



CHAPTER 13: Take Urgent Action to Combat Climate Change and its Impacts

Mauritius has been ranked 16th country with the highest disaster risk and 10th as the most exposed to natural hazards as per the 2018 World Risk Index.

The island faces inherent environmental vulnerabilities associated with Small Island Developing States including conflicting land uses, proneness to natural disasters, limited natural resources and sensitive ecosystems among others despite being a low emitter of greenhouse gases which is of the order of 0.01 %.

The impacts of climate variability and extreme weather events are becoming a concern to the Republic of Mauritius, including Rodrigues, St Brandon and Agalega.

Impacts of climate change

The threatening impacts of climate change are already being felt with an accelerated sea level rise, accentuated beach erosion, increase in frequency and intensity of extreme weather events such as flash floods, cyclones and water scarcity.

Several events of flash floods in Mauritius were aggravated due to blocked drains resulting in human death and serious damages to infrastructure. In 2013, 11 people died after sudden rains caused flooding in the Mauritian capital Port Louis.

Some of the key legislative and policy measures set in place include the following:

1. A National Climate Change Adaptation Policy Framework was developed in 2012;
2. A National Disaster Risk Reduction Strategic Framework and Action Plan was developed to identify riverine vulnerable coastal communities exposed to inland flooding, coastal inundation and landslides;
3. The National Disaster Risk Reduction and Management Centre (NDRRMC) was set up in 2013 to ensure risk reduction and preparedness planning at all levels ;
4. A Climate Change Information Centre (CCIC) had been established in July 2013
5. A Landslide Management Unit to carry out investigations and propose remedial mitigating measures for specific areas prone to landslides;
6. The setting up of a Land Drainage Authority under the Land Drainage Authority Act (2017) ;
7. A National Disasters Scheme (NDS) was prepared in 2015;
8. Amendment of the Local Government Act (2018) to establish penalties of up to 500,000 rupees for any person who undertakes development works without a Building and Land Use Permit

Our water supply by 2030 may not be sufficient to satisfy projected demand, and agricultural production may decline by as much as 30%. Several beaches, which are so important for our tourism industry, are gradually retreating.

Offshore Islets

Management Plans have been developed for the conservation and management of offshore islets for the Republic of Mauritius. In 2003-2004, under Phase I of the project the NPCS developed a strategic plan (the Islets National Park Strategic Plan, 2004) for the following 16 islets: Flat Island, Gabriel Island, Pigeon Rock, Gunner's Quoin, Serpent Island, Ile d'Ambre, Round Island, Ile aux Fouquets, Ile aux Mariannes, Vacoas Island, Ile de la Passe, Rocher des Oiseaux, Ile aux Fous, Ile aux Flammants, Ile aux Oiseaux and Ile aux Aigrettes, with the assistance of AGRER, a consultant company based in Belgium. Islet-specific biodiversity and conservation management schemes were also drawn for only nine of the 16 islets.

Our International commitment

Mauritius is party to the **United Nations Framework Convention on Climate Change, the Kyoto Protocol, the Sendai Framework** as well as the **SIDS Accelerated Modalities of Action (S.A.M.O.A) Pathway**. Mauritius has come a long way in implementing the recommendations of these international conventions with the development of several national, sectoral strategies and plans.

Legislation(s) has been promulgated and some are in the pipeline to strengthen the environmental management and sustainable development frameworks of the country. It has mainstreamed a **culture of meaningful and constructive stakeholder participation and involvement in the decision-making process** with a **strong focus on public-private partnership and close collaboration with civil society** to embrace **good governance and transparency** and **"leaving no one behind"** along the sustainable development pathway .

A Climate Change Charter has also been formulated for local authorities in 2015. The objective of the Charter is to harness commitment of Local Authorities towards initiating and upscaling actions on adaptation to adverse impacts of climate change and mitigation of greenhouse gases emissions at their respective councils as well as community level.

Mauritius currently hosts the **Commonwealth Climate Finance Access Hub** on behalf of the 54 Member States of the Commonwealth. Mitigating the effects of Climate Change and effectively implementing the Sendai Framework for Disaster Risk Reduction will require substantial effort and resources, especially for SIDS, if we want to be more resilient to these natural calamities. While we welcome the generous pledges made so far, including the

creation of the **Green Climate Fund** and the Commonwealth Climate Finance Access Hub with the aim of building capacity of SIDS and LDCs in accessing and managing climate finance, we need to streamline and simplify the procedures for SIDS to access these funds, especially in the light of the recent events.

BRIGHT SPOTS

Mauritius has pledged in its Nationally Determined Contributions to reduce greenhouse gas emissions to 30% by 2030. To date, Mauritius has invested significant resources in both adaptation and mitigation measures, despite its limited means.

Environmental Education

Environmental Education and sensitization are two important tools towards helping to achieve environmental sustainability. Information and education have a crucial role in helping to develop widespread understanding of the importance and fragility of our life support systems and the need for the preservation of the environment with its natural resources.

A programme for climate change education and public awareness where more than 17,000 persons have been outreached through an innovative approach using 'classroom on wheel' concept, popularly known as 'Bis Lamer' since its launching in 2014.

Under the project component, Knowledge Dissemination and Management, 17,000 people were sensitized and Mobile Education Unit 'Bis Lamer' has been introduced.



Figure 1 : Awareness Raising Campaigns through mobile means

A Toolkit with the financial assistance of the US Embassy has prepared on Good Environmental Practices. The objective is to sensitise the school community specially the

lower secondary students on major environmental issues and to promote environmental stewardship through good practices such as waste minimisation, energy and water saving, amongst others.

Coastal Protection

Coastal protection and rehabilitation works at various sites along the coast where beach erosion is a major problem are being undertaken. Moreover, implementation of the conservation plans prepared by the Japan International Cooperation Agency for 14 coastal sites have also started. Soft and hard beach protection measures are being carried out at Mon Choisy and Riviere des Galets to protect the communities living in these coastal areas and build up resilience towards the adverse effects of Climate Change and sea level rise.

International Recognition for Partnerships and Cross-Sector collaboration

Mangroves Plantation Project at Grand Sable and Quatre Soeurs

The project involved mangrove plantation, mangroves sensitization campaigns at Primary Schools and Community level by the women association along with cultivation of vetiver, cassava, medicinal plants (Ayapana and Citronelle) and seaweed as alternative income-generating activities.

The project has got UNDP recognition as an excellent example of innovative solutions to develop economic opportunities to empower communities and enhance livelihoods in the wake of climate change mitigation and adaptation.

The UN showcased the project at the UN Headquarters in New York in the context of celebrations of the World Environment Day on 5 June 2014.



Figure 2: Mangrove plantation at Grand Sable

Leading Practices

1. Early Warning System (EWS) for incoming Storm and Tidal Surge and Construction of 1000 m² Refuge Centre.

Mauritius is the first SIDs to have a fully operational Warning System (EWS) for Storm and Tidal Surge. A fully-automated early warning system for storm surges for has been developed and implemented for Mauritius, Rodrigues and Agalega. Through this project, the coastal communities in Mauritius, Rodrigues and Agalega Islands are able to evacuate timely and safely in case of predicted extreme water levels. Training and capacity building for staff operating the EWS has been carried out. This EWS for Storm Surge is being extended to include wave run-up. **A Refuge Centre which is the first of its kind in the Indian Ocean has been constructed to provide a sanctuary safe from frequent flooding for 1000 persons living in Quatre Soeurs.**

2. The National Multi-Hazard Emergency Alert System

The National Multi-Hazard Early Warning and Emergency Alert System (EWEAS) project is being implemented for Mauritius, Rodrigues, Agalega and St. Brandon to alert the public prior to and during a disaster. The project will improve regional infrastructure, policies and protocols to strengthen the country’s capacity to predict and prepare for emergencies and natural hazards.

SDG Interlinkages

SDG	Interlinkage
Water and Climate Change: Water Conservation and Rainwater Harvesting Scheme	Major awareness raising campaigns on water saving have been undertaken through the distribution and installation of water faucet

		<p>aerators to schools, public as well as parastatal bodies. Rainwater harvesters have been distributed in 19 women centres and local authorities with advisory services been provided by AREU to small planters.</p>
<p>Health and Climate Change: Disease Surveillance</p> 		<p>The strategy is to upgrade the health system for the monitoring of climate-sensitive disease surveillance and food security. Surveillance/ monitoring/ control of vectors, diseases and environmental hazards is being carried out in Mauritius. Mauritius has been successful in controlling vector borne diseases.</p>
<p>Innovation and Climate Change:</p> 		<p>Mauritius Telecom has launched a new application 'my.t weather app'. It is a common platform which provides information such as weather conditions as well as alerts on impending dangers and calamities in Mauritius.</p>
<p>Efficiency and Climate change: Promotion of green design elements in school building</p> 		<p>In line with government's commitment towards sustainability, a Green School school will be constructed as a model the involvement of the students and the community in the project development process thereby creating an awareness and commitment towards sustainable development.</p>
<p>Gender and Climate Change - Enhancing the livelihood of women at Grand Sable in response to climate change impacts</p>	<p>The objective of the project was to empower the women community on alternative income-generating activities and help them mitigate the challenges of climate change and sustain their livelihood.</p> <p>The main achievements are as follows: Mangroves sensitization campaigns held at Primary Schools level and Community level by</p>	



the women association; cultivation of Vetiver, Cassava and other medicinal plants (Ayapana and Citronelle); and seaweed cultivation. 2 Sewing Machines were donated to the Women Association for production of cloth bags for distribution during sensitization campaigns.



Sensitisation by Grand Sable Women Planters Farmers Entrepreneur Association



Alternative livelihood – manufacturing of cloth bag by Grand Sable Women Planters Farmers Entrepreneur Association

FUTURE CHALLENGES AND OPPORTUNITIES

	Challenges	Opportunities
Climate Change Scenarios	<ul style="list-style-type: none"> • Development of climate change scenarios is quite complex and requires specialized expertise; • Purchase of meteorological data to test and validate climate change models is very costly. • Limited access to technology 	<ul style="list-style-type: none"> • There is a need to develop expertise at national level for concerned institutions for the application of appropriate climate change models and scenarios for determination of climate change impact assessment at sectoral level. • Required capacity and skills in new technologies
Gender	<ul style="list-style-type: none"> • Limited expertise to address gender implications of climate change 	<ul style="list-style-type: none"> • Capacity Building Programmes of Officers and Gender Focal Points on: Gender and its implications on Climate Change • Adopting a gender lens while planning, implementing and evaluating projects and programmes