

Mauritius

National progress report on the implementation of the Hyogo Framework for Action (2013-2015)

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National Progress Report - 2013-2015

Strategic Outcome For Goal 1

Outcomes Statement

The previously established Central Cyclone and Other Natural Disasters Committee has been completely revamped. A National Disaster Risk Reduction and Management Centre, under the aegis of the Prime Minister's Office, has been established since October 2013 at the Police Headquarters. The unit is under the chairmanship of the Secretary to Cabinet and Head of the Civil and operates on a 24x7 basis.

In case of any natural hazard likely to threaten the Republic of Mauritius after office hours, the Committee convenes all of its stakeholders and ascertains they are prepared and ready for proper action. The Emergency Operation Command is responsible to coordinate field actions in the event of a national emergency or crisis for all natural hazards likely to become a national disaster.

In a landslide prone area located to the south land has already been provided to relocate the inhabitants at risk. Ground stabilizing work plans are well under way.

Strategic Outcome For Goal 2

Outcomes Statement

The Meteorological Services is still the leading institution in delivering education and public awareness for climate related disasters and early warning system. Talks and lectures were delivered for school children both at primary and secondary level. Talk shows were also organized on radio (both private and public) and television.

Tsunami, flood and landslide evacuation simulation exercise were conducted at regional level with the help of the Local Government, Mauritius Meteorological Services, Mauritius Police Force and the Mauritius Red Cross Society. NDRRMC is the coordinating body

A Local Disaster Risk Reduction and Management Committee has been set up at each Municipal Town or District Council headed by the Mayor of the Municipal Town Council or the Chairperson of the District Council. The Committee is the main coordinating agency for all disaster risk reduction and management activities within their respective areas of jurisdiction. A Local Disaster Management Coordinator is expected to be appointed on a full-time basis for this purpose.

Strategic Outcome For Goal 3

Outcomes Statement

Landslide risk areas have already been mapped in Mauritius and Rodrigues according to different levels of severity and risk. Soil stabilization in 2 high risk areas is underway in Mauritius. Plans to relocate inhabitants in one risk areas over the eastern coast of Mauritius have been finalized.

Coastal inundation risk map for tsunami waves are being/ have been prepared. Other risk maps showing coastal inundation for high waves have also been identified. A project to set up an early warning system for storm surge is underway.

Contingency Plans and Standard Operations Procedures already exist for such hazards as cyclones, heavy rains (torrential), landslides, tsunamis, high waves, oil spill and these have been extended to other man made hazards/disasters.

New environmental laws aiming at risk management are being studied.

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 2013-2015

1. Large scale national programmes exist to reduce physical and socio-economic vulnerabilities of the people. For example, grants (as a fix amount of money) are being provided to certain category of people (depending on their monthly earnings) to have a concrete rooftop. This policy is a boost for the low income earners to go for a concrete house which is more resistant to different hazards.

2. Land profiling, land slide and flood prone areas before any urban development is being envisaged by the national or local authorities. However, the legal aspect still need to be worked on given that land is very scarce and the government is encouraging everyone to own their house.

3. Several actions have been taken to promote environmentally safe practices. For instance there are special funds, loan facilities and subsidies to encourage use of solar water heaters (reduce risk from fossil fuels), composters (to reduce organic waste), greenhouse cultivation.

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 2013-2015

1. Various institutions are involved in managing disasters. For instance at the NDRRMC, officers from different institutions is called upon to participate and be represented. Multi-stakeholders participation raises the level of disaster preparedness

2. The government supports various NGOs like the RED CROSS. These NGOs help a lot in capacity building at the local community level where people are being trained to help each other and participate with authorities in saving life and property before and during a hazard and help in recovery activities after the disaster.

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 2013-2015

The 'DOs" and DON'Ts" prior, during and after a disaster is being inculcated in the public at all levels through written and spoken media, brochures and seminars. All drills involve the full participation of local communities. The aim is towards a disaster resilient mindset.

The Government is particularly targeting education of the young generation.



Priority for Action 1

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

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? Yes

Provide description and constraints for the overall core indicator (not only the means of verification).

Please describe some of the key contextual reasons for the country's ranking/ assessment for the indicated level of progress.

Given that Mauritius has a long experience in dealing with certain natural hazards, the country has very elaborate disaster risk reduction and mitigation measures. The institutional framework is

well established at all levels and is 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 Risk Reduction and Management Centre has been set up to coordinate activities during an emergency or crisis situation and post-disaster recovery. Various other disasters, particularly man made ones are considered by this centre namely fires, oil spills and gas leakages etc.

Provide an explanation of some of the key contextual reasons for the country's ranking assessment at the indicated level. In particular, highlight key challenges encountered by the country/ national authorities and partner agencies; and recommendations on how these can/ will be overcome in the future.

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. Seagoers cannot be stopped when they venture in the sea during any high sea warning.

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-military 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 precipitation do at times cause flash floods which affects the public at large. Capacity is lacking at the moment to develop and implement flash flood warning.

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

The Climate Change Division at the Ministry of Environment has overall 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.

Core indicator 2

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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	2%	

Decentralised / sub-national budget

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

Provide description and constraints for the overall core indicator (not only the means of verification).

Please describe some of the key contextual reasons for the country's ranking/ assessment for the indicated level of progress.

About 2% of National budget is allocated to risk reduction and prevention. The budget allocated to relief and reconstruction is variable from year to year.

Given the long agriculture history of the country, well established crop insurance policies used to

cover the main crop in the country but this has been extended to other crops . 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 disaster-proof their business.

Provide an explanation of some of the key contextual reasons for the country's ranking assessment at the indicated level. In particular,

highlight key challenges encountered by the country/ national authorities and partner agencies; and recommendations on how these can/ will be overcome in the future.

With the ongoing rapid development over the island the impacts of different hazards keep changing in terms of severity and localities affected. There is urgent need to develop scenario for longer terms impacts and take appropriate measures through sufficient budgets.

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.

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?)	No	
Regular budget allocations for DRR to local government	No	
Estimated % of local budget allocation	2%	
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Provide description and constraints for the overall core indicator (not only the means of verification).

Please describe some of the key contextual reasons for the country's ranking/ assessment for the indicated level of progress.

Local Disaster Risk Reduction and Management Committee has been set up at each Municipal Town or District Council. The Committee has legal responsibility to manage for all disaster within their respective areas of jurisdiction. This committee meets every three months to review their SOP, to take note of the gaps and inadequacies in any of a previously occurred hazard/disaster. The committee also keep all partners concerned prepared and ensure their full involvement status.

For example cleaning of drainage system, miscellaneous repair work and verification of overall infrastructure and logistics are completed prior to the start of the cyclone season.

Provide an explanation of some of the key contextual reasons for the country's ranking assessment at the indicated level. In particular, highlight key challenges encountered by the country/ national authorities and partner agencies; and recommendations on how these can/ will be overcome in the future.

The availability of funds to carry infrastructural work is a constraint. The challenge here again is the enforcement of the regulations at local level. There is still need to find ways and means to get community involvement. Maintaining the momentum in education and public awareness by local authorities to engage the whole community at local level is a real challenge.

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)	
national finance and planning institutions (specify absolute number)	
sectoral organisations (specify absolute number)	
private sector (specify absolute number)	
science and academic institutions (specify absolute number)	
women's organisations participating in national platform (specify absolute number)	
other (please specify)	

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

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

Provide description and constraints for the overall core indicator (not only the means of verification).

Please describe some of the key contextual reasons for the country's ranking/ assessment for the indicated level of progress.

A National Disaster Risk Reduction and Management Centre (NDRRMC), under the aegis of the Prime Minister's Office, has been set up at the Police Headquarters which coordinates activities in the event of an emergency or crisis at national level. The Flow of information between the Mauritius Meteorological Services, who is

responsible for issuing early warnings and the NDRRMC has improved significantly within well established framework.

Provide an explanation of some of the key contextual reasons for the country's ranking assessment at the indicated level. In particular, highlight key challenges encountered by the country/ national authorities and partner agencies; and recommendations on how these can/ will be overcome in the future.

Some fragmentation at institutional level sometimes makes coordination difficult. 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.

However, with the set up of the NDRRMC, coordination is becoming smoother

Priority for Action 2

Identify, assess and monitor disaster risks and enhance early warning

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	
schools not safe from disasters (specify absolute number)	
Gender disaggregated vulnerability and capacity assessments	No
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.	. Road construction, Agriculture, Water Sector such as Dam Construction.

Provide description and constraints for the overall core indicator (not only the means of verification).

Please describe some of the key contextual reasons for the country's ranking/ assessment for the indicated level of progress.

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

Flood and flash flood prone areas have also been identified.

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 but not public until now. 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 a major ongoing project in different region of the island.

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.

Provide an explanation of some of the key contextual reasons for the country's ranking assessment at the indicated level. In particular, highlight key challenges encountered by the country/ national authorities and partner agencies; and recommendations on how these can/ will be overcome in the future.

More comprehensive assessments still need to be carried that foresee the impacts of all the hydro-meteorological hazards as well as the geological hazards like tsunami. Cross-sectoral linkages, namely economic, social and environmental impacts have still to be

quantitatively assessed.

The newly created NDRRMC does not yet have a legal framework, nor does it have the capacity to carry out a multi-hazard risk assessment. The bill is expected to be ratified soon

Flood prone areas are very dynamic as they change with the land use changes. No systematic study exists to investigate into the impact of land use change on the vulnerability of an area to flood and its extent of severity.

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

Provide description and constraints for the overall core indicator (not only the means of verification).

Please describe some of the key contextual reasons for the country's ranking/ assessment for the indicated level of progress.

Rainfall and wind data from hydro-meteorological hazards have been compiled at the MMS.

Records of casualties for some lately occured hazards exist at institutional level. 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.

A central data bank for disaster losses and hazards is being set up for the Republic of Mauritius hosted at the NDRRMC.

Provide an explanation of some of the key contextual reasons for the country's ranking assessment at the indicated level. In particular, highlight key challenges encountered by the country/ national authorities and partner agencies; and recommendations on how these can/ will be

overcome in the future.

A central data bank for the disaster losses and hazards is underway but data sharing protocols and mechanisms have still to be developed. There is also a lack of geospatial data.

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	No
Local level preparedness	No
Communication systems and protocols used and applied	No
Active involvement of media in early warning dissemination	No

Provide description and constraints for the overall core indicator (not only the means of verification).

Please describe some of the key contextual reasons for the country's ranking/ assessment for the indicated level of progress.

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, though warning is not issued by the MMS

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. Talks are also organized on the local radio and television.

Provide an explanation of some of the key contextual reasons for the country's ranking assessment at the indicated level. In particular, highlight key challenges encountered by the country/ national authorities and partner agencies; and recommendations on how these can/ will be overcome in the future.

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.

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	No
Regional or sub-regional risk assessment	No
Regional or sub-regional early warning	No

Establishing and resourcing regional and sub- No regional strategies and frameworks

Provide description and constraints for the overall core indicator (not only the means of verification).

Please describe some of the key contextual reasons for the country's ranking/ assessment for the indicated level of progress.

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 subregional

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.

Mauritius is co-chair of the WMO Severe Weather Forecasting Demonstration Project for Southern Africa which is based at RSMC Pretoria

There is exchange of information between the Mauritius meteorological Services and the RSMC la Reunion in cases of impending severe weather.

There is also good working relation with other WMO member countries, the Pacific Tsunami

Warning Centre, (PTWC) and the Japan Meteorological Agency, (JMA), Intergovernmental Oceanographic Commission – UNESCO, the Regional Tsunami Service Providers such as INCOIS, India,, Perth Australia, Indonesia and the United States Geological Survey, (USGS), on earthquake warning.

Provide an explanation of some of the key contextual reasons for the country's ranking assessment at the indicated level. In particular, highlight key challenges encountered by the country/ national authorities and partner agencies; and recommendations on how these can/ will be overcome in the future.

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 radar has been planned for Mauritius by 2015 and process has already started.

Apart from La Reunion Island, none of the Indian Ocean countries have the capability to run a LAM to track severe weather, including Tropical Cyclones

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Priority for Action 3

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

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? Yes

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

Provide description and constraints for the overall core indicator (not only the means of verification).

Please describe some of the key contextual reasons for the country's ranking/ assessment for the indicated level of progress.

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 in 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. A Central Data Bank on national disaster information is being setup at the NDRRMC.

Provide an explanation of some of the key contextual reasons for the country's ranking assessment at the indicated level. In particular, highlight key challenges encountered by the country/ national authorities and partner agencies; and recommendations on how these can/ will be overcome in the future.

The creation of the Central Data Bank on national disaster, be it natural or manmade, requires mobilization of more resources and proper data exchange policy between institutions.

As at now whatever data available is scattered in the different institutions.

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

Provide description and constraints for the overall core indicator (not only the means of verification).

Please describe some of the key contextual reasons for the country's

ranking/ assessment for the indicated level of progress.

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. It includes also some basic knowledge on, volcanoes and. The concept of flash flood and tsunami is gradually being implemented.

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.

Provide an explanation of some of the key contextual reasons for the country's ranking assessment at the indicated level. In particular, highlight key challenges encountered by the country/ national authorities and partner agencies; and recommendations on how these can/ will be overcome in the future.

With the enlargement of the types of hazard under consideration now, further training materials need to be developed .

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.

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

Provide description and constraints for the overall core indicator (not only the means of verification).

Please describe some of the key contextual reasons for the country's ranking/ assessment for the indicated level of progress.

The newly created Disaster Management Centre is undertaking multi-risk assessment, but still

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 undertaken. Few studies on community response to the impacts of cyclone has been done without much application

because of inadequate human resources, fund and capacity.

Provide an explanation of some of the key contextual reasons for the country's ranking assessment at the indicated level. In particular, highlight key challenges encountered by the country/ national authorities and partner agencies; and recommendations on how these can/ will be overcome in the future.

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

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 Yes the community level

Provide description and constraints for the overall core indicator (not only the means of verification).

Please describe some of the key contextual reasons for the country's ranking/ assessment for the indicated level of progress.

The citizens of the Republic of Mauritius are well sensitized regarding most of the common

hydro-meteorological hazards, namely tropical cyclone, heavy rainfall, high wave and strong

winds.

Knowledge and understanding of landslide and tsunami has improved significantly. Public awareness campaign include audio, video and clips on television and radio, brochures, posters in public places government biuildings and talks in educational institutions, community, women, youth centres and old age.

Provide an explanation of some of the key contextual reasons for the country's ranking assessment at the indicated level. In particular, highlight key challenges encountered by the country/ national authorities and partner agencies; and recommendations on how these can/ will be overcome in the future.

In spite of the awareness of hazards and early warning, changing the mindset of

individual as well as some organizations remains a challenge. For instance, once an early warning start to adversely affect the day to day activity, they tend to disagree with the warning and overlook it. This is mainly because of poor enforcement of existing laws and regulations.

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Priority for Action 4

Reduce the underlying risk factors

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

Provide description and constraints for the overall core indicator (not only the means of verification).

Please describe some of the key contextual reasons for the country's ranking/ assessment for the indicated level of progress.

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.

Provide an explanation of some of the key contextual reasons for the country's ranking assessment at the indicated level. In particular, highlight key challenges encountered by the country/ national authorities and partner agencies; and recommendations on how these can/ will be overcome in the future.

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 IIe Durable Project.

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

Provide description and constraints for the overall core indicator (not only the means of verification).

Please describe some of the key contextual reasons for the country's ranking/ assessment for the indicated level of progress.

Addressing the most vulnerable groups who are also at risk to natural hazards is a priority and an ongoing process with a wide range of programmes set up within the Ministry of Social Integration.

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 arise

Provide an explanation of some of the key contextual reasons for the country's ranking assessment at the indicated level. In particular, highlight key challenges encountered by the country/ national authorities and partner agencies; and recommendations on how these can/ will be overcome in the future.

Improving the socio-economic conditions and poverty reduction of vulnerable groups remains a challenge as long as financial resources and dedicated social workers are scarce.

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? No

National and sectoral public investmentNosystems incorporating DRR.No

Please provide specific examples: e.g. public infrastructure, transport and communication, economic and productive assets

Investments in retrofitting infrastructures including schools and hospitals

Yes

Provide description and constraints for the overall core indicator (not only the means of verification).

Please describe some of the key contextual reasons for the country's ranking/ assessment for the indicated level of progress.

There are systematic programmes to reduce the vulnerability of the economic sectors. For example, there are effective measures to prevent the spread of certain diseases like Chikungunya and Dengue which are mosquito borne diseases, which otherwise could deter tourist to visit the country. Similarly there is a massive programme for restoring our coastal zone.

Other such programmes exist in agriculture, for example lately urgent biological control of white bugs was introduced with the help of expertise from India.

Provide an explanation of some of the key contextual reasons for the country's ranking assessment at the indicated level. In particular, highlight key challenges encountered by the country/ national authorities and partner agencies; and recommendations on how these can/ will be overcome in the future.

Some advancement has been achieved in the integration of disaster risk reduction polices in sustainable development policies .

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

Provide description and constraints for the overall core indicator (not only the means of verification).

Please describe some of the key contextual reasons for the country's ranking/ assessment for the indicated level of progress.

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.

Provide an explanation of some of the key contextual reasons for the country's ranking assessment at the indicated level. In particular, highlight key challenges encountered by the country/ national authorities and partner agencies; and recommendations on how these can/ will be overcome in the future.

Land is very scarce in Mauritius and very expensive. Hence, it becomes very difficult to prohibit people from constructing on marginal lands such as those vulnerable to floods and land slides. There is still a shortage of inspectors, skilled persons for the enforcement of the existing regulations and also provide proper best practice measures

Core indicator 5

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

Level of Progress achieved? 3

Institutional commitment attained, but achievements are neither comprehensive nor substantial.

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	
DRR capacities of local authorities for response and recovery strengthened	Yes
Risk assessment undertaken in pre- and post- disaster recovery and reconstruction planning	No
Measures taken to address gender based issues in recovery	No

Provide description and constraints for the overall core indicator (not only the means of verification).

Please describe some of the key contextual reasons for the country's ranking/ assessment for the indicated level of progress.

It has been a practice since long time to have local cyclone and other natural disaster committees set up at different district councils and municipalities which met once a year. With the setting up of NDRRMC and at the same time local disaster risk reduction committee, these meeting are made on a quarterly basis in a year. Through such committee there is a constant monitoring of disaster within communities and ways to prevent disasters are being investigated into. After a disaster there are better follow up to improve the environment within the area affected in order to prevent repeat, for example people are discourage to build near river banks or grow vulnerable crops in food prone areas.

There is much effort that is being done to relocate people, for instance lately 11 families were relocated from landslide prone area to safer ground.

Provide an explanation of some of the key contextual reasons for the country's ranking assessment at the indicated level. In particular, highlight key challenges encountered by the country/ national authorities and partner agencies; and recommendations on how these can/ will be overcome in the future.

As a Small Island Developing State land availability is the major barrier to foster DRR. For instance it is not always easy to relocate people from disaster prone areas to safer areas. Secondly, finding adequate financial resources in a major national disaster is a challenge.

There is also an urgent need to strengthen risk assessment in pre- and post-disaster recovery and reconstruction planning.

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

Provide description and constraints for the overall core indicator (not only the means of verification).

Please describe some of the key contextual reasons for the country's ranking/ assessment for the indicated level of progress.

All major projects in Mauritius involve an Environment Impact Assessment. There are also other general regulations that are taken into consideration, including disaster risk reduction measures in the development of major infrastructures. However, enforcement of these regulations is not always stringent.

Provide an explanation of some of the key contextual reasons for the country's ranking assessment at the indicated level. In particular, highlight key challenges encountered by the country/ national authorities and partner agencies; and recommendations on how these can/ will be overcome in the future.

There are shortcomings, for various reasons, where actual existing regulations are not respected. This call for a massive change of attitude where people need to be educated to protect themselves, their immediate environment and their neighbours.



Priority for Action 5

Strengthen disaster preparedness for effective response at all levels

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
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

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
Training and mock drills in school and hospitals for emergency preparedness	Yes

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 No

Provide description and constraints for the overall core indicator (not only the means of verification).

Please describe some of the key contextual reasons for the country's ranking/ assessment for the indicated level of progress.

The National Disaster Risk Reduction Council based at the Prime Ministers Office and chaired by the Secretary to the Cabinet oversees all preparedness programmes.

In the event of any hazards threatening the Republic of Mauritius the Emergency Operation Command at the NDRRMC is activated which mobilizes all main stakeholders namely the Special Mobile Force, the Mauritius Police Force and the Fire Services, to intervene. Standard Operation Procedures are reviewed after every disaster.

Provide an explanation of some of the key contextual reasons for the country's ranking assessment at the indicated level. In particular, highlight key challenges encountered by the country/ national authorities and partner agencies; and recommendations on how these can/ will be overcome in the future.

Lack of appropriate logistics and adequate human resources is a major challenge. Latest technology remains costly.

There is a need for capacity building in DRR at the Disaster Management Centre and at the Mauritius Meteorological Services who is responsible for early warning of the major hydro-meteorological hazards and other stakeholders for the other hazards.

The actual collaboration between institutions needs to be consolidated.

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? No

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

Provide description and constraints for the overall core indicator (not only the means of verification).

Please describe some of the key contextual reasons for the country's ranking/ assessment for the indicated level of progress.

With the establishment of the NDRRMC there are established Emergency Operations Commands which become active whenever any major hazard is likely to affect the Republic of Mauritius.

There are refugee centers already earmarked in various localities for different hazards such as cyclone, high waves or landslide.

Evacuation plans for tsunami and landslide have been agreed upon and simulation exercises which include physical evacuation of residents in the concerned area, are now conducted at least once a year with the participation of various stakeholders. NGOs like 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.

Provide an explanation of some of the key contextual reasons for the

country's ranking assessment at the indicated level. In particular, highlight key challenges encountered by the country/ national authorities and partner agencies; and recommendations on how these can/ will be overcome in the future.

Refugee centres are opened as soon as a cyclone warning class three comes into force or high wave or tsunami warning is issued.

Safe areas with regards to tsunami for each of the coastal regions have been identified. Idem

when there is a severe high wave warning.

Relocation is a major constraint for a small Island like Mauritius.

Core indicator 3

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

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

Provide description and constraints for the overall core indicator (not only the means of verification).

Please describe some of the key contextual reasons for the country's ranking/ assessment for the indicated level of progress.

A special fund exist known as the "Prime Minister's relief fund" dedicated for victims

of disasters.

Nowadays funds obtained from Coorporate Social Responsibility are also used for relief purposes.

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.

Provide an explanation of some of the key contextual reasons for the country's ranking assessment at the indicated level. In particular, highlight key challenges encountered by the country/ national authorities and partner agencies; and recommendations on how these can/ will be overcome in the future.

The main constraint is insufficient financial resource. The impossibility to relocate those in

affected areas is a challenge.

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	No	
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Identified and trained human resources No

Provide description and constraints for the overall core indicator (not only the means of verification).

Please describe some of the key contextual reasons for the country's ranking/ assessment for the indicated level of progress.

There is actually an ongoing process. Damage and loss assessment are being worked out but not yet completed.

Provide an explanation of some of the key contextual reasons for the country's ranking assessment at the indicated level. In particular, highlight key challenges encountered by the country/ national authorities and partner agencies; and recommendations on how these can/ will be overcome in the future.

Data are scattered in various institutions and not properly archived. Retrieving these data in cumbersome.

Not institution are willing to share data.

National Progress Report - 2013-2015

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)

A multi-hazard early warning system still need to be developed Need of capacity building at various level.

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 decisionmaking for risk reduction and recovery activities?: Yes

Do gender concerns inform policy and programme conceptualisation and implementation in a meaningful and appropriate way?: Yes

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

Mauritius has well established human rights and equal opportunities law with no

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)

The NDRRMC has been established and local disaster risk reduction management committees have been established at the level of municipalities and district councils but there is urgent need for training and capacity building for members sitting in those committees.

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)

The Ministry of Social Security is responsible to provide social aid whenever a disaster affect a family or a social group. The necessary infrastructure and logistic are already in place

A ministry of social integration has been created for that goal and this ministry is working with the most vulnerable groups.

There are also NGOs that help along the same line by providing necessary facilities for vulnerable people to consolidate their houses.

e) Engagement and partnerships with nongovernmental 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)

Contribution to the Corporate Social Responsibility by private sectors is an obligation. Various NGOs such as the Red Cross Society actively participates in disaster risk reduction through sensitization and assisting relief programmes.

Contextual Drivers of Progress

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.

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

Lots of progress has been achieved in developing a strategy for action and to a large extent actions are being taken to address them. More efforts are needed in the following areas:

- 1. Continued community education at grass root
- 2. DRR capacity at various institutional level
- 3. Building up of a damage & loss data base
- 4. Research and develop modeling tools for early warning



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

Several NGOs, namely Rotary Club, Lions Club are also involved in alleviating poverty and thus reducing the vulnerability of this group of people.

Future Outlook Area 2

National Progress Report - 2013-2015

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 frequency of

adverse weather

events resulting from climate change may also require reassessing existing mitigation strategies, for example the adequacy of drainage system, regular cleaning of rivers, or

building sea wall protection in certain vulnerable coastal areas.

Stakeholders

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

Organization	Organization type	Focal Point
Mauritius Meteorological Services	Governments	
Prime Minister's Office	Governments	
Ministry of Education	Governments	

