

Chapter 30

Adaptations to Climate Change and Climate Variability in the Agriculture Sector in Mauritius: Lessons from a Technical Needs Assessment

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ABSTRACT

Like many Small Island Developing States (SIDS), Mauritius is highly vulnerable to the impacts of Climate Change (CC) and Climate Variability (CV). Particularly vulnerable are small-scale farmers who carry out rain-fed agriculture. While adaptation to CC and CV has taken place among small planters, the first methodological assessment of the technology needs for adaptation in the agriculture sector took place in Phase II of the global GEF-UNEP Technology Needs Assessment (TNA) project. In addition to providing a systematic approach for identifying and prioritizing adaptation technologies, the TNA project also sought to increase the preparedness of Mauritius for leveraging international climate financing and support for technology transfer. Since Mauritius was the only SIDS participating in Phase II of the TNA project, this chapter shares with other SIDS the methodology and lessons learned. The climate change-agriculture-food security nexus is also discussed.

INTRODUCTION

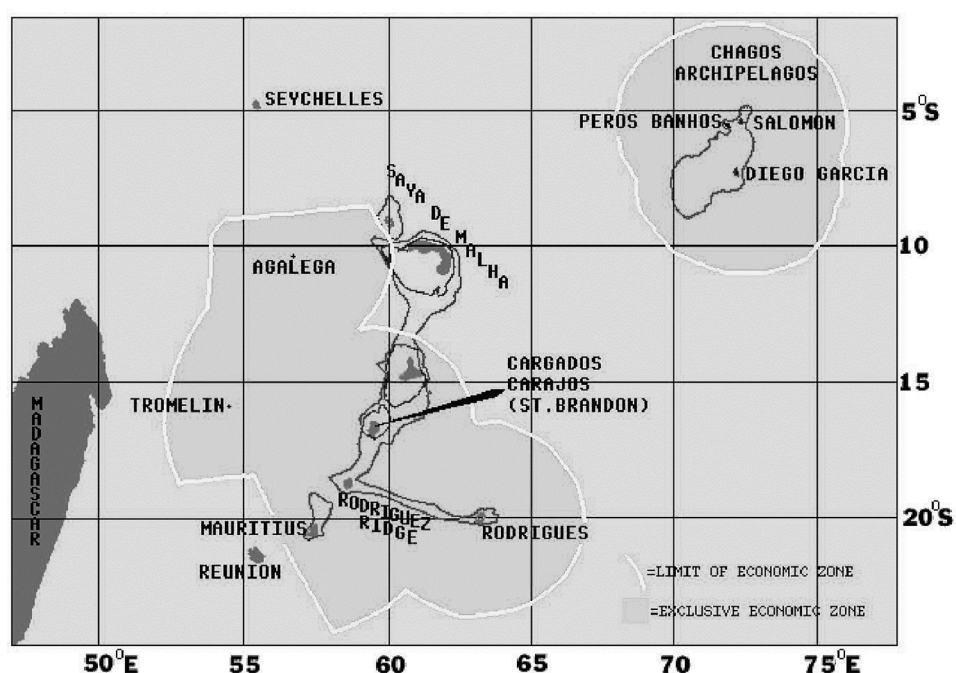
The Republic of Mauritius is a group of small islands in the South West Indian Ocean (Figure 1). The total land area of the country is 2040 km². The Republic of Mauritius also incorporates the island of Rodrigues, situated some 560 km to the east and is 104 km² in area, the Agalega islands situated some 1,000 km to the north of Mauritius and Saint Brandon situated some 430 km to the north-east of Mau-

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ritius, both with total land area of 71.2 km². It also consists of the Chagos Archipelago (Diego Garcia). The island of Mauritius is the most populated part of the Republic of Mauritius followed by the island of Rodrigues and the Agalega islands. The surface area of the island of Mauritius represents 91.4% of the total land area of the Republic of Mauritius. The Republic is almost 2000 km off the East Coast of Africa. Its Marine Exclusive Economic Zone, which extends over 2.3 million km² is bounded by latitudes five degrees South to twenty degrees South and from longitudes fifty-five to seventy-five degrees East.

Mauritius is a small island developing state (SIDS) and it is highly vulnerable to the impacts of climate change (CC) and climate variability (CV). It was one of the 36 countries that participated in the global Technology Needs Assessment (TNA) project funded by Global Environment Facility (GEF) under its Poznan Strategic Program on Technology Transfer (GEF, 2012). The project was implemented and executed by the United Nations Environment Programme (UNEP) Risoe Centre and ENDA (Senegal). It aimed at assisting developing countries to identify and analyze priority technology needs in order to deal with the impacts of climate change by implementing Article 4.5 of the United Nations Framework Convention on Climate Change (UNFCCC). Article 4.5 of the Convention states (UNCCS, 2005): “The developed country Parties and other developed Parties included in Annex II shall take all practicable steps to promote, facilitate and finance, as appropriate, the transfer of, or access to, environmentally sound technologies and know-how to other Parties, particularly developing country Parties, to enable them to implement the provisions of the Convention.” The ultimate objective of the TNA project was to enable the beneficiary country to develop fully budgeted project concept notes or proposals to secure international funding to implement selected adaptation and/or mitigation technologies in priority sectors to support sustainable development.

Figure 1. Location of the Republic of Mauritius in the South West Indian Ocean



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