



Mauritius

National progress report on the implementation of the Hyogo Framework for Action (2011-2013) - Interim

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Section 1: Outcomes 2011-2013

Strategic Outcome For Goal 1

Outcome Statement:

The Central Cyclone and Other Natural Disasters Committee was convened in October 2011 under the chairmanship of the Secretary to Cabinet and Head of the Civil Service to review the CNDS. The Committee ensured that all stakeholders were fully prepared and ready in the event of any natural hazard likely to threaten the Republic of Mauritius.

The Landslide Committee has finalized plan to relocate those inhabitants in risk areas to the East of the Island and ground stabilizing work plans are well under way.

A national Disaster and Operation Centre (NDOCC) has been set up at the Police Headquarters, Port Louis, with the aim of coordinating field actions in the event of a national emergency or crisis for all natural hazards likely to become a national disaster.

Strategic Outcome For Goal 2

Outcome Statement:

Throughout the period, the Meteorological Services took the lead in education and public awareness. Talks and lectures were delivered for school children both at primary and secondary level. Talks shows were also organized on radio (both private and public) and television.

In addition, NGOs like "Association pour le Developpement Durable" conducted Island-wide public awareness on the risk of tsunami waves reaching the shores of Mauritius and Rodrigues. Brochures and stickers on tsunami waves hazards were developed and distributed to the public.

Tsunami evacuation Simulation exercise were conducted at regional level with the help of the Local Government, Mauritius Police Force and the Mauritius Red Cross Society.

Municipal Council and Districts Councils also met in September and October 2011 to review their preparedness plan in the event of a national disaster or emergency situation.

Strategic Outcome For Goal 3

Outcome Statement:

Landslide risk areas have been identified in Mauritius and Rodrigues. Plans to relocate inhabitants in risk areas to the east have been finalized.

Coastal inundation risk map for tsunami waves are being prepared. Other risk maps showing coastal inundation due to high waves have also been identified.

Contingency Plans and Standard Operations Procedures already exist for such hazards as cyclones, heavy rains (torrential), landslides, tsunamis, high waves, oil spill. Man made hazards/disasters have also been documented.

New environmental laws aiming at risk management are being studied.

Section 2: Strategic goals

Strategic Goal Area 1

The more effective integration of disaster risk considerations into sustainable development policies, planning and programming at all levels, with a special emphasis on disaster prevention, mitigation, preparedness and vulnerability reduction.

Strategic Goal Statement:

The integration of disaster and environmental risk management policies into development plans at the national, sub-national and local levels through existing policies and mechanisms for coordinating DRR actions at various levels.

Strategic Goal Area 2

The development and strengthening of institutions, mechanisms and capacities at all levels, in particular at the community level, that can systematically contribute to building resilience to hazards.

Strategic Goal Statement:

Strengthened institutions with adequate capacities at national and sub-national level for coordinated and coherent action in reducing risk and building sectoral resilience

Strategic Goal Area 3

The systematic incorporation of risk reduction approaches into the design and implementation of emergency preparedness, response and recovery programmes in the reconstruction of affected communities.

Strategic Goal Statement:

Adoption of risk management tools and mechanisms for the implementation of disaster risk reduction and post-disaster recovery programmes and their institutionalization at various levels

Section 3: Priority for action 1

Ensure that disaster risk reduction is a national and a local priority with a strong institutional basis for implementation.

Priority for action 1: Core indicator 1

National policy and legal framework for disaster risk reduction exists with decentralised responsibilities and capacities at all levels.

Level of Progress achieved: 4

Substantial achievement attained but with recognized limitations in key aspects, such as financial resources and/ or operational capacities

Key Questions and Means of Verification

Is disaster risk taken into account in public investment and planning decisions?
Yes

National development plan	Yes
Sector strategies and plans	Yes
Climate change policy and strategy	Yes
Poverty reduction strategy papers	No
CCA/ UNDAF (Common Country Assessment/ UN Development Assistance Framework)	No
Civil defence policy, strategy and contingency planning	No

Have legislative and/or regulatory provisions been made for managing disaster risk? No

Description:

Given that Mauritius has a long experience in dealing with natural hazards, the country has very elaborate disaster risk reduction and mitigation measures. The institutional framework is well established at all levels and is very effective. Various regulations exist at the national and local levels, together with well elaborated standard operating procedures, (SOP). To

further strengthen the existing institutions, a National Disaster and Operations Coordination Centre has been set up to coordinate activities during an emergency or crisis situation and post-disaster recovery.

Context & Constraints:

Although the country has well defined regulatory provisions for managing disaster risk, enforcement is still a challenge because of the absence of a legal framework.

In the event of a cyclone threat, Coast guards and coastal fisheries officers do patrol the coastal zone, the Police and the Special Mobile Force (a para-civil defense force) patrol the towns and villages and shopping malls. Building codes have been defined and there are general preparedness actions that are required by the proprietors and municipal or district council authorities, the Central Electric Company and the Water Authorities.

Heavy rain warning as currently defined is mainly for school children. Yet heavy precipitation do at times cause flash floods. Capacity is lacking at the moment to develop and implement flash flood warning.

A well defined tsunami SOP exist at national level. There is still need for further education and public awareness regarding this hazard

The Climate Change Division at the Ministry of Environment has over responsibility for the implementation of adaptation and mitigation programmes. The Maurice Ile Durable project has defined the pathways for the integration of climate change policies in national development plans.

Priority for action 1: Core indicator 2

Dedicated and adequate resources are available to implement disaster risk reduction plans and activities at all administrative levels

Level of Progress achieved: 4

Substantial achievement attained but with recognized limitations in key aspects, such as financial resources and/ or operational capacities

Key Questions and Means of Verification

What is the ratio of the budget allocation to risk reduction versus disaster relief and reconstruction?

	Risk reduction / prevention (%)	Relief and reconstruction (%)
National budget	NA	NA
Decentralised / sub-national budget	NA	NA

USD allocated to hazard proofing sectoral development investments (e.g transport, agriculture, infrastructure)	NA
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Description:

The ratio of the budget allocation to risk reduction is not available since it is not fixed in the Program Based Budgeting. Most of the time it is an adhoc allocation depending on the need at both the national and sub-national level.

Given the long agriculture history of the country, well established crop insurance policies do cover the main crop in the country. Furthermore, since 2010 a fixed amount of money is budgeted every year by the central government to help small farmers to restart growing their land in the event of a disaster. Most farmers have a crop insurance to hazard-proof their business.

Context & Constraints:

The proper enforcement of regulations and the absence of a legal framework is a major challenge. For example, often people venture outdoor away from shelter, during cyclonic conditions because there is no law that prohibits them from doing so. Unplanned development in sub-urban areas combined with poor legislation at municipal or district council level has increased the vulnerability of the people in certain areas, for example in flood prone areas, landslide risk areas, built-up in wetlands and unauthorized constructions on the shore. However, government is putting much effort to redress the above situations by promulgating new legislation

Priority for action 1: Core indicator 3

Community Participation and decentralisation is ensured through the delegation of authority and resources to local levels

Level of Progress achieved: 4

Substantial achievement attained but with recognized limitations in key aspects, such as financial resources and/ or operational capacities

Key Questions and Means of Verification

Do local governments have legal responsibility and regular / systematic budget allocations for DRR? Yes

Legislation (Is there a specific legislation for local governments with a mandate for DRR?)	Yes
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Regular budget allocations for DRR to local government Yes

Estimated % of local budget allocation assigned to DRR

NA

Description:

Local Authorities, Municipal and District Councils have legal responsibility to manage risks and DRR at the local level.

All Municipal and District Councils meet individually before the beginning of the cyclone season, to review their SOP, to take note of the gaps and inadequacies of the previous cyclone season and to ensure the preparedness status of all partners concerned.

Cleaning of drainage system, miscellaneous repair work and check of overall infrastructure and logistics are completed prior to the start of the cyclone season

Context & Constraints:

The challenge here again is the enforcement of the regulations and the absence of a legal framework.

The overall mindset of the people is that the local authorities or the central government has to do DRR; there is little individual commitment and therefore inadequate community participation. Further education and public awareness need to be undertaken by local authorities to engage the whole community at local level.

Priority for action 1: Core indicator 4

A national multi sectoral platform for disaster risk reduction is functioning.

Level of Progress achieved: 4

Substantial achievement attained but with recognized limitations in key aspects, such as financial resources and/ or operational capacities

Key Questions and Means of Verification

Are civil society organizations, national finance and planning institutions, key economic and development sector organizations represented in the national platform? Yes

Civil society members (specify absolute number)

NA

National finance and planning institutions (specify absolute number)

NA

Sectoral organisations (specify absolute

NA

number)	
Private sector (specify absolute number)	NA
Science and academic institutions (specify absolute number)	NA
Women's organisations participating in national platform (specify absolute number)	NA
Other (please specify)	NA

Where is the coordinating lead institution for disaster risk reduction located?

In the Prime Minister's/President's Office	Yes
In a central planning and/or coordinating unit	No
In a civil protection department	No
In an environmental planning ministry	No
In the Ministry of Finance	No

Other (Please specify)

Description:

The Cyclone and Other Natural Disaster Committee is the national platform for disaster management. The newly created National Disaster and Operations Coordination Centre coordinates activities in the event of an emergency or crisis at national level.

Furthermore, there are various committees at different ministries and department level responsible for other hazards such as oil spill, landslide, etc.

Context & Constraints:

The national platform for disaster management does not yet have a well defined DRR component which is scattered at various ministries level.

The Meteorological Services is responsible for Early Warning System of the hydro-meteorological hazards, and partially for education and public awareness. Response and post-disaster recovery is the responsibility of the Mauritius Police Force. Other hazards such as oil spill and landslide rest under the responsibility of other departments.

Section 4: Priority for action 2

Identify, assess and monitor disaster risks and enhance early warning

Priority for action 2: Core indicator 1

National and local risk assessments based on hazard data and vulnerability information are available and include risk assessments for key sectors.

Level of Progress achieved: 3

Institutional commitment attained, but achievements are neither comprehensive nor substantial

Key Questions and Means of Verification

Is there a national multi-hazard risk assessment with a common methodology available to inform planning and development decisions? No

Multi-hazard risk assessment	No
% of schools and hospitals assessed	NA
Schools not safe from disasters (specify absolute number)	0
Gender disaggregated vulnerability and capacity assessments	Yes
Agreed national standards for multi hazard risk assessments	No
Risk assessment held by a central repository (lead institution)	No
Common format for risk assessment	No
Risk assessment format customised by user	No
Is future/probable risk assessed?	No
Please list the sectors that have already used disaster risk assessment as a precondition for sectoral development planning and programming.	Building, Roads, Agriculture, water sector to some extent

Description:

Frequencies of tropical cyclones and their impacts on the Islands of the Southwest Indian Ocean are well documented and fairly well understood.

Vulnerable areas prone to flash flood have also been identified, though the physical characteristics of land are changing because of change in land use.

Areas prone to landslide have also been identified.

A map showing coastal inundation likely to occur in the event of tsunami waves reaching the shores of Mauritius and Rodrigues do exist.

A few vulnerable areas likely to be inundated by high waves have also been identified.

The construction of drains to evacuated heavy rainfall water is ongoing.

The Climate Change Division at the Ministry of Environment in implementing a number of adaptation measures to build resilience towards the adverse effects of climate change and climate variability.

Context & Constraints:

A more comprehensive assessment still need to be carried out to have a complete picture of the impacts of all the hydro-meteorological hazards as well as the geological hazards like tsunami by concerned authorities

Cross-sectoral linkages, namely economic, social and environmental impacts have still to be quantitatively assessed.

The newly created disaster management centre does not yet have a legal framework, nor does it have the capacity to carry out a multi-hazard risk assessment

Priority for action 2: Core indicator 2

Systems are in place to monitor, archive and disseminate data on key hazards and vulnerabilities

Level of Progress achieved: 3

Institutional commitment attained, but achievements are neither comprehensive nor substantial

Key Questions and Means of Verification

Are disaster losses and hazards systematically reported, monitored and analyzed? No

Disaster loss databases exist and are regularly updated	No
Reports generated and used in planning by finance, planning and sectoral line ministries (from the disaster databases/ information systems)	No
Hazards are consistently monitored across localities and territorial boundaries	No

Description:

Data exists mainly on tropical cyclones and to a certain extent on flash flood in terms of rainfall from a network of over 200 stations. Landslide and high waves database are now being developed.

Records of Tsunami in the Indian Ocean have been started only after 2004.

Quantitative data on the extent of damages caused by any hazard have not been systematically archived in a central data bank. However some data, for example in the agricultural sector exist at various institutions level.

Context & Constraints:

There is a need to have a central data bank on all hazards likely to affect the country. Data sharing protocols and mechanisms have still to be developed. There is also a lack of geo-spatial data. As such no institutional setup exist to undertake these tasks.

Priority for action 2: Core indicator 3

Early warning systems are in place for all major hazards, with outreach to communities.

Level of Progress achieved: 4

Substantial achievement attained but with recognized limitations in key aspects, such as financial resources and/ or operational capacities

Key Questions and Means of Verification

Do risk prone communities receive timely and understandable warnings of impending hazard events? Yes

Early warnings acted on effectively	Yes
Local level preparedness	Yes
Communication systems and protocols used and applied	Yes
Active involvement of media in early warning dissemination	Yes

Description:

The Mauritius Meteorological Services maintains a 24/7 watch for all hazards likely to affect Mauritius. The Meteorological Services has a well-understood cyclone warning system together with an ongoing outreach (public awareness) and education program. A torrential rain warning system exists since the mid eighties.

A landslide warning system is now operational

A tsunami alert system has been developed and is already operational.

High waves warning and strong wind warning also exist and is now operational.

Talks are organized at school, community centres, village halls and municipal hall for the students and general public. Talk are also organized on the local radio and television.

Context & Constraints:

The effectiveness of early warning systems for tropical cyclones is generally well established. Further outreach and public awareness for torrential rains, landslide, high waves, strong wind and tsunami warning need to be carried out. An outreach programme, continuous education and public awareness is now an ongoing feature.

Priority for action 2: Core indicator 4

National and local risk assessments take account of regional / trans boundary risks, with a view to regional cooperation on risk reduction.

Level of Progress achieved: 4

Substantial achievement attained but with recognized limitations in key aspects, such as financial resources and/ or operational capacities

Key Questions and Means of Verification

Does your country participate in regional or sub-regional actions to reduce disaster risk? Yes

Establishing and maintaining regional hazard monitoring	Yes
Regional or sub-regional risk assessment	No
Regional or sub-regional early warning	Yes
Establishing and implementing protocols for transboundary information sharing	No
Establishing and resourcing regional and sub-regional strategies and frameworks	No

Description:

Mauritius is a member of the RA I Tropical Cyclone Committee. The Regional Specialized Meteorological Centre, (RSMC), is Meteo France, Reunion and Mauritius is the sub-regional centre. The Tropical Cyclone Committee meets every two years around the month of October and there is good cooperation among member countries in sharing data and information.

There is also good working relation with other WMO member countries, the Pacific Tsunami Warning Centre, (PTWC) and the Japan Meteorological Agency, (JMA), INCOIS, India, and the United States Geological Survey, (USGS), on earthquake warning.

Context & Constraints:

Lack of meteorological data to keep watch of severe weather systems in the Indian Ocean. Very few land stations and not enough ship observation.

No second generation satellite imagery covers the Indian Ocean. There is a need of high resolution radar data. Installation of a radar has been planned for Mauritius by 2015.

Section 5: Priority for action 3

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

Priority for action 3: Core indicator 1

Relevant information on disasters is available and accessible at all levels, to all stakeholders (through networks, development of information sharing systems etc)

Level of Progress achieved: 4

Substantial achievement attained but with recognized limitations in key aspects, such as financial resources and/ or operational capacities

Key Questions and Means of Verification

Is there a national disaster information system publicly available? No

Information is proactively disseminated	No
Established mechanisms for access / dissemination (internet, public information broadcasts - radio, TV,)	No
Information is provided with proactive guidance to manage disaster risk	No

Description:

Relevant information on tropical cyclone, heavy rainfall, land slide, tsunami, high waves and strong winds is readily available on the Mauritius Meteorological Services website or by personally calling at the Meteorological Services. Oil spill information is available on the Ministry of Environment website

A study has been conducted on flood prone areas and this is also available at the Ministry of environment and National Development Unit. Other quantitative disaster data is located at different institutions, The Central Statistics Office, the Ministry of Social Security, etc.

Context & Constraints:

Lots of effort have been made for community involvement in all programmes regarding disaster risk reduction.

With the creation of a Disaster Management Centre, a central disaster data base will hopefully be created - including both natural and man-made disasters. At the moment most disaster data are located at different ministries and departments

Priority for action 3: Core indicator 2

School curricula , education material and relevant trainings include disaster risk reduction and recovery concepts and practices.

Level of Progress achieved: 4

Substantial achievement attained but with recognized limitations in key aspects, such as financial resources and/ or operational capacities

Key Questions and Means of Verification

Is DRR included in the national educational curriculum? Yes

Primary school curriculum	Yes
Secondary school curriculum	Yes
University curriculum	Yes
Professional DRR education programmes	No

Description:

A general awareness of all natural hazards likely to affect Mauritius are now taught at all levels of education.

A whole chapter on tropical cyclone and the cyclone warning system in Mauritius is taught at primary and secondary level. Some basic knowledge on, volcanoes, and earthquake is also there. More efforts are required regarding flash flood and tsunami.

Recently, climate change has also been introduced at the primary, secondary and tertiary level. Some research studies, particularly by University students for their projects at the final year of the degree course are also being done at tertiary level.

Context & Constraints:

Further training materials need to be developed for torrential rains, land slide, oil spill and tsunami.

Efforts are being made at this moment, in collaboration with the Mauritius Institute of Education and the Education department of the Ministry of Environment to develop curricula for tsunami.

There is a need to recruit more personnel in order to create a dedicated education and public awareness section at the Meteorological Services to work in collaboration with the Ministry of Education and the Ministry of Environment.

Priority for action 3: Core indicator 3

Research methods and tools for multi-risk assessments and cost benefit analysis are developed and strengthened.

Level of Progress achieved: 2

Some progress, but without systematic policy and/ or institutional commitment

Key Questions and Means of Verification

Is DRR included in the national scientific applied-research agenda/budget? No

Research programmes and projects	Yes
Research outputs, products or studies are applied / used by public and private institutions	No
Studies on the economic costs and benefits of DRR	No

Description:

The newly created Disaster Management Centre has been tasked to multi-risk assessment, no systematic research is done. The university people and the Mauritius Research Council have just began to think in this direction.

However, limited research on tropical cyclone has been performed. Few studies on community response to the impacts of cyclone has been done without much application because of inadequate human resources, fund and capacity.

Context & Constraints:

Because of the lack of human and financial resources, progress in research is very very slow.

Priority for action 3: Core indicator 4

Countrywide public awareness strategy exists to stimulate a culture of disaster resilience, with outreach to urban and rural communities.

Level of Progress achieved: 4

Substantial achievement attained but with recognized limitations in key aspects, such as financial resources and/ or operational capacities

Key Questions and Means of Verification

Do public education campaigns for risk-prone communities and local authorities include disaster risk? Yes

Public education campaigns for enhanced awareness of risk.	Yes
Training of local government	Yes
Disaster management (preparedness and emergency response)	Yes
Preventative risk management (risk and vulnerability)	Yes
Guidance for risk reduction	Yes
Availability of information on DRR practices at the community level	Yes

Description:

The citizens of Mauritius are well aware and well-educated regarding most of the hydro-meteorological hazards, namely tropical cyclone, heavy rainfall, high wave and strong winds. Some knowledge and understanding do exist regarding landslide and tsunami.

Public awareness campaign include audio, video and clips on television and radio, brochures, posters in public places government buildings and talks in educational institutions, community, women, youth centres and old age group

Context & Constraints:

Though awareness of hazards is increasing, there is a tendency of the general public to overlook or simply ignore some of the basics of risk reduction because of weak implementation of the general regulations by the enforcement authorities

One of the major challenge in Mauritius in the change in behavior of individuals and even of some organizations.

Section 6: Priority for action 4

Reduce the underlying risk factors

Priority for action 4: Core indicator 1

Disaster risk reduction is an integral objective of environment related policies and plans, including for land use natural resource management and adaptation to climate change.

Level of Progress achieved: 4

Substantial achievement attained but with recognized limitations in key aspects, such as financial resources and/ or operational capacities

Key Questions and Means of Verification

Is there a mechanism in place to protect and restore regulatory ecosystem services? (associated with wet lands, mangroves, forests etc) Yes

Protected areas legislation	Yes
Payment for ecosystem services (PES)	Yes
Integrated planning (for example coastal zone management)	Yes
Environmental impacts assessments (EIAs)	Yes
Climate change adaptation projects and programmes	Yes

Description:

A number of measures already implemented do target disaster risk reduction, though they are not specific environment related policies. Within the Africa Adaptation Project some adaptation measures being implemented, namely in the coastal zone areas. Agriculture, water resources, fisheries have already in place a number of adaptation measures without specifically mentioning the issue of climate change.

The National Environment Policy (revised version 2007) has a number of measures pertinent to disaster risk reduction. The National Forest Policy has a provision for land use management in the context of climate change.

Context & Constraints:

Though hazard information do exist, it has not yet been translated into integrated policies across all sectors. The issue of climate change and climate variability is now gradually being integrated in sustainable development policies, especially within the Maurice Ile Durable Project.

Priority for action 4: Core indicator 2

Social development policies and plans are being implemented to reduce the vulnerability of populations most at risk.

Level of Progress achieved: 4

Substantial achievement attained but with recognized limitations in key aspects, such as financial resources and/ or operational capacities

Key Questions and Means of Verification

Do social safety nets exist to increase the resilience of risk prone households and communities? Yes

Crop and property insurance	Yes
Temporary employment guarantee schemes	No
Conditional and unconditional cash transfers	No
Micro finance (savings, loans, etc.)	Yes
Micro insurance	Yes

Description:

Within the Ministry of Social Integration a wide range of programmes has been set up to address the most vulnerable groups who are also at risk to natural hazards . These programmes are often integrated within broader strategies aimed at addressing the needs of socially disadvantaged persons and communities in general.

Although not directly related to DRR, Government has allocated funds to finance women empowerment programmes and encourage the culture of entrepreneurship, and setting up of small enterprises under the Small and Medium Enterprise scheme. The Industrial and Vocational Training Board provides a wide range of professional training courses to youngsters to help and assist them set up their own business.

The Prime Ministers Special Fund has been constituted to help victims of major emergency events and other natural disasters. Ad hoc special funds are also constituted when and as

the necessity arises.

Context & Constraints:

Improving the socio-economic conditions and poverty reduction of vulnerable groups and communities within society is an ongoing consideration for Mauritius and its Outer Islands. Lack of financial resources and dedicated social workers are the main handicap for continued substantial progress

Priority for action 4: Core indicator 3

Economic and productive sectorial policies and plans have been implemented to reduce the vulnerability of economic activities

Level of Progress achieved: 3

Institutional commitment attained, but achievements are neither comprehensive nor substantial

Key Questions and Means of Verification

Are the costs and benefits of DRR incorporated into the planning of public investment? Yes

National and sectoral public investment systems incorporating DRR.	No
Please provide specific examples: e.g. public infrastructure, transport and communication, economic and productive assets	for example in road construction programme, public infrastructure especially in newly coastal areas, in agriculture.
Investments in retrofitting infrastructures including schools and hospitals	Yes

Description:

Until recently, programmes to reduce the vulnerability of the economic sectors are done on an ad hoc basis are now more systematic. For example, effective measures were taken in 2006 to redress the arrival of tourist by successfully preventing the spread of Chikungunya, a mosquito borne disease. This programme is now well-established and is on-going

Other such programmes exist in agriculture.

Context & Constraints:

Integration of disaster risk reduction policies in general sustainable development policies is slowly taking shape

Priority for action 4: Core indicator 4

Planning and management of human settlements incorporate disaster risk reduction elements, including enforcement of building codes.

Level of Progress achieved: 4

Substantial achievement attained but with recognized limitations in key aspects, such as financial resources and/ or operational capacities

Key Questions and Means of Verification

Is there investment to reduce the risk of vulnerable urban settlements? Yes

Investment in drainage infrastructure in flood prone areas	Yes
Slope stabilisation in landslide prone areas	Yes
Training of masons on safe construction technology	Yes
Provision of safe land and housing for low income households and communities	Yes
Risk sensitive regulation in land zoning and private real estate development	Yes
Regulated provision of land titling	Yes

Description:

Government is doing lots of effort to see that human settlements take into consideration disaster risk reduction elements. The existing regulations are gradually being enforced

New building codes are now being enforced and strict health and safety measures are being applied in construction sites so as to minimize accidents.

Context & Constraints:

There is still a shortage of inspectors, skilled persons for the enforcement of the existing regulations

Priority for action 4: Core indicator 5

Disaster risk reduction measures are integrated into post disaster recovery and rehabilitation processes

Level of Progress achieved: 4

Substantial achievement attained but with recognized limitations in key aspects, such as financial resources and/ or operational capacities

Key Questions and Means of Verification

Do post-disaster programmes explicitly incorporate and budget for DRR for resilient recovery? No

% of recovery and reconstruction funds assigned to DRR	Not available
DRR capacities of local authorities for response and recovery strengthened	Yes
Risk assessment undertaken in pre- and post-disaster recovery and reconstruction planning	Yes
Measures taken to address gender based issues in recovery	No

Description:

Apart from the Prime Minister's Relief Fund and a fund for the Small Farmers, fund for post-disaster recovery is on an ad-hoc basis.

A disaster usually presents an opportunity for new development that will be better and more resilient than the former ones.

Grants are given to small farmers who suffered losses due to extreme weather events. loans at low interest are made available to them to start growing their crops again.

Context & Constraints:

As a Small Island Developing State, relocation of people in risk areas is not possible because of unavailability of precious land resource. Secondly, finding adequate financial resources in a major national disaster is a challenge

Priority for action 4: Core indicator 6

Procedures are in place to assess the disaster risk impacts of major development projects, especially infrastructure.

Level of Progress achieved: 3

Institutional commitment attained, but achievements are neither comprehensive nor substantial

Key Questions and Means of Verification

Are the impacts of disaster risk that are created by major development projects assessed? Yes

Are cost/benefits of disaster risk taken into account in the design and operation of major development projects? Yes

Impacts of disaster risk taken account in Environment Impact Assessment (EIA)	Yes
By national and sub-national authorities and institutions	Yes
By international development actors	Yes

Description:

There are general regulations that are taken into consideration, including disaster risk reduction measures in the development of major infrastructures. Enforcement of these regulations is not always stringent

Context & Constraints:

More emphasis must be placed on the enforcement of appropriate regulations with regular inspections being done at all levels.

Section 7: Priority for action 5

Strengthen disaster preparedness for effective response at all levels

Priority for action 5: Core indicator 1

Strong policy, technical and institutional capacities and mechanisms for disaster risk management, with a disaster risk reduction perspective are in place.

Level of Progress achieved: 4

Substantial achievement attained but with recognized limitations in key aspects, such as financial resources and/ or operational capacities

Key Questions and Means of Verification

Are there national programmes or policies for disaster preparedness, contingency planning and response? Yes

DRR incorporated in these programmes and policies	Yes
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The institutional mechanisms exist for the rapid mobilisation of resources in a disaster, utilising civil society and the private sector; in addition to public sector support.	Yes
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Are there national programmes or policies to make schools and health facilities safe in emergencies? Yes

Policies and programmes for school and hospital safety	Yes
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Training and mock drills in school and hospitals for emergency preparedness	Yes
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Are future disaster risks anticipated through scenario development and aligned preparedness planning? No

Potential risk scenarios are developed taking into account climate change projections	No
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Preparedness plans are regularly updated based on future risk scenarios	No
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Description:

The Cyclone and Other Natural Disaster Committee based at the Prime Minister's Office and chaired by the Secretary to the Cabinet oversees all preparedness programmes. Whenever a disaster is likely to strike the island, the Special Mobile Force, the Mauritius Police Force and the Fire Services are mobilized as per their Emergency Operations Plan.

In the event of a likely tsunami, a tsunami crisis committee at the Prime Minister's Office become functional immediately, close monitoring and relevant actions when and where necessary will be effective.

Other hazard specific regional and local plans also exist, for example torrential rains, land slide, oil spill, high waves and strong winds. All plans are exercised and reviewed. A number of adaptation projects are taking into consideration these future risk scenarios in their implementation.

Context & Constraints:

Lack of resources is a major challenge, namely in the implementation and the prohibitive cost of new technology

Priority for action 5: Core indicator 2

Disaster preparedness plans and contingency plans are in place at all administrative levels, and regular training drills and rehearsals are held to test and develop disaster response programmes.

Level of Progress achieved: 4

Substantial achievement attained but with recognized limitations in key aspects, such as financial resources and/ or operational capacities

Key Questions and Means of Verification

Are the contingency plans, procedures and resources in place to deal with a major disaster? Yes

Plans and programmes are developed with gender sensitivities	Yes
Risk management/contingency plans for continued basic service delivery	Yes
Operations and communications centre	Yes
Search and rescue teams	Yes
Stockpiles of relief supplies	Yes

Shelters	Yes
Secure medical facilities	Yes
Dedicated provision for disabled and elderly in relief, shelter and emergency medical facilities	Yes
Businesses are a proactive partner in planning and delivery of response	Yes

Description:

Emergency Operations Procedures are in place for all the major hazards likely to affect the Republic of Mauritius.

Cyclone refugee centers are well known in each locality and are well administered. Evacuation plans for tsunamis have been agreed upon and Tsunami simulation exercises which include physical evacuation of residents in the concerned area, are now conducted at least once a year since October 2007 by various stakeholders.

The Mauritius Red Cross is also involved in disaster relief and is well equipped to provide medical care, care for the elderly and the children in the event of a national disaster upon request.

Context & Constraints:

Refugee centres are opened as soon as a cyclone warning class three comes into force.

Safe areas with regards to tsunamis for each of the coastal regions have been identified. Idem when there is a severe high wave warning.

Priority for action 5: Core indicator 3

Financial reserves and contingency mechanisms are in place to support effective response and recovery when required.

Level of Progress achieved: 3

Institutional commitment attained, but achievements are neither comprehensive nor substantial

Key Questions and Means of Verification

Are financial arrangements in place to deal with major disaster? Yes

National contingency and calamity funds	Yes
The reduction of future risk is considered in the use of calamity funds	No

Insurance and reinsurance facilities	Yes
Catastrophe bonds and other capital market mechanisms	No

Description:

Emergency relief assistance is provided only on an ad hoc basis to those individual in need.

However, there is a fund that is budgeted every year to maintain the refugees centers, to maintain clean drainage system and other infrastructure work.

Fund for small planters have been budgeted as well as insurance and reinsurance facilities for the agricultural sector exist, especially for sugar cane. Now insurance facilities are being developed for the other crops as well.

Context & Constraints:

The main constraint is insufficient financial resource. The impossibility to relocate those in affected areas is a challenge

Priority for action 5: Core indicator 4

Procedures are in place to exchange relevant information during hazard events and disasters, and to undertake post-event reviews

Level of Progress achieved: 4

Substantial achievement attained but with recognized limitations in key aspects, such as financial resources and/ or operational capacities

Key Questions and Means of Verification

Has an agreed method and procedure been adopted to assess damage, loss and needs when disasters occur? No

Damage and loss assessment methodologies and capacities available	No
Post-disaster need assessment methodologies	No
Post-disaster needs assessment methodologies include guidance on gender aspects	No
Identified and trained human resources	No

Description:

The Meteorological Services has an effective communication system during a hazard. Communication to the general public is also done with the collaboration of the Mauritius Broadcasting Corporation, the private radios, the Mauritius Police Force, internet, call centers.

Some statistics are gathered, and reports produced during and following each emergency by the Central Statistics Office.

Context & Constraints:

Regular economic analyses of events would be beneficial to inform hazard and risk impact modeling, recovery planning, and cost-benefit analysis for risk reduction proposals.

The impact of disaster on gender aspects need to be further documented.

Section 8: Drivers of Progress

a) Multi-hazard integrated approach to disaster risk reduction and development

Levels of Reliance:

Partial/ some reliance: Full acknowledgement of the issue; strategy/ framework for action developed to address it; application still not fully implemented across policy and practice; complete buy in not achieved from key stakeholders.

Do studies/ reports/ atlases on multi-hazard analyses exist in the country/ for the sub region?: Yes

If yes, are these being applied to development planning/ informing policy?: Yes

Description (Please provide evidence of where, how and who):

For some hazards, like tropical cyclone, oil spill, landslides there are few reports and some studies.

Vulnerability map for flood prone areas do exist. Lately vulnerability map for tsunami have just been worked out but have to be improved

b) Gender perspectives on risk reduction and recovery adopted and institutionalized

Levels of Reliance:

Partial/ some reliance: Full acknowledgement of the issue; strategy/ framework for action developed to address it; application still not fully implemented across policy and practice; complete buy in not achieved from key stakeholders.

Is gender disaggregated data available and being applied to decision-making for risk reduction and recovery activities?: No

Do gender concerns inform policy and programme conceptualisation and implementation in a meaningful and appropriate way?: No

Description (Please provide evidence of where, how and who):

Mauritius has well established human rights and equal opportunities law with no known gender issue.

c) Capacities for risk reduction and recovery identified and strengthened

Levels of Reliance:

Significant and ongoing reliance: significant ongoing efforts to actualize commitments with coherent strategy in place; identified and engaged stakeholders.

Do responsible designated agencies, institutions and offices at the local level have capacities for the enforcement of risk reduction regulations?:
Yes

Are local institutions, village committees, communities, volunteers or urban resident welfare associations properly trained for response?: Yes

Description (Please provide evidence of where, how and who):

Mauritius disaster and emergency management framework aims to build resilience of the whole nation. As such, analysis and decision-making at all levels in society is encouraged to identify capacity needs and make the most of available resources from all sources.

Local government, namely municipal, district and village councils have appropriate infrastructure and logistics for DRR programme

d) Human security and social equity approaches integrated into disaster risk reduction and recovery activities

Levels of Reliance:

Significant and ongoing reliance: significant ongoing efforts to actualize commitments with coherent strategy in place; identified and engaged stakeholders.

Do programmes take account of socio-environmental risks to the most vulnerable and marginalised groups?: Yes

Are appropriate social protection measures / safety nets that safeguard against their specific socioeconomic and political vulnerabilities being adequately implemented?: Yes

Description (Please provide evidence of where, how and who):

Socio-economic factors, coupled with an aging population, are important considerations for developing effective risk reduction strategies in Mauritius. The new Ministry of social integration is putting lots of effort to take care of the most vulnerable groups, including poverty reduction

e) Engagement and partnerships with non-governmental actors; civil society, private sector, amongst others, have been fostered at all levels

Levels of Reliance:

Significant and ongoing reliance: significant ongoing efforts to actualize commitments with coherent strategy in place; identified and engaged stakeholders.

Are there identified means and sources to convey local and community experience or traditional knowledge in disaster risk reduction?: Yes

If so, are they being integrated within local, sub-national and national disaster risk reduction plans and activities in a meaningful way?: Yes

Description (Please provide evidence of where, how and who):

Corporate Social Responsibility from private sector is compulsory by law. The private sector is actively contributing in DRR within the community. Several NGOs, the Mauritius Red Cross being the most active, are regularly involved in the community at various levels in DRR, and to build resilience at grass-root level

Contextual Drivers of Progress

Levels of Reliance:

Significant and ongoing reliance: significant ongoing efforts to actualize commitments with coherent strategy in place; identified and engaged stakeholders.

Description (Please provide evidence of where, how and who):

DRR programmes are being implemented at various levels, for example, improved infrastructure in schools to prevent flooding, enhanced hospital service, overall improved service in public institutions at municipal, district and village council level.

New regulations are gradually integrating DRR in national development policies.

Section 9: Future Outlook

Future Outlook Area 1

The more effective integration of disaster risk considerations into sustainable development policies, planning and programming at all levels, with a special emphasis on disaster prevention, mitigation, preparedness and vulnerability reduction.

Overall Challenges:

Building a disaster resilient nation is a high priority on government's agenda. Yet, to be realistic, there exist several constraints, namely lack of financial resources, as an island state there is limited available space in the event of relocation, continuous capacity building of personnel, renewing existing equipment with new technology.

Strengthening network of monitoring stations is costly and renewing of equipment to new technologies is expensive as well

Future Outlook Statement:

New regulations and policies are being put in place to develop resilience of the nation. The vulnerable group is also the poor of the country. Several programmes exist to alleviate poverty, namely grants are given to families with low income for the laying of concrete roof as part of the 'un toit pour tous' programme. Sites are identified and low cost houses are being built for families living in absolute poverty.

Projects from the private sector are being encouraged and implemented to enhance milk and food production as a step to ensure food security

Future Outlook Area 2

The development and strengthening of institutions, mechanisms and capacities at all levels, in particular at the community level, that can systematically contribute to building resilience to hazards.

Overall Challenges:

Certain mechanism do exist, but this has to be backed up by regulatory measures and the enforcement of these measures.

Future Outlook Statement:

Institutions involved in risk management need to come under the umbrella of the Disaster Management Centre with well-defined roles and responsibilities

Best practice in the design and construction of infrastructure and human settlements, public health, environmental care, etc have to be inculcated right from the early school years

Future Outlook Area 3

The systematic incorporation of risk reduction approaches into the design and implementation of emergency preparedness, response and recovery programmes in the reconstruction of affected communities.

Overall Challenges:

The main challenges here is again the lack of financial resources and the availability of land resources in the event of relocation in a few areas

Future Outlook Statement:

Ongoing challenges are in managing already existing risks. Increased adverse weather events resulting from climate change may also require reassessing existing reduction strategies, for example the adequacy of drainage system, regular cleaning of rivers, or building sea wall protection in certain vulnerable coastal areas.

Future Outlook Area 4

The United Nations General Assembly Resolution 66/199, requested the development of a post-2015 framework for disaster risk reduction. A first outline will be developed for the next Global Platform in 2013, and a draft should be finalized towards the end of 2014 to be ready for consideration and adoption at the World Conference on Disaster Reduction in 2015

Please identify what you would consider to be the single most important element of the post-2015 Framework on Disaster Risk Reduction (2015-2025):

Build resilience of the poor communities in the Least Developed Countries. The poor are already vulnerable to both natural and man made hazards with limited means to come identify and implement DRR

Section 10: Stakeholders

Organizations, departments, and institutions that have contributed to the report

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