The Challenges for Water Resources & Sustainable Development in the Tropics

Dr. Shelley TEMPLEMAN[1]
Ann Penny[2]

[1] TropWATER, James Cook University, Townsville, Australia
[2] State of the Tropics, James Cook University, Townsville, Australia

The release of the State of the Tropics report in 2014 set the framework for measuring change in the Tropics into the future. This report was cross-disciplinary, assessing progress in the Tropics across a range of environmental, social, health, economic and governance indicators. The nations and regions of the Tropics are currently experiencing rapid economic and population growth amid an increasingly globalised world, and their goals should be recognised as essential to achieving global sustainability. Among some of the data limitations identified in this study was the difficulty in measuring some of the key environmental indicators, among them – renewable water resources. Under the FAO AQUASTAT, global renewable water resources are estimated at 53,800 billion m^3, however it is a resource that is difficult to accurately map and monitor due to its mobility and capacity to change state from gas to liquid to solid.

Water scarcity and stress are considered priority issues both globally and for the Tropics. These issues will continue to be important due to the combination of increasing human populations and the impacts of global environmental and climate change. We will provide an overview of renewable water resources and water quality in the Tropics in the context of the post-2015 global development agenda and the Sustainable Development Goals. We will also discuss some of the issues and constraints around better measurement, monitoring and reporting of water resources and water quality not only in the Tropics but globally.