

RESPONDING TO CLIMATE CHANGE IN MOZAMBIQUE



REPUBLIC OF MOZAMBIQUE
MINISTRY OF STATE ADMINISTRATION
NATIONAL INSTITUTE OF DISASTER MANAGEMENT



Instituto Nacional de
Gestão de Calamidades



National Institute for Disaster Management (INGC)
PHASE II

THEME 9

Proposed national strategy on disaster
risk reduction and climate change adaptation

“Prevention is better than cure”

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THEME 9

Contact details for correspondence:

Director General of INGC
Joao Tiago Ribeiro
jribeiro_moz@yahoo.com

Address:
Avenida de Mocambique, Entrada Base Aerea
C. P. 1101
Maputo, Moçambique
INGC/CENOE
Tel: +258 21 477211/3
Fax: +258 21 477 279

Project Director: Joao Tiago MM Ribeiro
Project Coordinator: Barbara van Logchem
Science Coordinator: Antonio J Queface
Translator: Paulo Eduardo

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Contact details: magdelvdm@gmail.com

**National Strategy Draft for Disasters Risk
Reduction and Climate Change Adaptation**

“Prevention is better than cure”



*Photos:
Andrea Marshall
Karin Burns*

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I. Rationale and Political Guidelines

I.1 IMPACT OF DISASTERS AND CLIMATE CHANGE ON PEOPLE AND GOODS

The Government of Mozambique, conscious of the increased vulnerability of the country to natural disaster risks, has been continuously endeavouring to mobilise citizens and communities and in the reinforcement and consolidation of multi sectorial capacity in order to face the challenges imposed by natural disasters. The action of the Government of Mozambique has so far contemplated the development of a specific institutional framework aimed at reducing disaster risks nationwide. The framework covers the local and national levels and includes the Local Committees of Natural Disasters Risk Management at the level of rural and urban communities, the Multi Purpose Resource Centres, the District and Provincial Emergency Operations Centres, the National Emergency Operations Centre, (CENOE), the Technical Councils for Disaster Management and the Disaster Management Coordinating Council (CCGC).

However, the national and international reality shows that natural disasters and their impact on the lives and well-being of the communities and on the socioeconomic infrastructure, tend to be aggravated by a very concerning framework of Climate Change.

Bearing in mind the climate change impacts on disaster risk, there is an urgent need to reinforce the mechanisms of preparedness of the country, of its citizens and of the communities in order to effectively face disaster risks at a greater scale.



In this context, it is pertinent to adopt a strategy and its respective action plan aimed at defining the guidelines, actions and resources that are necessary to protecting the vital infrastructure for the socioeconomic development of the country, and to capacitate the citizens and the communities to reduce their level of vulnerability to increasing disaster effects caused by the influence of climate change which require coordinated interventions in different dimensions and at different levels. The experience of the last decades, such as the floods witnessed in the year of 2000, the impacts of Favio tropical cyclone in 2007 and the subsequent events show that there is an urgent need to find immediate solutions for minimizing the socioeconomic impacts through the integration of disaster risk mitigation measures in the development plans.

In this sense, the present strategy proposal must be regarded as part of the other approaches and guiding tools adopted by the Government in the context of climate changes.

I.II OUTCOMES OF THE MOST RECENT STUDIES ON THE CLIMATE CHANGE IMPACTS IN THE COUNTRY

Although the outcomes of the studies on climate change impacts available at global, regional and national levels, cannot not be considered as conclusive, considering that this type of exercise constitute a process that can be improved and updated with the advancement of knowledge on the current and future behaviour of the nature, the studies Phase I and II of the INGC Project serve as a scientific base for decision making on the issue of reducing vulnerability in the face of climate change risks.

Indeed, international experience shows that no country has so far been able to foresee the future with precision in terms of occurrence of natural disasters and their impact on the environment, on the people, infrastructure and on the economy. What is attempted today is to achieve a margin of scientific reliability which is present in the studies conducted by INGC, outcomes of which show that climate change effects are already visible on a daily basis and their worsening in the coming years is uncontested.

Facts and projections of Phase I and II of the the INGC Project:

- a) accelerated reduction of agricultural yield levels by up to 20% for the main crops which constitute the the basis of food security the condition for improving *per capita* income of Mozambican households;
- b) Reduction of areas available for agriculture practice in the green or lower zones;
- c) Irregular rains in terms of beginning and end of the rainy season, amount of rainfall and duration of the rainy season ,

disfiguring the notions of “official beginning of the rain season” and the “real beginning” of the agricultural campaign, which could result in potential reductions of agricultural yield in some regions by up to 25%;

- d) Prevailing of a situation of extraordinary floods in identifiable locations of the country, which can be referred to as risk “locations” or “zones”;
- e) Existence of zones which can be identified as being ‘of added potential risk’ due to other emerging adverse natural phenomena such as coastal erosion, intrusion of salt water, desertification, cyclones and other strong events;
- f) Definition of six high-risk, high-impact zones which extend to a population of about 7 million Mozambicans, that is, more than 1/3 of the total population of the country. These zones were defined based on several types of risks, namely coastal fragility, population density, drought zones, flood prone zones, non-productive zones or with decreasing agricultural income, amongst others;
- g) It is estimated that these six zones represent a value at risk in the coming decade in the order of 14 billion american dollars;
- h) Many of the main urban centres of the Country, including Maputo, Beira and Quelimane, find themselves in a critical situation in terms of vulnerability (human lives, properties, social infrastructure, etc.) due to cimate change effects. The forest of the country is also in a critical situation, deforestation of which is caused both by uncontrolled bush fire and by tree-cutting at frightful proportions without concrete plans for replanting. Consequently, the deforestation through the above mentioned actions should be part of the set of national disasters and deserves special treatment as is the case with the other catastrophes that are, in

general, identified by Government policies and action programmes in the scope of disaster management.

I.III STRATEGY SCOPE AND REACH

Climate change brings along four corresponding categories of challenges and actions: (a) protection of the environment which nowadays includes the so-called low level carbon development, (b) forecasting of phenomena and impacts arising from climate change, (c) disaster management and (d) adaptation.

Despite the existence of an interconnection between these four categories of action, the present strategy focuses essentially on the three last categories: forecasting of phenomena and impacts arising from climate change, disaster management and adaptation, which are regarded as being more linked with the issue of vulnerability reduction.

Experience shows that, in general, at the central level, it is possible to distinguish between the areas of implementation and accountability, but at provincial and local levels the differentiation is not justifiable, particularly in relation with the objectives of rationalizing State financial resources..

In this sense, the present draft strategy is centred on the necessary actions aimed at reducing the risk of vulnerability of people, communities and infrastructure, including a different approach in agricultural production, urbanization and construction, tourist activities, protection of persons and goods, humanitarian assistance, in the face of natural disasters and protection of risk zones.

The National Strategy for Disaster Risk Reduction and Climate Change Adaptation (ENARC) will have to be in compliance with

present and future governance measures, tools and legislation, including those to be adopted by the Government in general for the protection of the environment and for the sustainable use of land and other natural resources in view of climate change.

I.IV LINKAGE WITH NATIONAL PRIORITIES

Climate change may significantly affect the lives of people, community goods and the economy of large areas of the country. However, resource difficulties may not allow the right amounts of attention and prioritization to be given to them.

A way of solving or attenuating this contradiction is to associate this new theme to the efforts of poverty reduction: on the one hand, the poorest layers of the population are the most affected; on the other hand, the poorest people, due to lack of alternative means, place themselves in the most vulnerable situations. In addition, the lack of alternatives makes these people resort to subsistence means which are more destructive to nature.

The political economy of the climate change strategy aims at reinforcing, within the strategy of fight against hunger, those actions that simultaneously reduce poverty and protect nature, such as housing in risk zones, low cost energy alternatives, forms of local organization, conservation agriculture and expansion of the household income base.

On the other hand, one should bear in mind that in high risk zones such as those along the coast, there is important, on-going investment while at the same time, there is a remarkable flow of people to those zones. Given the precariousness of these zones, one of the measures to be explored could be the introduction of an additional fee for land

ownership and use in these zones, the identification and classification of which must be according to criteria to be adopted in the legislation on land and special planning.

This strategy proposal does not lose sight of the fact that climate change, despite their negative effects, also offer opportunities for innovation in disaster risk management, infrastructure development, prosperity and more safety of the communities, as well as economic stability of the country.

I.V LEADERSHIP ROLE

The awareness of the leaders on the seriousness of climate change impact on people, infrastructure and the economy is increasing at different political and administrative levels in the country. There is also an attitude of general receptivity for disaster prevention. These factors form a fundamental reason for the drafting and implementation of the present strategy.

However, there is still a need to strengthen leadership at the level of implementation of adaptation, including more raising of awareness and accountability for all leaders, each within his or her sector and level of implementation.

Taking into consideration that climate related topics must be known nationwide, it will be necessary to prioritise the efficient dissemination of this knowledge amongst decision-makers.

I.VI BUILD ON WHAT ALREADY EXISTS

In Mozambique there is a consolidated and ramified institutional implementation of disaster management at various levels of the country ranging from practical experiences, local initiatives, early warning systems, preparation of stocks, droughts forecasts

and simulations, amongst others. There is also a network of structures to deal with natural disasters.

In this case, adaptation is not only a process of techniques and technologies, but also a social and voluntary approach associated with real life experience and based on values and standards of individuals and communities.

The design and implementation of the National Strategy for Disaster Risk Reduction and Climate Change Adaptation are based on building on what already exists: from what is known on what has already been built in terms of thinking, policies, legislation, practices and national structures, as well as international partnership networking.

It is, therefore, necessary to adjust and reinforce the institutional framework and capacity installed at INGC, as a response centre of the country, to respond to the new challenges of adaptation to climate change for the sake of reducing the vulnerability of the people and their assets..

The sensitivity and goodwill of the international community towards disaster risk reduction and reduction of vulnerability arising from climate change, are fundamental for understanding the complexity of the phenomena which cross borders and continents.

I.VII SCIENTIFIC KNOWLEDGE GENERATION

Climate change is a relatively new topic and the level of scientific and technological advance for projecting the occurrence and the impact of these phenomena worldwide, is far from attending the real needs.

On the other hand, the current scientific knowhow and technological development allow to more easily forecast the occurrence and

impacts of natural phenomena for large regions or globally, than nationally or locally.,

This makes essential the existence of a national critical mass, including the establishment of a *Centre of Knowledge on Climate Change* with the necessary representation throughout the country. The knowledge generated by this centre will have to be progressively transferred and owned by the higher education institutions.

Whichever way and particularly when scientific data is not sufficient or is not definite, it will be necessary to prioritise prevention as the main line of action for saving resources and for encouraging development.



I.VIII FUNDING AND SUSTAINABILITY

In periods of national and international economic contention, the concern must be to incorporate the strategy recommendations into sectoral and local plans and budgets.

Therefore, the strategy must consist of a permanent awareness raising component for those involved in budgetary decision-making, taking into consideration that investing in

climate change and disaster prevention means anticipating inevitable expenses, saving communities from suffering and avoiding possible damage to socioeconomic infrastructure, all of which can prevent future regrets.

The strategy takes into consideration the opportunity offered by international funding for climate change adaptation and the need for the country to be equipped with a credible and flexible mechanism for reception, channelling and control of the use of the funds referred to, as well as having an internal capacity for absorbing the funds, including the establishment of a Common Fund for Disaster Risk Reduction and Vulnerability Reduction.

I.IX BUILDING RESILIENCE WITH THE PRIVATE SECTOR

The private sector, in conjunction with the public sector, including the informal economic agents, is an important contributor to the sustainability and stability of the country. But every time a natural disaster hits the country, they are the most affected in terms of loss of property and other assets.

On the other hand, at these occasions, the private sector has been contributing with its means and resources in the actions undertaken by the Government and other entities to grant assistance to the affected households or in the recovery of social infrastructure.

In this context, the private sector must be included in the design and implementation of adaptation measures at the central level not just as a target of necessary support, but also as a potential source of the resources that are necessary, including in contributing to the Common Fund for Disaster Risk Reduction and Vulnerability Reduction; in the institutionalization of a *Unique Point of Contact* for the private sector in the context of

adaptation measures; and in the encouragement of public-private partnerships for co-funding the adaptation measures regarded as more costly.

I.X PARTICIPATORY AND INCLUSIVE DESIGN AND IMPLEMENTATION

The design of the National Strategy for Disaster Risk Reduction and Climate Change Adaptation emerged from the continuity of the Phases I and II of the work that INGC (Instituto Nacional de Gestão das Calamidades) has been undertaking and which consists of conducting a series of studies and surveys aimed at determining the potential *Impacts of and Solutions for Climate Change in Mozambique*, with emphasis on disaster risk management, as projected for the periods of 2030-40 and 2060.

The proposed National Strategy was designed based on the outcomes of Phases I and II of the project conducted by INGC, followed by a consultation process and hearing of the main actors and target groups at different vertical levels (central, provincial and district) and horizontal levels (municipalities, civil society organizations, private sector, cooperation partners, local communities, etc.).

The implementation of the strategy will need to undergo the same process of participation and inclusion of all Mozambicans.

I.XI MONITORING AND EVALUATION

The Strategy should be subject to annual evaluation and INGC will annually register and inform the Government about the level of achievement of foreseen objectives and goals, as well as propose the necessary measures for adjustment or updating.

In a term of one year, INGC will design and propose for approval to the Government a monitoring and evaluation plan of the Strategy, as well its actualization, to be preceded by an exhaustive independent assessment.

II. National Vision

The national vision of Mozambique relating to disaster risks arising from climate change over the next 25 years is:

“A country with a high culture of prevention and preparedness reduces the loss of human lives and properties and minimizes the risk of exposure to vulnerability”.

III. PILLARS

Pillar I: Preparedness and capacitating building for people and communities

1. Objectives

- 1.1. Within 20 years, reduce to the minimum (15 -20%) the level of vulnerability of the urban and rural communities most exposed to risk;
- 1.2. Capacitate people and communities (rural and urban) on how to deal with disaster risk (adaptation) in view of climate change;
- 1.3. Ensure a coordinated action of the different community committees established under different legislations on land and other natural resources, with the aim of integrating them in the wider implementation of adaptation to climate change;
- 1.4. Systematize knowledge on the successes and challenges of risk management at the community level, by means of a

systematic collection of local needs and practices;

- 1.5. Ensure water availability for consumption and irrigation and industry, and reduce saline intrusion in potable water of human settlements;
- 1.6. Minimize the adverse effects of the rise in sea level and inland water levels;
- 1.7. Capacitate the big cities to deal with climate change, especially in the area of coastal protection.

2. Actions

- 2.1. Promote a set of concrete projects in favour of disaster risk reduction and adaptation spread out over the different provinces, the number and quality (relevance) of which will increase as the country attains the capacity to design and implement this type of interventions (a total of 50 projects a year, at least 5 in each province, increasing this number to double in subsequent years). The projects must include those aimed at “avoiding mistakes” that increase human, infrastructural and economic losses;
- 2.2. Disseminate specific information and messages on adaptation measures to people and communities located in high risk zones and regarded as priority for INGC intervention;
- 2.3. Promote and facilitate, in coordination with the sector supervising the promotion of rural development, the existence and operation at the community level of a Conciliation Forum of the different local committees involved in the planning of natural resources, including the approval of the respective basic regulation by 2014;
- 2.4. Capacitate and equip the already existing Local Committees for Natural Disaster Risk Management, including approval of their basic internal regulation, by 2012;

- 2.5. Establish Local Committees for Natural Disaster Risk Management in all communities (rural and urban) located in risk zones that do not yet have such mechanisms, by 2013;
- 2.6. Compile and disseminate through a publication entitled *Adaptation Stories*, successful experiences and challenges overcome;
- 2.7. Prepare and implement, through the sectors of water, public works and irrigation, in coordination with the local governments, municipal authorities and local communities, within a 5-year period, an action plan aimed at increasing the national capacity for superficial and groundwater reserves, especially for vulnerable communities;
- 2.8. Design and implement at least 5 coastal management plans, in the big cities.

Pillar II: Institutional capacity building and coordination

3. Objectives

- 3.1. Equip de Country with a coherent and efficient regulatory and institutional framework for implementing the actions of response to climate change and disaster risk management, including the financing dimension this represents;
- 3.2. By 2015, the country should be equipped with the capacity to produce science-based evidence for decision-making at the political level and implementation of concrete adaptation measures in Mozambique.
- 3.3. Contribute to the national efforts aimed at increasing the capacity of the country in managing water resources given the enormous demand, variability and growing risk of disasters arising from climate change;
- 3.4. Reinforce national capacity in the area of civil protection, including the provision

of a national civil protection team in view of a response at a larger scale;

- 3.5. Equip the country with the capacity to mobilise resources existing at the level of international climate change funding mechanisms, including compliance with the standards and respective rules imposed in the international instruments, by 2012.

4. Actions

- 4.1. Adapt and strengthen the institutional framework and capacity of INGC as an institutional point of implementation of response measures in relation to the new challenge of risk reduction and vulnerability brought by climate change adaptation;
- 4.2. Update the Disaster Management Master Plan by 2012;
- 4.3. Support INAM (National Institute of Meteorology) with necessary means for more efficient weather forecasting, thus allowing better adaptation to climate change;
- 4.4. Create units for disaster risk management and climate change adaptation in each ministry and other public sectors;
- 4.5. Design and / or update and implement at least 4 (2 laws and 2 regulations) legal instruments on building codes for infrastructure and settlements in areas of risk, including the possibility of a mechanism of expropriation for public purposes;
- 4.6. Establish at the Academy of Sciences of Mozambique and in partnership with INGC and the Ministries of Science and Technology, Education and Coordination of Environmental Affairs, a *Centre of Knowledge on the management of disaster risk resulting from climate change*;
- 4.7. Strengthen the financial capacity of the public media in order to disseminate information on adaptation measures;
- 4.8. Design and implement three projects with the Technical Secretariat for Food Security and Nutrition (SETSAN), including the necessary fundraising for carrying out the activities;
- 4.9. Conduct joint activities between INGC and IIAM (Mozambique Agrarian Research Institute) for research and dissemination of techniques and crops resistant/adaptable to climate change ;
- 4.10. Design and implement joint projects with the three Regional Water Administrations, including the necessary fundraising ;
- 4.11. In a joint action between INGC and Eduardo Mondlane University, two field trials must be designed and implemented on the impact of ground level ozone on crop yield;
- 4.12. Jointly with INGC, restructure and strengthen the activity of civil protection;
- 4.13. By 2012, create the Fund for Disaster Risk Reduction and Vulnerability Reduction as a separate account that reports directly to the Council of Ministers;
- 4.14. Design and promote the corresponding approval by sectors responsible for construction, public works and land allocation, in coordination with community leaders, local and municipal government, of measures to discourage and prohibit construction and building in areas prone to flooding, erosion and cyclones, as well as in other precarious terrain;, including through the adjustment of the legal framework on land use, planning, land allocation, building, construction licensing and recourse to the *institute of public interest* to revoke land rights and other

properties existing on these lands.
Deadline: Immediate;

- 4.15. The relevant government sectors must design and approve, in coordination with the municipal authorities, the measures aimed at introducing compound taxes for land use and construction in high risk areas. Deadline: Immediate.

Pillar III: Planning and budgeting for adaptation

5. Objectives

- 5.1. Consider disaster risk and vulnerability invoked by climate change as a cross-cutting issue requiring its inclusion in the formulation of national policies and other instruments of governance, including at the level of legal frameworks;
- 5.2. Include the issue of adaptation to climate change on the agenda of development and poverty reduction, including the role of development partners in financing the Poverty Relief and Reduction Programme;

6. Actions

- 6.1. Include the issue of disaster risk management and climate change adaptation in sectoral programmes, strategies and plans, as well as in other instruments of governance and in corresponding regulations and guidelines. Deadline: Immediate.
- 6.2. Include climate change adaptation activities in sectoral economic and social plans and budgets, as well as in national economic and social plans. Deadline: immediate;
- 6.3. Include the issue of climate change adaptation in district development plans. Deadline: Immediate;

- 6.4. Increase the number of projects funded by the District Development Fund (FDD) which promotes initiatives of adaptation to climate change. Deadline: Immediate;
- 6.5. Establish with the INGC a competitive fund to promote and fund initiatives on adaptation projects: starting with 15 projects per year. Deadline: from 2013.



Pillar IV: Communication and Information

7. Objectives

- 7.1. Produce and disseminate knowledge and information needed on climate change vulnerability and its impacts on the economic and social life of the country, communities and households in order to enable informed decision-making at all levels of the government and at the level of households and local communities;
- 7.2. Raise the level of national awareness and that of individual citizens to allow for a national mobilization in response to climate change.

8. Actions

- 8.1. Design and implement a national strategy of communication on climate change adaptation, as well as its action plan. Deadline: immediate;
- 8.2. Disseminate through various media *Stories of Adaptation*, which narrate successful experiences and challenges overcome. Deadline: immediate;
- 8.3. Form a team of 3-5 information officers (per district) to disseminate information on disaster risk management and adaptation at the community level. Deadline: immediate;
- 8.4. Promote and implement information dissemination campaigns on adaptation measures, with priority given to areas of highest risk, using different methodologies. Deadline: immediate;
- 8.5. Design and maintain an information portal on climate change.

Pillar V: Creating Resilience with the Private Sector

9. Objectives

- 9.1. Promote the private sector participation in the implementation of adaptation measures, ensuring that investments generate sustainable and positive adaptation benefits for the economy and society.

10. Actions

- 10.1. Design and Implementation, as from 2013, at least 4 concrete programmes on adaptation to climate change, including through a Unique Point of Contact;
- 10.2. Design and implement a Programme aiming to bring the private sector to contribute to the financing of adaptation and risk reduction measures, with

emphasis on companies in the mining and forestry industries. Deadline: immediate;

- 10.3. Creation of a Unique Point of Contact (**UPC**), directly reporting to the Office of the Prime Minister, with the primary responsibility of coordinating the implementation of all established private sector programmes and with the specific responsibilities of negotiating with investors and lenders, and dealing with inter-sectorial coordination. Deadline: Immediate;
- 10.4. Establishment of a **Cross-cutting Team** capable of working in conjunction with the different Government entities and in coordination with Specific Teams and with the UPC. Deadline: by 2013;
- 10.5. Implementation of a selection process of future projects to be implemented in the wake of these four initial programmes, highlighting the projects with sustainable adaptation benefits coupled with financial returns. Deadline: by 2013;
- 10.6. Hiring and training of specialized local resources in order to allow, in the near future, a full autonomy in the management and design of new programmes / projects. Deadline: by 2013;
- 10.7. Development of procurement platforms that facilitate and accelerate private investments, notably communication channels, especially roads and telecommunications. Deadline: immediate;
- 10.8. Dissemination and *Marketing* of all initiatives on sustainability as one of the new development paradigms of Mozambique. Deadline: by 2013.

IV. ACTION PLAN AND BUDGET

IV.1 ACTION PLAN

The National Strategy for Disaster Risk Reduction and Climate Change Adaptation is drafted with a 25-year horizon and should be implemented in phases. Each phase should last 5 years, being reviewed and updated for the next 5 years in succession.

In terms of priorities identified in the implementation of the strategy, the first to be highlighted is the adjustment and reinforcement of the institutional framework and capacity in INGC as the centre of the country's response to the new challenge of adaptation to climate change and disaster risk reduction, including the updating of its Master Plan.

At the same level, the objective of equipping the country with the capacity to finance initiatives related to adaptation, specifically the creation of the Fund for Disaster Risk Reduction and Vulnerability Reduction as an autonomous account, the value of which must set out the adaptation measures and initiatives.

Still on the list of priorities, there is the need to strengthen research capacity, best practices and adaptation measures, as well as other activities, implementation of which has already started as part of current INGC activities, including the equipping of Municipal Plans with coastal protection.

Another challenge and priority to be highlighted is related to the fund raising for the implementation of this strategy, which must count on the support from the development partners and from the private sector.

The Matrix herewith presented in Annex describes in more detail the actions and timelines of this strategy.

The actions envisaged by this strategy will be the subject of an Operational Plan that identifies specific and detailed activities and their costs, performance and impact indicators, as well as the timelines and implementation partners.

INGC is responsible for designing and presenting the *Operational Plan* of the present strategy to the Government, through the organ in charge, within 90 days.

Annex 1- MATRIX OF ACTIONS AND DEADLINES OF ENARC FOR 5 YEARS (2012-2016)

OBJECTIVES	ACTIONS	DEADLINE	STAKEHOLDERS	BUDGET (in thousands U\$D)					
				2012	2013	2014	2015	2016	TOTAL
PILLAR I: PREPARING AND ENABLING PEOPLE AND COMMUNITIES									
Within 20 years, minimize (15 to 20%) the level of vulnerability of urban and rural communities most at risk	46.1. Promotion of specific projects in support of disaster risk reduction and adaptation distributed over the various provinces, including projects aimed at "avoiding mistakes" Annual, from 2012 INGC; DNPDR;	Annual, from 2012	INGC;DNPDR; MINAG; Municipalities	20,000	30,000	30,000	40,000	50,000	170,000
Capacitate people and communities (rural and urban) on how to deal with disaster risk (adaptation), in the face of climate change	46.2. Publish specific and targeted messages about adaptation measures for individuals and / or communities located in areas at risk and considered of priority for INGC action	Annual, from de 2012	INGC	120	300	500	150	150	1,220

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OBJECTIVES	ACTIONS	DEADLINE	STAKEHOLDERS	BUDGET (in thousands U\$D)					
				2012	2013	2014	2015	2016	TOTAL
	46.3. Promote and facilitate, in coordination with the sector responsible for promoting rural development, the existence and operation at Community level of a Coordination Forum consisting of various local committees active at the level of natural resources	By 2014	INGC	300	350	350	350	350	1,700
	46.4. Empower and equip the existing Natural Disasters Local Risk Management Committees, including the approval of the interim-type regulation	By 2014	INGC	300	500	500	500	500	2,300
	46.5. Equip with Natural Disasters Local Risk Management Committees, all communities (rural and urban) located in risk zones and t which do not yet have this kind of mechanism, by 2014	By 2014	INGC	800	900	1,000	1,000	1,000	4,700

OBJECTIVES	ACTIONS	DEADLINE	STAKEHOLDERS	BUDGET (in thousands U\$D)					
				2012	2013	2014	2015	2016	TOTAL
Ensure coordinated action by different community committees established under different legislation, dealing with land and other natural resources, in order to integrate them into the broader action of climate change adaptation	46.3. Promote and facilitate the existence and functioning, at the Community level, of a Forum of Coordination of the various local committees working on natural resources, including the approval of the respective regulation-type	By 2014	INGC	300	300	400	500	500	2,000
Systematize knowledge about successes and challenges in risk management at community level through a systematic survey of local needs and practices	46.6. Compile and publish annually, through a publication entitled "Stories of Adaptation," narratives of successful experiences and challenges overcome	From 2013	INGC	120	200	200	300	300	1,120

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OBJECTIVES	ACTIONS	DEADLINE	STAKEHOLDERS	BUDGET (in thousands U\$D)					
				2012	2013	2014	2015	2016	TOTAL
Ensure availability of potable and irrigation water, as well as for industry, and reduce saline intrusion in potable water near human settlements	46.7. Prepare and implement in the sectors of water, irrigation and public works, in coordination with local governments, municipal authorities and local communities, within five years, an action plan to increase national capacity of surface- and groundwater reserves (Zambezi, Limpopo and Save)	By 2012	INGC; UEM; CC	200	200	500	500	500	1,900
Empowering cities to better deal with climate change, particularly in the context of coastal protection	46.8. Design and implement at least 5 risk management plans in major cities	By 2013	INGC/Municipalities	15,000	20,000	20,000	20,000	20,000	95,000
SUB-TOTAL				37,140	52,750	53,450	63,300	73,300	279,940

OBJECTIVES	ACTIONS	DEADLINE	STAKEHOLDERS	BUDGET (in thousands U\$D)					
				2012	2013	2014	2015	2016	TOTAL
PILLAR II: INSTITUCIONAL CAPACITY BUILDING AND COORDINATION									
Provide the country with a coherent and effective institutional framework to implement measures to respond to climate change, including the scaling up of financing that this represents	48.1. Adjust and strengthen the institutional framework and capacity of INGC as the centre of the country's response to the new challenge of climate change adaptation	By 2012	INGC; MAE; CM	150	200	200	500	200	1,250
	48.2. Update the INGC Master Plan	By 2012	INGC	120	50	-	-	-	170
	48.3. Support INAM (National Institute of Meteorology) with the necessary means for a more efficient weather forecast in order to allow for better climate change adaptation	Annual	INAM	250	300	400	500	500	1,950
	48.4. Set up units for climate change adaption in each ministry and other public sectors	By 2013	MFP/CM	200	200	100	50	50	600
	48.5. Design and implement at least 4 legal instruments (2 laws and 2 regulations) on building codes and construction and settlement in risk zones;	By 2013	INGC	120	200	150	50	50	570

OBJECTIVES	ACTIONS	DEADLINE	STAKEHOLDERS	BUDGET (in thousands U\$D)					
				2012	2013	2014	2015	2016	TOTAL
	48.7. Reinforce the financial capacity of the public institutions of social communication, namely Mozambique Television and Mozambique Radio, in order to disseminate information on adaptation measures.	Annual, from 2013	INGC; TVM; RM	80	200	250	300	300	1,130
	48.8. Design and implement 3 projects with the Technical Secretariat for Food Security and Nutrition (SETSAN), including the fundraising needed to perform the activities;	Annual, from 2013	INGC; SETSAN	-	300	300	300	300	1,200
By 2015, the country shall be equipped with capabilities to produce evidence of a scientific basis for decision making, at political levels, on concrete actions of adaptation in Mozambique	48.9. Undertake joint activities between INGC and IIAM (Institute of Agricultural Research of Mozambique) in order to research and disseminate techniques and crops resistant / adaptable to climate change.	Annual, from 2012	INGC; IIAM	250	300	300	300	300	1,450
	48.11. In a joint action between INGC and UEM, two field trials must be conducted on the impact of ground level ozone on crop yields, one in irrigated agriculture and another in rainfed agriculture	Annual, from 2012	INGC; UEM; MINAG	250	250	250	300	300	1,350

OBJECTIVES	ACTIONS	DEADLINE	STAKEHOLDERS	BUDGET (in thousands U\$D)					
				2012	2013	2014	2015	2016	TOTAL
	48.6. Establish a Centre of Knowledge on Climate Change as an entity with legal, administrative and financial capacity	Annual, from 2012	INGC, INAM, UEM, CC	250	250	500	2,000	2,000	5,000
Contribute to the national efforts aimed at increasing the country's capacity to manage water resources in case of huge demand, variability and increasing risk of disasters resulting from climate change	48.10. Design and implement joint projects with the three Regional Water Administrations, including the fund raising needed to perform the activities;	Annual, from 2013	INGC; ARAs	50	85	125	125	100	485
Strengthening national capacity in the field of civil protection, including the establishment of a national civil protection team in view of a response at a larger scale	48.12. Restructure and strengthen INGC civil protection activity	Annual, from 2012	INGC; MININT	120	200	150	50	50	570

OBJECTIVES	ACTIONS	DEADLINE	STAKEHOLDERS	BUDGET (in thousands U\$D)					
				2012	2013	2014	2015	2016	TOTAL
Provide the country with the ability to raise funds at the level of international financing mechanisms for climate change, including the need to comply with the respective rules and standards imposed by international instruments	48.13. Create the Fund for Disaster Risk Reduction and Vulnerability Reduction, with an autonomous account and reporting directly to the Council of Ministers	By 2013	INGC/CM	200	250	250	250	300	1,250
Provide the country with a legal and regulatory framework adjusted to climate change	48.14. Design and promote the corresponding approval and implementation by the sectors responsible for construction, public works, land planning and co-ordination with local governments, municipal authorities and community leaders, of measures to discourage and prohibit the construction and building in areas prone to flooding, erosion and cyclones, etc.	By 2013	INGC; MICOA; MINAG; MOPH and Municipalities	150	150	30			330

THEME 9

Proposed national strategy on disaster
risk reduction and climate change adaptation

OBJECTIVES	ACTIONS	DEADLINE	STAKEHOLDERS	BUDGET (in thousands U\$D)					
				2012	2013	2014	2015	2016	TOTAL
	48.15. The relevant government sectors design and approve the measures aimed at introducing aggravated taxes for land use and construction in risk areas	By 2014	INGC; MICOA; MINAG; MOPH e Municipalities	120	100	-	-	-	220
SUB-TOTAL				2,310	3,035	3,005	4,725	4,450	17,525
PILLAR III: PLANNING AND BUDGETING OF ADAPTATION									
Deal with climate change adaption as a cross-cutting issue requiring its inclusion in the formulation of national policies and other instruments of governance, including legislation and programmes of governance, economic and social plans, and consequently, in the sectoral budgeting process.	65.1.; 65.2. Include the issue of climate change adaptation in the sectoral programmes and strategies and in other governance instruments, PES and OE	Annual, from 2012	INGC/All ministries and budgeting units of the OE (State Budget)	100	100	100	100	100	500

OBJECTIVES	ACTIONS	DEADLINE	STAKEHOLDERS	BUDGET (in thousands U\$D)					
				2012	2013	2014	2015	2016	TOTAL
Include the issue of adaptation to climate change in the development and poverty reduction agenda, including the role of development partners in financing the PARPA /PRSP	65.5. Include the issue of climate change adaptation in the district plans.	Annual, from 2012	MAE/Districts	100	300	300	300	300	1,300
	65.4. Increase the number of projects financed by the Fund for Local Initiatives (FIIL) that promotes initiatives of adaptation to climate change, which assumes the capacity building of District Governments and project beneficiaries.	Annual, from 2012	MAE/Districts	75	50	30	30	30	215
Provide the country with the ability to emulate the initiative and entrepreneurship in adaptation	65.5. Together with INGC, set up a competitive fund to promote and fund initiatives of adaptation projects: 5 projects of climate change adaptation a year, at least 2 scientific projects and 3 community projects	Annual, from 2013	INGC	150	500	500	500	500	2,150
SUB-TOTAL				425	950	930	930	930	4,165

OBJECTIVES	ACTIONS	DEADLINE	STAKEHOLDERS	BUDGET (in thousands U\$D)					
				2012	2013	2014	2015	2016	TOTAL
PILLAR IV: COMMUNICATION AND INFORMATION									
Produce and disseminate knowledge and information on climate change and its impacts on the economic and social life of the country, communities and families in order to enable informed decision-making at all government levels, including the parliament, as well as local communities.	52.1. Design and implement a national strategy of communication on climate change adaptation, and its respective action plan	By 2013	INGC	150	500	750	1,500	750	3,650
	52.2. Publish, through the various media, the "Stories of Adaptation," which narrate successful experiences and challenges overcome	Annual, from 2013	INGC	120	200	200	45	45	610
Raise national and individual awareness of the citizens in order to allow national mobilization in response to climate change	52.3. Train a team of 3-5 agents (per district) on dissemination of adaptation measures at community level	Annual, from 2013	INGC	40	40	55	55	55	245
	52.4. Promote and implement information and dissemination campaigns and adaptation measures in the provinces of increased risk, prioritising the highest risk areas	Annual, from 2013	INGC	80	80	120	120	120	520
	52.5. Design and maintain an information portal on climate change	Annual, from 2013	INGC	30	30	20	20	15	115
SUB-TOTAL				420	850	1,145	1,740	985	5,140

OBJECTIVES	ACTIONS	DEADLINE	STAKEHOLDERS	BUDGET (in thousands U\$D)					
				2012	2013	2014	2015	2016	TOTAL
PILLAR V: BUILDING RESILIENCE WITH THE PRIVATE SECTOR									
Promote the participation of the private sector in the implementation of adaptation measures in order to ensure that the investments can generate sustainable and positive adaptation benefits for the economy and for the society	54.1. Design and implementation at least 4 programmes of concrete actions of adaptation to climate changes, including a Unique Point of Contact (UPC)	Annual, from 2012	INGC; CTA	500	1,400	2,000	5,000	5,000	13,900
	54.2. Design and implementation of a programme aimed at making the private sector contribute to measures of risk reduction and adaptation particularly in the extractive industry	Annual, from 2012	INGC/CTA	50	60	30	30	30	200
	54.3. to 58.8. Technical assistance for the various actions on promotion of resilience with the private sector	Annual, from 2013	INGC; CTA	300	500	500	500	300	2,100
SUB-TOTAL				850	1,960	2,530	5,530	5,330	16,200

OBJECTIVES	ACTIONS	DEADLINE	STAKEHOLDERS	BUDGET (in thousands U\$D)					
				2012	2013	2014	2015	2016	TOTAL
MONITORING AND EVALUATION									
Annual progress reports and Annual Independent Evaluation on impacts		Annual, from 2012	INGC	200	300	300	300	300	1,400
Reports of External Audits		In 2016	INGC	-	-	-	-	120	120
Five-year Strategy updating		In 2016	INGC; MAE; CM	-	-	-	75	100	175
SUB-TOTAL				200	300	300	375	520	1,695
GRAND TOTAL				41,345	59,845	61,360	76,600	85,515	324,665

Contacts:

Director General of INGC

Joao Tiago Ribeiro
jribeiro_moz@yahoo.com

Address:

Avenida de Moçambique, Entrada Base Aérea
C. P. 1101
Maputo, Moçambique
INGC/CENOE
Phone nº: +258 21 477211/3
Fax nº: +258 21 477 279
