ministry for Climate Change that they should not conduct assessments to avoid duplication with government activities, and yet, as respondents witnessed "late", "long", "uncoordinated" and "not communicated" government assessments, trust in the capacity and legitimacy of the Government to shoulder such responsibilities decreased. Likewise, the need for government agencies to better enforce among organisations the use of national assessment templates was recurrent in the recommendations post-Cyclone Pam (Tafea PDC and CARE International, 2015; RRU, 2015a).

Also, the way Government led the transition to recovery was subject to questions from various stakeholders and raised doubts about the legitimacy of the decisions. A United Nations representative reported that the Government seemed to hasten into the recovery phase and was not showing enough flexibility to be fully effective (Radio New Zealand, 2015e). Similarly, several international respondents advised that the recovery framework as it was presented by the end of the emergency period was not effectively considering the concept of long-term recovery. The main challenge was that all recovery activities to be conducted within two years after Cyclone Pam had to be submitted by the end of July, limiting the flexibility to address fluctuating needs over this period of time.

Moreover, the general political instability weakened the legitimacy of the Government among stakeholders (Radio New Zealand, 2015c, 2015f; ABC Radio Australia, 2015). On the June 11, the opposition passed a motion of no confidence on the basis of faulty management of aid (ABC, 2015a), of a lack of consideration of key non-government stakeholders, such as the private sector (Radio New Zealand, 2015f), and of political games at the expense of humanitarian assistance (Radio New Zealand, 2015c). The outgoing Government soon after attempted to pass another vote of no confidence as a "change in Government could delay the implementation of recovery programmes following Cyclone Pam, which [would] affect the confidence of donor partners in assisting Vanuatu. [The former Government felt] that with a new Government and people in place who are not familiar with it, it could just cause further delays" (Radio New Zealand, 2015g). International respondents reported that this instability complicated the work of Vanuatu clusters,

obstructing visibility of the whole response, and preventing them from making effective recovery decisions (Radio New Zealand, 2015f). This situation became critical as the emergency period was ending, and strategies were to be planned for Vanuatu cluster deactivations.

When analysing challenges, stakeholders highlighted the difficulties of the Government to link all levels of governance (national, provincial and local), questioning the effectiveness of the decentralised system in place (Ministry of Lands, 2015). However, this lack of inclusiveness was interlinked with the actual leadership structure in place in each cluster. For instance, the Vanuatu WASH cluster benefited from a strong national leadership, thanks to the direct involvement of the Minister of Health himself in the Vanuatu cluster discussions and decision-making. This allowed prioritisation to discussions based on specific and general health in the context of Vanuatu. This strong national leadership of the Vanuatu WASH cluster seemed to allow a clearer and more stable allocation of roles and responsibilities compared to other Vanuatu clusters. Indeed, the NGO respondent reported that in the cases where the national lead of the Vanuatu clusters was not high in the hierarchy of their respective Ministry in routine times (such as the Vanuatu Shelter Cluster), leadership was lacking, slightly weakening authority. This lack of authority opened opportunities for local leaders from outside the Ministry (such as people from the Prime Minister's Office) and international leaders to take the lead of the Vanuatu clusters.

These different challenges in Government leadership developed a negative perception of Government credibility among communities. Initially, some government decisions were criticised and considered rushed and unconsidered, limiting recovery potential, such as the market closure preventing women having access to their only sources of income (RRU, 2015a). As well, the whole government decision-making process was considered too slow, delaying service delivery (RRU, 2015a). The slowness of decision-making and actions from officials raised many questions among communities concerning the capacities of the leaders to conduct operations (Robertson, 2015; NDMO, 2015i; Radio New Zealand, 2015b). The community reaction to the lack of decision-making in a timely manner was exacerbated by the succession of similar assessments conducted within the same areas (Wood, 2015).

Furthermore, communities accused the Government of showing unfairness in the way operations were conducted (Ministry of Education, 2015; VCC, 2015b, 2015d; Ministry of Lands, 2015; NDMO, 2015i). The most often reported accusation was the prioritisation of service delivery in the evacuation centres at the expense of the community members who did not have to evacuate or sheltered with family and friends (NDMO, 2015i). This resentment was exacerbated as the Government forbade relief organisations distributing outside of shelters for the first few days after Cyclone Pam. However, the decisions not only developed envy from communities who did not stay in shelters, but it might also contribute to trigger a major part of communities evacuating to shelters during future events to receive emergency items (VCC, 2015b). Likewise, agencies

tended to favour less remote areas where they already had links for the purposes of development activities before the cyclone (Ministry of Education, 2015). Logistics, access to remote areas and collection of accurate data were often reported as the main difficulties in effectively delivering services outside official shelters (UNOCHA, 2015g; Ministry of Lands, 2015; Arnold, 2015). However, local NGO representatives highlighted that these difficulties were well known and addressed proactively by the authorities through the development of the Vanuatu-Networked-System; the main problem therefore would have been principally in terms of the limited amount of emergency items available (Marango, 2015). Furthermore, government and non-government efforts for preparedness, response and recovery seemed to disregard people who were not directly involved in the proactive networking process, such as communities without a CDC, or private agencies not involved in the Seeds and Tools working group (RRU, 2015a). Vanuatu Shelter Cluster members highlighted that, due to this lack of fair and equal service delivery among all affected areas, there was a major gap between affected communities and communities receiving aid.

Another key challenge credited to weak leadership from the Government was the absence of an effective and established system for M&E. Distribution control was lacking, resulting from missing data, management capacities, as well as accounting and M&E mechanisms (NDMO and WFP, 2015). More particularly, there was no mechanism to track the influx of unsolicited goods (UNOCHA, 2015d). The Vanuatu Education Cluster particularly highlighted the lack of a common monitoring system, as all networks and organisations were following their own matrix, making information sharing more difficult (NDMO, 2015t). Vanuatu Shelter Cluster members pointed out during a meeting that the NDMO could have better supervised weekly updating among all Vanuatu clusters and Disaster Committees to develop a more accurate image of the whole operation to disseminate appropriate information to the communities. Likewise, one of the recommendations of the Tafea PDC was for the NDMO to issue directives facilitating effective operations from all levels of decentralised committees (Tafea PDC and CARE International, 2015).

Despite the clear distribution of roles and responsibilities within the Vanuatu cluster system, the Government did not seem to have complete control of the operations. Indeed, although mandated for these purposes, key government agencies (especially the Prime Minister's Office and NDMO) were not well linked to the Vanuatu clusters members, and the evolution of their activities (RRU, 2015a). Furthermore, as highlighted by respondents before the occurrence of Cyclone Pam (section 6.3.1), the terminology of "lead" and "co-lead" confused local Vanuatu cluster members about the hierarchy within the system, and convinced international Vanuatu cluster members that the Vanuatu cluster approach was not mastered in the country. On both sides, this situation

significantly weakened the credibility of the government agencies in charge of DM operations to lead the Vanuatu clusters.

Finally, the credibility and legitimacy of the central Government to manage such response and recovery was questioned, as other key agencies and networks seemed to take control as well as lead activities that were more effective (RRU, 2015a). As highlighted by international respondents, this situation was partly triggered by the fact that, due to the overwhelming number of actors, it was very difficult to identify who was doing what and who was in charge. Consequently, several respondents considered the appointment of a Humanitarian Coordinator from Suva at the expense of a national leader as a sign that there was a gap of leadership in Vanuatu that needed to be addressed and filled for future events. This lack was particularly misunderstood and not accepted, given the strong pre-established disaster governance structure and heavy investment in building disaster leadership by the diverse stakeholders.

#### ***10.2.4.c. The Vanuatu Humanitarian Team***

##### **Recognised value**

In parallel to the government agencies, the VHT was recognised for its central role during the response to Cyclone Pam, especially within the first days (UNOCHA, 2015b; Barber, 2015; Van Rooyen, 2015a, 2015b; IFRC, 2015). The Fijian RedR coordinator declared that “the VHT [was] something unique that [he] never saw before”. Most NDMO respondents confirmed the positive support of the VHT on the effectiveness of the government department in its coordination role. The VHT ran the inter-cluster meetings, worked on the consistency of the 3W collection, and were the key collaborators for decision-makers when they wanted to reach non-government stakeholders. The VHT was also particularly well capitalised by external organisations to conduct their own operations, such as the OSOCC team that used the VHT’s mechanisms instead of developing new ones (UNOCHA, 2015o).

The existence of the VHT before the cyclone, and its experience in coordinating DM were acknowledged as enablers for cooperation, coordination, M&E, learning and accountability (Van Rooyen, 2015a, 2015b). As reported by Barber (2015), the mobilisation of the VHT and related Vanuatu clusters seemed fluid and natural thanks to their continuous and long-term development before Cyclone Pam. Furthermore, the proactive networking process supported by the VHT showed particular effectiveness in the preparedness of disaster agencies and organisations for cooperation, coordination and service delivery to communities. A NGO respondent reported that all VHT members gathered just before Cyclone Pam to update and share information.

A main reason often raised by respondents for the capitalisation of the VHT by decision-makers and international experts was the trust and ties developed proactively between the VHT’s structure and local humanitarian stakeholders, while promoting regional and international structures.



Hence, several Ni-Vanuatu respondents reported that, while they did not feel comfortable assisting in cluster meetings, they particularly appreciated the VHT meetings as platforms in which they could participate effectively. Therefore, the NDMO respondents reported that commitment to the VHT gatherings was significantly higher than to the Vanuatu clusters and government-led working groups meetings during the response to Cyclone Pam. Likewise, pre-established focal points within the VHT for each Vanuatu cluster facilitated the integration of external actors and their cooperation with local stakeholders, as well as Cross-sectoral Networking during response (IFRC, 2015).

In its role of international coordination, the VHT established an information desk at the airport to advise the international actors about the structures in place, such as available resources at the NDMO, which was particularly praised both by local and international stakeholders. In its role of national coordination, the VHT was credited with a strong positive impact on integration and inclusiveness, particularly by supervising all Vanuatu clusters. A representative of the Disability Desk particularly praised the VHT structure for the integration of vulnerable group protection into assessments and response. Likewise, a local Vanuatu GPC member reported that she capitalised well on her relationships that were proactively developed through the VHT and VCAN to obtain information on the course of response, as she found the formal sources, such as the 3W, were not always reliable and appropriate.

Therefore, Cyclone Pam was a great opportunity for the VHT to strengthen the trust of its members for the benefits of the system long-term. The value of networking capitalisation was also well demonstrated as the network international coordinator, who had left Vanuatu before Cyclone Pam, came back to support the VHT activities.

### **Stretched leadership**

However, the scale of response needs because of Cyclone Pam stretched the VHT's capacities, questioning the leadership and credibility of the network, like the central Government. The main questions concerning the VHT were based on the confusing characteristics of the umbrella network. First, the roles and responsibilities of the VHT were not clear to all stakeholders, who often had different understanding of the position of the network. Barber (2015) reported that there was a need to clarify, better plan and strengthen the VHT position within the Vanuatu-Networked-System in routine times to make it more effective during DM. Likewise, many local NGO representatives reported that before the arrival of the regional cluster Humanitarian Coordinator, they always thought that this role was part of the mandate of the VHT. This assumption was partly confirmed by many official reports, making the VHT an equal collaborator of the NDMO in the adoption of the national Vanuatu cluster system (e.g. NDMO, 2013b, 2015a; Tafea PDC and CARE International, 2015; UNOCHA, 2015a; RRU, 2015b; Vanuatu Shelter Cluster, 2015c).

The Vanuatu cluster coordination role was played by the VHT, alongside the NDMO, during previous disasters that did not require international intervention (2013 Cyclone Jasmine and 2014 Cyclone Lusi). However, the arrival of a regional humanitarian coordinator from Fiji to coordinate Vanuatu clusters during Cyclone Pam brought confusion around the position of the VHT coordinator. The NDMO and the Prime Minister's Office representatives confirmed that the VHT never had the mandate for humanitarian coordinator for the Vanuatu cluster system, and was "only an Oxfam product for non-government coordination" (NDMO respondent), but were not able to specify the Government position on the actual role played by the VHT. Consequently, several Ni-Vanuatu and expatriates revealed a reluctance on the part of government stakeholders to recognise the leading position of the VHT supported their reconsideration of the purpose and value of the umbrella network. The same respondents added that they still believed the VHT would be able to address smaller disasters regular in the country. The uncertain loss of credibility and legitimacy of the VHT among local actors raised questions about the effectiveness of future response to local disasters, where international intervention would not be required in the Vanuatu clusters. This risk is even more worrisome given the lack of local ownership towards the system during the response to Cyclone Pam (section 9.3.2.b), but the recognition of the value of the Vanuatu-Networked-System relying on the umbrella networks remains.

The VHT type of leadership also raised many questions. Following the typology of Provan and Kenis (2007), the VHT is a "lead organisation-governed network", which means that the network coordination facilitator (Oxfam) is also a member. This situation, added to the negative perceptions on the status of the VHT, raised significant concerns among a major part of the stakeholders that the VHT coordinator was not fully working for the interests of the network, but for Oxfam interests. International respondents declared that it was difficult to differentiate Oxfam and the VHT activities. Furthermore, several internationals, in an attempt to understand the national structure, wondered why the Department of Strategic Policy, Planning and Aid Coordination was not a (if not the) designated lead of the VHT (confirming the challenging lack of recognition of the Department of Strategic Policy, Planning and Aid Coordination within the Vanuatu-Networked-System pre-cyclone, section 6.2.1).

Connected with the local misunderstanding of the continuity of the clusters between routine and response times, the open-ended nature of the VHT and the Vanuatu clusters affected the local perceptions of the Vanuatu cluster concept, purpose and mechanisms. International cluster members highlighted that the VHT and the Vanuatu clusters were key technical advisory groups for effective response, however, using the terms of "humanitarian team" and "clusters" brought confusion and neutralised the purposes of all networks involved: VHT, Vanuatu clusters, international clusters, Pacific Humanitarian Team (PHT) and working groups.

The scale of the response to Cyclone Pam weakened the capacity of the VHT to integrate a substantial number of responders. Ni-Vanuatu and expatriates observed that the sheer number of stakeholders involved in response and early recovery overwhelmed the VHT coordinator, who had never experienced such a scale of operation. Internationals also reported that a feeling of coordination predictability and reliability was lacking in the VHT, which threatened the legitimacy and sustainability of the network, and thus its leadership. Also, international cluster members highlighted a lack of transparency that weakened the potential of the network, and the response coordination. A NDMO respondent declared that the “VHT did not play its role”, underlining the challenges met by the VHT to shoulder its responsibilities. This observation, however, illustrated the recognition that the VHT has a role to play in effective response, and only needed to develop its capacities. Therefore, building capacities of network members (VHT and Vanuatu clusters) should be strategised as a key DRR priority.

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### **10.3. Positive impacts of proactive networking on the effectiveness of management of response to cyclone pam**

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Despite the remaining challenges presented in the previous section, the potential of the established networks in effective DM was generally not strongly questioned by stakeholders. All respondents observed significant positive impacts of the proactive existence of the Vanuatu-Networked-System – its structure, leadership and processes – before Cyclone Pam during response and early-recovery operations. These positive impacts include the establishment of relationships propitious to integrated and inclusive actions, the development of trusting informal ties supporting cooperation and the institution of networks playing a vital role in cooperative DM.

#### **10.3.1. Integration and inclusiveness supported by established relationships**

As seen throughout this research, pre-established links between stakeholders before an event are recognised as sharing significant impacts on response effectiveness, creating trust, common agendas and shared methods, and more significantly a desire to cooperate in extreme situations. This thesis analyses two levels of networking: integration (of different sectors, such as agriculture, emergency management or health) and inclusiveness (of different categories of stakeholders, such as government agencies, NGOs or the private actors). This section highlights the impact of the proactive networking process on each level.

Cooperation across sectors is crucial to ensure that response will cover the full extent of needs, while avoiding overlaps of response. Most local cluster representatives spontaneously reported the positive impact of proactive integration through inter-cluster cooperation in routine times. For instance, a month before Cyclone Pam all Vanuatu clusters, supported by the private company

Digicel, conducted a pilot SMS text survey (among 38,000 people) to assess and build knowledge on disaster preparedness and response; findings from this campaign were useful for all Vanuatu clusters during Cyclone Pam. At the first announcement of a potential meteorological event (a week before Cyclone Pam), the NDMO called a meeting with all the existing Vanuatu clusters to set the potential first operations to conduct if something were to happen. Respondents from the Vanuatu FSAC, the Vanuatu GPC and the Vanuatu Health Cluster highlighted the vital role of such meetings to remind all local actors that they belonged to a complex and comprehensive system, and of their responsibility to conduct a sectoral response that was integrated within that system. Furthermore, integration during the response and early recovery phases of Cyclone Pam was supported by a clear and transparent distribution of roles and responsibilities across sectors, agreed proactively by all organisations involved (Annex of NDMO, 2013b). Respondents also often reported that the proactive efforts for integration supported the inclusion of women and disabled people in assessment and service delivery teams (especially food distribution), to ensure that overriding special needs are well assessed and addressed while specific operations are conducted. A representative of the Disability Desk (Ministry of Justice) acknowledged the positive impact of their membership in the VHT, VCAN and NAB during routine times on the recognition and inclusion of gender and protection needs in different sectoral activities during an emergency.

Additionally, proactive efforts for inclusive governance had positive impacts on the effectiveness of the operations during Cyclone Pam. In general, due to significant differences in agendas and methods, government stakeholders are often reluctant to cooperate with non-government stakeholders, and vice versa, if not mandated by a project (Moore et al., 2003; Nolte et al., 2012). Still, most respondents (more than 70%) reported that a consequent part of the day-to-day work during response to Cyclone Pam happened across NGOs, United-Nations agencies and government agencies outside mandated cooperation established by the Government and the Vanuatu cluster system. An international respondent observed the positive outcomes of the level of engagement of the government agencies with NGOs and Civil Society groups in Vanuatu to obtain crucial information, such as appreciated suggestions in cases of roadblocks, and to send key messages to the communities. Trusting relationships developed between civil society and local organisations throughout the years proved to be effective, with flexible operations conducted in a timely manner and adapted to the specific context of the different affected communities. A government respondent admired the capacity of local actors (NGOs and decentralised government agencies) to identify areas where communities had capacities and resources, and let them use this capital, while providing assistance in areas communities could not meet themselves. The respondent credited this adjusted and flexible aid management to long-term understanding and trust building between civil society and local organisations. Furthermore, a representative of the

Church working group also attested that the central Government linked with them as soon as the subgroup emerged. The Government visibly sought to benefit from the strong relationships between the Church working group members and the communities. The respondent reported that civil society members appreciated this government initiative to use established church networks, preventing the development of another complex layer of discussion to communicate their needs and requests with the decision-making level. Finally, most lessons-learned-workshops conducted within the different Vanuatu clusters (such as the Vanuatu WASH cluster, the Vanuatu FSAC, or the Vanuatu Health cluster) acknowledged the positive impact of the strong trusting relationships between the Government and established NGOs developed before the occurrence of the cyclone.

### **10.3.2. Long-term, trustful and informal relationships: conditions for networking**

Before and after Cyclone Pam, respondents particularly stressed the specific impact of pre-established long-term, trustful and informal relationships on cooperation, and referred to the potential of the Vanuatu-Networked-System to build such connections. The positive impact of inter-organisational networking and trusting relationship-building before a disaster and the effectiveness of needs assessment and aid delivery has been often discussed (Kapucu and Van Wart, 2008; Comfort et al., 2012; Kapucu and Garayev, 2012; Kapucu and Hu, 2014). Accordingly, the national coordinator reported that deployment of assessment teams and delivery of aid was up to eight times faster than before the establishment of the VHT.

When networking, organisations benefit from each other's resource investments to prevent the duplication of project costs, such as costs for data collection or transport). This type of cooperation can only be effective when a relationship of trust has been built before (Stephenson, 2005). Networked governance is an essential framework to build this trust across sectors and types of organisations. Furthermore, the effective networked management of an emergency depends on how early the operations are integrated and inclusive (Humphries, 2013). The later inclusiveness is incorporated, the more cooperation issues arise and become difficult to solve. The process needs to be rooted in long-term efforts to build continuous relationships on which effective humanitarian partnerships rely (Knudsen, 2011; Humphries, 2013).

Supported by the VHT and NDMO, the Vanuatu clusters undertook preparedness exercises before the cyclone season and through the 54 sectoral networks interactions between stakeholders are continuous in routine times. When Vanuatu clusters are mobilised, coordination meetings start as soon as warnings are issued and ties with the donors are established. For many respondents, being part of the VHT particularly helps to build stronger relationships and trust with other members, motivating communication and information sharing. Donors and foreign volunteers significantly cover the sectors of disaster risk, climate change and development in the country. In particular,

Australia, New Zealand and France are part of bilateral and multi-lateral relationships with Vanuatu, and with each other. All through the year, many Australian and New Zealand volunteers are placed in short-term positions within government agencies and INGOs (such as Oxfam, Australian Red Cross or CARE). The French Red Cross provides a significant support to the Vanuatu Red Cross on a day-to-day basis. The FRANZ agreement also aims to build long-term relationships through meetings during routine times in order to be more effective during crisis (Vachette, 2013). The 54 sectoral networks are therefore platforms well-appreciated, utilised and supported by most foreign respondents to build long-term relationships with the other Vanuatu-Networked-System members, more particularly from the local level. Respondents living outside of Vanuatu described the sectoral networks they belonged to as practical platforms to easily, efficiently, and continuously interact with the country. They mentioned that receiving network updates helped them to be continually aware of what is happening without costly investments. They also pointed out that it was a major resource for their work, as they could easily reinforce their relationships with a greater number of stakeholders as a group than if they had to visit them separately. Therefore, this type of system allows outside stakeholders to better build long-term, flexible and optimal relationships with the national and local levels.

Respondents also highlighted the necessity of informal cooperation for timely response during an emergency management such as following Cyclone Pam. In such cases, informal cooperation offered flexibility, which is particularly essential to address a rapid increase of actors. While the increase in stakeholders is linear, the increase in relationships and collaboration complexity is exponential (Kapucu, 2006a, 2009), and coordination becomes particularly difficult to control by the leading system in place (Barber, 2015).

Therefore, pressure for operations conducted in a timely manner in such a complex environment induced the emergence of more flexible operational pathways than in routine times. The International Monetary Fund secretary declared, for instance, that funds were available to “assist Vanuatu with quick, un-bureaucratic steps in dealing with the immediate aftermath of the catastrophe and rebuilding the economy” (IMF, 2015). The existence of informal ties and structures before Cyclone Pam were capitalised during the operations to support this flexibility. A Vanuatu FSAC representative strongly suspected that, given the strong Vanuatu cultural embeddedness in informal and traditional decision-making, all actors must have used informal networks to conduct their activities at least at one stage of the response and early recovery.

Furthermore, information sharing with the affected communities depends on investment in formal focal points to manage informal mass dissemination. Indeed, the REACH assessment found that communities mainly used personal communication tools (phone and word of mouth) to obtain information, especially in the provincial areas, and significantly underused official public communication tools (newspapers, Internet and television) (REACH, 2015). However, local

respondents highlighted that communication had been effective because the official public and personal tools were effectively connected and complementary. Information gathered by a community member from a public tool would be widely spread among the whole community through the personal tools. Therefore, communities would consider public communication tools as sources of raw data, and personal tools as dissemination instruments.

Also, affected areas were partly composed of isolated small communities unused to large groups of actors, requiring the use of smaller informal venues within the intervention environment in which local stakeholders would feel more comfortable in learning about and following DM principles. Proactive investment in informal networking ties is then needed to identify civil representatives, and build their awareness and capacities to take charge of informal, fair and complete information dissemination within their communities in parallel to formal communication.

Informal networking is also a real asset in building trust, which plays an important role in the effectiveness of cooperation (section 7.3.3). When reporting about informal networking, most respondents spontaneously mentioned the positive impacts of long-lasting trust building. Respondents (across sectors and types of organisations) largely acknowledged the benefit of trustful relationships established before Cyclone Pam; more than 63% of the ties were with people they knew before the cyclone and whom they trusted, and more than 16% were with people introduced through someone they knew before and whom they trusted.

When analysing coordination trends during the response, trust clearly played a significant role in cooperation investment:

- 1) Ni-Vanuatu mainly collaborated with other Ni-Vanuatu and expatriates they worked with previously;
- 2) Ni-Vanuatu tended to be reluctant to work with other Ni-Vanuatu or expatriates they had never worked with before Cyclone Pam;
- 3) The few Ni-Vanuatu who worked with other Ni-Vanuatu or expatriates for the first time explained that they only linked with each other after being introduced by a third party they trusted;
- 4) Ni-Vanuatu officers mostly collaborated with internationals only when it was mandated by the donors, or for the purposes of the cluster meetings. International respondents witnessed that relationships rarely remained outside of the meetings, and assumed it was due to cultural predispositions to collaborate only with trusted and trusting people;
- 5) Internationals highlighted a natural tendency to cooperate with other internationals they already worked with during previous disasters (2014 floods in the Solomon Islands, 2010 earthquake in Haiti, 2013 typhoon Haiyan in the Philippines).

Trusting relationships were recognised by several respondents (both government and non-government) as playing a significant role in effective operations during Cyclone Pam. Conversely, other respondents highlighted how the lack of long-term trusting relationships slowed down operations. For instance, a Vanuatu FSAC representative reported that relationships between the cluster and WFP remained an isolated transaction sphere and lacked long-lasting trust building. According to that respondent, significant coordination difficulties resulted from the nature of this relationship.

Trust is commonly developed through slow, continued and long-term relationship-building, experiences and emergence of positive outcomes (Stephenson, 2005). Cyclone Pam highlighted that the involvement of a new node into a networked system tends to reinforce, or even activate, a trusting tie between the nodes already part of the network, especially in stressful situations such as a disaster. Some expatriates who reported difficulties in building trusting networking ties with Ni-Vanuatu before Cyclone Pam (sections 4.2 and 7.2.1.b) related that the intrusion of newcomers (the internationals) into the system changed the situation. It developed their previously formal and mandated cooperative ties with Ni-Vanuatu into more familiar and trusting relationships, compared to the less familiar links with newcomers. For instance, an Australian, expert in DRR, was visible within the Vanuatu-Networked-System studied before Cyclone Pam but with very little connection with Ni-Vanuatu. However, her dual understanding of the Vanuatu culture and the international concepts positioned her in a central position as informal mediator and breaker of communication barriers between the highest government level and internationals. Ni-Vanuatu decision-makers and officers quickly developed trust in the capacity of this expatriate to support the appropriateness of the response. This illustrates the correlation between trust development and continued networking. Further research is needed to find whether the trust emerging during DM will remain in routine times or if old tensions will reappear again after recovery.

Respondents (internationals and Ni-Vanuatu) highlighted that the potential of informal networking was particularly facilitated by the national structure in place. Indeed, the way the NDMO and VHT established the operational structure supported significant informal exchange. The NDMO offered internationals and provincials without an office in Port Vila, who were cluster members, a room in its building to work and meet, and access key resources, such as Internet, phone and computers. Thus, in the same building were gathered staff from the NDMO, VMGD, SPC/GIZ (co-lead of the Vanuatu FSAC), UNDAC, UNOCHA and Vanuatu Logistics cluster, as well as internationals, local representatives and volunteers. Key coordination meetings, such as VHT, inter-cluster and task teams, were also held in the NDMO building. Hence, international and local cluster members had a focal point for constant informal networking, information sharing and dissemination across sectors and organisations. This organisation supported the impact of physical closeness, which is a key trigger for stronger informal networking (section 7.2.2.a).



However, although informal relationships were crucial for operational effectiveness, these links could not fulfil all requirements of good governance in time of crisis. A structure, such as the national system in place before Cyclone Pam, is indeed needed to harness informal and spontaneous cooperation, and avoid an anarchical response. A representative of the Pacific Regional Vanuatu Shelter Cluster compared Cyclone Pam in Vanuatu with previous major floods in the Solomon Islands, during which operations mainly used informal pathways, especially for information sharing. Although this situation supported operations conducted in a timely manner, the lack of formal cooperative structure undermined long-term outcomes of the response. Also, the difficulties in tracking informal cooperation and its lack of visibility could not prevent duplications and gaps. In comparison, the strong structure supporting formal and informal networks in Vanuatu facilitated effective, inclusive and sustainable outcomes of the response.

Furthermore, respondents highlighted that the transfer from emergency to long-term strategies of the clusters relied strongly on the long-lasting relationships built among the cluster members before the cyclone. More particularly, respondents gave the example of the Vanuatu FSAC and Vanuatu Shelter Cluster, evolving respectively into the Risk and Resilience Unit (RRU) and Housing working group. Network members highlighted that the informal and formal trusting relationships developed over the years considerably facilitated the establishment of long-term strategies and networks during the emergency period.

Furthermore, the general efforts to build regionalism and more particularly the continuous involvement of Ni-Vanuatu leaders in regional discussions for CCA, DRR and DM, showed particular benefits during the management of Cyclone Pam. Understanding and trust were built before the disaster between the national and Pacific levels, such as between the Government of Vanuatu, the VHT and PHT or within the Regional UNDP multi-country projects. Fijian respondents (representatives of the Pacific Community), for instance, reported that multi-country projects helped them to build knowledge of the context of Vanuatu, optimising their intervention during Cyclone Pam. Simultaneously, construction of formal and informal regional relationships, through regional meetings or projects, built general understanding and trust among the national stakeholders of the mechanisms and approaches of other regional countries, facilitating the management of their intervention.

Addressing the need to have an optimal use of existing formal and informal networking capital, several pre-established networks were utilised for an effective and appropriate response to Cyclone Pam. The Government, for instance, linked with the Vatu Mauri Consortium (section 3.4.1.a) to disseminate public messages using their widespread networking links with area councils and community leaders across the affected areas (NDMO, 2015q). The Vanuatu Christian Council network (sections 3.4.1.a and 5.3.4.c) was also widely utilised to optimally organise volunteers. Within the first week, a call on the radio requesting voluntary help gathered

approximately a hundred volunteers; however, assistance was disorganised, mostly because of the overload of willing yet unskilled people. A church representative reported that under the strategy of the Church working group, Vanuatu Christian Council members used their informal network to identify and mobilise volunteers with actual useful capacities. Certain sectoral networks, however, were particularly well utilised during Cyclone Pam as discussed in the next section.

### **10.3.3. Sectoral networks: key platforms to capitalise on proactive networking**

#### ***10.3.3.a. The national Vanuatu clusters***

##### **A master key for a coordinated and cooperative response**

As seen earlier, spontaneous collaboration between Ni-Vanuatu and internationals was rare outside of the cluster system. A shelter cluster respondent reported that he was comfortable sharing with internationals who belonged to the same cluster because he felt they were “from the same family” in terms of response activities. The Vanuatu open-ended clusters played a key role in response effectiveness, mostly because relationships among cluster (and inter-cluster) members had been developed before the cyclone. A few days after Cyclone Pam, the NDMO assessed that one of the key gaps and constraints for evacuation centre and shelter management was “not having a pre-established Shelter Cluster in place” (NDMO, 2015f, p.4). Likewise, a government respondent, involved in the GPC, shelter cluster, FSAC and logistics cluster, reported that the difference between the post-disaster established shelter cluster and the others was significantly noticeable. The lack of proactive identity building of the shelter cluster delayed the mobilisation of the cluster members within the first weeks following the disaster.

In routine times, members of the existing clusters gathered four times a year for inter-cluster meetings to inform about sectoral projects, strengthen coordination ties, and discuss procedures in case of emergencies. A few days before Cyclone Pam, a few international and most national members of the established Vanuatu clusters met to strengthen existing coordination strategies, both sectoral and cross-sectoral<sup>24</sup>. These pre-disaster meetings built long-term cross-cluster relationships, developing networking capital and building a propitious structure for effective operations. For instance, most respondents appreciated the leadership and cooperation mechanisms established during routine meetings, such as designating a focus for each sector or updating contact lists. Many respondents reported that the meetings just before Cyclone Pam helped them to understand the risks, to develop a sense of unity in the face of the coming cyclone,

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<sup>24</sup> Logistics cluster (9 March 2015); VHT, WASH cluster, FSAC, GPC (10 March 2015), Heads of agencies, Inter-cluster (11 March 2015), Health cluster (12 March 2015) (NDMO, 2015c)

and to remember the critical need of cooperation in emergencies. In general, pre-disaster meetings helped stakeholders to become more familiar with the cluster principles, making actors more inclined to participate in cluster activities during the emergency. Hence, several cluster members (FSAC, GPC and Health cluster) witnessed a positive attendance at cluster and inter-cluster meetings during response, and explained it as a consequence of proactive acquaintance with the system, especially concerning local NGO staff.

Meetings also aimed to proactively clarify the positions, potential and ties of the cluster members. As seen previously, the private sector was significantly involved within the Vanuatu cluster system, especially in the Vanuatu FSAC. Phone companies are particularly key actors to facilitate communication with communities. In Vanuatu, phone companies, Digicel and TVL, have developed strong relationships with the Government, NGOs and donors, and play an active role in the cluster activities. Familiar with each other, clusters and phone companies effectively managed communication for preparedness, warning and response during Cyclone Pam. Clusters capitalised the potential of the phone companies throughout the response and recovery phases. For instance, in the case of the Vanuatu Education cluster, a message was sent to the whole of the affected communities to inform and ensure that education relief products were to be distributed to affected children (UNOCHA, 2015l). A representative reported that time and resources could not have been allocated to build understanding of the phone messaging system to communities, hence, without proactive work with the phone companies (e.g. the awareness campaign conducted jointly by the clusters and Digicel), the dissemination of messages would not have been effective.

Despite some cases of duplication, such as simultaneous tool distribution by the Vanuatu FSAC and Vanuatu Shelter Cluster, many internationals acclaimed the level of cross-cluster coordination and of information sharing during Cyclone Pam, compared to major disasters (such as the 2010 earthquake in Haiti or the 2013 typhoon Haiyan in Philippines). They also praised the relative ease in starting work promptly after arrival. They credited these achievements to the strong cluster credibility established before the cyclone. For instance, the Vanuatu FSAC was recognised and acknowledged among all concerned actors, before the cyclone, as the focal point for food security and agriculture, which saved time for the cluster coordinator during response (RRU, 2015a).

Furthermore, clusters are part of the Vanuatu-Networked-System, and optimised their work by bridging with other established networks. A FSAC respondent highlighted the capitalisation of existing ties between GIZ, which is co-lead, and the small network 350 Vanuatu to deploy effectively trained young local volunteers. A Vanuatu FSAC representative witnessed the significant role played by volunteers from the network 350 Vanuatu, for instance, in organising evacuation centres, supporting assessment teams, cleaning up and social networking. Furthermore, acknowledging the significance of spontaneous and informal resources lying within

communities, the Vanuatu FSAC created soon after Cyclone Pam an online tool for networks in remote islands to share informal reports compiled by the affected communities (RRU, 2015b). The Vanuatu cluster recognised the difficulties for official assessors to capture such data on the one side, and for communities to transmit such data to the decision-making level on the other side. This online tool is a good example of the potential for proactive formal networking to promote, support, mobilise and optimally use informal networking capital.

### **Complementary fragmentation and integration of the Vanuatu-Networked-System**

Another obstacle to resilience-building, addressed by the established cluster, was the general tendency to compartmentalise sectors without acknowledging their interaction. Advocating for two-level actions – sectoral and cross-sectoral – before and during disasters, respondents highlighted the impact of the Vanuatu clusters on comprehensive preparedness, on the level of resilience, and on the potential for a comprehensive response. Indeed, inter-cluster coordination before the cyclone has proved to be particularly beneficial for cluster response. For instance, the Vanuatu WASH cluster had proactively consulted the Vanuatu GPC on “dignity” requirements for Non-Food Items to be distributed (NDMO, 2015b). This cross-sectoral relationship was pursued during the operations of Cyclone Pam (NDMO, 2015r). Internationals admired the spontaneous, regular and relative reliability of this type of cross-cluster interactions during the response to Cyclone Pam, such as consultation of WASH by Shelter, of Gender and Protection by WASH, of Shelter by Gender and Protection, and of Education by Food Security and Agriculture. These consultative ties were for the benefit of each sector individually and for the whole DM process, not only for the response, but also for the Vanuatu-Networked-System in the long-term.

Furthermore, the inter-cluster process addresses the challenge posed by organisations, mostly NGOs, that are not focused on a single sector, but conduct simultaneously specialised projects (e.g. food security) and/or cross-sector programs (e.g. livelihoods). Indeed, although each Vanuatu cluster supports the development of expertise in its own sector, the whole cluster system capitalises the potential of organisations with diverse experience but no strong expertise in a single sector to develop a holistic approach. Therefore, simultaneous and continuous development of cluster identity and inter-cluster mechanisms supported by the VHT prevented the risk of exclusive fragmented or exclusive integrated planning.

Furthermore, by ensuring complementary fragmentation and integration, the Vanuatu-Networked-System addresses the challenge of information and resource loss related to staff turnover (section 7.2.1.b). In time of emergencies, short-term international staff often rotate throughout the emergency period, causing a relative disruption in the operations. Given the short time allocated for information transfer when staff rotate, loss of resources is high during

emergencies, slowing down the progress of aid. The Vanuatu cluster system supports a certain continuity of operations at the sectoral and cross-sectoral levels. Details of response activities conducted by the different cluster members are shared among all participants, and monitored at the network level during the regular cluster and inter-cluster meetings. A new actor will thus benefit from a structured focal point to meet all relevant co-workers, share knowledge and learn about past and future plans.

#### ***10.3.3.b. The humanitarian umbrella network: Vanuatu Humanitarian Team***

The VHT played a significant role in capitalisation of the potential of the clusters as described in the previous section. The VHT was created to support the NDMO in coordinating humanitarian actors and managing information (section 3.2.2), and has been positively recognised for the impact of its routine times work on preparedness and capacity-building during Cyclone Pam.

First, the VHT supervised effective information collection. The VHT coordinator facilitated the integration of the data contribution of each Vanuatu cluster into the national SitRep (NDMO, 2015c). Also, the VHT developed a 3W matrix to be used by all cluster members, stimulated all actors to regularly collect and share data, and recorded data for public use.

Second, the VHT met its responsibility to disseminate information among all actors. The VHT continually circulated updated lists of available and needed resources to all the actors, such as a detailed list of available Non-Food Items (NDMO, 2015c). Furthermore, internationals highlighted the support of the VHT coordinators in the review of communication tools, as well as in the development of key messages adapted to the context of Vanuatu to ensure effective dissemination of post-disaster information. The VHT circulated the approved SitRep, as well as any major reports to all known government and non-government stakeholders. Furthermore, the VHT managed the online *Humanitarian Response* page dedicated to Cyclone Pam, gathering key information from all Vanuatu clusters.

Third, the VHT team facilitated and promoted coordination between all known actors. It facilitated revised joint assessments in affected areas, led inter-cluster meetings, updated contact lists of the VHT members and other key actors. Furthermore, the VHT was widely recognised as the main focal point for information on Cyclone Pam, for instance, on conducted activities or on other involved actors.

Finally, the VHT members pursued their pre-disaster work on capacity-building, by giving technical support to develop capabilities, such as in information management or logistics, of networks, such as the CDCs, and organisations, such as local associations. Furthermore, the VHT members utilised their existing capacities developed within the network to encourage integrated and inclusive food governance and to support the implementation of the long-term RRU strategy (RRU, 2015b). However, despite general positive feedback on the involvement of the VHT in the

response to Cyclone Pam, the network leadership was questioned by government and non-government Ni-Vanuatu and international stakeholders (as seen in section 10.2.4.c).

### ***10.3.3.c. Decentralised Disaster and Climate Change Committees***

As seen previously (sections 5.3.3.b and 5.3.4.a), Disaster Committees at the provincial (PDCs) and community (CDCs) levels support the Vanuatu-Networked-Governance with the inclusion of key stakeholders from the local and civil levels in the whole process. These networks were well recognised for their input in preparedness for, and response to Cyclone Pam (Vanuatu Shelter Cluster, 2015b; Tafea PDC and CARE International, 2015).

PDCs and CDCs were significantly proactive, organising meetings at different levels (with the higher level of governance, with community focal points) as soon as warnings were released. This correlates with the strong preparedness capacities of these networks, built proactively within the Vanuatu-Networked-System. Most international respondents agreed on the positive outcomes of continuous training of Disaster Committee members, who were well equipped for mobilisation of staff and volunteers before the arrival of external aid. Respondents, both Ni-Vanuatu and expatriates, reported outcomes of the simulations conducted before Cyclone Pam by the NDMO and VHT with PDC and CDC members, who learnt how to use modern communication and assessment tools, such as tracking maps. International respondents also acknowledged the particular capacities of CDCs to combine preparedness knowledge from training conducted by the central Government and their traditional knowledge of community resilience. Despite limited capacity, the CDCs participated in resilience-building of their respective communities, which seemed better equipped to cope with Cyclone Pam compared to communities without CDCs (Barber 2015; Vanuatu Shelter Cluster, 2015b). A NGO respondent observed that the affected communities with a pre-established CDC were well aware of preparedness procedures, communication tools and shelter availability. An affected civil representative reported that CDC members conducted door-to-door preparedness a few days before the cyclone to ensure that all community members were aware of the warnings, and to help them prepare (UNDP, 2015). Although no direct causal link could be made, it is to be noted that no major casualty was registered in communities with an established CDC, even in areas situated on the direct path of the cyclone (e.g. Erromango). Several respondents. Both Ni-Vanuatu and expatriates, strongly suspected that the CDCs played a key role in the low rate of deaths.

International and centralised stakeholders also appreciated the PDCs and CDCs as focal points to access decentralised levels. The NDMO and VHT significantly promoted among cluster members cooperation with the PDCs and CDCs. In particular, CDCs represented crucial direct sources for accurate data and information to plan service delivery. Also, relief organisations recognised the potential of PDCs and CDCs as a focal point for disseminating information addressing communication constraints in some remote areas, for instance, satellite phones possessed by

PDCs are the only communication tools in some areas. Moreover, the PDCs and CDCs were recognised for their simultaneous understanding of the central and civil contexts. Indeed, inclusiveness inherent in the Disaster Committees structure was recognised as supporting comprehensive assessment and fair distribution based on the local needs. Therefore, PDCs and CDCs were often approached by organisations and the NDMO to facilitate information and data collection and dissemination in the remote areas, for instance, UNICEF linked with Tanna PDC to conduct assessments in schools (NDMO, 2015h). Simultaneously, PDCs seemed to be well equipped to harness international involvement and supervise international operations on the ground. Hence, the NDMO requested PDCs to prepare for the arrival of Vanuatu clusters assessment teams by briefing all key provincial and community representatives to optimally benefit from the time spent with the relief actors (NDMO, 2015m). International respondents were particularly impressed with the potential of the CDCs in supporting effective response and need prioritisation in Vanuatu. Respondents (Ni-Vanuatu, expatriates and internationals) agreed on the significant role played by the coupled PDC-CDC to optimise all activities conducted in the provinces.

The PDCs and CDCs, both from the most and the less affected areas, actively participated in service delivery; for instance, the Sanma PDC distributed food rations to affected boarding schools (NDMO, 2015t). At the early stage of assistance, before the massive arrival of international NGOs, PDC members assisted international military forces, WFP and other first responders to clear roads and distribute first relief items (Tafea PDC and CARE International, 2015). CDCs also supported community members to find shelters and repair houses. Despite the lack of optimal use of the PDCs and CDCs (section 10.2.3.b), the management of Cyclone Pam revealed the key potential of these networks, emphasising the need to better empower them not only to be better prepared for future disasters (Tafea PDC and CARE International, 2015), but also to reach their full potential, and better shoulder their roles and responsibility in building preparedness in routine times.

#### ***10.3.3.d. The FRANZ agreement***

The Government of Vanuatu is also supported by established international and regional networks. For example, the FRANZ agreement (between France, Australia and New Zealand) is a flexible coordinative network for France, Australia and New Zealand to more effectively allocate and deliver aid in the South Pacific (Vachette, 2013). This diplomatic network enables an optimal use of military and non-military resources allocated through bilateral engagement of the three countries in Vanuatu for DM. The FRANZ networking process has evolved since its establishment, from informal information sharing to a more formalised non-binding cooperation (Vachette, 2013). Aiming for the most effective operations during emergencies, the FRANZ partners invest in continuous relationship-building. Once a year, the three countries meet to set

common strategies and share information, while regular in-country meetings bring together the FRANZ partners and the national Government for meteorological monitoring and contact updating (Vachette, 2013). The FRANZ partners also network with other key donors and actors involved in the country, such as SOPAC, UNOCHA or the International Federation of Red Cross for more effective assistance and aid distribution. The FRANZ focal point rotates between France, Australia and New Zealand every two years at the regional level and every six months at the recipient country level. Within the networking process, the designated national FRANZ focal point liaises with the NDMO, VHT, UNOCHA, PHT and Vanuatu clusters to discuss aid procedures before and during disasters. In times of disasters, the FRANZ partners play an active role in the VHT, PHT, cluster and inter-cluster coordination processes, simultaneously as a unified network and on their own. Each FRANZ partner has on-going bilateral disaster and climate change programs, supporting information sharing and cooperation in Vanuatu, for instance, NZAID runs volcanic risk mitigation. The strong pre-disaster integration of the FRANZ partners within the Vanuatu-Networked-System, as well as their pre-established coordination channels, distinguish them from other donors and international humanitarian actors. For instance, while no international assistance had been requested, the FRANZ partners provided support for Cyclone Lusi response (2014) based on their pre-established relationships in the country (UNOCHA, 2014; IFRC, 2014).

The FRANZ agreement played a significant role in response to Cyclone Pam. Given the disaster context – such as the isolation of a part of the affected communities, limited local resources, difficult transport between islands – the involvement of international military forces was essential to address unavoidable logistical difficulties. Reflecting its key position as an umbrella network, the VHT particularly met its role of coordinator to optimally benefit from the involvement of military forces in the country, and supported effective civil-military cooperation, particularly targeting more links between Vanuatu cluster members and military forces (Potter, 2015). Although several countries delivered military support, such as Fiji, Solomon Island or the United Kingdom, the FRANZ partners (France, Australia and New Zealand) were recognised as main contributors. Using the pre-established relationships within the Vanuatu-Networked-System, and more particularly the VHT and clusters, the FRANZ partners met with each other and with NDMO a few days before Cyclone Pam to evaluate the risks, their available capacity and resources, and to plan their involvement if required.

The day after Cyclone Pam, the Government of Vanuatu officially requested the FRANZ partners to intervene. Services delivered by the FRANZ partners addressed basic early response needs: “aerial surveillance, temporary shelter, urban search and rescue, medical assistance; management of bodies and logistics support” (NDMO, 2015d). Based on their bilateral and FRANZ agreements, France, Australia and New Zealand also assisted service delivery by providing



transportation assets (military aircraft, military and civilian helicopters, naval vessels, landing crafts), military human resources (such as the deployment of more than 500 Australian Defence Force personnel), and material resources (such as NZAID providing room in its own building to Fijian military forces). Subgroups also emerged to optimally use cooperation efforts of each FRANZ partner, such as the establishment of a Joint Task Force by the Australian Defence Force for the coordination of Australian assistance (UNOCHA, 2015g).

Although challenges in civil-military coordination remained (Potter, 2015), the nature of the FRANZ agreement, with permanent and continuous networking in-country and at the regional level, reported the impact of long-term relationship building. Cooperation and coordination between the FRANZ partners, Government of Vanuatu, Vanuatu clusters, VHT, United Nations entities, as well as local and international NGOs proved to be prompt, well-framed and effective.

This chapter shows that despite remaining challenges in communication, information sharing and leadership the networking mechanisms established in routine times had positive impacts on the management of Cyclone Pam. Most Ni-Vanuatu respondents and expatriates strongly believed in the potential of the Vanuatu-Networked-System, and it should not be replaced or modified, but empowered to be better effective for future extreme events. The disaster, indeed, revealed the spheres of the Vanuatu-Networked-System that could be improved; and more particularly, the reinforcement of DM sectoral networks (Vanuatu clusters, PDCs and CDCs) to fully benefit from proactive networking efforts. This chapter provided an in-depth analysis of the Vanuatu-Networked-System, its structure, leadership and processes, as well as its impact on resilience-building, both in routine and emergency times. Based on this in-depth analysis, the following and final chapter synthesises the potential of the Vanuatu-Networked-System to build more effective governance, through the development of its credibility, stability, inclusiveness, adaptiveness and capitalisation, building a culture of preparedness among the communities of Vanuatu.

## CHAPTER 11.

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### Discussion & conclusion

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#### 11.1. Introduction

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As observed by a Vanuatu Meteorology and Geo-Hazards Department (VMGD) respondent: “sustainable development relies on disaster risk reduction and climate change adaptation, and vice versa”. Additionally, a Vanuatu National Disaster Management Office (NDMO) respondent reported that “government agencies and non-government actors could not work without each other, in good times and in bad”. Simultaneously, as highlighted by an expatriate, respondent of the NZ High Commission, “you cannot work if you don’t network”. Accordingly, this research found that a disaster networked governance system, based on Government–non-government, Cross-sectoral Networking structure, Networked Leadership and Networked Learning, has a strong potential to achieve good governance for comprehensive resilience-building. This system presented strong networking structures and processes supporting the development and dissemination of specialised networking capital<sup>25</sup> to the benefit of individuals, organisations and the whole system:

- A set of diverse networks covering the different dimensions of resilience-building (Geological and Hydro-Meteorological hazards; Climate Change hazards; Disaster Management; People in Situations of Vulnerability; Development of More Effective and Appropriate Programs, Project and Activities), and developing a comprehensive networking structure enabling all stakeholders to participate in the process despite their different status, positions, resources, aspirations and capacities.
- Three key networks, one government-led: National Advisory Board on Climate Change and Disaster Risk Reduction – NAB, and two non-government-led: Vanuatu-Humanitarian Team – VHT and Vanuatu Climate Action Network – VCAN, facilitating satellite networks to develop and disseminating their specialised networking capital, while overseeing the development of common, inclusive and integrated vision for DRR, DM and CCA.

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<sup>25</sup> Reminder: Networking capital consists in individual and collective, tangible and intangible resources available to disaster and climate change stakeholders to develop and maintain cooperative relationships.

- A dense set of social networking processes bridging government and non-government stakeholders across sectors and levels, continuously building relationships and trust between them.
- A legal and formal institutional structure strongly recognising and supporting government and non-government cooperation across sectors and levels, enabling concrete outcomes of the social networking structure and processes, and empowering a shared leadership (national, decentralised and civil).
- Consistency and complementarity between formal power distribution and concrete influence (social networking leadership) in decision-making and decision-implementation.
- Development of a set of tools to share information and to build capacities to process this information into sustainable knowledge and effective decision-making.

These different components (illustrated in figure 11.1) were found to be complementary, and, despite remaining weaknesses, all are essential to develop a more effective governance system to build capacities among the diverse stakeholders involved in resilience-building for more credible, stable, inclusive, adaptive and capitalised decision-making and practice. This system was found to be propitious for addressing the complexity of disaster governance by providing continuity and consistency in the process of resilience-building, while having an optimal use of the complementarity of the diverse systems involved in the process, such as traditional/modern or cross-level.

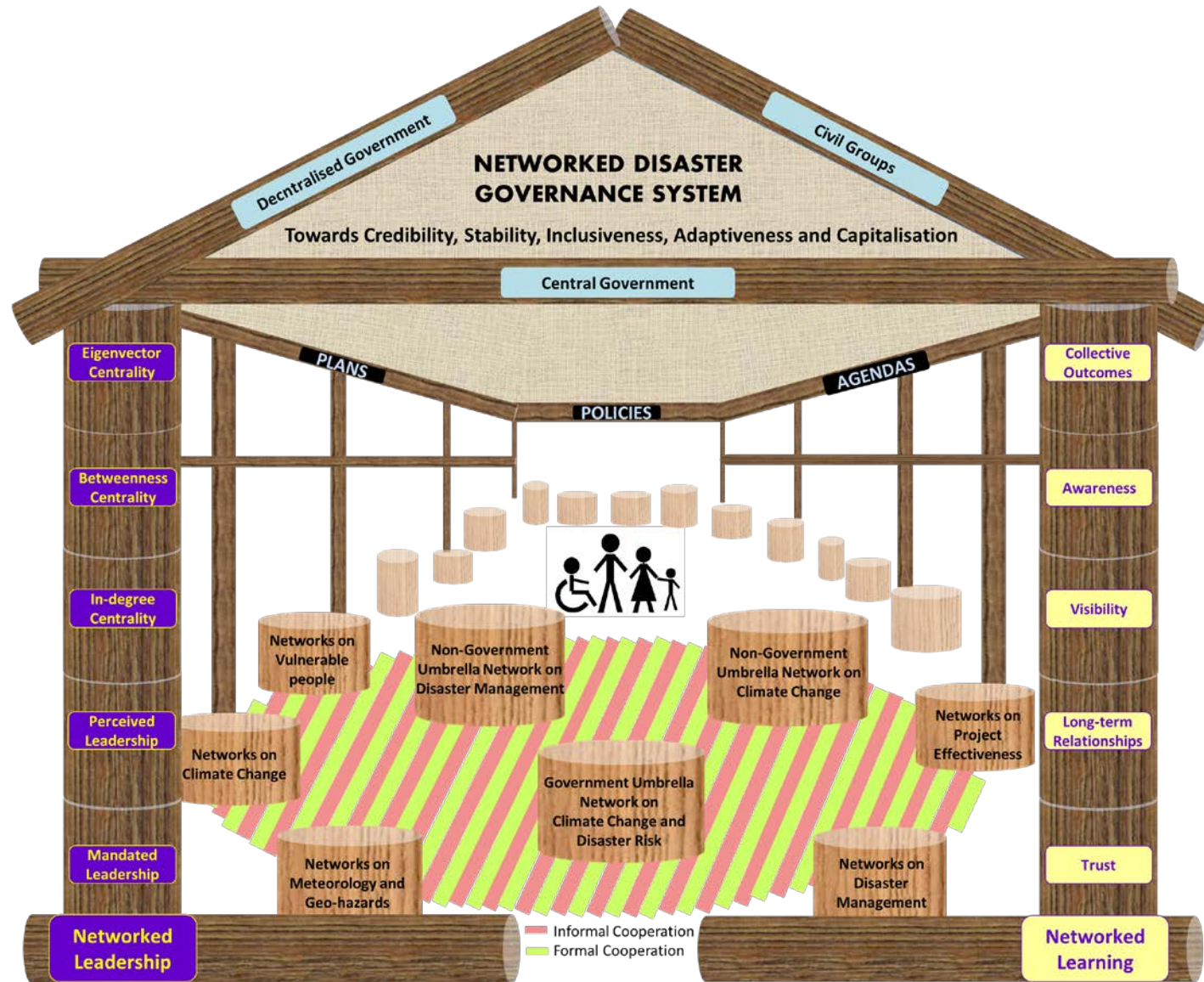


Figure 11.1: The Vanuatu-Networked-System Nakamal: the different components making the Networked Disaster Governance System more effective for resilience-building.

This final chapter aims to synthesise the key findings of Vanuatu-Networked-System analysis using the Inclusive and Integrated Networked Disaster Governance (2INDG) framework to discuss the impacts of the networked system on good governance principles for resilience-building: credibility, stability, inclusiveness, adaptiveness and capitalisation. This chapter discusses and synthesises the research findings on the relationship between effective resilience-building and networked disaster governance through the scope of Government–non-government Networking, Cross-sectoral Networking, Networked Leadership and Networked Learning.

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## 11.2. Credibility of the system

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### 11.2.1. Fragile credibility

#### *11.2.1.a. Credibility conditional upon the system's ability to control the whole process*

Assessing the potential of the networked system to support the credibility of the governance system relies on the analysis of the impacts of the networks and the networking process on the reciprocal, mutual and continuous commitment of the system members in mitigation and adaptation (Biermann, 2007).

Throughout the research, respondents expressed certain doubts concerning the ability of the system as a whole to effectively control the course of resilience-building operations. Respondents often reported major difficulties for the system leaders to simultaneously manage effective integration and fragmentation. The development of common legal, conceptual and operational frameworks among the system nodes was reported as particularly difficult, such as among the different departments of the Ministry for Climate Change, and/or considered as a limit to the development of individual expertise. This issue was for example illustrated by the integration reluctance of small local NGOs agricultural experts in large national CCA agendas. This raised questions concerning the system's ability to support reciprocal, mutual and continuous commitment among all stakeholders.

Furthermore, despite monitoring mechanisms developed within the Vanuatu-Networked-System, such as the IEC endorsement process, the system's ability to control the commitment of the numerous stakeholders in the cooperation process was often questioned, especially since some international and regional NGOs and donors still bypassed the national control systems, such as the National Advisory Board on Climate Change and Disaster Risk Reduction (NAB) or Prime Minister's Office. Similarly, the general difficulties of leaders and coordinators of the different sectoral networks to identify, track and mobilise related stakeholders raised concerns. These perceived inabilities resulted in a level of loss of credibility in the governance of the networking structure, gradually diminishing the recognition of the value of the different sectoral networks

and the Vanuatu-Networked-System, as well as the stakeholders' incentives to participate and invest in the cooperation process. This has an impact on the continuous, conscious, mutual and reciprocal commitment of network members, and on practice. Therefore, leaders need to better develop strategies to strengthen the credibility of their respective networks and consequently of the whole Vanuatu-Networked-System to prevent a fracture in commitment by the different network members.

#### ***11.2.1.b. Challenges of transitioning from routine times to emergency management***

The credibility of the governance system and its leadership was more particularly questioned following Cyclone Pam. Indeed, many respondents (Ni-Vanuatu, expatriates and internationals) reported that the DM capacities of the Vanuatu-Networked-System had been stretched by the massive international intervention following Cyclone Pam. Respondents partly attributed the general issues in communication and information sharing to the lack of supportive leadership. Indeed, organisations mandated to monitor coordination and communication, the NDMO and VHT particularly were considered as failing to fulfil their responsibilities. More particularly, despite strong credibility and reliability before Cyclone Pam, the ability of the NDMO to effectively control the coordination of operations during Cyclone Pam gradually weakened throughout the response, mostly due to the strong involvement of the Prime Minister's Office and the general visible lack of government experience with major international disasters. This weakening of NDMO authority in coordination resulted in, and was exacerbated by, the tendency of other organisations (government and non-government, and often international) to take control for more effective operations in certain cases. The loss of NDMO credibility was often reported as a main hindrance to the credibility of the Vanuatu-Networked-System to transit from routine to emergency times.

Also, the diverse efforts invested in the networking process among network members before the cyclone raised their expectations concerning the effectiveness of operations during any event. Respondents expressed their disappointment with the difficulties encountered by the Vanuatu-Networked-System to address the disaster given the heavy proactive investment. Furthermore, local respondents reported an unexpected reliance of certain locals on the networked system, and more specifically on the VHT. Respondents reported general misunderstanding and disapproval of the difficulties encountered by the networks following Cyclone Pam, resulting in a dramatic loss of trust and credibility in the system among these stakeholders. Likewise, local respondents reported that the civil trust built over the years in the sectoral networks had been strongly undermined by the perceived difficulties encountered by government agencies to control equitable operations during the emergency compared to the visible investments in equitable commitment during routine times. The event of Cyclone Pam illustrated that although the

Vanuatu-Networked-System was effective in routine times, and had potential to build preparedness for extreme events and to facilitate cooperation among national and local stakeholders, focus was now needed on preparedness of organisations and communities to manage impacts of response activities. These included the massive arrival of external actors, involvement of organisations not involved in the networking process during routine times, and the increasing community dependence on external aid.

### **11.2.2. Credibility in the potential of the system approach**

Despite the remaining weaknesses and difficulties encountered by stakeholders in the process of resilience-building, most respondents believed that the approach endorsed by the Vanuatu-Networked-System, and its foundations, were propitious to effective resilience-building. Respondents therefore did not question the credibility of the essence of the system, but only the effectiveness of its implementation. Respondents considered it essential that the Vanuatu-Networked-System learn from Cyclone Pam, and believed that such learning could reinforce its general credibility.

Questioning was raised around the perceived need for the different structural components to better shoulder their roles and responsibilities. More specifically, a need was perceived for the system to focus better on harnessing short-term international intervention. Also, it was considered important for the mandated agencies to better raise understanding of the concept of resilience-building. A general misunderstanding that “full resilience” can be achieved raised expectations that a system may be able to prevent any disaster. However, any well-prepared national structure may be stretched by unexpected extreme events. Therefore, strategies to consolidate trust and credibility in the abilities of the governance system should not rely solely on the visibility of management of an event, but on the perception of concrete positive impacts and potential of the system in general to better enable international and regional actors to fit into the national structure. A key element supporting this perception has been the development and strengthening of the network approach for resilience-building explored in this research, seen as a continuous, reciprocal, mutual, inclusive, integrated and fair approach. This resilience-building reinforced the general credibility of the system to be effective in routine times and small-scale disasters, where there is no international intervention, and which must be strengthened to be equally effective in bigger disasters, where there is a need for international intervention.

The impact of the networked structure on the general credibility of the potential for the Vanuatu-Networked-System to support reciprocal, mutual and continuous cooperation relies on different lines of reflection. By acknowledging and capitalising on both formal and informal networking processes, and supporting their connection, the Vanuatu-Networked-System developed a credible approach to non-government stakeholders. More specifically, civil society groups, who strongly

rely on more informal mechanisms, were able to develop their networking capital for the benefit of resilience-building. This mechanism supports the development of ownership across all network members, and thereby strengthens the general credibility of the Vanuatu-Networked-System.

The recognition of the value of the government–non-government and cross-sectoral involvement strongly supports the development of a credible approach propitious to appropriate operations based on cooperative consultation and decision-making. More importantly, by developing the national legal framework (e.g. the National Climate Change and Disaster Risk Reduction Policy 2015-2030), the governance system confirmed the nationally inclusive cross-sectoral position for resilience-building. Respondents acknowledged an increase of credibility of the diverse institutions focused on disaster and climate change affairs through this process. The inclusive and integrated whole network also had a beneficial impact on the balance between fragmented and integrated action, by giving space to specialised activities depending on organisations' expertise, while developing a common approach for all. For instance, the creation of the NAB reinforced the position of the NDMO around its primary focus – coordination – by shouldering other responsibilities – such as M&E or project endorsement. This strengthened the credibility of the NDMO in its role of coordinator, the NAB in its role of cooperative facilitator for policy making, and the Vanuatu-Networked-System in its responsibilities to transfer information across networks, including the NAB, for better informed and appropriate decision-making.

The main characteristic supporting the credibility of the Vanuatu-Networked-System is its bottom-up-top-down approach for inclusive, continuous and reciprocal involvement in consultation and decision-making, supervised by the Networked Leadership and facilitated by Networked Learning. The principle behind the bottom-up-top-down concept is that both directions of discussions, negotiations and decision-making are essential to effective strategies. A sole top-down approach may result in decisions not appropriate to the real needs of the different targeted communities, a lack of capacity of building of communities and the erosion of grassroots leadership and community capacities to build their own resilience. A sole bottom-up approach limits the consistency of the different strategies developed, hindering the development of an effective national strategy, and prevents the effective transfer of expertise of leaders and actors on international, regional and national principles, frameworks and guidelines to grassroots leaders. Accepting both directions as complementary and not contradictory processes is crucial to ensure the credibility of the system among all stakeholders.

Due to their position, roles and responsibilities, the umbrella networks were considered to be central to stimulating continuous, reciprocal and mutual sharing across levels. Indeed, the umbrella networks help the different sectoral networks develop, gather and capitalise specialised networking capital among their members. The umbrella networks then rein in this capital, promote inclusive and integrated discussion and consultation at the non-government level (VHT, VCAN)



and government level (NAB), and disseminate the products of these processes to the highest level of decision-making for resilience-building (the different ministries, the Prime Minister's Office and donors). The NAB, more particularly, was able not only to integrate the diverse groups of stakeholders in discussions at the highest level of decision-making, but also to ensure their involvement in its endorsement processes for a better control of consistency and continuity. This strengthened the NAB authority, and reinforced the perceived value of networking institutions to supervise the involvement of the diverse stakeholders. Furthermore, the links between the PDCs and CDCs with the NAB and VHT also strengthened the visibility and credibility of the umbrella networks among the decentralised and civil stakeholders. Respondents reported that the increasing trust in the roles and responsibilities of the umbrella networks strongly supported the development of a credible Networked Leadership and correlated with the level of credibility of the Vanuatu-Networked-System.

The system approach was also considered particularly credible thanks to its potential to reinforce the visibility, transparency and accountability of the decision-making and project implementation among the diverse network members. The most important impact of the system on visibility is the increasing awareness of the actual amount and nature of the networking capital at the individual, organisational and network levels through Networked Learning. Indeed, the sectoral networks help members to be more aware of the activities and capacities of the other network members, the different nature of commitment of the diverse stakeholders, and the different opportunities emerging within the Vanuatu-Networked-System. By increasing the visibility of the networking capital, the governance system can also more effectively direct international aid intervention towards areas where national resources and capacities are actually lacking.

This visibility, supported by a cooperative and relatively equal government and non-government supervision, strongly facilitates transparency and accountability of the decisions and their implementation. Respondents highlighted that risks of corruption were limited by the visibility inherent in the Vanuatu-Networked-System, for instance, through government–non-government cooperation, M&E at the network level or the endorsement processes. Non-government respondents reported that the Vanuatu-Networked-System was their first experience of a system in place that effectively created opportunities for non-government stakeholders to clearly capture, question and discuss central decisions, and for government decision-makers to make informed and appropriate decisions.

Cyclone Pam particularly triggered discussions around the visibility, accountability and transparency of decisions and their implementation. Despite the remaining difficulties in supervising operations, respondents highlighted the potential of the cluster networking structure to enable better transparency and accountability across levels and across types of organisations. This particularly supported the credibility of these networks to more effectively control the

involvement of stakeholders (and more specifically internationals) in the response resulting in operations conducted in a coordinated, appropriate, fair and timely manner.

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## **11.3. Stability of the system**

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### **11.3.1. Consistency and permanence of long-term network building**

Assessing the potential of the networked system to support the stability of the governance system relies on the analysis of the impacts of the networks and the networking process on the permanence of the established structures within the current and future system members, institutions and plans (Biermann, 2007).

A key lesson from the system in place in Vanuatu is the impact of the proactive development of strong, trustful, reliable and reciprocal relationships before and after a disaster between government and non-government stakeholders across sectors and across levels on the stability of the resilience-building process. The sectoral networks were generally considered to be key assets for continuously developing these relationships over time, mostly because these networks were seen as institutions generally not vulnerable to the national institutional instability (as seen in section 6.3.3.a). The 54 networks were perceived as composing a stable comprehensive structure supporting good governance for the long-term due to their complementarity. Indeed, together, these networks cover all sectors related to climate change and disasters matters. Furthermore, given the differences in structure, mechanisms and nature of commitment of these networks, stakeholders (government and non-government, across sectors) can adapt their involvement in the Vanuatu-Networked-System to the development of their objectives, agendas and resource capacities. This flexible and comprehensive coverage benefiting all network members addresses the challenges related to capital loss when staff turnover occurs or national priorities evolve, supporting the overall stability and consistency of the whole system.

Also, the sectoral networks were often considered to be the most effective structures to support informal networking, essential to governance stability. These informal relationships were considered to be a key support for effective cooperative resilience-building in that they were supported and harnessed by formal institutions. Since the informal relations, like the sectoral networks, are not likely to be significantly affected by the different fluctuations and changes within the governance system, such as staff turnover, end of donor programmes or occurrence of extreme events, they help to guarantee a level of continuity in resilience-building.

However, stability relies on trust in the value and fairness of the system. For instance, several respondents raised the question whether cluster members and coordinators were working for the sake of the cluster or their own organisations. This concern, however, was mostly shared by members of more recent networks (e.g. the Vanuatu Shelter Cluster), while members of

established networks with trustworthy, reciprocal and continuous ties tended to have a strong network-based approach, such as the Vanuatu Food Security and Agriculture Cluster (FSAC). The former respondents could not give an assurance that the cluster would remain active after the emergency period, while the latter respondents guaranteed that their network would maintain cooperative initiatives over time. This indicates the importance of trust in the potential and value of networks for the perceived sustainability of the system.

Therefore, developing a sustainable system requires time and long-term commitment, in order to build understanding and trust between the members and to develop reliable networking mechanisms. The VHT former national coordinator reported that a network like the umbrella networks might take more than three years to be effective. Furthermore, leaders significantly rely on the permanence and longevity of the networking process to ensure stability of the system for current and future stakeholders, benefiting from a continuous development of reciprocal understanding and commitment, which significantly affects the visibility of the networks' permanence. However, the longevity of the networks is subjected to the evolution of the Vanuatu-Networked-System. Indeed, the emergence of new platforms might have significant negative impacts on the existing system components, risking networking fracture when networking investments weaken due to an overwhelming cooperative process (section 4.5.3). Therefore, leaders need to emphasise informal and social networking within and between the different networks to address the potential loss of influence of one network once it reaches networking fracture. This would support the capitalisation of the established trustworthy relations, and the stability of the available networking capital at the Vanuatu-Networked-System level.

### **11.3.2. Continuity in EM, DRR, CCA, and SD efforts**

#### ***11.3.2.a. Link between routine and emergency times***

The trustworthy relationships built over time play a key role in facilitating cooperation when transitioning from routine times to emergency management since collaborative pathways are already established, recognised and understood. Acknowledging that the national system in place had never experienced a disaster such as Cyclone Pam, stakeholders generally recognised the strong positive impacts of the networking process, and raised discussions on the strengthening of the system capacities for major events instead of the emergence of a new system. The established relationships between stakeholders, organisations and countries were indeed shown to be essential to address individual and community vulnerability. This recognition emerges across levels; for instance, the Australian Foreign Minister stressed the importance of trustworthy support in the region as the Pacific countries “look out for each other” (The Australian, 2015). These established relationships are key assets to address the difficulties inherent in major disasters, and more specifically the overwhelming involvement of numerous diverse stakeholders. During the

response to Cyclone Pam, the system was challenged by a level of international intervention never experienced before, and yet showed a certain potential to harness this involvement through the networks and relationships established over time within the system through proactive, on-going and visible disaster-related activities. The existence of strong networks, even at low levels of governance, particularly helped to ensure that the operations conducted were consistent with, and improved existing programs.

A concern, however, emerged from the discussions around the system weaknesses in addressing large events. Propositions to better equip the system for major disasters raised the question whether such a strategy may weaken its capacities to respond to the regular smaller events continually occurring across Vanuatu. Indeed, if flexible and inclusive networks are crucial to integrate external stakeholders, a certain relational exclusivity developed through intense proactive networking is essential to build strong local networking capital used to respond to smaller events. Given the limited resources of networks, such as the VHT, a stronger emphasis on international coordination might reduce the focus and level of investment in internal cooperation (national, local). Most of the numerous hazards hitting Vanuatu are small-scale events relying only on a local or national response. Therefore, it may not be effective to focus only on large-scale disasters requiring international assistance, especially considering the critical impacts of small-scale events on resilience-building (Shrestha and Gaillard, 2013). It is crucial to ensure that setting up a structure to strengthen the capacities of the network members to integrate external expertise does not undermine the strength of their internal ties and vision for smaller or slow-onset disasters. Leaders then need to better strategise the network approach by building capacity for internal and for external cooperation, while identifying which nodes of the system are to be empowered to work on 1) international integration, 2) national and local coordination, 3) formal relations, 4) informal relations, 5) policy making and 6) decision implementation. Certain nodes may play a role at different levels to ensure the consistency of the different foci, but it may be strategic for other nodes to concentrate efforts on only one line of reflection. Networked Leadership and Networked Learning play a significant role in developing such a strategy, having an optimal use of the complementarity between fragmentation and integration of the role of the different network members. Such a strategy would simultaneously strengthen the flexibility and stability of the Vanuatu-Networked-System, by capitalising the networking capital of each member to be prepared for routine projects and emergency operations, and for both small and large disasters.

#### ***11.3.2.b. Link between EM, DRR, CCA and SD agendas***

Bridging cooperation between routine and emergency times is a key condition for effective resilience-building in order to prevent disruptions to programs and efforts. Likewise bridging EM, DRR, CCA and SD has direct impact on continuous disaster resilience, since all these sectors

affect community vulnerability and resilience-building in the long-term. Indeed, although climate changes remain uncertain and unpredictable in their actual impact on disasters, CCA agendas often overlap with DRR and SD programs on the general resilience-building process. Therefore, the linkages between these different agendas are crucial to ensuring a stable disaster governance system.

The networking structure, Networked Leadership and Networked Learning has a significant impact on identifying, controlling and minimising gaps within and divisions between these different sectors, which might threaten the stability of the Vanuatu-Networked-System. The co-existence of permanent and consistent sectoral networks supports the development of long-term connections between the agendas over time, and prevents fractures between humanitarian aid for extreme events, and DRR, CCA, development efforts in routine times. This promotes a complementary focus on DM, preparedness, recovery, and risk reduction, while preventing ongoing development programs from being interrupted during emergency and recovery periods. Integrating a comprehensive approach to the whole process also enables cross-sectoral cooperation, which prevents the emphasis on certain dimensions of disasters – physical, human, social, economic and cultural – at the expense of others, , strengthening the stability of the whole system.

A key obstacle to system stability, however, is the strong dependence of the system on external donors, since the retreat of funding may strongly threaten the permanence of the funded institutions, such as the NAB positions funded by GIZ, or the VHT coordinators funded by the European Aid. Still, respondents generally recognised the potential of the system to identify gaps, to bridge the different sectors, to connect all stakeholders, and to invest in the progress of the sectoral networks. The structure in place could then support the development of stronger network foundations of the Vanuatu-Networked-System, making it less vulnerable to individual fluctuations, such as change in donor funding or departure of a major organisation.

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## **11.4. Inclusiveness of the system**

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### **11.4.1. Development of a whole-of-system approach**

Assessing the potential of the networked system to support the credibility of the governance system relies on the analysis of the impacts of the networks and the networking process on the participation of all types of stakeholders more or less directly involved with disaster resilience-building (Biermann, 2007). The composition of the Vanuatu-Networked-System, with government, non-government, specialised, cross-sectoral, intra-level, cross-level and all-inclusive sectoral components (networks, organisations and individuals) is propitious for inclusiveness. All stakeholders, from all organisations, sectors and levels, can get involved in one,

several or all sides of the resilience-building process in the country thanks to these open and permanent venues to share networking capital, and to influence decisions and their implementation. Respondents particularly highlighted the positive impacts of the Vanuatu-Networked-System on the continuity and stability of governance in Vanuatu through the inclusion of non-government stakeholders in the decision-making process, and the inclusion of government stakeholders in the implementation process. Respondents also emphasised that one of the most significant strengths of the system was the inclusion of private and civil stakeholders in official initiatives for resilience-building. The participation of these two groups of stakeholders was direct, such as civils participating in VMGD rainfall networks or private phone companies sending warning texts, and indirect, such as communities participating in lessons-learned-workshops or private companies giving substantial donations to NGOs. The CDCs were particularly recognised as the key networks supporting strong networking across levels to the direct benefit of inclusiveness of civil society.

Furthermore, the diversity of the networks (section 3.4.) facilitates the assimilation of the whole set of stakeholders in the disaster resilience process. Indeed, the sectoral networks participate in the continuous bottom-up-top-down exchange. The civil networks promote consultation, leadership and learning from the communities. The local and national networks bring together government and non-government stakeholders around their specialities. The regional and international networks raise understanding of general principles and agendas. Finally, the umbrella networks supervise the visibility and integration of all consultations, discussions and decisions within the Vanuatu-Networked-System.

Furthermore, the sectoral networks, especially the umbrella networks, help to build reciprocal understanding and better transparency between government agencies and NGOs on their respective mechanisms and initiatives. The formal and informal ties between the different sectoral networks also enable the development of a whole-of-system approach, which prevents disruption to resilience-building, for instance, between sectors, organisations, periods and agendas, and over time. Hence, the comprehensiveness and connectivity of the 54 networks regulates stability of the governance system.

Furthermore, the diverse communication and information exchange mechanisms used throughout the Vanuatu-Networked-System enable the availability of appropriate tools for the different groups of stakeholders. Internet and phone tools, such as the NAB portal or text messages, are considered key assets but are limited to the communities within the Internet and phone network coverage. However, the complementary links between these modern tools and more traditional ones, such as word-of-mouth, ensure full coverage of the same information to the different groups of stakeholders. Furthermore, these modern tools, and more specifically Internet repositories and social media pages strongly promote the development of a whole-of-system approach since

government and non-government stakeholders across sectors and across levels can publish and access reports, plans and reflections on the same platforms. These activities promote not only stable cooperation, but also Networked Learning.

#### **11.4.2. An essential fragmentation of stakeholders**

One of the main strengths of the Vanuatu-Networked-System was the effective management of the fragmentation of stakeholders, approaches, methods and leadership types towards the development of this whole-of-system approach explored above. The good management of fragmentation, through its balance with integration, was indeed recognised as a foundation for an effective cooperative system for different reasons:

- 1) Although the value of heterogeneous cooperation is recognised among most respondents, some stakeholders encounter difficulties in networking across groups, such as national/international, central/local or government/civil, and do not always feel comfortable interacting in integrated and inclusive platforms;
- 2) Group homogeneity obtained through fragmentation of the system into subgroups has a positive impact on the networking structures (Duit and Galaz, 2008). Respondents highlighted the key input of the specialised homogeneous sectoral networks in the development and optimal use of expertise into whole system;
- 3) Many stakeholders still need strong capacity-building, which requires specialised networks in which their specific expertise operates;
- 4) Although it is essential to build comprehensive and sustainable resilience, an integrated approach can be overwhelming and counterproductive when concentrated into a single structure;
- 5) Transparency and accountability relies on the accuracy and precision of information of each stakeholder and organisation, which needs to be gathered on a specialised, concentrated and fragmented level, before being transferred to the network level.

Therefore, it is essential for individual, organisational and network effectiveness to have sectoral networks operating around specific groups, and let the network coordinators and the umbrella networks transfer their networking capital to the other networks through established internal and external ties. The Vanuatu-Networked-System was therefore recognised for its potential to develop a complementary balance between fragmentation and integration for the benefit of disaster governance.

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## **11.5. Adaptiveness of the system**

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### **11.5.1. A structure propitious to changes**

Assessing the potential of the networked system to support the adaptiveness of the governance system relies on the analysis of the impacts of the networks and the networking process on the Vanuatu-Networked-System to adjust to the evolution of external and internal pressures, without affecting its credibility and stability (Biermann, 2007). The earlier systems of governance, in which local strategies fitted in national ones, which fitted themselves in regional and international ones, gave place to more complex networked systems (Walker et al., 2010). Accordingly, the networked disaster governance system, supported by its networking structure, Networked Leadership and Networked Learning, consists of a complex combination of policies, agendas and stakeholders, from the international to the local levels. This situation requires significant adaptiveness of the system since national and local levels will need to be sufficiently reactive and flexible to operate simultaneously and interdependently at the international and regional levels, while maintaining their own position. Due to the uncertainty of climate changes and disaster risks, as well as the increase of related funding opportunities, international and regional legal frameworks evolved towards a more comprehensive and integrated approach. The recent international (e.g. United Nations) and regional (e.g. Pacific Community) positions insist on the need to include all stakeholders, and to mainstream all sectors more or less directly related to capacity-building in terms of resilience-building. Supported by the flexibility of the Vanuatu-Networked-System, the national and local levels showed capacity to rapidly adjust their frameworks to these strategies while preserving their effective traditional approaches. This resourcefulness was recognised by local, national, regional and international respondents.

These respondents spontaneously highlighted the significant role played by the sectoral networks, which offered substantial support for the adaptation of the government agencies to the continuous international and regional legal evolution. For instance, the Pacific Disaster Risk Management Partnership Network, bringing together regional actors and donors, helped the Vanuatu NDMO (among other regional NDMOs) to ensure the consistency between the National Action Plan and the Pacific Disaster Risk Reduction and Disaster Management Framework 2005-2015. The co-existence of sectoral networks operating at different levels developed strong and flexible venues able to address external (international and regional) and internal (national and local) pressures, crediting the system with significant adaptiveness within its whole environment. Furthermore, the Vanuatu-Networked-System comprises a supportive set of significantly flexible and complementary components:



- 1) The mix of member typologies (government, NGOs, private, civil, across sectors and across levels) develops an all-inclusive networking capital at the level of the system building its adaptiveness to cope with internal and external, pressures, and uncertainty.
- 2) The mix of diverse subgroups establishes a set of significantly diverse venues addressing all the different evolving facets of resilience-building projects, and supporting a bottom-up-top-down Networked Leadership able to adjust to the continuous evolution of the society.
- 3) The mix of strong and weak ties within the Vanuatu-Networked-System simultaneously supports on one side the development of trust, consensus, cohesion and commitment, as well as a favourable environment to develop common norms in routine times. On the other side there is development of flexibility, fewer constraints and expectations, more optimal and directed flow of information useful during emergencies (O'Brien, 2010). Therefore, the system can easily and continually adjust to the different pressures in routine and emergency times.

The networking structure proved to be effective in adjusting to the evolution of needs. For instance, after Cyclone Pam, the Vanuatu Gender and Protection Cluster reinforced its links with other clusters, resulting in stronger and more sustainable ties based on the integration of gender and protection experts within development-related initiatives (e.g. WASH) (NDMO, 2015r). Furthermore, the proactive construction of the integrated cluster structure in Vanuatu clearly set operational mechanisms, procedures and processes before the disaster. This prevented the disruption of social services (e.g. health) often caused by the disaster impacts on normal systems and the disruptive arrival of external resources. This strengthens the system adaptiveness to echo the international and regional mainstreaming process of DM, DRR, CCA and development.

### **11.5.2. Lack of individual adaptive capacities despite an adaptive system**

A key obstacle to the system adaptiveness remains the lack of capacity-building among the different stakeholders. The evolution of the system into a comprehensive approach based on the new legal framework requires a parallel reinforcement of the system members' capacities. Most respondents spontaneously reported the need for adaptive capacities to support the sustainability of the networked governance system. By 'adaptive capacities', respondents generally referred to the ability to change their approach and to develop their capacities based on specific needs, as well as their willingness to be challenged by, and learn from their own and others' experience. Sustainability was mainly understood as the flexibility to think in an innovative way by learning from new concepts brought to the system by other members, while preserving their own specialised knowledge for DRR and CCA. Therefore, not only is adaptive capacity important to enable stakeholders to cooperate across levels and sectors, it is vital for Networked Learning, leading to a shared ownership of the Vanuatu disaster and climate change approach.

However, as seen in several cases, and often highlighted in the case of the establishment of the Ministry for Climate Change, the emergence of new institutions lacked simultaneous capacity-building for the relevant staff. Although recognised as being flexible and having relatively adaptive staff, solid foundations to integrate new institutions and approaches need to be consciously fostered. Furthermore, respondents (64.4%) highlighted that the embeddedness of the sectoral networks may significantly prevent the adaptation to, or integration of, new agendas, constraints or focus. This encourages network members to get involved in another network if they are willing to work on other areas. The Vanuatu-Networked-System is supportive of this type of transfer, given the thematic coverage of the 54 networks and the strong bridging ties between them. However, this requires that stakeholders have the capabilities to transfer and capitalise their knowledge, understanding and expertise from one sectoral network to another. This type of adaptive capacity was still considered to be lacking for many stakeholders. Furthermore, as witnessed during Cyclone Pam the different stakeholders and individual institutions encountered difficulties in integrating external stakeholders into the national strategy, despite the government guidelines for, and NGO experience in harnessing and integrating international assistance.

This lack of individual capacities to adapt to the evolution of the system and its environment jeopardise the ability of the Vanuatu-Networked-System to adjust to the evolution of external and internal pressures, although the system itself benefits from flexible and reactive, hence adaptive, structures and mechanisms. Therefore, the structures and mechanisms of the Vanuatu-Networked-System have a strong potential for adaptiveness, currently limited by the lack of individual adaptive capacities. The system foundations for Networked Learning, however, could support the development of these capacities over time.

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## **11.6. Capitalisation of the system**

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### **11.6.1. Arena for individual capitalisation<sup>26</sup>**

Assessing the potential of the networked system to support the credibility of the governance system relies on the analysis of the impacts of the networks and the networking process on the effective mobilisation and optimal use of the existing networking capital existing within the Vanuatu-Networked-System. Networking capital, understood as the whole of individual and collective, tangible and intangible resources – information, knowledge, experiences, institutional memory, networks, professional and personal relations, financial resources – available to

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<sup>26</sup> Reminder: Capitalisation is understood in this thesis as the extensive identification, effective mobilisation and optimal use of the capital existing in a governance system.

stakeholders involved in the Vanuatu-Networked-System to facilitate a cooperative resilience-building process.

Like adaptive capacities, capitalisation capacities, such as the ability to identify, understand, modify and optimally use available networking capital, are lacking at the individual level. Hence, although networking capital is widespread within the Vanuatu-Networked-System, its lack of capitalisation at the individual level remains critical, partly due to remaining obstacles to learning, enforcing dependence on external support. Learning is not only based on the sharing of their own and others capital, but also on the reflection, evolution and use of this capital for more effective actions and decision implementation. Capitalisation relies on a complementary traditional and modern documentation of the learning products, and on their continuous optimal impacts within the policy and practice processes. Unfortunately, individual Networked Learning is limited on one side by the lack of consciousness of their own networking capital, and on the other side by the lack of awareness of and/or access to existing networking capital among the network members.

Recognising learning issues, and related capitalisation challenges, the Vanuatu-Networked-System invests strongly in individual capacity-building and reinforcement. Networked Learning activities, such as workshops, simulations or training, bringing together government and non-government stakeholders within and across sectors, have significantly advanced capacity-building to consciously produce and access traditional and modern learning products, developing the individual's potential for capitalisation.

Moreover, the sectoral networks participate not only in the development of learning products but also in their dissemination, through formal and informal pathways, among diverse stakeholders. The recognition of informal collaborative pathways, harnessed by formal institutions, strongly supports the capitalisation potential, giving stakeholders more flexible means to more optimally use their own and other non-officially recognised networking capital (e.g. informal cooperative initiatives, non-published resources) in building resilience to hazards. Furthermore, the Vanuatu-Networked-System, supported by the umbrella networks, addresses the difficulties in documenting all networking capital by creating tools to cooperatively develop, assess and monitor projects on resilience-building conducted by the different organisations.

However, the fragmentation between formal and informal leadership remains a major obstacle for individual capitalisation, especially at the community level. The lack of community capacities for optimal use of their networking capital is mostly due to issues with communication, lack of conceptual understanding, and lack of awareness of capitalisation value. There was therefore discussion on empowering local institutions, such as provincial departments or local associations, and networks, such as PDCs, CDCs or Vatu Mauri consortium, to help individual capitalisation

at the community level by facilitating more systematic and effective identification, sharing, reflection and documentation of the networking capital (UNDP, 2014).

### **11.6.2. Arena for networked capitalisation**

The lack of individual capacity for capitalisation results in limitations of the potential for networked capitalisation. The lack of capitalisation of the PDCs and CDCs was the most missing link between individual civil networking capital and the Vanuatu clusters. This prevented effective capacity-building, DRR and response, and thus, weakened the potential of the Vanuatu-Networked-System for resilience-building. However, the system, with its networking structure, Networked Leadership and Networked Learning, was considered propitious to the development of common concepts and consensus on actions. This results in the development of more sustainable institutional linkages, which significantly and increasingly benefit networked capitalisation. The impacts of the Vanuatu-Networked-System on governance stability, such as the constant formal and informal interaction between network members or certain adaptiveness to political instability, are key assets for continuous, conscious and reciprocal knowledge and sharing reflection within and across networks, significant support to Networked Learning, and thus networked capitalisation.

The high rate of staff turnover was considered as a major obstacle to individual and networked capitalisation, resulting in networking capital loss, disruptions in the continuity of sharing, and difficulties in tracking and documenting networking capital movements. However, the set of sectoral networks addresses these issues by ensuring a pooling and recordkeeping of the individual networking capital at the network level, decreasing system vulnerability to individual fluctuations. Likewise, the simultaneous and complementary processes of traditional and modern documentation and dissemination of traditional and modern knowledge, as part of the different agendas of the networks, are real assets to the optimal transferability and use of the entire networking capital existing within the Vanuatu-Networked-System. Combining traditional and modern systems creates a complex governance system that may become inherently more inefficient and slower to react in extreme situations; however, the bottom-up-top-down approach (more particularly the recognition and empowerment of the lowest levels of governance for decision-making and implementation) circumvents this potential issue.

Therefore, although capitalisation relies heavily on individual learning capacities through effectively processing information and experiences, it strongly depends on the existence of enabling structures, such as the sectoral networks, to ensure continuous and reciprocal impacts of learning products both from and at the fragmented and integrated levels.

Hence, the Vanuatu governance structure illustrated the potential of a networked system for good governance. In this system, the entire networking capital, existing at the individual and

organisational levels, is invested in the learning process (continuously, reciprocally, mutually, consciously, and impacting on practice) and the capitalisation process (continuously, reciprocally, mutually, complementary traditional and modern, and benefiting practice). The networking structure, Networked Leadership and Networked Learning play a significant role in developing and maintaining these two processes towards the development of networking capital optimally benefiting the individual, organisational and network levels. As such, these processes support the effectiveness and sustainability of the Vanuatu-Networked-System (figure 11.2). The Vanuatu-Networked-System, as captured throughout this thesis, was recognised for enabling continuous and reciprocal impacts of the process of capitalisation with the development of the credibility, stability, inclusiveness and adaptiveness of the disaster governance system.

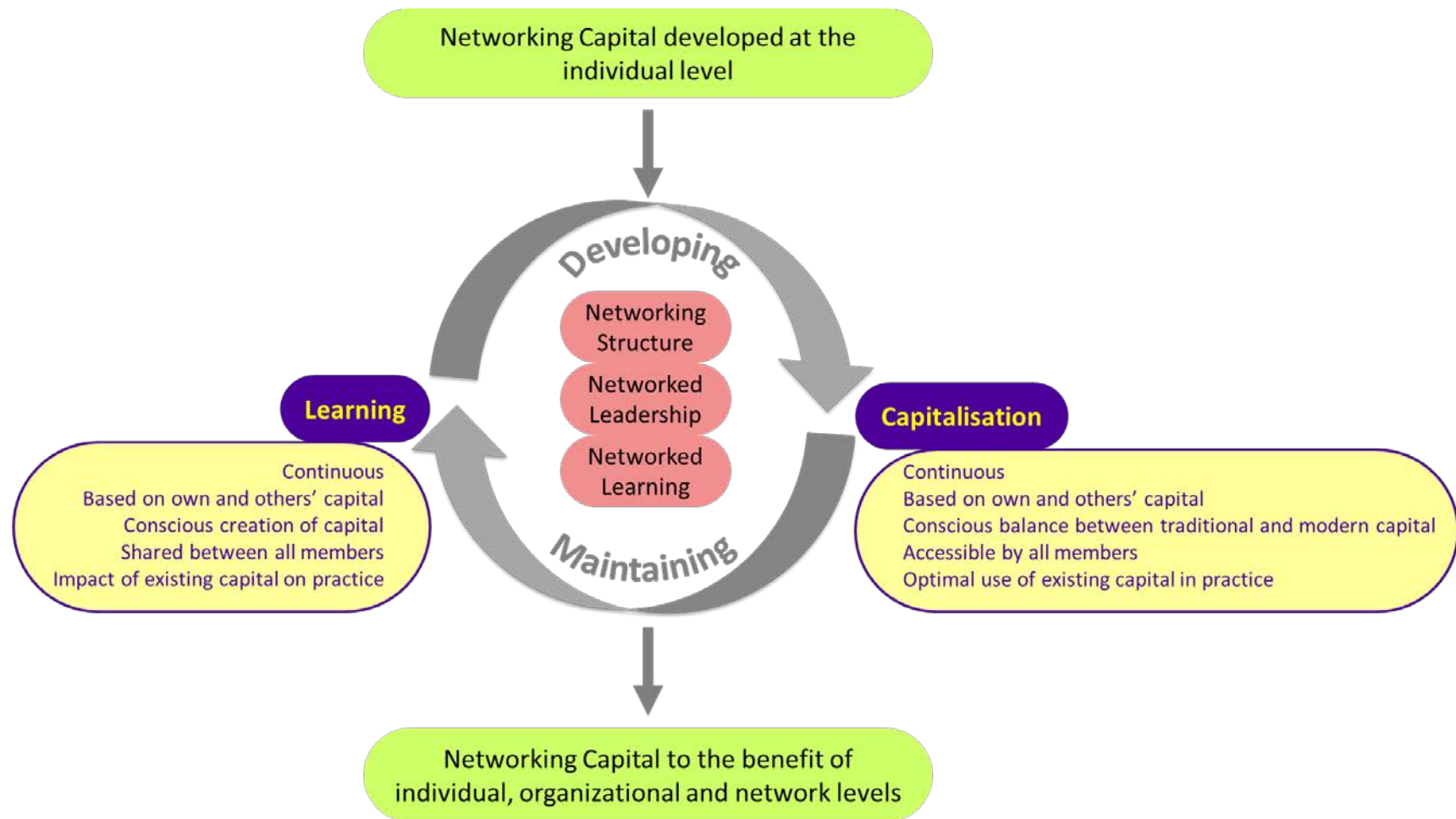


Figure 11.2: Building a more effective and sustainable networked disaster governance system through learning and capitalisation to optimally use Networking Capital.

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## 11.7. Conclusion

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The analysis of the existing governance system in place in Vanuatu, using the 2INDG framework (section 2.3.3), highlighted the potential, the weaknesses and the strengths of such a governance system to effectively build resilience in a vulnerable country. There was a general consensus among respondents (local, national, regional, international) that the Vanuatu-Networked-System should not be replaced but strengthened to be more effective for major disasters and short-term international intervention, and to limit disruption between DM and longer-term resilience-building agendas (DRR, CCA and SD). This reinforcement process needs to remain within the current mechanisms of networking, leadership and learning to prevent the undermining of the current strengths of the system found through this research. These strengths particularly include strong established links between government and non-government stakeholders across sectors, development of a culture of preparedness among communities, development of common terminologies, and combination of traditional and modern knowledge. The continuous networking process within a stable but flexible, and fragmented but integrated structure indeed showed positive achievements on the effectiveness of decision-making for and implementation of resilience-building.

The particular strengths of the Vanuatu system as analysed in this research were the strategic position, composition, roles and responsibilities of three umbrella networks (one government led and two non-government led) to develop, harness and have an optimal use of the potential and achievements of a dense set of diverse and complementary networks within which formal and informal networking ties evolve to the benefit of the good governance principles. This structure has comprehensive and sustainable impacts by facilitating the cooperation process as well as the capitalisation of cooperation outcomes. Hence, the system is a key asset to develop goal consensus, which is a key factor of partnership creation (Provan and Kenis, 2007; Vasavada, 2013), as well as to maintain process consensus, particularly important for the sustainability and effectiveness governance. The networking process significantly benefited DM following Cyclone Pam. For instance, the trustworthy formal and informal relationships built over the years between the FSAC members strongly supported effective food security response in a timely manner while pursuing existing food security and agriculture programs operating in the country. The emphasis on maintaining a strong and continuous cooperative process, supported by the networking structure, Networked Leadership and Networked Learning, is therefore a key asset to address disaster and climate change uncertainty, building a culture of preparedness among organisations and communities.

A key lesson from this research is that communities can be simultaneously vulnerable and resilient. SIDS like Vanuatu are characterised by a complex geopolitical, economic, cultural and

social context, such as unavoidable exposure, scarce resources or complex community diversity, which maintains the vulnerability of institutions and communities. Such vulnerability factors may not be easy to address, and can also be exacerbated over time or by extreme events. For instance, the major destruction following Cyclone Pam across the SIDS threatened the economic, social, financial, and physical recovery, and thus development of Vanuatu society, already problematic before Cyclone Pam, thereby significantly increasing the general vulnerability of the communities to future hazard impacts, even if smaller events. However, as illustrated by the findings on the Vanuatu-Networked-System, organisations and communities were able to build a certain level of resilience and preparedness in parallel to the increasing vulnerability, through the reciprocal integration of 1) adaptation and risk reduction measures and 2) everyday life governance.

The resilience of the vulnerable Vanuatu communities was particularly well illustrated by the preparedness, response and recovery initiatives of the diverse groups of national, local and civil stakeholders faced with Cyclone Pam. This culture of preparedness as a key asset to resilience-building was reflected by a NGO country director willing to better understand the concept of resilience often loosely used by the diverse stakeholders:

*“I looked at synonyms for resilience and there hidden among terms such as elasticity, buoyancy, hardiness and toughness was a word that fitted better: spirit. A simple term, but one which captured the essence of what I was seeing and feeling among our Oxfam team and the general population - a spirit that was strong, positive, realistic, practical under stress and located somewhere deep in the fabric of the people of Vanuatu, deep in their culture and traditions, deep in their hearts and minds.” (Van Rooyen, 2015b).*

This thesis highlights the complexity of resilience-building, showing the example of the Vanuatu organisations and communities, both vulnerable and resilient to hazards. This research has contributed to theories of networked governance through the analysis of the impacts of a particular system (its structure, leadership and processes) on more effective decision-making mechanisms based on Government–non-government, Cross-sectoral Networking. These mechanisms address various key challenges to resilience-building, shared by many other at-risk countries, such as:

- High exposure to geological, climate change and hydro-meteorological hazards,
- Resource scarcity to prepare for extreme events and response activities, and to reduce risk;
- Co-existence of equally powerful local, provincial, national, regional and international stakeholders and agendas, which can be in conflict with each other;
- Significant humanitarian aid fragmented between DRR, CCA, DM and SD agendas;
- Gap between policies and practice;
- Staff turnover and lack of resource capitalisation;
- Political, cultural, economic and environmental diversity among the targeted communities;



- Scattered geography with particularly difficult transport and communication in remote areas;
- Tensions between traditional knowledge protection and modern knowledge integration;
- Influx of a massive number of short-term international actors during a disaster raising tensions with the system in place.

This research analysed the strengths, weaknesses and outcomes of this networked governance system as a whole, before and after a major disaster. This analysis provides a better understanding of how such structures, leadership and processes have the potential to reduce the negative impacts of the challenges described above on the process of resilience-building.

This research also highlighted how Social Network Analyses (SNAs) are useful methods to capture and analyse formal and informal cooperation processes. The SNA conducted for this research collected data relying on the perceptions of respondents of their network, which enforced a significant qualitative analysis of the quantitative data. This revealed the potential of SNAs for promoting and improving cooperation, by increasing stakeholders' awareness of the available capital (social, physical, natural, human, political and cultural) in their network. It was also concrete and useful data on informal strengths that stakeholders could utilise to increase their own visibility and potential. This research added to the theory of SNA by studying a network structure before and after a disaster. A key limitation to the findings however relies within the difficulties in collecting data during an emergency period and the rate of turnover in the country, which prevented the researcher from collecting data among the same respondents before and after the event.

The development of the 2INDG framework for the purposes of this research, as described in section 2.3.3, contributes to the field of political ecology and disaster governance, by offering conceptual pillars of research and practice when assessing the potential of a governance system to build resilience to hazards. These pillars, 1) Government–non-government Networking, 2) Cross-sectoral Networking, 3) Networked Leadership and 4) Networked Learning, enabled the assessment of the system in terms of its credibility, stability, inclusiveness, adaptiveness and capitalisation. This framework was developed using a mixed-methodology of Social Network Analysis and Qualitative Comparative Analysis, based on the principles of the Earth System Governance project. The framework (its key components and their interconnections) was adjusted throughout the research, particularly to address the variations of the two different environments analysed in this thesis: 1) the pro-active governance system in place before a disaster, and 2) the mobilisation of the governance system during a major disaster response. Although based on detailed place- and event –specific research, the 2INDG framework was developed with the objective of a generalizable conceptual and analytical guide for both theory and practice of disaster governance.

Future research using the 2INDG framework in other contexts, such as other small islands, other developing countries or at a regional level, would help to improve and develop the concepts and analytical tools related to the framework. In particular, more in-depth research focused on certain levels could help develop general indicators to measure the impact of these pillars on good governance principles.

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## Appendices

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### **Appendices 1: Vanuatu letters of support to the research**

#### *Appendix 1.1: Endorsement of the research from the Government of Vanuatu*

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*Appendix 1.2: Authorisation to use data from SPC/GIZ*

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## Appendices 2: Sample surveys

### Appendix 2.1: Sample pilot Study

#### TOWARDS POST-2015 DISASTER GOVERNANCE IN VANUATU:

#### Building better Cooperation for Emergency Management, Risk Reduction and Climate Change Adaptation

1. What is your name?
2. For which organisation do you work?
3. What are your position and role in the organisation?
4. How long have you been:

	<6 months	<1 year	<5 years	<10 years	<20 years	>20 years
Living in Vanuatu?						
Working for this organisation?						

5. Are you involved in other organisation or networks?  
If yes, which ones and how long have you been involved there?

6. Please identify 3 people within your organisation who are important in your professional network

	Name	Position in the organisation
Person #1		
Person #2		
Person #3		

7. Please identify 3 people outside your organisation who are important in your professional network

	Name	Position in the organisation
Person #1		
Person #2		
Person #3		

8. Please answer the following questions for each person you have identified

How long have you known this person?	<6 months	<1year	<5 years	<10 years	<20 years
How often do you go to this person for advice?	Never			Very frequently	
How often does she/he come to you for advice?	1	2	3	4	5
How often do you give her/him feedback from your work?	1	2	3	4	5
How often does she/he give you feedback from her/his work?	1	2	3	4	5
How often do you share work opportunities with her/him?	1	2	3	4	5
How do you communicate with her/him?	Phone	Internet	Professional meetings	Private gatherings	Other:
	Low				High
How valuable is her/his information for you work?	1	2	3	4	5
How well do you personally know this person?	1	2	3	4	5
How much do you trust this person?	1	2	3	4	5
What benefit(s) do you receive from your relationship with her/him?					
How could your professional relationship with him/her improve?					

9. Do you want to share any other information on the internal and external network(s) of your organisation?

## Appendix 2.2: Sample survey to study cooperation in routine times

### PART 1. MAIN INFORMATION OF THE INTERVIEWEE

#### 1.1. Names (first and family):

Nationality:

Location:

Sex

☐ Female

☐ Male

Age

☐ Under 15 years old

☐ Between 16 and 24 years old

☐ Between 25 and 60 years old

☐ Over 60 years old

#### 1.2. Agency/organisation:

Position in the organisation:

Domain of expertise/intervention:

Type of organisation:

☐ Governmental

☐ Non-governmental

☐ Civil Society

☐ Private

☐ Education institute/Academia

Level of organisation:

☐ International

☐ Regional

☐ National

☐ Provincial

☐ Island

☐ Community

#### 1.3. Main current climate change and/or disaster risk projects and programs in your organisation

Name of the project/program	Is it on the NAB portal?	
	Yes	No

#### 1.4. Are you part of any specific formal and or/informal network?

Network	How often do you interact with the other network members? 6 (daily) 5 (weekly) 4 (monthly) 3 (3-monthly) 2 (6-monthly) 1 (annually) 0 (never)							How valuable is this network for your work? From 5 (the most valuable) to 1 (not valuable)				
<b>NAB</b> (National Advisory Board for CC and DRR)	6	5	4	3	2	1	0	5	4	3	2	1
<b>VHT</b> (Vanuatu Humanitarian Team)	6	5	4	3	2	1	0	5	4	3	2	1
<b>VCAN</b> (Vanuatu Climate Action Network)	6	5	4	3	2	1	0	5	4	3	2	1
<b>VANGO</b> (Vanuatu Association of NGO)	6	5	4	3	2	1	0	5	4	3	2	1
<b>Others</b> (please specify):	6	5	4	3	2	1	0	5	4	3	2	1
	6	5	4	3	2	1	0	5	4	3	2	1
	6	5	4	3	2	1	0	5	4	3	2	1
	6	5	4	3	2	1	0	5	4	3	2	1

1.5. Since the establishment of these networks, have you noticed major changes in the way CBO, NGO and government programs for CCA and DRR are developed and managed? If yes, which ones?

1.6. Since the establishment of these networks, have you noticed major changes in the way YOU develop and management YOUR projects? If yes, which ones?

## PART 2. SOCIAL NETWORKING MAPPING

2.1. Can you please name key people in and outside of Vanuatu with whom you interact for CCA and DRR matters, and fill in this table for each of them?

<b>Name of collaborator:</b>		<b>Domain of Expertise of collaborator:</b>
<b>Organisation of collaborator:</b>		<b>Location of collaborator:</b>
<b>Type of organisation of collaborator:</b> <input type="checkbox"/> Governmental <input type="checkbox"/> Private <input type="checkbox"/> Non-governmental <input type="checkbox"/> Civil Society <input type="checkbox"/> Donors <input type="checkbox"/> Education institute		<b>Level of intervention of collaborator:</b> <input type="checkbox"/> International <input type="checkbox"/> Provincial <input type="checkbox"/> Regional <input type="checkbox"/> Island <input type="checkbox"/> National <input type="checkbox"/> Community
<b>How valuable is he/she for your work?</b>  <input type="checkbox"/> Essential <input type="checkbox"/> Very valuable <input type="checkbox"/> Valuable <input type="checkbox"/> Not very valuable <input type="checkbox"/> Not valuable	<b>How often do you interact?</b>  <input type="checkbox"/> Daily <input type="checkbox"/> Weekly <input type="checkbox"/> Monthly <input type="checkbox"/> 3-monthly <input type="checkbox"/> 6-monthly <input type="checkbox"/> Annually <input type="checkbox"/> Never	<b>What input did you receive (R) and/or give (G)?</b> R / G Capacity building R / G Technical support R / G Implementation support R / G Political support/approval/endorsement R / G Funding R / G Networking and linking stakeholders R / G Informal advice R / G Other (please specify):

## PART 3. VANUATU SPC/GIZ CCCPIR PROGRAMME SOCIAL NETWORKING MAPPING

<b>How valuable is the SPC/GIZ programme for your work?</b>	<b>How often do you collaborate with SPC/GIZ?</b>	<b>Would like to increase your collaboration with SPC/GIZ in the near future?</b>
<input type="checkbox"/> Essential <input type="checkbox"/> Very valuable <input type="checkbox"/> Valuable <input type="checkbox"/> Not very valuable <input type="checkbox"/> Not valuable	<input type="checkbox"/> Daily <input type="checkbox"/> Weekly <input type="checkbox"/> Monthly <input type="checkbox"/> 3-monthly <input type="checkbox"/> 6-monthly <input type="checkbox"/> Annually <input type="checkbox"/> Never	<b>No</b>  <b>Yes:</b> <input type="checkbox"/> Capacity building <input type="checkbox"/> Technical support <input type="checkbox"/> Implementation support <input type="checkbox"/> Political support/approval/endorsement <input type="checkbox"/> Funding <input type="checkbox"/> Networking and linking stakeholders <input type="checkbox"/> Informal advice <input type="checkbox"/> Other (please specify):

(End of survey next page)

#### PART 4. ASSESSMENT OF NETWORKING PROCESS

4.1. Information on available tools to disseminate and share information (newsletters, websites, social media page, SMS and radio alerts etc.)

Information tools	How often do you use this tool to seek information? <i>6 (daily) 5 (weekly) 4 (monthly) 3 (3-monthly) 2 (6-monthly) 1 (annually) 0 (never)</i>	How valuable is the information for your work in general? <i>From 5 (essential) to 1 (not valuable)</i>	How valuable is this tool for networking with other organisations? <i>From 5 (essential) to 1 (not valuable)</i>
NAB portal	6 5 4 3 2 1 0	5 4 3 2 1	5 4 3 2 1
Others (please specify):	6 5 4 3 2 1 0	5 4 3 2 1	5 4 3 2 1
Others (please specify):	6 5 4 3 2 1 0	5 4 3 2 1	5 4 3 2 1
Others (please specify):	6 5 4 3 2 1 0	5 4 3 2 1	5 4 3 2 1
Others (please specify):	6 5 4 3 2 1 0	5 4 3 2 1	5 4 3 2 1

4.2. What are the obstacles you may encounter in networking with other organisations for climate change adaptation, disaster risk reduction and development matters?

4.3. What values and behaviours of people are the most important for supporting networking and relationship-building in climate change adaptation, disaster risk reduction and development matters?

4.4. In your opinion, who are the three key decision-makers in the area of climate change adaptation and disaster risk reduction in Vanuatu?

Name of decision-maker	Organisation of decision-maker

Any further comments?

**Thank you for your participation....**

## Appendix 2.3: Survey sample to study cooperation after Cyclone Pam

### NETWORKED MANAGEMENT OF CYCLONE PAM

1. What is your name?
2. For which organisation do you work (original and hosting during Cyclone Pam's Management)?
3. What is your domain of expertise?
4. What is your nationality?
5. **For international respondents only:**
  - 5.1. When did you arrive in Vanuatu?
  - 5.2. How long are you in the country for?
  - 5.3. Are you:
    - ☐ Replacing someone at a permanent position?
    - ☐ Replacing someone at a temporary position?
    - ☐ Filling in a new permanent position?
    - ☐ Filling in a new temporary position?
  - 5.4. How did you gather information on Vanuatu and Cyclone Pam before arriving in the country?
  - 5.5. How did you gather information about what was already happening and your sphere of action the first days after your arrival?
  - 5.6. Did you find easy to understand the existing disaster governance system in the country? Could you briefly explain how you understand it?
6. How are you currently gathering information on the operations being led by other organisations?
7. Can you please think about 5 people you are currently working with, and fill in the following table for each of them?

<b>Name of collaborator:</b>		<b>Domain of Expertise of collaborator:</b>	
<b>Organisation of collaborator:</b>		<b>Location of collaborator:</b>	
<b>Status of collaborator:</b> <input type="checkbox"/> Ni-Vanuatu <input type="checkbox"/> Long-term Expatriate <input type="checkbox"/> Short-term Expatriate	<b>Period of cooperation:</b> <input type="checkbox"/> Response <input type="checkbox"/> Early recovery	<b>First contact:</b> <input type="checkbox"/> He/she contacted you <input type="checkbox"/> You contacted him/her	
<b>How did you in contact?</b> <input type="checkbox"/> You had already worked together before <input type="checkbox"/> You had heard about each other's reputation <input type="checkbox"/> A common contact introduced you <input type="checkbox"/> Contact was government mandated <input type="checkbox"/> It was spontaneous cooperation on the field <input type="checkbox"/> Other (please specify):		<b>What input did you receive (R) and/or give (G)?</b> R / G Capacity building R / G Technical support R / G Implementation support R / G Political support/approval/endorsement R / G Funding R / G Networking and linking stakeholders R / G Informal advice R / G Other (please specify):	

8. Were you part of any network before Cyclone Pam and did you find them useful for your work during Pam's management?
9. Did you join networks during and/or after Cyclone Pam's management to facilitate your work?
10. What are the different challenges you encountered, and are still encountering, in the cooperation process with other stakeholders?

## Appendices 3: Detailed characteristics of stakeholders studied in this thesis

### *Appendix 3.1: Respondents of the pilot study*

	<b><i>Respondents</i></b>
<b><i>Number of respondents</i></b>	25
<b><i>Gender</i></b>	
Men	64%
Women	36%
<b><i>Type of organisations</i></b>	
NGO	40%
Vanuatu Governmental agencies	24%
Donors	20%
Regional United Nations	12%
Civil Society members	4%
<b><i>Sector of Expertise</i></b>	
Disaster Risk Reduction and Disaster Management	20%
Community Development	20%
Climate Change Adaptation	16%
Policy and Public Administration	12%
Integration of CCA and DRR	8%
Meteorology and Climate Sciences	8%
Gender	8%
Program Management	4%
Education	4%
<b><i>Position</i></b>	
Project Managers	28%
Officers	24%
Directors	20%
Coordinators	12%
Private consultants	8%
Volunteers	8%



### ***Appendix 3.2: Respondents and whole Vanuatu-Networked-System in routine times***

	<b><i>Respondents</i></b>	<b><i>Vanuatu-Networked-System</i></b>
<b><i>Number of stakeholders</i></b>	90	260
<b><i>Gender</i></b>		
Men	60%	62%
Women	40%	38%
<b><i>Geographic location</i></b>		
Efate province (capital)	82%	60%
Other Vanuatu provinces	7%	11.5%
Other South Pacific countries	7%	15%
Other regional countries	4%	10%
Other countries	0%	3.5%
<b><i>Type of organisations</i></b>		
Vanuatu Governmental agencies	41%	35%
NGO	41%	36%
Regional organisations and Regional United Nations	7%	12%
TERI	7%	5%
Donors	4%	6%
Private sector	0%	4%
Civil Society members	0%	2%
<b><i>Sector of expertise</i></b>		
Disaster Risk Reduction and Disaster Management	13%	14%
Agriculture, Livestock and Food Security	13%	9%
Environment, Biodiversity and Forestry	9.5%	7%
Integration of CCA and DRR	8%	6%
Community Development	8%	13%
Meteorology and Climate Sciences	6.5%	4%
Climate Change Adaptation	6%	10%
Fisheries and Marine Resources	6%	4%
Policy and Public Administration	4.5%	4.5%
Communication, Information and Knowledge Management	4.5%	3%
Program Management	4.5%	3%
Gender	3.5%	3%
Water Management	2%	3.5%
Planning	2%	3%
Monitoring and Evaluation	2%	1%
Health	2%	1.5%
Other	2%	2.5%
Education	1%	5%
Energy	1%	1%
Logistics	1%	1%
Traditional Knowledge and Culture	0%	1%
<b><i>Position</i></b>		
Director or country director	9%	n/a
Project or program manager	13%	n/a
Coordinator	14%	n/a
Technical officer	53%	n/a
Advisor	6%	n/a
Volunteer	3%	n/a
Researcher	2%	n/a

### ***Appendix 3.3: Respondents of the study on Cyclone Pam cooperation***

	<b><i>Respondents</i></b>
<b><i>Number of respondents</i></b>	19
<b><i>Gender</i></b>	
Men	63%
Women	37%
<b><i>Type of organisations</i></b>	
Vanuatu Governmental agencies	26.5%
NGO	47.5%
Regional United Nations	10.5%
Donors	10.5%
Civil Society members	5%
<b><i>Field of action</i></b>	
General coordination	26.5%
Shelter cluster	21%
Gender and Protection cluster	21%
Food Security and Agriculture cluster	15.5%
Water Sanitation and Hygiene cluster	10.5%
Logistics cluster	5.5%
<b><i>Status</i></b>	
Vanuatu Nationals	21%
Long-term expatriates	47.5%
Short-term expatriates	31.5%
<b><i>Position</i></b>	
Project Manager	52.5%
Coordinator	21%
Directors	10.5%
Volunteer	10.5%
Officer	5.5%

## Appendices 4: Social Networking Analysis statistics of the most central nodes, measured with UCINET 6 (Borgatti et al., 2002)

### Appendix 4.1. SNA statistics of the most In-degree central nodes

<i>Nodes identified by their organisations</i>	<i>InDegree</i>	<i>NrmlnDegree</i>
SPC/GIZ	27.000	10.547
NAB/PMU #1	11.000	4.297
Oxfam/VCAN #1	11.000	4.297
NAB/PMU #2	9.000	3.516
Ministry of Climate Change	7.000	2.734
Oxfam/VHT	7.000	2.734
CARE	6.000	2.344
VMGD	6.000	2.344
Oxfam/VCAN #2	5.000	1.953
VMGD	5.000	1.953

### Appendix 4.2. SNA statistics of the most Betweenness-central nodes

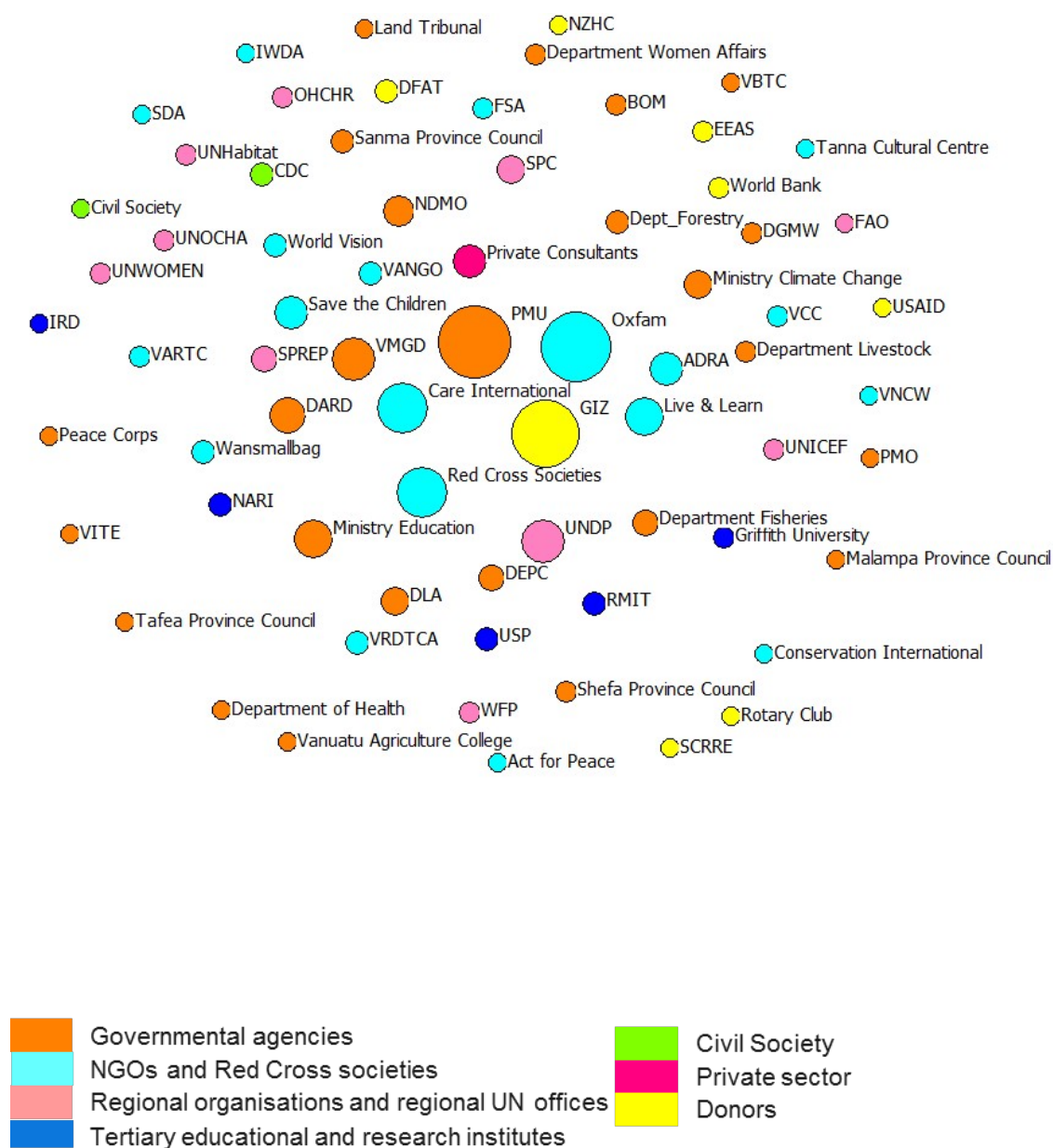
<i>Nodes identified by their organisations</i>	<i>Bweteenness</i>	<i>nBetweenness</i>
SPC/GIZ	2644.883	4.052
Oxfam/VCAN #1	1530.017	2.344
NAB/PMU #2	1000.650	1.533
NAB/PMU #3	635.383	0.973
NDMO	458.867	0.703
ADRA	403.083	0.617
Oxfam/VCAN #2	330.300	0.506
DLA	319.400	0.489
Red Cross CC	300.400	0.460
Oxfam/VHT	285.167	0.437

### Appendix 4.3. SNA Analysis statistics of the most Eigenvector-central nodes

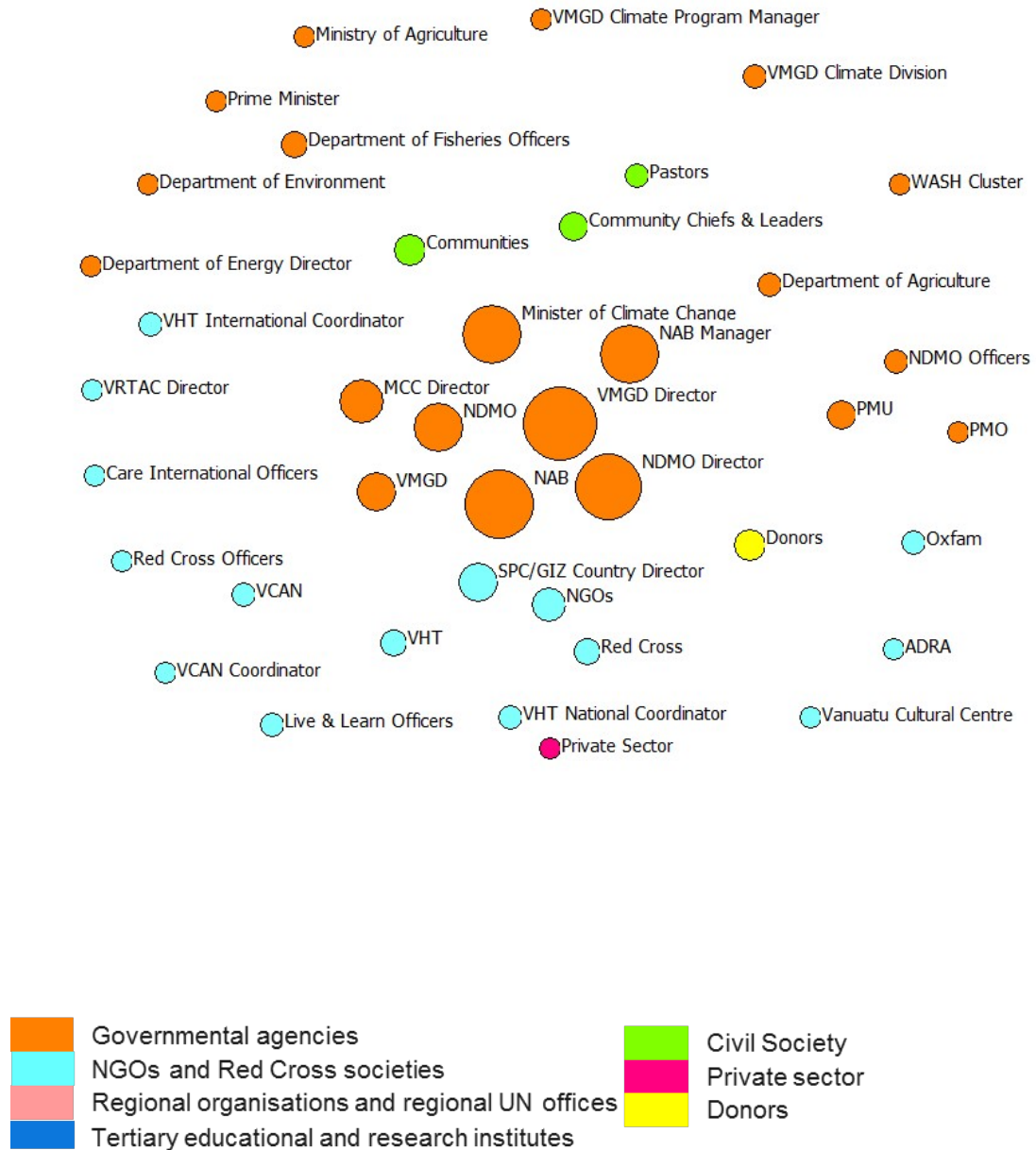
<i>Nodes identified by their organisations</i>	<i>Eigenve</i>	<i>nEignvec</i>
SPC/GIZ	0.576	81.397
Oxfam/VCAN #1	0.497	70.246
Oxfam/VCAN #2	0.363	51.389
NAB/PMU #2	0.253	35.808
DEPC	0.195	27.584
Red Cross CC	0.195	27.584
CARE	0.195	27.584
NAB/PMU #3	0.190	26.894
FSA	0.168	23.805
VRDTCA	0.168	23.805

## Appendices 5: Social Networking Analysis maps

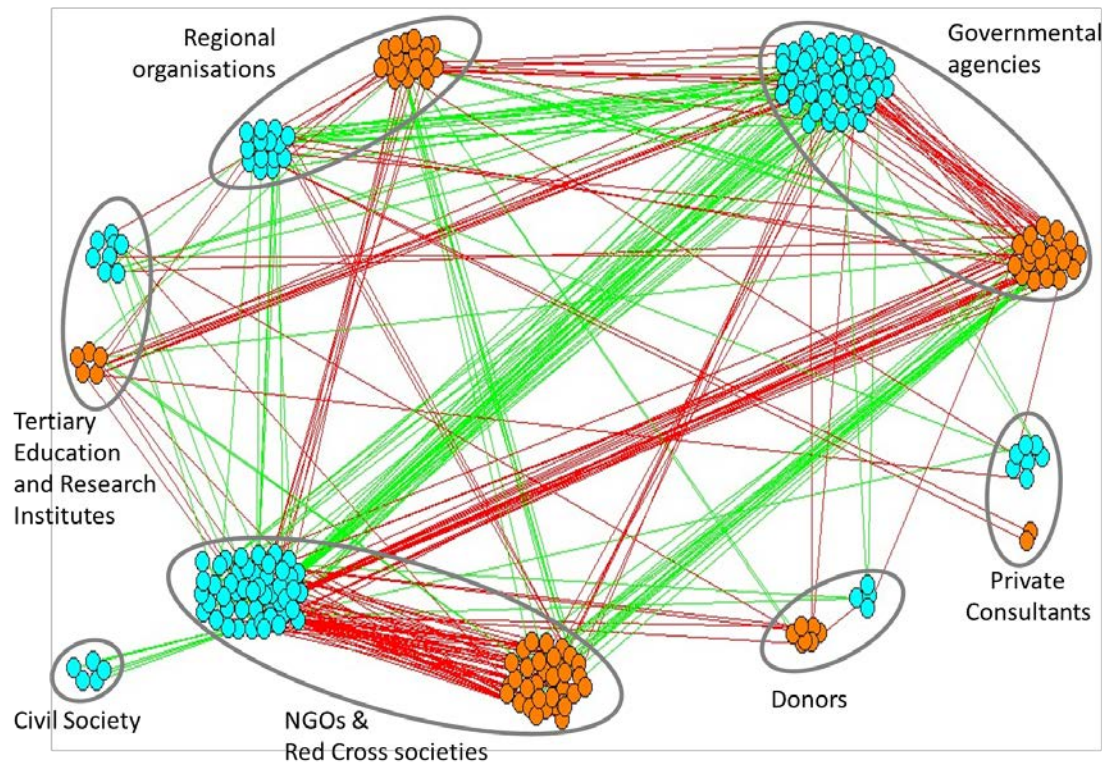
### Appendix 5.1. Organisational In-degree centrality within the Vanuatu-Networked-System based on stakeholders' centrality



**Appendix 5.2. Perceived organisational leadership based on nomination of leaders within the Vanuatu-Networked-System**



**Appendix 5.3. Cooperation ties based on gender and types of organisations of stakeholders**



- Female stakeholders
- Male stakeholders
- Inter-gender social networking ties
- Cross-gender social networking ties