Vanuatu and Cyclone Pam: An update on fiscal, economic, and development impacts

Introduction

During March 2015, Tropical Cyclone Pam charted a course of destruction through the southwest Pacific. The effects of the storm were felt in Kiribati, Solomon Islands, and Tuvalu. But the greatest impact was in Vanuatu, many of whose islands were battered by the Category 5 system.

It is still too early to know the full economic, fiscal, and developmental impacts of Cyclone Pam on Vanuatu. As data come to hand, they will add to existing literature on the economic impacts of disasters. Cross-country econometric studies have produced mixed and often contradictory findings when examining the impacts of disasters. This is not unexpected given that disasters come in many forms and affect both economic sectors (e.g., agriculture and services) and geographic areas differently. Cyclone Pam was unique given the breadth of its impact, but even in this case, some islands in Vanuatu such as Santo were not severely affected.

In this article, we provide an update on estimated fiscal, economic, and development impacts of the cyclone on Vanuatu. We commence by establishing projections for the Vanuatu economy before the onset of the storm and move on to an examination of the immediate and short-term impacts. We then consider the medium- to longer-term impacts of this event, including risks and opportunities associated with reconstruction efforts whether by government or development partners. We conclude with some recommendations for the future.

Background

The Vanuatu government's budget policy statement for 2015, prepared prior to Cyclone Pam, predicted economic growth of 5.3% in 2015 and 2016, which was expected to level out at 3.6% in 2017 (Government of Vanuatu 2015a). ADB forecasts for 2015 were lower, at 4% growth, given concerns about capacity constraints (ADB 2014).

Much of the anticipated growth was linked to the expected implementation of significant infrastructure projects including the Port Vila Urban Development Project and the construction of a multipurpose terminal building at the Port Vila wharf. The two other significant pillars of the Vanuatu economy continue to be agriculture and tourism.

Although more than 70% of Vanuatu's population is engaged in agriculture, whether for subsistence purposes and/or to generate a cash income, there are relatively few formal jobs in this sector (approximately 5,000 for a population of around 270,000). Agriculture has long been neglected in Vanuatu in terms of government expenditure, and the 2015 budget intended to start addressing this by increasing the allocations to relevant agencies with particular focus on improving extension and outreach services.

The Reserve Bank of Vanuatu, in its quarterly economic review for the quarter ending December 2014, predicted growth of 2.4% in the agriculture sector for the period 2014 to 2016. Table 1 shows the change in value of four of the most significant exports as compared with the fourth quarter of 2013.

Table 1: Indicative agricultural exports for Q4 of 2014

Export commodity	Estimated value of exports in Q4 of 2014 ($)	% change over Q4 of 2013
Copra	839,415	–81.6
Coconut oil	3,574,839	77.4
Kava	2,339,688	5.1
Beef	1,085,758	14.7

Source: Reserve Bank of Vanuatu.

Tourism is the most significant economic sector in terms of job creation, with the majority of those opportunities located in Port Vila. The importance of tourism has risen in the last decade. Tourism expenditure as a percentage of GDP has increased from 26% in 2002 to 33% in 2010. Tourism has also driven growth in the infrastructure and agriculture sectors, leading the World Travel and Tourism Council to estimate that tourism contributes 64.8% to Vanuatu's GDP, both directly and indirectly (World Travel and Tourism Council 2014).

However, there are signs that tourism growth has slowed in recent years. Total visitor arrivals declined in 2014 as compared with 2013 (Table 2). In the first 2 months of 2015, accommodation providers in Port Vila reported that forward bookings for the middle of the year (traditionally a peak period) were the lowest they had been for a number of years.

Table 2: Comparison of visitor arrivals to Vanuatu, 2013–2014

	2013	2014	% change
Air arrivals	110,045	108,656	–1.3
Cruise ship arrivals	233,097	220,205	–5.5
Total arrivals	343,142	328,861	–4.2

Source: Vanuatu National Statistics Office.

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Immediate and short-term impacts

Tropical Cyclone Pam is the largest cyclone ever to have hit Vanuatu and is one of the most severe storms experienced in the Pacific. It directly affected 22 of the 63 inhabited islands, destroying and damaging housing, crops, businesses, and critical public infrastructure including schools, medical facilities, roads, and bridges. The official death toll of 11 is astonishingly low given the strength of the cyclone and its widespread impact. This is a credit to both the disaster preparedness of the Vanuatu government and the resilience of Ni-Vanuatu, who have long been accustomed to cyclonic activity.

The most immediate need in the aftermath of Cyclone Pam was for a humanitarian response to address needs for water, shelter, and food. The government of Vanuatu and the UN Office for the Coordination of Humanitarian Affairs launched a flash appeal to raise funds to provide humanitarian assistance for a 3-month period until the end of June. Subsequently, a humanitarian action plan to run until the end of July was prepared and the combined requested funding is $38 million.

Given the importance of subsistence agriculture to the population of Vanuatu, food security has been a matter of great importance in the immediate and short term. The government has led the distribution of food aid, largely in the form of rice, tinned fish, noodles, and high-energy biscuits, with the assistance of humanitarian partners including the World Food Program. With each issue of food aid, rural communities have received seeds, seedlings, and gardening tools so that food gardens could be reestablished as soon as possible. On 1 June the government launched the Urban Gardens project to promote the use of state land and undeveloped leased land as food gardens for a 12-month period in recognition of the need to address urban food security issues (Newton Cain 2015).

It became very clear very quickly that the logistical implications and associated costs associated with meeting the humanitarian needs are many and varied. In the very early stages of the response, these difficulties were exacerbated by a lack of communications, particularly with rural and remote areas. There was no shortage of offers of help from near and far, from governments, NGOs, the private sector, and others. From the start, the government of Vanuatu made it clear that it intended to lead the response (and subsequent activities related to recovery), and this caused some tension between the government and NGOs. A number of senior officials were seconded to work within and with the National Disaster Management Office on aid distribution, placing additional strain on a small bureaucracy with limited across-the-board capacity.

In the immediate aftermath and as a way of promoting early recovery efforts, the government made a number of decisions with fiscal and economic implications.

They were:

(i) waiver of VAT and duty on imported seeds, gardening tools, and building materials;

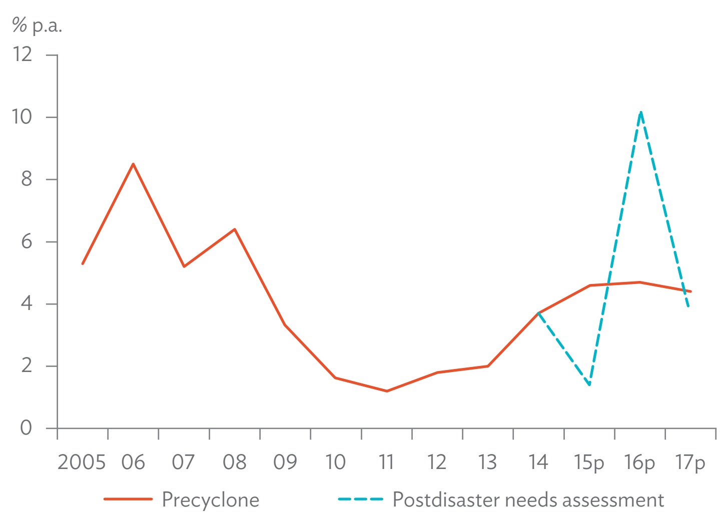
(ii) release of $9,124 to each of the country's 52 members of Parliament (i.e., a doubling of the constituency allowance for 2015); and

(iii) direction to the Vanuatu National Provident Fund (the national pension fund) to facilitate members to withdraw 20% of their retirement accounts to fund rebuilding and/or livelihood restoration.

These measures supported households in the aftermath of the cyclone. However, they also adversely affected the fiscal position of the government, which is under considerable pressure (and is likely to remain so for some time) given the expected downturn in two of the most significant sectors, agriculture and tourism, as a consequence of the cyclone. During the recent extraordinary sitting of Parliament, a supplementary budget of $437,956 was approved.

Government estimates of economic growth in Vanuatu have been modified considerably to take into account the effects of Cyclone Pam. Figure 1 shows economic growth estimates both prior to and after the passage of Cyclone Pam. In its postdisaster needs assessment, the Government of Vanuatu estimates that Cyclone Pam had a substantial negative impact on GDP, but the impact will be mitigated to some extent by economic activity associated with recovery and reconstruction. Growth in 2015 is now projected at 1.4% (Government of Vanuatu 2015b). This is 3.2% lower than expectations prior to Cyclone Pam, but higher than initial forecasts in the immediate aftermath of the cyclone (a preliminary assessment by ADB projected a contraction of −0.5%, and the recent IMF Article IV Consultation projects growth of −2.0%).

Figure 1: Impact of Cyclone Pam on projected GDP growth in Vanuatu



GDP = gross domestic product, p = projection.
Source: Dornan, M. 2015. Vanuatu after Cyclone Pam: the economic impact. *Devpolicy Blog*. http://devpolicy.org/vanuatu-after-cyclone-pam-the-economic-impact-20150410

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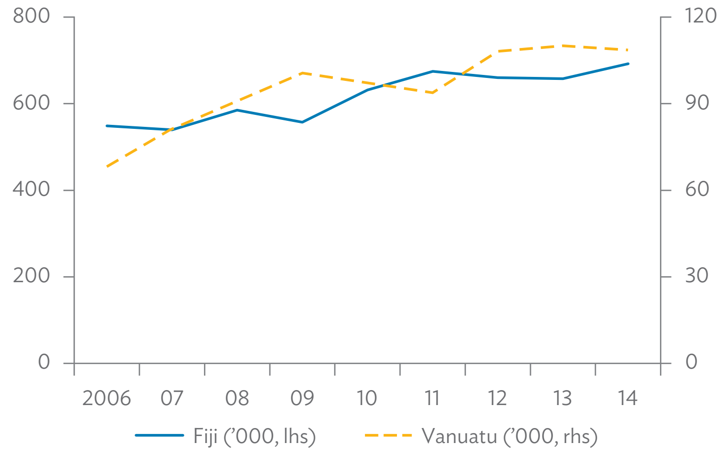
Economic activity is expected to rebound in 2016 due to reconstruction and recovery activity, as well as the commencement of a number of large infrastructure projects conceived prior to Cyclone Pam. The government's postdisaster needs assessment predicts GDP growth of 10.3% in 2016. It should be noted that this estimate is affected by the availability of finance and capacity constraints and is therefore subject to a high degree of uncertainty. ADB estimates made in the initial aftermath of Cyclone Pam predicted significantly lower growth of 4%. The recent IMF Article IV Consultation projects growth of 5% in 2016.

Future growth rates will depend on how quickly tourism recovers. This sector is of particular concern, given its overwhelming importance to the economy as a whole. While cruise ship calls resumed in a short space of time, a number of properties in and around Port Vila had to close for repairs and both Air Vanuatu and Virgin Australia reduced their flight schedules, reflecting a drop in demand. Many properties have now reopened, but two of the biggest will be closed until the end of 2015.

Experience in other countries suggests that there is reputational damage associated with large-scale disasters such as Cyclone Pam, and that it can take years for the tourism sector to fully recover from such events. This stresses the importance of a new campaign promoting Vanuatu as a holiday destination in the largest source markets (Australia, New Zealand, and New Caledonia). Vanuatu's most significant competitor in the tourism market, Fiji, is likely to benefit from the expected downturn in Vanuatu in the meantime (Figure 2 shows the substitution effect between these two destinations).

Figure 2: Comparison of visitor arrivals to Fiji and Vanuatu



lhs = left-hand scale, rhs = right-hand scale.
Source: ADB. 2014. Pacific Economic Monitor database. www.adb.org/pacmonitor

Medium- to longer-term outlook

As Vanuatu moves from the humanitarian response stage to recovery and reconstruction, the enormity of the task has become apparent. Again, experience from elsewhere may give some indication about how this event could affect economic activity and growth in Vanuatu. Loayza et al. (2009) determined that a "typical" (median) disaster has a negative impact on medium-term future economic growth, although the effects vary according to the type of disaster experienced and the sector under consideration. In some cases, disasters are found to have positive economic impacts, such as where the industrial sector increases output further after floods, earthquakes, and storms (including cyclones)—no doubt as a result of subsequent reconstruction activities. However, this should not be equated with economic welfare or well-being.

In Vanuatu, household spending on rebuilding and rehabilitation is already making it difficult for families to maintain or increase investment in nonrecovery activities such as education (Dornan and Newton Cain 2015a). The economic literature suggests that severe disasters such as Cyclone Pam have effects that are considerably more pronounced than 'median' disasters. In these cases, there is a clear negative impact on future GDP and future output in agricultural, industrial, and service sectors. The extent of these impacts depends on a range of factors. Cavallo and Noy (2010) found after reviewing the literature that the medium- to longer-term economic impacts are affected by a country's "ability to mobilize significant funding for reconstruction." They argue that, as a result, poor countries suffer more in the medium and longer term owing to disasters.

The Vanuatu government's postdisaster needs assessment, prepared with support from development partners, notes that the economic value of the impacts of Cyclone Pam amounts to $449.4 million (Government of Vanuatu 2015b). This equates to 64.1% of GDP (based on the 2013 figures). By comparison, the costs of reconstruction in Samoa after Cyclone Evan in 2012 equated to 30% of GDP. The assessment report cautions that the estimates of damage and loss are likely to be underestimates as a result of limitations to the data that were available at the time. Table 3 provides more detail as to damage and loss in selected sectors of the Vanuatu economy, as reported in the postdisaster needs assessment.

In terms of estimated recovery costs, the postdisaster needs assessment is equally sobering. The total estimated cost of recovery over a 4-year period is $328.2 million (43.3% of GDP), with 52% of this relating to the public sector.

These costs are far beyond the government's ability to meet from domestic revenue even without the extra pressures on the current account referred to earlier. The need for external funding is undeniable. The previous Council of Ministers was considering a 2-year reconstruction and recovery plan that will set out the priorities for reconstruction and rehabilitation of public assets such as schools and health facilities. We have yet to see how this will progress given the change of government on 12 June. There has already been recognition that there will need to be prioritization of which assets are to be replaced and/or repaired. Managing community and political expectations is likely to prove tricky, not least because the country will go to general elections in 2016.

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Table 3: Estimates of economic value of impact on selected sectors of the Vanuatu economy

	Disaster effects ($ million)			Share of disaster effects (%)	
	Damage	Losses	Total	Private	Public
Productive sectors	78.9	96.3	175.2	98.0	2.0
Agriculture	13.2	43.0	56.1	93.0	7.0
Commerce and industry	11.1	19.9	31.0	100.0	0.0
Tourism	54.7	33.4	88.1	100.0	0.0
Social sectors	132.7	5.8	138.6	67.0	33.0
Housing (private)	87.5	40.7	128.2	100.0	0.0
Education	36.2	0.7	36.9	0.0	100.0
Infrastructure sectors	59.3	27.1	86.3	51.0	49.0
Transport	27.9	19.8	47.7	43.0	57.0
Communication	20.9	3.6	24.5	67.0	33.0
TOTAL	**270.9**	**178.5**	**449.4**	**69.0**	**31.0**

Notes: Damage (or direct impacts) refers to the economic and financial impacts resulting from damaged infrastructure and physical assets. Losses (or indirect impacts) refers to economic and financial impacts resulting from changes in economic activities, such as reduced tourism numbers or higher prices for certain inputs to production. Exchange rate used is $1 = 108.04 vatu.
Source: Government of Vanuatu. 2015c. *Budget Policy Statement 2016*. Port Vila.

There are a number of ways that this work will be financed. While a surge in aid will cover some of the reconstruction costs, previous experience from around the world indicates that it will fall well short of what is required (Becerra, Cavallo, and Noy 2012). Closer to home, past disasters in Vanuatu (three cyclones during 1985) and Samoa (Cyclone Evan in 2012) generated an increase in aid that amounted to around 5% of GDP, well short of what was required (Dornan and Newton Cain 2015a).

Development partners, in providing support, should be striving to harmonize their processes and absorb more of the transaction costs involved in getting projects approved. The Vanuatu government has become increasingly vocal about the need for donors to use government systems since Cyclone Pam. With an inflow of large sums of aid, there is a real risk that parallel systems will be created, and that the best and brightest Ni-Vanuatu will seek employment with donor agencies and/or NGOs at the expense of government institutions.

Use of government systems is low in Vanuatu, partly due to donor perceptions of poor governance, and partly due to limited capacity in line areas of government that could otherwise implement donor-funded projects. In 2010, less than 30% of aid provided to Vanuatu was directed through government mechanisms (Vanuatu Peer Review Team 2010). It is in this context that the previous prime minister has specifically requested budget support, and has asked that development partners make greater use of government systems and processes.

The Vanuatu government will also need to borrow funds for reconstruction, as did the Government of Samoa after Cyclone Evan. Access to finance for reconstruction is an essential element of recovery, and one that influences the severity of the economic impacts of a disaster (Cavallo and Noy 2010). Vanuatu is currently in a sound fiscal position, with public debt equivalent to only 21% of GDP, well below the 40% threshold recommended by the International Monetary Fund. On the face of it, the Vanuatu government is in a position to borrow money for reconstruction. However, closer inspection reveals a somewhat different story. It currently has a significant pipeline of infrastructure investments forecast, which is to be funded through a combination of grants and concessional loans from donors. These projects would result in a considerable increase in public debt (Figure 3).

It would be preferable to cancel or postpone some of these projects in order to provide greater flexibility for borrowing to finance reconstruction. However, the political realities are likely to make that very difficult (Dornan and Newton Cain 2015a). Debt management is therefore going to be a crucial element in Vanuatu's longer-term recovery, with careful attention required to what projects are approved and on what terms. This will also need to be an important concern among development partners.

Conclusions and recommendations

Vanuatu faces significant challenges as it seeks to rebuild and recover from Cyclone Pam. The recovery of the tourism sector will be a crucial determinant of Vanuatu's medium-term economic prospects. A proactive strategy to rebuild the sector is needed, including promotional activities that have in the past received limited government attention and funding. As part of "building back

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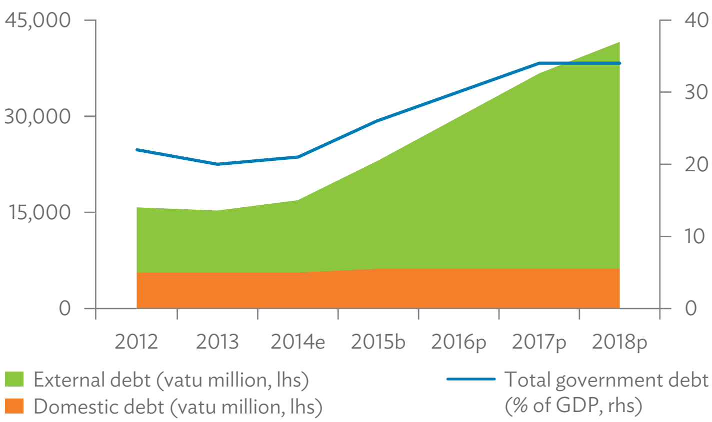
Figure 3: Vanuatu government debt



lhs = left-hand scale, rhs = right-hand scale.
Source: Dornan and Newton Cain. 2015a. Vanuatu after Cyclone Pam: how will reconstruction be financed? *Devpolicy Blog.* http://devpolicy.org/vanuatu-after-cyclone-pam-how-will-reconstruction-be-financed-20150507/

better," efforts will need to extend beyond Port Vila to ensure that all communities affected by the cyclone benefit (Dornan and Newton Cain 2015b). The reconstruction of infrastructure linking these communities to Port Vila should be a priority for the same reason.

Access to finance and the way in which capacity constraints are managed will also be important. Both have the potential to undermine reconstruction and recovery activities—a point emphasized in the economic literature on disasters. Damage from Cyclone Pam, estimated at the equivalent of 64.1% of GDP, means that very significant funding is required for reconstruction. The government will be expected to finance over half of this amount, both for repair of government infrastructure and services and in support of private sector recovery efforts.

Development partners can be expected to, and are already, assisting with this effort. However, development assistance is unlikely to fund more than a modest proportion of the total expenditure required. This highlights the importance of ensuring that assistance is well targeted, with partners coordinating their assistance and working closely with the Vanuatu government—measures also important for management of capacity constraints.

The Government of Vanuatu will also need to borrow to fund the reconstruction and recovery effort. It is currently in a position to do so; however, a pipeline of new infrastructure partially funded through concessional loans means that care will need to be taken to avoid excessive borrowing. The terms of new debt will need to be scrutinized closely to ensure that the quality of future loans is given due consideration. Prioritization of infrastructure projects will also be required. There is no doubt that this will be politically challenging. The resilience shown by Ni-Vanuatu in recent months, together with a commendable response by the Vanuatu government, should nevertheless be cause for optimism.

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