



**METEOROLOGICAL SERVICES  
MAURITIUS**

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**The Secretariat  
United Nations International Strategy for  
Disaster Reduction/Africa  
Gigiri  
Nairobi  
Kenya  
(Attn. Rhea Katsanakis)**

**Dear Sir/Madam,**

**Hyogo Framework for Action (HFA) – Country Report**

Thank you for your last email on the above subject.

I have the pleasure to enclose the country Report of Mauritius towards progress in implementing the Hyogo Framework for Action which has been prepared by Mr Rajan Mungra, Divisional Meteorologist of the Mauritius Meteorological Services.

Mr R. Mungra, will be designated the desk officer to follow up this activity.

With kind regards.

Yours sincerely

**S.N. Sok Appadu  
Director Meteorological Services  
and Permanent Representative of  
Mauritius with WMO**

**Cc: Secretary to Cabinet & Head of the Civil Service  
Encl. Copy of Country Report**



# Mauritius Meteorological Services



Report  
on  
Progress on the Implementation  
of  
The Hyogo Framework for Action

Measuring Progress  
in  
Disaster Risk Reduction

April 2007

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Divisional Meteorologist

Part A: Cover note

<b>Reporting organization</b>	<b>Mauritius Meteorological Services</b>
<b>Scope of organization's mandate</b> (e.g. national authority for disaster, NGO network)	<b>Authority for the issuance of advisories and warnings related to natural disasters</b>
<b>Country, region, or other area being reported on</b>	<b>Republic of Mauritius</b>
<b>Reporting on own organization or on behalf of others - please state</b>	<b>Own</b>
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## **Part B : Summary Analysis**

### **Brief Description**

Mauritius being a Small Island Developing States (SIDS) is highly vulnerable to extreme weather events and impacts of climate change, mainly of hydrometeorological origin, thereby setting back its economic and social growth – sometimes by decades. The Mauritius Meteorological Services (MMS) has strived to be at the forefront in providing accurate forecasts and warnings during extreme weather events such as tropical cyclones, torrential rains, flash floods and storm surges.

Accordingly, the mission statement of the MMS is to provide accurate and timely weather information and meteorological products for the general welfare of the citizens of the Republic. The economic costs of dealing with climate extremes could be significantly reduced if more effective early warning systems could be developed and made operational.

The Early Warning System (EWS) in use in the Republic of Mauritius has been undergoing continual changes to take into account new events such as the impact of climate change and tsunami. After the devastating effect of the 26 December 2004 Tsunami in the Indian Ocean the MMS has put into place a Tsunami Warning System for the issuance of Tsunami Warnings.

The impacts of extreme events are being mitigated through community and emergency preparedness, timely warnings, effective response and public education through an ongoing public awareness campaign. Specific sectors such as agriculture, water resources, marine resources and tourism are the greatest beneficiaries.

The MMS is contributing its fair share in the reduction of loss of life and socio-economic damage.

### **Summary on Impact**

#### **Regional Meteorological Training Research Centre (RMTC)**

A Regional Meteorological Training Research Centre (RMTRC) has been set up at the Mauritius Meteorological Services. The Centre will be called upon to play a lead role in

the South West Indian Ocean for enhanced capacity building. It further aims at playing an effective role in the field of training and research related to Meteorology.

A Memorandum of Understanding (MoU) has been signed with the Asian Disaster Preparedness Centre (ADPC), Bangkok, Thailand in order to increase local capabilities in addressing the issue of Disaster Management. One of such activities of the RMTRC is a Regional Workshop on Multi Hazard End to End Warning which is being held from 17 to 21 April 2007. Participants will be from Comores, Kenya, Madagascar, Mozambique, Tanzania, Seychelles and Mauritius.

### **Tsunami Warning System**

The tragic event of 26 December 2004 attracted the attention of the world to the vulnerability of our shoreline to natural catastrophe. The Seismic event which generated devastating tsunami waves took the countries bordering the Indian Ocean by surprise and in a real state of unpreparedness.

The major lesson learnt is that this disaster left such a sequel of death and destruction because of a fundamental institutional failure. The Republic of Mauritius whose economy and food security depend largely on the Ocean and Coastal areas, through the tourism industry, must also be able to address local problems in order to achieve a disaster resilient standard.

Thus, a Tsunami Warning System has been put into place in Mauritius. Further, a Seismometer, donated by UNESCO, has recently been installed at the Mauritius Meteorological Services to monitor seismic activities in the region. A Global Positioning System (GPS) station has been established in Rodrigues for detecting movement of tectonic plates and earthquakes; The tidegauge of Rodrigues and Mauritius have recently been upgraded in order to give real time observation.

**Feedback** from the public and stakeholders are received through:

- Personal contacts
- Surveys
- Stakeholders Meeting

- Talks on Radio/T.V
- Visit at the Meteorological Services
- Talks at educational institutions

People are becoming more aware of impacts of disasters through an intensive on -going Awareness Campaign comprising :-

- Posters
- Pamphlets in common language such as Creole, English and French
- Talks
- Exhibitions/Displays
- Seminars/Workshops
- Open doors
- Press Communiqué and debriefs
- Newsletters

This has contributed in making the population a very conscious one and they follow well the directives of the Meteorological Services. People are being encouraged to be partners in the system.

**The lessons learnt** are that it is not very easy to convince policy makers about the devastating effects of disasters as the impacts are sometimes quite rare. They are more concerned about short term benefits and tend to forget long term planning projects. Further, the legal framework to apply directives is still missing or inappropriate.

## **Part C : Compilation of Information**

**Section 1 : Hyogo Framework Priority for Action 1 : Ensure that disaster risk reduction is a national priority with a strong institutional basis for implementation.**

**1. Name of Initiative and Programme : Central Cyclone and other Natural Disasters' Committee (CCNDC)**

**2. Description, Objectives and main activities :**

The Republic of Mauritius has a well structured Central Cyclone and Other Natural Disasters' Committee, under the aegis of the Prime Minister's Office. All activities pertaining to warnings on natural hazards are conducted through that committee under the chairmanship of the Secretary to Cabinet and Head of the Civil Service, Prime Minister's Office. This Committee meets at least one a year by first fortnight of October to review and if necessary amend the emergency scheme. Its primary task is to coordinate activities before, during and after a natural disaster.

It includes Ministries, Departments and all stakeholders related to disaster management.

Discussions are also held on measures to be taken in case of natural disasters and on the specific responsibilities of each member of the committee.

**3. Results and achievement made, with indicators if available.**

The Republic of Mauritius has vast experience in dealing comprehensively with natural disasters. The Central Cyclone and other Natural Disaster Committee has been the national platform since 1960 to deal with the impacts of natural disasters. It has facilitated the preparation of Mauritius to deal with the challenge caused by the establishment of the Indian Ocean Tsunami Warning and Mitigation System at national level. It is also aiming at making Mauritius a safer place to live and decreasing the risk

of hazards turning into disasters. Ultimately, the ideal objective is to make Mauritius be known as a natural hazard ready country.

**4. Major challenges and lessons learnt in implementing the initiative or programme and next steps planned.**

The Government has recognized early warnings as key elements for preventing and reducing the impact of disasters. It is encouraging the establishment of integrated, multi hazard warning systems. Linkages are also being provided between scientific/technical knowledge, organizational system and structures and the communities at risk. A close cooperation is being developed between agencies running the system and the vulnerable group of the population.

**Section 2 – Hyogo Framework Priority for Action 2 :**

***Identify, assess and monitor disaster risks and enhance early warning.***

**1. Name of initiative and programme :**

Modernisation of the Mauritius Meteorological Services (MMS)

**2. Description, objectives and main activities :**

The Mauritius Meteorological Services (MMS) recently embarked on a vast modernization process mainly in the Main Meteorological Office (MMO) where the (EWS) has been established.

New, modern and highly sophisticated equipment and software have been installed with latest Satellite Receiver Systems and a network of Automatic Weather Stations. Furthermore, the Meteorological Services is fully computerized. Even a seismometer has been installed at its headquarters.



The setting up of the Local Area Network (LAN) has permitted the Meteorological Services to become an on-line service.

**3. Results and achievements made, with indicators if available.**

The Meteorological Services can now provide better service to all its stakeholders.

Weather forecasts are being provided to the public, at the Local/National, Regional and International levels, through the media and on-line communication systems. With the setting up of the LAN very much less manual processes are being carried out. Our website is updated thrice daily and more often during adverse weather. The public can now download climatological data, latest satellite pictures, weather forecasts and cyclone bulletins. The time to process a request has been shortened. Delivery of goods across the counter is done more promptly.

**4. Major challenges and lessons learnt in implementing the initiative or programme and next steps planned.** Obviously, with the installation of modern equipments and new tools available plus the training provided it became logical that the style of working had to be modified. Some routine jobs had to be stopped. Further specialized training had to be provided.

Some resistance to change was encountered during the process of modernization of the Meteorological Services. However, Management through its openmindedness and long experience managed to cope with the situation quite satisfactorily. The measures taken like good communication, participation, training facilities, commitment, support, role definition etc proved to be very beneficial. The staff is a well motivated one and is fully conscious that the MMS has to fulfill its national, regional and international obligations.

**Section 3: Hyogo Framework priority for Action 3:**

Use knowledge, innovation and education to build a culture of safety and resilience at all levels.

**1. Name and initiative and programme:**

## Public Awareness Campaign

### 2. **Description, objectives and main activities**

Early Warning Systems (EWS) for mitigating disasters can only be effective if they are easily understood by the general public and all stakeholders.

The Meteorological Services has undertaken an aggressive public awareness campaign in order to sensitize the population, at the grassroots level, to understand the importance of taking all precautions against the adverse effects of natural disasters.

Both the electronic and print media are being requested to play an important role in the dissemination of press releases and reports on adverse weather conditions and their impacts.

Brochures and posters are distributed freely to members of the public. One day workshops are organized to sensitize stakeholders on ways and means to protect life and property.

Students are encouraged to visit the Meteorological Services. Interaction with stakeholders is done through regular 'open doors' of the Meteorological Services on World Meteorological Day in order to familiarize themselves with early warning systems.

### 3. **Results and achievements made, with indicators if available**

The intensive Public Awareness Campaign has greatly helped in improving the protection of life and property during adverse weather conditions. Further, it has increased safety on land, at sea and in the air, enhanced quality of life, sustained economic growth and protected the environment.

Products and goods from the Meteorological Services are being increasingly solicited by all stakeholders, including the private sector. On the average we are

welcoming yearly about 10,000 visitors, mostly students, at our headquarters at Vacoas.

It is now felt that a larger section of the population is familiar with the meteorological terms commonly used in weather bulletins and is also fully aware of the various warning systems in use in Mauritius.

#### **4. Major challenges and lessons learnt in implementing the initiative or programme and next steps planned**

In Natural Disaster Mitigation through the warning system to mitigate the impact of tropical cyclone is in operation to the full satisfaction of one and all. An additional component to the National Disaster Mitigation Programme (NDMP) with respect to warnings in the advent to Tsunamis has been developed.

The Republic of Mauritius, like all small Island Developing States (SIDS), is consolidating its programme of Multi Hazard Warning Systems in order to decrease the risks of hazards turning into disasters. The overall objective of the intensive Public Awareness Campaign is to make Mauritius a natural hazard-ready country especially as tourism play an important role in its economy.

#### **Section 4. Hyogo Framework priority for Action 4: Reduce the underlying risk factors**

This section of the report is under preparation as the compilation of the activities have not yet been completed.

#### **Section 5. Hyogo Framework Priority for Action 5:**

*Strengthen disaster preparedness for effective response*

##### **1. Name of Initiative and programme:**

Regional Meteorological Training and Research Centre (RMTRC)

##### **2. Description, objectives and main activities:**

Countries in the region are being urged to improve their capacity to spearhead, coordinate, implement and advocate disaster risk reduction activities. International and Regional Organisations are being called upon to upgrade national and international capacities to manage and reduce disaster risks by providing more systematic support through innovative resourcing policies. Financial support from an European Development Fund (EDF) project was put to good use in the establishment of a Regional Meteorological Training Research Centre (RMTRC) at the Mauritius Meteorological Services.

The center is the first of its kind in the region and will be called upon to play a lead role in the South West Indian Ocean for enhanced capacity building.

The RMTRC will cater for capacity building of various stakeholders, coming from all the four Indian Ocean Commission (IOC) countries. Further, it will cater for countries along the East African Coasts in the use of meteorological products to become more efficient and specially reduce costs of capacity building.

The center aims at establishing a proactive work in the field of training and research related to Meteorology.

### **3. Results and achievements made, with indicators if available.**

The Meteorological Services is effectively training users of weather and climate information to correctly understand, interpret and utilize the information.

A Seismometer, donated by UNESCO, has been recently installed at the premises of the Meteorological Services and training has been given by the expert to our professional staff. Further in March 2007, a Global Positioning System (GPS) station has been put in Rodrigues for the study of the geodynamics of the earth, including movements of tectonic plates and earthquakes. Recently stakeholders of different socio-economic sectors were given the opportunity to familiarize themselves with benefits that can be derived from the intensive use of satellite products.

The Government of Mauritius with the assistance of the Asian Disaster Preparedness Centre (ADPC), Thailand is hoisting a Regional Workshop on Multi-Hazard End to End Warning and this is being held at the RMTRC, from 17 to 21 April 2007. Participants from Comoros, Kenya, Madagascar, Mozambique, Tanzania, Seychelles and Mauritius. The five resource persons from ADPC will be sharing their experiences of Asia-Pacific on Multi-Hazard Early Warning Systems in our region.

#### **4. Major challenges and lessons learnt in implementing the initiative or programme and next steps planned**

- Lack of financial resources
- Coordination with the various contractors was not an easy task
- Better understanding with the concerns of the public and stakeholders
- Communication had to be very effective
- Transparency in the financial dealings
- The staff had to be convinced about its benefits
- Meetings had to be held regularly to discuss about difficulties and progress of work
- Good public awareness campaign about its benefits.

#### **Concluding Remark**

Since the adoption of the Hyogo Framework for Action(HFA), the Republic of Mauritius has been consolidating its programme of Multi Hazard Warning Systems in order to decrease the risk of hazards turning into disasters.It is also aiming at making Mauritius a safer place to live and encouraging its people to become a natural hazard resilient community.