

# Mozambique

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

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# Section 1: Outcomes 2011-2013

# **Strategic Outcome For Goal 1**

#### **Outcome Statement:**

This period has witnessed an increase of awareness on DRM and climate change at national and local levels and at both technical and political levels with attention being devoted to reducing vulnerability of national economy and local communities to disasters, particularly floods, droughts and cyclones, through integration of disasters and climate change resilience approaches into strategic planning of core development sectors, backed by efforts aiming to improve information delivery to end-users.

#### Main achievements include:

- 1. Elevation of DRM to the level of law with approval by the Council of Ministers, of a DRM bill that sets up obligations to central and local governments agencies and municipalities, to alocate funds for DRM activities, including protection of critical infrastructure;
- 2. Increased dialogue between DRM and Climate change communities which resulted in approval of a national climate change strategy that recognises DRM and climate change adaptation as national priorities for the next 15 years;
- 3. Initiation in 2012 of ambitions three-year reforms program to allow integration of DRM and climate change into core development sectors. Achievements include:
- a) visible integration of DRM and climate change into agriculture, social protection programs and environment.
- c) ongoing discussion for DRM and climate change integration into Health and Roads sectors and coastal municipalities.
- 4. Increased attention for improvement of hydrometeorological network, information delivery and sharing between agencies responsible for data collection, such as INAM, DNA and IIAM and the end-users, particularly those directly involved or impacted by disasters uch as INGC, farmers, fishermen who rely on hydromet information to make timely and informed decisions.
- 5. Increased resilience of local communities at risk of flooding, cyclones and droughts, through active participation in the implementation of DRM and climate change adaptation projects at district level, strongly focused to capacity building to local communities.

# **Strategic Outcome For Goal 2**

#### **Outcome Statement:**

This period is marked by increase and intensification of political dialogue between DRM, Planning and Environment sectors towards creation of synergies and clarification of sector mandates in leadership of DRM and climate change agenda, specially in areas subject to overlaps such as DRR and climate change adaptation.

Achievements are extensive to strengthening of technical dialogue and cooperation between DRM and climate change coordination entities with revision of composition of the existing technical boards on DRM and sustainable development.

A summary of main achievements over this period include:

- 1. Increased dialogue between the Disaster Management Technical Council (CTGC) and the Sustainable Development Technical Council (Technical CONDES) in the discussion of climate change adaptation priorities, through joint meetings for sharing or discussion of relevant assessments and strategies of national interest.
- 2. Increased coordination of DRM and climate change activities between INGC, MICOA and Municipalities. Integration of DRM and Climate change agenda has been consolidated in the municipalities of Beira and Maputo, through creation of DRM and climate change units and implementation of DRM and climate change adaptation projects to reduce urban flooding and coastal erosion.
- 3. Integration in the DRM bill of a legal provision that reiterates the mandate and leadership of the INGC to coordinate national Civil Protection UNAPROC, a multisector unit composed by the Armed Forces, Police, Firebrigade, Red Cross activists and volunteers which is designated to intervene in disaster response activities, particularly, in search and rescue operations, and protection of critical infrastructures and vulnerable groups, with emphasis to people living in temporary shelters during emergencies.
- 4. Increased engagement of Academia in capacity building activities on DRM and climate change benefiting CTGC members and local governments technical staff.

## **Strategic Outcome For Goal 3**

#### **Outcome Statement:**

The creation of a national Disaster Risk Management Fund has been considered critical to facilitate safer post-disaster reconstruction of the affected regions and communities at risk. This aspect has merited special attention of the country, hence its integration in the DRM bill approved by the Council of Ministers in December 2012.

Progress has also been made in the social protection sector where DRM and climate change considerations have been integrated in the social protection programs to allow protection of vulnerable groups living in areas at risk of disasters, with particular focus to floods and droughts

Main achievements over the period include:

- 1. Continuation and expansion of the resettlement program from the Zambezi valley and Save River to new locations along the Limpopo Transfrontier Park and the Limpopo River, Southern Mozambique
- 2. Improvement of guidelines for targeting disaster and climate risks vulnerable groups to insure their integration in post-disaster social protection programs and projects.
- 3. Ongoing discussion on integration of monitoring of disaster impacts in annual poverty assessments to be conducted by the National Institute of Statistics which will inguite the initiation of vulnerability monitoring as a component of national development policies and strategies.
- 4. Increased contribution of the Ministry for the Coordination of Environmental Affairs to DRR in informal settlements with approval of a new strategy that outlines key aspects to be considered for intervention in informal settlements accross country, paying particular attention to capacity building activities at municipal and district levels and multistakeholders engagement through adoption of participatory planning approaches.
- 5. Implementation of a new design model for cyclone-proof housing in Angoche district, northern Mozambique to be adopted by all cyclone prone districts.

# **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 Government of Mozambique is committed to reduce vulnerability of the national economy and local communities to disasters and climate change impact through integration of DRM and climate change considerations into planning and budgeting processes of the core development sectors.

However, given the high level of vulnerability of the country and the existing financial and technical constraints, a step by step approach will be employed to insure that appropriate measures to reduce vulnerability of key sectors and at risk communities are implemented following a programatic approach based on the current sector reforms.

Priorities for this period will include, but no limited to:

- 1. Implementation of DRM and climate change reforms in agriculture, health, environment, roads, social protection, water management, weather forecast and selleted municipalities to create foundations for building resilience ant national, sector and local level, and allow and scaling up to other sectors and localities
- 2.Initiation of comprehensive implementation of DRM and Climate change committments included in the National Climate Change Strategy as the basis to create longer term resilience at national, sector and local level.
- 3. Strenghthening of dialogue between DRM and environment authorities and municipalities to insure fully integration of DRM, climate change aspects in the municipal development agenda, as condition to reduce current disster risc in urban areas.

# 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:

The Government has made tremendous efforts to mobilize resources and build partnerships with international and national agencies, donors and NGOs to strengthen current initiatives aiming developing and strengthening capacities to build resilience at national, sector and local level.

Due to prevalent vulnerability to floods, cyclones and drought at all territorial scale, and the

need to engage local communities in the leadership of local DRM and climate change adaptation activities, remain priorities of the country for this period:

- 1. Strengthening of national capacity of the INGC to coordinate and implement shorter, medium and longer-term DRM and climate change adaptation measures with vision to create comprehensive disaster resilience at all scales.
- 2. Strengthening DNA and INAM capacities including regional (ARA's) and local level representations to provide updated, accurate and useful hydro-met information for informed decision making, through setting up information and data sharing protocols between agencies involved in hydrological and weather data collection and end users at all levels.
- 3. Strengthening of national capacity to monitor and report progress achieved in the implementation of current and proposed DRM and climate change reforms, including actions proposed in the National Climate Change Strategy
- 4. Expansion of territorial coverage of Local Committees for Disaster Risk Management to all communities at risk, ensuring motivation, equipment and training of their members, as means to ensure their engagement and leadership of DRM and climate change adaptation activities, with particular emphasis to disaster monitoring and response.
- 5. Increase the number of communities involved in DRM and climate change adaptation capacity building activities, though demonstrative projects on the most appropriate approaches and techniques to cope with droughts, floods and cyclones
- 6. Increase the number of municipalities, coastal cities and districts at risk equipped with DRM and climate change units or technical councils

# **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:

The Government has paid great attention to the increase of risks and impacts associated with increased frequency and intensity of extreme weather related events affecting urban settings and low-lying settlements in coastal and riparian communities across the country, where the number of affected people and loss of lives tended to increase compared to rural areas.

To change this glooming picture, priorities for this period will include but not limited to:

- 1. Strengthening of spatial planning instruments and processes at municipal and district level, by incorporating risk analysis before allocation of land for new settlements and other forms of development
- 2. Enforcement at all levels with particular attention in municipalities, of land use planning procedures provided in the existing Spatial Planning Law, approved in 2008, and other environmental regulations to ensure that current and future developments do not exacerbate existing disaster risks or are not source of new risks particularly to people, by creating ground for future intervention to reduce those risks in the form of evacuations and new resettlement programs
- 3. Initiation of a national debate between central Government, national disaster management authorities and local municipalities and urban dwellers representatives, for comprehensive implementation by municipalities, of appropriate measures, including regulations that will significantly reduce current risks of flooding and coastal erosion in the majority of the 43

municipalities and small coastal and low-lying towns.

# **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	
• Five Year Government Plan 2010 2014 (2010) [PDF - 825.02 KB]		
Sector strategies and plans	Yes	
• Productive Social Action Program (2012) [PDF - 673.19 KB]		
Climate change policy and strategy	Yes	
National Climate Change Strategy (2012) [PDF - 1.05 MB]		
Poverty reduction strategy papers	Yes	
CCA/ UNDAF (Common Country Assessment/ UN Development Assistance Framework)	Yes	
Civil defence policy, strategy and contingency planning	Yes	

Have legislative and/or regulatory provisions been made for managing disaster risk? Yes

## Description:

Over the last two years, the country has made progress to strengthen the achievements attained in 2011, through the elevation of the DRM agenda at national level, accompanied by efforts to enhance the DRM actions at provincial, district and municipal levels.

Main achievements in the policy area include:

- 1. Approval in December 2012, by the Council of the Ministers of the DRM Bill to be submitted to Parliament in 2013. Inspired in the Decentralization Law under implementation since 2013, the bill sets up specific sector responsibilities, including civil society and international community roles in all DRM phases. However, it places emphasis for emergency response, prevention and post-disaster reconstruction and financing mechanisms and empowers, local governments, communities and municipalities to manage local risks and disasters.
- 2. Approval in November 2012, by the Council of Ministers, of the National Climate Change Strategy (2012-2025), that clearly identifies DRR and climate change adaptation as national priorities, while efforts should also be made to make better use of the opportunities emerging under the low carbon development.
- 3. Approval by the Council of Ministers of a new regulation that guides the implementation of resettlement programs triggered by the development of economic activities, particularly mining and agriculture. Disaster risk and environment assessments as the core step for the selection of the new resettlement site, which should be endorsed by local authorities before its approval by central authorities.
- 4. Integration of the disaster risk in the National Development Strategy (END) that is under design by the Ministry of Planning and Development aiming at orienting the paths for national development over the period 2015-2025
- 5. Active engagement of UN agencies in DRM activities, particularly in development of arid zones, flood mitigation in urban areas and cyclone mitigation over the coastal areas.

#### Context & Constraints:

Capacities at local level are still limited particularly at municipalities:

1. Few municipalities have demonstrated commitment to reduce local risks. For instance, few or none of the existing 43 municipalities has undertaken land zoning to identified risk areas (i.e. areas subject to flooding, land sliding or erosion) or to resctrict development in sensitive environments, such as urban wetlands and natural streams.

As a result, disaster risk is increasing in the urban settings as a consequence of absence of urban regulation that restrict the occupation and refilling of wetlands, development of steep slopes, and construction on natural water courses and natural rain water basins.

- 2. Contingency plans are not comprehensively prepared at municipal level. Consequently, Municipalities very often rely on preparedness and response capacity of the National Institute for Disaster Management to respond to local disasters.
- 3. Although Districts have their Contingency plans, contingency funds remain centralized and not directly accessible to district governments to allow their timely response to local emergencies. As consequence, district governments are routinely forced to use their recurrent expenditures budget to undertake disaster monitoring activities while waiting for provincial or central level intervention in the affected district.

#### Related Attachments:

DRM Bill (2012) [PDF - 400.53 KB]

# **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	4.61	0.35
Decentralised / sub-national budget	8.2	0.20

USD allocated to hazard proofing sectoral development investments (e.g	377247950
transport, agriculture, infrastructure)	

## Description:

The country continued to allocate resources to allow the continuation and conclusion of activities underway in 2011, but also to the launch of new activities in several areas allow. Several sector programs, projects and initiatives have been launched by bilateral and multilateral development agencies and NGOs, with the aim of strengthening national capacity to reduce disaster risk through development investments.

- 1. Significant investment and funds mobilization has been made to strengthen the national capacity of hydro-meteorological services through investments in infrastructure upgrade and expansion and human resources development at the National Water Authorities and the National Institute of Meteorology to improve provision, quality and reliability of hydro-met information to the end-users at all levels.
- 2. Under the PPCR and other MDB's initiatives (African Development Bank and the World Bank), funding for climate risk proofing to agriculture in the Limpopo dry lands and roads

network in the Zambezi valley has been provided for the period 2011-2017;

- 3. Funding to improve urban flood risk control through drainage network rehabilitation and expansion; coastal erosion and municipal planning in 23 municipalities, including the major cities of Maputo (the capital), Beira (the second largest city) and Nacala (the first national special economic zone).
- 4. Funding for capacity building for climate change, DRM and environment mainstreaming at sectoral and local levels focusing at training Government officials at all level. NGO's have dedicated resources to capacity building activities to the education system aiming at increasing the participation of the teachers in DRR capacity building activities at school and communities.
- 5. At district level, resources have been invested to fund demonstrative projects for cyclone house proofing; to massify the use of telecommunications systems for disseminate early warning information dissemination among fisherman and their communities in the coastal district of Angoche

#### Context & Constraints:

The country is developing at very high speed - lots of development projects on pipeline, particularly, coal mining, gas industry, agriculture and urban expansion. Employment and housing remain serious challenges to the nation as the majority of the population is still young and increasing, and urban areas are under rapid expansion.

The current boom of the economy and the growing demand for primary raw materials including agriculture products, makes investments in logistics development, particularly roads, railways network and ports development and expansion and agriculture, areas of major pressure.

In response to these urgencies, little time has been dedicated to undertaking of multi-risk assessments for public infrastructure to allow better planning and allocation of adequate financial resources for implementation of appropriate measures to reduce risks on the development projects.

Therefore, funding for proofing development infrastructure remains inadequate. As result, flood risks to agriculture development projects, road and railway networks and housing particularly in urban areas and along floodplains remain high.

Drought risk to agriculture remains high as investment for expansion of alternative irrigation sources and techniques (i.e. ground water pumping, water diversion, rain water harvesting) in main rain-fed agriculture productive land currently not covered by the existing irrigation schemes is still low.

#### Related Attachments:

Budget allocation to DRR activities (2013) [XLS - 32.00 KB]

# **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
• DRM Bill (2012) [PDF - 400.53 KB]	
Regular budget allocations for DRR to local government	Yes
Estimated % of local budget allocation assigned to DRR	8.39

## Description:

Central Government continued committed to implement current efforts in the area of decentralization to insure that local DRR priorities are met with the existing capacities as part of local development priorities.

In 2012, a new financial provision has been made by the Ministry of Planning and Development and the Ministry of Finance in budget allocation to local governments provinces and districts. In opposition to former financial allocation mechanism, where ceilings were defined by central government to provincial and district departments, the new provision decentralizes the allocation of investment financial resources to be made by local government under the leadership of the Provincial Governor and the District Administrator. respectively. With this new provision, it is expected that local governments allocate the resources to address local major concerns, including DRR, based on local experience, skills and local populations' needs.

The DRM bill approved by the Council of Ministers in December 2012, sets up responsibilities to:

- 1. Local governments, including municipalities to provide in their state budget, allocations to DRM activities, including emergency response
- 2. Local governments to organize and oversee the functioning of the local DRM bodies and organizations, the preparation of local contingency plans that will enable local response should an emergency be declared.
- 3. Provincial Governor and municipal mayor to approve local risk assessment maps to enable implementation of appropriate measures for disaster mitigation and preparedness.

4. Provincial governor, district administrator and municipal mayor to evacuate local populations under eminent disaster

#### Context & Constraints:

The current Disaster Bill represents a great revolution towards the creation al all levels. For instance, besides the creation of human capacity, the bill calls for specific allocation of technical means and financial resources to allow sound implementation of DRM activities, including response to emergencies.

These provisions will fill in the existing gap on DRM financing, as despite provisions set up by the Ministry of Planning and Development and Ministry of Finance in the guidelines for the preparation of annual Social and Economic Plan and State Budget that instruct local governments to allocate part of their budgets to DRM:

- 1. Allocation of financial resources by the local authorities (provinces, districts and municipalities) is still low. Major investments are implemented with resources provided by NGO's and donors.
- 2. Apart from the resources allocated to the national authority for disaster management (INGC) and provincial delegations, no specific DRM budget line has been created by the Ministry of Finance in the State budget.
- 3. Currently, some DRM activities are implemented as a componente of climate change activities, whose budget line was created in 2011 by the Ministry of Finance and the Ministry for the Coordination of Environmental Affairs. However, visibility of DRM activities at local level is still low.
- 4. Financial resources for the contingency plans remain centralized. Few resources are allocated to provinces by the INGC after the declaration of emergency (yellow or red alert) by the Council of Ministers, just to allow these entities to participate in monitoring of disaster and humanitarian assistance activities.

# **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)	1 platform
National finanace and planning institutions (specify absolute number)	2

Sectoral organisations (specify absolute number)	17
Private sector (specify absolute number)	0
Science and academic institutions (specify absolute number)	2
Women's organisations participating in national platform (specify absolute number)	2
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	No
In a civil protection department	No
In an environmental planning ministry	No
In the Ministry of Finance	No
Other (Please specify)	Ministry of State Administration

## Description:

There were no changes in membership of the National Platform for Disaster Management, as this is created by law and no provision has been changed over the last three years.

According to the existing regulation, the national platform for DRM is the Disaster Management Technical Council CTGC), the advisory board of the National Institute for Disaster Management - INGC. INGC functions under the Ministry of State Administration. Statutory members of the CTGC are:

- 1. Line ministries: Planning, Finance, State Administration, Defense, Interior, Transport and Communications, Agriculture, Health, Education, Foreign Affairs, Environment, Public Works and Housing, Woman and Social Action.
- 2. Technical sector departments include the National Institute of Meteorology (INAM), National Authority for Waters (DNA), National Directorate of Geology, CENACARTA (geodesy and mapping unit), Food Security and Nutrition Technical Secretariat (SETSAN), the National Institute for Agrarian Research (IIAM), Hydrography and Navigatio National Institute.
- 3. Civil society platform: G20, a platform comprised of more than 400 national organizations

- 4. Academia: Eduardo Mondlane University (UEM) and Mozambique Technical University (UDM). But the room is open for other universities engaged in DRR activities
- 5. Woman organizations: represented through the Ministry of Women and Social affairs, the UN Woman and organizations integrated in the national platform of civil society organizations
- 6. UN Agencies: all the UN agencies are represented in the platform
- 7. Private sector: is part of the civil society organizations. However, as a group, private sector can be represented in critical moments (disaster response activities) by its association the CTA- Economic Associations Confederation. However, its engagement in the CTGC sessions is still limited.

#### Context & Constraints:

The CTGC has the responsibility of providing the technical advice to the INGC in all DRM activities at national and local levels.

Through INGC, the CTGC has also mandate of advising the Coordinating Council for Disaster Management (CCGC) in the decision making process on DRM, which includes, approval of Contingency Plans, assessments and other official reports studies commissioned by the INGC with oversight of the CTGC

Through INGC, it is also CTGC role to providing technical inputs to the CCGC and the Council of Ministers to declare alerts and emergency at national and local level. However, the intervention of CTGC is not comprehensive, as this still limited to disaster preparedness, emergency response and risk assessments

As of today, the CTGC has provided little inputs to DRM integration into local municipalities where urban risks are rising due to flooding, land sliding, coastal erosion and cyclones associated with increasing encroachment to environmentally sensitive and risk areas.

CTGC has also failed to provide technical support to INGC in terms of setting up national priorities that need to be addressed in short and long term in order to reduce current disaster risk, particularly in the urban areas, which face rapid population increase, along the coastline where cyclones and coastal storms damages and loss of lives is rising.

The participation of private sector and Civil Society in the CTGC meetings and activities is still low and is limited to the period of emergencies to ensure coordination in the mobilization and distribution of emergency supplies to the effected people

#### Related Attachments:

Revision of the Decree that creates INGC (2007) [PDF - 489.45 KB]

# **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: 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 multi-hazard risk assessment with a common methodology available to inform planning and development decisions? Yes

Multi-hazard risk assessment	Yes
% of schools and hospitals assessed	0
Schools not safe from disasters (specify absolute number)	0
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)	Yes
Common format for risk assessment	No
Risk assessment format customised by user	No
Is future/probable risk assessed?	Yes
Please list the sectors that have already used disaster risk assessment as a precondition for sectoral development planning and programming.	Public Works and Housing, State Administration, Environment, Municipalities, Agriculture, Woman and Social Action, Energy

#### Description:

The country is progressing in its efforts to improve disaster risk awareness through risk assessment and risk information dissemination.

After the first multi-hazards assessment conducted in 2003 for the Limpopo River basin, and the national assessment conducted in 2009 on climate change impacts on disaster risk management, new risk assessments have been done focusing at sector level.

1. Under INGC Phase II, eighth studies on i) early warning, ii) coastal protection, iii) cities preparedness, iv) private sector resilience, v) water, vi) agriculture, vii) peoples preparedness and viii) climate change for oceans, were concluded in 2012, and disseminated to the various stakeholders in an international symposium, held in Maputo in November 20 12. The direct output of these studies was the preparation by the INGC, of the proposal national CCA and DRR strategy. Ass studies were posted to the INGC website for easy access by a general public.

#### At local level:

- 2. In partnership with the World Food Program, INGC has conducted multi-risk assessment at district level to enhance information availability for decision making, particularly for adaptation at district and community level in drought, flood and cyclone prone districts. As of today, ..... districts, out of ......drought prone districts have been mapped. Other risk assessments are ongoing in other .....districts.
- 3. Multi-hazards assessments in the Zambezi River basin have been completed. a new Atlas for Disaster preparedness and response in the Zambezi river, the largest river basin in the country, covering ..... km2, and home of .....people, was published in 2012. This will facilitate the location of critical infrastructure and populations at risk during disaster events.

#### Context & Constraints:

Based on the widely existing regional climate models, current risk assessments are mostly driven by climate change debate and tend to demonstrate how climate change may exacerbate disaster risk in certain sectors and locations

In this regard, these assessments are not comprehensive and do not adopt a standardized disaster risk assessment methodology. For instance:

- 1. Current climate risk assessments do not map the past disasters and impacts to facilitate risk communication to the general public, particularly lay men who very often need spatial representation to understand the potential risks that may be faced in future.
- 2. Similarly to the Limpopo Atlas, the recent multi-hazards mapping for the Zambezi valley does not integrated mapping of past events and impacts, and potential risks (damages and losses) based in future different scenarios, and possible safe havens. As result, the use of these Atlas for disaster preparedness and response is still limited to access of information on location of population and public infrastructures. Other tools are always employed to assess and respond to potential risks in those two river basins.

In general, the use of risk assessment is very low and is limited to specific resettlement programs in response to disaster, particularly floods. However, it urban areas, the current urban improvement programs are not based on existing risk assessments, but mostly driven by recent disaster experience.

In addition, DRM measures implemented across the country do not adequately address the real risks. As result, the reported disasters tend to affect the same location, people or assets, as witnessed in 2013 during flash floods in Maputo city, floods in the Limpopo were people were rescued on roof tops and trees as happened in 2000.

Dissemination of local risk assessments to communities is limited as noted by participants of

HFA local dialogue.

#### Related links:

• INGC website

## **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: 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 disaster losses and hazards systematically reported, monitored and analyzed? Yes

Disaster loss databases exist and are regularly updated	Yes
Reports generated and used in planning by finance, planning and sectoral line ministries (from the disaster databases/information systems)	Yes
Hazards are consistently monitored across localities and territorial boundaries	Yes

### Description:

Monitoring and reporting of hazards and disaster losses has become a regular practice in the country. This activity is conducted by the National Institute for Disaster Management, through its operative branch, the National Emergency Operative Center (CENOE) information unit. In 2009, INGC, with support from the Global Risk Identification Program (GRIP) and UNDP, concluded a thirty-year (1980-2009) disasters loss and damages inventory across the country and sectors. The results of this inventory are available electronically at the INGC website

In the current years, data on disaster losses and damages is collected by the INGC and stored in the reports, such as the Review of the cyclonic and rainy season, which is approved by the Disaster Management Coordinating Council, reporting losses and damages occurred between October and March.

Reports generated by the Food security and nutrition technical secretariat are also presented to the Council of Ministers reporting number of food insecure people induced by several hazards, mostly floods, cyclones and droughts, plagues. Food insecurity assessments are conducted at household levels and the data collected is representative at district level- the lower territorial budgeting and planning unit.

Information generated by these reports is used for decision making process, particularly for post disaster recovery and reconstruction, particularly for spatial targeting of social protection programs, such as food for work programs and cash transfer.

At local level, the establishment of District Disaster Management Technical Council in districts at high disasters risk, working close collaboration and support from the provincial SETSAN, has improved hazards monitoring, particularly, of droughts, and data collection on affected communities at district level. As result, interventions in disaster response, particularly to slow onset disasters such as droughts has improved significantly. As result, no death associated to droughts or famine has been reported in the country.

#### Context & Constraints:

Analysis of data losses and hazards monitoring is not comprehensively used to assess national and local vulnerabilities, and the design of appropriate measure to address them.

#### For instance:

- 1. Although hazards monitoring is part of Municipal responsibility, this task is not regularly undertaken. Human and technical capacity to monitor and respond to hazards is still very weak in all 43 municipalities;
- 2. Apart from floods and cyclones, monitoring of drought hazards and landslides remains weak across the country. At district level, District Governments and local communities have no access to accurate information on emergence and evolvement of drought events in their localities.
- 3. Apart from information dissemination, particularly, for floods and cyclones, the use of disasters losses information for planning future development is still weak, particularly at sector and municipal level. In agriculture sector and urban areas, measures to reduce known past vulnerabilities to flooding or coastal erosion are not fully implemented. For instance, the in the Limpopo River, low safety levels have been assigned to the local irrigation currently under construction at Xai-Xai. As result, this irrigation scheme has been flooded and its dikes washed away.

In January 2013, heavy rains that poured about 150 mm of rain in Maputo city in 12 hours, flooded or destroyed houses built on the areas affected by the 2000 flash floods in the suburbs, including the rich areas of the Sommershield and Costa do Sol neighborhoods, the popular Julius Nyerere Avenue which was washed away before completion of rehabilitation works after 13 years of closure in result of the 2000 flood. Yet, landslides destroyed hundreds of houses that were spared by the 2000 events.

## **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:

In 2011, five early warning systems were in place for i) floods covering all (13) international river basins, including the Limpopo, Zambezi, Shire, Incomati, Maputo river basins. National rivers included Buzi and Messalo. In 2012, two flood early warning systems we installed in the Licungo River basin and in the Chiveve river, in the Municipality of Beira. In Beira, a comprehensive EWS is under installation with financial support from the GTZ under the global movement "resilient cities". Under this initiative, the city of Beira was awarded 150.000 Euros grant.

Other existing and operational EWS include earthquakes detection, bush fires, food insecurity and cyclones. Over the last two years, INAM has improved its technical capacity for weather forecast with signature of several MoU for data sharing at regional level that includes SADC, Eastern Africa and Asia.

All media have access to EWI and are actively engaged in the dissemination of this information to the general public. Apart from TV, newspapers, at local level, the strong engagement of community radios has been instrumental in providing EWI using local languages. This timely access to information has enabled timely preparedness of Local Committees for Disaster Risk Management to lead the emergency response, including evacuations of communities at risk.

For instance, in 2012, timely access to information and the active engagement of Local Administrators has allowed timely evacuation with no casualties, of more than hundred thousand people in the Limpopo River basin. In 2013, availability of EWI has enabled the evacuation of fifty five thousand people from the city of Chokwe; people and assets, including archives in the downtown of the city of Xai-Xai, also along the Limpopo Rive.

#### Context & Constraints:

The existing communication systems are based on technical means, such as radio sets, radio VHS, mobile phones and written press.

At district level, interpersonal contact, particularly between local authorities, community leaders, the members of the Local Committees for Disaster Risk management with the local communities and the use of flags of different colors, are the preferred communication mechanisms.

Although flood warnings are delivered in an understandable manner, the understanding of weather forecast remains low for the majority of population as the message is still technical. For instance, rainfall forecast is measured in terms of mm/24 hours and intervals of risk, such as 20-30 mm or 50mm rainfall is expected to occur over the next 24 hours. As this information is not translated into potential risk, such as flooding in particular urban or rural settings, the usefulness of this information remains low, and people ultimately have to face the actual situation when heavy rains starts falling.

At district level, participants of local dialogue raised two concerns:

- 1. Lack of an EWS for droughts. In this situation, local communities rely of traditional drought EWS systems, based on local knowledge that employes natural references, such as the level of water stored in historical lakes at the beginning or middle of the rainy season or the direction of wind blow during the rainy season. Based on theses natural references, for instance, if in the middle of the rainy season the level of water stored in the historical lakes is below normal, or westerly winds are frequent, that is signal of a dry year.
- 2. Lack of clarity of the seasonal weather forecast. For instance, local extension services workers are often asked to interpret the meaning of the Met office language of normal rainfall, rainfall below or above normal.

## **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	Yes

Regional or sub-regional early warning	Yes
Establishing and implementing protocols for transboundary information sharing	Yes
Establishing and resourcing regional and sub-regional strategies and frameworks	Yes

## Description:

Mozambique is currently exposed to three major regional transboundary risks:

- 1. Flooding and water pollution due to its location in the mouth of thirteen international river basins;
- 2. Seeds and animal diseases due to import of seeds and animal transfer between Mozambique, and the neighboring countries such as South Africa, Swaziland and Zimbabwe;
- 3. Xenophobia, in South Africa as together with other SADC region countries, significant number of Mozambicans (500000) are migrant workers in South Africa and part of them were affected by the 2008 Xenophobia events.

To ensure close collaboration in risk monitoring, Mozambique has signed the SADC protocol on Tranboundary water sharing, and under the leadership of the National Waters Authority (DNA) the country participates in the sub-regional river basin Commissions, such as: i) IncoMamuto, for the Incomati and Maputo River basins, involving Mozambique, South Africa and Swaziland; the LimCom, for the Limpopo River, involving Mozambique, South Africa, Zimbabwe and Botswana; the Save River Commission between Mozambique and Zimbabwe; the ZamCom, involving seven countries who share the Zambezi river

At national level, monitoring of flood risk has been improved with the completion of establishment and staffing of the regional authorities for waters, namely, ARA North to oversee the river basins in the northern part of the country, and the ARA Center-North, to oversee the river basins north of the Zambezi River and the establishment of the Save River Basin management Committee, in addition to the existing ARA South, ARA Centre and ARA Zambezi which oversee the rivers in the southern and Central regions and the Zambezi river basin, respectively.

Regular regional meetings, timely exchange of information with neighbouring countries water administration bodies has improved water management, including dams' discharges and flood risk control within and between all the countries.

#### Context & Constraints:

Despite this high interest and active participation of Mozambique in all regional water management commissions, technical and financial capacities remain a major challenge for the establishment of national capacity to deal with regional risks particularly flooding and xenophobia

Flooding: while technical capacity for water control exists and is being expanded, capacity for permanent monitoring and negotiation of timely exchange of information with the regional counterparts is still limited within the National Waters Authorities (DNA). As result, delays in access to information of river water flows and dam discharges remain. This fact imposes serious difficulties for timely activation of flood response measures including dam operations in the country.

Technical capacity for flood modeling is expanding slowly. Despite the existence of five Regional Water Administrations (ARA's), only ARA South has consolidated Flood River modeling capacities.

Modeling capacity is under creation in ARA Zambezi.

It is expected that these capacities are created over the next five years with financial support provided by the PPCR to the strengthen the hydro-met services through hydro-met infrastructure rehabilitation, upgrading and expansion in the Incomati, Limpopo, Zambezi, Licungo River basins, training of staff on data acquisition, modeling and analysis and service delivery for both DNA and INAM.

Xenophobia: currently, monitoring of violence triggered by xenophobia is done remotely by the Ministry of Foreign Affairs through the Mozambican Consulates in Johannesburg, Cape Town, Durban and Pretoria, using existing official protocol which do not incorporate disaster risk.

As result, xenophobia early risk detection is a big challenge for country xenophobia violence remains latent in South Africa due to the massive presence of migrant workers who are believed to be grabbing jobs of the natives, particularly in the service provision industry, such as repairs and trade sectors.

# **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? Yes

Information is proactively disseminated	Yes
Established mechanisms for access / dissemination (internet, public information broadcasts - radio, TV, )	Yes
Information is provided with proactive guidance to manage disaster risk	Yes

## Description:

An operational information system and a consolidated mechanism of access and dissemination of information for different stakeholders are in place at all levels. In addition, an institutionalized practice of public information communication on disaster risk reduction is in place to inform about eminent hazards and risks.

Over the period in analysis, important milestones achieved include the national consensus for the creation of the Climate Change and DRM Knowledge Management Centre, with the mandate of gathering, managing and disseminating available information on disaster risk management and climate change to the various stakeholders.

Furthermore, a portal linking the National Disaster Management Institute and all other institutions that generate useful data and information for disaster management and adaptation to climate change, such is the case of the National Meteorology Institute (INAM), will be established.

Direct access to public information available in the National Emergency Operations Centre (CENOE) and several governmental and non-governmental institutions is guaranteed through existing web pages. Regularly updates and reports are posted by those institutions informing the general public and population living in the risk areas, on hazards and precaution measures to be implemented, thus contributing to disaster risk reduction and

development.

At local level, the local governments and leaderships, member of Local Committees for Disaster Risk Management and other influent actors at community level constitute the linkage between the central authorities and local communities and responsible for information dissemination to local vulnerable and at risk groups.

Means of communication such as the mobile phones (text messages and calls), community radios, communication radios and television are used for information dissemination. For example, early warning systems through mobile sms services enable fishermen to leave coastal areas before impact of windstorms and cyclones

#### Context & Constraints:

The current coverage of information dissemination mechanisms is not uniform throughout the territory. In general, people living in the urban centers have more access to current information through internet services, mobile phones and television, while at local level communities rely mainly on community radios.

There still persist difficulties in accessing and disseminating information, especially when hazards such as floods, cyclones, windstorms and others occur.

This is due to technical deficiencies of communication means, namely VHF and HF radios, mobile phones that in many disaster occasions become inoperative because of atmospheric interferences that make it difficult for the communication between the communities at risk and the authorities responsible for disaster risk management.

At local level, people also have low access to internet, thus missing relevant and updated information disseminated through this communication mechanism.

# **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	Yes

#### Description:

Although not oriented by a clear and approved strategy, the different disaster management topics are included in the national educational curriculum. For instance, on the primary and secondary schools level, subjects like natural sciences, geography and physics cover disaster risk management issues.

Active integration of DRR at school curriculum is highly visible at district level, where disaster prevention and preparedness is part of local curriculums. As result of that engagement, teachers and pupils of primary schools are becoming the new champions on DRM activities, by leading local community's capacity building activities and advice to their family member, respectively.

At the tertiary education, advances to the progresses reported in 2011, include:

- 1. The emergency of a new university the Instituto Superior the Tecnologias e Gestão (ISTEG), with a BSc Course on Land Use Planning and Management, integrating disaster risk management
- 2. Participation and leadership, since 2011, of the Department of Geography of Eduardo Mondlane University, of an international MSc. course on Climate Change and DRM, in partnership with other African countries, Brazil and Germany.
- 3. Initiation and leadership of the Department of Physics of Eduardo Mondlane University of a training module on DRM and Climate Change adaptation benefiting public servants and academia. This course has technical and financial support from the University of Copenhagen, in Denmark.

Moreover, at professional level, a revision of training materials of the course of Spatial Planning in the Spatial Planning Medium Institute, under the Ministry for the Coordination of Environmental Affairs is underway and aims at the integration of disaster risk reduction and climate change in curriculum of land planners training courses. This revision is also underway in the short module courses provided by this institute for municipal managers and urban planners.

#### Context & Constraints:

Differences exist on the approach given to disaster risk reduction issues by different educational levels and between the rural and urban spheres. There are more attention and integration of disaster risk reduction measures at primary level where the teachers focus their attention on the dissemination of knowledge about how the pupils and their communities should behave regarding hazards (floods, cyclones, drought and windstorms).

Thus, it is well noted that more attention and integration of disaster risk reduction has been placed at local level (Districts), especially those districts frequently affected by disasters, in comparison to urban areas where, despite human and socio-economic impacts are relatively less, are starting to increase due to people and infrastructure development in risk prone areas. This reality calls for urgent paradigm shift to allow the incorporation of disaster risks in both rural and urban areas school curriculums.

A new Strategy for the Integration of disaster risk reduction in the educational curriculum for primary and secondary levels and training of teachers has been finalized, waiting for Government approval. However, as the strategy does not target tertiary and professional education, the apparent lack of orientation of integration of DRM and CCA on academic and professional curriculums will remain.

# **Priority for action 3: Core indicator 3**

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

## Level of Progress achieved: 3

Institutional commitment attained, but achievements are neither comprehensive nor substantial

## **Key Questions and Means of Verification**

Is DRR included in the national scientific applied-research agenda/budget? Yes

Research programmes and projects	Yes
Research outputs, products or studies are applied / used by public and private institutions	Yes
Studies on the economic costs and benefits of DRR	Yes

#### Description:

Some progresses are being made in this area. Since 2009, Mozambique is giving more attention to scientific research programmes and projects in the area of climate change and disaster risk reduction. However, research is still largely conducted by international experts.

A recent study comissioned by the INGC in 2011 shows that the country has around 40 DRM experts, an increase of 5 people compared to the 35 experts identied in 2010.

As part of the INGC Phase II, with financial support provided by the Africa Adaptation Programme (AAP) - a project funded by the Japanese Government, and resources secured from other donors, the National Institute for Disaster Management has successfully conducted a comprehensive research covering 8 sectors on climate impacts on agriculture, water resources, private sectors, cities and people. The results of those studies and others developed by, for instance, the National Institute of Hydrology and Navigation are being used by different stakeholders countrywide.

The ongoing creation of a Climate Change and Disaster Management Knowledge Management Centre under the Mozambique's Science Academy is also to respond to the efforts of the Ministry of Science and Technology in bringing scientific research into the national agenda. More than gathering and disseminating information, the centre will promote scientific research campaigns and the results will be disseminated through workshops and the web page.

### Context & Constraints:

The findings of the 2009-2011 HFA National report remain valid. As noted above, Mozambique still largely depends on external expertise to undertake research on disaster risk management and climate change.

Although a number o Mozambicans trained in Climate Change and DRM is growing, the majority of existing national experts are not attached to research institutions, therefore, their engagement in research activities always does not cover all phases of research programs.

For instance, national DRM and Climate change experts working in Government Departments are often involved in research only in consultation meetings during preparation or presentation of results of a particular research program or project

# **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: 5

Comprehensive achievement with sustained commitment and capacities at all levels

## **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:

Progresses reported in the 2009-2011 HFA report are still valid. However, advances over the period, include strengthening of public education to promote a culture of prevention on the most vulnerable communities, particularly in the rural and coastal areas.

Within the National Institute for Disaster Management, a team of trainers has been established to undertake training courses on disaster risk reduction and adaptation to climate change targeting different groups, namely District Administrators, District and Provincial Permanent Secretaries, Local Committees for Disaster Risk Management, local communities and professionals of different areas.

At district level, community awareness has been increased through active participation of local communities' members in local risk assessments, where local participants helped drawing community risk maps, which allows them to better understand disaster and climate change vulnerabilities facing their territory.

Other consolidated mechanism of public education are the simulation exercises which are undertaken every year with massive community participation across the country. As a consolidated practice, simulation exercises are undertaken at local, regional and national levels.

Moreover, in different districts demonstrative projects for community education on disaster risk reduction and climate change adaptation were implemented by local Governments in partnership with ONG's, and strong engagement school teachers and community members.

In the arid and semi arid zones communities were trained to cope with droughts, including promotion of income generating activities out of agriculture, which allows them to adapt to drought situation (agro-processing, handcrafting, and trade). The existing six Multiple Uses and Resources Centers (CERUM) have been instrumental in disseminating this knowledge to local communities.

#### Context & Constraints:

There is still lack of a clear public communication strategy to guide DRM and Climate Change professionals activities, on what sort of information needs to be shared, when and how this should be shared, in order to increase peoples resilience. In addition, very often, the information shared through public education campaigns is not well understood due to language and technical barriers.

For instance, some technical and scientific terms are not known at community level. Therefore, part of the message is not well captured, acting as an impediment for a good decision making process by the communities.

#### Related Attachments:

• CERUM and Agroprocessing in arid and semi arid districts (2012) [XLS - 19.00 KB]

# **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
Mozambique Strategic Program for Climate Resilience (2011) [PDF - 2.45 MB]	

## Description:

Over this period, the country has witnessed an increase of intensity of activities aiming at increasing the protection of environmental services and sensitive ecosystems, as well to improve coastal planning.

Outstanding examples are:

- 1. Declaration of parte of the Niassa Lake as Ramsa site
- 2. Increase from 16 to 21%, of land under conservation areas
- 3. The completion in 2013, of the Strategic Environmental Assessment of the Coastal Zone, which will serve as basis for spatial planning of the entire coastline of 2700 km
- 4. Ongoing mapping of several Spatial Development Initiatives by the Ministry of Transportation and Communications which will serve as the basis for conduction of EIA for the proposed investments on ports and railways developments

- 5. Ongoing 13 Strategic Environmental Assessments covering several areas such as power transmission lines, gas and oil industry, agriculture and transportation.
- 6. Ongoing EIA for the proposed Katembe urbanization plan in the Maputo Bay, in anticipation to the expected development with the construction of a new bridge and highway connecting the Maputo city and Katembe.

Implementation of several climate change adaptation projects was also visible. Examples include the ALP, ACCRA, the Pro-GRC II, the UN-Joint Program, aiming at building resilient communities, the AAP project, for capacity building on CCA mainstreaming into planning and the INGC Phase II project.

New ambitious DRR/CC programs and projects were also initiated:

- 1. The Pilot Program for Climate Resilience (PPCR) in the amount of USD 91 million for 8 investment projects to build resilience in agriculture, natural resources management, roads, urban drainage, urban water supply and hydro-met services
- 2. The Development Policy Operations (DPO) to support institutional and policy reforms in the sectors most vulnerable to climate change and disasters (agriculture, energy, roads, hydro-met services, social protection, environment, disaster management and health).

#### Context & Constraints:

Under the current rhythm of development, the availability of technical capacity to monitor environmental impacts of the ongoing and future development initiatives appears as the major challenge for the country to rigorously comply with all environmental regulations and safeguards.

For instance, although there is a Designated National Authority for Environment, its capacities are still weak as this is not equipped with an environmental laboratory where samples can be carefully analysed. As of today, the country relies on foreign countries for environmental laboratory analyses.

Therefore, as several industries, particularly gas, oil, coal mining, construction are rapidly growing in Mozambique, the national capacity to respond to demand for environmental audits, EIA, SEA and related studies seems to have been overwhelmed.

However, within the context of climate change adaptation, the current lack of adequate financial resources appears as the major constraint to allow rapid scale up of the ongoing CCA initiatives in areas prone to drought, floods and cyclones.

Therefore, with the approval of the National Climate Change Strategy and the expected start of the implementation of sector policy reforms undertaken with DPO support, huge investments will be needed to build sector, economy and communities resilience to climate change and disasters.

For instance, although CCA costing has not been conducted yet, the current investment of USD 91 million under the PPCR covering three regional poles demonstrates that achieving resilience for a highly climate vulnerable nation like Mozambique will require huge and continuous investments.

Furthermore, technical capacity remains a big constraint as skills to mainstream CCA into sector development policies and programs are still limited, particularly in Agriculture - the backbone of the economy, in roads, transportation, health and education - the most affected sectors by disasters and climate risks in the country.

#### Related Attachments:

• First Mozambique Development Policy Operation (2012) [DOCX - 4.93 MB]

# **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	Yes
Conditional and unconditional cash transfers	Yes
Micro finance (savings, loans, etc.)	Yes
Micro insurance	Yes

## Description:

Over the evaluation period, the country continued to expand the outreach of social programs in terms of number of beneficiaries and areas covered.

In addition, new approaches were introduced aiming at improving the effectiveness of social protection programs as tools for building climate and disaster resilience in most vulnerable communities.

Main achievements over the period include:

- 1. Increased number of districts with delegations of the National Institute for Social Action
- 2. Increased number of beneficiaries of cash transfer programs;
- 3. Consolidation and expansion of coverage of the innovative Local Initiatives Investment Fund (FIIL), to include 11 cities in addition to the national coverage of the 128 districts aiming

at boosting agriculture production, small industry and jobs creation.

Outstanding innovations in this area include:

- 1. Approval, in 2012, by the Council of Ministers, of a new Productive Social Action Program aiming at strengthening the participation of communities at risk in income generation activities provided through public services in areas affected by disasters. Around 15000 people are expected to be target per year.
- 2. Integration of CC and Disasters indicators in the modules of poverty assessment- the IOF, the family expenditure surveys, as a mechanism to monitor the role of disasters in poverty reduction efforts.
- 3. Under discussion a new spatial indicator the disasters vulnerability index. This indicator will be used to provide geographical targeting of beneficiaries of social protection programs in complement of the revised module for selection of families to benefit from social protection interventions.
- 4. Introduction of a pilot insurance for cotton smallholder's farmers in Monapo and Lalaua districts, in Nampula Province. If successful, this initiative will be scaled up to other crops and provinces.
- 5. Ongoing feasibility study on weather micro-insurance for the Limpopo River basin to anable implementation of insurance products in this area.

#### Context & Constraints:

The expansion of territorial coverage and increase in the number of beneficiaries of social protection programs has partly contributed in the reduction of number of people affected by food insecurity across the country.

The recently introduced Productive Social Action Program together with the pilot cash crops insurance seem to be ambitious initiatives which if successfully implemented will provide a good opportunity to transform the social protection programs in a new driver for building resilience of communities at risk, particularly in the rural areas.

However, two challenges need be overcome. These are:

- 1. Limited financial resources for implementation of social protection programs: the implementation and scaling up of the Productive Social Action Program to reach more beneficiaries apart from depending on technical expertise to use weather forecast information to plan and target the interventions on ground, will necessarily require significant resources to respond to potential rise in demand for the services provided by this program, mostly as consequence of possible increase in frequency and intensity of disasters due to climate change.
- 2. Low interest and financial capacity of private sector to provide insurance products to farmers: the current pilot insurance program, was launched in November 2012 in the course of the current agricultural season, and is being funded by Government under technical supervision provided by the Insurance Companies Association and the National Institute of Meteorology.

It is expected that in the coming years private sector will take over the program. However, under the current context where frequent and intense disasters recurrently affect the same areas and producers, even in the eventuality that farmers will keep their interest in buying the insurance policies, the ability and capacity of insurance companies to continue providing insurance services may be overwhelmed, undermining, therefore, the achievement of the expected outcomes of this initiative.

#### Related Attachments:

- Food insecurity in Mozambique (2013) [XLS 35.00 KB]
- Beneciaries of social protection programs (2013) [XLS 18.50 KB]
- Productive Social Action Program (2012) [PDF 673.19 KB]

## **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.	Yes
Please provide specific examples: e.g. public infrastructure, transport and communication, economic and productive assets	Urban drainage, roads, railways, energy, agriculture, housing
Investments in retrofitting infrastructures including schools and hospitals	Yes

### Description:

Since the launch in 2009, of the INGC study on climate impacts on disaster risk and the publication in 2010 of the World Bank study on the Economics of Adaptation to Climate Change, there has been growing political awareness favoring integration of DRR in development projects as the only means to reduce vulnerability of key productive infrastructure such as railways and roads network, power transmission lines, and economic activities, with emphasis to agriculture.

The first signal towards the realization of this objective was launched in 2011, with the approval of the first large climate resilience investment program - the Pilot Program for Climate Resilience, which integrates two pilot investment projects aiming at building resilience to agriculture, through use of alternative water sources for irrigation in drought prone areas, and innovative approaches for design of roads hydraulic structures in sections vulnerable to washouts or cuts during heavy rains.

The rehabilitation and upgrading of urban drainage network in Maputo and Beira to accommodate higher return period floods is underway. In Beira, a green infrastructure will be developed to provide protection to drainage system against siltation and garbage dumping by local residents.

DRM and Climate change mainstreaming in development projects is being undertaken in agriculture, roads and energy, through sector policy reforms under the Development Policy Operations (DPO):

Agriculture: integration in the National Agriculture Investment Program, approved in 2012 by the Council of Ministers, of conservation agriculture and measures aiming at the promotion of drought resilient crops and enhancement of protection of irrigation schemes from recurrent flooding.

Roads sector: revision of rural roads design standards and roads maintenance approaches to enable rapid emergency repairs and opening of ruptured roads.

Energy sector: review of electricity law to enable market diversification through market opening to independent power producers using renewable energy.

#### Context & Constraints:

The country is facing the most challenging moments in its development paths, with increasing demand of logistic capacity to dispatch million of tones of coal in a shorter -term (100 million tones by 2020), minerals and other merchandise from hinterland to the main ports.

However, the current demand exceeds the existing national capacity of the railways and ports infrastructure. Therefore, there is great urgency for mineral companies to speed up the construction of railways and expansion of port terminals to accommodate more cargo.

Under these circumstances, the possibility of building resilient railways and ports infrastructure to foreseen future extreme water flows, floods or cyclone events may be neglected.

Recent examples of failure were witnessed in January 2013, when the recently rebuilt Sena railway line was washed out in one of its sections as a result of inadequate design of hydraulic structures to accommodate high water flows. The railway remained closed for almost two weeks and the transportation of coal from Moatize to Beira port interrupted, causing significant losses to all line users and the port of Beira and the coal mining company.

Similar situation was also observed in the Limpopo Corridor, where in January 2013, the railway connecting Maputo port to Zimbabwe suffered several cuts in many sections and remained out of service for several weeks despite it was rehabilitated and retrofitted following the 2000 floods, considered the worst in the country over the last 150 years.

In agriculture, constraints are both financial and technical. Huge investments are required to upgrade and retrofit dikes and build dams that protect the main irrigation schemes across the country. However, as in some instances no or accurate records of flood magnitudes exist, providsion of adequate protection levels to the irrigation scheme will remain a challenge while these technical constraints are not resolved.

#### Related Attachments:

- Development Policy Operations (2012) [DOCX 4.93 MB]
- Mozambique Strategic Program on Climate Resilience (2011) [PDF 2.45 MB]

# **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: 3

Institutional commitment attained, but achievements are neither comprehensive nor substantial

#### **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	No
Training of masons on safe construction technology	No
Provision of safe land and housing for low income households and communities	Yes
Risk sensitive regulation in land zoning and private real estate development	No
Regulated provision of land titling	Yes

#### Description:

The high presence of high risk human settlements particularly within the urban settings is still a real concern for the central and municipal authorities across the country, as flood risk, particularly in coastal and low-lying cities tends to increase in frequency as more people and assets are built increasing compaction and run off.

Efforts are been made to help reduce flood risk in the main Mozambican cities through investments aiming at improving drainage infrastructure capacity to cope with higher run off and heavy rains.

#### Main examples are:

1. On-going rehabilitation of Quelimane and Nampula cities drainage network under the

Millennium Challenge Account financing

- 2. On-going investment in 23 municipal cities, including in the cities of Maputo, Beira and Nacala aiming at improving drainage network, municipal spatial planning and services delivery, under the World Bank cities and climate change project in the amount of USD 120 million. On-going activities include:
- 3. Strengthening resilience of the city of Beira to control floods through rehabilitation and upgrading of Beira drainage network
- 4. Strengthening resilience of the city of Nacala to control erosion through design of erosion control and drainage works
- 5. Strengthening resilience of Maputo metropolitan area to control floods through development of a Master Drainage and Sanitation Plan for the Great Maputo area
- 6. Provision of municipal performance grants to 20 municipalities facing climate risk to finance strategic urban investment subprojects, improvement of urban planning and land use management and enhancement of municipal financial sustainability through improved financial management and enhanced municipal revenues

In addition, a new strategy for intervention in the informal settlements was approved by the Ministry for the Coordination of Environmental Affairs. This strategy was jointly prepared by the Faculty of Architecture of the Eduardo Mondlane University and the UH Habitat-Mozambique

#### Context & Constraints:

Although investments to improve drainage network in flood prone cities are happening and provision of safe land for low income households and communities is being carried out. particularly for people relocated from risk areas following disasters, challenges are still huge to ensure that human settlements are safe and resilient.

Difficulties to overcome the historical heritage poor urban planning and land use management still remain. As off today, only 15 out of 43 municipalities have prepared and approved their urban spatial plans. However, implementation of the existing plans is still negligible. As a result, over 80% of municipal dwellers still live in unplanned settlements, facing all types of risks being flooding the most frequent.

This makes land titling impossible within the current conditions where land occupations are often illegal. Land titles are only provided to legal occupations in areas under recent development or in planned expansion areas.

To aggravate the situation, as victims of the on-going rapid sprawling, some cities like Maputo are faced with land scarcity to relocate people who currently live in flood prone areas.

In face of these difficulties, and as witnesses in the aftermaths of January floods, Maputo municipal authorities have encouraged victims to return and re-occupy their flooded homes while waiting for a new plot of land in a safer location.

Therefore, reducing the current risks to human settlements particularly within the urban areas will require technical skills, significant financial resources, and strong political commitment of municipal authorities to mobilize their populations for action towards creation of resilient settlements.

To be successful, relocation programs will need to be accompanied by provision of

incentives such as basic infrastructure and services, particularly transportation, water, energy, education, health and sanitation facilities in the new settlements.

#### Related Attachments:

Regulation on resettlement induced by economic activities (2012) [PDF - 285.44 KB]

#### Related links:

O Pais

# **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? Yes

% of recovery and reconstruction funds assigned to DRR	7,10
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	Yes

#### Description:

As result of the current debate on climate change adaptation and disaster risk reduction, and the accumulated experience of management of disasters over the last decade there is growing awareness and a national consensus that post-disaster reconstruction should aim at building resilience of the affected communities, infrastructure and economy.

Calls have been made for communities and developers to ensure that reconstruction does not re-create past vulnerabilities and new developments are made to withstand future similar and higher disaster events.

Post-disaster recovery and reconstruction activities are guided by a post-disaster reconstruction plan which establishes the funding mechanisms for post-disaster relief actions, emergency repairs, and shorter, mid and longer term reconstructions investments.

In general, emergency repairs and shorter-term reconstruction activities are funded through resources allocated to the Contingency Plan or through sector resources realocation.

Rapid post-disaster recovery financing is assigned to priority interventions aiming at assuring reopening of public services (schools, health facilities, water and power supply), refunctioning of critical infrastructures (roads and transportation connections), resuming of economic activities, particularly, agriculture and commerce.

Women, children, elderly and other vulnerable groups are the major beneficiaries of all interventions, as any delay in resuming the functioning of services and economy will harden the burden over these groups.

Midium and longer-term reconstruction actions are subject to risk assessment, to determine the technical aspects to be considered to build resilience to the envisaged works. Funding for these type of interventions is generally integrated in the normal national development programs.

Development of local capacity is an integral part of DRR training activities and the capacity created is meant to be used in all DRM cycles and activities, including post-disaster recovery and reconstruction.

#### Context & Constraints:

Apart from challenges associated to time and financial resources to undertake quicker, better, safer and sustainable post-disaster recovery and reconstruction, the recent disasters has revealed two emerging challenges that require special attention to prevent future catastrophic disasters. These challenges are place attachment and land scarcity.

1. Place attachment has been demonstrated by residents of the city of Chokwe, the most affected by the January 2013 floods in the Limpopo River basin. This city was heavily and completely flooded in 2000, but local people refused to resettle in Chiaquelane, 33 km away from this city. In 2013, the city of 55000 people was flooded again. Instead of relocating the city or their homes, local residents are reluctant in remaining there. However, for their protection, local residents are claiming for the construction of a new dam - the Mapai dam, that costs a minimum of USD 600 million and heightening of dikes to 10-13 meters.

However, technical discussions indicate that even with the construction of Mapai dam, total safety cannot be guaranteed to the town of Chokwe and the entire lower Limpopo should higher magnitude floods occur, as technical capacity for dam synchronization can be overwhelmed due to massive water flows from neighbouring countries to the Massingir and Mapai dams.

2. Land scarcity is one of the dilemmas faced by the majority of Mozambican cities to find

free land to relocate victims of disasters. The Maputo city, the Mozambique's capital city is in the front line. As of today, at least 50% of the people affected by floods remain in temporary shelters while the municipality seeks for free land elsewhere in Katembe municipal district, on the other side of Maputo Bay. To avoid this long waiting time, some of the victims, have returned to their flooded homes.

#### Related Attachments:

Budget allocated to Recovery and Reconstruction (2013) [XLS - 19.50 KB]

## **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: 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 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:

The ideas, findings and challenges highlighted in the 2009-2011 HFA national report remain actual and valid for the current evaluation period.

However, it worths to reiterate that implementation of environmental regulations, including Strategic Environmental Assessments and Environmental Impact Assessement and safeguards has been fully integrated in all development projects proposed by international development actors.

As part of the safeguards, all SEA planned for the proposed development projects explicitly indicate that the proposed SEA will not replace EIA which need to be undertaken prior to project implementation.

Public demand for conduction and publication of EIA results for all major investments projects regardless its origin (national or international) and promoter (Government or private sector) has continued, with active participation of all segments of the society.

In Maputo city, for instance, the construction of the new road - the Maputo bypass merited people's attention. In Matola city, the Maputo twin city, the construction of the new industrial zone on a flood risk area was also cause of questioning.

In Maputo province, public call for EIA was made for the proposed construction of the future Techobelanine harbor that is projected to connect Mozambique coastline and the hinterland Botswana. The proximity of the projected port to the Marine Reserve of Ponta d'Ouro and the Maputo Reserve was the centre of concerns. In addition, the projected construction of a new road and possible development from Maputo city to Matituine where the Techobelanine port is located has amounted the concerns.

In northern Mozambique, EIA concerns are associated with the public access to EIA results from the on-going gas and oil research activities and projected pipelines, while in the central region the quality of environmental audits on the activities of existing call mining industry are questioned.

#### Context & Constraints:

As pointed out in the 2009-2011 HFA National report, the fast economic development and the huge investments across the country are a real source of environmental concerns as possible sources of flood risks, particularly in the coastal areas and cities.

While environmental risks such as air and water pollution or land and ecosystem degradation seems to merit significant public attention, the current occupation and refilling of unoccupied wetlands within some cities emerges as the future source of flooding or land sliding risks.

However, least attention to urban risks is being devoted by local municipalities.

For instance, ports expansion in Beira, and industrial development in Matola city may induce flooding to upstream locations as the associated land refilling will inevitable block natural waters courses.

In Maputo city, the construction of residential neighborhoods on slopes along the Julius Nyerere Avenue without any drainage system has increased widespread land sliding and gully erosion and induced dramatic flooding in the coastal areas of Sommershield and Costa do Sol neighborhoods.

It is in looking at these future challenges that the Ministry for the Coordination of Environmental Affairs (MICOA) is planning to establish an environmental laboratory. However, financial resources stand as barrier as funding needs to be mobilized from international donors.

Urban land management is another challenge. Currently, management of urban land is under local municipalities. However, as construction of houses is not subject to EIA, and no land zoning has been conducted in all 43 municipalities, MICOA has limited authority to intervene

in municipalities when development and particularly housing occurs on sensitive locations.

Finally, flood risk associated with proposed construction of several railway developments needs to be considered in efforts aiming at reducing railways flood impacts due to land filling or heightening during railway construction.

# **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
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? No

Policies and programmes for school and hospital safety	No
Training and mock drills in school and hospitals for emergency preparedness	Yes

Are future disaster risks anticipated through scenario development and aligned preparedness planning? Yes

Potential risk scenarios are developed taking into account climate change projections	Yes
Preparedness plans are regularly updated based on future risk scenarios	Yes

### Description:

Slow but consistent progress has been made to create comprehensive disaster preparedness across the country and in all sectors.

Integration of climate change scenarios in preparedness planning is still in its infancy and benefits from results of recent assessments on climate change impacts on urban flooding published by the INGC in 2012.

The utilization of these results was achieved in 2012, with integration of climate projections of urban flooding in the Contingency Plan for the rainy season of October 2012-2013 Currently, health and roads sectors are leading preparedness planning to disaster and climate risk at sector level.

In the health sector, assessment of impacts of disaster and climate change risks on health and its policy implications has been conducted in 2012. Reforms aiming to strengthen health sector preparedness, including at district level are planned to be operated from 2013. Reforms will include the integration of climate change considerations in the health sector strategic plan.

At operational level, reforms will include the strengthening of surveillance system for early detection of epidemic outbreaks and the creation of preparedness and response capacity in 40 districts most at risk of climate diseases outbreaks.

The roads sector has demonstrated strong ability to provide rapid emergency repairs of road network ruptured by floods.

Recent examples include:

- 1. Reopening in 48 hours, of road connection between the Southern and northern Mozambique following severe washout of one section of the main national road - the EN1 at 3 de Fevereiro, in 2012;
- 2. Reopening in less than 72 hours, of traffic circulation in the EN1 Road, following flood damages at Chicumbane, on the Limpopo river in January 2013

#### Context & Constraints:

Despite all sectors are frequently and severely affected by climatic extreme events, results of preparedness planning are still limited to a few sectors, such as roads, health, water and sanitation and agriculture. However, its important to note that as of today, preparedness in health sector was mainly based on historical patterns of climate related diseases instead of climate change projections. In water and sanitation and agriculture, preparedness is often based on resources mobilized for emergency response and for immediate post-disaster recovery

Lack of preparedness planning in other sectors is mainly related to absence of sector risk assessments. For instance, as of today, no risk assessment on health facilities and schools have been conducted with the aim of allowing the setting up of appropriate measures to guarantee or improve safety to schools and health infrastructures.

As result, the existing sector capacity in health is for health care and medication provision during emergencies while at education, existing preparedness actions are only directed to reduce death rates amongst school children and teachers due to disasters.

Therefore, although it remains unknown, the number of school and health facilities at risk remains high as these sectors rank the first in terms of damages regardless the magnitude of disasters.

Therefore, the observed delays in responding to the extensive disaster that affected the Limpopo river basin, the rural areas of Zambezia and Cabo Delgado provinces, and the urban areas of Maputo city, and the small town of Jangamo in Inhambane Province, in both search and rescue operations and humanitarian assistance has demonstrated that the country has not developed sufficient preparedness to respond effectively to high magnitude extensive disasters.

Apart from financial resources constraints, preparedness planning, including coordination is still relatively weak to deal with extensive disasters involving urban settings.

# **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: 5

Comprehensive achievement with sustained commitment and capacities at all levels

#### **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	Yes

#### facilities

Businesses are a proactive partner in	Yes
planning and delivery of response	

#### Description:

The country has consolidated the multi-sector coordination mechanisms at national and local levels for the preparation of contingency planning taking in account climate change projections.

In 2012, and for the first time, the Contingency Plan for the rainy season October 2012 -March 2013 has integrated potential disaster impacts in the urban areas of Maputo and Beira, the capital city and the second largest city in the country, respectively.

Every year and following the approval of the Contingency Plan, a nationwide and regional drill exercises were held under the leadership and coordination of the National Emergency Operations Centre (CENOE), with the participation of sector focal points, CTGC members, Civil Protection, NGO's and the UN Agencies.

At local level (provinces and districts), thousands of people participate in the simulation exercises under the leadership of community leaders, the members of Local Committees for Disaster Risk Management and local government authorities.

As tradition, the simulation exercises mark the beginning of preparedness actions to disasters that may happen during the rainy season. Various scenarios are tested for four disasters: floods, cyclones, droughts and earthquakes.

Basic emergency response procedures are revised, functionality of existing communication and information systems are tested; and operational capacity of different units, such as search and rescue, planning and humanitarian assistance teams is verified. For instance, as part of the simulation an emergency response plan is prepared with detailed actions. including humanitarian assistance that needs to be delivered to help affected communities

Attention to sensitive aspects such as evacuation and humanitarian assistance for disadvantaged groups, including women, children, disabled and elderly, and sector capacity, particularly health and education to deploy alternative facilities for continuation of provision of medical and education services is guaranteed.

#### Context & Constraints:

Despite the country has gained a lot of experience in preparation of contingency plans, gaps are still present in disaster preparedness planning. For instance:

- 1. The country has no basic protocols and procedures to guide each step of emergency response and humanitarian assistance planning following the activation of Orange and Red Alerts. The existing guidelines for the functioning of CENOE are too generic and ambiguous.
- 2. Lack of clarity of mandates of INGC structures and CENOE sectors for emergency response. The existing CENOE guidelines determine that during emergency, all INGC functions are transferred to CENOE which assumes the command and coordination of search and rescue operations and emergency response. In this situation, the CENOE Coordinator and the four CENOE sector leaders, coordinate all activities. Until the end of emergency, INGC structures and staff lose their functions as they are diluted into the four

CENOE sectors, to which they have to provide support and account for. Over the last two years, INGC structures have superimposed themselves to the CENOE structures resulting in lack of clarity and inadequate emergency response delivery.

- 3. Lack of protocols for information delivery to local communities, district and municipal authorities to enhance local preparedness. As of today, the absence of formal mechanisms and procedures to disseminate appropriate information to communities at risk on impending disasters has partly contributed to the low preparedness levels and late response of local communities to disasters that affected the country in 2013.
- 4. Lack of safety protocols to protect assets of affected communities from vandalism. During floods on the Limpopo River, extensive robbery of goods in shops and houses was observed in the municipality of Chokwe due to lack of patrolling by local Police.
- 5. Lack of funding for district contingency plans. Local response still depends on provincial and central level support.

# **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: 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	No
Insurance and reinsurance facilities	No
Catastrophe bonds and other capital market mechanisms	No

#### Description:

No changes were operated in the existing practices over the last three to five years. Disaster response is funded through a fixed allocation of Contingency Plan funds of 120 million Meticais, around 3 to 4 million dollars, depending on exchange rates.

This funding is provided by Government through the state budget to support search and rescue activities and humanitarian support in the first 72 hours in the aftermath of the disaster.

Government funds allocation for disaster response activities is subject to increase based on the evolution of magnitude of emergency. Significant funding of the contingency plan is

provided by donors in the form of humanitarian assistance, mainly, specimen suppport.

When emergency and national solidarity appeals are declared by Government, private sector and civil society organizations actively participate in humanitarian assistance support through mobilization of resources and goods that are channeled to national authorities in charge of disaster response. For example, in 2013, private sector, including media, universities and religious communities were in the front line in mobilization and provision of emergency supplies (food aid, schools material) to people affected by floods in Maputo city and Chokwe. At Chokwe, the CARITAS - a nationwide religious organization led local humanitarian assistance by providing hot meals and water for children, elderly, and disabled people sheltered in the accommodation center of Chiaquelene, which hosted over hundred thousand people fled from Chokwe and sorrounding districts such as Guija, Chibuto and Bilene Macia.

#### Context & Constraints:

Besides Contingency Plan funding, the country has no other funding mechanisms for disaster response.

Currently, insurance, reinsurance, catastrophe bonds and other financial mechanism are not in place. However, only insurance at sector level has been hardly mentioned in the DRM bill as a mechanism to buffer disaster losses. But, insurance in viewed by the DRM bill as one of possible sources of resources for the proposed DRM Fund.

Furthermore, no provision is provided by the DRM bill on how resources of the DRM Fund should be allocated or used in other DRM activities instead of disaster response only.

In the current context, reduction of future risks is integrated in post-disaster reconstruction efforts which are normally undertaken as part of sector development activities using normal development resources or through realocation of sector annual state budget.

Without good guidance of the current bill, efforts should be made during the design of the DRM Fund to ensure it funds all DRM activities instead of looking only to emergency management.

# **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? Yes

Damage and loss assessment methodologies and capacities available	Yes
Post-disaster need assessment methodologies	Yes
Post-disaster needs assessment methodologies include guidance on gender aspects	Yes
Identified and trained human resources	Yes

#### Description:

No changes have been observed over the last three years in the existing practices for damage and loss assessment.

Damage assessments follow two methodologies: one for physical on-field damage assessment, and another for monetary damages valuation.

Comprehensive physical damages assessments are undertaken by sectors following large disasters using methodologies prepared by the National Institute for Disaster Management.

Monetary (value) damage quantification and post-disaster needs assessment is conducted by sectors using guidelines prepared by the Ministry of Planning and Development.

Damage assessment is conducted for four impacted dimensions: infrastructure; social, economic and vulnerability reduction aspects covering both public and private sector.

Vulnerability reduction sector includes all efforts and measures required to reduce vulnerability of places, assets, livelihoods and people, and needs assessments include actions to insure social protection of vulnerable groups, such as women head of family, elderly and disabled people.

The participation of the Ministry of Women and Social Action in damages and needs assessments functions as a mechanism to ensure that the needs of the special groups are safeguarded in post-reconstruction social protection programs to be implemented in the affected areas by the National Institute for Social Action (INAS) and other partners involved in social protection programs.

#### Context & Constraints:

Monetary valuation of damages remains an activity exclusively attached to the Ministry of Planning and Development. Currently, the country still lacks national capacity to undertake monetary valuation of damages assessment as an integral component of disaster management routines, as no national multi-sector team has been created and trained to perform this task.

Therefore, sectors remain concerned in counting individual damages sustained by sector infrastructures or assets but do not carry any monetary valuation of the accounted damages to facilitate a rapid needs assessment for post-disasters reconstruction. Consequently, monetary valuation of damages is done in an ad-hoc manner only following catastrophic disasters in response to specific command from the Council of Ministers.

It means that without command of the Council of Ministers and the leadership of the Ministry of Planning and Development, monetary valuation of damages and needs assessment are not conducted.

For instance, despite the country was affected by severe floods and cyclones that caused extensive damages in the Southern and Northern Mozambique in 2012, no needs assessment was conducted.

Recently, monetary damages and needs assessment was only conducted in 2013 following extensive flooding and windstorms that affected over 478 000 people and critical infrastructure the Limpopo River basin, Maputo city, and provinces of Zambezia, Cabo Delgado, Nampula and Inhambane.

This assessment was conducted six years after the last damages and needs assessment was conducted in 2007. However, the country was significantly affected by disasters in 2008, 2009, 2011 and 2012 but no assessemnt was undertaken.

#### Related Attachments:

- Damages and losses assessment guidelines (2013) [DOC 184.50 KB]
- 2013 Post Disaster Reconstruction Plan (2013) [DOC 3.36 MB]

# **Section 8: Drivers of Progress**

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

#### Levels of Reliance:

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

This period is characterized by increase in availability of information on climate risk analysis for specific sectors and localities.

Important achievements include:

- 1. Completion in 2012, of several studies under the INGC Phase II, on climate change impacts on disaster risk on sectors, such as agriculture, water, coastal protection, private sector, and human settlements along the coastline covering 13 main cities and towns, including Maputo city and important tourism centers such as Ponta de Ouro, in Maputo province.
- 2. Publication in 2012 by the INGC in partnership with Eduardo Mondlane University and Few Net Mind, of an Atlas for disaster preparedness and response in the Zambezi River, elevating to two out of thirteen, the number of international basins equipped with an Atlas for disaster preparedness and response in the country.
- 3. Publication in 2012, of the Second National Communication to the UNFCCC, highlighting national efforts to reduce climate change vulnerability of national economy, sectors and communities

Other climate risk studies are in preparation under Phase I of the Pilot Program for Climate Resilience (PPCR). These include:

- 1. Vulnerability analysis of livelihoods adaptation options in the dry prone areas in the Limpopo watershed;
- 2. The feasibility study for micro insurance weather index
- 3. Adaptation options for ports, water supply infrastructure, forestry and tourism
- 4. Resilience road inventory survey in Gaza province to provide a methodology for inventory and costing of climate resilient road interventions across the country

These assessments will be used to inform current and future development planning, amongst others:

- 1. The current design and upgrading of drainage network for Maputo and Beira cities;
- 2. The ongoing preparation of the National Development Strategy which will set up national and sector investment priorities for the country development over the next 15-20 years.

#### Related links:

- MICOA website
- INGC website

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

#### Levels of Reliance:

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

Integration of gender issues into DRR and climate change efforts has deserved special attention at both political and technical levels. This includes:

- 1. Close monitoring of Government interventions by the National Parliament specialized Commission on Social Action, Gender and Environment, not only assess the attention and protection provided to woman and other disadvantaged groups during humanitarian operations to people affected by emergencies but also the measures adopted by Government to reduce vulnerability of these groups to disaster and climate risk impacts.
- 2. Strong leadership of the President of the Republic, the First Lady of Mozambique and the Ministry of Woman and Social Affairs towards strengthening the impact of social protection programs, with particular emphasis to protection of woman and orphans and vulnerable children
- 3. Under implementation social protection programs aiming at providing income through engagement in productive work, of people living in disaster risk prone areas. Besides other cash transfer and income generation schemes, at least 8 to 10 thousand people living in disaster prone areas, of which woman head of families, are integrated in productive social action programs implemented nationwide by the National Institute for Social Action and partners.
- 4. Household and geographic targeting tools and mechanism are under revision to insure that right people in all locations at risk are covered by the productive social action program.

# 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?: No

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):

Capacity development in key central government institutions and agencies and at local level is fully recognized as national priority and key component of the national DRR and climate change agenda.

Several initiatives and investment oriented to capacity development were implemented at sector and local levels.

- 1. At central level, training sessions at national and international level of key staff of line ministries and their local branches were held, beneficiary institutions include amongst others, staff from INGC, environment, planning, finance, National Directorate for Waters (DNA), Regional Authority for Waters (ARA's), National Institute of Meteorology (INAM), Agriculture, Food Security and Nutrition Security (SETSAN), and universities, aiming at improving sector capacity on climate change and DRM modeling, climate information analysis, scenarios development and integration of DRM and climate change into sector planning and budgeting processes. Significant support to these training sessions was provided by the African Adaptation Program that ended in December 2012, and Denmark through MICOA.
- 2. At local level, capacity development include, apart from creation of more Local Committees for Disaster Risk Management, training of local communities and their leaders, on appropriate adaptation options for droughts, cyclones and floods, and school children and teachers on suitable mechanisms to cope with extreme weather events, including thunderstorms were conducted in districts most at risk. The UN Joint Program, the PRO-GRC, ALP, Germany Agrarian Action, stand as some of partners actively engaged in capacity development at local level.

Capacity development at all sectors and levels, including in municipalities, were identified by the National Climate Change Strategy as national priority for the coming 15 years, covering a range of areas, from sectors responsible for early warning systems, to planning and finance, and negotiations, resources mobilization and monitoring and evaluation.

#### Related Attachments:

- Local Committees for Disaster Risk Management (2013) [XLS 24.00 KB]
- Mozambique National Climate Change Strategy (2012) [PDF 1.05 MB]

# 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):

Establishment of safe human settlements and guarantee of equitable access to resources continued to merit Government attention, across the country in three dimensions:

- 1. At central level, protection of local communities has been strengthened with the approval in 2012 by the Council of Ministers, of a new regulation for resettlement of populations due to implementation of large scale development projects. Based on this regulation, developers are responsible in undertaking a fair resettlement that improves living standards of relocated families by providing better housing in safe environment, and improved access to livelihoods, such as productive land, and to basic services such as school, health, and water and sanitation facilities.
- 2. Increased resources allocation for social protection program accompanied by increase in the amount of subsidies, has accelerated expansion of social protection programs for new and allowed the integration and protection of more vulnerable people in cash transfer, food aid and community development programs.
- 3. At local level, the promotion of access to investment resources for people without financial capacity to access formal credit at district, through the Local Initiatives Investment Fund (FIIL), directly managed by Districts Governments in close collaboration with the Local Consultative Council, continued to play an instrumental role for easy access of local communities to cheap financial resources.

#### Related Attachments:

- 2013 Social and Economic Plan (2012) [PDF 2.34 MB]
- Social Protection Programs (2013) [XLS 18.50 KB]

# 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):

The Government has encouraged engagement of all stakeholders in DRM and climate change activities at all level, in various forms:

- 1. Donor financial and technical support for strategic planning and policy design processes. This involves capacity building and financial support for design and implementation of DRM and climate change policies, strategic plans, programs and projects in key government agencies and line ministries. SPCR investments projects, climate and DRM reforms, including the development of the National Climate Change Strategies are examples of engagement of international donors in DRM and climate change support
- 2. Engagement of national and international NGO's in the design and implementation of DRM and climate change adaptation projects at district level. Best practices and local knowledge on disaster resilience are being generated through active involvement of local communities in the implementation of DRM and climate change activities. The planned establishment of a climate change knowledge management center offers an opportunity for knowledge and information sharing among all stakeholders involved in implementation of DRM and climate change activities
- 3. Engagement of academia in DRM and climate change research has been promoted. In Partneship with international reserch institutions, new approaches for vulnerability assessment, with support from the GIZ and climate change M&E design and implementation in partneship with the DFID-funded initiative Track Adaptation and Monitor Develoment (TAMD) are under design and testing of their applicability is expected to start in 2014.
- 3. Active participation of private sector and civil society organizations in emergency response through mobilization of donations and supplies to affected communities across the country in response to the solidarity appeal launched by Government following extensive floods that affected the country between January and February 2013. This engagement has filled up significant gaps in emergency funding that is generally provided by international community.

# **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):

Both Government and Parliament remained committed with the implementation of national DRM and climate change agenda.

Under the leadership of the President of the Republic and the Prime Minister, the Government continued to play a critical role in DDR action, particularly in disaster prevention. During working visits to districts, the President, the Prime Minister and other members of Government have endlessly appealed local communities to abandon flood risk areas and build their homes in safer locations - the designated resettlement areas, and to use floodplains only for productive purposes.

At local level, Provincial Governors and District Administrators continued to encourage and mobilize local communities engagement in DRR activities, particularly, the participation of local populations in training activities and demonstrative projects on drought resilient agriculture techniques and technologies, such as horticulture and conservation agriculture, and rain water harvesting and storage techniques.

Government commitment has also been demonstrated in resources mobilization for DRR and climate change adaptation activities, where over the last three years, above USD230 million have been mobilized from international community for DRR and climate resilience. Institutional and sector policy reforms to be undertaken between 2012-2014 were encouraged to ensure that appropriate and sustainable measures are implemented to build resilience of the most vulnerable sectors.

Six policy reforms have been completed and approved by Government in 2012 in Agriculture, environment, disaster management, social protection, energy and meteorology.

Parliamentarians have demonstrated their commitment with DRR by, in the beginning of the rainy season, requesting Government briefs on efforts or measures implemented or planned to reduce disaster risks. Parliamentarians have also visited all affected regions and people on the accommodations centers to assess the level and adequacy of humanitarian assistance provided by the Government, development partners and civil society organization.

#### Related Attachments:

2013 Post Disaster Reconstruction (2013) [DOC - 3.36 MB]

# **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:

The approval of a new DRM bill by the Council of Ministers shows the national for rapid achievement of a comprehensive DRM mainstreaming at all levels to ensure progressive reduction of human, economic and ecological damages and losses due to disasters by calling increasing action and dedicated resources to DRR from central authorities, sectors and local governments, including Municipalities.

However, the implementation of this law following approval by Parliament will require acceleration of creation of appropriate institutional arrangements and provision of adequate funding.

On other hand, the approval of the new National Climate Change Strategy that recognizes the relationship between DRM and climate change adaptation helps to build up synergies between the two areas and opens a great opportunity for simultaneous and successful implementation of DRM and CCA actions at all levels. However, clear understanding of DRM and CCA overlaps is still needed to avoid institutional competition.

Furthermore, the growing awareness and call for rapid creation of DRM and CC resilience particularly in sectors most vulnerable to climate risks increased cross-sector dialogue. For instance, the successful completion in 2012 of the first series of institutional and policy DRM and CC reforms in Agriculture, Energy, Disasters, Social protection, Environment and Hydrometeorological sectors under the Development Policy Operations (DPO), the first climate change and DRM reform in Africa establishes the first concrete steps towards consistent DRM and CC mainstreaming into national and sector policies, and opens the room for scaling up of DRM and CC to other sectors, as well as sets up the basis for consistent CCA and DRM implementation and monitoring at all levels.

However, institutional capacity and availability of adequate financial resources to implement the NCCS, the DRM law, the DPO reforms remain a great challenge for the nation.

#### Future Outlook Statement:

Rapid DRR and particularly consistent reduction in death tall, damages to critical infrastructure, assets and communities livelihoods will demand increased commitment to translate strategic thinking into operational planning instruments which set up clear goals and targets and identify actions to be taken and the means needed.

The increase over the period 2011-2013 in death tall and people affected by disasters in the country with significant incidence in the urban areas calls for more attention and focus to growing disaster risk within mozambican cities.

Therefore, the current reforms under the DPO, the implementation of the eight pilot projects under the Pilot Program for Climate Resilience (PPCR), the USD 120 million cities and climate change project in 23 municipalities, and DRM and CC adaptation activities at district level provide lessons on how DRM and CCA should be mainstreamed into sector and local level planning and programming and translated into actions to build resilience at all levels.

Therefore, to sustain the progress achieved, the Government will concentrate efforts to implement all DRM and CC instruments and priorities. These will consist of the following:

- 1. The approval by the Council of Ministers of the revised DRM Master Plan that incorporates and materializes key provisions of the DRM bill, with focus to prevention, mitigation and DRM funding.
- 2. The approval by the Council of Ministers of the new Disaster Risk Reduction Strategy
- i. Clearly identifies the roles and responsibilities of all stakeholders engaged in DRM, paying particular attention to strengthening of disaster preparedness and response planning;
- ii. Establishes protocols to enhance coordination and leadership of preparedness and emergency response, particularly at local level;
- iii. Establishes protocols for humanitarian assistance to ensure that all stakeholders perform their roles accordingly, and aid to victims is delivered timely within acceptable standards.

#### **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:

Coordination capacities and mechanisms have been strengthened at central and district level, and efforts were made to enhance engagement of provincial and municipal governments in DRM activities.

At central level, as part of the preparation of the National Climate Change Strategy, the Climate Change Inter-institutional Working Group (GIIMC) was created aiming at strengthening CC technical coordination across sectors, and two new coordination institutions are under establishment: the Climate Change Unit, to coordinate and monitor climate change activities across sectors and levels, and the Climate Change Knowledge Management Center to coordinate capacity building activities, knowledge and information sharing among all stakeholders.

CC and DRM coordination has also been strengthened through conduction of joint technical meetings between the Technical Council for Disaster Management (CTGC) and the Sustainable Development Technical Council (CT CONDES).

In the districts, more District Committees for Disasters Risk Management in the district most

prone to disasters and the number of Local Committees for Disaster Risk Management (CLDRM) increased across the country. However, fully equipment and training and incentives to members of the LCDRM to ensure increased engagement in DRM activities, and particularly in emergency response are needed.

In addition, new two Multiple Use and Resources Centers (CERUM's) have been established in the arid districts of Machanga and Machaze, opening ground for dissemination of climate adaptation options to local communities. Nevertheless, the number of CERUM's remains low, as only 6 semi-arid districts out of 32 are equipped with these centers.

On other hand, provinces are committed to with the creation of Provincial Operations Centers (COE). However, COE's capacity to manage and coordinate disaster preparedness and response is still very limited and relies on central government support. At municipal level, lack of LCDRM and CC/DRM units needs to be overcome.

#### **Future Outlook Statement:**

The extensive emergencies that affected the country in 2013 have provided three important lessons:

- 1. new hazards, such as lightning are increasing its contribution to death tall being the second most deadly disaster in the country. However, least attention has been devoted to lightning prevention.
- 2. disaster risk is increasing in urban settings. However, regardless their location, all Mozambican cities still have very low disaster preparedness and response capacities in comparison to districts.
- 3. Risk communication with outreach to local communities is still weak for lightning hazards and for urban environments, resulting in sharp increase of deaths tall, particularly in urban areas.

To deal with these emerging issues, the Government is committed to accelerate actions aiming to:

- 1. Creation of municipal COE and Local Committees for Disaster Risk Management to improve disaster preparedness and response capacities in all municipalities with high risk profile, in line with the provisions of the new DRM law and the DRM Master Plan.
- 2. Approval by the Council of Ministers of a National Disaster Risk Communication Strategy, which based on the forecast issued by several agencies (Met Office, Water authorities, Seismic surveillance, etc) provides understandable information to enhance local preparedness and action by communities at risk, particularly in urban areas, in line with the DPO policy reforms aiming at strengthening hydrometeorological services to provide accurate weather and hydrological information to end-users in a simplified and understandable manner.
- 3. Establishment of the Climate Change Knowledge Management Center to enhance CC and DRM information sharing, exchange of lessons learned through different interventions on ground, and provision of DRM and CCA training to several segments of stakeholders, including media, academia, civil society organizations, private and public sectors at all levels.

#### **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 resettlement program undertaken in the Zambezi and Save River basins in response to the 2007 and 2008 floods, has significantly reduced flood risk to local communities. As witnessed by local communities in Mutarara, in Tete province, almost no search and rescue operations have been conducted in the last three years despite flood levels have reached similar magnitude as those recorded in the previous years.

However, failure to undertake sustainable resettlement programs in other basins, particularly in the Limpopo, has ended in dramatic flooding in 2013, where the entire city of Chokwe with more than 55000 people and other small towns such as Guija were evacuated, but 30 lives were claimed -this being the worst floods following the historical 2000 floods, considered the worst in the country over the last 150 years.

Therefore, new approaches should be implemented to ensure that flood plains are left empty for production purposes or people who decide to remain there are prepared to evacuate on time with their belongings when flood alerts are issued. However, people who take such a decision should be prepared to rebuild their lives with less dependency on Government support.

Within urban areas, failure of municipalities to resettle populations at risk, particularly in Maputo following the 2000 floods, has revived past flood vulnerabilities to both old and recently constructed neighborhoods which were dramatically flooded in January 2013. This reality calls for urgent and comprehensive urban risk assessments, implementation of serious land use zoning and enforcement of land use planning regulations.

Finally, improvement of contingency planning, particularly at city and provincial levels emerges as an important requirement to ensure that local authorities are ready to assume leadership of local disaster preparedness and response. However, increased decentralization or assignment of adequate financial resources to provincial and municipal contingency plans is required.

#### **Future Outlook Statement:**

Local communities in Angoche district, in Nampula province, for instance are providing good lessons on how improvement of land use planning can help reducing house damages and deaths due to cyclones. By reducing encroachment of houses beneath palm trees and replacement of aerial power cables by underground lines for power distribution, the town has reduced the number of houses destroyed by toppling trees or deaths due electrocution. However, electrocution stands as the major cause of death in Maputo and Matola cities in 2012 as result of windstorms that affected the power distribution network in the suburbs of

those cities.

In addition, the refusal of old dwellers to abandon flood risk areas and unwillingness of municipalities to interdict occupation of flood prone areas, agravated by poor or lack of operational drainage systems has increasing and brought back risks and death in urban areas. It should be noted that as of today, 80% of Mozambican urban dwellers still live in unplanned and in some instances, unsafe neighborhoods.

Based on these findings, over the coming years, the Government is committed to:

- 1. Initiate a national dialogue involving Government agencies, civil society organizations, Parliament, academia, specialized international agencies and local communities to discuss and find best options to reduce flood risk along the large river basins where important towns seem to have been wrongly placed in the past
- 2. Conduct a serious national dialogue with all municipalities to rethink and strengthen the role of municipal governments' interventions towards urban risk reduction through implementation of land use zoning and enforcement of existing land use regulations.
- 3. Strengthen planning capacities of local municipalities to mainstream DRR and CC adaptation in local plans and strategies through establishment and training of DRM/CCA units, with priority to coastal cities most prone to flooding or erosion.

#### **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.

#### Overall Challenges:

The HFA has been instrumental in mobilizing global, regional, national and local communities engagement and commitment towards creation of resilient nations and communities

However, despite these collective efforts, risk tends to rise due to increasing development and placement of assets in risky areas. Yet, although the number of people killed by disasters has been significantly reduced in some regions, encroachment of people to river basins and low-lying areas, steep and unstable slopes, has increased the death tall in other regions and countries, meaning that the world is not moving in the same direction or path.

As new commitments need to be forged globally to provide guidance for the post-2015, it is critical that the new framework establishes global and national benchmarks and obligations to countries to ensure that loss of human lives due to preventable hazards such as cyclones, flood, droughts and tsunami is eliminated. In these sense, the post-2015 framework should declare unacceptable all deaths associated to cyclones, flood, droughts and tsunami.

A vigorous call and support to countries to continuously invest resources to improve early warning systems and emergency response capacities should remain a priority. Mobilization of financial resources and expertise from international community to developing countries should be made a priority.

The role of comprehensive multi-risk assessments, with particular attention to urban context and areas with important productive assets are the news center of DRM policies as the unique powerful tool to guide local governments, municipalities and central government interventions aiming at reducing vulnerabilities of people and assets at risk. International cooperation needs to be encouraged to facilitate capacity building across nations.

Sector risk assessments should be made compulsory as a condition for implementation of sound DRM measures that adequately address sector vulnerabilities and gradually build sector resilience to disasters.

# **Section 10: Stakeholders**

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

Organization	Туре	Focal Point
Food Security and Nutrition Technical Secretariat	Gov	Francisca Cabral
Goverment of Mabote District	Gov	Guilherme Augusto de Menezes Pitsburgo
Government of Angoche District	Gov	Raimundo Quinta
Government of Mutarara District	Gov	Chivavisse Muchangage
INGC Regional CENOE Centre	Gov	Amir Abdula
INGC Regional CENOE North	Gov	Helder Sueia
INGC- Regional CENOE South	Gov	Cesar Tembe
Ministry for the Coordination of Environmental Affairs	Gov	Telma Manjate
Ministry of Planning and Development	Gov	Xavier Agostinho Chavana
National Directorate for Waters	Gov	Rute Nhamucho
National Directorate of Geology	Gov	Severino Marcos
National Institue for Disaster Management	Gov	Bonifacio Antonio
National Institute for Disaster Management	Gov	Figueiredo de Araujo
National Institute for Disaster Management	Gov	Gigo Sumbane
National Institute for Disaster Management	Gov	Casimiro Abreu

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National Institute for Disaster Management	Gov	Dulce Chilundo
National Institute for Disaster Management (INGC)	Gov	Joao Ribeiro
National Institute of Meteorology	Gov	Moises Benessene
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