ADAPTATION FUND

AFB/PPRC.20/23
3 March 2017

Adaptation Fund Board
Project and Programme Review Committee
Twentieth Meeting
Bonn, Germany, 14-15 March 2017

Agenda Item 9 b)

PROPOSAL FOR
THE COMOROS, MADAGASCAR, MALAWI AND MOZAMBIQUE

Background

1. The strategic priorities, policies and guidelines of the Adaptation Fund (the Fund), as well as its operational policies and guidelines include provisions for funding projects and programmes at the regional, i.e. transnational level. However, the Fund has thus far not funded such projects and programmes.

2. The Adaptation Fund Board (the Board), as well as its Project and Programme Review Committee (PPRC) and Ethics and Finance Committee (EFC) considered issues related to regional projects and programmes on a number of occasions between the Board's fourteenth and twenty-first meetings but the Board did not make decisions for the purpose of inviting proposals for such projects. Indeed, in its fourteenth meeting, the Board decided to:

> *(c) Request the secretariat to send a letter to any accredited regional implementing entities informing them that they could present a country project/programme but not a regional project/programme until a decision had been taken by the Board, and that they would be provided with further information pursuant to that decision*
>
> *(Decision B.14/25 (c))*

3. In its eighth meeting in March 2012, the PPRC came up with recommendations on certain definitions related to regional projects and programmes. However, as the subsequent seventeenth Board meeting took a different strategic approach to the overall question of regional projects and programmes, these PPRC recommendations were not included in a Board decision.

4. In its twenty-fourth meeting, the Board heard a presentation from the coordinator of the working group set up by decision B.17/20 and tasked with following up on the issue of regional projects and programmes. She circulated a recommendation prepared by the working group, for the consideration by the Board, and the Board decided:

> *(a) To initiate steps to launch a pilot programme on regional projects and programmes, not to exceed US$ 30 million;*
>
> *(b) That the pilot programme on regional projects and programmes will be outside of the consideration of the 50 per cent cap on multilateral implementing entities (MIEs) and the country cap;*
>
> *(c) That regional implementing entities (RIEs) and MIEs that partner with national implementing entities (NIEs) or other national institutions would be eligible for this pilot programme, and*
>
> *(d) To request the secretariat to prepare for the consideration of the Board, before the twenty-fifth meeting of the Board or intersessionally, under the guidance of the working group set up under decision B.17/20, a proposal for such a pilot programme based on consultations with contributors, MIEs, RIEs, the Adaptation Committee, the Climate Technology Centre and Network (CTCN), the Least Developed Countries Expert Group (LEG), and other relevant bodies, as appropriate, and in that proposal make a recommendation on possible options*

on approaches, procedures and priority areas for the implementation of the pilot programme.

(Decision B.24/30)

5. The proposal requested under (d) of the decision above was prepared by the secretariat and submitted to the Board in its twenty-fifth meeting, and the Board decided to:

(a) Approve the pilot programme on regional projects and programmes, as contained in document AFB/B.25/6/Rev.2;

(b) Set a cap of US$ 30 million for the programme;

(c) Request the secretariat to issue a call for regional project and programme proposals for consideration by the Board in its twenty-sixth meeting; and

(d) Request the secretariat to continue discussions with the Climate Technology Center and Network (CTCN) towards operationalizing, during the implementation of the pilot programme on regional projects and programmes, the Synergy Option 2 on knowledge management proposed by CTCN and included in Annex III of the document AFB/B.25/6/Rev.2.

(Decision B.25/28)

6. Based on the Board Decision B.25/28, the first call for regional project and programme proposals was issued and an invitation letter to eligible Parties to submit project and programme proposals to the Fund was sent out on 5 May 2015.

7. In its twenty-sixth meeting the Board decided *to request the secretariat to inform the Multilateral Implementing Entities and Regional Implementing Entities that the call for proposals under the Pilot Programme for Regional Projects and Programmes is still open and to encourage them to submit proposals to the Board at its 27th meeting, bearing in mind the cap established by Decision B.25/26.*

(Decision B.26/3)

8. In its twenty-seventh meeting the Board decided to:

(e) Continue consideration of regional project and programme proposals under the pilot programme, while reminding the implementing entities that the amount set aside for the pilot programme is US$ 30 million;

(f) Request the secretariat to prepare for consideration by the Project and Programme Review Committee at its nineteenth meeting, a proposal for prioritization among regional project/programme proposals, including for awarding project formulation grants, and for establishment of a pipeline; and

(g) Consider the matter of the pilot programme for regional projects and programmes at its twenty-eighth meeting.

(Decision B.27/5)

9. The proposal requested in (b) above was presented to the nineteenth meeting of the PPRC as document AFB/PPRC.19/5. The Board subsequently decided:

a) With regard to the pilot programme approved by decision B.25/28:

(i) To prioritize the four projects and 10 project formulation grants as follows:

1. If the proposals recommended to be funded in a given meeting of the PPRC do not exceed the available slots under the pilot programme, all those proposals would be submitted to the Board for funding;

2. If the proposals recommended to be funded in a given meeting of the PPRC do exceed the available slots under the pilot programme, the proposals to be funded under the pilot programme would be prioritized so that the total number of projects and project formulation grants (PFGs) under the programme maximizes the total diversity of projects/PFGs. This would be done using a three-tier prioritization system: so that the proposals in relatively less funded sectors would be prioritized as the first level of prioritization. If there are more than one proposal in the same sector: the proposals in relatively less funded regions are prioritized as the second level of prioritization. If there are more than one proposal in the same region, the proposals submitted by relatively less represented implementing entity would be prioritized as the third level of prioritization;

(ii) To request the secretariat to report on the progress and experiences of the pilot programme to the PPRC at its twenty-third meeting; and

b) With regard to financing regional proposals beyond the pilot programme referred to above:

(i) To continue considering regional proposals for funding, within the two categories originally described in document AFB/B.25/6/Rev.2: ones requesting up to US$ 14 million, and others requesting up to US$ 5 million, subject to review of the regional programme;

(ii) To establish two pipelines for technically cleared regional proposals: one for proposals up to US$ 14 million and the other for proposals up to US$ 5 million, and place any technically cleared regional proposals, in those pipelines, in the order described in decision B.17/19 (their date of recommendation by the PPRC, their submission date, their lower "net" cost); and

(iii) To fund projects from the two pipelines, using funds available for the respective types of implementing entities, so that the maximum number of or maximum total funding for projects and project formulation grants to be approved each fiscal year will be outlined at the time of approving the annual work plan of the Board.

(Decision B.28/1)

10. According to the Board Decision B.12/10, a project or programme proposal needs to be received by the secretariat no less than nine weeks before a Board meeting, in order to be considered by the Board in that meeting.

11. The following project pre-concept document titled "Building urban climate resilience in south-eastern Africa" was submitted by the United Nations Human Settlements Programme (UN-Habitat), which is a Multilateral Implementing Entity of the Adaptation Fund.

84. This is the third submission of the regional project proposal. It was first submitted to the twenty-seventh Board meeting, and the Board decided not to endorse it. It was then submitted to the twenty-eighth Board meeting, and the Board decided to:

> (a) *Endorse the project pre-concept, as supplemented by the clarification response provided by the United Nations Human Settlements Programme (UN-Habitat) to the request made by the technical review; and*
>
> (b) *Encourage the Governments of the Comoros, Madagascar, Malawi and Mozambique to submit through UN-Habitat a project concept for the Board's consideration.*
>
> *(Decision B.28/20)*

12. The proposal was received by the secretariat in time to be considered in the twenty-ninth Board meeting. The secretariat carried out a technical review of the project proposal, with the diary number AFR/MIE/DRR/2016/1, and completed a review sheet.

13. In accordance with a request to the secretariat made by the Board in its 10th meeting, the secretariat shared this review sheet with UN-Habitat, and offered it the opportunity of providing responses before the review sheet was sent to the PPRC.

14. The secretariat is submitting to the PPRC the summary and, pursuant to decision B.17/15, the final technical review of the project, both prepared by the secretariat, along with the final submission of the proposal in the following section. In accordance with decision B.25/15, the proposal is submitted with changes between the initial submission and the revised version highlighted.

Project Summary

Comoros, Madagascar, Malawi and Mozambique – Building urban climate resilience in south-eastern Africa

Implementing Entity: UN-Habitat
Project/Programme Execution Cost: US$ 1,083,000
Total Project/Programme Cost: US$ 12,483,000
Implementing Fee: US$ 1,061,055
Financing Requested: US$ 13,544,055

Project Background and Context:

The overall objective of the project is twofold: (i) to develop capacities and establish conditions to adapt to the adverse effects of climate change in vulnerable cities and towns of Madagascar, Malawi, Mozambique and the Union of Comoros; and (ii) to promote inter-country experience sharing and cross-fertilization regarding the adaptation to transboundary climate-related natural hazards and disseminate lessons learned for progressively building urban climate resilience in south-eastern Africa.

It builds on the existence of the Technical Centre for Disaster Risk Management, Sustainability and Urban Resilience (DiMSUR) which was launched by the Governments of the four countries in 2013. UN-Habitat and DiMSUR have recently developed the City Resilience Action Planning (CityRAP) Tool with the objective of enabling local governments of small to intermediate sized cities to understand risks and plan practical actions to progressively build urban resilience.

Component 1: Climate change adaptation planning at the town/city level (US$ 400,000)

In this component, the project intends to empower municipal staff, communities and local stakeholders of four vulnerable towns/cities (namely: Morondava, Madagascar; Zomba, Malawi; Chokwe, Mozambique; and Moroni, Comoros) in the understanding and planning process of climate change adaptation up to the identification of priority actions, in a participatory manner. An environmental and social risk assessment would then be undertaken for each of these actions.

Component 2: Assistance with implementation and management of priority investments at the town/city level (US$ 8,000,000)

In this component, the selected priority actions would be packaged into viable pilot climate adaptation projects with focus on the effects of cyclones, rainfall and floods. Since UN-Habitat has already carried out preliminary work in the four targeted cities/towns, it could be anticipated that the priority actions would consist of: improving the drainage system and waste management; coastal protection and erosion control measures; city planning and upgrading informal settlements; storm coping strategies and flood mitigation; sustainable forest management; developing urban economy; and improving health and education facilities. These projects would be implemented under the leadership of the municipalities through community involvement (e.g. labor intensive activities) and the support of local civil society organizations, in the most cost-effective manner. Importantly, local capacity would be developed to ensure the management/maintenance of the pilot projects' outcomes in the longer term. Efforts would be made to mobilize additional resources.

Component 3: Tools and guidelines development and training delivery at the national level (US$ 2,000,000)

The activities of this component would occur at the national level to create the conditions for scaling up and replication. Through DiMSUR, UN-Habitat would continue to developing fit-to-purpose tools for urban climate adaptation and resilience actions, adapted to the context of each country. Guidelines would be derived from the improved tool, in alignment with existing policies and legislation, for promoting urban climate adaptation. Based on these guidelines, training and institutional capacity development activities of government and municipal officials would be delivered, especially through the organization of appropriate national workshops. Existing institutions and networks (e.g. associations of municipalities) would be used for such a purpose, and partnerships/synergies established with on-going initiative at the national level.

Component 4: Inter-country experience sharing, cross-fertilization and dissemination of lessons learned at the regional level (US$ 1,000,000)

This component would focus on: (i) capturing and disseminating the lessons learned and best practices from the implementation of the project activities at the town/city and national level; (ii) discussing and preparing cross-fertilization activities among the participating countries, and (iii) organizing regional workshops for experience sharing among the different countries, and participating to global events.

ADAPTATION FUND BOARD SECRETARIAT TECHNICAL REVIEW OF PROJECT/PROGRAMME PROPOSAL

PROJECT/PROGRAMME CATEGORY: Regional Project Concept

Country/Region: **Madagascar, Malawi, Mozambique and Union of Comoros**
Project Title: **Building urban climate resilience in south-eastern Africa**
Thematic focal area: **Disaster risk reduction and early warning systems**
Implementing Entity: **United Nations Human Settlements Programme (UN-Habitat)**
Executing Entities: **For Regional coordination purposes: Disaster Risk Reduction Unit of the Southern Africa Development Community (SADC), in partnership with DiMSUR: Technical Centre for Disaster Risk Management, Sustainability and Urban Resilience**
In Madagascar: Municipality of Morondava; National Bureau for Disaster Risk Management (BNGRC)
In Malawi: Municipality of Zomba; Department of Disaster Management Affairs
In Mozambique: Municipality of Chokwe; National Institute for Disaster Management (INGC) In Comoros: Municipality of Moroni; Rescue and Civil Protection Operational Centre (COSEP)
AF Project ID: **AFR/MIE/DRR/2016/1**
IE Project ID:
Requested Financing from Adaptation Fund (US Dollars): **13,544,055**
Reviewer and contact person: **Mikko Ollikainen**
Co-reviewer(s): **Daouda Ndiaye**
IE Contact Person: **Mathias Spaliviero**

Review Criteria	Questions	Comments on 30 January 2017	Comments on 20 February 2017
Country Eligibility	1. Are all of the participating countries party to the Kyoto Protocol?	Yes.	
	2. Are all of the participating countries developing countries particularly vulnerable to the adverse effects of climate change?	Yes.	
Project Eligibility	1. Has the designated	Yes, by all four countries.	

	government authority for the Adaptation Fund endorsed the project/programme?		
	2. Does the regional project / programme support concrete adaptation actions to assist the participating countries in addressing the adverse effects of climate change and build in climate resilience, and do so providing added value through the regional approach, compared to implementing similar activities in each country individually?	Yes. Overall comment: The amount of information on the planned project activities and which specific adaptation challenges or barrier they would address is very limited. **CR1:** Please provide further contextual information on the four cities to be addressed by the proposed project, including their demographic, economic etc. features and the climate risks facing them, as well as the barriers that have prevented those cities from addressing their climate risks. Please include maps of the four cities in their respective countries. **CR2:** In the section on institutional context, please also provide information on institutions responsible for climate change adaptation in the respective countries. It is not possible to assess the extent to which the project would represent concrete activities, as information on outputs and output budgets is limited. For instance, on p. 32 subproject activity themes in Morondava, Madagascar, have been mentioned in the context of compliance with law but information of those activities is not presented	**CR1:** Addressed sufficiently to the concept stage. **CR2:** Addressed sufficiently to the concept stage.

		elsewhere. **CR3:** Please provide further information on planned outputs and their indicative budgets.	**CR3:** Mostly addressed: information in the outputs and budgets has been provided.
	3. Does the project / programme provide economic, social and environmental benefits, particularly to vulnerable communities, including gender considerations, while avoiding or mitigating negative impacts, in compliance with the Environmental and Social Policy and Gender Policy of the Fund?	Potentially. **CR4:** Please elaborate on the benefits expected to result from the project.	**CR4:** Addressed sufficiently to the concept stage.
	4. Is the project / programme cost-effective and does the regional approach support cost-effectiveness?	Potentially, yes, but it is not possible to assess that as information is very limited.	
	5. Is the project / programme consistent with national or sub-national sustainable development strategies, national or sub-national development plans,	Yes, generally. However, please clarify alignment of the proposed project with adaptation-specific plans and strategies in each of the four countries, such National Adaptation Plans or National Adaptation Programmes of Action. **CR5** **CR6:** Please also provide links to or copies of the city resilience action plans mentioned in the proposal.	**CR5:** Addressed. **CR6:** Addressed, copies have been provided.

	poverty reduction strategies, national communications and adaptation programs of action and other relevant instruments? If applicable, it is also possible to refer to regional plans and strategies where they exist.		
	6. Does the project / programme meet the relevant national technical standards, where applicable, in compliance with the Environmental and Social Policy of the Fund?	More information on the activities would be needed in order to be able to assess compliance.	
	7. Is there duplication of project / programme with other funding sources?	The information on past and existing adaptation interventions in the target countries is limited and would need to be extended. **CR7**	**CR7:** Addressed sufficiently to the concept stage.
	8. Does the project / programme have a learning and knowledge management component to capture and feedback lessons?	Yes, although information on it is rather limited.	

	9. Has a consultative process taken place, and has it involved all key stakeholders, and vulnerable groups, including gender considerations in compliance with the Environmental and Social Policy and Gender Policy of the Fund?	Yes.	
	10. Is the requested financing justified on the basis of full cost of adaptation reasoning?	Possibly – requires further information on planned activities.	
	11. Is the project / program aligned with AF's results framework?	Generally speaking, yes.	
	12. Has the sustainability of the project/programme outcomes been taken into account when designing the project?	Generally, yes. However, the amount of information does not enable conclusive assessment.	
	13. Does the project / programme provide an overview of environmental and social impacts / risks identified, in compliance with the	Yes, however, the information on both activities and risks is limited and does not enable verifying the risk category	

	Environmental and Social Policy and Gender Policy of the Fund?		
	14. Does the project promote new and innovative solutions to climate change adaptation, such as new approaches, technologies and mechanisms?	Yes, potentially. The CityRAP tool is presented as innovative.	
Resource Availability	1. Is the requested project / programme funding within the funding windows of the pilot programme for regional projects/programmes?	Yes.	
	2. Are the administrative costs (Implementing Entity Management Fee and Project/ Programme Execution Costs) at or below 20 per cent of the total project/programme budget?	Yes.	
Eligibility of IE	3. Is the project/programme submitted through an eligible Multilateral or	Yes.	

	Regional Implementing Entity that has been accredited by the Board?		
Implementation Arrangements	1. Is there adequate arrangement for project / programme management at the regional and national level, including coordination arrangements within countries and among them, and in compliance with the gender policy of the Fund? Has the potential to partner with national institutions, and when possible, national implementing entities (NIEs), been considered, and included in the management arrangements?	n/a (Not required at the concept stage)	
	2. Are there measures for financial and project/programme risk management?	n/a (Not required at the concept stage)	
	3. Are there measures in place for the	n/a (Not required at the concept stage)	

	management of for environmental and social risks, in line with the Environmental and Social Policy and Gender Policy of the Fund?		
	4. Is a budget on the Implementing Entity Management Fee use included?	n/a (Not required at the concept stage)	
	5. Is an explanation and a breakdown of the execution costs included?	n/a (Not required at the concept stage)	
	6. Is a detailed budget including budget notes included?	n/a (Not required at the concept stage)	
	7. Are arrangements for monitoring and evaluation clearly defined, including budgeted M&E plans and sex-disaggregated data, targets and indicators, in compliance with the Gender Policy of the Fund?	n/a (Not required at the concept stage)	
	8. Does the M&E Framework include a break-down of how implementing entity IE fees will be	n/a (Not required at the concept stage)	

	utilized in the supervision of the M&E function?		
	9. Does the project/programme's results framework align with the AF's results framework? Does it include at least one core outcome indicator from the Fund's results framework?	n/a (Not required at the concept stage)	
	10. Is a disbursement schedule with time-bound milestones included?	n/a (Not required at the concept stage)	

Technical Summary	The project has two objectives, namely: 1. To develop capacities and establish conditions to adapt to the adverse effects of climate change in vulnerable cities and towns of Madagascar, Malawi, Mozambique and the Union of Comoros; 2. To promote inter-country experience sharing and cross-fertilisation regarding the adaptation to transboundary climate-related natural hazards and disseminate lessons learned for progressively building urban climate resilience in south-eastern Africa. There are four Project Components, the first three contributing to Objective 1 and the fourth one contributing to Objective 2: 1. Climate change adaptation planning at the town/city level; 2. Assistance with implementation and management of priority investments at the town/city level; 3. Tools and guidelines development and training delivery at the national level; 4. Inter-country experience sharing and dissemination of lessons learned at the regional level. The initial technical review made the following clarification requests: **CR1:** Please provide further contextual information on the four cities to be addressed by the proposed project, including their demographic, economic etc. features and the climate risks facing them, as well as the barriers that have prevented those cities from addressing their climate risks. Please include maps of the four cities in their respective countries.

	CR2: In the section on institutional context, please also provide information on institutions responsible for climate change adaptation in the respective countries. **CR3:** Please provide further information on planned outputs and their indicative budgets. **CR4:** Please elaborate on the benefits expected to result from the project. **CR5:** Please clarify alignment of the proposed project with adaptation-specific plans and strategies in each of the four countries, such National Adaptation Plans or National Adaptation Programmes of Action. **CR6:** Please also provide links to or copies of the city resilience action plans mentioned in the proposal. **CR7:** The information on past and existing adaptation interventions in the target countries is limited and would need to be extended. The final technical review found that the proposal had addressed all clarification requests sufficiently to the concept stage.
Date:	20 February 2017

ADAPTATION FUND

REGIONAL PROJECT PROPOSAL

PART I: PROJECT INFORMATION

Title of Project/Programme:	**Building urban climate resilience in south-eastern Africa**
Countries:	Madagascar, Malawi, Mozambique and Union of Comoros
Thematic Focal Area:	Disaster risk reduction and early warning systems
Type of Implementing Entity:	Multilateral Implementing Entity
Implementing Entity:	United Nations Human Settlements Programme (UN-Habitat)
Executing Entities:	For Regional coordination purposes: Disaster Risk Reduction Unit of the Southern Africa Development Community (SADC), in partnership with DiMSUR: Technical Centre for Disaster Risk Management, Sustainability and Urban Resilience In Madagascar: Municipality of Morondava; National Bureau for Disaster Risk Management (BNGRC) In Malawi: Municipality of Zomba; Department of Disaster Management Affairs In Mozambique: Municipality of Chokwe; National Institute for Disaster Management (INGC) In Comoros: Municipality of Moroni; Rescue and Civil Protection Operational Centre (COSEP)
Amount of Financing Requested:	**US$13,544,055**

Project Background and Context:

i. Introduction: African context of climate change, urbanisation and adaptive capacity

Africa is undergoing rapid urbanisation that will result in almost 1.33 billion people living in cities by 2050, compared to 470 million at present. Although Africa's population remains mostly rural, the continent will become predominantly urbanised in the next 20 years with an urban population of over 50% by 2036[1]. With a lack in local capacity to manage this rapid urban growth much of the population expansion is taking place outside or in absence of official planning frameworks. A large part of the housing demand is being met by growing informal settlements characterised by poor living conditions, lack of access to basic services and infrastructure. These are often located in areas exposed to natural hazards.

[1] United Nations, Department of Economic and Social Affairs, Population Division (2014). World Urbanization Prospects: The 2014 Revision

Urban risks are exacerbated by the increasing severity and unpredictability of climate change effects. These impact on a range of sectors from water supply, food systems and health, and adversely affect the urban poor. Urban areas are generally more vulnerable to disasters than rural areas, due to denser populations, concentration of assets and variety of activities within comparatively smaller geographical areas. Given the critical political, social and economic roles of cities, these risk factors bear on urban settings and often become national in outreach when disasters occur. The secondary impacts - including damage to infrastructure, disruption of services, food scarcity and an increasing prevalence of vector and water-borne diseases – are likely to worsen the condition of the poorest part of the population.

This is particularly the case in developing countries with low levels of socio-economic development. There is a direct correlation between poverty and vulnerability to environmental risks. Low-income groups in African cities are relatively disenfranchised from decision-making, having the least resources at their disposal to meet lifestyle challenges, even less during times of change or disaster. Research on African cities has highlighted the lack of capacity and awareness of climate change, and often extremely high levels of vulnerability among the continent's large and rapidly growing urban poor populations.[2] Among the urban poor, especially women and the very young are shown to be most at risk from disease, pollution and disasters.[3] At the same time, cultural biases and sensitivities often lead to the exclusion of women from decision making processes.

The impact of climate change is particularly acute in small to intermediate sized cities in Africa as they host the largest share of the urban population (54%), and are projected to be the world's fastest growing urban agglomerations in the decades to come.[4] At the same time, they face significant lack in governance capacity and are therefore poorly equipped to plan and subsequently implement risk reduction and resilience actions. Hence, developing local governance capacity in risk management and resilience planning is a key strategy to reduce the multiple risks cities are exposed to and adapt to the adverse effects of climate change.

The Fifth IPCC Assessment Report[5] presents strong evidences that average temperatures in Africa have increased over the last 50–100 years. In particular, the report suggests that climate change has already impacted on the magnitude and frequency of some extreme weather events in the continent, and that the health, livelihoods and food security of people have been affected. The severity of the consequences of climate change on environmental, economic and cultural systems across Africa will increase with rising temperatures, a very likely scenario.

The Report also highlights that climate change is among many drivers of rural-urban migration. Rapid urbanisation calls for significant investment to create jobs, and provide infrastructure and services. African cities, in most cases, lack those financial resources. Across the continent, most adaptation to climate variability and change is reactive, short term, at the individual or household level, and is not supported by government stakeholders and policies.

The impacts of climate change in Africa can be witnessed in disaster losses. While globally the modelled mortality risk associated with floods and tropical cyclones was estimated to have

[2] Revi, A., D.E. Satterthwaite, F. Aragón-Durand, J. Corfee-Morlot, R.B.R. Kiunsi, M. Pelling, D.C. Roberts, and W. Solecki, 2014: Urban areas. In: Climate Change 2014: Impacts, Adaptation, and Vulnerability. Part A: Global and Sectoral Aspects. Contribution of Working Group II to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change, p. 552

[3] UN-Habitat 2014, The State of African Cities 2014 Report – Re-imagining sustainable urban transitions, p.33

[4] Ibid

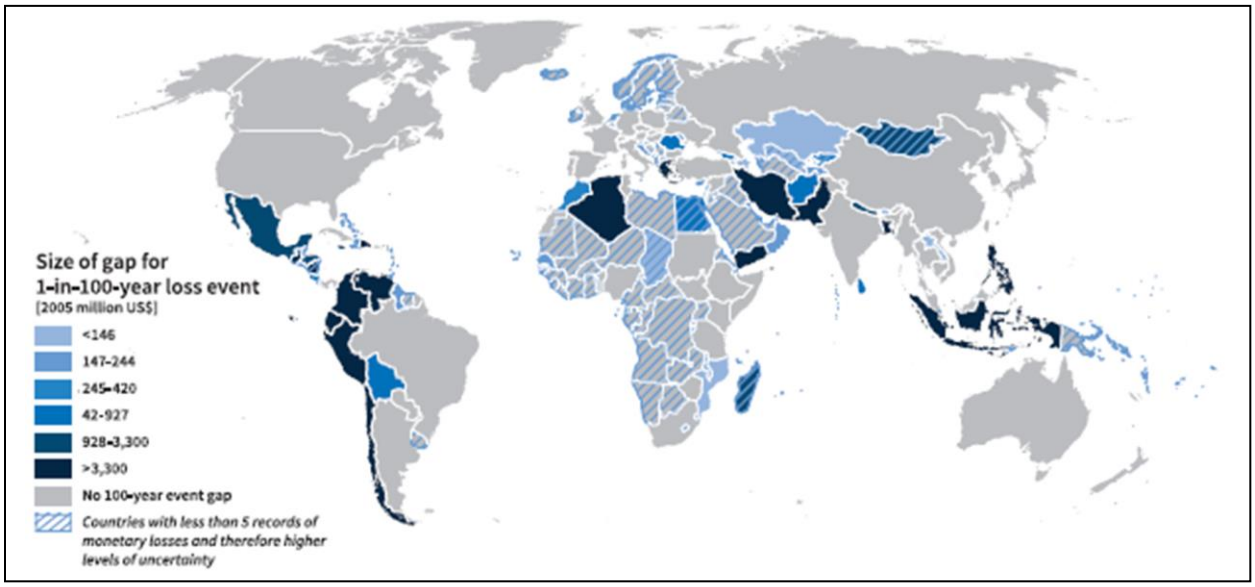
[5] Niang, I., O.C. Ruppel, M.A. Abdrabo, A. Essel, C. Lennard, J. Padgham, and P. Urquhart, 2014: Africa. In: Climate Change 2014: Impacts, Adaptation, and Vulnerability. Part B: Regional Aspects. Contribution of Working Group II to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change; p. 1202

peaked in the year 2000 before trending down, the flood mortality risk in sub-Saharan Africa has grown consistently since 1980 because increasing population exposure has not been accompanied by a commensurate reduction in vulnerability[6], which can be attributed to low levels of adaptive capacity.

Furthermore African countries are among the ones with the biggest financing gap for addressing climate vulnerability, and are hence severely challenged by rising economic loss. Most loss is uninsured and governments do not have the financial reserves or access to contingency financing that would allow them to absorb losses, recover and rebuild.

For example, while Canada and the United States would only face challenges in absorbing the impact from a 1-in-500-year loss, Madagascar and Mozambique would face difficulties finding the resources to absorb the impact from as small as a 1 in 3-25 year loss[7]. Clearly, the financial risk to these countries is substantial. In particular, a very significant number of countries would not pass a stress test of their financial capacity to absorb the impact of a 1-in-100-year loss (see figure 1).

Figure 1: Countries facing a financing gap for a 1-in-100-year loss event – UNISDR Global Assessment Report 2015, p. 102.



Multiple uncertainties in the African context mean that successful adaptation will depend upon developing resilience in the face of uncertainty.[8]

Planning for climate change adaptation requires that urban planning and development are focused on producing urban systems that have greater capacity to absorb shocks and adapt to impacts. In fact, urban planning is concerned with the way the street layout is done, including essential infrastructure such as drainage system (which is essential for flood risk reduction, for example), good connectivity for ensuring an adequate transportation system in case of emergency, proper land plotting methodologies, etc. At times of disaster, impacts and losses

[6] UNISDR, Global Assessment Report on Disaster Risk Reduction, 2015, p. 44
[7] UNISDR, Global Assessment Report on Disaster Risk Reduction, 2015, p. 102, and citations therein
[8] Niang, I., O.C. Ruppel, M.A. Abdrabo, A. Essel, C. Lennard, J. Padgham, and P. Urquhart, 2014: Africa. In: Climate Change 2014: Impacts, Adaptation, and Vulnerability. Part B: Regional Aspects. Contribution of Working Group II to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change; p. 1126

can be substantially reduced if authorities, individuals and communities in hazard-prone areas are resilient: well prepared, ready to act and equipped with the knowledge and capacities for effective disaster management within a longer-term development perspective.

Building adaptive capacity at the different levels is essential for ensuring future urban climate resilience. Participation and inclusivity are key elements of boosting adaptive capacity at local levels, to help identifying the key existing and potential vulnerabilities in specific communities, and to link short-term priorities to long-term plans.

Yet, despite the fact that urbanisation has progressively taken on a central role for understanding risk and its associated vulnerability, there is a noticeable lack of contextually adapted urban risk reduction and resilience initiatives in sub-Saharan Africa. Existing tools and approaches are not appropriately targeting low capacity local governments in the region, while at the same time tend to be dedicated to a narrow audience. They often heavily rely on outside technical expertise, are too technical in nature, and depend on costly data collection methods, creating a disincentive to local governments in kick-starting a process of resilience building and climate change adaptation.

In the context of this project, four countries were selected where the main activities are expected to take place, Madagascar, Malawi, Mozambique and the Union of Comoros. They are located in the south-eastern part of the African continent, which is a region very vulnerable to transboundary extreme climate-related events, in particular floods, drought and cyclones.

Four cities or towns with similar types of vulnerabilities have been selected in these countries to implement pilot adaptation projects following a participatory approach, namely: Morondava, Madagascar; Zomba, Malawi; Chokwe, Mozambique; and Moroni, Comoros. These urban settlements were selected in coordination with the national authorities, according to the following criteria: (i) high exposure to climate-related hazards (floods, cyclones, sea level rise and/or drought); (ii) low institutional and financial capacity of the municipality (typical situation of a fast growing small/intermediate city/town of sub-Saharan Africa with a population ranging between 50,000 and 100,000 inhabitants); (iii) cities/towns in which the United Nations Human Settlements Programme (UN-Habitat) has recently engage in implementing risk reduction and resilience building activities.

ii. Sub-regional, ~~and~~ country and city perspective

a) Environmental context at sub-regional and country level

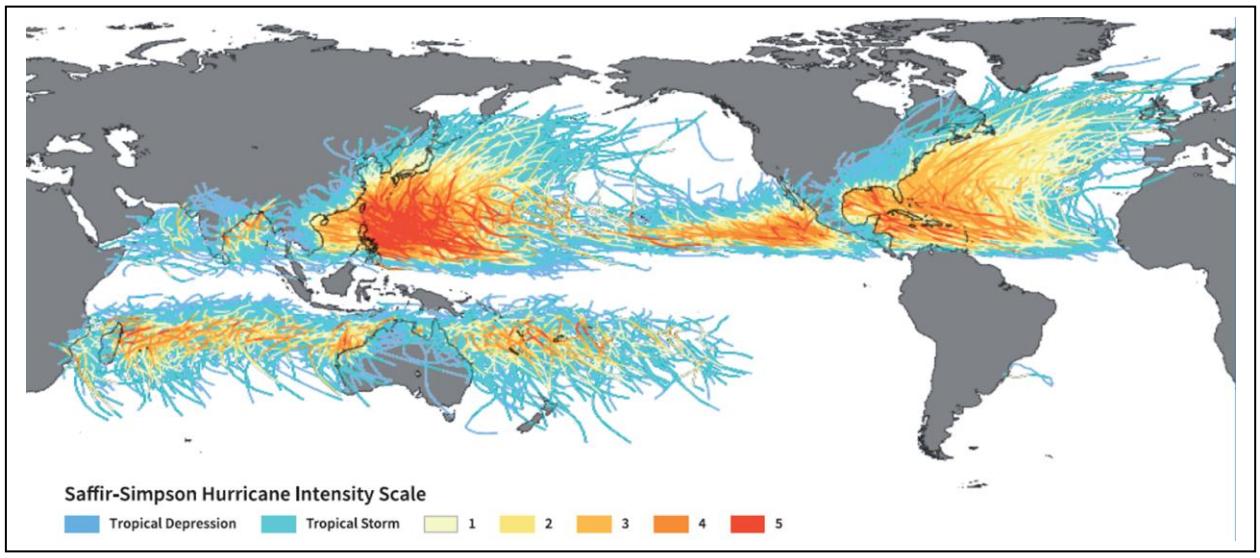
Southern Africa is very exposed to the impacts resulting from recurrent natural hazards such as cyclones, floods and drought. More threats exist in this region that compound the effects of these natural hazards, some of natural origin (such as earthquakes, volcanic activity, among others) and others induced by anthropogenic interventions, such as land and environmental degradation and uncontrolled urbanisation. In this section, the intent is to first describe the common/transboundary natural hazards which threaten to cyclically break the economic development process of the region.

More specifically, the IPCC projections indicate that as of consequence of climate change there will be higher risk of drought, especially in south-western sub-regions, while there is uncertainty concerning projected changes in landfall of tropical cyclones originating in the southwest Indian Ocean which led to intense flooding in the last decades. As for precipitation changes in the

region, drought and heavy rainfall have been experienced more frequently during the last 30 years. An increase in extreme warm indices (hot days, hot nights, and hottest days) and a decrease in extreme cold indices (cold days and cold nights) in recent decades are consistent with the general warming. The south-western sub-regions are projected to be at a high risk to severe droughts during the 21st century and beyond. Large uncertainties surround projected changes in tropical cyclone landfall from the south-west Indian Ocean that have resulted in intense floods during the 20th century. Future precipitation projections show changes in the scale of the rainfall probability distribution, indicating that extremes of both signs may become more frequent in the future.[9]

The four selected countries where the proposed project is expected to take place, Madagascar, Malawi, Mozambique and the Union of Comoros, are annually affected by cyclones originating in the Indian Ocean and moving westwards during the period stretching from November to March, hence provoking strong winds, high precipitations and floods with devastating effects in urban areas (see figure 2).

Figure 2: Worldwide historical tropical cyclone tracks – UNISDR Global Assessment Report 2015, p. 67.



According to the UNISDR Global Assessment Report 2015, with the exception of Small Island Developing States (SIDS), the Philippines and Madagascar are the two countries in the world with the largest proportion of their capital investment at risk as consequence of tropical cyclones, again highlighting the importance of prospective disaster risk management. In the sub-region targeted by the project, Mozambique and the Union of Comoros follow Madagascar as the most vulnerable to this type of natural hazard.

While Malawi is affected to a lesser extent, it is impacted through tropical cyclones in the form of severe flooding, similarly as the other three countries. In early 2015, devastating floods disrupted Malawi's economy and displaced hundreds of thousands of people. In addition, Madagascar, Comoros and Mozambique have several coastal cities which are likely to be affected by sea level rise resulting from increasingly warmer temperatures.

[9] Ibid., p.1211

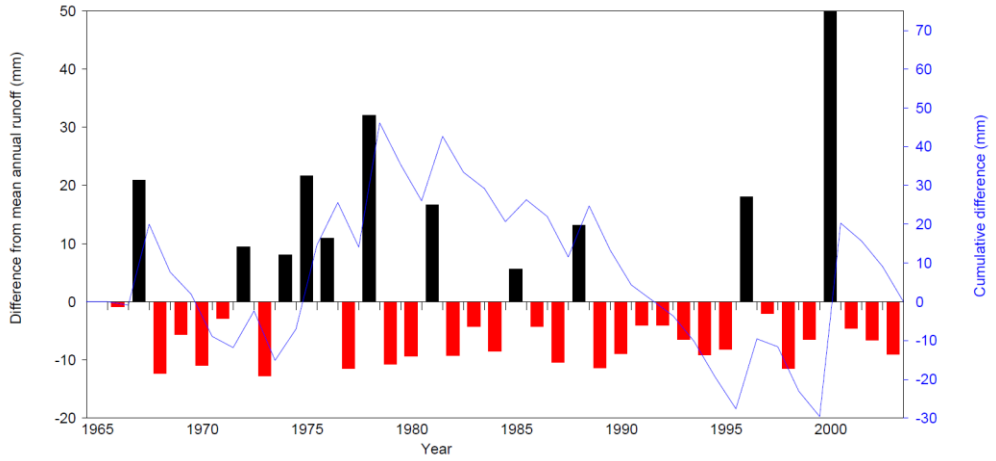
The hydro-geographical profile of the region shows that nine international river basins flow to Mozambique, among which the Zambezi is the largest one, followed by the Limpopo, Rovuma and Save (see figure 3). This means that flooding is a regular seasonal phenomenon in that country, and its extent much depends on the amount of rainfall registered in the neighbouring countries located upstream. Therefore, there is a clear need to strengthen current efforts and enhance inter-country collaboration to mitigate effectively the impact of floods in this sub-region.

Figure 3: International river basins in South-East Africa - Atlas for Disaster Preparedness and Response in the Limpopo Basin, INGC, UEM & FEWSNET MIND (2003).

Drought is a chronic natural disaster in the sub-region. It increases dramatically the vulnerability of an already poor population, in particular in terms of food security and livelihoods. Urban areas are not spared by this type of natural hazard. Mozambique is currently affected by a protracted on-going drought since early 2016. Affected populations do not have sufficient time to recover from the economic and social impacts provoked by droughts between one cycle and the next. Figure 4 shows the irregular hydrological regime of an important river like the Limpopo, showing the constant alternating of flood peaks and longer drought periods.

Disaster impacts vary between these four countries, with Madagascar and Mozambique having a different disaster risk profile because of their greater geographical size. The prominent hazards of these two countries are cyclones and floods, which are much related phenomena. In addition, both countries significantly suffer from chronic drought. Mozambique is also in the unfortunate position of being downstream of major transboundary rivers and therefore is highly vulnerable to the water management strategies of its neighbours located upstream. Malawi's concerns relate to flooding, particularly in the Lower Shire Valley, while an inherent regular dryness characterises the agricultural economy. Earthquakes associated with the Rift Valley do occur and are periodically damaging. Meanwhile, the Union of Comoros is dominated by the volcano on Grand Comore Island; sea level rise, flooding and periodic drought are also of concern to this archipelago. A rapid risk profile description for each country is provided below, including of the four cities selected in this project.

Figure 4: Hydrological anomalies in the Limpopo basin – Extracted from the presentation made by the Ministry of Public Works and Housing, Mozambique, on 15 December 2005, titled: "Experiences of Mozambique on Disaster Management".



- *Madagascar*

As mentioned earlier, Madagascar is extremely exposed to cyclones originating in the Indian Ocean. One-quarter of Madagascar's population - approximately five million people - lives in zones at risk of natural disasters, including tropical cyclones, storm surges, floods, drought and locust invasions. Each year, an average of three to four cyclones make landfall on Madagascar. The most impacted areas are generally the eastern and western coasts. However, as a consequence of climate change, cyclones appear to have reduced in frequency but have intensified in power in recent years; impacts are now also felt further north. In 2015, over 100,000 people were affected by flooding and the after-effects of tropical storms Chedza and Fundi. As a result, more than 70,000 people lost their homes.[10]

Flooding is inherently associated with cyclones, which provoke heavy and tropical rains, and represents the second major natural threat to the country. Rains and flooding also cause landslides. Its impact has been exacerbated by the effects linked with climate change as well as anthropogenic activities leading to deforestation, erosion and, more in general, to land degradation.

Another important climatic-related threat is drought. Climate change affects the regularity of rainfall and results in higher temperatures, with a major impact on agriculture. Dryer conditions are observed, especially in the south. In 2015, approximately 80,000 people were affected and food security heavily impacted.[11]

Other natural threats that can be found in Madagascar are the risk of tsunami, fires, locust invasion and minor seismic events. There are also epidemics such as plague, Chikigunya (mosquito-borne viral disease), pandemic influenza, cholera and malaria.

~~The city of **Morondava**, targeted by the project, lies on the south-western coast between the Mozambique Channel and the Morondava River Delta. The land is mostly flat and below sea level, making the city particularly vulnerable to floods caused by heavy rains and cyclones, as~~

[10] GFDRR country profile for Madagascar, https://www.gfdrr.org/sites/gfdrr/files/region/MG.pdf, accessed on 29 December 2016
[11] IRIN: Disaster-prone Madagascar battles flooding and drought, http://www.irinnews.org/analysis/2015/03/05/disaster-prone-madagascar-battles-flooding-and-drought, accessed on 29 December 2016

~~well as rising sea levels. The siliceous and sandy soil on which this old urban centre is built is unstable and affected by erosion which is further aggravated by deforestation, especially mangroves, and informal urbanisation, particularly linked to constructions in flood-prone areas. Lack of maintenance of the infrastructure (spikes, dykes, drainage and sanitation systems, road networks, etc.) and the precariousness of construction material further aggravate the vulnerability of the city.~~

- *Malawi*

The main natural hazards affecting Malawi are floods and drought. Studies indicate that climate change will continue to affect their incidence — notably, the mean annual temperature in the country has increased by an average rate of 0.21°C per decade over the last 30 years. Flooding results in sediment deposits in river channels, reservoirs and floodplains. In turn, this causes catchment degradation, loss of arable land and damage to irrigation infrastructure. Most recently in 2015, the country was impacted by unprecedented flooding which affected more than 1.2 million people and destroyed agricultural fields and damaged key infrastructure leading to a massive loss in livelihoods.[12]

As consequence of climate change there are disrupting rainfall patterns with dry periods in the middle of the rainy season while drought spells are lengthening. Regarding flooding, the lower Shire River is particularly at risk. In that area people build their houses with clay which expands with increased humidity when settling closer to the river. Communities live close to streams due to their dependency on agriculture, fishing and other subsistence activities. Meanwhile flooding events are increasing because of deforestation and silting of rivers.

~~The city of **Zomba** is located at the foot of the Zomba plateau, and is exposed to strong winds, flash floods, mudflows, landslides and debris flows. Environmental degradations and climate change impacts are likely to aggravate Zomba's vulnerability to natural hazards. Deforestation is a major issue, as it increases the likelihood of floods, mudflows and debris flows incidence. Poor sanitation and uncontrolled urban growth also contribute to hinder Zomba's capability to face and to recover from such events. Climate change also poses a threat on the city's development. Rainfall patterns are becoming less predictable making floods and mudflows mitigation efforts more complex. Moreover, deforestation may also increase migrations to marginal land areas prone to landslides and floods and exacerbate urban sprawl. Presently, part of the population increase in Zomba is characterised by the informality and the poor quality of housing, very often constructed without considerations for hazards that frequently affect the city.~~

- *Mozambique*

Mozambique ranks third among the African countries most exposed to multiple weather-related hazards, suffering from periodic cyclones, drought, floods, and related epidemics. Drought occurs primarily in the southern region, with a frequency of seven droughts for every ten years. Floods occur every two to three years, with higher levels of risk in the central and southern regions.[13] Major rivers flow into Mozambique so heavy rainfall in upstream countries often determines seasonal flooding, impacting on the large population living along the river banks and depending on agriculture activities. High profile events are the 2000 floods especially in the lower Limpopo River and those of 2001, 2007 and 2008 in the lower Zambezi River. Floods in

[12] GFDRR country profile for Malawi, https://www.gfdrr.org/sites/gfdrr/files/region/MW.pdf, accessed on 29 December 2016
[13] GFDRR country profile for Mozambique, https://www.gfdrr.org/sites/gfdrr/files/region/MZ.pdf, accessed on 29 December 2016

urban areas are often caused by poor drainage, creating conditions conducive to malaria and cholera.

Due to the effects of climate change, rainy seasons have become more irregular, starting late and with an uneven distribution. As a result, cyclones are becoming more intense in recent years, the latest being in 2007 and 2008, and are affecting the population settled along the coastline of the country enduring high levels of poverty and livelihood conditions are difficult to sustain. In addition to the impact on housing and public facilities, especially affecting the roofing structures, cyclones have damaging effects on infrastructure. Storms and strong winds below cyclone strength also cause a lot of damage.

Hazards caused by anthropogenic interventions are deforestation and land degradation leading to soil erosion and desertification, mangroves depletion and bush fires. Sea level rise as potential threat linked with climate change is a great concern as Mozambique's major cities are located along the coast.

~~**Chokwe** town faces several risks due to the location of the City. The region of the lower Limpopo Basin, where the city is located, is particularly at risk. Floods are very serious threats that frequently affect Chokwe, as well as strong winds and heavy rainfalls, causing considerable damages to the population and assets. Furthermore Chowe town is located in a semi-arid climate region and faces chronic drought. Chokwe is overall extremely vulnerable to the negative effects of climate change.~~

- *Union of Comoros*

The Comoros is a volcanic archipelago, with Karthala volcano dominating the Grand Comore, the main island. In 2005 an eruption of this volcano affected 245,000 people. Flooding occurs on a more regular basis and can have a serious impact, especially as a result of cyclones. The latter, as already explained, are a regional hazard which has intensified in power and reduced in frequency over recent years. Hence, as a result of climate change, stronger and irregular weather events are compounded over shorter time periods.

One of the biggest threats is seal level rise as consequence of climate change. According to projections, sea level rise within the country may increase by 0.13 to 0.56 m by the 2090s.[14] This potential hazard can be highly destructive as main settlements are located along the coast, and it is not likely to be contained by dykes.

Climate risks listed in the country's National Adaptation Programme of Action (NAPA) include: both seasonal and acute drought; increased incidence of heavy rains and cyclones; and a rise in sea level. Comoros' Initial National Communication to the United Nations Framework Convention on Climate Change (UNFCCC) also discusses the potential impacts of climate change in key sectors of the country, including: an expected increase in the occurrence of malaria; a decrease in crop yields, agricultural production and fisheries; and flooding and internal displacement.[15]

The overall vulnerability situation is worsened by salinisation and poor water management, soil water-logging (through volcanic ash), deforestation, soil erosion and landslides. Land

[14] Hilary Hove, Daniella Echeverría, Jo-Ellen Parry: Review of Current and Planned Adaptation Action: Southern Africa, p. 63
[15] Ibid

degradation and the disappearance of around 400 acres of forest per year also have had a negative effect on the country's socio-economic development.[16]

~~The **city of Moroni** is highly exposed to hydro-meteorological risks arising from tsunamis, storm surges and cyclones. Due to its location at the coast it is also prone to the effects of sea level rise. Further, heavy rains are recurrent due to the proximity to the volcano Mount Karthala (2,355 m) and related thermo-dynamic effects. The latter is active and erupts every 10 to 20 years. Earthquakes due to volcanic activity are frequent as well. The city's spatial development is limited by the sea to the west, and to the east by the slopes of the volcano. It has recently experienced rapid and anarchic urbanization. Lack of urban planning and an outdated land-use policy are likely to exacerbate vulnerability to foreseeable effects of climate change. The city management is struggling to maintain infrastructure and provide basic services. Considerable challenges exist in terms of quality of roads, drinking water and the provision of electricity. Further, there is no sewerage, drainage or wastewater treatment in Moroni. Households typically use pit latrines which can leak and contaminate groundwater and coastal and marine environments.~~

b) Socio-economic context at country level

Fast paced urbanisation is a reality for the four countries in the region. They show significantly high urban annual growth rates surpassing their overall population growth, indicating the increasing importance of the urban dimension in these countries (see Table 1). At the same time, local administrations face a capacity gap and are being increasingly challenged by climate change induced risks.

Table 1: Population and urbanisation profile of the four target countries - World Urbanization Prospects, 2016[17]

	Total Population (2016 Estimate)	**Urban Population** (2016 Estimate)	**Percentage Urban** (2016 Estimate)	**Urban Pop. Annual Growth Rate** (2010-2015)	**Total Pop. Annual Growth Rate** (2010-2015)	**Capital City and Population** (2014)
Madagascar	24,915,000	8,905,000	35.7%	4.69%	2.79%	Antananarivo: 2,487,000
Malawi	17,802,000	2,929,000	16.5%	3.77%	2.84%	Lilongwe: 867,000
Mozambique	27,781,000	9,031,000	32.5%	3.27%	2.47%	Maputo: 1,174,000
Union of Comoros	788,000	224,000	28.4%	2.67%	2.40%	Moroni: 56,000

A rapid socio-economic profile relevant to the project is provided below, country by country.

[16] Ibid
[17] United Nations, Department of Economic and Social Affairs, Population Division (2014). World Urbanization Prospects: The 2014 Revision, custom data acquired via website

- *Madagascar*

In 2016, Madagascar had an estimated population of 24,915,000, an average annual population growth rate of 2.79%, an urban share of the population of 35.7% and an average annual urban growth rate of 4.69%.[18]

It is estimated that approximately five million people currently live in zones at high risk of natural disasters.[19] According to the Global Facility for Disaster Reduction and Recovery (GFDRR), the country has a low adaptive capacity, influenced by a high poverty rate, rapid population growth, high dependency on natural resources and weak institutional capacity. Adverse effects of flooding events are significant in urban areas due to: (i) a lack of early warning systems; (ii) inadequate urban planning; and (iii) poorly maintained drainage infrastructure.[20]

The country ranked 154th out of 188 countries in the United Nations 2015 Human Development Report and did not reach any of the United Nations Millennium Development Goals (MDG) by 2015. Between 1980 and 2014, Madagascar's life expectancy at birth increased by 16.1 years, mean years of schooling increased by 0.8 years and expected years of schooling increased by 2.5 years. Madagascar's gross domestic product (GDP) per capita decreased by about 35.5% between 1980 and 2014.[21]

The GDP was at USD 9.739 billion in 2015. The latest World Bank economic update reveals a slow economic recovery in 2015 due to a weak growth in tourism and mining sectors. Catastrophic meteorological conditions during the first half of 2015 also took a toll on the economy, resulting in higher inflation and a reduction of household purchasing power. GDP growth is estimated at 3.0% in 2015 and annual inflation rose to 7.6%. The country continues to rank poorly on the ease of doing business index: 164 out of 189 countries in the 2016 Doing Business Report.[22]

- *Malawi*

In 2016, Malawi had an estimated population of 17,802,000, an average annual population growth rate of 2.84%, an urban share of the population of 16.5% and an average annual urban growth rate of 3.77%[23]

The country ranked 173rd out of 188 countries in the United Nations 2015 Human Development Report[24], which put the country in the low human development category and did not reach any of the United Nations Millennium Development Goals by 2015.

Real GDP grew by 5.7% in 2014 but slowed down to 2.8% in 2015 as Malawi suffered from dual challenges of adverse weather conditions and macroeconomic instability. Flooding in southern districts followed by countrywide drought conditions saw a contraction in agricultural production.[25] Natural disasters have had serious impacts on Malawi's economic development.

[18] Ibid
[19] http://www.worldbank.org/en/country/madagascar/overview, accessed on 29 December 2016
[20] GFDRR country profile for Madagascar, accessed on 29 December 2016
[21] http://hdr.undp.org/sites/all/themes/hdr_theme/country-notes/MDG.pdf, accessed on 29 December 2016
[22] http://www.worldbank.org/en/country/madagascar/overview, accessed on 29 December 2016
[23] United Nations, Department of Economic and Social Affairs, Population Division (2014). World Urbanization Prospects: The 2014 Revision
[24] UNDP 2015: Briefing note for countries on the Human Development Report 2015, http://hdr.undp.org/sites/all/themes/hdr_theme/country-notes/MWI.pdf, accessed on 29 December 2016
[25] http://www.worldbank.org/en/country/malawi/overview, accessed on 29 December 2016

Drought and dry spells in Malawi cause, on average, a 1% loss of GDP annually. Additionally, an average loss of 0.7% of the annual GDP is due to the flooding of lakes and the overflowing of rivers.[26]

Poverty and inequality remain high in Malawi. The 2010/11 Integrated Household Survey showed that over half of the population was poor and one quarter lived in extreme poverty. These numbers are not expected to change much with the new estimates to be available in 2017. Poverty has been increasing in rural areas where 85% of the population lives, compared to urban areas where it fell significantly from 25 to 17%.[27]

- *Mozambique*

In 2016, Mozambique had an estimated population of 27,781,000, an average annual population growth rate of 2.47%, an urban share of the population of 32.5% and an average annual urban growth rate of 3.27%[28]

Mozambique's Human Development Index (HDI) value for 2014 is 0.416 - which puts the country in the low human development category - positioning it at 180 out of 188 countries. Between 1980 and 2014, Mozambique's gross national income per capita increased by about 106.8% between 1980 and 2014[29]. Nevertheless, Mozambique's rapid economic expansion over the past decades has had only a moderate impact on poverty reduction, and the geographical distribution of poverty remains largely unchanged.

Mozambique also needs to improve its social indicators. For instance, the social progress index for access to improved sources of water and sanitation ranks Mozambique 128th and 119th, respectively, out of 135 countries. Indeed, Mozambique has one of the lowest levels of water consumption in the world despite being endowed with a variety of water sources.[30]

World Bank projections place economic growth at 3.6% for 2016, with significant downward risks. The discovery in April 2016 of previously undisclosed debt worth $1.4 billion, 10.7% of Mozambique's GDP, combined with the impact of the exchange rate depreciation have led to a substantial increase in debt ratios. As a result, the fiscal position is likely to remain under stress until the end of the decade.

In the short term, adverse climatic conditions, brought on by La Niña, are a risk. Should this materialise, the costs of flood damage and impact on food production would pose a major challenge to food security and livelihoods.

- *Union of Comoros*

In 2016, the Union of Comoros had an estimated population of 788,000, an average annual population growth rate of 2.40%, an urban share of the population of 28.4% and an average annual urban growth rate of 2.67%[31]

[26] GFDRR country profile for Malawi, https://www.gfdrr.org/sites/gfdrr/files/region/MW.pdf, accessed on 29 December 2016
[27] Ibid
[28] United Nations, Department of Economic and Social Affairs, Population Division (2014). World Urbanization Prospects: The 2014 Revision
[29] GFDRR country profile or Mozambique, https://www.gfdrr.org/sites/gfdrr/files/region/MZ.pdf, accessed on 29 December 2016
[30] http://www.worldbank.org/en/country/mozambique/overview, accessed on 29 December 2016
[31] United Nations, Department of Economic and Social Affairs, Population Division (2014). World Urbanization Prospects: The 2014 Revision

Comoros has a dense population of about 390 inhabitants per square kilometre. More than half of the population (53%) is younger than 20 years of age.[32] Its HDI rank was 159 out of 188 countries in 2015, which puts the country in the low human development category.[33] Progress has been made on several of the Millennium Development Goals. However, one of the most important challenges will be to halve the proportion of people who suffer from hunger.

According to the World Bank, citing the most recent Household Budget Survey for 2014, 42.4% of the population (around 320 thousand people) is poor, with real monthly consumption per capita below the national poverty line. Around 18% of the population lives below the international poverty line of US$1.9 per capita per day, in 2011 Purchasing Power Parity (PPP) exchange rate. The World Bank projections indicate slow progress in poverty reduction until 2018, due to stagnant economic growth.

Recent economic developments point to a deteriorating economic situation as growth slows and the Comorian franc depreciates against the US dollar. Comoros has a small and undiversified economy. While the economy had showed signs of recovery after years of political instability, achieving an eight-year high in terms of economic growth at 3.5% in 2013, conditions since then have deteriorated with growth slowing from 2.1% in 2014 to 1% in 2015.[34]

c) City level contextualisation

- *Morondava, Madagascar*

The city of Morondava lies on the south-western coast between the Mozambique Channel and the Morondava River Delta (see Figure 5) and is the capital of the Menabe Region. The coastal city is located in a flatland below sea level that is crossed by two rivers, the Morondava and the Kabatomena (see Figure 6).

The climatic hazards that affect Morondava have increased impacts in the city due to fast paced unplanned urbanisation, which create important obstacles for strengthening resilience and increasing adaptive capacity. Official numbers from the National Environment Office for the city population indicate 41,595 for 2000, but the municipality estimates approximately of 88,700 inhabitants in 2015. Morondava shows today the highest annual population growth (5.2%) in Menabe region, resulting in a relatively young population (40.1% of the population is below 25 years old, with an average age of 29.8 years old).

The urbanisation patterns in Morondava follow two main trends: the occupation and growth of the old city, around the historic and colonial centre, and the settlements that followed major traffic infrastructure. Today, approximately 45% of the neighbourhoods are informal with many precarious housing occupying flood-prone areas. Poor drainage and sanitation conditions directly contribute for severing the impact of floods and favour the spread of waterborne diseases. The International Federation of the Red Cross and Red Crescent Societies (IFRC) Emergency Plan of Action 2015 reports that 24 water supply and sanitation facilities were flooded or contaminated at the country level, particularly in urban areas; in Morondava, this resulted in 4,069 people infected by waterborne diseases[35].

[32] http://www.worldbank.org/en/country/comoros/overview, accessed on 29 December 2016
[33] http://hdr.undp.org/en/countries/profiles/COM, accessed on 29 December 2016
[34] http://www.worldbank.org/en/country/comoros/overview, accessed on 29 December 2016
[35] http://reliefweb.int/sites/reliefweb.int/files/resources/Madagascar%20MDRMG011.pdf

Figure 5: Map of Madagascar showing the location of Morondava – Extracted from www.nationsonline.org

Figure 6: Map of Morondava – Extracted from www.googlemaps.com

The current lack of climate adaptation and resilience capacity in Morondava is also due to the level of poverty in the region. According to the official documentation provided by the municipality, approximately 24.6% of the population lives under the national poverty line. In terms of formal education, data for the Menabe region (2010-2011) show that only approximately 50 inhabitants enrolled at university level, while the literacy rate was of 76.2% in urban areas.

As the capital and main urban centre of the Menabe region, Morondava shows some economic potential in the areas of commerce and services, tourism, craft, agriculture and livestock. Located near the renowned Baobab Avenue, which receives visitors from all around the world, the city has plans to develop its touristic potential.

From an institutional perspective, the Municipality of Morondava has insufficient capacity and resources to update and operationalise plans aiming at rehabilitating, developing and maintaining the necessary infrastructure to respond efficiently to disaster and adapt to the adverse effects of climate change. The municipality has also undergone serious difficulties in updating and implementing its contingency plans due to a lack of financial resources and equipment.

The two rivers crossing the city are undergoing siltation processes that exacerbate vulnerability to floods caused by heavy rains and cyclones, as well as rising sea levels. In fact, the municipality estimates that 65% of its neighbourhoods are located in flood sensitive areas, namely: Andabatoara, Andakabe, Tanambao, Ankisirasira Nord et Sud, Morondava Centre, Avaradrova and Sans Fil. Due to its location along the Mozambican Channel, Morondava has suffered from devastating impacts of cyclones and tropical storms in several occasions. The most recent disastrous event to affect the city was caused by the landing of Cyclone Chendza on 16 January 2015. The tropical cyclone resulted in heavy rains that caused severe flooding, affecting more than 62,000 people in the country. Morondava was the second most affected city in the country in absolute numbers (and the most affected one in terms of proportion of the population) with more than 16,000 persons impacted and 3,184 displaced.[36]

[36] http://reliefweb.int/sites/reliefweb.int/files/resources/Madagascar%20MDRMG011.pdf

Figures 7 and 8: Impacts of Cylone Fanele on housing in 2008

Figure 9: Stagnant water in the city after the rainy season

In addition, the siliceous and sandy soils confer to the city a high level of vulnerability to erosion. Finally, the uncontrolled deforestation and mangrove destruction have directly contributed to aggravating the impacts of storms and cyclones.

- *Zomba, Malawi*

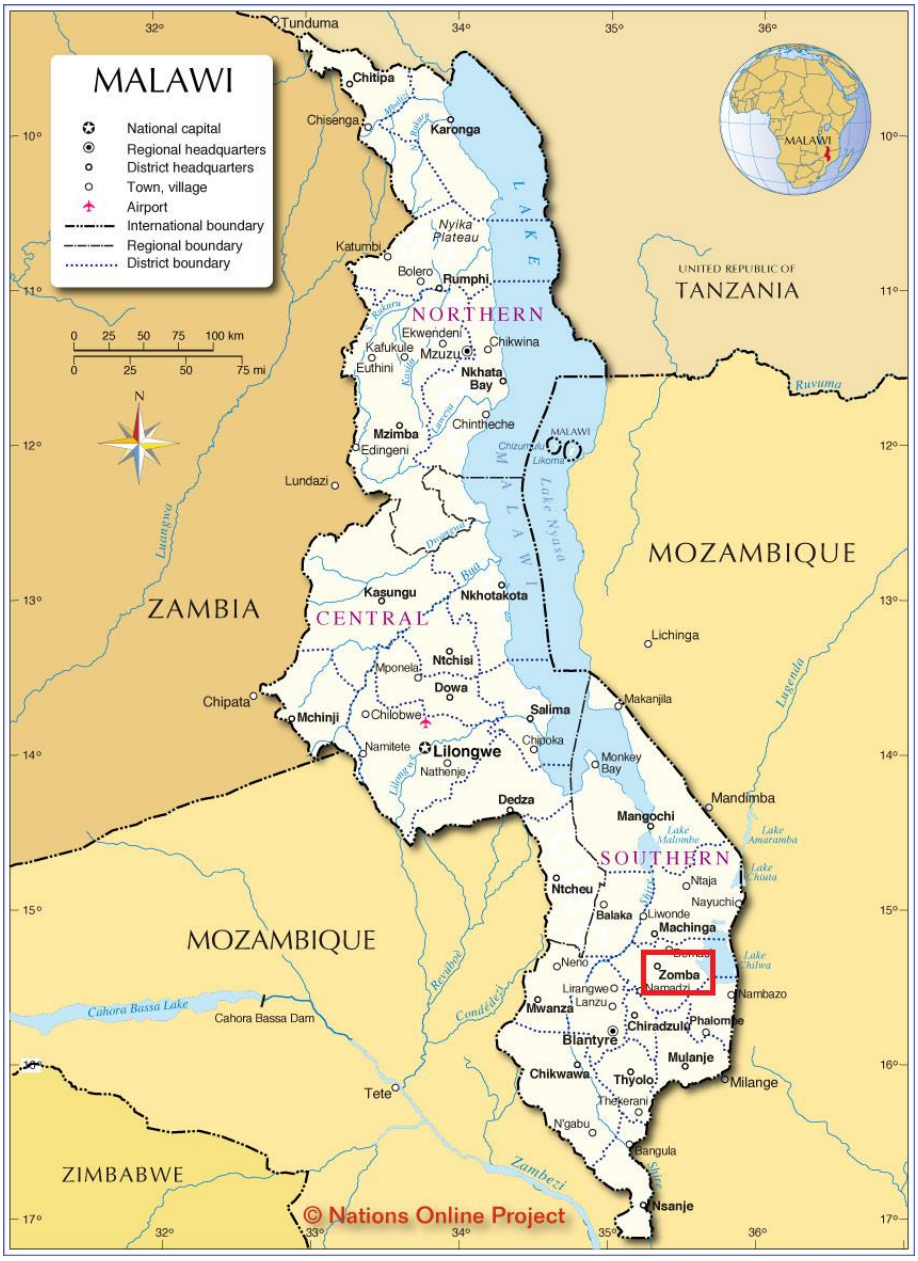
The city of Zomba is located in the southern part of Malawi, some 70km northeast of Blantyre, on the foot of Zomba Plateau (2,085 m above sea level) – see Figure 10. It was Malawi's first capital city before this was moved to Lilongwe in 1975.

The city of Zomba has a 2017 projected population of 156,020 and an annual growth rate of 3%. Like other cities in Malawi the population is relatively young with 73% of the city's population under 30 years of age. Approximately 70% of the city's population lives under slum conditions, which are characterised by poor access to basic services and infrastructure.[37] Poverty and unemployment are both high in Zomba (the unemployment rate is high with 59.1% and poverty

[37] Malawi National Statistics Office (NSO) 2010

levels showing 16.3% as 'poor', 3% as 'ultra-poor'[38]), which in turn exacerbate the poverty vicious circle. These informal settlements show poor housing design, construction techniques and building materials, and are often located in marginal areas exposed to disaster risks from cyclones, earthquakes and floods.

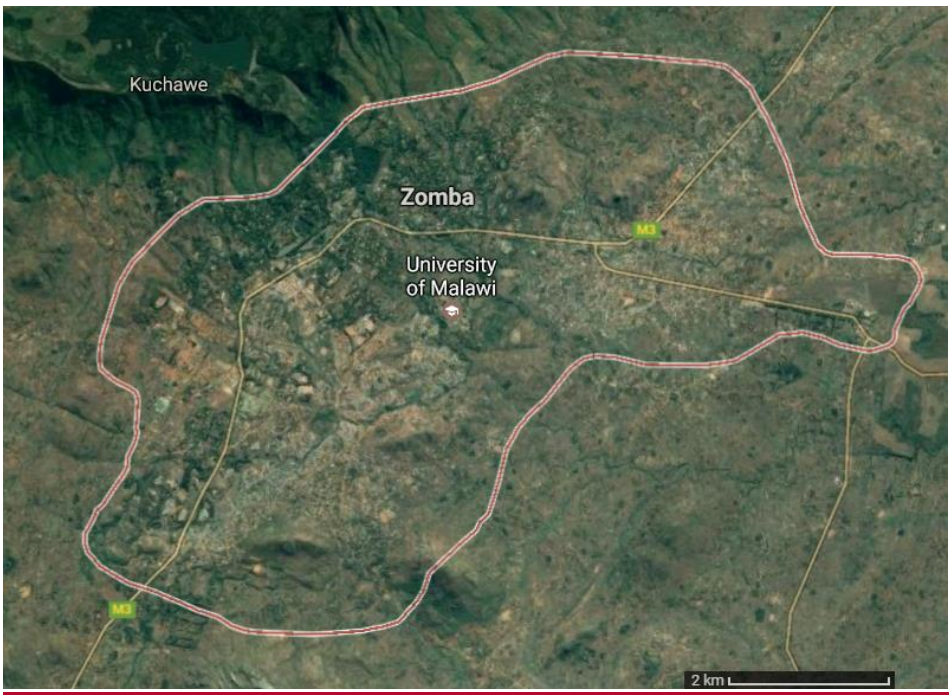
Figure 10: Map of Malawi showing the location of Zomba – Extracted from www.nationsonline.org



[38] Malawi Integrated Household Survey, NSO 2011

The Zomba Plateau dominates the city on its northwestern side and is the source of important rivers (Likangala and Mulunguzi) running through the town. Located in the plateau, the Mulunguzi Dam supplies water to the city. The integrity of the Zomba Plateau is fundamental to the life of the city not only as a source of water and as a tourist attraction but also as an important habitat for flora and fauna and one of the top tourist destinations in the country. The plateau is also covered with forests, which provide timber and poles.

Figure 11: Map of Zomba – Extracted from www.googlemaps.com

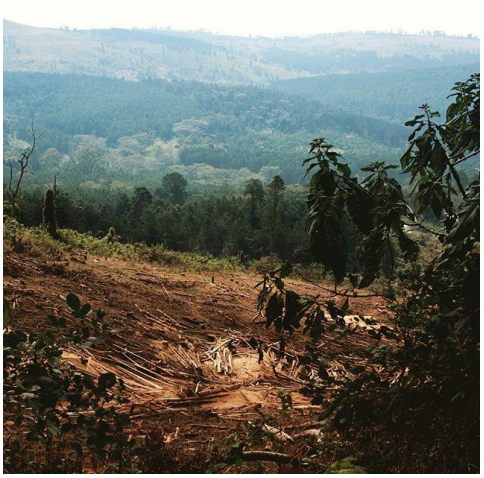


Expanding settlements, agriculture, increasing population and urbanisation are putting severe pressure on the integrity of the mountain. Deforestation is threatening the catchment of the Mulunguzi Dam and the rivers.

The risk profile for Zomba include flooding, cyclones, strong winds, the city is in the African Rift Valley (earthquake), bush fires (especially in the Zomba Plateau and its forests and catchment). Zomba is also the location of the country's earliest recorded natural disaster – a cyclone in 1946 which killed hundreds of people.

More than 80% of Zomba's population use firewood and charcoal for cooking, which is extracted from the Zomba Plateau see Figures 12 and 13). Electricity is both unreliable and too expensive for the majority urban poor. The resulting heavy deforestation and environmental degradation of the plateau is leading to increased soil erosion and runoff as slopes are exposed, which also reduces and damages fauna and flora habitats. Poor urban governance and law enforcement exacerbate the problem of deforestation.

Figures 12 and 13: Problems of deforestation in Zomba Plateau



The key rivers flowing through the town cause flooding due to increased runoff occasioned by deforestation. This is exacerbated by poor and non-existent drainage that is leading to localised flooding in some parts of the city. Many roads are not engineered to have drainage. Where engineered roads exist, many drains are blocked through indiscriminate dumping of solid waste and silting. Even where urban zoning does not permit settling close to rivers, low enforcement capacity by the city council results in encroaching on the river banks, leaving those households more vulnerable to natural disasters.

Awareness on climate change adaptation and mitigation is low at the household, community and council levels. A lack of early warning systems persists, as well as a resilience and adaptation information gap.

- *Chokwe, Mozambique:*

The Municipality of Chokwe is located in southern Mozambique in Gaza Province, between the lower Limpopo and Mazimuchopes rivers (see Figure 12). According to the municipality, there are approximately 55,000 inhabitants mainly concentrated in neighbourhoods n. 1, n. 3, n. 4 and n. 5. Because of it location and its fertile land, the city has known an explosive demographic growth, at a rhythm of 5% per year (1997-2007), which is one of the fastest rates when compared to other neighbouring urban centres like Chibuto (3%), Xai-Xai (1,3%) or Mandlakazi (0,3%)[39].

However, this growth has mostly happened in an informal and unplanned way. The new settlements are characterised by precarious housing conditions: 55.7% of the population live in houses made out of reed, sticks and palm trees, whereas only 4.3% live in so-called conventional housing. Informal settlements in Chokwe are exposed to a number of risks and need to be upgraded.

About 60% of the population lives under the poverty line. According to the last census (2007), life expectancy only reaches 44 years of age, while child morality reaches the number of 107 every 1000 births. These numbers are higher than the national average.

[39] ANAMM (Mozambican Association of Municipalities) & World Bank (2009) Municipal Development in Mozambique. Lessons form the first decade

Figure 14: Map of Mozambique showing the location of Chokwe – Extracted from www.nationsonline.org

The city of Chokwe knows a rapid process of development, and is often considered the economic capital of Gaza province, especially due to its important agricultural potential. In a country where most of the food is imported from neighbouring countries, a fertile area like Chokwe has a crucial importance. Chokwe area is considered the country's barn: 40% of the country's irrigated lands are located there, with the most important production of rice and tomatoes. Approximately 80% of the active labour force works in agriculture. There are other economic activities like the food industry (cattle), clothing and commerce, however diversification remains low. In addition, most of these activities are part of the informal economy.

Figure 15: Map of Chokwe – Extracted from www.googlemaps.com

In terms of risks, due to its location in the lower Limpopo Basin, the city is exposed to the impacts of chronic drought, recurrent cyclones and especially flooding. The latter hazard severely affects the area and hinders the development of the city. The area is actually considered one of the most exposed to natural hazards in the country[40]. Chokwe has been more than once taken by the waters of the Limpopo river. The periodicity and the magnitude of the floods in the area have varied throughout the years, ranging from small occurrences to catastrophic events, notably the 2000 and the 2013 flood events, during which the whole population of the city was affected (see Figures 14 and 15). In 2000, the floods displaced 250,000 people and caused over 700 deaths.

Figures 16 and 17: Chokwe floods, January 2013

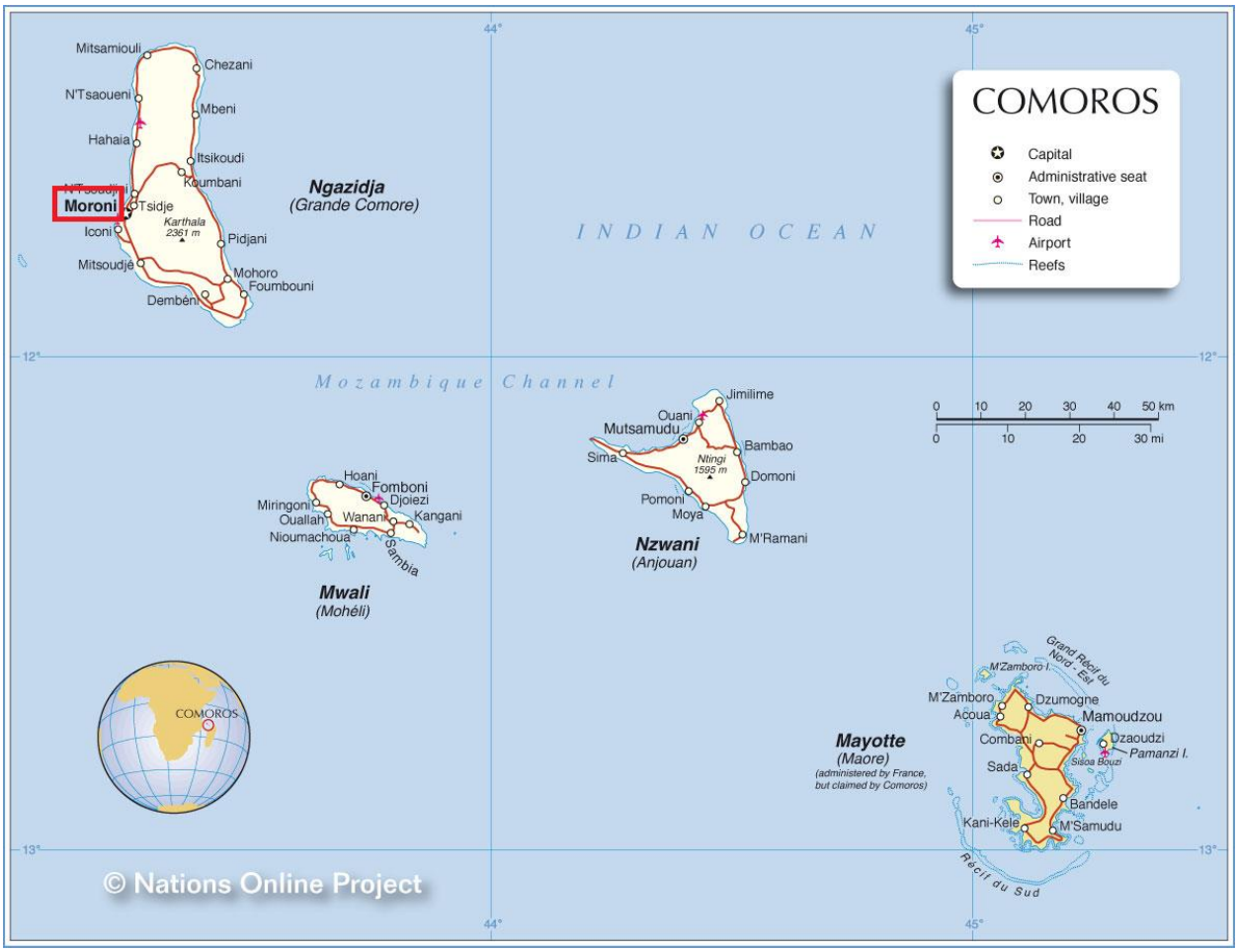
[40] Silva, J.; Eriksen, S. and Ombe, Z.A. (2010) Double exposure in Mozambique's Limpopo River Basin, The Geographical Journal, Vol. 176, No. 1, March 2010, pp. 6–24,

Chokwe is also affected by strong winds and storms due to proximity to the Mozambique Channel, considered to be one of the most active cyclonic regions in the world. Additionally, the city being located in a semi-arid region with irregular rainfalls, the area is also prone to drought.

- *Moroni, Union of Comoros:*

The city of Moroni is located in Ngazidja island, one of the four islands of the Comoros archipelago. It is the largest urban centre of the archipelago and the capital of the country since 1958. The population of Moroni is rapidly growing from 37,800 inhabitants in 1991 to over 55,000 in 2016 with an annual growth rate of 2.1%. Youth represent 53% of the population, with 42% being under 15 years old.

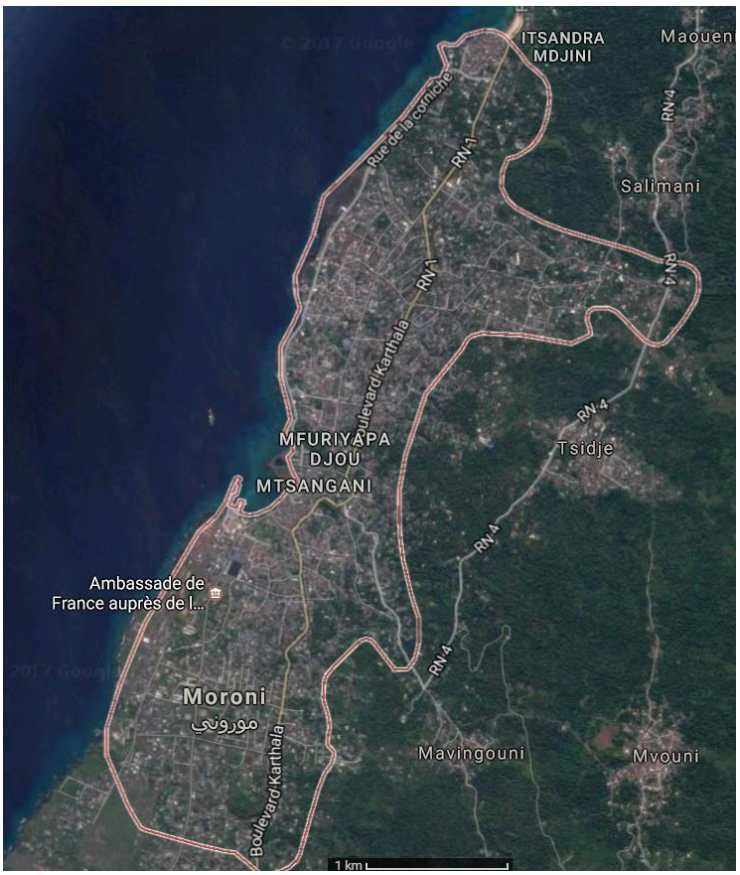
Figure 18: Map of Comoros showing the location of Moroni – Extracted from www.nationsonline.org



Despite an approved master plan in the early 1990's, the growth of the city in the past 20-30 years has been anarchic. The city's spatial development is limited by the sea to the west, and to the east by the slopes of the volcano Mount Karthala. Spatially, it has expanded to the north and the south from 15 ha in 1958 to more than 1500 ha in 2016. The northern part stretches to Itsandra with a width of less than 200 meters. The southern part shows more fragmented urban

units (see Figure 19). More than half of the population resides in informal settlements under precarious conditions and often in areas most vulnerable to natural hazards.

Figure 19: Map of Moroni – Extracted from www.googlemaps.



The city management is struggling to maintain infrastructure and provide basic services. Considerable challenges exist in terms of quality of roads, drinking water and the provision of electricity. Further, there is no sewerage, drainage or wastewater treatment in Moroni. Households typically use pit latrines which can leak and contaminate groundwater and coastal and marine environments. Poverty levels are high and the informal sector is omnipresent.

Figure 20: Conditions of informal settlements in Moroni

The National Strategic Plan of Climate Change stresses that Moroni is vulnerable to a multitude of hazards from hydro-meteorological (tropical storms, rising sea levels), geophysical (volcanic eruptions, earthquakes, landslides), biological (epidemics of cholera and typhoid fever) to technological (road traffic, shipwrecks, fishing at sea). Heavy rains are recurrent due to the proximity to the volcano Mount Karthala (2,355 m) and related thermo-dynamic effects. The latter is active and erupts every 10 to 20 years. Earthquakes due to volcanic activity are frequent as well. High rainwater runoff exists due to the impermeability of soils and massive deforestation in the vicinity of the city. The lack of a drainage system leads to regular flooding in the city.

Awareness on climate change adaptation and mitigation is low at the household, community and council levels. Among the obstacles preventing the city from coping with their climate risks was the lack of an elected municipal administration. Since 2015, the city has a city council and an elected mayor, both determined to find solutions to the challenges facing the city.

~~c)~~d) *Institutional context*

In the context of this project, the following institutional set up is relevant, at the different levels.

- *At the sub-regional level*

  - *The Southern African Development Community (SADC) Disaster Risk reduction (DRR) Unit*

SADC is a Regional Economic Community comprising fifteen Member States: Angola, Botswana, Democratic Republic of Congo, Lesotho, Madagascar, Malawi, Mauritius, Mozambique, Namibia, Seychelles, South Africa, Swaziland, Tanzania, Zambia and Zimbabwe. Established in 1992, SADC is committed to regional integration and poverty eradication within southern Africa through economic development and ensuring peace and security.[41] The Union of Comoros holds an observer status to SADC.

When unexpectedly heavy floods displaced more than a million people in southern Africa in 2007, SADC began to meet annually to prepare for future occurrences. Concrete steps were taken to ensure that DRR is effectively mainstreamed into national policies. Consequently, SADC established a Disaster Risk Reduction Unit responsible for coordinating regional preparedness and response programmes for transboundary hazards and disasters.[42] The Unit was established in July 2008, within the SADC Directorate of the Organ on Politics, Defense and Security Affairs. The decision was endorsed during the SADC Summit Heads of State and Governments in August 2008 and acknowledged for implementation and resource allocation in January 2009. The SADC DRR Unit, with the support of the existing SADC DRR Technical Committee, has the responsibility to coordinate and provide regional leadership on matters pertaining to disaster risk reduction, mitigation, preparedness and related management activities.

The SADC DRR Unit is a member of the DiMSUR Executive Board (see section below). The Unit Leader during DiMSUR's fourth Executive Board meeting at the sidelines of the Africa Regional Platform for Disaster Risk Reduction in Mauritius on 23 November 2016 expressed that DiMSUR's efforts such as the development of the CityRAP tool and sharing of experiences

[41] https://www.sadc.int/about-sadc/, accessed on 6 January 2017
[42] http://www.sadc.int/themes/disaster-risk-management/, accessed on 6 January 2017

between different countries were highly appreciated. It was concurred that SADC's coordination and leadership role and the mandate of DiMSUR were complementing each other and that further cooperation was urgently needed. The current proposal reflects this and includes the SADC DRR Unit as one of the Executing Entities of the project (see Part II, section A). ~~seems to fit adequately this purpose~~.

- *The Technical Centre for Disaster Risk Management, Sustainability and Urban Resilience (DiMSUR)*

At the request of the four countries targeted by this project, UN-Habitat has facilitated since 2010 the establishment of the Technical Centre for Disaster Risk Management, Sustainability and Urban Resilience (DiMSUR) which was launched in 2013. It was endorsed at ministerial level by the four member countries as an international non-profitable, autonomous and regional organisation through a signed Memorandum of Understanding in December 2014 (see Annex 1). The centre aims at fostering development and dissemination of knowledge and solutions as well as developing capacities for disaster risk management, climate change adaptation and urban resilience.

Figure 5: DiMSUR's key milestones

The effort to build a centre of excellence such as DiMSUR originated from the awareness of the governments of Malawi, Madagascar, Mozambique and the Union of Comoros of the need to increase coordination and collaboration between neighbouring countries to exchange information, knowledge and mutual capacity reinforcement. This need was clearly expressed at the time in key agreements and strategies of the international and regional communities. The Hyogo Framework for Action (2005-2015) defined as one of its axis of implementation for regional organizations and institutions to "Establish or strengthen existing specialised regional collaborative centres, as appropriate, to undertake research, training, education and capacity building in the field of disaster risk reduction"; while the Programme of Action for the Implementation of the Africa Regional Strategy for Disaster Risk Reduction (2006-2015) defines as one of its 7 objectives to "develop and maintain sustainable mechanisms of coordination at regional and sub-regional levels (...)".

DiMSUR is composed of four organs (see Charter in Annex 1):

- the Conference of Ministers of the member states, responsible for endorsing and validating the mission, vision, policies and strategies of the centre and other extraordinary items when requested;

- the Executive Board, composed by the National Directors responsible for disaster risk reduction (DRR) and/or climate change adaptation (CCA) of each Member State and other relevant stakeholders (UN system, academia, civil society) and responsible for making the key decisions and validating the guiding documents and products of the centre;
- the Consultative Group, consisting of recognised stakeholders of the DRR/CCA and urban resilience fields at various levels that have the role of advising and guiding DiMSUR when consulted;
- the Secretariat, which has the role of conducting all operational functions that are conducive to the achievement of the objectives of DiMSUR as an autonomous body.

UN-Habitat has operated since 2010 as the Centre's Secretariat ad interim. Following its establishment in 2013, UN-Habitat has been responsible for implementing all activities planned in the Biannual Action Plan with full acknowledgement and consent of the DiMSUR Executive Board. Among these activities, it is worth mentioning the organisation of four meetings of the DiMSUR Executive Board since 2014, the participation of the centre's representatives in numerous conferences and events worldwide (e.g. African Platforms for Disaster Risk Reduction, Africities Summit 2015, the Third United Nations Conference on Housing and Sustainable Urban Development – Habitat III, the 2014 World Urban Forum, among others), the development of the CityRAP tool methodology (see below) as well as the organisation of trainings and workshops on urban resilience involving more than ~~800~~ 830 participants in various African countries.

UN-Habitat has also supported the Government of Mozambique in drafting and validating with all four members the Host Agreement for establishing the centre in Maputo. This has been a long negotiated process that successfully resulted in the clearance of different Ministries and concerned national institutions in Mozambique. The Host Country Agreement was approved by the Mozambican Cabinet on 31 January 2017 during the Second Ordinary Session of the Council of Ministers chaired by the H.E. the President ~~Mr.~~ Fe~~i~~lipe Nyusi. ~~and is pending the final approval by Cabinet in the first quarter of 2017~~[43]. In its role as secretariat ad interim, UN-Habitat has facilitated the selection process of the Executive Director and the national focal points for the centre, which will constitute the staff of the Centre's Secretariat. This is pegged to the Host Country Agreement in Mozambique as well as overall funding for the centre. These steps will lead to the full autonomy of DiMSUR as a regional institution in the coming 2-3 years.

As mentioned above, UN-Habitat and DiMSUR have recently developed the City Resilience Action Planning (CityRAP) Tool[44]. The tool was tested in several countries and a second, revised version was developed in conjunction with London King's College under the Urban Africa Risk Knowledge Programme funded by DFID, taking into account the lessons learnt. CityRAP Tool activities have been conducted in ~~ten~~ eleven different cities in ~~eight~~ nine different countries (Madagascar, Mozambique, Malawi, Union of Comoros, Ethiopia, Cape Verde, Sao Tome and Principe~~, and~~ Guinea Bissau and Burkina Faso) and directly involved more than 8~~3~~00 local participants - from city authorities and technicians to local community leaders and civil society representatives. The main objective of the tool is to enable local governments of small to intermediate sized cities (or urban districts of bigger cities) to understand risks and plan practical actions to progressively build urban resilience. The CityRAP Tool targets local governments with no to limited experience in risk reduction and resilience planning. Its

43 Please refer to the website of the Mozambique Government where this news is featured: http://www.portaldogoverno.gov.mz/por/Imprensa/Noticias/Mocambique-acolhe-centro-regional-de-gestao-de-riscos-de-desastres. The approval by Cabinet is expected ~~yet~~ to be officially gazetted before the end of February 2017.

44 ~~For more information on DiMSUR and the CityRAP Tool, please consult the website: www.dimsur.org~~

implementation helps prioritising key actions to build the city resilience. The main output of the tool is a City Resilience Framework for Action (RFA), based on local government self-assessments, participatory risk mapping exercises, and cross-sectorial action planning by the local government engaging relevant stakeholders, most importantly, communities themselves. The CityRAP Tool involves a bottom-up consultative process and has been designed as an enabling rather than prescriptive tool. A more detailed description of the tool methodology is annexed to the concept note (see Annex 2).

In addition, it is worth noticing that under the Nairobi Work Programme on impacts, vulnerability and adaptation to climate change, UN-Habitat has developed a number of good practices in Africa, including: (i) a tool to mainstream gender consideration into city-level climate change plans and strategies, which was applied in Kampala, Uganda; (ii) simple and low-cost pilot interventions as effective local solutions for creating climate-resilient settlements, such as school buildings built with locally available materials in Mozambique which can offer shelter to communities in case of floods or cyclones; (iii) rooting sustainable development and desert prevention in Bobo Dioulasso, Burkina Faso, through participatory sanitation improvement and afforestation; (iv) sustainable resettlement and reconstruction in flood-prone peri-urban areas in Saint Louis, Senegal; and (v) youth initiative to sustain mangroves and livelihoods in Mombasa (Kenya).

As this project falls under the ~~DiMSUR~~ umbrella of DiMSUR and the SADC DRR Unit, the following key partners of the centre are mentioned in this proposal at the sub-regional and national levels. It will be noted that, while the institutions responsible for climate change adaptation are mentioned for each country, ~~-~~they are more linked to the broader area of disaster risk reduction, in line with the key mandate of the two executing entities. ~~than to the specific area of climate change adaptation.~~

- *Other relevant institutions in southern Africa*

Regarding the UN system and the humanitarian partners such as international NGOs, a Regional Inter-Agency Coordination and Support Office (RIACSO) was established in 2002 in Johannesburg covering southern Africa, and is chaired by UNOCHA. The RIACSO provides support to strategic planning, assessment and monitoring of crisis situations and coordination for emergency response. It has a functional partnership with the SADC, in particular by playing an important role in the strengthening of networks such as the Famine Early Warning System Network (FEWSNET) and the Southern Africa Regional Climate Outlook Forum (SARCOF). Hence the standard *modus operandi* of the RIACSO is mainly on supporting preparedness and early warning across the region through annual plans which match the yearly meteorological cycles. Oxfam, a recognised Non-Governmental Organization working in southern Africa and part of the RIACSO, is a member of the DiMSUR Executive Board.

The southern African region is vibrant with initiatives from the Academic sector, which offers a choice of learning options, including professional training in the area of disaster management and increasingly on DRR. Among them, the Disaster Mitigation for Sustainable Communities and Livelihoods Programme implemented by the University of Stellenbosch, South Africa, apart from working with poor communities in projects aimed at strengthening their resilience in the face of disaster risk, also acts as a facilitator for the inter-university Peri Peri U project which supports ten universities throughout Africa to promote a DRR agenda. The latter project encourages interchange and knowledge-sharing between these academic bodies with a view to developing overall capacities in DRR on the continent. Two of these universities are in Madagascar and Mozambique. In Madagascar, the disaster management course (supported by

UNDP) is taking momentum and is increasingly recognised. The Antananarivo University, Madagascar, which is part of the Peri Peri U, is a member of the DiMSUR Executive Board.

The North-West University at Potchefstroom in South Africa houses the African Centre for Disaster Studies, which focuses on the development of knowledge tools and offers postgraduate education courses and the facility for capacity development. The Centre is offering a variety of modules on disaster management and DRR and increasingly host international students. It is also a member of the DiMSUR Executive Board.

- *Madagascar*

The National Climate Change Coordination Bureau (BNC-CC), which is attached to the Ministry of Environment, Ecology and Forestry, coordinates all actions related to the ratification of the UNFCCC, which is to promote a resilient economy, adapted to climate change, and to promote low-emission sustainable development of greenhouse gases. The functions of the office are to implement and coordinate all actions to adapt and strengthen climate resilience to the most vulnerable communities and to the climate resilience of the economic development sectors, to implement and coordinate all actions to mitigate climate change, promote sustainable development, strengthen the integration of climate change at all levels and promote carbon markets for sustainable development for the benefit of the Malagasy people.

There are two main institutions dealing with disaster management in Madagascar:

- The Emergency Prevention and Management Unit (*Cellule de Prévention et Gestion des Urgences - CPGU*), which is a technical unit within the Prime Minister's office managing DRR and prevention projects with the support of the United Nations International Strategy for Disaster Reduction (UNISDR) and the World Bank. Its mandate concerns the following functions: (i) to elaborate and update the national strategy for DRR; (ii) to assess and control the implementation of national policy of disaster risk management and reduction; (iii) to support the sector for the implementation of prevention activities; (iv) to assist the Prime Minister in decision making regarding DRR. The flagship intervention of the CPGU is the work developed on building norms and codes in areas prone to cyclones. The Unit cooperates with a range of national and international actors.

- The National Disaster and Risk Management Office (*Bureau National pour la Gestion des Risques et des Catastrophes - BNGRC*) at the Ministry of Interior which was established in 2006 in substitution of the National Security Council (*Conseil Nationl de Sécurité - CNS*). BNGRC supports the Council for National Risk and Disaster Management (CNGRC) and coordinates the organization and management of operations in case of emergency, as well as disaster-related activities in general across the country. It has a disaster risk management mandate, with clear responsibilities regarding civil protection, preparedness (including stock-piling and pre-positioning) and response. It has capillary presence on the ground in coordination with the Red Cross and a network of stakeholders at local level. BNGRC is a member of the DiMSUR Executive Board in representation of the Government of Madagascar.

Another key project partner will be the municipality of Morondava for supporting the execution of the project activities at the municipal level.

- *Malawi*

The Cabinet Committee on Climate Change is the highest level and enables all arms of government to coordinate their actions in climate change adaptation activities. The Parliamentary Committee on Climate Change serves to assist in lobbying for passing of environment related policies and legislations in the national assembly. The National Technical Committee on Climate Change is the technical multisectoral body advising on climate change in Malawi. Climate change is a cross-cutting issue and is mainstreamed in all Ministries of the Government of Malawi.

The key coordinating institutions for climate change issues at national and /or district levels include:

- The Ministry of Natural Resources, Energy and Mining is the National Climate Change Management Policy holder and is responsible for the formulation of environmental and climate change policies and coordination of their implementation through the other ministries. This includes the national adaptation strategies (of the NAPA). The Ministry also provides weather and climate related information and services. Its key role in climate change adaptation is to provide scenarios of climate change and provide early warnings and communication of forecasts.

- The Department of Disaster Management Affairs (DoDMA) is responsible for disaster risk management in the country. Its role in climate change adaptation is in preparedness and response for expected changes in disaster profile.

  The Disaster Preparedness and Relief Act establishes the National Disaster Preparedness and Relief Committee (NDPRC) responsible for providing policy directions on the implementation of DRM programs. The NDPRC comprises of Principal Secretaries of all line ministries and departments. It is chaired by the Chief Secretary to the Government based in the Office of the President and Cabinet.

  The Act also provides for the appointment of a head of the Department of Disaster Management Affairs (DoDMA), which is responsible for coordinating and directing all DRR and disaster risk management programs in the country. The DoDMA, which is answerable at the level of the NDPRC, is part of the Commission for Poverty and Disaster Management Affairs at the office of the Vice-President, and is represented down to district level. DoDMA is a member of the DiMSUR Executive Board in representation of the Government of Malawi.

- The Ministry of Agriculture, Irrigation and Water Development (MoAIWD) has key roles in the area of climate change adaptation including educating farmers about climate change, promoting climate smart agriculture, irrigation and providing hydrometric modelling to aid floods early warning.

- Other key stakeholders include other line ministries of Government, local authorities, non-governmental organizations and civil society, the private sector, academia, development partners, local communities, faith based organizations and identified vulnerable groups.

Another key project partner will be the municipality of Zomba for supporting the execution of the project activities at the municipal level.

- *Mozambique*

In Mozambique, the institution responsible for Climate Change Adaptation is the Climate Change Unit, which is part of the Ministry of Land, Environment and Rural Development (*Ministério da Terra, Ambiente e Desenvolvimento Rural - MITADER*). The MITADER is tasked to organize and manage the execution of policies under the areas of Land and Geomatics, Environment, Forests, Fauna, Conservation Areas and Rural Development. The Climate Change Unit was created following the approval of the National Strategy for Climate Change Adaptation and Mitigation and has the following main roles: (1) Coordinate and facilitate inter-institutional connections related to Climate Change; (2) Prepare programmes and annual work plans related to climate change; (3) monitor the implementation of the National Strategy for Climate Change Adaptation and Mitigation and (4) provide technical advice on climate change projects and programmes financed through funds from environmental multilateral agreements. The Climate Change Unit is hosted within the Secretariat of the National Council for Sustainable Development, under MITADER.

The National Council for Disaster Management Coordination (*Conselho Coordenador de Gestão das Calamidades – CCGC*), led by the Prime Minister and including several ministries, is the highest political body dealing with disaster-related issues in Mozambique. Its mandate is to ensure multi-sectoral coordination for disaster prevention, assistance to the victims and rehabilitation of damaged infrastructures.

Importantly, the CCGC as political decision-making organ receives advices from the Technical Council for Disaster Management (*Conselho Técnico de Gestão de Calamidades - CTGC*), which is constituted by technical staff from the concerned departments of the different Ministries represented in the CCGC, as well as partners from the UN system. In general, the CTGC meets twice a month both at the central and provincial levels. There are attempts to embrace civil society on this committee as well as the academic sector.

The National Institute for Disaster Management Institute (*Instituto de Gestão de Calamidades – INGC*), under the Ministry of State Administration (*Minstério da Administração Estatal – MAE*), coordinates the CTGC and reports to the CCGC. The main functions of INGC are to: (i) coordinate disaster prevention and mitigation activities; (ii) lead the government's response to emergencies; and (iii) deal with arid and semi-arid areas, reconstruction and resettlement. It works very much as a knowledge and reference centre, providing free access to its products in the web. The structures of INGC go down to the three regions (Southern, Central and Northern Mozambique) and eleven Provinces both politically and technically. The southern regional centre deals mainly with drought, the central regional centre with floods and the northern regional centre with cyclones. There are inter-sectorial technical committees for disaster management organized at the provincial level. Focal points are nominated at district levels which deal with the local committees ~~(CLGRCs)~~. INGC is a member of the DiMSUR Executive Board in representation of the Government of Mozambique.

Another key project partner will be the municipality of Chokwe for supporting the execution of the project activities at the municipal level.

- *Union of Comoros*

The main institution responsible for climate change adaptation in Comoros is the Directorate General of the Environment and Forests (*Direction Générale de l'Environnement et des Forêts, DGEF*).

In terms of disaster management, the Rescue and Civil Protection Operational Centre (*Centre des Opérations de Secours et de la Protection Civile - COSEP*) is recognised overall, with no apparent overlapping in roles and mandate, as the main governmental institution, dealing with disaster management in Comoros. COSEP is a member of the DiMSUR Executive Board in representation of the Government of Comoros.

Different sectors are responsible for disaster preparedness and response depending on the type of hazard. Sectors cooperate in response once alerted by the crisis cell, and propose an action to the government. The PIROI network, strongly focusing on civil protection, supports disaster preparedness and response.

Another key project partner will be the municipality of Moroni for supporting the execution of the project activities at the municipal level.

Project Objectives:

In alignment with the Adaptation Fund Results Framework, in particular Outcome 2 (Strengthened institutional capacity to reduce risks associated with climate-induced socioeconomic and environmental losses), Outcome 3 (Strengthened awareness and ownership of adaptation and climate risk reduction processes at local level) and Outcome 4 (Increased adaptive capacity within relevant development and natural resource sectors), the project has two objectives, namely:

1. To develop capacities and establish conditions to adapt to the adverse effects of climate change in vulnerable cities and towns of Madagascar, Malawi, Mozambique and the Union of Comoros;
2. To promote inter-country experience sharing and cross-fertilisation regarding the adaptation to transboundary climate-related natural hazards and disseminate lessons learned for progressively building urban climate resilience in south-eastern Africa.

Objective 1 responds to the problematic raised in the project background regarding the low capacity of local governments in sub-Saharan Africa in identifying and planning actions for effectively adapting to the negative effects triggered by climate change. This is especially true in fast growing small and intermediate cities/towns. In these urban centres, under-serviced informal settlements are sprawling in an uncontrolled manner and municipal authorities are ill-prepared to face the unwanted consequences of this dynamic process. These range from the increased risk to climate-related natural hazards such as floods and cyclones, simply due to the vulnerable location of the new settlements, to issues compounding the impact of climate change, such as the lack of solid waste management (which is hampering the efficiency of the drainage system, for example, and increasing the likelihood of water-borne disease outbreaks), or poor techniques applied in housing construction, for example.

The application of the CityRAP Tool in several countries and cities/towns of sub-Saharan Africa provided sufficient evidence to understand that strengthening the capacity of municipal

authorities works as an effective entry point to start building the climate resilience in urban areas. The project offers an appropriate duration to accompany the targeted city leaders and staff through the virtuous cycle of understanding climate-associated risk, perform a critical self-assessment, consult and involve the most vulnerable populations in risk identification and prioritisation of actions, plan and organise the necessary resources (also provided by the project) for start implementing these actions, and set up an adequate monitoring and evaluation system to apply corrective measures, as necessary. The completion of these tasks will allow developing the needed capacities of this crucial intermediate governmental layer constituted by the local authorities, which are closer to the population and need to manage their city/town on a daily basis, comparing to national authorities.

Through Objective 1, the latter, the national authorities, are also targeted. The idea is to take advantage of the practical implementation of the project at the city level to further improve the CityRAP Tool, adapt it to the national context, derive the needed guidelines in alignment with existing policies and legislation, and thus create the conditions for replication in other cities and towns at the country level. For this purpose, the project will also allow delivering training activities to all the local authorities of the country, through appropriate institutions and networks and by building appropriate partnerships with on-going initiatives, and start laying the foundations for building urban climate resilience in the four participating countries.

Objective 2 represents the regional dimension of the project and will be anchored to the DRR SADC Unit, which will work in partnership with DiMSUR. As per the Memorandum of Understanding for establishing the Centre signed among the four countries concerned by this project (see Annex 1), DiMSUR is supposed to promote inter-country experience sharing and cross-fertilisation, and to work as a knowledge platform regarding urban resilience related issues that can be disseminated in the sub-region. One of the key “raison d’être” for establishing this institution (as reflected in the DiMSUR feasibility study[45]), is the need for these countries belonging to the same geographical region to share best practices on how to address common transboundary climate-related natural hazards such as floods, drought, cyclones and sea level rise. This certainly represents a strong added-value of the project, whose impacts could even reach more countries of the southern Africa sub-region.

Therefore, there are four Project Components (which will be described in more detail in Part II), the first three contributing to Objective 1 and the fourth one contributing to Objective 2:

1. Climate change adaptation planning at the town/city level;
2. Assistance with implementation and management of priority investments at the town/city level;
3. Tools and guidelines development and training delivery at the national level;
4. Inter-country experience sharing and dissemination of lessons learned at the regional level.

[45] NB: the Executive Summary of the DiMSUR Feasibility Study can be shared, if requested.

Project Components and Financing:

Project Components and Financing *(NB: **all 4 countries** are concerned in each component. Further information on planned outputs and their indicative budgets can be found in more detail in Part II, section A.)*:

Programme Components	Expected Outcomes	Expected Outputs	Amount (US$)
1. Climate change adaptation planning at the town/city level	Municipal staff, communities and local stakeholders understand climate change induced risks pertaining to their city/town and have identified priority actions for climate adaptation	○ 4 reviewed City Resilience Action Frameworks (RFAs) identifying priority actions for climate change adaptation and mainstreaming adaptation into existing planning and legal instruments; the RFAs define responsibilities of the different municipal departments and local stakeholders in the short, medium and long term; they have a validity of 10 years and their implementation is monitored and reviewed every 2 years. ○ 4 in-depth environmental and social risk assessment studies regarding the priority actions to be implemented in each city/town.	400,000
2. Assistance with implementation and management of priority investments at the town/city level	Municipal staff, communities and local stakeholders have implemented the identified priority actions and have acquired the capacity to manage and maintain these	○ 4 detailed sub-projects designed for implementing the selected priority actions, mainly targeting informal neighbourhoods in each municipality ○ Priority actions implemented mainly through community involvement as labour-intensive manpower in each municipality ○ Municipal staff and community members trained and equipped for ensuring the management/ maintenance of the realised priority actions	8,000,000
3. Tools and guidelines development and training delivery at the national level	National governments have created enabling conditions for scaling up and replicating the same approach in other urban settlements	○ Further refinement of the CityRAP Tool, adapted to each country's context and with greater focus on climate adaptation ○ National guidelines for promoting urban climate adaptation ○ National officers trained in urban climate adaptation	2,000,000

4. Inter-country experience sharing, cross-fertilisation and dissemination of lessons learned at the regional level	Local and national governments of the 4 countries have learned from each other good urban climate adaptation practices and are better prepared to face common transboundary climate-related natural hazards	○ Lessons learned and best practices captured and disseminated through the SADC DRR Unit in partnership with DiMSUR as regional knowledge management platform ○ Cross-fertilisation activities among the participating countries are discussed and prepared ○ Regional workshops for experience sharing among the different countries, and participation to global events	1,000,000
5. Project Execution Cost (9.5%)			1,083,000
6. Total Project Cost			12,483,000
7. Project Cycle Management Fee charged by the Implementing Entity (8.5%)			1,061,055
Amount of Financing Requested			**13,544,055**

Project Duration: *4 years (48 months)*

Projected Calendar:

Milestones	Expected Dates
Start of Project Implementation	January 2018
Mid-term Review	January 2020
Project Closing	January 2022
Terminal Evaluation	May 2022

PART II: PROJECT JUSTIFICATION

A. *Describe the project components, particularly focusing on the concrete adaptation activities, how these activities would contribute to climate resilience, and how they would build added value through the regional approach, compared to implementing similar activities in each country individually.*

The project consists of **four components**:

Under Component 1, the project intends to empower municipal staff, communities and local stakeholders of four vulnerable towns/cities in the understanding and planning process of climate change adaptation up to the identification, in a participatory manner, of priority actions that can serve as entry points to progressively build climate resilience in the targeted cities/towns. The results of the CityRAP Tool implementation in the different cities is summarised as follows:

- Morondava, Madagascar (January-March 2016): UN-Habitat and DiMSUR supported the

city of Morondava to develop, finalise and validate its Resilience Action Plan (nowadays referred as the Resilience Framework for Action – RFA) through the implementation of the first version of the CityRAP Tool. The process gave an opportunity to develop the capacity of the local government to understand and plan actions that progressively build urban resilience and reduce urban risk. After discussing the results of the different activities undertaken by the mMunicipality during the prioritisation wWorkshop, participants validated the Resilience Action Plan of Morondava during the validation workshop identifying 4 priority issues to be undertaken at the short, medium and long-term: (i) improve the drainage system; (ii) protect the coastline; (iii) plan the city of Morondava; and (iv) improve solid waste management. Coordination mechanisms and monitoring and evaluation framework have been added to complete the document.

- Zomba, Malawi (October-November 2015): The CityRAP methodology was conducted in Zomba through a participatory and comprehensive process. Based on the compilation of the municipality's assessment results and the community risk maps, a list of priority actions for reducing risks, fostering resilience and enhancing adaptive capacities, was discussed and the following five priority issues agreed and validated: (i) reduce and mitigate floods; (ii) improve the drainage system; (iii) strengthen citizen security; (iv) promote sustainable forest management; and (v) foster strategies to cope with rainstorms. Based on these five priorities, the City of Zomba has elaborated a Resilience Action Plan that details the expected results, planned activities, budget and calendar. Responsible actors for the implementation of each action were identified, and activities were geographically located.
- Chokwe, Mozambique (August-September 2015): UN-Habitat and DiMSUR selected Chokwe as the first pilot city to implement the CityRAP Tool and enable the local government to plan and undertake practical actions to strengthen the resilience of the City. The main output of the process is a City Resilience Action Plan identifying six priority issues: (i) plan neighbourhoods; (ii) improve the drainage system; (iii) improve solid waste management; (iv) strengthen public lighting; (v) develop the urban economy; and (vi) improve education and health infrastructure. The methodology allowed the city of Chokwe to adapt and quickly start implementing the City Resilience Action Plan with minimal outside intervention.
- In Moroni, Comoros, the Tool was not yet implemented but a training of trainers was organised in January 2016 and a preliminary assessment showed the following main pressing issues to be addressed: construct an urban drainage system (almost non-existent), and the implementation of protective measures for sea erosion control, improve solid waste management and implement slum upgrading interventions according to a revisited city master plan.

Thanks to the project funds, the produced Resilience Framework for Action (RFA) for each targeted city/town will be reviewed and a thorough environmental and social risk assessment will then be undertaken for each of the prioritised actions.

Under Component 2, the selected priority actions will be packaged into viable pilot climate adaptation sub-projects with focus on the effects of cyclones, rainfall, floods and sea level rise, to be funded by the project. SinceA, as indicated above, UN-Habitat has already carried out preliminary work in the four targeted cities/towns., it can be anticipated that the priority actions will consist of:

The table below is extracted from the elaborated participatory Resilience Action Plans prepared for Morondava, Zomba and Chokwe (please see Annexes 3, 4 and 5 respectively) and a rapid assessment undertaken in Moroni, and focuses essentially on climate adaptation interventions.

It summarises the identified priority issues in the short, medium and long term. It is clear that these will need to be reviewed and assessed in detail according to the activities described under Component 1. Due to the time span of the project, the full project proposal development will focus on the short and medium term activities only.

Given the high number of identified priority issues, further prioritisation of interventions was necessary for the development of the concept note, whereby the following criteria were guiding the selection: (i) the intervention being a physical intervention; (ii) envisaged economic, social and environmental benefits of the intervention; (iii) sustainability of the intervention; (iv) possible duplication of efforts already undertaken at the city level; as well as (v) cost effectiveness of the intervention. The prioritised interventions/activities suggested to be carried out under the project are highlighted in bold. The table also provides an indicative budget within the limits of the planned overall budget for this component (i.e. USD 8 million for 4 cities for 4 years, so indicatively USD 0.5 million per city per year).

~~(i) the improvement of drainage conditions for all four cities;~~

~~(ii) the design, construction or retrofitting of public facilities as flood and/or cyclone shelters in Chokwe, Morondava and Zomba;~~

~~(iii) the physical demarcation of areas at risk for limiting urban development (zoning) in Chokwe, Morondava and Zomba; and~~

~~(iv) the implementation of protective measures for land/sea erosion control (including afforestation) for Moroni, Morondava and Zomba.~~

These sub-projects will be implemented under the leadership of the target municipalities through community involvement (e.g. labour intensive activities) and the support of local civil society organisations, in a cost-effective manner. Importantly, local capacity will be developed to ensure the management/maintenance of the pilot projects' outcomes in the longer term. The implementation of physical interventions, which constitutes the major financial investment of the project, will also allow creating temporary jobs especially targeting the youth and women. Efforts will be made to mobilise additional resources.

Morondava, Madagascar

Priority Issues	Short Term (0-2 years)	Medium Term (3-5 years)	Long Term (6-10 years)
Improving the drainage system	• **Carry out urgent interventions to avoid stagnant waters, including increasing the capacity of the water pumping system** • **Mobilise communities to clean and maintain the existing drainage channels** • **Elaborate a plan for further improving the drainage system** **(indicative budget: USD 150,000)**	• **Start implementing the elaborated plan through building new drainage channels and road rehabilitation** **(indicative budget: USD 700,000)**	• Complete the drainage system based on the elaborated plan • Further improve the road network
Coastal protection	• **Carry out an impact assessment in view of**	• **Establish a system of dikes and**	• Build a dam to drain the affluent of the

	preparing a climate change adaptation and mitigation strategy • **Mobilise communities and available machinery to maintain the existing dikes** • **Identify partner cities to establish an agreement for decentralised cooperation regarding climate change adaption** • **Plant trees/mangroves to reduce coastal erosion** **(indicative budget: 150,000 USD)**	**gabions** **(indicative budget: USD 500,000)**	Ankabatomena river as well as dikes to protect the city from river floods
City planning	• **Map all the neighbourhoods, identify the different risks and plan the future city extensions** • **Train municipal technicians to enforce urban regulations** • **Raise awareness at the community level regarding the need to duly follow the legal procedures to obtain a building permit** • Improve public lighting in critical areas of the city **(indicative budget: USD 200,000)**	• **Update the city master plan** • **Physically demarcate areas at risk and land for future city extensions** **(indicative budget: USD 300,000)**	• Implement the city master plan
Improving waste management	• Elaborate an integrated plan for improving waste management, access to safe drinking water and to adequate sanitation • Establish an efficient waste pre/collection system and build a land fill away from the city centre	• Carry out inter-municipal planning for waste management and sanitation • Elaborate a waste recycling strategy	• Establish a sustainable waste management system at the city level

Zomba, Malawi

Priority Issues	**Short Term (0-2 years)**	**Medium Term (3-5 years)**	**Long Term (6-10 years)**
Reducing and mitigating floods	• **Draft community by-laws for flood mitigation** • **Conduct awareness and education campaigns to**	• **Deliver training on building back better techniques, especially to local**	• Community level by laws on flood mitigation established and

	learn how to live with floods and to improve early warning mechanisms • **Identify evacuation routes and rehabilitate safe haven sites** **(indicative budget: USD 200,000)**	**builders** • **Plant fast growing trees** **(indicative budget: USD 200,000)**	enforced
Improving the drainage system	• **Carry out a technical study for improving the city's drainage system** • **Mobilise communities to regularly clear the drainage channels** • **Conduct awareness and education campaigns to incite citizens to keep the drainage system cleared from waste** **(indicative budget: USD 300,000)**	• **Start the rehabilitation and improvement of the drainage system** • **Establish community waste collection sites/refuse banks and skips** **(indicative budget: USD 800,000)**	• Institutionalise the maintenance of the drainage system
Strengthening citizen's security	(proposed actions not applicable to climate change adaptation)	• Introduce and enhance street lighting and area tower lighting	
Promoting sustainable forest management	• **Reforestation, especially on steep slopes and fragile areas exposed to wind and rain** • **Promotion of alternative energy sources such as solar, as well as energy efficient cookstoves** • Establish area-based forestry protection by-laws Establish environmental patrol units at the community level **(indicative budget: USD 400,000)**	• Ward committees assume responsibility of sourcing and protecting seedlings and nurseries **(indicative budget: USD 100,000)**	• Area-based forestry protection by-laws established and enforced
Fostering strategies to cope with rainstorms	• Conduct awareness raising on building codes and early warning • Form search groups	• Promote adaptive architecture • Train local artisans on safer building techniques	

Chokwe, Mozambique

Priority	Short Term	Medium Term	Long Term

Issues	(0-2 years)	(3-5 years)	(6-10 years)
Informal settlements upgrading	• Finalise the city master plan • Prepare the detailed urban plans of neighbourhoods n. 4 and 7, with a focus on road and public/green spaces improvement, and flood risk reduction • Carry out priority interventions in neighbourhoods n. 4 and 7 based on the elaborated plans (indicative budget: USD 400,000	• Prepare the detailed urban plans of neighbourhoods n. 3 and n. 5 • Implement the remaining planned interventions for neighbourhoods n. 4 and n. 7 (indicative budget: USD 300,000)	• Elaborate and implement more detailed urban plans
Improving the drainage system	• Undertake a technical study and prepare a detailed plan to improve the city's drainage system, • Carry out priority interventions in neighbourhoods n. 1, n. 3 and n. 5 • Maintain the existing drainage system, and carry out awareness raising activities at the community level (indicative budget: USD 300,000)	• Carry out more interventions to improve the drainage system based on the prepared plan • Maintain and rehabilitate regularly damaged drainage channels (indicative budget: USD 100,000)	• Complete the construction of the drainage channels • Set up a monitoring system of the drainage conditions and perform regular maintenance operations • Organise regular awareness raising events for such a purpose
Improving solid waste management	• Establish well-identified and easy to access waste collection points • Carry out awareness raising and training activities for improving waste management and reducing the associated risks • Carry out a study on waste collection, disposal and treatment and elaborated an integrated plan at the city level • Increase the frequency and coverage of waste collection services (indicative budget: USD 300,000)	• Acquire equipment for solid waste collection, transport and cleaning of the city • Establish waste separation collection points (indicative budget: USD 200,000)	• Institutionalise waste separation mechanisms and recycling • Construct a waste management centre for recycling and production of biogas • Establish a comprehensive cleaning system at the city level
Improving public	• Acquire and install public	• Expand public lighting	• Maintain and monitor

lighting	lighting equipment in neighbourhoods n. 3, n. 4, n. 5 and n. 7, which are poorer • Rehabilitate and maintain existing public lighting equipment	in the upgraded urban areas (neighbourhoods n. 3, 4, 5 and 7)	the public lighting network
Developing the urban economy	• Study the potential of the city in terms of green and diversified economy • **Retrofit existing markets to make them more resistant to the negative effects of climate change** • Increase vocational and professional training opportunities, taking into account climate change adaptation and the need to promote adequate technologies/economic activities • Identify/plan water retention reservoirs where to develop fish farming activities **(indicative budget: USD 200,000 USD)**	• Acquire equipment for increasing agriculture productivity in an adapted/sustainable manner • Maximise the potential of the existing agro-processing infrastructure to create green jobs • Increase access to micro-finance opportunities for climate adapted activities	• Capacity building programmes, looking into climate adaptation, especially targeting the unemployed youth
Improving education and health facilities	• Assess the main needs to reinforce the resistance of education and health facilities to the negative effects of climate change • **Strengthen the capacity of local sub-contractors and concerned institutions to build safer schools/hospitals** • **Raise awareness regarding the importance of maintaining the existing facilities** • Construct a classroom which is adapted/resistant to floods • Carry out simulation exercises on how to use the adapted facility as shelter in case of floods **(indicative budget: USD 200,000)**	• Construct more health/education facilities adapted to the effects of climate change • Enforce building codes that promote climate adaptation • Maintain and rehabilitate damaged facilities	• Institutionalise monitoring and capacity building mechanisms for maintaining and retrofitting education and health facilities

Moroni, Comoros

Priority Issues	**Short Term (0-2 years)**	**Medium Term (3-5 years)**	**Long Term (6-10 years)**

Designing and building a drainage system	• **Conduct a technical study to design a proper drainage system of the city, today inexistent** • **Formulate a project proposal to mobilise the necessary resources for building a basic drainage system** • **Mobilise community members to start digging secondary and tertiary drainage channels** **(indicative budget: USD 300,000)**	• **Mobilise heavy machinery and carry out works to build some primary drainage channels** **(indicative budget: USD 500,000)**	• Further improve the drainage system according to the plan and available resources
Implementing sea erosion control measures	• **Carry out a technical study to identify and implement sea erosion control measures** • **Carry out small-scale interventions by mobilising communities using available funding (tree planting, construction of small dykes, etc.)** **(indicative budget: USD 200,000)**	• Mobilise funds to carry out bigger-scale interventions	• Increase the number of sea erosion control measures
Improving solid waste management	• **Install proper and easy accessible waste collection points in critical neighbourhoods** • **Acquire waste collection equipment and train municipal staff** • **Carry out awareness raising activities at the community level** **(indicative budget: USD 200,000)**	• Design a project proposal to increase the scale of interventions and mobilise resources	• Implement more waste management measures
City planning and informal settlement upgrading	• **Develop the master plan of Moroni, which is non-existent for the past twenty years** • **In parallel, design slum upgrading interventions, such as road opening in critical neighbourhoods, through participatory planning** • **Implement these pilot**	• **Implement more slum upgrading activities through community mobilisation** • Design a project proposal for further improving urban planning and increasing the level of interventions,	• Carry out additional slum upgrading activities and work on slum prevention

	activities through community mobilisation **(indicative budget: USD 500,000)**	especially in terms of road network and public spaces **(indicative budget: USD 300,000)**	

Under Component 3, project activities will occur at the national level to create the conditions for scaling up and replicating the CityRAP approach in other urban settlements. Based on the experience of identifying and implementing the priority actions in the targeted cities/towns under Components 1 and 2, the CityRAP Tool will be further refined to make it more adapted to the different national contexts. Guidelines will be derived from the improved tool, in alignment with existing policies and legislation, for promoting urban climate adaptation. Based on these guidelines, training and institutional capacity development activities of government and municipal officials will be delivered, especially through the organisation of appropriate national workshops. Existing institutions and networks (e.g. associations of municipalities) will be used for such a purpose, and partnerships/synergies established with on-going initiative at the national level. This is a critical component which will ensure greater sustainability and a lasting impact of the project.

Component 4 will focus on: (i) capturing and disseminating the lessons learned and best practices from the implementation of the project activities at the town/city and national level; (ii) discussing and preparing cross-fertilisation activities among the participating countries, and (iii) organising regional workshops for experience sharing among the different countries, and participating to global events.

The regional events will target not just the four countries involved in the project, but also other interested countries in southern Africa. This component, to be managed by the SADC DRR Unit, in cooperation with ~~under the~~ DiMSUR ~~umbrella~~, highlights the added-value of this regional proposal compared to implementing projects in individual countries separately. Learning from each other lessons and best practices, in a region affected by similar/transboundary threats related to the negative consequences of climate change, and where knowledge and capacity for urban climate adaptation is still much limited, is of essential importance. In addition, the four concerned countries are geographically, morphologically, historically, politically and culturally different from each other, and thus offering a wide range of tailored and diverse solutions.
In this context, the SADC DRR Unit ~~in partnership~~and ~~with~~ DiMSUR will play a strong role as they already embody credible institutions in the region with ~~.~~ complementary roles of sharing experiences, promoting knowledge and delivering trainings.

The SADC DRR Unit will be an important Executing Entity in this framework by overseeing the technical aspects of the component's regional workshops, which aligns with its mandate of providing technical advice to its member states. Further, the component will open the project beyond the participating countries and include further SADC countries through inter-country cooperation.~~In particular,~~

~~-~~DiMSUR will establish its physical presence and recruit the staff secretariat starting from 2017 ~~once~~ subsequent to the recent approval of the Host Country Agreement ~~has been approved~~ by Cabinet in Mozambique. The Centre is mandated by the four countries to promote inter-country experience sharing and cross-fertilisation. It will work as a repository of the lessons learned and therefore represents the natural framework for knowledge management and sharing regarding project activities.

DiMSUR will also be able, being part of an international network of centres of excellence, to bring in high level expertise from other regions, such as Asia (through the Asian Disaster

Preparedness Centre – ADPC) and Latin America. ~~SADC will also be an important partner in this framework, especially through its DRR Unit. Regional workshops will be organised, to bring in more SADC countries and fostering partnership building and inter-country cooperation~~.

B. *Describe how the project would promote new and innovative solutions to climate change adaptation, such as new approaches, technologies and mechanisms.*

Firstly, the project promotes innovative approaches to climate change adaptation in that it involved and strengthens DiMSUR, a new non-profit and autonomous institution which is gradually consolidating in southern Africa and even in the African region. It focuses on themes which still need much development in the African region, and are not yet institutionalised, such as urban risk reduction, urban climate adaptation and resilience. The Centre provides technical assistance and serves as an exchange platform of good practices, experiences and knowledge between the participating member states[46].

As referred earlier when presenting DiMSUR, several important international documents and resolutions have called for the establishment of such type of a centre and this project will provide a fantastic opportunity to further strengthening DiMSUR's role and outreach.

Secondly, the project promotes the application of the CityRAP Tool as a new and ground breaking climate change adaptation planning approach that targets specifically small and medium-sized African cities with low institutional capacity. The tool uniquely enables local governments to take the lead in the process of understanding the different types of risk affecting their towns/cities, with minimum external support. Based on inter-sectorial self-assessment and participatory planning, the tool allows to coming up with priority climate resilience actions in the short, medium and long-term, including mainstreaming adaptation into existing municipal planning and legal instruments.

This is rather different from existing tools which rely heavily on outside technical expertise, are very technical in nature and data-hungry, which often creates a disincentive to local governments in kick-starting a process of resilience planning. As a result, capacity retention among urban stakeholders, from local governments to communities, tends to remain low with these tools and the produced plans are seldom understood and implemented.

The CityRAP Tool changes this paradigm, as it was observed during the testing phase carried out in 2015 and 2016. It generates enthusiasm in the local authorities and stakeholders, which are actually able to build urban resilience based on their own understanding and existing capacities. Once the city Resilience Action Frameworks are elaborated based on the tool, more detailed studies can then be outsourced. The difference, this time, is that local governments are in full control and have the confidence that the actions being designed and implemented result from their own prioritisation and decision-making.

Importantly, UN-Habitat closely collaborates with other urban resilience initiatives globally (e.g. Rockefeller Foundation, UNISDR, among others). When presenting the tool and its outcomes it international conferences it is regularly recognised by discussants from academia and development practitioners that the tool fills an important gap, especially when considering that existing tools are data-hungry and require a high level of expertise for their use, elements which are often missing in small/intermediate African cities.

[46] NB: The 10-Years Strategic Plan of DiMSUR approved by the Executive Board can be provided, if requested.

For more detailed information on the innovative aspects of the CityRAP tool methodology, kindly refer to Annex 2.

Thirdly, the project privileged a bottom-up approach, i.e. local experiences are mainstreamed into guidelines and strategies at the national and regional level. This allows avoiding the prescriptive and somehow "blind" nature typical of top-down initiatives, which define intervention strategies without first duly taking into account local realities and contexts. UN-Habitat's experience in adopting this kind of approach in regional initiatives (e.g. the Global Environment Facility-funded project in the Limpopo River Basin implemented between 2004 and 2007; or the Urban Resilience Project for Lusophone Africa funded through the UN Secretariat Development Account, still on-going) tells that it creates a positive dynamic of participation of the stakeholders at the various level (local, national, regional) for ensuring successful project implementation.[47]

C. *Describe how the project would provide economic, social and environmental benefits, with particular reference to the most vulnerable communities, and vulnerable groups within communities, including gender considerations. Describe how the project would avoid or mitigate negative impacts, in compliance with the Environmental and Social Policy of the Adaptation Fund.*

The priority actions to be implemented under Component 2 in ~~one neighbourhood of~~ each targeted town/city are meant to increase the capacity to adapt to climate change in urban areas, especially to the benefit of vulnerable communities and groups, mainstreaming gender aspects. Compliance with the Environmental and Social Policy of the Adaptation Fund will be ensured whilst the City Resilience Frameworks for Action are produced, by incorporating the risk and impact assessments' recommendations into the more detailed design of each pilot sub-project, including appropriate mitigation strategies for implementation.

Economic benefits

The impacts of natural hazards on the economic activities of cities is widely recognised and documented. Among the targeted countries in this proposal, where urbanisation is fast-paced and the potential damages to urban economies by hazards are high, reinforcing urban resilience is imperative. Many of the cities in these countries are still heavily dependent on agricultural activities in peri-urban and urban areas, and therefore cyclones and heavy floods can be extremely prejudicial. In Chokwe town, in Mozambique, for instance, agriculture employs around 80% of the active labour force in the district while 40% of irrigation fields of the whole country are concentrated in it[48]. The 2013 floods damaged not only most trade and services activities of the city but also destroyed most of the cultivated land, creating serious damages for the economy of the city. The pilot activities that will be implemented to improve adaptive capacity in Chokwe (drainage improvement, increase infrastructure resilience and demarcation of risk areas) will benefit all vulnerable population that have their livelihoods harmed by the impacts of natural disasters.

Other concrete examples of economic benefits for the population in the target cities are the benefits of coastal protection in Morondava and Moroni, where both the fishing activities and touristic potential represent important parts of the urban economy.

[47] A field visit carried out to the city of Chokwe in September 2016 (one year after the conclusion of the CityRAP exercise) showed that the city had make admirable progress on the implementation of key activities that were previously blocked thanks to the awareness and cooperation of the population that had participated in the planning exercise (e.g. relocation of households that were occupying areas of natural water drainage, cleaning of drainage channels, opening of roads, etc.)
[48] MAE - Ministério da Administração Estatal (2005) Perfil do Distrito de Chokwe

Social benefits

The proposed actions to enhance resilience in urban areas will benefit primarily the socially vulnerable as they tend to be the ones most exposed to risks in the four targeted countries. In Malawi, for example, the World Bank found that the regions most affected by the 2015 flood - which heavily impacted the target city of Zomba - have per capita poverty rates of 75% or more (measured as US$1.25 per day) compared to an average rate in Malawi of around 40%[49]. This trend indicating that people living in flood-prone areas are the poorest is partially explained by the urbanisation dynamics in the country (see above). Similarly, in Comoros, heavy rains in 2012 affected approximately 80,000 people in the Moroni region that suffered with broken water pumps in precarious areas[50]. The pilot actions to be implemented in the target cities/towns will necessarily take into account the most vulnerable, in particular those in informal areas that are often neglected, and increase the access to basic services/infrastructure.

The CityRAP methodology brings additional social benefits to the resilience building process, considering that inclusion and empowerment are parts of its core premise. All minorities and vulnerable population should be heard in the planning processes. This includes illiterate people, which are included in the planning process through participatory risk mapping as part of the CityRAP Tool. Importantly, gender equality is promoted in all stages of the methodology.

Finally, the proposed approach for resilience building in urban areas is comprehensive. It focuses on capacity building and considers resilience as a continuous process that once started can be the beginning of virtuous cycle with long term social benefits for the most vulnerable.

Environmental benefits

Fast paced and unplanned urbanisation in the four targeted countries resulted in the occupation of environmental sensitive areas that damages the environment and puts people at risk, as well as the exploitation of natural resources without any regard to possible negative impacts. The actions proposed involve several activities aiming at reducing the impacts of natural disasters and increasing urban adaptive capacity by improving the way human settlements interact with their territories and environment (e.g risk assessments, coastal protection, identification and demarcation of environmentally sensitive and risk areas, among other).

Compliance with the Environmental and Social Policy of the Adaptation Fund will be ensured in the process of producing the City Resilience Action Frameworks are produced, by incorporating the risk and impact assessments' recommendations into the design of each pilot sub-project, including appropriate mitigation strategies for implementation.

More specifically, the interventions under Component 2 can be divided into six main groups. The following list specifies the expected economic, social or environmental benefits from each group of intervention:

1. Improvement of drainage conditions:

- Economic benefits: high economic costs of flooding caused by damage on infrastructure and assets can be mitigated; labour intensive works will bring temporary jobs for youths and women and reduce unemployment; flood risk reduction increases confidence of investors in the city;

[49] http://blogs.worldbank.org/voices/recent-floods-malawi-hit-poorest-areas-what-implies
[50] http://reliefweb.int/disaster/fl-2012-000066-com

- Social benefits: health benefits can be leveraged (stagnant waters are breeding grounds for mosquitoes and water borne diseases); community involvement brings ownership of the intervention and a higher probability of sustainability;
- Environmental benefits: reduction of soil erosion and land degradation.

2. Coastal protection measures:

- Economic benefits: protection of the city/urban assets and investments from the erosive action of the sea;
- Social benefits: temporary income for the community members involved in the coastal protection works; increased safety;
- Environmental benefits: tree planting and reforestation.

3. Improvement of waste management

- Economic benefits: waste management measures will need labour intensive interventions; recycling opens avenues for jobs; a cleaner city becomes more attractive for investments;
- Social benefits: health benefits for the population
- Environmental benefits: proper waste management will have benefits on the environment through reduced flow of leachates, and reduced air, water and soil pollution in general.

4. Re-/afforestation and provision of different energy sources:

- Economic benefits: problems of erosion, high rainwater run-off, flooding and landslides are being mitigated, leading to cost savings in the longer term for the city in terms of infrastructure protection and improved livelihoods;
- Social benefits: community involvement brings ownership of the intervention and a higher probability of sustainability; in addition, a greater number of trees improves the quality of life and social welfare/cohesion;
- Environmental benefits: protection from erosion; wind resistant trees can be a strategy to cope with heavy rainstorms and associated high water runoff; reduced land degradation; absorption of carbon dioxide; promotion of solar energy as carbon neutral contribution to climate change mitigation.

5. Urban planning, enforcement of urban regulations and slum upgrading:

- Economic benefits: urban areas at risk and land for future city extensions is being demarcated, reducing the risk of economic losses through building in vulnerable areas; thanks to a better road network the connectivity in the city improves, including its overall economic efficiency and attractiveness;
- Social benefits: prevention of settlement in risky areas through zoning as well as enforcement of building codes for resilient housing, which can save lives; capacity building through training of municipal technicians; better road access in poor/informal urban areas allows installation of basic services such as water, sanitation and electricity networks; it also increases social inclusion, as the upgraded informal areas become more accessible; the participation of the residents in the upgrading process increases their self-esteem and their feeling of citizenship;

- Environmental benefits: prevention from land degradation; better public/green spaces, more liveable city.

6. Construction and/or retrofitting of public facilities as shelters in case of disaster

- Economic benefits: reduced damage of social/public facilities such as schools, health facilities, markets, public administration buildings, i.e. less reconstruction costs;
- Social benefits: increased security for people refuging in better built public buildings, as they shelter from floods and/or cyclones; these buildings can also be designed so that they harvest rainwater, which can improve the living conditions of the poor in terms of access to water;
- Environmental benefits: the retrofitted buildings can be designed so that they are energy efficient, among other environmental aspects.

D. *Describe or provide an analysis of the cost-effectiveness of the proposed project and explain how the regional approach would support cost-effectiveness.*

The proposed project will allocate the majority of the funds to Component 2 and as such to interventions with focus on the effects of cyclones, rainfall, floods and sea level rise. The priority actions will consist of six groups of interventions as outlined in section C: (i) improvement of drainage conditions; (ii) coastal protection measures; (iii) improvement of waste management; (iv) re-/afforestation and provision of different energy sources; (v) urban planning, enforcement of urban regulations and slum upgrading; and (vi) construction and/or retrofitting of public facilities as shelters in case of disaster. ~~It can be anticipated that the priority actions will consist of strengthening resilient infrastructure in urban settings such as drainage and protective measures for land and sea erosion control.~~

Investment into these areas can be viewed as creating greater capacity to absorb shocks and adapt to impacts. It can further be seen as a prevention of future economic loss as well as the saving of livelihood and lives. As outlined in the project background section, African cities/towns are among the ones with the biggest financing gap for addressing climate vulnerability, and are hence severely challenged by rising economic loss, also due to the fact that most loss is uninsured and governments do not have the financial reserves or access to contingency financing that would allow them to absorb losses, recover and rebuild. This is further complicated by the fact that municipalities are legally autonomous, which limits the needed financial support from central government. This implies that taking no action will lead to incrementally increasing costs in time associated with losses due to storms, floods and landslides as well as lower economic productivity in the affected areas.

Specifically, the following aspects have to be considered in line with the economic benefits outlined in section C:

1. The improvement of drainage conditions is essentially cost effective, since the high economic costs of floods in terms of damages on infrastructure and assets can be avoided.
2. Coastal protection measures vary significantly according to method, objective and location, as does the cost effectiveness of the methods used. The methods envisaged in this project will be small-scale and look locally-adapted and sustainable solutions (e.g. tree planting), especially involving communities and labour-intensive man power. Again, they will allow to

protecting assets, infrastructure and investments, hence increasing the cost-effectiveness impact of the project.

3. Improvement of the waste management system is essentially cost-effective as it avoids the costs of a society suffering from diseases as well as potential costs of pollution and release of leachates.

~~1.~~4. Re-/afforestation and provision of different energy sources: this intervention will allow mitigating damages provoked by erosion, high rainwater run-off, flooding and landslides on urban infrastructure, services and livelihoods.

~~2.~~5. Urban planning and enforcement of zoning and building codes reduce the risk of economic losses of building in vulnerable areas. On the other hand, informal settlements upgrading can reduce political and societal tensions, reduce the amount of people living in areas vulnerable to natural hazards and lead to a healthier and more productive society, overall reducing costs for the government in the long run.

6. Construction and/or retrofitting of public facilities as shelters in case of disaster will secure lives and livelihoods, and reduce post-disaster reconstruction costs.

Importantly, as outlined in Part 1 of the concept note, the interventions under Component 2 will be implemented under the leadership of the target municipalities through community involvement (e.g. labour intensive activities) and the support of local civil society organisations. This model of partnership will allow significant cost reduction as concerned municipalities are expected to provide in-kind support. At the same time, the labour intensive physical interventions will provide economic benefits to the communities through temporary job-creation, especially targeting women and youths. Importantly, local capacity will be developed to ensure the management/maintenance of the pilot projects' outcomes in the longer term.

The regional approach is a major aspect of ensuring the cost-effectiveness of the project, through the sharing of experience, knowledge and of other resources. The project will further ensure cost-effectiveness by relying on the SADC DRR Unit in partnership with DiMSUR. These two institutions will take the lead in the regional coordination of activities and making sure that the different actors at the various levels (municipal, sub-national, national and regional) establish platforms of collaboration and dialogue with each other. DiMSUR will enable staff sharing costs and avoid an excessive spread of financial resources to several institutions, as it will work as the umbrella for the different project components.

During further formulation of the project document, a more detailed cost effectiveness analysis will be undertaken, comparing the proposed resource allocation with measurable outcomes to other options, in order to validate costs, benefits and effectiveness of the interventions.

E. *Describe how the project is consistent with national or sub-national sustainable development strategies, including, where appropriate, national or sub-national development plans, poverty reduction strategies, national communications, or national adaptation programs of action, or other relevant instruments, where they exist. If applicable, please refer to relevant regional plans and strategies where they exist.*

At the global level, the project aligns with the New Urban Agenda, the Quito Declaration on Sustainable Cities and Human Settlements for All, approved at the United Nations Habitat III

conference in October 2016. It specifically refers to the vision outlined in the new Urban Agenda, being cities and human settlements that are participatory and promote civic engagement and foster social cohesion, inclusion and safety in peaceful and pluralistic societies, where the needs of all inhabitants are met, recognizing the specific needs of those in vulnerable situations; and to the vision to adopt and implement disaster risk reduction and management, reduce vulnerability, build resilience and responsiveness to natural and human-made hazards, and foster mitigation of and adaptation to climate change. The project will contribute to the implementation and localisation of the principles and commitments outlined therein, such as to ensure environmental sustainability by building urban resilience, by reducing disaster risks and by mitigating and adapting to climate change.

The project is further consistent with the Paris Agreement adopted under the United Nations Framework Convention on Climate Change, specifically Article 2 (b) with reference to the objective of increasing the ability to adapt to the adverse impacts of climate change. Importantly, it refers to Article 7.5. of the Paris Agreement, where it is outlined that 'Parties acknowledge that adaptation action should follow a country-driven, gender-responsive, participatory and fully transparent approach, taking into consideration vulnerable groups, communities and ecosystems, and should be based on and guided by the best available science and, as appropriate, traditional knowledge, knowledge of indigenous peoples and local knowledge systems, with a view to integrating adaptation into relevant socioeconomic and environmental policies and actions, where appropriate'. The project design adheres to all the outlined principles as further detailed in Part I of this concept note.

Consistency is moreover ensured with the Sendai Framework for Disaster Risk Reduction for the period 2015–2030 and its four priorities for action, being: 1) Understanding disaster risk; 2) Strengthening disaster risk governance to manage disaster risk; 3) Investing in disaster risk reduction for resilience; and 4) Enhancing disaster preparedness for effective response and to "Build Back Better" in recovery, rehabilitation and reconstruction.

The project further aligns with the Sustainable Development Goals (SDGs) n.11: "Make cities and human settlements inclusive, safe, resilient and sustainable", notably target 5 ("By 2030, to significantly reduce the number of deaths and the number of people affected and substantially decrease the direct economic losses relative to global gross domestic product caused by disasters, including water-related disasters, with a focus on protecting the poor and people in vulnerable situations) and target 9 ("By 2020, to substantially increase the number of cities and human settlements adopting and implementing integrated policies and plans towards inclusion, resource efficiency, mitigation and adaptation to climate change, resilience to disasters, and develop and implement, in line with the Sendai Framework for Disaster Risk Reduction 2015-2030, holistic disaster risk management at all level); as well as SDG target 13.1: "Strengthen resilience and adaptive capacity to climate-related hazards and natural disasters in all countries".

At the continental level, the project is consistent with the Agenda 2063- The Africa We Want, in that it strengthens climate resilient communities, as called upon in aspiration 1, item 10. It is further consistent with the Mauritius Declaration on the Implementation of the Sendai Framework in Africa and its Programme of Action (PoA), which replaced the Africa Regional Strategy for Disaster Risk Reduction that expired in 2015. In line with the PoA, the project helps to achieve the set targets of increasing integration of DRR in regional and national sustainable development, and climate change adaptation frameworks, mechanisms and processes; as well as increasing the number of countries with, and periodically testing, risk-informed preparedness plans, and, response, and post-disaster recovery and reconstruction mechanisms.

At the southern Africa level, it takes into account the 10-year Disaster Risk Reduction Strategy of SADC, now concluding[51], which focuses on:

- Strengthening governance, legal and institutional framework at all levels of DRR;
- Facilitating the identification, assessment and monitoring of disaster risks and support enhancement of early warning systems at all levels;
- Promoting usage and management of information & knowledge, innovation & education to build a culture of safety and resilience at all levels in the SADC region;
- Ensuring that DRR becomes a national and local priority with a strong institutional basis for implementation;
- Integrating preparedness and emergency response into disaster risk reduction interventions.

With regard to the alignment to national development and climate change adaptation priorities, the project is consistent with the relevant national strategies and policies in each country.

(i) Madagascar:

The project aligns to the National Adaptation Program for Climate Change (NAPA) elaborated in 2006, which aims at strengthening the country's capacity to adapt to the effects of past and present climate variability and future climate change, and empower the country to address some of the causes of its vulnerability. The present project contributes for advancing all three strategic axes established by the NAPA in Madagascar: (1) Capacity reinforcement; (2) Policy reform; and (3) Integration of adaptation in sectorial policies and project activities. More specifically, the NAPA also identifies and rank a number of 15 priority projects for addressing the most urgent needs of adaptation in the country; the present proposal is highly aligned with many of the projects and in particular with the two topics on top of the priority ranking: (1) Rehabilitation/reconstruction of dykes, walls and other water protection infrastructure; and (2) Establishment and promotion of sustainable water management practices and associations. The NAPA is complemented by the implementation of the National Strategy for Risk and Disaster Management (SNGRC), the National Strategy for Climate Change Mitigation (SNACC, currently being finalised), and the National Adaptation Policy (PAN, currently being finalised).

In alignment with the National Strategy of Disaster Risk Management (2016-2020) and its strategic objective 5, the project reduces risks at the local and national level and contributes to vulnerability reduction. The project also contributes to the implementation of the 5th pillar of the National Development Policy that focuses on building resilience to disaster risks, as well as the National Policy for Fighting Climate Change in accordance with the National Environmental Policy.

At city level, the project will strengthen the capacity of Morondava in the city's ability to cope with the impacts of climate change and disaster risk, considering its high vulnerability to floods and cyclones as defined in the Resilience Action Plan of Morondava (2016-2026)[52].

(ii) Malawi:

~~The project is consistent with the National Disaster Risk Management Policy (2015), specifically the priority areas focused on adoption of resilience enhancing intervention. The project further addresses the overall objectives of the National Climate Change Policy (2012), being the~~

[51] NB: the new 10-year DRR strategy for SADC will have to align with the recently approved DRR PoA for Africa.
[52] See Annex 3: City Resilience Action Plan of Morondava (in French), including an Executive Summary in English.

promotion of activities to increase community awareness of climate change impacts, adaptation and mitigation through empowering local stakeholders in the climate adaptation planning processes.

Malawi has prioritised climate change, environment and natural resources management among the priorities within priorities of the Malawi Growth and Development Strategy (MGDS II). The MGDS II recognises that natural resources form a principal source of social well-being and economic development in Malawi and identifies the following issues that need urgent attention: (a) Climate variability; (b) Inadequate institutional capacity for managing climate change; (c) Inadequate mainstreaming of climate change issues; (d) Inadequate enforcement of climate relevant legislation; and (e) Increasing deforestation and unsustainable land use.

Malawi's National Adaptation Programmes of Action (NAPA) has identified the immediate adaptation measures that need to be taken to reduce the risks posed by climate change and the possible impacts of increased severe weather events on Malawi. The NAPA has identified sectors that are affected by climate change and these include agriculture, human health, energy, fisheries, wildlife, water, forestry and gender. The proposed project will especially address the energy, human health, wildlife, water and forestry sectors of the NAPA.

Malawi has recently developed a National Climate Change Management Policy (NCCMP) whose overall goal is to promote climate change adaptation, mitigation, technology transfer and capacity building for sustainable livelihoods through Green Economy measures. With regard to climate change adaptation, the policy aims to:

(i) reduce vulnerabilities of populations in Malawi and promote community and ecosystem resilience to the impacts of climate change;

(ii) ensure that women, girls and other vulnerable groups are engaged and involved in planning and implementing climate change adaptation interventions; and

(iii) ensure that communities are able to adapt to climate change by promoting climate change adaptive development in the long term.

The proposed project is aligned to these climate change adaptation objectives of the policy.

The National Disaster Risk Management Policy is aimed at ensuring that disaster risk management (DRM) is mainstreamed in development planning and policies of all sectors in order to reduce the impact of disasters and ensure sustainable development in the country. One of its key objectives is to promote enforcement of buildings and other infrastructure standards which will lead to a reduction in disaster losses. One of the policy priority areas is the reduction of underlying risks and includes the promotion of good land use planning and management and sound construction of infrastructure; the identification and implementation of long lasting solutions to floods and other disasters. The proposed project will support the realisation of these policy outcomes.

In the city of Zomba, the project responds to the identified priority actions developed in the Resilience Action Plan of Zomba (2016-2026)[53] to strengthen the city's coping capacity towards the impacts of climate change.

(iii) Mozambique:

The proposed project will contribute directly to the implementation of the National Strategy for Climate Change Adaptation and Mitigation (2013-2025). In particular, the project will advance the defined strategic action: 'develop mechanisms for resilience in urban areas and other

[53] See Annex 4: City Resilience Action Plan of Zomba.

settlements', and its two related indicators: (1) 'number of informal settlements upgraded with sanitation'; and (2) 'number of people benefitting from urban sanitation programmes'. The action will also directly contribute to achieving the following strategic actions:

- Improve adaptive capacity of vulnerable people;
- Improve preparedness and response capacity to climatic risks;
- Improve capacity for managing water resources.

~~The project contributes to the implementation of the National Strategy for Climate Change Adaptation and Mitigation (2013-2025), specifically the general objective of establishing action guidelines to build resilience.~~ It also contributes to the Government's Five Year Plan (2015-2019), specifically priority five with the strategic objective of reducing risk and adapting to climate change and reducing the vulnerability of communities, economy and infrastructures to climate risks. It further addresses the crosscutting issues outlined in the 20-year National Development Strategy (2015-2035), being enabling capacity-building of municipal technicians and community members.

Chokwe town, located in the lower Limpopo River basin, and being extremely prone to floods and droughts, has made climate adaptation one of its highest municipal development priorities. The project will contribute to the implementation of the Resilience Action Plan of Chokwe (2016-2026)[54].

(iv) Union of Comoros:

As small and highly vulnerable developing island state, the Union of the Comoros has given priority to climate change mitigation and adaptation, natural resource management and sustainable development, biodiversity conservation and enhancement of eco-system services as well as disaster risk management in its Strategy for Rapid Growth and Sustainable Development (2015-2019).

In alignment with the Strategy ~~for Rapid Growth and Sustainable Development (2015-2019)~~, specifically strategic areas three and four, the project will strengthen local governance, build capacity and reinforce institutional coordination to enhance urban resilience. Further, in line with the overall objective of the strategy, the project will contribute to climate risk reduction and sustainable development by providing appropriate localised solutions.

The National Adaptation Plan of Action (NAPA) provides a framework for the implementation of adaptation measures to reduce the risks posed by climate change and the impacts of increased weather phenomena and sea level rise. It has identified the following sectors as being most affected by climate change: agriculture, cattle breeding, infrastructure, fishing and health. The proposed project will especially address the infrastructure and health sectors of the NAPA, the latter by tackling the inadequate waste management system, which facilitates the development of malaria and present pollution risks to ground water and shores. Regarding the infrastructure sector, the NAPA highlights its vulnerability to flooding and sea level rise, resulting in erosion and damaging of roads, bridges and public infrastructure. The project activities in Moroni related to implementing sea erosion control measures and designing and building a drainage system directly address these issues.

With regard to the Intended National Determined Contribution (INDC) of the Union of Comoros and its National Policy, Strategy and Action Plan for Climate Change (both approved in 2015), the following priority issues will be addressed by the project: land management, including spatial

[54] See Annex 5: City Resilience Action Plan of Chokwe (in Portuguese), including an Executive Summary in English.

planning, with implications for urbanisation, agriculture and forestry through city planning and informal settlement upgrading in Moroni; waste management; vulnerability reduction of the population located in areas at risk of flooding, cyclones and sea level rise; mainstreaming of climate change adaptation, mitigation and resilience in the legislation and policies; as well as institutional capacity building and community empowerment.

The project further aligns with the National Strategy and Action Plan on Disaster Risk Reduction and its six strategic areas, namely: 1) Establishing a legal and institutional framework and mechanisms for disaster risk reduction; 2) Strengthening national, island and community capacity; 3) Development of knowledge, information, education and communication systems on disaster risk management; 4) Promotion of community resilience activities; 5) Sustainable and flexible funding mechanisms; 6) Promotion of regional and international cooperation and coordination. The strategy aims ultimately to substantially reduce losses and damage and to strengthen the resilience of communities (national and local) to disasters.

~~Thereby~~ Lastly, the project ~~it~~ will support Moroni city's aspirations to become more resilient to the impact of climate change. While there is no official city strategy as of yet, the initial consultative process undertaken will be extended to a comprehensive stakeholder consultation, the results of which shall be reflected the project design.

F. *Describe how the project meets relevant national technical standards, where applicable, such as standards for environmental assessment, building codes, etc., and complies with the Environmental and Social Policy of the Adaptation Fund*.

The project will comply with the Environmental and Social Policy of the Adaptation Fund as described in Section L. During preparation of the full proposal, a detailed risk environmental and social risk assessment of the project components and different interventions will be undertaken. If and where necessary, the project components will be adapted to ensure full compliance.

Apart from the Environmental and Social Policy of the Adaptation Fund, the project shall also adhere to UN-Habitat's Environmental and Social Safeguards System (ESSS). The latter outlines that UN-Habitat projects will comply with host country laws and obligations under international law and conventions. It serves as a framework outlining UN-Habitat's commitment, capacity and procedures to assess and manage the environmental and social risks of Projects. The ESSS is fully integrated with the Project Based Management Policy. The objectives of the ESSS are to: (i) identify and evaluate potential environmental and social risks and negative impacts of projects; (ii) apply a mitigation hierarchy to anticipate and avoid or minimize risks, and where impacts remain, compensate for risks and impacts to people, communities, and the environment; (iii) manage environmental and social safeguards throughout the project; (iv) engage the affected community through disclosure of project-related information and consultation on matters that directly affect them; and (v) ensure that grievances and external communications from stakeholders are responded to and managed appropriately. The ESSS is aligned with United Nations and bi/multilateral institutions' environmental and social safeguard policies. It has been prepared while bearing in mind the safeguard management systems of other organizations including the International Finance Corporation (IFC), the United Nations Development Programme (UNDP), the United Nations Environment Programme (UNEP), and the International Union for Conservation of Nature (IUCN).

Further, at project proposal stage, and in line with UN-Habitat's Project Management Cycle and Work Flow policy, the project will further be screened for its adherence to the seven thematic

areas of work of UN-Habitat, and its standards for three cross-cutting issues which are: gender, human rights and climate change.

For the implementation of the project, the following national legislation in the respective countries is of relevance:

(i) Madagascar

Environmental impact assessments (EIAs) in Madagascar are carried out on the basis of Decree No. 99-954 of 15 December 1999, as amended by Decree No. 2004-167 of 03 February 2004 published on 10 July 2000 and 24 May 2004. The integration of EIAs in the project cycle is essential for providing environmental information at key stages. Early results of an EIA may indicate practical design changes that would avoid or reduce adverse environmental impacts or better benefit from environmental benefits. A screening procedure is to be carried out by the National Office of the Environment and determines if the project must be subject to an EIA or not.

~~Sub-project activities in Morondava related to flood and erosion control would be designed and implemented on the basis of the following laws:~~

- ~~Law 2001-005: Law on the Code of Management of Protected Areas and its subsequent texts (Decree No. 2005-013 and No. 2005-848);~~
- ~~Regulations related to the sea, Law No. 99-028 of 3 February 2000 revising the Maritime Code;~~
- ~~Regulations related to coastal management (in preparation);~~
- ~~Flood Control Standard for Road Infrastructure Construction - Madagascar Flood Protection Guide.~~

Sub-project activities in Morondava related to ~~sea erosion control~~coastal protection through the restoration of mangroves would be implemented following the forestry law of the country and more particularly the following legislation:

- Law No. 2015-003 updating the Malagasy Environment Charter;
- Law No. 2015-005 revising the Code of Management of Protected Areas;
- Law No. 97-017 of 16 July 1997 regarding forest management;
- Law No. 96-025, which transfers natural resources management responsibilities to local grassroots communities.

Sub-project activities in Morondava related to coastal protection through establishing a system of ~~buildings and infrastructure construction works such as protection~~ dykes would refer to ~~construction and public works regulations, including:~~
~~Infrastructure such as dam, dykes, etc., would be built according to~~ the Malagasy Standards for the Construction of Hydro Agricultural Infrastructure Against Floods; Cyclone-resistant construction works would be done according to the related guidelines and Decree No. 2010-243 of 21 April 2010.

~~Repairing and construction of roads would be done in accordance with the Flood Control Standards for the Construction of Road Infrastructure - Madagascar Flood Protection Guide;~~

~~Cyclone-resistant construction works would be done according to the related guidelines and Decree No. 2010-243 of 21 April 2010.~~

~~Urban planning and housing related activities would comply with Law No. 2015-052.~~

Sub-project activities in Morondava related to the rehabilitation of drainage channels and improving waste management would be conducted in line with the regulations related to sanitation adopted in accordance with Decree No. 2008-1057 of 10 November 2008 and also taking into consideration the National Directive for Climate Resistant Infrastructure - Drinking Water Supply.

All sub-project activities in Morondava, specifically on city planning, would further align with regulations related to land management:

- Law No. 2006-031 defining the legal regime for private non-titled land ownership;
- Law No. 2008-014 on the private domain of the State, Decentralised Communities and Public Entities;
- Law No. 2005-019 on the status of land tenure.

(ii) Malawi

The conduct of EIA in Malawi is guided by the 'Guidelines for Environmental Impact Assessment' of the Government of Malawi published in December 1997. Malawi's EIA process is specifically designed to integrate EIA requirements within the project cycle. This integration is essential for an EIA study to provide timely environmental information at key stages in the project cycle. Thus early results from an EIA may indicate practical design changes which would avoid or reduce negative environmental impacts, or better capture environmental benefits. As prescribed under Section 24(1) of the Environmental Management Act, Malawi has a prescribed list of projects for which an EIA is mandatory (List A) and another list (List B) of projects for which an EIA may be necessary. The sub-projects for Zomba City will have to be applied to the lists to determine if an EIA is mandatory, may be necessary or not all.

Sub-project activities on ~~remedial flood and erosion control~~improving the drainage system would be designed and implemented based on 'Standard Specification for Road and Bridge Works' of the Malawi Government (1978) with specific reference to drainage and under Series 2000: Drainage of the SATTC 'Standard Specifications for Road and Bridge Works' of 1998.

Sub-project activities on afforestation, as measure for land erosion control, related to city priority 'promoting sustainable forest management', would be implemented following the country's Forestry Act and specifically the 'Standards and Guidelines for Participatory Forestry in Malawi' of the Government of Malawi published in 2005. The standards and guidelines promote community participation, management and ownership of forests and forest resources.

Sub-project activities related to buildings would refer to the 'Safer House Construction Guidelines: Technical Manual', developed in 2010 and revised in 2014 to support households, communities and the Government and other partners in adaptive architecture to reduce exposure to disasters through sound construction. The city's planning standards and building bylaws also apply within the city jurisdiction.

(iii) Mozambique

In Mozambique, the Environmental Law defines the legal basis for the use and management of the environment as a means of guaranteeing the country's sustainable development. According to this law, the EIA is an instrument that supports decision making on the allocation of an environmental license. Environmental licensing shall precede any other legally required license in all public and private activities that may be directly or indirectly affected by the environment. The process of EIA is regulated by Decree No. 45/2004, while environmental auditing and environmental inspection are regulated, respectively, by Decree No. 32/2003 and 11/2006.

The EIA Process Rules define all stages of the EIA process - screening, definition of scope, content of studies, public participation process, review and approval by the environmental authority. The screening defines the type and level of detail of the environmental and social assessment study. The EIA Mozambican Regulation considers three categories to identify the appropriate level of environmental impact assessment: Category A (a full Environmental Impact Assessment - EIA, with Environmental Management Plan Category B (requires a Simplified Environmental Study - EAS, with specific Environmental Management Plan) and Category C (exempt from an EIA).

Under Component 2, the sub-project concerning Chokwe will include construction/retrofitting of public education and health facilities (cyclone/flood shelter). The risks associated with this kind of infrastructure are generally low, hence the project is likely to be assigned to environmental category B. An EIA will be done for all sub-projects to be implemented in Chokwe. Specific Environmental Management Plans (EMP) need to be prepared as necessary once the exact locations of those facilities have been identified. The EIA is then be submitted for the Government review and publicly disclosed in the affected communities prior to appraisal.

Moreover, the sub-project activities regarding building/retrofitting of public facilities shall refer to the 'National Guidelines and Norms for Safe Constructions of Public Buildings', developed in 2015 under the Safer School Project (2012-2015) endorsed by the Government in 2016, which is currently being applied by the Ministry of Public Works and Water Resources and the Ministry of Education and Human Development. These guidelines are being disseminated to all public sectors in Mozambique through on-the-job trainings and with technical assistance from UN-Habitat.

The project will adhere to drainage system laws, such as the ones established by the decree 15/2004 on water distribution and drainage systems for buildings. It regulates the nature and quality of the materials used, the disposition of the pipes, the separations between the drainage and the rainwater collection systems, as well as between the drainage and the water supply systems, the responsibilities of users and of the managing entity, the cases in which the service might be interrupted or restricted, the frequency of inspections, among others. It will also abide by the decree 18/2009, which approved the delegation of the management of the drainage system to the private sector, as was done in 1998 for the water supply system, and the decree 19/2009, which created the Administration of Water and Sewage Infrastructure and established it as the entity responsible for the public drainage system.

For the activities related to informal settlements upgrading, the relevant national standards are mostly specified in decree 23/2008, which approves the regulation of the Territorial Planning Law. This law establishes the essential planning instruments and their frameworks for managing territory and urban systems at various levels:

- National level (National Land Use Plan, Special Land Use Plans);
- Provincial (Provincial Land Use Plans)

- District (District Land Use Plan)
- Municipal (City Master Plan, Partial Urban Plan, Detailed Urban Plan)

The decree also defines standards for land qualification and classification, for the National Land Cadastre, environmental, social and economic inventory, zoning, as well as public participation for land management.

The project will also adhere to solid waste management legislation, especially the decree 94/2014, which introduced new laws regarding solid waste, such as establishing that all public and private entities that undertake solid waste management-related activities should produce and implement every 5 years a plan for the integrated management of waste according to defined guidelines. It also indicated MITADER and the Municipal Councils and District Governments as the entities responsible in their respective jurisdictions, outlining their roles in the solid waste management flow. For instance, Municipal Councils and District Governments are held responsible for approving local standards and charging for waste collection, transport and treatment, while MITADER is responsible for inspecting waste storage facilities and the fulfillment of such legislation. It established guidelines for the selective collection of waste, saying that its implementation can be carried out by either Municipal Councils and District Governments or private entities, including recycling cooperatives. Finally, it outlines the responsibilities of those who produce, operate and transport solid waste towards contributing to its proper and safe handling.

Other relevant aspects of the Mozambique Environmental and Social Framework include legislation on: ~~solid waste management,~~ air emission standards, air quality and noise, water resources, water quality, pesticides, coastal management, land ownership, ~~land use planning, cultural heritage,~~ protected areas and conservation areas, as well as involuntary resettlement.

The project shall also adhere to the Disaster Law (No.15/2014), which defines the parameters to classify the country in high, medium and low risk areas, with specific actions identified for each risk class. For example, as concerns flood risk, prevention or restricted zoning is a measure required for high risk areas, while for medium and low risk areas public infrastructure and drainage system are expected to be constructed. Thus, the pre-identified activities for Chokwe sub-projects respond adequately to the requirements of this major legal instrument.

(iv) Union of Comoros

In Comoros, the project complies with the Environmental Law No. 94-018, which aims in Article 2 to: a) preserve the diversity and integrity of the environment of the Republic of the Comoros, as an integral part of the universal heritage, which is particularly vulnerable associated with insularity; b) create the conditions for a sustainable quantitative and qualitative use of natural resources for present and future generations; c) ensure an environmentally sound and balanced living environment for all citizens.

The environmental impact assessment (EIA) process is governed by decree No. 01 - 52 / EC. The EIA of proposed works and activities must involve a) an analysis of the condition of the site and its environment; b) an assessment of the foreseeable consequences of the implementation of the project on the natural and human environment; c) a presentation of measures to reduce or eliminate harmful effects on the environment and others non-selected options for the implementation of the project.

In accordance with Article 14 of the Framework Law on the Environment, the Union of the Comoros has a prescribed list of projects for which an EIA is compulsory. The activities identified for the city of Moroni, i.e. the designing and building a drainage system, implementing sea erosion control measures, improving solid waste management and city planning and informal settlement upgrading, will have to be compared with this list to determine whether an EIA is mandatory and may or may not be necessary. Where necessary, an EIA will be carried out and specific environmental management plans prepared. The EIA will then be submitted to the government for review and published to the city's residents.

Implementation of protection measures for the control of land and/or sea erosion (including afforestation measures) for the city of Moroni will be carried out in compliance with decree No. 12-001 / AU on forest management in the Union of Comoros, which regulates all forests in the public domain as well as in the domain of individuals. In addition, the activities of the project will also have to comply with the texts and decrees relating to disaster risk management and the national climate change adaptation plan in force in the country, for example with regard to risks of flooding or rising sea levels.

Further of relevance to the project components in Comoros are the Accelerated Growth and Sustainable Development Strategy (SACADD), as well as the Urban Development Code and Communal Development Plans. The project further follows the objectives of the National Environmental Policy and the Environmental Action Plan.

Concerning the protection of natural habitats, the project will be implemented in the municipality of Moroni. It will not result in unjustified conversion or degradation of critical natural habitats, including those that are: a) legally protected; b) officially recommended for protection; c) recognized by authoritative sources for their high conservation value, including as essential habitat; or d) recognised as protected by traditional or indigenous local communities.

G. *Describe if there is duplication of project with other funding sources, if any.*

Despite of the existence of initiatives in the four targeted countries for climate change adaptation and/or mitigation and disaster risk reduction (e.g. by the World Bank, DFID, USAID, UNDP, UNEP, among others), to UN-Habitat's knowledge, and based on a desk review, none is focusing solely on urban climate adaptation, concern the four cities/towns targeted by this project and is adopting the proposed bottom-up approach, from the local level to the national and regional level, thus mainstreaming participation in each implementation step.

A more detailed analysis of recent and current adaptation related projects is outlined below per each country.

(i) Madagascar

Based on a mapping of the most recent initiatives related to climate change adaptation in Madagascar it has been noted that most interventions focus on rural areas. The following broad issues can be listed, which are related to the proposed activities in this project:

a. Disaster risk management: installation of meteorological stations, the improvement of early warning systems, reinforcement of building codes, as well as modelling of future climate-related risks (CPGU with Tany Meva Foundation);

b. Basic services provision: a project concerning the improvement of access to drinking water (Tany Meva Foundation);

c. Forest protection: elaboration of a long term vision for the forestal policy (Voary Gasy Alliance) and reforestation initiatives (CMP Tandavanala Pro-Poor Carbon Market initiative); e) Research in bio-technology and innovation: exploitation of organic waste for energy production (Troiska Meva);

d. Spatial development: integration of climate change impacts in national and regional planning (CPGU).

Lessons learnt from these initiatives could be potentially leveraged from the processes and results of projects related to modelling of future climate risks, improvement of access to drinking water, and projects on forest protection, and integration of climate change impact in national and regional planning. These aspects will be examined in detail during the full project proposal development.

Importantly, the World Bank is planning to support the city of Antananarivo in Madagascar by funding major flood reduction infrastructure projects, mainly related to drainage conditions. During the full project proposal development it will be analysed how the project can establish synergies with the same.

(ii) Mozambique

The initiatives in Mozambique on climate change adaptation which are relevant to this project are:

a) Water resource management: sewage and water systems promotion in villages, as part of the "AGUASANI - Water, Sanitation and Hygiene" initiative (Government of Mozambique, European Union and UNICEF) or as small scale water supply system establishment by UNICEF; the European Union has also recently announced an investment of 740 million dollars in the government's budget in the next 5 years to finance projects of water supply, among others.

b) Disaster risk management and broader climate change adaptation:

- the Cities and Climate Change Project (concluded) and the Pilot Program for Climate Resilience of Mozambique (led by the World Bank);
- the Coastal Cities Adaptation Project (led by USAID and partly implemented by UN-Habitat);
- Enhancing the Planning Capacities of Cities in the Nacala Corridor - Nampula, Tete and Nacala (led by UN-Habitat and financed by Cities Alliance) - concluded;
- Participatory Slum Upgrading Programme implemented in a poor neighbourhood of Nampula city, with interventions ranging from road opening/rehabilitation, drainage works and water supply (funded by the European Union and implemented by UN-Habitat/City Council);
- Supporting the Mozambique Climate Change and Development Country Programme (CDKN and UNEP, in collaboration with Regional Climate Change Programme and DFID);
- Coping with Droughts and Adaptation to Climate Change (led by UNDP and financed by GEF, Samaritan's Purse and the Government of Mozambique) – concluded;

- Environment Mainstreaming and Adaptation to Climate Change (led by UNDP and FAO and financed by the Spain MDGs Achievement Fund) – concluded;
- Adaptation to Climate Change in Mozambique: Early Warning and Education (led and financed by GIZ) – concluded;
- African Adaptation Programme: Climate change actions and mainstreaming in Mozambique" (led by INGC, MICOA and UNDP and financed by the Government of Japan) – concluded;
- Increasing Resilience to Climate Change in Mozambique (led by Save the Children and financed by DFID);
- The sustainable development of the Govuro coastal zone through adaptation to climate change using a community-based integrated coastal zone management approach (led by CC DARE and financed by the Danish Ministry of Foreign Affairs) – concluded;
- Establishment of hydrological models for flood forecast (FEWS Net Mind) – concluded;
- Cities in Climate Change Initiative (Phases I, II and III) – Maputo, Vilankulos and Beira (led by UN-Habitat and financed by Norway and BASF) - concluded.

The existence of a vast portfolio of projects on climate change adaptation, especially in rural areas, is justified by the fact that environmental challenges arising as a result of climate change are constant in the country. Fast paced urbanisation progressively shifts challenges to cities and towns, but this growing demand for urban adaptation is still not adequately met. The present proposal will fill this gap in Mozambique by targeting one city but scaling up the experience, methodologies and policy implications to national and regional level, taking note of the initiatives and lessons learned from the past and the ones currently being carried out.

(iii) *Malawi*

Similarly to Madagascar and Mozambique, most climate change adaptation related interventions in Malawi have focused on rural areas and especially in the fields of agriculture, forestry and fisheries. However, climate change adaptation attention is also now beginning to focus on urban areas due to the rapid urbanisation and the increasing frequency and intensity of disasters in urban areas in recent years.

Recent and current projects can be summarised under basic urban revises provision, slum upgrading, and disaster risk management as outlined below. During the full project proposal development it will be analysed how the project can establish synergies with the same.

Several projects are meant to increase access to basic urban services, which is critical not only to fulfilling the human rights of urban communities but also to building resilience in the face of climate change.

Poor waste management is a critical issue in all cities in Malawi. Traditional ways of managing waste cannot cope with increased waste generation in the context of a dwindling resource envelope. The Lilongwe Waste Management project dubbed ‘waste for wealth’ was implemented in Lilongwe between 2010 and 2012 (by UNDP and UN-Habitat) and sought to harness public private partnerships and community engagement in the management of waste including in those slum settlements which do not receive any waste management service. The project demonstrated the value of public private partnerships in urban basic services delivery, created waste entrepreneurs (mostly women) who produce commercial compost from waste

and has led to cleaner living environments in those communities it is implemented. The initiative has been replicated in other settlements in Lilongwe and in settlements in the cities of Mzuzu and Blantyre.

Access to water and sanitation in urban areas is a critical issue and the National Water Development Programme II has supported the cities of Blantyre and Lilongwe to enable up to 700,000 low income residents in these cities access water. A WASH Project is under implementation in the cities of Mzuzu and Karonga (funded by the European Union and implemented by UN-Habitat) and by 2017 will have provided safe water 50,000 low income people and a similar number will have access to improved sanitation. Cities in Malawi used to have annual cholera epidemics but these interventions have significantly reduced the occurrence of these epidemics in urban areas.

The Participatory Slum Upgrading Programme (PSUP), funded by funded by the European Union and implemented by UN-Habitat, has been implemented in a low income community in the city of Mzuzu addressing waste management, drainage, household sanitation and capacity building for community development structures. It is expected to be scaled up to other communities and other cities in the country.

For cities to effectively address climate change and disaster risk, it is important to support the institutional capacity and frameworks in this area. Disaster risk management plans are being developed for the cities of Lilongwe and Mzuzu wit UNDP support, in addition to the City Resilience Action Plan for Zomba supported by UN-Habitat/DiMSUR.

(iv) Union of Comoros

Most climate change adaptation related interventions in the Union of Comoros have focused on rural areas. However, ~~In the Union of Comoros,~~ a project with which synergies could be created is currently under development by UNDP through the Global Environment Facility (GEF), with a concept approved in March 2016, titled "Strengthening Comoros Resilience Against Climate Change and Variability Related Disaster".[55] Specifically, collaboration could be established regarding objective 1 of the GEF proposal: "Systemic and institutional capacities for the long-term management and adaptation planning of disaster risks caused by CC are strengthened at local, provincial and national levels". Even if no specific project activities are planned for the city of Moroni, joint training activities could be organised at the national level under Component 3 of the current proposal. This will be discussed with the UNDP country team during the development of the full project proposal.

H. *If applicable, describe the learning and knowledge management component to capture and disseminate lessons learned.*

The project has a dedicated component related to knowledge management (Component 4: Inter-country experience sharing, cross-fertilisation and dissemination of lessons learnt at the regional level) ~~which focuses on capturing and disseminating the lessons learned and best practices from the implementation of the project activities at the town/city and national level, as well as inter-country experience sharing~~.

[55] https://www.thegef.org/sites/default/files/project_documents/ID6912_Council_NoNotificati_Letter1.pdf

The component ~~hence~~ focuses on systematically keeping track of experiences gained from the project both to enrich the local, national and global knowledge on climate change adaptation and to accelerate understanding about what kinds of interventions and processes can be seen as best practices for potential replication in the region. Knowledge exchange between the four countries affected by similar climate-related threats is at the core of the project. Regional workshops will be organised with a view to disseminating and capture lessons learnt from the sub-projects. In this context, DiMSUR will work as the framework for knowledge management and sharing, in line with its Charter's objective to "Enable DRR, CCA and urban resilience knowledge, information and exchanges between Member States" (see Annex 1, Article 3.4 (d) of the DiMSUR Charter). DiMSUR aims at compiling and disseminating technical knowledge, functioning as a service provider and performing as a partnership hub for the benefit of its member countries in its core areas.

A relevant tool for capturing the lessons learnt will further be the SADC webportal for sharing the DRR experiences in the region.

DiMSUR also has existing ~~tools and~~ mechanisms for information sharing on progress, lessons, plans, milestones through its website which is frequently being visited (www.dimsur.org)[56] and social media (Facebook and Twitter) but also a regular newsletter that is being distributed to a wide audience. These will be leveraged for disseminating lessons learnt throughout the project.

The project further includes systematic bottom-up dissemination of lessons learnt from local to national level under Component 3, whereby lessons learnt from the local level will be presented at the national level and translated into useful training guidelines and recommendations for evidence-based policy making.

The development of the full proposal would include a comprehensive media outreach strategy for further inclusion of local communities in project design and implementation.

I. *Describe the consultative process, including the list of stakeholders consulted, undertaken during project preparation, with particular reference to vulnerable groups, including gender considerations, in compliance with the Environmental and Social Policy of the Adaptation Fund.*

As outlined in the project background, UN-Habitat has carried out preliminary work through the CityRAP Tool in the target countries. In Madagascar, Malawi and Mozambique, the identification of priority actions for building urban resilience has been a highly participatory and comprehensive process through the implementation of the CityRAP Tool. A team of municipal technicians was trained and conducted the process of data collection and analysis, prioritisation and drafting of a preliminary city resilience action plan under the lead of the municipality, with UN-Habitat and DiMSUR providing support and strategic advice. The consultations involved local authorities, municipal technical staff and communities most affected by risks and climate change, as well as civil society organizations. The relevant validated plans at city level cited in section E can be shared if required.

The priorities set by key stakeholders consulted in each city have formed the basis of the physical interventions outlined in the pre-concept as well as the concept note. These physical

[56] In the second half of 2016, the website showed a total of 225,646 visitors, with monthly visitors of up to 56,000 people, highlighting the demand and interest in the region.

interventions have been chosen as they are deemed to be the most effective for raising the adaptive capacity of the respective city/town.

As for the Union of Comoros, a training of trainers of the CityRAP Tool has taken place, but no city resilience action planning processes as of yet. Hence, a separate consultation process on the concept note's content has been undertaken as outlined below.

The consultative process for each country took place as described below. Further comprehensive consultation in all four countries will be undertaken during the development of the full project proposal.

(i) Madagascar

In Morondava, the consultation process involved local authorities (regional, district, municipal, neighbourhood level), municipal technical staff, communities most affected by risks and climate change and civil society organisations.

Overall, 124 persons have directly participated in the data collection and identification of priority actions contributing to the elaboration and adoption of the City Resilience Action Plan of Morondava. For the elaboration and adoption of the Plan two workshops were organised:

- 15 March 2016: prioritisation workshop during which the ten priority issues in the short, medium and long term have been selected with the participation of 26 representatives of local stakeholders, including communities and municipal staff;
- 15-17 March 2016: validation workshop, during which 23 participants validated priority issues and activities identified in the City Resilience Action Plan of Morondava prepared by the team of municipal focal points with the support of UN-Habitat and DiMSUR.

An assessment of the proposed project activities of the concept note in Morondava took place in stakeholder consultations on 6 December 2016 with 20 representatives from the Menabe Region, the Urban Municipality of Morondava and the fokontany (neighbourhood) level (fokontanys Ampasy, Avaradrova, Sans fil and Tanambao), the technical services of the Ministry and NGOs/CSOs among others Morondava Women and Youth Association, journalists and development and risk management committees in the neighbourhoods. The associations involved in the field of the environment were represented by the Deputy Mayor of Morondava. The participants approved the proposed activities to be carried out in the project. As important points validated are the consideration of gender and disaster risks and the participation of young people. It was further proposed that journalists should be involved in activities for transparency, and that existing studies within the municipality on environmental aspects should be taken into account. The activities foreseen in the concept note were also approved at the level of fokontany chiefs. It was found that the activities would improve the current living conditions (more decent and safe, thus offering alternative solutions to all forms of housing relocation). It was found that a further priority of Morondava would be reforestation actions with fast-growing and drought-resistant species to meet the growing need for energy.

(ii) Malawi

In Zomba, the consultation process involved the national (Department of Disaster Management Affairs, DoDMA), city (Zomba City Council) as well as the neighbourhood level (neighbourhoods Chambo, Likangala, Mbedza and Mtiya). Overall, 200 persons, among them municipal technical staff, community representatives, civil society organizations and the Zomba Polytechnic have

directly participated in the data collection, risk mapping exercises and identification of priority actions.

For the elaboration and adoption of the City Resilience Action Plan of Zomba, the following workshops were organised:

- 22-24 November 2015: Data analysis workshop with the municipal focal points and the support of the UN-Habitat/DiMSUR team.
- 25 November 2015: Prioritisation workshop with representatives from the local communities of Chambo, Likangala, Mbedza and Mtiya and municipal technicians. As result, the City of Zomba came out with five priority actions for its Resilience Action Plan.
- 27 November 2015: Validation workshop with representatives from the Zomba City Council, municipal technicians and community representatives. The plan was approved and referred to the city council for further detailing of priority actions and the related budget.

Further consultations have been made with the Zomba City Council to validate the indicative provisions in the pre-concept note. Zomba City Council management and council have studied the pre-concept in December 2016 and positively commented on the planned activities targeting the city of Zomba under component 2, and transmitted that it would be appreciated if environmental enhancement projects such as tree planting and management, as well as land conservation would be reinforced under Component 2. With regard to Component 4, community exchange on the national level has been suggested in addition to the regional workshops planned. The latter could actually be integrated under Component 3.

(iii) Mozambique

The consultation process in Chokwe involved key stakeholders in the spheres of urban governance and development including city councillors, management and technical staff, as well as communities and the civil society. Overall, 116 persons have directly participated in the data collection and identification of priority actions contributing to the elaboration and adoption of the City Resilience Action Plan of Chokwe. For the elaboration and adoption of the Plan two workshops were organised:

- 1 September 2015: prioritisation workshop during which the six priority issues have been selected with the participation of around 30 representatives of local stakeholders, including communities and municipal staff;
- 3 September 2015: validation workshop, during which 40 participants validated priority issues and activities identified in the City Resilience Action Plan of Chokwe prepared by the team of municipal focal points with the support of UN-Habitat and DiMSUR.

During the consultative process, all municipal sectors were involved and two local communities were consulted.

(iv) Union of Comoros

During the concept note formulation phase, a preliminary stakeholder consultation was held on 9 December 2016 with several stakeholders concerned, including representatives from government institutions, academia and civil society, in order to elicit views and opinions on the concept note.

The participants involved representatives from the Directorate General of Civil Security, the Karthala Volcanological Observatory, the NGO Ulanga Ngazidja, the National Network for Women and Development, the Comorian Red Crescent Society, the Comoros University, the National Agency for Civil Aviation and Meteorology, the Association of Mayors. The participants appreciated the relevance of the project and especially that it will be a first in the country to choose the capital for a project of this type. There was no contradictory point of view.

J. *Provide justification for funding requested, focusing on the full cost of adaptation reasoning.*

The proposed project components, outcomes and outputs fully align with national and local government/institutional priorities/gaps identified, with identified community and vulnerable groups needs and, as described in the project objectives, with the Adaptation Fund outcomes as stated in the Adaptation Fund Results Framework.

The project targets four countries over four years for a total project cost of almost US$12.5 million. Specifically, four cities/towns have been targeted for climate adaptation planning and will benefit from the implementation of pilot projects under Component 2. This concrete adaptation component will be allocated with almost two thirds of the project funds.

Funding allocation for the other, softer, components is required for preparatory purposes (Component 1), as well as producing of tools, guidelines and national scaling up (Component 3) and regional knowledge exchange and replication.

The table below provides a justification for funding requested, focusing on the full cost of adaptation reasoning, by showing the impact of AF funding compared to no funding (baseline) related to expected project outcomes.

Table 2: Overview of impact of AF funding compared to no funding (baseline) related to expected project outcomes

Outcomes under Components 1-4	**Baseline (without AF)**	**Additional (with AF)**	**Comment / Alternative adaptation scenario**
1. Municipal staff, communities and local stakeholders understand climate change induced risks pertaining to their city/town and have identified priority actions for climate change adaptation	Municipal staff, communities and local stakeholders have limited understanding of climate change induced risks pertaining to their city/town and have not identified concrete strategies for adaptation planning, leaving them vulnerable to future negative impacts.	Municipal staff, communities and local stakeholders have used the CityRAP Tool to identify climate change vulnerabilities and disaster risks and developed Resilience Frameworks for Action to address these in their respective city/town.	Without local data/information on vulnerabilities and disaster risks, as well as public participation in the planning process, adaptation measures can be implemented but would not be as effective and/or appropriate without proper consultation and participation.
2. Municipal staff, communities and local stakeholders have implemented the identified priority	Target cities/towns and their municipal staff, communities and local stakeholders are not implementing strategic	Target cities/towns have implemented strategic physical interventions for climate change adaptation, and have built	Training the local authorities and stakeholders on how to manage and maintain the physical

actions and have acquired the capacity to manage and maintain these	physical interventions for climate change adaptation with focus on the effects of cyclones, rainfall, floods and sea level rise.	the capacity to manage and maintain these, thereby increased the resilience to overall climate change vulnerability and disaster risks.	interventions is a crucial aspect for the sustainability of the project.
3. National governments have created enabling conditions for scaling up and replicating the same approach in other urban settlements	Most municipalities in the four target countries and concerned national institutions have limited knowledge, capacity and practice for planning towards urban resilience and climate change adaptation.	The majority of the municipalities in the four countries and concerned national institutions have increased knowledge, capacity and practice for planning towards urban resilience and climate change adaptation.	Concrete experiences from local level implementation allow improving and delivering national training guidelines, thus creating the conditions for scaling up in other cities/towns.
4. Local and national governments of the four countries have learned from each other good urban climate adaptation practices and are better prepared to face common transboundary climate-related natural hazards	Throughout the region, common transboundary-related hazards exist and there is lack of strategies, capacity and practice for planning towards urban resilience and climate change adaptation.	Regional knowledge exchange on the best practices and cross-fertilisation has been facilitated, strengthening the inter-country strategies, capacity and practice for planning towards urban resilience and climate change adaptation.	Regional knowledge exchange and cross-fertilization activities constitute effective mechanisms to increase inter-country cooperation for adapting to common climate-related hazards.

K. *Describe how the sustainability of the project outcomes has been taken into account when designing the project.*

The sustainability of the project is inherently embedded in its design. The project is following the principle of sustainability mainly through the aspects of capacity building, bottom-up and participatory approach, knowledge sharing, national and regional replication and scaling up.

As mentioned in Part 1 under Project Background and Context, local governments in the target countries lack the financial and institutional capacity to effectively plan for climate change hazards. The project's capacity building efforts (see project Component 3 as described in Part 1) will strengthen the municipalities' management mechanisms to reduce their fragility in the face of climate impacts and natural hazards, hence per se have a sustainable influence on the future urban resilience of the target countries. Involvement of the respective countries' local governments and academic or training institutions in the implementation is thereby an important element of national capacity building and critical towards the sustainability of the project's outcomes. Importantly, local capacity will also be developed to ensure the management/ maintenance of the projects' outcomes in the longer term (see project Component 2 as described in the Part 1).

As outlined in Part 1 of the concept note, project activities under Component 3 will occur at the national level to create the conditions for scaling up and replicating the CityRAP approach in other urban settlements. The CityRAP Tool will be refined and respective guidelines will serve

as basis for training workshops for government and municipal officials for replication of the tool deployment in other cities/towns in the four target countries. Existing national institutions and networks (e.g. associations of municipalities) will be involved in organising and conducting the training workshops, and partnerships/synergies established with on-going initiatives at the national level. This is a critical component which will ensure greater sustainability and a lasting impact of the project.

Furthermore, the project is designed in order to achieve enhanced communication and information exchange between cities and towns in each country and across the four countries to strengthen risk reduction and resilience practices (see project Component 4 as described in Part 1). A multiplier effect and cross fertilization at the regional level is thus embedded in the project's design that caters for sustainable future exchange on urban risk reduction tools, information, strategies and best practices. Hereby the sustainability is directly linked to the institutional level and the involvement of DiMSUR as an established organisation.

Lastly, the physical interventions and capacity building components of the project will lead to long term economic, social and environmental benefits as outlined in Sections C and D in Part 2.

The overall sustainability will be further analysed during the preparation of the full project proposal.

L. *Provide an overview of the environmental and social impacts and risks identified as being relevant to the project.*

The proposed project seeks to fully align with the Adaptation Fund's Environmental and Social Policy (ESP). Outlined below is a brief description of the screening process that has been carried out to evaluate environmental and social impacts of the project, and areas where steps will be taken and where further assessment is needed during the development of the full project proposal, when the proposed activities are detailed out further.

Activities under Component 1 (Climate change adaptation planning at the town/city level), Component 3 (Tools and guidelines development and training delivery at the national level) and Component 4 (Inter-country experience sharing, cross-fertilisation and dissemination of lessons learned at the regional level) are 'soft' components of which the screening process has concluded that no environmental and social negative impacts would result.

Activities under Component 2 (Assistance with implementation and management of priority investments at the town/city level) are 'hard' activities in the sense that they relate to physical implementation. As such, some activities have the potential, without an environmental and social safeguarding system, including mitigation measures, to create negative environmental and social impacts. The results of the screening process for activities proposed **under Component 2 solely** are outlined in the table below.

Overall, as outcome of the assessment, the 'hard' project activities falls under Category B of the Adaptation Fund's impact classification, because the potential adverse impacts that are limited and can be mitigated through a precautionary approach and a mitigation management system, after undertaking further detailed ESP studies in the course of developing the full project proposal.

Checklist of environmental and social principles	No further assessment required for compliance	Potential impacts and risks – further assessment and management required for compliance
Compliance with the Law	X	
Access and Equity		X
Marginalised and Vulnerable Groups		X
Human Rights	X	
Gender Equity and Women's Empowerment	X	
Core Labour Rights	X	
Indigenous Peoples	X	
Involuntary Resettlement	X	
Protection of Natural Habitats		X
Conservation of Biological Diversity		X
Climate Change	X	
Pollution Prevention and Resource Efficiency		X
Public Health	X	
Physical and Cultural Heritage		X
Lands and Soil Conservation		X

Compliance with the Law:

The final project design will be compliant with all relevant regional and national laws, especially those cited under Section F of Part 2. To ensure this, during the development of the full project proposal, relevant authorities in the four countries will be consulted to ensure that no legal issues arise and that all relevant legal requirements are met.

Access and Equity:

The project design will ensure that project activities will not reduce or prevent communities at project sites from accessing basic health services, clean water and sanitation, energy, education, housing, safe and decent working conditions and land rights. The project will respect all land rights and does not envisage to disposes anyone of their land. Where it may be necessary to do so (people living in frequently flooded areas, for example), due process will be followed in accordance with the national laws and guided by international conventions.

While it is considered unlikely at this stage, there is a possibility that the physical demarcation of areas at risk for limiting urban development, and/or the implementation of protective measures for land/sea erosion control might result in decreased access for marginalised and vulnerable groups. This aspect will be further examined through the environmental and social impact assessment. This aspect also refers to the principle outlined below.

Marginalised and vulnerable groups:

Marginalised and vulnerable groups in the four target cities/towns fall in the categories of women, female-headed households, children, youth, child-headed households, orphans, the elderly, the disabled, people living with HIV, and communities living in disaster-prone areas. The design and implementation of the sub-projects in the different cities/towns will seek to minimise the imposition of disproportionate adverse impacts on these groups and will instead seek to optimize the positive impacts to these groups.

While it is considered unlikely at this stage, there is a possibility that the physical demarcation of areas at risk for limiting urban development, and/or the implementation of protective measures for land/sea erosion control might result in decreased access for marginalised and vulnerable groups. This aspect will be further examined through the environmental and social impact assessment.

Human Rights:

As explained in section F of the concept note, at project proposal stage, and in line with UN-Habitat's Project Management Cycle and Work Flow policy, the project will further be screened for its adherence to three cross-cutting issues which are: gender, human rights and climate change. The Human Rights Officer of UN-Habitat will ensure that the project is designed to respect and adhere to the requirements of all relevant conventions on human rights.

Gender Equity and Women's Empowerment:

The project design will ensure that gender considerations are included in all project interventions, with a specific focus on activities on the ground (Components 1 and 2) as well as capacity building on the national level (Component 3). During the development of the full project proposal, the Gender Officer of UN-Habitat will be consulted to ensure that the project follows best-practice guidelines (see above on UN-Habitat's Project Management Cycle and Work Flow policy).

For instance, at the community level, the project will create employment that can contribute to women's empowerment. Gender-differentiated vulnerability analysis, focused capacity building activities of the project and participatory design of products, and gender-sensitive adoption strategies will ensure that gender equality principles are adhered to in practice during project implementation.

Core Labour Rights:

The activities under Component 2 will create employment enabling some marginalised and vulnerable groups including unemployed youth and women to access employment. The relevant national labour laws guided by the ILO labour standards will be followed throughout project implementation.

Indigenous Peoples:

As Component 2 will be implemented in cities/towns with no particular incidence to any particular indigenous group living there or in surrounding areas, this particular aspect does not seem to be of relevance in terms of further assessment for ESP compliance.

Involuntary Resettlement:

Tenure security is part of UN-Habitat's core mandate. No involuntary resettlement is foreseen. However, in the event that resettlement is necessary to protect life in case of an urban area in

high risk, the due process as laid out in national and international laws will be followed. UN-Habitat has a long experience in participatory planning in high risk area in the South-East Africa sub-region, avoiding systematically involuntary resettlement.

Protection of Natural Habitats and Conservation of Biological Diversity:

While damage to natural habitats and threats to biological diversity are unlikely, there is a possibility that construction work undertaken or reforestation measures may adversely impact on local biodiversity and should be investigated during the environmental impact assessment at full proposal stage.

Climate Change:

This project is inherently an adaptation project and as such no maladaptation is foreseen. The project will not provide or install infrastructure or appliances that result in increased emissions

Pollution Prevention and Resource Efficiency:

As the project involves construction of protective measures for land/sea erosion control, an environmental and social impact assessment will have to validate whether any potential risk of pollution or wasteful use of natural resources may occur.

Public Health

No public health issues are foreseen, and improving public health is a secondary impact area of this project.

Physical and Cultural Heritage

No physical or cultural heritage impacts are foreseen, however this will have to be reviewed when the activities are being developed in more detail at full proposal stage.

Lands and Soil Conservation

The physical demarcation of areas at risk for limiting urban development (zoning) will seek to protect risk areas and critical natural habitats from urban development. Soil conservation will be enhanced through afforestation components as protective measures for land erosion control.

PART III: IMPLEMENTATION ARRANGEMENTS

A. *Describe the arrangements for project management at the regional and national level, including coordination arrangements within countries and among them. Describe how the potential to partner with national institutions, and when possible, national implementing entities (NIEs), has been considered, and included in the management arrangements.*

B. *Describe the measures for financial and project risk management.*

C. *Describe the measures for environmental and social risk management, in line with the Environmental and Social Policy of the Adaptation Fund.*

D. *Describe the monitoring and evaluation arrangements and provide a budgeted M&E plan.*

E. *Include a results framework for the project proposal, including milestones, targets and indicators.*

F. *Demonstrate how the project aligns with the Results Framework of the Adaptation Fund*

Project Objective(s)[57]	**Project Objective Indicator(s)**	**Fund Outcome**	**Fund Outcome Indicator**	**Grant Amount (USD)**
Project Outcome(s)	**Project Outcome Indicator(s)**	**Fund Output**	**Fund Output Indicator**	**Grant Amount (USD)**

G. *Include a detailed budget with budget notes, broken down by country as applicable, a budget on the Implementing Entity management fee use, and an explanation and a breakdown of the execution costs.*

H. *Include a disbursement schedule with time-bound milestones.*

[57] The AF utilized OECD/DAC terminology for its results framework. Project proponents may use different terminology but the overall principle should still apply

PART IV: ENDORSEMENT BY GOVERNMENTS AND CERTIFICATION BY THE IMPLEMENTING ENTITY

A. Record of endorsement on behalf of the government

Government of Malawi: Mr. Peter K. Simbani Director, Debt & Aid Management Division, Ministry of Finance	Date*: 6 January 2017*
Government of Madagascar: Ms. Jane Alice Laurette Razanamiharisoa Chef du Service Adaptation au Changement Climatique, Direction du Changement Climatique	Date*: 13 December 2016*
Government of Mozambique: Mrs. Sheila Santana Afonso Permanent Secretary Ministry of Land, Environment and Rural Development	Date*: 5 December 2016*
Government of the Union of Comoros: Colonel Ismael Mogne Daho Directeur Général de la Sécurité Civile	Date: *14 December 2016*

B. Implementing Entity certification

I certify that this proposal has been prepared in accordance with guidelines provided by the Adaptation Fund Board, and prevailing National Development and Adaptation Plans of Madagascar, Malawi, Mozambique and the Union of Comoros and subject to the approval by the Adaptation Fund Board, commit to implementing the project in compliance with the Environmental and Social Policy of the Adaptation Fund and on the understanding that the Implementing Entity will be fully (legally and financially) responsible for the implementation of this project/programme.	
Rafael Tuts, Director Programme Division, UN-Habitat *Implementing Entity Coordinator*	
Date: 9 January 2017	Tel.nr: +254-20-7623726 email:rafael.tuts@unhabitat.org
Project Contact Person: *Mathias Spaliviero, Senior Human Settlements Officer, Regional Office for Africa, UN-Habitat*	
Tel. nr: + 254-20-7624716 Email: mathias.spaliviero@unhabitat.org	

MEMORANDUM OF UNDERSTANDING

BETWEEN

THE GOVERNMENT OF MADAGASCAR,

THE GOVERNMENT OF MALAWI,

THE GOVERNMENT OF MOZAMBIQUE

AND

THE GOVERNMENT OF THE UNION OF COMOROS

WITH

THE UNITED NATIONS HUMAN SETTLEMENTS PROGRAMME

ACTING AS A FACILITATOR

FOR THE ESTABLISHMENT OF A TECHNICAL CENTRE FOR DISASTER RISK MANAGEMENT, SUSTAINABILITY AND URBAN RESILIENCE IN SOUTHERN AFRICA

PREAMBLE:

ACKNOWLEDGING that, disaster triggered by natural hazards affects more than two hundred million people annually, and more than ninety-five percent (95%) of all disaster related deaths occur in developing countries including, grave economic losses;

COGNISANT that, chronic rural poverty in developing countries exacerbated by drought and environmental hazards determines rural-urban migration of these populations in search of a livelihood thereby, increasing 'informal' urbanisation due to the lack of and/or exhaustion of basic services;

DEEPLY CONCERNED that, responding to large-scale disasters especially in southern Africa detracts resources from development;

RECOGNISING that, investing in disaster prevention compared to disaster response can save as much as US$12 (United States Dollars Twelve) in disaster losses for every single United States Dollar spent on disasters;

ACKNOWLEDGING that, the high urban growth rates observed in southern Africa, as well as in the rest of the African continent, increase the risk of disaster occurrence in urban areas, due to the higher concentration of people and the still reduced capacity of cities, humanitarian actors and national institutions to address urban-specific disasters;

RECOGNISING the existing technical capacity gap in southern Africa regarding urban risk reduction and resilience, an area of increasing importance for ensuring sustainable development;

AFFIRMING that, southern Africa is exposed to the impacts resulting from recurrent hazards such as cyclones, floods, droughts and earthquakes, compounded by other threats caused by volcanic activity and/or anthropogenic interventions;

AFFIRMING further that, the Government of Madagascar as represented by the Ministry of Home Affairs (*Ministère de l'Intérieur*), the Government of Malawi as represented by the Office of the Vice-President, the Government of Mozambique as represented by the Ministry State Administration (*Ministério da Administração Estatal - MAE*), and the Government of the Union of Comoros as represented by the Ministry of Home Affairs, Information and Decentralisation, in charge of Institutional Relations (*Ministère de l'Intérieur, de l'Information et de la Décentralisation – Chargé des Relations avec les Institutions*), as well as, any other Governments from the southern African region willing to become a party to this Memorandum of Understanding who will sign letters of endorsement for the establishment of a Technical Centre for DRR and CCA in southern Africa as per Annex B hereto (hereinafter referred to as the "**Governments**"), are well aware of natural threats and vulnerabilities which are found in southern Africa; (***See Annex C – Form for Additional Signatories to this Memorandum of Understanding***);

RECALLING that, there already exist, in terms of policies, strategies, key initiatives and active institutions and organisations with regards to disaster risk reduction (DRR) at different levels such as;

(i) At the global level – the Hyogo Framework for Action (hereinafter referred to as "HFA"), the first plan to explain, describe and detail the work that is required from all different sectors and actors to reduce disaster losses by 2015, the United Nations International Strategy for Disaster Reduction (hereinafter referred to as "UNISDR"), that serves as the focal point for the coordination of disaster risk reduction and ensures synergies among disaster risk reduction activities and the DRR Strategy of the African Union (hereinafter referred to as the "AU");

(ii) At the regional level – the Southern African Development Community (hereinafter referred to as "SADC") DRR Unit, an inter-governmental organisation headquartered in Gaborone, Botswana, with the aim to further socio-economic development, regional integration and alleviate poverty among southern African States, the Indian Ocean Commission (hereinafter referred to as "IOC"), an inter-governmental organisation comprising of five (5) countries in the Indian Ocean that is: the Union of the Comoros, Réunion Island, Madagascar, Mauritius and Seychelles; with the aim to strengthen the ties of the countries of the Indian-oceanic region to reduce the vulnerability and build the resilience of communities to natural and other hazards;

(iii) At the national level – existing DRR frameworks in Madagascar, Malawi, Mozambique, and the Union of the Comoros in terms of key policies and strategies, main actors such as, government institutions, the United Nations, non-governmental organisations (NGOs) and bilateral/multilateral donors;

ACKNOWLEDGING that, any new entity to be established in relation to DRR shall have to fit within the above stated institutions policies and frameworks without competing nor conflicting with them, but rather complimenting and supporting them, by creating synergies and addressing needs and gaps;

WHEREAS, the Governments acknowledge that there is a need to support DRR and Climate Change Adaptation (CCA) efforts in the sub-region and are aware that reducing risks of disasters, both natural and man-made such as, floods, drought, cyclones, landslides, earthquakes, fires, pest infections and epidemics, which have been increasing especially in the sub-region, in the light of climate change, population growth, urbanisation and environmental degradation, which disrupt people's livelihoods, endanger human and food security, damage infrastructure and hinder economic growth and development, is an integral element of socio-economic development;

WHEREAS, the Governments by letters of endorsement for the establishment of a Technical Centre for DRR and CCA in southern Africa, with initial focus on Madagascar, Malawi, Mozambique and Union of the Comoros, dated 25 November 2011, 22 May 2012, 6 June 2012 and 19 May 2012 respectively, are committed to reduce risk of disasters through the establishment of a Technical Centre for DRR and CCA in Madagascar, Malawi, Mozambique and the Union of the Comoros, and mobilise resources for DRR and CCA activities in the sub-region; (***See Annex B: Letters of Endorsement by the Governments***);

WHEREAS, the United Nations Human Settlements Programme (hereinafter referred to as "**UN-Habitat**"), established by the General Assembly of the United Nations by its Resolution 32/162 of 19 December 1977, transformed into a Programme by its Resolution 56/206 of 21 December 2001, having its Headquarters in Nairobi, Kenya, UN-Habitat is the coordinating agency within the United Nations System for human settlement activities;

RECALLING Governing Council Resolutions 19/7 and 19/9 relating to UN-Habitat's Programme activities in post-conflict, natural and human-made disaster assessment and reconstruction and its work, in close coordination with appropriate multilateral and bilateral agencies, on human settlements needs in the reconstruction of countries and territories affected by armed conflicts or other human-caused or natural disasters;

TAKING NOTE OF General Assembly Resolution 59/239 of 22 December 2004, which requested UN-Habitat, within its mandate, to continue to support the efforts of countries affected by natural disasters and complex emergencies to develop prevention, rehabilitation and reconstruction programmes for the transition from relief to development;

RECALLING ALSO its General Assembly Resolution 22/8 of 3 April 2009 in which it emphasised the need to promote environmental sustainability in the delivery of basic services for all, including sustainable urban planning, risk reduction, early warning systems and appropriate responses to natural disasters;

WHEREAS, UN-Habitat has facilitated the process of establishing of the Technical Centre for **D**isaster Risk **M**anagement, **S**ustainability and **U**rban **R**esilience in southern Africa (hereinafter referred to as "**DIMSUR**") from 2008 and formally from 2010, by working in southern Africa on several DRR and resilience projects since 2002 in Mozambique, from 2004 to 2007 in Botswana, South Africa and Zimbabwe, since 2009 in Namibia, since 2010 in Malawi and Madagascar, and since 2014 in Zambia;

RECOGNISING that, UN-Habitat is mandated by its member states through Governing Council Resolution 23/19 of 18 April 2011 on Natural Disasters Risk Reduction, Preparedness, Prevention and Mitigation to support the implementation of regional and sub-regional, national and local urban risk

reduction and early warning programmes including the production of guidelines and training programmes and the collection and dissemination of best practices;

AND FURTHER RECOGNISING UN-Habitat's work in the urban resilience agenda at the global level in recent years;

THEREFORE, the Governments and UN-Habitat, acting as the facilitator, have agreed to collaborate in the DIMSUR operationalisation process to address the needs of the Governments in alignment with the existing global HFA; the regional AU Countries, the sub-regional SADC and IOC and national policies and strategies to reduce vulnerability and build resilience of communities against natural and other hazards;

WHEREAS, the Governments and UN-Habitat, acting as the facilitator, and hereinafter collectively referred to as the "Parties" and individually as the "Party", further agree that the DIMSUR shall be governed by a Charter (***herein attached as Annex A***) made in writing by the duly authorised representatives of the Parties outlining the objectives, activities, membership and governance of the DIMSUR of which shall be annexed hereto and shall form an integral part of hereof. The Parties agree that this Memorandum of Understanding (hereinafter referred to as the "**MoU**"), does not provide such authority;

NOW THEREFORE, the Governments and UN-Habitat, acting as the facilitator, recognising the benefits of genuine, substantive cooperation and wishing to pursue such cooperation in the establishment and operationalisation of the DIMSUR in Mozambique, have entered into this MoU in a spirit of trust and cooperation and hereby agree as follows:

ARTICLE I
Documents

1. This MoU consists of this document and the following Annexes that form an integral part of it:

   (a) Annex A ("**The Charter**": Technical Centre for Disaster Risk Management, Sustainability and Urban Resilience in southern Africa); and

   (b) Annex B ("**The Governments Letters of Endorsement**" for the establishment of the DIMSUR in southern Africa, with initial focus on Madagascar, Malawi, Mozambique and the Union of the Comoros, dated 25 November 2011, 22 May 2012, 6 June 2012 and 19 May 2012 respectively);

   (c) Annex C ("**Form for Additional Signatories**" to this MoU).

ARTICLE II
Scope and Purpose

1. This MoU provides a framework of cooperation between the Governments and UN-Habitat, acting as facilitator, in the establishment and operationalisation of the DIMSUR with initial focus on Madagascar, Malawi, Mozambique and the Union of the Comoros to provide DRR, CCA and urban resilience technical assistance and knowledge to address the needs of the Governments in alignment with the existing global Hyogo Framework for Action (HFA) and the related strategies of the African Union

(AU), the Southern African Development Community (SADC) and the Indian Ocean Commission (IOC), to reduce the vulnerability and build the resilience of communities to natural and other hazards.

2. The establishment and operationalisation of the DIMSUR in southern Africa shall be initially with Madagascar, Malawi, Mozambique and the Union of the Comoros. Further engagement of other countries of the sub-region shall be undertaken through a multi-phased approach over nine (9) years as follows:

(a) *First Phase (years 1 – 3)*: Market survey and capacity assessment conducted to identify gaps and needs and define the type of services to be delivered by the DIMSUR; Limited number of high quality services delivered, with focus on urban resilience, through a light management structure taking maximum advantage of the pool of expertise and human resources available in the region to build the credibility of the DIMSUR; Identification of four (4) additional countries to integrate the geographical coverage of the DIMSUR and move into the next Phase; Clear complimentary roles with SADC DRR Unit defined and strategic/mutually benefiting partnerships established with existing regional partners working on DRR, CCA and urban resilience issues;

(b) *Second Phase (years 4 – 6)*: Consolidation of the activities of the First Phase and preparation of the DIMSUR to become a stand-alone service provider; Increased diversification of its activities and services, targeting innovation; Improvement to the governance and operational structures; Integration of the identified four (4) countries during the 1st Phase while four (4) other countries are targeted;

(c) *Third Phase (years 7 – 9)*: Consolidation of the activities of the Second Phase; Broadening of its constituency and offer/demand of services; the DIMSUR increases its credibility and is involved in larger projects and programmes in the region including, collaborations with international networks of DRR centres and institutions around the world; The last of the SADC countries are targeted to be covered by the DIMSUR.

3. The outcome of the establishment and operationalisation of the DIMSUR in southern Africa shall:

(a) Create a permanent regional institution which shall provide technical support on DRR, CCA and urban resilience to local and national governments, SADC, IOC, NGOs, United Nations partners, community based organisations, universities and research centres, beyond the life of projects and programmes, with the aim at gradually building local, national and regional capacity;

(b) Propose innovative DRR, CCA and urban resilience programmes and activities, including training and research;

(c) Support and strengthen the implementation of DRR and CCA practices and activities within the framework of the existing policies at the local, national and regional levels;

(d) Enable DRR, CCA and urban resilience knowledge, information sharing and exchanges between Member States;

(e) Maximise the use of existing capacities and expertise in the region, so that needed expertise can be readily mobilised upon demand from the Member States or other partners in southern Africa;

(f) Support coordination efforts for better addressing common DRR, CCA and urban resilience concerns and challenges in the sub-region, by creating synergies, complementary approaches and sharing experiences, lessons learned and best practices;

(g) Establish a defined agenda that aims at covering key thematic and capacity gaps, such as the urban theme, to meet the current demand;

(h) Create an enabling environment to bring the DRR and CCA agendas more effectively together;

(i) Assist Member States in developing their technical capacity through the establishment of DIMSUR sub-units at country level, and in elaborating sustainable recovery, longer-term DRR and resilience programmes, including advocacy and awareness-raising;

(j) Complement/reinforce the work of SADC DRR Unit through the provision of technical support and sharing of information;

(k) Increase the visibility of national governments/partners on DRR/CCA at regional/global scales;

(l) Relevant documents produced as a result of this collaboration will be in all three (3) official languages spoken in southern Africa that is, French, Portuguese and English.

4. The sustainability of the DIMSUR in southern Africa shall be successfully achieved through:

(a) Full participatory endorsement and ownership from the countries concerned including active involvement of key organizations such as, SADC, IOC, the AU, NGOs and external donors;

(b) Advocacy and resource mobilisation carried out under the leadership of the DIMSUR;

(c) Income generation by: (i) ensuring quality services are provided and desired results achieved; (ii) setting up a monitoring and evaluation system for measuring its impact; (iii) making itself an indispensable part for the DRR, CCA and urban resilience fabric in the southern African region;

(d) Seeking financial contributions for implementing innovative projects and crucial studies whilst providing technical assistance to needed partners, among other activities;

(e) Developing synergies and building good partnerships with other DRR, CCA and urban resilience capacity and resource providers across the sub-region;

(f) Gaining credibility by expanding to the whole SADC sub-region within the three-phased approach as stated herein above;

(g) Observing a decrease of the contributions from external donors to its core cost over time while its capability to generate income increases.

(h) Becoming a privileged facilitator for governments and development partners in the DRR, CCA and resilience fields.

ARTICLE III
General Responsibilities of the Parties

1. The Governments and UN-Habitat, acting as the facilitator, agree to carry out their respective responsibilities in accordance with the provisions of this MoU;

2. The Governments and UN-Habitat shall keep each other informed of all relevant activities pertaining to this MoU and shall hold consultations at any time deemed appropriate.

3. The Governments and UN-Habitat shall fulfil their commitments with fullest regard to the terms and conditions of this MoU.

4. The Governments and UN-Habitat agree that this MoU and any work plan agreed to hereunder are neither fiscal nor funding obligations documents. Any commitment to transfer anything of value involving reimbursement or to provide funds, goods or services by the Parties for any agreed activity will be outlined in separate agreements that shall be made in writing by representatives of the Governments and UN-Habitat and shall be independently authorised by an appropriate authority of the funding party consistent with the regulations, rules, policies and practice of the Governments and UN-Habitat. The Parties agree that this MoU does not provide such authority.

ARTICLE IV
Areas of Collaboration of the Parties

1. The main areas of collaboration between the Parties include, but not limited to:

   (a) Establishing and maintaining a partnership with the SADC DRR Unit and the southern African countries by providing technical support;

   (b) Serving as platform for the discussion and exchange of good practice, experience and knowledge in DRR, CCA and urban resilience and maximising the use of existing expertise in the sub-region;

   (c) Establishing synergies between CCA and DRR agendas;

   (d) Providing support to innovative DRR, CCA and urban resilience programmes and activities;

   (e) Mobilising resources and providing capacity towards the good functioning of the DIMSUR.

ARTICLE V
Specific Responsibilities of the Parties

1. The specific responsibilities of the Governments are:

   (a) To enter into a Charter as per Annex A, which outlines the governance structure of the DIMSUR, follow its guidelines and fulfil its prerogatives;

   (b) To review and approve the Terms of Reference (ToR) for the operationalisation of the DIMSUR, including the roles and responsibilities of its recruited staff members;

(c) To endorse the appointment of an Executive Director to head the DIMSUR, as well as of the DIMSUR National Focal Points, one per country;

(d) To actively support and, when possible, to contribute to the mobilisation of funds to guarantee an adequate operationalisation of the DIMSUR over the years;

(e) To approve the strategy, the work plan (including the activities) and the budget of the DIMSUR on an annual basis;

2. The specific responsibilities of UN-Habitat are:

(a) To act as a facilitator to support the establishment and operationalization of the DIMSUR with initial focus on Madagascar, Malawi, Mozambique, and the Union of the Comoros;

(b) To properly manage, on behalf of the Governments, the funds related to the operationalisation of the DIMSUR until the latter does not acquire the legal and administrative capacity for this purpose;

(c) To facilitate the recruitment process of the key personnel of the DIMSUR, namely its Executive Director and the National Focal Points, through a transparent process following United Nations international standards, and propose qualified candidates for the endorsement of the Governments;

(d) To support the implementation of the DIMSUR activities from a substantive and administrative perspective, and effectively help so that it becomes autonomous in the short-term;

(e) To actively support the mobilisation of funds, especially through advocacy, until the DIMSUR becomes economically self-sufficient;

(f) To support the identification of additional countries within the southern Africa region to integrate the DISMUR initiative in a phased manner, as described in Article II, Paragraph 2.

ARTICLE VI
Monitoring and Evaluation

1. The Governments and UN-Habitat will maintain regular close consultations to monitor and review the progress of activities for each joint project that maybe agreed upon.

2. The Governments and UN-Habitat will share with each other all relevant information and documents, including research, reports and any other information related to the activities, outputs and finally impact of this collaboration.

3. The Government and UN-Habitat may wherever possible and as appropriate, undertake joint mission with respect to the programme.

ARTICLE VII
Termination and Withdrawal

1. This MoU may be terminated by either Party giving the other party a written notice of thirty (30) days prior to its intention to terminate. In the event of termination, the Parties will take the appropriate steps to bring activities under this MoU to a prompt and orderly conclusion.

2. The Parties reserve the right of withdrawal from this MoU. In the event that a Party withdraws from this MoU because of choice or other just cause, the remaining Parties to this MoU will have the option to continue the Partnership. Should the Parties agree to carry on the collaboration under this MoU, an amended shall be effected in accordance with Article VIII herein below.

ARTICLE VIII
Amendments

This MoU may be modified by written agreement between the Parties hereto. Any relevant matter for which no provision is made in this MoU will be settled by the Parties in keeping with the general objectives of the MoU and in a manner that is conducive to continued good relations.

ARTICLE IX
Dispute Settlement

The Governments shall use their best efforts to settle amicably any dispute, controversy or claim arising out of this MoU or the breach, termination or invalidity thereof. Where the Governments wish to seek such an amicable settlement through mediation, the mediation shall be facilitated by UN-Habitat and to such procedure as may be agreed between the Governments.

ARTICLE X
Privileges and Immunities

1. Nothing in or relating to this MoU shall be deemed a waiver, express or implied, of any of the privileges and immunities of the United Nations, including UN-Habitat.

ARTICLE XI
Use of the Name, Emblem or Media

1. The Governments and UN-Habitat will not use the name or emblem of the other, or an abbreviation thereof, in connection with its business or otherwise, without the express prior written permission by a duly authorized representative of the Governments and/or UN-Habitat in each case.

2. The Governments and UN-Habitat have no authority, express or implied, to make any public statement on behalf of other and all press releases issued in relation to this MoU shall be approved in writing in advance by the Government and/or UN-Habitat before being issued.

ARTICLE XII
Notices

1. Any notice required to be given by either Party under this MoU shall be given in writing and shall be deemed given when actually received by the other Party, to the following addresses:

To the Government of Madagascar as represented by the *Bureau National de Gestion des Risques et des Catastrophes (BNGRC)* Names: Mr.LOMOTSY Ludovic Christian Title: Executive Secretary Address: Route du Mausolée Antanimora, Antananarivo, Madagascar Telephone Number: +261 20 225 9450 Email Address: sp.bngrc@bngrc.mg **To the Government of Malawi as represented by the Department of Disaster Management Affairs (DoDMA)** Names: Mr. Geoffrey Kanyinji Title: Principal Secretary Address: Ministry of Economic Planning and Development Building, Capital Hill, Lilongwe, Malawi Telephone Number: +265 1 789188 Email Address: jeffreykanyinji@gmail.com	**To the Government of Mozambique as represented by the *Instuto Nacional de Gestão das Calamidades (INGC)*** Names: Mr. João Ribeiro Title: Director General Address: Av. de Mocambique INGC/CENOE, Entrada da Base Aerea de Mavalane, Maputo, Mozambique Telephone Number: +258 416007/8 Email Address: ingc@teledata.mz **To the Government of the Union of Comoros as represented by the *Centre des Operations de Secours et de la Protection Civile (COSEP)*** Names: Col. Ismael Mogne Daho Title: Director Address: Moroni, Comoros Telephone Number: +269 7739288 Email Address: cosep@comorestelecom.km

To UN-Habitat

Names: Mathias Spaliviero
Title: Senior Human Settlements Officer, Regional Office for Africa
Address: P.O. Box 30030 – GPO Nairobi 00100 - Kenya
Telephone Number: +254 20 762 4716
Email Address: mathias.spaliviero@unhabitat.org

Names: Pasquale Capizzi
Title: Human Settlements Officer, DRR Advisor for Southern Africa
Address: 151, Rua Macombe Macossa - Maputo, Mozambique
Telephone Number: +258 21 492 579 / Mobile: +258 84 267 3080
Email Address: pasquale.capizzi@unhabitat.org

ARTICLE XIII
Entry into Force

1. This MoU shall enter into force upon signature by the authorized representatives of the Governments and UN-Habitat, being effective from the date of the latest signature and shall remain valid for a period of **nine (9) years** from the effective date of this MoU, unless earlier terminated by either Party in accordance with **Article VI clauses (1)** above.

2. The Parties agree to register the DIMSUR in Maputo, Mozambique, hence following the same registration rules of similar bodies in the Republic of Mozambique.

IN WITNESS WHEREOF, the undersigned, duly appointed representatives of the Governments and UN-Habitat have signed this MoU in five (5) originals in English, French and Portuguese in the place(s) and on the date(s) herein below indicated. In the event there is any conflict in the terms and conditions in the French or Portuguese versions, the English version shall prevail.

Le Ministre de l'Intérieur et de la décentralisation

For the Government of Madagascar
As represented by

Hon. Mr. Olivier Mahafaly Solonandrasana
Minister of Home Affairs and Decentralisation

Place: ANTANANARIVO

Date: 22/10/14

For the Government of Mozambique
As represented by

Hon. Ms. Carmelita Rita Namashulua
Minister of State Administration

Place: Maputo, Moçambique

Date: 29. Julho. 2014

For the Government of Malawi
As represented by

Right Honourable Mr. Saulos Klaus Chilima
Vice-President of the Republic of Malawi

Place: LILONGWE

Date: 2/12/2014.

For the Government of the Union of Comoros
As represented by

Hon. Mr. Hussein Hassan Ibrahim
Minister of Home Affairs, Information and Decentralisation, in charge of Institutional Relations

Place: Moroni

Date: 27/10/2014

For UN-Habitat

Dr. Joan Clos
UN-Habitat Executive Director and
Under-Secretary General

Place: NAIROBI, KENYA

Date: 7th JULY 2014

ANNEX A

The Charter: Technical Centre for the Disaster Management Sustainability and Urban Resilience (DIMSUR) in southern Africa attached hereto

CHARTER

FOR THE TECHNICAL CENTRE FOR DISASTER RISK MANAGEMENT, SUSTAINABILITY AND URBAN RESILIENCE IN SOUTHERN AFRICA (DIMSUR)

ARTICLE I
Establishment and Organisation

1.1. Within this Charter, the Government of Madagascar, the Government of Malawi, the Government of Mozambique and the Government of the Union of Comoros (hereinafter referred to as the "Founding Member States") hereby establish and operationalise the Technical Centre for Disaster Risk Management, Sustainability and Urban Resilience in Southern Africa (hereinafter referred to as the **"DIMSUR"**).

1.2. The DIMSUR shall operate as a non-profit, autonomous, regional organisation, international in status and non-political in management, staffing and operations. The DIMSUR shall be organised for scientific, educational, technical, developmental and humanitarian purposes, and benefit from inter-governmental support.

1.3. The DIMSUR shall be based in Maputo, Mozambique, with sub-units in the Founding Member States including, Countries from the southern African Region that are Party to the Memorandum of Understanding (hereinafter referred to as the "MoU") between the Founding Member States and UN-Habitat (hereinafter referred to as the "Member States").

1.4. The official languages for the purpose and business records of the DIMSUR shall be English, French and Portuguese. However, the use of indigenous languages of southern Africa remains pertinent for the purposes of training and information dissemination to targeted populations as appropriate.

ARTICLE II
Membership

2.1. The signatories of the Memorandum of Understanding (MoU), to which this Charter is annexed to, are Member States of the DIMSUR.

2.2. Membership of the DIMSUR is open to the Founding Member States and to other countries of the southern Africa region willing to be Party to the MoU referred to under Article I, clause 1.3 above, by signing a form for additional signatories to join the Technical Centre and, thereof, adhering to this Charter and *who shall sign letters of endorsement for the establishment of a Technical Centre for DRR and CCA in southern Africa as per Annex B hereto.*

2.3. The Member States shall make contributions to the funds of the DIMSUR, according to rules and mechanisms to be agreed in consensus at the level of its Executive Board.

ARTICLE III
Scope and Objective

3.1 The objective of this Charter is to provide terms and conditions for the establishment and operationalisation of the DIMSUR.

3.2 The DIMSUR shall provide disaster risk reduction (DRR), climate change adaptation (CCA) and urban resilience technical assistance and knowledge to address the needs of its Member States in alignment with the existing global Hyogo Framework for Action (HFA), the African Union (AU), the

Southern African Development Community (SADC) and the Indian Ocean Commission (IOC), to reduce the vulnerability and build the resilience of communities to natural and other hazards.

3.4 In support of its objective, the establishment and operationalization of the DIMSUR in southern Africa shall:

(a) Create a permanent regional institution which shall provide technical support on DRR, CCA and urban resilience to local and national governments, SADC, IOC, NGOs, United Nations partners, community based organisations, universities and research centres, beyond the life of projects and programmes, with the aim at gradually building local, national and regional capacity;

(b) Propose innovative DRR, CCA and urban resilience programmes and activities, including training and research;

(c) Support and strengthen the implementation of DRR and CCA practices and activities within the framework of the existing policies at the local, national and regional levels;

(d) Enable DRR, CCA and urban resilience knowledge, information sharing and exchanges between Member States;

(e) Maximise the use of existing capacities and expertise in the region, so that needed expertise can be readily mobilised upon demand from the Member States or other partners in southern Africa;

(f) Support coordination efforts for better addressing common DRR, CCA and urban resilience concerns and challenges in the sub-region, by creating synergies, complementary approaches and sharing experiences, lessons learned and best practices;

(g) Establish a defined agenda that aims at covering key thematic and capacity gaps, such as the urban theme, to meet the current demand;

(h) Create an enabling environment to bring the DRR and CCA agendas more effectively together;

(i) Assist Member States in developing their technical capacity through the establishment of DIMSUR sub-units at country level, and in elaborating sustainable recovery, longer-term DRR and resilience programmes, including advocacy and awareness-raising;

(j) Complement/reinforce the work of SADC DRR Unit through the provision of technical support and sharing of information;

(k) Increase the visibility of national governments/partners on DRR/CCA at regional/global scales;

(l) Relevant documents produced for the DIMSUR will be in all three (3) official languages spoken in southern Africa that is, French, Portuguese and English.

ARTICLE IV
Powers

4.1 The DIMSUR shall possess international personality and juridical personality under the laws of the Member States.

4.2 The DIMSUR headquarters shall be legally established in Maputo, Mozambique, hence following the registration rules of similar bodies in the Republic of Mozambique, with sub-units in the respective Member States.

4.2 The DIMSUR shall be autonomous with inter-governmental support as provided through the Articles of this Charter.

4.3 The DIMSUR shall be accessible to all DRR, CCA and urban resilience stakeholders in the geographical sub-region and shall actively facilitate SADC and other countries of the southern Africa region to join it.

4.4 In furtherance of its overall objective herein above stated under Article III, the DIMSUR shall have the following powers:

(a) To receive, acquire or otherwise lawfully obtain from any governmental authority or from any corporation, company, association, person, firm, foundation or other entity whether global, regional, sub-regional or national, such rights, concessions and contributions as are conducive to and necessary for the attainment of the objectives of the DIMSUR;

(b) To enter into Agreements and Contracts;

(c) To employ persons according to its own rules and regulations without restrictions as to nationality, gender or religion;

(d) To institute and defend legal proceedings;

(e) To perform all acts and functions that may be necessary, expedient, suitable or proper for the furtherance, accomplishment or attainment of any or all of the purposes and activities stated here, or which may appear, at any time, conducive or necessary and useful for the objectives and activities of the DIMSUR.

4.5 No part of the earnings of the DIMSUR shall inure or be distributed to trustees, officers or other private persons WITH EXCEPTION TO pay reasonable compensation for services rendered and to make payments and distributions in furtherance of the overall objective as set out in Article III herein above.

ARTICLE V
Organs and Responsibilities

5.1 The organs of the DIMSUR shall be as follows:

(a) The Conference of Ministers:

(b) The Executive Board;

(c) The Consultative Group;

(d) The Secretariat.

5.2 ***The Conference of Ministers:***

5.2.1 The Conference of Ministers shall consist of Ministers from the DIMSUR Member States who have the national responsibility for DRR and CCA *(NB: in the event that the responsibilities for DRR and CCA are divided between two or more ministries, any of these ministries can attend the conference but there shall only be one national Ministry represented on the Conference at any one time).*

5.2.2 The Conference of Ministers shall meet when required, as agreed by the Member States.

5.2.3 The Conference of Ministers shall have the following powers and functions:

(a) To endorse formally the DIMSUR's overall vision and mission, policies and strategies;

(b) To endorse formally the composition of the Executive Board;

(c) To acknowledge formally the inclusion of a new Member States in the DIMSUR;

(d) To provide a platform for advocacy for the work of the Technical Centre in international meetings and conferences.

5.2.4 The Chairperson of the Conference of Ministers shall be appointed from among the Ministers represented, in rotation, on a two-year basis.

5.2.5 The Chairperson of the Executive Board shall act as the Secretary for the Conference of Ministers.

5.2.6 Decisions during meetings of the Conference of Ministers shall be taken by a three-fourths (3/4) majority present, that is, fifty percent plus one of the total number (hereinafter referred to as a "quorum"), and by open voting. A quorum is needed for official votes to take place.

5.3 ***The Executive Board:***

5.3.1 The Executive Board shall consist of the National Directors responsible for DRR/CCA from each Member State, a representative from SADC Disaster Risk Reduction (DRR) Unit, a representative from United Nations Human Settlements Programme (UN-Habitat) as facilitator of the DIMSUR initiative and in representation of the UN System, one or two representatives from civil society, and one or two representatives from academia.

5.3.2 The Executive Board shall meet once a year or when required, as agreed by the Member States.

5.3.3 The Executive Board shall have the following powers and functions:

(a) To review the proposed policies and strategies of the DIMSUR, and submit them to the Conference of Ministers for formal endorsement;

(b) To evaluate the DIMSUR's performance in accordance with those policies and strategies and formulate recommendations for improvement;

(c) To review and approve the DIMSUR's annual work plans and budgets presented by the Secretariat, and approve auditors' reports to ensure the Technical Centre's cost-effectiveness, financial integrity and accountability;

(d) To appoint the DIMSUR's external auditors;

(e) To review and approve the Terms of Reference (ToR) for the operationalisation of the DIMSUR, including the roles and responsibilities of its recruited staff members;

(f) To approve and appoint the Executive Director to head the DIMSUR, as well as of the DIMSUR National Focal Points, one per country;

(g) To dismiss, with proper justification, the DIMSUR's Executive Director;

(h) To maintain affiliations with other global, regional, sub-regional and national organisations as appropriate;

(i) To exercise any other powers and undertake any other functions that are conducive to the achievement of the objectives of the DIMSUR as a body benefiting from inter-governmental support.

5.3.4 The Chairperson of the Executive Board shall be appointed from among the National Directors responsible for DRR and CCA, in rotation, on a yearly basis. The Chairperson of the Executive Board shall have the following main authority and responsibilities:

(a) To convene and chair meetings of the Executive Board;

(b) To sign all official documentation relating to the business of the DIMSUR which documentation shall not be legal without such a signature.

5.3.5 The Executive Director of the DIMSUR shall act as the Secretary for the Executive Board. He/she will be an *ex-officio* member of the Executive Board.

5.4 ***The Consultative Group***:

5.4.1 The Consultative Group is a body of the DIMSUR consisting of representatives of relevant DRR, CCA and urban resilience stakeholders from Member States and the southern Africa region, as well as internationally recognised DRR, CCA and urban resilience experts and representatives of international organisations, bi-lateral and multi-lateral donors, NGOs and others.

5.4.2 The Consultative Group shall meet when required and financially possible. Most of the times, it shall act as a web-based network of individuals committed to DRR, CCA and urban resilience in southern Africa that guides the DIMSUR in the achievement of its objectives.

5.4.3 The Chairperson of the Consultative Group shall be appointed from the body of the Consultative Group, rotating as per its agreed rules. For its meetings, the Consultative Group shall appoint its own rapporteur to record the proceedings.

5.4.4 The role of the Consultative Group members is to:

(a) Assist in the identification of the DRR, CCA and urban resilience needs of countries in the region on behalf of the DIMSUR;

(b) Assist in identifying opportunities for the DIMSUR in the southern Africa region and provide guidance to the implementation of its activities;

(c) At the invitation of the DIMSUR Executive Director, to review or provide advice on relevant components of the centre's policies, strategies and programmatic activities.

5.4.5 Membership of the Consultative Group is by invitation of the Executive Board, upon recommendation of the Executive Director. Membership will be for a period of three years, renewable at the discretion of the Executive Board, upon recommendation of the Executive Director.

5.5 ***The Secretariat:***

5.5.1 The Secretariat shall consist of the Executive Director of the DIMSUR, the National Focal Points (one per Member State), some technical staff and a support team. Apart from providing the Secretary to the Executive Board, the Secretariat is the operational management of the Technical Centre.

5.5.2 The Secretariat has the following principal functions and responsibilities:

(a) To liaise with local, national, regional or international governmental bodies, bi-lateral and multi-lateral cooperation programmes, institutions, corporations, companies, associations, firms, foundations or organisations to assess, plan and develop partnerships resulting into the implementation of activities of the DIMSUR according to its mandate;

(b) To accept, budget and ensure proper use of financial contributions and other forms of financial support from any of the above-listed entities as may be required for the DIMSUR's operations;

(b) To develop, coordinate and propose policies and strategies for the review of the Executive Board and further endorsement by the Conference of Ministers;

(c) To prepare annual work plans and budgets for review and approval of the Executive Board, including their revision, as required;

(d) To ensure the implementation and oversee the activities of the DIMSUR associated with those work plans, in accordance with the approved budget;

(d) To recruit technical and administrative staff, as required and according to the available financial resources, and provide leadership for the DIMSUR;

(f) To report to the Executive Board both substantively and financially on an annual basis;

(g) To perform such other functions that are conducive to the achievement of the objectives of the DIMSUR, as an autonomous body.

ARTICLE VI
Staffing of the Secretariat

6.1 The staff of the DIMSUR shall consist of: (i) an Executive Director, to be appointed and approved by the Executive Board; (ii) one National Focal Point per Member State to be recommended by the Executive Director and approved by the Executive Board; (iii) technical staff and a support team (accountant, executive assistant, drivers, etc.) to be appointed by the Executive Director. The staffing may increase in size over time according to the needs and the availability of financial resources.

6.2. The paramount consideration in the appointment of the DIMSUR's staff and the determination of conditions of service shall be the requirement of securing the highest standards of quality, efficiency, competence and integrity. Staff may be of any nationality but preference in the initial appointments will be given firstly, to nationals from the Member States, and subsequently to citizens of countries from southern Africa.

6.3 Salary scales and other benefits shall be laid down in staff regulations developed by the Secretariat and approved by the Executive Board.

ARTICLE VII
Financial Provisions

7.1 In addition to Article II, clause 2.3, the DIMSUR may acquire its funds, resources and assets by the following means:

(a) Cash/funds or assets donated by individuals and institutions for philanthropic reasons;

(b) Grants for meeting the objectives of the DIMSUR or for the implementation of its programmes;

(c) Income generated by the activities of the DIMSUR;

(d) Interest generated from the assets of the DIMSUR;

(e) Cash or assets donated to the DIMSUR by any will or testament or other legal deeds without any condition or commitment on the Technical Centre for liability for debt or other legal obligation;

(f) Any other lawful means consistent with the objectives of the DIMSUR.

7.2 The Executive Board shall decided on the date of commencement of the DIMSUR's financial year.

7.3 The financial operations of the DIMSUR shall be governed by internationally acceptable accounting standards.

7.4 The Executive Board shall approve the policies and procedures for finance, accounting and managing the assets of the DIMSUR by the Secretariat.

7.5 Each member of the Executive Board has the right to inspect the books and accounts of the Technical Centre.

7.6 A full financial audit of the operations of the Technical Centre shall be conducted on an annual basis by an independent auditing firm appointed by the Executive Board upon the recommendation of the Executive Director. Audit reports shall be submitted by the Executive Director to the Executive Board for its consideration and approval.

ARTICLE VIII
Privileges and Immunities

8.1 The DIMSUR shall exercise the utmost diligence in obtaining from the Government of Mozambique and any other host country in which it may work, such agreements as are necessary for the

purpose of obtaining for the centre, its officials and facilities, privileges and immunities from any form of restriction such as immigration, income taxes and customs duties as are required for the Technical Centre to do its work effectively.

ARTICLE IX
Amendments

9.1 This Charter may be amended by the Executive Board by a three-fourths (3/4) majority of the voting Members of the Executive Board present at a legally constituted meeting and by open voting, provided that such notice of such proposed amendment, together with its full text, shall have been mailed to all Executive Board members at least eight weeks in advance of the meeting or that such notice is waived by all Executive Board Members.

ARTICLE X
Dissolution

10.1 The DIMSUR may be dissolved by a joint meeting of the Conference of Ministers and the Executive Board. The dissolution shall take place upon agreement by the official signatories. The procedures stated in Article IX shall apply.

10.2 In the event of a dissolution, the assets of the DIMSUR situated in Mozambique or in other countries shall be transferred to institutions and organisations in the sub-region selected by a joint meeting of the Conference of Ministers and the Executive Board that have similar objectives to the DIMSUR.

ARTICLE XI
Entry into Force

11.1 This Charter shall enter into force upon the signature of the Memorandum of Understanding to which it constitutes Annex A by the Founding Member States.




ANNEX B

The Government Letters of Endorsement for the Establishment of the DIMSUR in southern Africa, with initial focus on Madagascar, Malawi, Mozambique and the Union of Comoros dated: 25 November 2011, 22 May 2012, 6 June 2012 and 19 May 2012 respectively attached hereto.

REPOBLIKAN' I MADAGASIKARA
Fitiavana - Tanindrazana - Fandrosoana

Le Ministre de l'Intérieur

Antananarivo, le 25 NOV 2011

N° 4404 -Mininter/Cab

A

Madame le Chargé de Programme de l'organisme des Nations Unies pour les Etablissements Humains (ONU-HABITAT)

Objet : Création d'un centre sous-régional pour la réduction des catastrophes et la reconstruction durable (DIMSUR) à Mozambique.

Madame le chargé de programme,

La création d'un centre pour la réduction des risques et des catastrophes et les reconstructions durables sous régional dans le Sud-Est de l'Afrique et dans le Sud-Ouest de l'Océan Indien ne peut être que bénéfique pour les quatre pays concernés dont Madagascar.

L'appui aux efforts nationaux et locaux pour faire face aux risques aux catastrophes, avec une importance accordée à la protection des personnes et des biens vis-à-vis des aléas climatiques, à travers l'établissement dudit centre est une opportunité à saisir.

Ainsi, ai-je l'honneur de porter à votre connaissance la non-objection du Gouvernement Malagasy pour la poursuite du processus de mise en place dudit centre afin de permettre aux quatre pays concernés de collaborer étroitement en matière de gestion des risques et catastrophes, avec la possibilité d'extension vers les autres pays de la sous-région.

En souhaitant l'aboutissement de cet ambitieux projet, veuillez recevoir, Madame le Chargé de Programme, l'assurance de ma considération distinguée.

Le Ministre de l'Intérieur

MINISTERE DE L'INTERIEUR

Florent RAKOTOARISOA

Telephone: 265 1 789 311
Fax : 265 1 788456

Office of the President and Cabinet
Private Bag 301
Lilongwe 3
Malawi

Ref No M3/01/49

22nd May, 2012

Axumite Gebre-Egziabher
Director, Regional Office for Africa
UN-HABITAT
P O Box 30030
GPO 00100 – Nairobi
Kenya.

Pedro Basabe
Head, Regional Office for Africa
United Nations International Strategy for DR (UN-ISDR)
Nairobi
Kenya

cc: Mathias Spaliviero
UN-HABITAT
P O Box 30030
GPO 00100 – Nairobi
Kenya.

Dear Sir/Madam,

FORMAL ENDORSEMENT OF THE COUNTRY-DRIVEN TECHNICAL CENTRE FOR DISASTER RISK REDUCTION FOR SOUTHERN AFRICA, WITH INITIAL FOCUS ON MADAGASCAR, MALAWI, MOZAMBIQUE AND THE UNION OF COMOROS

It is with honour that we share the advances achieved towards the establishment of a technical centre to support Disaster Risk Reduction (DRR) efforts in this sub-region as initially driven by Madagascar, Malawi, Mozambique and the Union of Comoros.

Building on these achievements, we hereby provide you with a formal endorsement of the initiative.

As a country, we are aware that this initiative aims at establishing the capacities and the technical knowledge to reduce risks of disasters. This

effort is of significant relevance for the country and the sub-region. In fact, Malawi faces a number of disasters, both natural and human-made which include floods, drought, stormy rains, strong winds, hailstorms, landslides, earthquakes, pest infestations, disease outbreaks, fire and accidents. The intensity and frequency of disasters has been increasing, in light of climate change, population growth, urbanization and environmental degradation. Disasters disrupt people's livelihoods, endanger human and food security, damage infrastructure and hinder socio-economic growth and development. Disasters also increase the poverty of rural and urban households and erode the ability of the national economy to invest in key social sections that are important to reducing poverty.

Reducing risks of disasters through adequate capacities is, therefore, an integral element of socio-economic development strategies. This is fully recognized in Malawi, as demonstrated in the Malawi Growth and Development Strategy (MGDS), under theme Three "Social Support and Disaster Risk Management".

We strongly believe that the Sub-Regional Centre to be established will greatly help the participating countries, Malawi inclusive, to attract donor support and hence, mobilize resources for disaster risk management activities.

In view of this, on behalf of Malawi Government, I endorse the commitment for the establishment of the Sub-Regional Centre for Disaster Mitigation and Reconstruction (DIMSUR) in Mozambique.

Yours sincerely,

Bright Msaka, SC
CHIEF SECRETARY TO THE GOVERNMENT

REPÚBLICA DE MOÇAMBIQUE
MINISTÉRIO DA ADMINISTRAÇÃO ESTATAL
MINISTRA

Ofício nº 285 /MAE/15 /GM/ [illegible] INGC/2012

Assunto: Estabelecimento do Centro Técnico Sub-regional de Apoio às Acções de Redução do Risco de Desastres na África Austral

Havendo necessidade de reforçar e consolidar a cooperação regional no domínio das acções de redução do risco de desastres, temos a honra de comunicar a Vossas Excelências que Moçambique acolhe o estabelecimento do Centro Técnico Sub-regional de Apoio às Acções de Redução do Risco de Desastres na África Austral (DIMSUR), no seu território.

Usamos esta ocasião, para informar a Vossas Excelências que todos os aspectos técnicos e operacionais inerentes a materialização desta iniciativa de impacto regional, no domínio dos esforços integrados de redução do risco de desastres, devem ser abordados através do Instituto Nacional de Gestão de Calamidades (INGC).

Rua da Rádio Moçambique nº. 112, 2º Andar, Tel: 21350979, Telefax: 21325130, C.P. 4116

O INGC é a entidade do Governo que lida com os aspectos relacionados com a Gestão do Risco de Desastres em Moçambique.

Ciente de que o assunto merecerá a devida atenção de Vossas Excelências, endereçamos os melhores cumprimentos.

Maputo, aos 06 de Junho de 2012

A MINISTRA

Carmelita Rita Namashulua

Exmo Senhor
Silva J. Magaia
Gestor do UN-HABITAT em Moçambique

MAPUTO

Rua da Rádio Moçambique nº. 112, 2º Andar, Tel: 21350979, Telefax: 21325130, C.P. 4116

UNION DES COMORES

Unité -solidarité –Développement

MINISTERE DEL'INTERIEUR, DE L'INFORMATION, DE LA DECENTRALISATION CHARGE DES RELATIONS AVEC LES INSTITUTIONS

Moroni, le 19 Mai 2017

LE MINISTRE

N°012-171 /MIIDI /CAB

A

Madame Axumite Gebre-Egziabher
Director
Regional Office for Africa
United Nations Human Settlements Programme
(UN-HABITAT)
UN Avenue, Gigiri,
UN-HABITAT, P.O. Box 30030
Nairobi 00100, Kenya

Monsieur Pedro Basabe
Head, UNISDR Regional Office for Africa
UN Complex, Gigiri, block N, first floor entry N-P blocks
P.O. Box 47074. Nairobi Kenya

Objet : Approbation du gouvernement comorien de la création d'un Centre technique d'appui à la réduction des risques de catastrophes en Afrique australe

Madame et Monsieur,

J'ai l'honneur et le plaisir de vous informer que le Gouvernement comorien suit avec beaucoup d'attention le processus de création et de mise en place d'un Centre technique d'appui à la réduction des risques de catastrophes en Afrique australe dont le projet est porté par les quatre pays que sont le Malawi, Madagascar, le Mozambique et l'Union des Comores. Notre pays est, en effet, exposé à de multiples risques naturels, exacerbées par les changements climatiques. L'exposition à ces risques met en danger aussi bien la sécurité humaine mais aussi celle des infrastructures et à terme la capacité et les efforts de développement engagés sur l'ensemble du territoire national. La mise en place de ce Centre technique constituera un puissant levier pour préparer et répondre à l'impact potentiel des risques de catastrophes.

La réduction des risques de catastrophes fait partie intégrante des plans de développement de notre pays et des actions déployés par le Ministère dont j'ai la charge à travers notre structure d'appui qu'est la Direction Générale de la Sécurité Civile (DGSC), assurant la Coordination des Opérations de Secours et Préparation. Conscient de la nécessité d'apprendre des expériences des autres et de renforcer les capacités nationales, notre pays s'est engagé depuis le début dans le processus de mise en place du DIMSUR. Nous avons participé aux réunions de Nairobi (Avril 2010) dans lequel les quatre pays ont demandé à l'ONU-HABITAT de faciliter le processus, de Lilongwe (Février 2011) dans lequel le groupe de pilotage dirigé par l'ONU-SIPC a été formé, de Johannesburg (Juillet 2011) dans lequel le processus a été mis à jour et les décisions préliminaires prises et de Maputo (Décembre 2011) dans lequel l'étude a été finalisée et le projet de création du Centre a été enclenché. Nous travaillons de manière continue avec les équipes d'experts de l'ONU-HABITAT et avons également facilité la mission aux Comores des experts chargés de l'étude de faisabilité du Centre d'Avril 2011.

Compte tenu de la pertinence de cette initiative qui demeure conforme à nos priorités et qui respecte les stratégies sous-régionales pertinentes des institutions et de l'Union africaine, je voudrais réitérer notre engagement envers ce processus. Ce Centre sera pour nous un cadre approprié pour consolider et renforcer la prise de conscience nationale et régionale sur la nécessité de mettre en place de politiques hardies et efficaces de Réduction des Risques de Catastrophes. Pour cette raison, et en reconnaissant les progrès réalisés par le processus DIMSUR, le gouvernement de l'Union des Comores, approuve la création du Centre technique d'appui à la réduction des risques de catastrophes en Afrique australe.

Vous réitérant toute notre confiance et notre entière disponibilité à accompagner ce centre d'intérêt national, régional et international, je vous prie de croire, Madame et Monsieur les Directeurs, de l'expression de ma considération distinguée.

MINISTERE DE L'INTERIEUR, DE L'INFORMATION, DE LA DECENTRALISATION CHARGE DES RELATIONS AVEC LES INSTITUTIONS * LE MINISTRE *

HAMADA ABDALLAH

ANNEX C

Form for Additional Signatories to sign the MoU

The Government of .....as represented by ..... hereby agrees to become a party to the Memorandum of Understanding ("**MoU**"), signed by the Government of Madagascar as represented by the Ministry of Home Affairs (*Ministère de l'Intérieur*), the Government of Malawi as represented by the Office of the Vice-President, the Government of Mozambique as represented by the Ministry State Administration (*Ministério da Administração Estatal - MAE*), and the Government of the Union of Comoros as represented by the Ministry of Home Affairs, Information and Decentralisation, in charge of Institutional Relations (*Ministère de l'Intérieur, de l'Information et de la Décentralisation – Chargé des Relations avec les Institutions*), and UN-Habitat, acting as a facilitator, for the establishment of a Technical Centre for **D**isaster Risk **M**anagement, **S**ustainability and **U**rban **R**esilience (DIMSUR) in southern Africa, by signing this letter of endorsement in accordance with paragraph (8) of the preamble of the MoU forming an integral part thereof.

For the Government of .....

As represented by.....

_____

Honourable.....
[Insert Name]

.....
[Insert Title]

Place: _____

Date: _____

CITY RAP TOOL

CITY RESILIENCE ACTION PLANNING TOOL

The City Resilience Action Planning Tool—or CityRAP Tool—is a set of training exercises and activities aimed at developing the capacity of local governments in sub-Saharan Africa to understand and plan actions that progressively build urban resilience and reduce urban risk. The tool specifically targets local governments of small to intermediate sized cities that have limited experience in urban risk reduction and resilience action planning, and that express demand in kick-starting the resilience action planning process.

The CityRAP Tool has been developed by the United Nations Human Settlements Programme (UN-Habitat), in partnership with the Sub-Regional Technical Centre for Disaster Risk Management, Sustainability, and Urban Resilience (DiMSUR). In 2015 and 2016, the CityRAP was implemented in 6 cities in Mozambique, Malawi, Madagascar, and Ethiopia; and had training activities in 4 other cities. (Figure 1).

TABLE 1

KEY FACTS

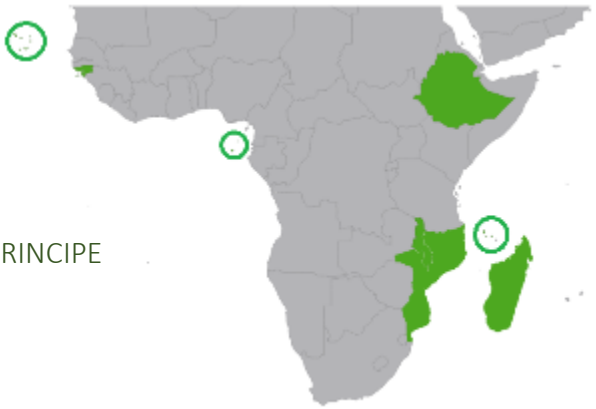
Sub-Regional Technical Centre for Disaster Risk Management, Sustainability, and Urban Resilience (DiMSUR)

Date established:	2014
Founding Members:	Madagascar, Malawi, Mozambique and the Union of Comoros
Headquarters:	Maputo, Mozambique
Focus Area:	Urban resilience, disaster risk management and climate change adaptation
Purpose:	To develop capacity of local governments in the areas of urban risk reduction and resilience planning
Main Partners:	United Nations, NGOs, academia, governments
Website:	www.dimsur.org

FIGURE 1

COUNTRIES WITH CITY RAP ACTIVITIES, 2015-2016

MOZAMBIQUE
MALAWI
MADAGASCAR
UNION OF COMOROS
CABO VERDE
SÃO TOMÉ AND PRINCIPE
GUINE-BISSAU
ETHIOPIA



RATIONALE

Urban risks are accumulating in the cities and towns of sub-Saharan Africa as a result of weak governance capacity to manage rapid urban expansion. The accumulation of urban risk is particularly acute in small to intermediate sized cities in the region. These are cities that are rapidly growing, house the majority of the urban population (Figure 3), and began expanding from a minimal infrastructure and institutional base. Furthermore, much of the population expansion has been taking place outside, or in the absence of, official planning frameworks. As a result, large numbers of people meet their housing needs in informal settlements, often located in high risk areas exposed to a range of natural and man-made hazards.

The direct and indirect effects of climate change are being felt severely in urban areas as people, economic activities and assets continue concentrating in risky areas. While climate change is affecting a wide range of sectors from water supply to food systems and health; climate change impacts are distributed unequally across the population, affecting mostly vulnerable groups. The capacity of local government is playing a fundamental role in mitigating urban risks.

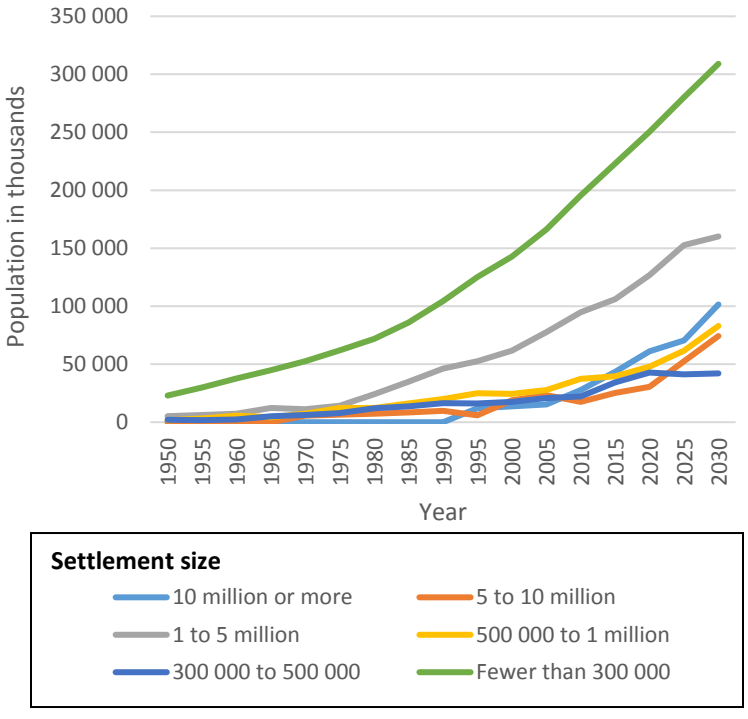
Small to intermediate sized cities in sub-Saharan Africa face some of the most significant capacity gaps in urban governance, particularly in supporting risk reduction and resilience planning actions. Therefore, developing local governance capacity in risk management and resilience planning must be a key strategy to reduce the multiple risks that cities and their populations are exposed to.

However, existing tools are not appropriately targeted to low capacity local governments in sub-Saharan Africa and they tend to be dedicated to a narrow audience. The existing tools are too technical; they rely heavily on outside technical expertise and on costly data collection methods, creating a disincentive to local governments in kick-starting the process of resilience planning. Hence, capacity retention among urban stakeholders, from local governments to communities, tends to remain low.

FIGURE 2

URBAN POPULATION IN AFRICA BY SIZE OF URBAN SETTLEMENT, 1950-2030

Source: United Nations, Department of Economic and Social Affairs, Population Division (2014). World Urbanization Prospects: The 2014 Revision, CD-ROM Edition



OVERVIEW OF THE TOOL

The main objective of the CityRAP Tool is to enable local governments of small to intermediate sized cities to plan and undertake practical actions to strengthen urban resilience. The CityRAP Tool targets local governments in small to intermediate sized cities in with no to limited experience in risk reduction and resilience planning. The main output of the CityRAP Tool is a provisional **Resilience Framework for Action (RFA).**

The CityRAP Tool put local governments and urban stakeholders in the driver's seat of urban resilience planning to ensure capacity retention and use. The tool can be adapted to local needs and it is implemented with minimal intervention from external technical experts, by relying on practical methods that leverage local knowledge for understanding, prioritizing and planning resilience strengthening activities. The methods include local government self-assessments, participatory risk mapping exercises, and cross-sectorial action planning—all activities are done by the local government engaging relevant stakeholders, most importantly, communities themselves.

CAPACITY DEVELOPMENT
in the City RAP Tool

The concept of *capacity development* emphasizes the inherent capacity that already exists in all countries, cities, and communities at multiple levels and among multiple stakeholders.

The City RAP Tool supports, facilitates, complements and furthers the development processes underway and existing capacities to ensure retention and use of resilience planning methods.

PHASES OF THE TOOL

PHASE 1 CRASH COURSE	UNDERSTANDING KEY CONCEPTS AND HOW TO USE THE TOOL	Local government and urban stakeholder are introduced to key concepts, good resilience building practices, and how to use the tool
PHASE 2 CITY ASSIGNEMENT	USING LOCAL KNOWLEDGE TO ASSESS RISK AND RESILIENCE	Local government learn-by-doing, implementing good practices for leveraging local knowledge (self-assessments, participatory mapping)
PHASE 3 DATA ANALYSIS & PRIORITISATION	PRIORITISING ACTIONS AND MAKING DECISIONS	Municipality and relevant stakeholders discuss data collected in thematic focus groups and prioritise actions during the Prioritisation Workshop
PHASE 4 ELABORATION & VALIDATION OF RFA	ELABORATING THE RFA AND VALIDATING THE FINAL OUTPUT WITH STAKEHOLDERS	Local government technicians develop the Resilience Framework for Action, defining activities at short, medium and long term to be validated

PHASE 1 **CRASH COURSE**

Understanding key concepts and how to use the tool

GOAL

Introduce the municipal staff and crucial local stakeholders to key concepts of urban resilience and disaster risks and prepare them to conduct the subsequent phases of the tool

DURATION

4 days

EXPECTED RESULTS

- All participants understand key concepts for risk management, urban resilience and climate change adaptation;
- Participants are aware of a wide range of concrete actions under the five pillars for strengthening resilience in their city: urban disaster risk management, urban governance, urban planning & environment, resilient infrastructure & basic services, urban economy & society;
- All participants are familiar with the process of the tool;
- A focal point team is formed and prepared to autonomously lead the city assignment;
- A common city vision is created through a group exercise;
- A preliminary city risk map is created identifing the main risks that affect the city to choose neighbourhoods for community risk mapping.

Phase 1 is an intensive training that aims of introducing and familiarising city technicians and urban stakeholders with key concepts, good practices in urban management, the tool methodology, and materials. Conducted by UN-Habitat and DiMSUR technical experts, the training is supported by easy-to-understand presentations (Figure 3), handouts and interactive material, such as videos (Figure 4) and games (Figure 5).

By the end of the Crash Course, a local focal point team is established and enabled to lead the completion of the various activities in Phase 2, 3 and 4.

FIGURE 3

SESSIONS OF THE CRASH COURSE

SESSION 1 | Understanding disaster risk and urban resilience

SESSION 2 | Presentation of the CityRAP Tool

SESSION 3 | How to build the resilience of your city?

SESSION 4 | Participatory risk mapping at the city level

SESSION 5 | Intensive training of the focal point team

FIGURE 4

URBAN RESILIENCE DEFINITION IN THE CITY RAP TOOL

Key concepts, like urban resilience, are explained in didactic formats. Capacity retention increases when complex issues are simplified.

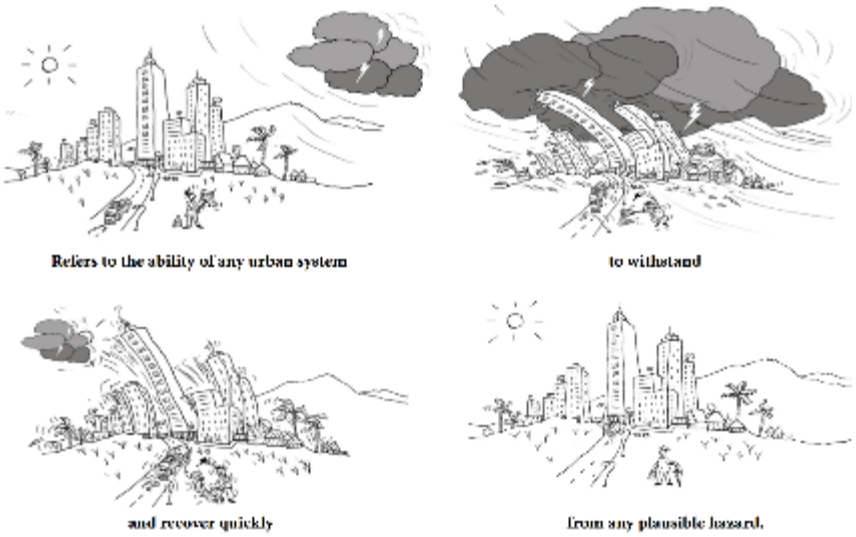


FIGURE 5

"THE CHANGE", AN AWARD WINNING ANIMATION ON URBAN RESILIENCE

This 15-minute animation feature has proven to be an effective way of engaging participants while explaining the importance of urban risk reduction.

FIGURE 6

CITY LEVEL RISK MAPPING UNDERTAKEN DURING SESSION 4

A city level risk mapping exercise helps identify neighbourhoods in which to conduct participatory mapping, in Phase 2, Week 2. Mapping in the community level is the key to ensure community participation.

FIGURE 7

FIVE PILLARS OF URBAN RESILIENCE

The participants are introduced to the five pillars of urban resilience, the theoretical framework proposed by the CityRAP Tool for mainstreaming resilience into urban management

PHASE 2 **CITY ASSIGNMENT**

Using local knowledge to assess risks and resilience

GOAL

Leverage local knowledge to collect and analyse urban resilience data from both local government departments as well as the community to set priority actions

DURATION

3 weeks

EXPECTED RESULTS

- Each sector has completed the self-assessment questionnaire;
- An answer sheet has been prepared which compiles all answers for each municipal department;
- Communities of at least two neighbourhoods are consulted for risk mapping and planning to build resilience;
- Collected information is compiled and detailed.

The Phase 2 consists of two main assignments of two weeks each, aiming at using local knowledge to collect accurate and relevant information. A third week is to compile and organize the information collected. The main sources of information are the local government and communities.

The assignments from Phase 2 are led and coordinated by the focal point team, formally assigned to this role by the local administration. All necessary material and instruments are provided and explained in detail during Phase 1. UN-Habitat technical experts are available for tailored support as needed during Phase 2.

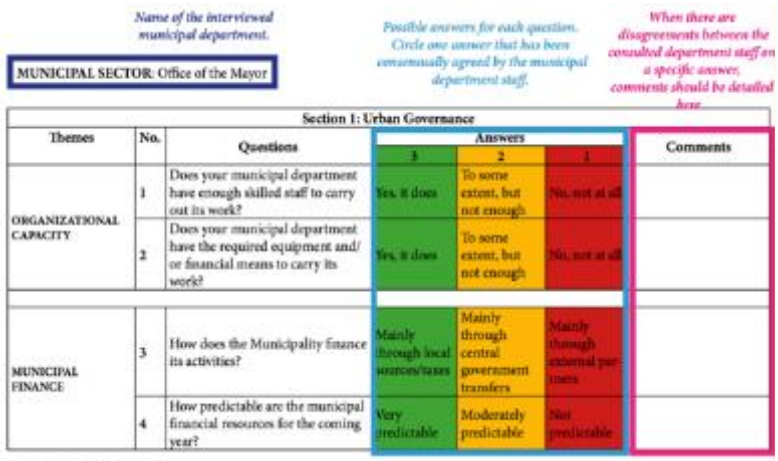
WEEK 1 SELF-ASSESSMENT

The aim of Week 1 is for local government to conduct a rapid self-assessment of their city resilience situation. The main tool for conducting the self-assessment is the self-assessment questionnaire. The questionnaire is a set of multiple choice questions that enables local government staff of all relevant departments to identify and prioritize key issues and concerns related to their city's urban resilience.

FIGURE 8

EXAMPLE OF THE SELF-ASSESSMENT QUESTIONNAIRE FORMAT

The focal point team identifies and interviews staff from all relevant departments.



Name of the interviewed municipal department.

MUNICIPAL SECTOR: Office of the Mayor

Possible answers for each question. Circle one answer that has been consensually agreed by the municipal department staff.

When there are disagreements between the consulted department staff on a specific answer, comments should be detailed here.

Section 1: Urban Governance

Themes	No.	Questions	Answers 3	Answers 2	Answers 1	Comments
ORGANIZATIONAL CAPACITY	1	Does your municipal department have enough skilled staff to carry out its work?	Yes, it does	To some extent, but not enough	No, not at all	
	2	Does your municipal department have the required equipment and/ or financial means to carry its work?	Yes, it does	To some extent, but not enough	No, not at all	
MUNICIPAL FINANCE	3	How does the Municipality finance its activities?	Mainly through local sources/taxes	Mainly through central government transfers	Mainly through external partners	
	4	How predictable are the municipal financial resources for the coming year?	Very predictable	Moderately predictable	Not predictable	

WEEK 2 PARTICIPATORY MAPPING AND PLANNING

In Week 2, a participatory risk mapping exercise is carried out at the neighbourhood level. The aim is to collect the opinion and perceptions from community members regarding the risks affecting their neighborhoods and prioritize actions. Consequently, a list of proposed priority actions is elaborated and spatially mapped for each neighbourhood to mitigate the identified risks and build resilience.

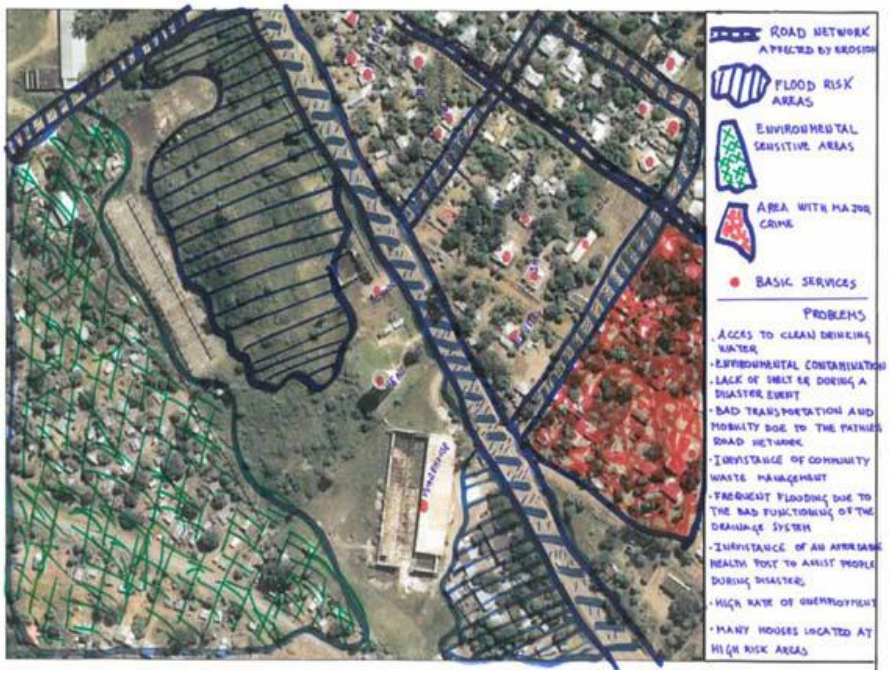


FIGURE 9

EXAMPLE OF A PARTICIPATORY RISK MAP

After preparing for the consultation process by printing out satellite maps, the focal point team conducts community consultations in two neighbourhoods selected in Phase 1.
If time and resource allow, the focal point team does this for all neighbourhoods where risk information is lacking.

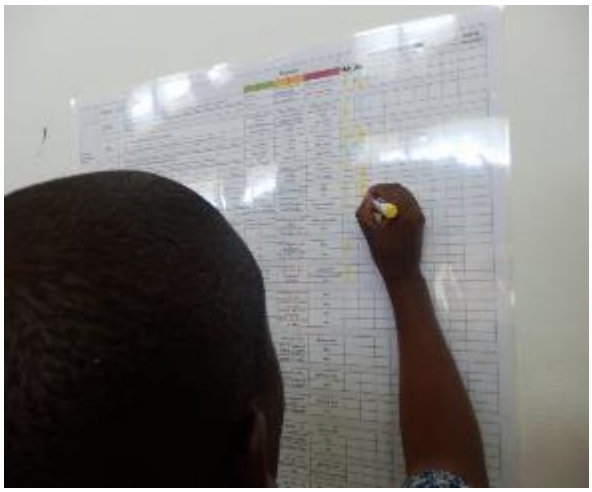
WEEK 3 DATA COMPILATION

During Week 3, all the information collected during the first two weeks of Phase 2 is compiled to prepare the focus group discussions and the Prioritisation Workshop of Phase 3.

FIGURE 10

FILLING IN THE SELF-ASSESSMENT MATRIX

The self-assessment matrix is a simple way for local governments to highlight what they are achieving and where potential shortfalls exist.



PHASE 3 DATA ANALYSIS AND PRIORITISATION

Prioritising actions and making decisions

GOAL

Present and discuss the data collected during Phase 2 and other relevant information during the focus group discussions and the Prioritisation Workshop, when decision making will take place.

DURATION

1 week

EXPECTED RESULTS

- 5 focus groups discussions are held and result in the elaboration of presentations for the five pillars of urban resilience for the Prioritisation Workshop;
- Priority actions for building urban resilience are selected during the Prioritisation Workshop;
- Focal points are trained on how to further develop the Resilience Framework for Action.

In Phase 3, data collected and compiled during Phase 2 is presented and discussed among local stakeholders. Firstly, thematic focus groups are organized with the participation of city technicians, community members, representatives from NGOs, CSOs, media and other relevant stakeholders. Within

these focus group discussions, participants discuss in detail what are the main shortcomings and priorities for each proposed pillar of resilience. The discussions are guided by the results obtained in the self-assessment and mapping exercises.

Finally, representatives of each Focus Group come together during the Prioritisation Workshop, when they choose collectively key priority actions to build resilience in their city. These priority actions are the cornerstone of the Resilience Framework for Action.

FIGURE 11

THE PRIORITISATION WORKSHOP

During the Prioritisation Workshop, key local stakeholders come together to discuss and decide priorities to build urban resilience based on the results of the self-assessment, community consultations and Focus Group discussions.

PHASE 4 **ELABORATION & VALIDATION OF THE RFA**

Concluding the final output and validating it with the population

GOAL

Draft the Resilience Framework for Action (RFA) to present and discuss it during a review workshop. Finalise the RFA according to the feedback and present it for validation and endorsement by the municipal authorities.

DURATION

4 weeks

EXPECTED RESULTS

- A detailed baseline assessment for the identified priority issues
- A list of objectives to address the gaps identified for each priority issue
- A RFA diagram organizing objectives according to priority and timeline
- A list of suggested actions to reach the objectives
- An updated final city risk map localizing the objectives and actions

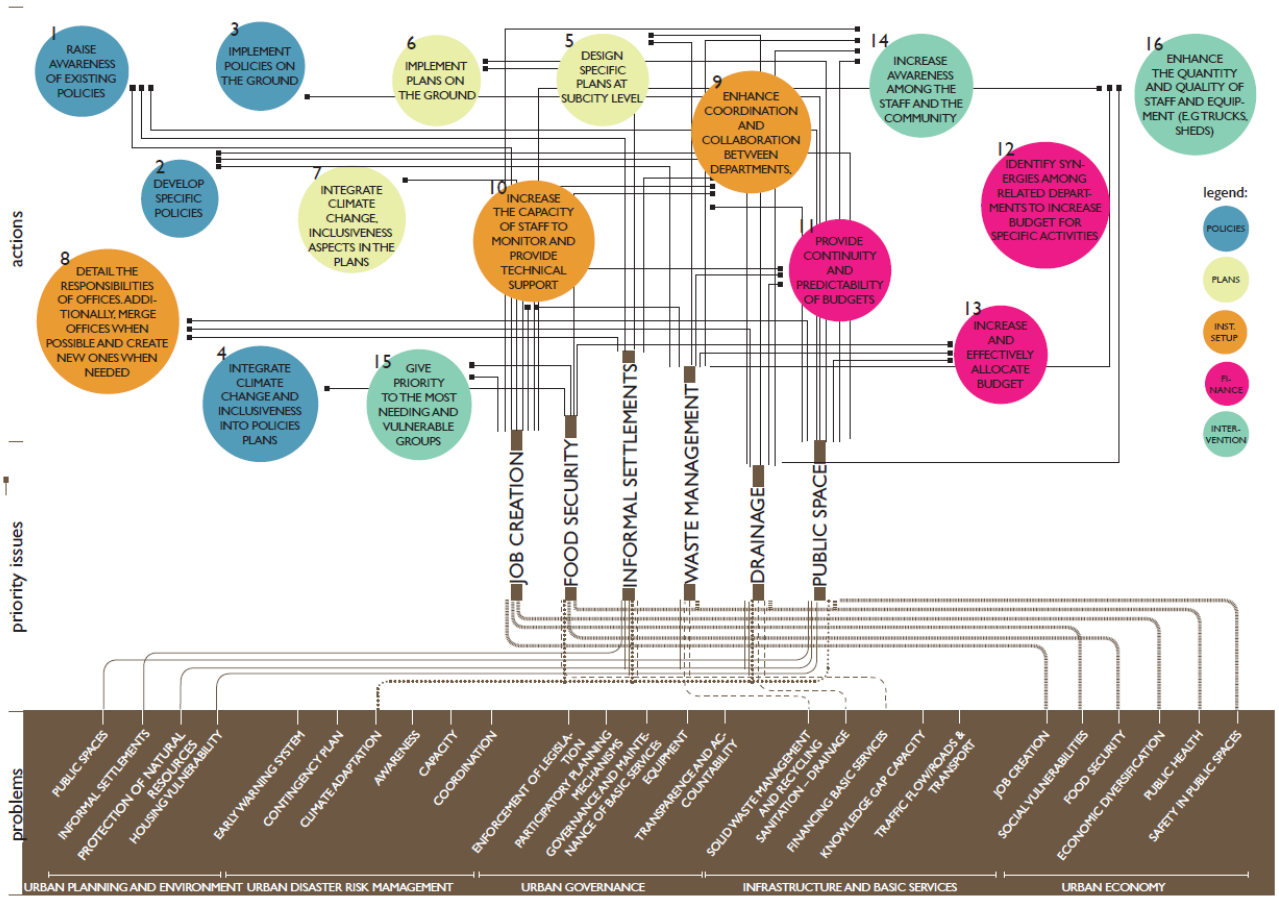
In Phase 4, the Resilience Framework for Action (RFA) is prepared as final product of the CityRAP Tool process. The RFA is a reference document that allows local governments and other institutions to mainstream resilience within five components of urban management: policies, plans, budgets, institutional set-ups and interventions.

For each of the five components, a set of actions is defined based on an assessment of the status quo of the priority issues, which were identified during the Prioritisation Workshop (Phase 3) by municipal authorities, community representatives and other stakeholders. The identified actions per component are broken down into activities with clearly assigned responsibilities in the short (0-2 years), medium (3-5 years) and long term (6-10 years). A required budget is also estimated for each activity. Both actions and activities are located within a final updated city risk map made by community consultations, prioritization and review workshops.

FIGURE 12

THE RESILIENCE FRAMEWORK FOR ACTION: THE PROBLEM-SOLUTION TREE

A consolidated draft of the Resilience Framework for Action (RFA) is elaborated by the focal points with external support by the trainers; reviewed with municipal authorities, community representatives and other stakeholders; validated and endorsed over a period of four weeks. For each of these four weeks the focal points undertake respective tasks. The process flow is represented in a problem-solution tree that traces the prioritisation process in its different parts and how it led to the proposed actions for building urban resilience.



Resilience Action Plan

City of Morondava (2016-2026)

Executive Summary

The City of Morondava established a partnership with the United Nations Human Settlements Programme (UN-Habitat) and with the Technical Centre for Disaster Risk Management, Sustainability and Urban Resilience (DiMSUR) for the elaboration of **Morondava City's Resilience Action Plan (RAP)**. Morondava City's RAP creates a strategic framework identifying comprehensive and inter-sectorial **priority actions**. It also defines short, medium and long term **specific activities** to reinforce the city's resilience and adaptation capacity to the threats posed by climate change. The ultimate goal of the RAP is to serve as a guideline for the interventions of the city council, of communities and of other relevant partners.

City Profile of Morondava

Morondava is the capital and the obligatory crossroads of the 5 districts of the Menabe region, in the Malagasy middle-east. Initially a fisherman's town, it met an important growth wih the arrival of missioners and the conquest of Menabe. In 2005, the city had 44 742 inhabitants. Its development was done at two levels: the old city and the low-density expansions following highways and the airport. However, this development is compromised by its vulnerability to hazards and the impacts of climate change. Morondava is located on the coast, between the canal of Mozambique and the delta of Morondava. The topography of the city is extremely flat and below sea level, which makes the city particularly sensitive to flooding. The city is extremely vulnerable in particular due to the impact of deforestation and informal urbanization in risk areas.

The City Resilience Action Plan of Morondava

The CityRAP was conducted through a participatory and comprehensive process involving key stakeholders involved in Morondava urban governance and development including city councillors, management and technical staff, as well as local communities and civil society. Municipal technicians forming the CityRAP team were trained to conduct the process themselves, with UN-Habitat and DiMSUR providing support and strategic advice.

Overall, 144 participants contributed to the elaboration and the adoption of the plan. All municipal sectors were involved and 4 communities were consulted. The Resilience Action Plan should guide policy makers in order to improve Morondava City's resilience through the implementation of the priority actions selected, namely:

1. Improve the drainage system
2. Protect the littoral
3. Provide urban planning
4. Improve the waste management

The Resilience Action Plan also provides a comprehensive description of the pathway that the municipality should follow, presenting the stakeholders to work with, a calendar and a budget.

Plan d'action pour la résilience urbaine

Commune urbaine de Morondava

2017 -2027

REPOBLIKAN'I MADAGASIKARA
Fitiavana - Tanindrazana - Fandrosoana

Plan d'action pour la Résilience Urbaine, 2017-2027
Commune Urbaine de Morondava
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Plan d'Action pour la Résilience Urbaine

Commune Urbaine de Morondava

Table des matières

I.

Introduction

1.1. Contexte général

La commune de Morondava est la capitale économique et le carrefour obligé des cinq districts de la région du Menabe, dans le Moyen-Ouest malgache. A partir du site de Nosy Mandrioka occupé initialement par trois villages vivant alors essentiellement de la pêche, l'urbanisation de Morondava prend un nouvel élan suite à l'arrivée de missionnaires norvégiens qui multiplient les écoles puis avec la conquête du Menabe et la mise sous tutelle militaire de la ville. La commune urbaine de Morondava est créée en 1932 et l'essor démographique et économique de la ville se maintient jusqu'en 1939, stagne quelque peu puis redémarre à partir des années 1960 grâce à l'impulsion donnée par les travaux d'infrastructures routières initiés après l'Independence de Madagascar. Ainsi, le développement de la ville, qui comptait 44 742 habitants en 2005 répartis sur 18 quartiers, s'est effectué historiquement sur deux niveaux : le premier correspond à l'ancienne ville, autour du centre historique et colonial, tandis que le second, encore sous peuplé, s'étend le long des infrastructures routières et de l'aéroport. Cependant, l'importante vulnérabilité de la ville aux catastrophes naturelles et aux impacts du changement climatique compromet son développement futur.

En effet, Morondava se situe sur la côte entre le canal de Mozambique et le delta de la rivière de Morondava. Son terrain est pour la plupart plat et situé en-dessous du niveau de la mer, rendant la ville particulièrement sensible aux inondations provoquées par les fortes pluies et cyclones, ainsi que par l'élévation du niveau de la mer. Le sol siliceux sur lequel le niveau urbain ancien est construit est par ailleurs instable et subit fortement les effets de l'érosion, aggravés par la déforestation et surtout des mangroves, l'urbanisation informelle liée particulièrement aux constructions dans les zones inondables et les activités humaines. Le manque d'entretien des infrastructures (épis, digues, conduits d'assainissement et de drainage, réseaux de voirie divers, etc.) et la précarité des matériaux employés pour la construction aggravent encore la vulnérabilité de la ville aux aléas climatiques.

La commune de Morondava est la capitale économique et le carrefour obligé des cinq districts de la région du Menabe, dans le Moyen-Ouest malgache.

Les fokontany d'Avaradrova, Sans Fil, Ampasy et Tanambao donnent un aperçu des caractéristiques urbaines et du profil de risques de la commune de Morondava. Avaradrova est un quartier de pêcheurs situé au centre de la ville, dans une zone très densément peuplée. Comme ceux de Sans Fil, les habitants d'Avaradrova voient leur situation se précariser avec le développement de la pêche industrielle qui menace leur activité et fragilise leurs revenus. Par conséquent, l'acquisition d'une maison aux normes en « dur » (même en tôle ou en planche) est difficile et la squattérisation privilégiée. La saturation démographique d'Avaradrova et de Sans Fil est accentuée par la régression de ces quartiers sur leur façade longeant la plage, due à l'érosion marine, mais aussi aux acquisitions accélérées de terrains par les investisseurs dans le tourisme. Au contraire, les fokontany d'Ampasy et de Tanambao sont situés sur le niveau de développement plus moderne de la ville. Ampasy se caractérise néanmoins par un environnement rural, à la densité très faible. La zone est inondable et sous-équipée, ce qui limite considérablement sa capacité à faire face aux risques et à se développer. Tanambao correspond quant à lui à un environnement plus urbain, c'est-à-dire relativement plus densément peuplé et mieux équipé qu'Ampasy, mais présentant toujours d'importants besoins en infrastructures et en sensibilisation des habitants, notamment concernant la collecte et la gestion des déchets, l'éclairage public, la protection des voiries et voies d'accès, et les actions de protection face aux inondations.

Pour rendre la commune résiliente face aux risques de catastrophe et aux impacts négatifs du changement climatique, Morondava a sollicité et mis en place un partenariat avec le Programme des Nations Unies pour les établissements humains (ONU-Habitat) ainsi qu'avec le Centre technique pour la gestion des risques de catastrophe, le développement durable et la résilience urbaine (DiMSUR), afin d'élaborer un Plan d'Action pour la Résilience Urbaine (PARU) adapté aux besoins de la commune. Le PARU de Morondava, le premier à Madagascar, définit un cadre stratégique identifiant des **actions prioritaires** transversales et intersectorielles. Il établit également des activités spécifiques sur les courts, moyen et long termes pour renforcer la résilience de la ville et sa capacité d'adaptation face à la menace du changement climatique. Le but du PARU est de servir de ligne directrice pour les interventions de la commune, des communautés et des autres partenaires impliqués sur le terrain et dans les institutions.

Le plan a été élaboré grâce à la méthodologie innovante de l'outil PARU. Développé par ONU-Habitat et DiMSUR, cet outil permet à la municipalité de Morondava et aux autres municipalités de mettre en œuvre des méthodes qui utilisent et valorisent les connaissances locales afin de comprendre et planifier des activités intégrant des éléments de réduction des risques. Ainsi, au travers de plusieurs exercices et consultations réalisés avec les autorités (régionales, districts, communales, fokontany) et le personnel municipaux, ainsi qu'avec les communautés de base, les organisations des sociétés civiles et d'autres acteurs dont l'implication a été jugée pertinente,. **Quatre actions prioritaires ont été identifiées pour rendre la Commune Urbaine de Morondava** résiliente face aux risques de catastrophes: (1) Améliorer le système de drainage ; (2) Protéger le littoral ; (3) Planifier la ville de Morondava ; et (4) Améliorer la gestion des déchets.

Figure 1.

INSERTION DU PLAN D'ACTION POUR LA RÉSILIENCE URBAINE

Le Plan d'Action pour la Résilience Urbaine s'insère dans le cadre définit aux échelles locale, régionale, nationale et internationale pour la construction de la résilience. Il est donc en conformité avec les directives:

- Du plan national de développement;
- De la loi sur la décentralisation;
- De la Stratégie Nationale de Gestion des Risques et des Catastrophes;
- Du Programme d'Action National d'Adaptation au changement climatique;
- Du cadre d'action de Sendai pour la réduction des risques de catastrophe 2015-2030;
- Du plan communal de développement (PCD) de Morondava de 2005 mis à jour par le Plan communal intégré de développement – PCID en cours de finalisation 2016
- Du plan d'action de la commune urbaine de Morondava (CUM) 2015-2019;
- Du plan de contingence de la commune urbaine de Morondava
- Et enfin du plan régional de développement du Menabe 2014-2018.

1.2. L'élaboration du Plan d'Action pour la Résilience Urbaine

L'élaboration du PARU a été conduite avec succès grâce à une démarche participative et inclusive, impliquant les acteurs clefs de la gouvernance urbaine, tant au niveau national qu'à l'échelle locale (niveau déconcentré et décentralisé) et incluant les communautés et la société civile. Les techniciens municipaux formant l'équipe PARU ont été formés pour pouvoir conduire eux-mêmes l'exercice, avec le soutien et les conseils stratégiques d'ONU-Habitat et de DiMSUR :

Dans un premier temps, l'équipe municipale a réalisé un audit de ses propres services sous la supervision de l'équipe PARU, dans le but d'identifier et de prioriser les principaux problèmes devant être résolus. Dans un deuxième temps, l'équipe PARU a réalisé l'exercice de cartographie participative des risques dans quatre fokontany : Ampasy, Avaradrova, Sans fil et Tanambao. Sur la base des résultats de l'audit et de la cartographie des risques, une liste d'actions prioritaires pour réduire les risques, renforcer la résilience et améliorer la capacité d'adaptation au changement climatique de la ville a été établie et débattue.

Enfin, la ville s'est dotée d'un Plan d'Action pour la Résilience reposant sur quatre actions prioritaires. Ces actions prioritaires sont à leur tour basées sur un résultat escompté, des activités planifiées, un budget et un calendrier. Des responsables sont désignés pour chaque action, et les activités ont été localisées géographiquement.

Au total, 144 participants ont contribué à l'élaboration et à l'adoption du plan. Tous les départements de la commune ont été impliqués et quatre communautés ont été consultées. Le Plan d'Action pour la Résilience a vocation à guider les décideurs de sorte à améliorer la résilience de la commune de Morondava via l'identification d'actions prioritaires et d'activités spécifiques à mettre en œuvre. Le plan présente une description transversale du chemin que la commune devrait suivre, indiquant les acteurs devant être impliqués, un calendrier précis et un budget adapté, tenant compte des activités spécifiques attribuées aux points focaux PARU ayant bénéficiés de la formation.

Figure 2.

PROFESSIONS DES PARTICIPANTS

PROFESSIONS DES PARTICIPANTS	
Equipe municipale	25%
Représentants des institutions nationales	13%
Représentants des services municipaux (Santé, éducation, police, pompiers etc.)	2%
Représentants des communautés	50%
Organisations de la société civile	2%
Organisations internationales	4%
Media	4%

Source: Enquête sur les réactions des participants au sujet de l'exercice PARU, ONU-Habitat, 2016.

Le Plan d'Action pour la Résilience a vocation à guider les décideurs de sorte à améliorer la résilience de la commune de Morondava via l'identification d'actions. *prioritaires et d'activités spécifiques à mettre en œuvre.*

Figure 3. Le processus de l'outil PARU

PHASE 1. Cours Intensif

Objectifs

Familiariser le personnel municipal avec les concepts clés de la résilience urbaine et la réduction des risques tout en les préparant à conduire les phases suivantes de l'outil.

Durée
3 jours

PHASE 2. Mission de la Ville

Objectifs

Les données pertinentes à propos de la résilience urbaine sont collectées auprès des départements municipaux et des communautés. En se basant sur l'analyse de ces données, les principaux problèmes qui doivent être traités en priorité pour renforcer la résilience sont identifiés et priorisés.

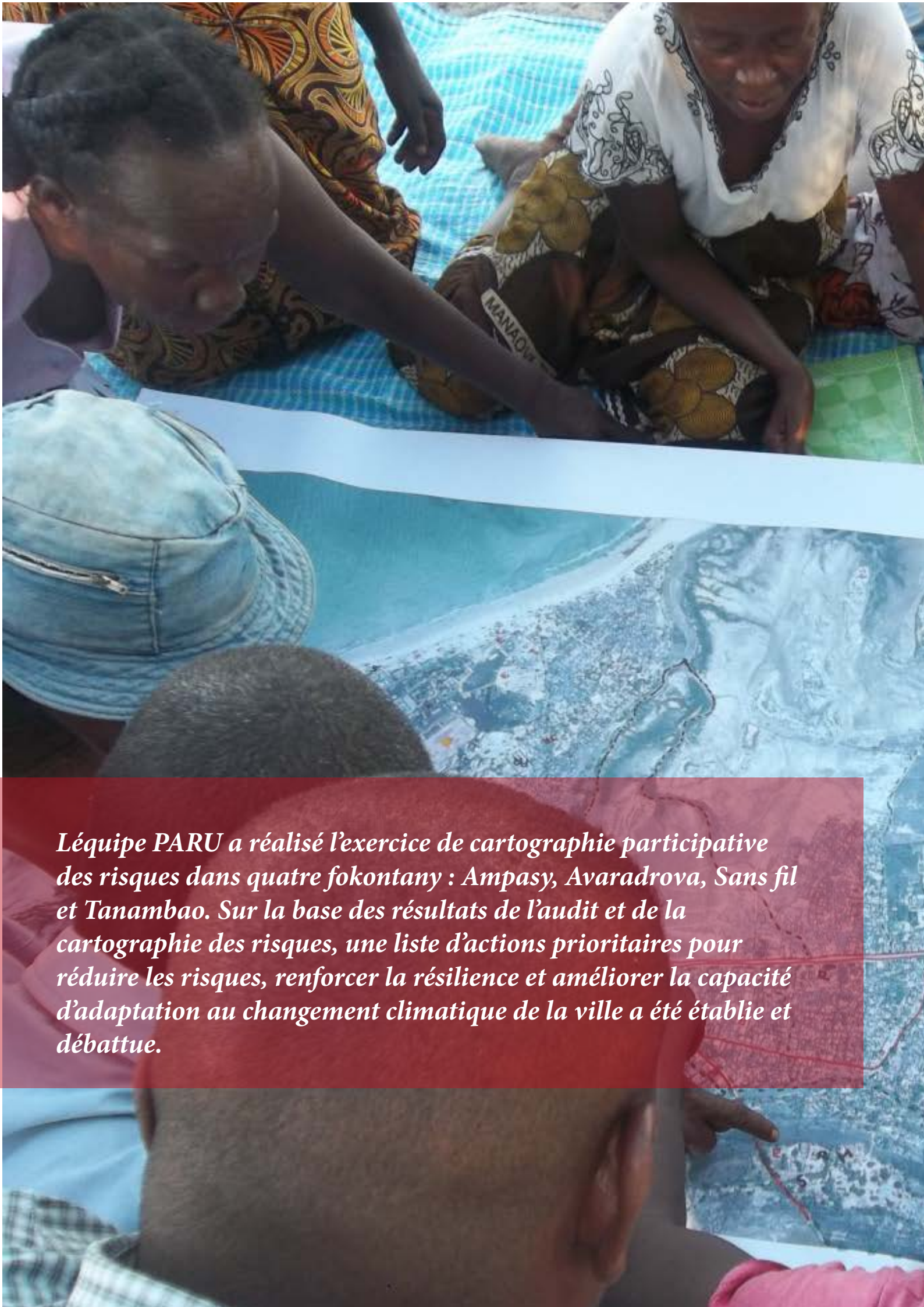
Durée
3 semaines

PHASE 3. Finalisation et Validation du Plan d'Action pour la Résilience Urbaine

Objectifs

Finaliser le Plan d'Action de Résilience Urbaine (PARU) en se basant sur les connaissances acquises lors de la phase 1, l'auto-évaluation, la cartographie, l'analyse, la discussion et la priorisation effectuées durant la phase 2 ; puis organiser une rencontre finale avec les acteurs clés pour le valider.

Durée
3 jours



Léquipe PARU a réalisé l'exercice de cartographie participative des risques dans quatre fokontany : Ampasy, Avaradrova, Sans fil et Tanambao. Sur la base des résultats de l'audit et de la cartographie des risques, une liste d'actions prioritaires pour réduire les risques, renforcer la résilience et améliorer la capacité d'adaptation au changement climatique de la ville a été établie et débattue.

2.

Profil de la Commune Urbaine de Morondava

2.1. Cadre général

2.1.1. Situation géographique

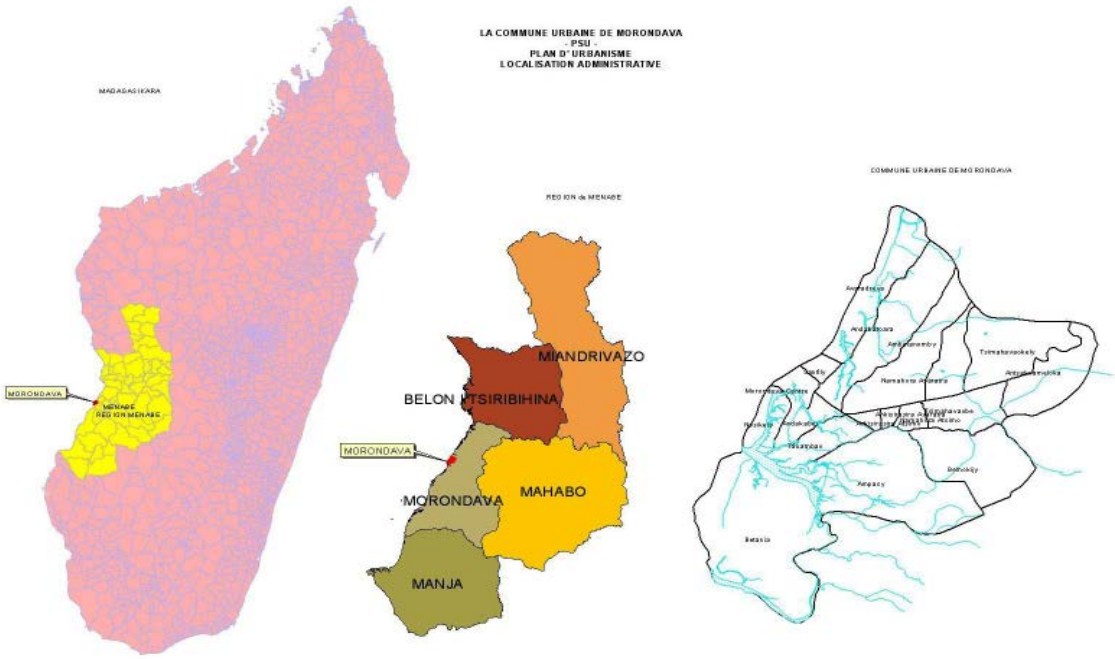
Morondava est le chef-lieu de la Région Menabe, ainsi que le chef-lieu du district du même nom, situé dans la région de Menabe, dont la ville est également la capitale économique. La Région Menabe se situe dans la province de Toliara, dans le centre-ouest de Madagascar. La ville est divisée en 18 quartiers couvrant au total une superficie de 25 km2.
La commune se situe dans le delta de la rivière Morondava, à une altitude oscillant entre 2 et 8 mètres au-dessus du niveau de la mer. La plaine est par conséquent traversée par de nombreux cours d'eau dont le tracé varie fréquemment au gré des crues et des dépôts d'alluvions.

2.1.1. Démographie et peuplement

D'après la monographie des quartiers ONE/SAGE, Morondava comptait en 2000 environ 41 595 habitants, et une densité moyenne de 1664 habitants/km2. Le district de Morondava affiche le plus fort taux d'accroissement démographique de la région du Menabe, soit 5,2%, et une densité de 15 habitants au km2, également l'une des plus élevée de la région. Cette pression démographique s'explique principalement par l'attractivité de la commune urbaine de Morondava, seul grand centre urbain accueillant des activités économiques relativement plus dynamiques par rapport au reste de la région et présentant d'un tissu agro-industriel et artisanal développé.
A l'échelle de la région, la population affiche un profil jeune (40,1% de moins de 25 ans et âge moyen de 29,8 ans) et multiethnique, notamment du fait des vagues de migrations historiques et contemporaines.

Figure 4.

LOCALISATION DE LA COMMUNE URBAINE DE MORONDAVA



2.2. Profil socio-économique

2.2.1. Economie

L'économie de Morondava est principalement tournée vers l'agriculture, l'élevage, le tourisme et l'artisanat. La production agricole est sfoutenue par les cultures vivrières, de rente ou d'exportation. La riziculture est l'activité principale des paysans de la région de Morondava, suivi à l'échelle de la région de Menabe par la culture du maïs. Les cultures industrielles sont la canne à sucre, l'arachide et le tabac. L'élevage se divise quant à lui entre l'élevage domestique de bovins et l'élevage de zébus. La pêche crevettière constitue la principale source de revenus des pêcheurs, tandis que la plupart des poissons sont captés par la pêche industrielle et exportés vers l'Europe. L'industrie est principalement tournée vers les activités de transformation des matières premières telles que le bois ou le tabac et de l'alimentaire (notamment la décortication). Les petits commerces sont prédominants et la part de commerce informel est grande.

La ville de Morondava a subi des chocs dont les effets sont perceptibles, comme le démantèlement de certaines des unités de production (AQUAMEN, SICA, SUCOMA, les Pêcheries du Menabe) et les contrecoups des crises sont ressentis notamment à travers la suspension des chantiers tels que le stade, le nouveau bureau de la Mairie, l'hôpital, etc.

2.2.2. Contexte socio-économique

La pauvreté à l'échelle de la région du Menabe reste relativement importante, avec environ 24,6% de la population vivant en-dessous du seuil officiel. Le niveau réel d'inactivité (chômage réel et chômage déguisé) est de l'ordre de 60%. La désindustrialisation évoquée précédemment et le chômage technique oblige la population ouvrière à revenir dans le secteur agricole, contribuant à la précarisation des ménages et au renforcement de la pauvreté. La précarité affecte en particulier les groupes les plus sensibles (femmes, jeunes). Parallèlement, l'insertion est enfants sur le marché du travail de 30,1% est quant à elle très élevée dans la région, même en comparaison avec l'échelle nationale, et touche en particulier les garçons (52,5%).
Le niveau d'éducation est relativement bas, avec moins d'une cinquantaine d'habitants du Menabe inscrits en études supérieures pour l'année 2010-2011. Le taux d'alphabétisation des individus de 15 ans et plus était de 62,3% en 2010 pour l'ensemble de la région et de 76,2% pour le milieu urbain, avec cependant un écart conséquent entre les genres. L'EPM2010 notait un recul pour le milieu urbain par rapport à 2005, le taux étant alors de 80,8%.

2.3. Structure politique et services publics

2.3.1. Structure de gouvernance locale

L'organisation de la gouvernance locale à Madagascar est déterminée par la Constitution du 11 décembre 2010 et par la loi organique n°2014-018.
Conformément à l'article 149 de la Constitution et aux articles 26, 27 et 28 de la loi n°2014-018, « les Communes concourent au développement économique, social, culturel et environnemental de leur ressort territorial ».
En tant que Collectivités Territoriales Décentralisée, l'organisation administrative des Communes est fixée par le chapitre 4 de la loi organique n°2014-018.

Selon l'article 35, ses organes de gouvernance sont nécessairement :
- une assemblée délibérante dénommée « Conseil » ;
- un organe exécutif.

Pour la Commune Urbaine de Morondava, les fonctions délibérantes par le Conseil Municipal de Morondava, tandis que les fonctions exécutives sont dirigées par le Maire, conformément à l'article 37 de la loi organique n°2014-018.

Conformément aux dispositions de l'article 152 in fine de la Constitution, les représentants des Fokontany participent à l'élaboration du programme de développement de leur Commune.

2.3.2. Infrastructures et services publics

Morondava est dotée d'infrastructures et de services variés qui structurent les dynamiques de développement de la ville. En termes de transport, la ville constitue une plateforme d'échange centrale pour la région du Menabe, en tant que point de rencontre des principales routes qui traversent la région (RNS 34 et 35, RNT 8, RP 111), bien que certaines d'entre elles ne soient praticables seulement durant la saison sèche. Le port et l'aéroport de Morondava permettent également la circulation nationale et internationale pour les biens et les personnes.

L'eau et l'électricité sont fournies par la JIRAMA, mais tous les quartiers et habitations ne sont pas encore connectées formellement au réseau.
Concernant les infrastructures de santé et d'assainissement, la ville est pourvue en centres hospitaliers ainsi qu'en personnel médical, mais certaines pratiques culturelles telles que le recours aux tradipraticiens ou la défécation à l'air libre entravent l'amélioration de l'accès à l'hygiène publique. Par ailleurs, ne disposant pas encore de site de décharge légal pour les déchets ménagers solides), des travaux de curage des canaux, de nettoyage de la plage et d'installation de système de drainage dans les fokontany situés dans des zones inondables sont impérativement recommandés pour la Ville de Morondava.

2.4. Profil des risques de Morondava

2.4.1. Aléas naturels et autres risques menaçant Morondava

Les aléas naturels affectant Madagascar sont notamment recensés par le CRED (Centre for Research on Epidemiology of Disasters) et l'OUFDA (Office of US Foreign Disaster Assistance), qui indiquent que l'île est régulièrement impactée par les cyclones, les inondations, la sécheresse, les épidémies et les invasions d'insectes et de nuisibles. Les cyclones sont particulièrement fréquents et leurs impacts dévastateurs. Le cyclone Fanele a par exemple frappé le district de Morondava en janvier 2009, affectant principalement la ville de Morondava et sa périphérie.

L'impact des cyclones et des inondations est renforcé par la déforestation et par l'érosion accélérée du littoral. La ville de Morondava est en effet localisée sur une plaine maritime sableuse et d'altitude basse (en moyenne 4 mètres seulement). La plaine est à son tour située au niveau du delta de la rivière Morondava et encadrée par la Morondava elle-même et par la rivière Kabatomena, toutes deux faisant face à un phénomène d'ensablement important. Les crues de ces rivières accélèrent le transport d'alluvions et le processus de sédimentation, qui modifie l'équilibre de la plaine deltaïque et augmente sa vulnérabilité aux inondations et à l'érosion. Un recul de la côte de 100 mètres a ainsi été observé à certains endroits du rivage de Morondava entre 1954 et 1991, et le phénomène ne cesse de gagner en intensité.

Les crues sont provoquées par les fortes pluies et les épisodes cycloniques, mais la déforestation et la destruction de la mangrove contribuent largement à la gravité de leur proportion. La forêt de l'Ouest malgache est située dans un environnement naturel fragile et peu propice à son maintien.

Les averses brutales ruissellent et ne s'infiltrent pas dans le sol sableux qui ne permet pas la rétention prolongée des eaux (sécheresse édaphique). D'autre part, le degré d'endémisme élevé de la forêt malgache, dû à son isolation du continent africain, la rend peu réactive face à la concurrence des autres espèces et aux agressions telles que les brûlis ou la coupe excessive.

Ainsi, dans le centre de la région du Menabe, le taux annuel moyen de déforestation entre 1973 et 2010 était de 0,67%, mais avec une accélération notable durant certaines périodes avec un taux de 1,5% et un maximum atteint entre 2008 et 2010, avec un taux de déforestation de 2,55% par an.

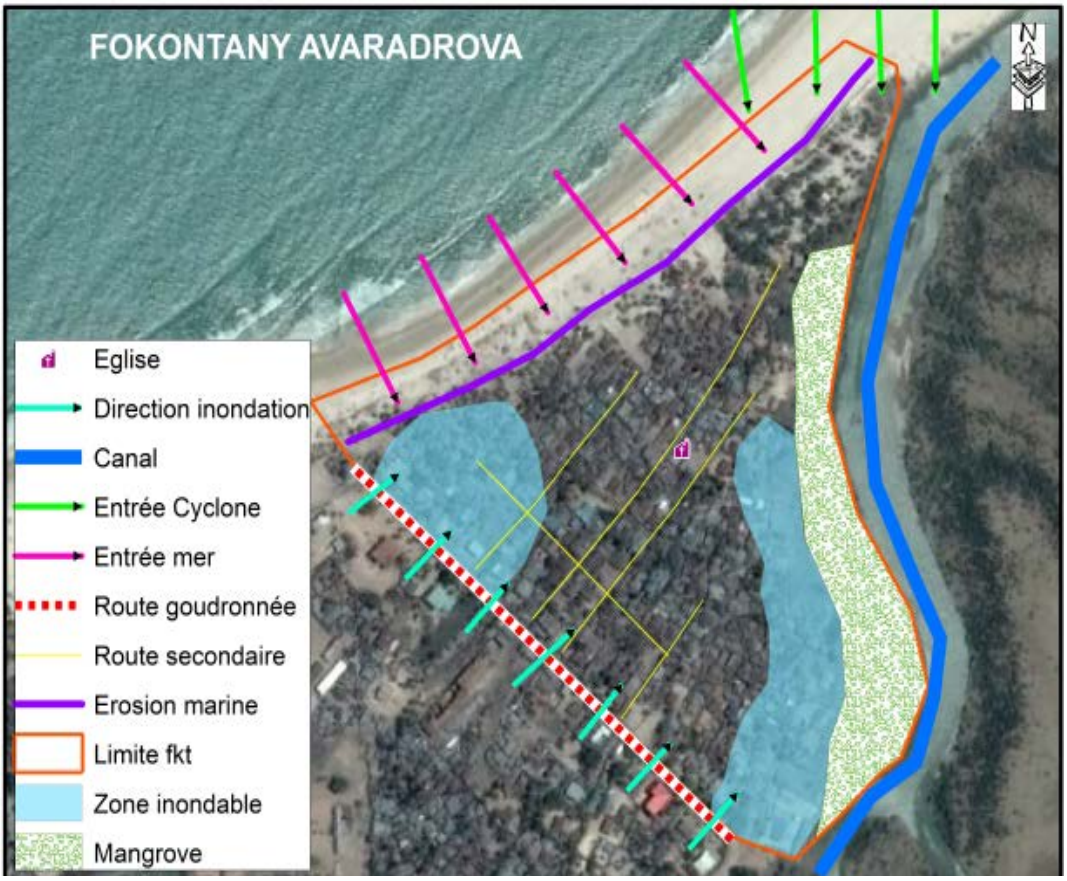
2.4.2. Vulnérabilité de Morondava

Les vagues d'urbanisation successives de Morondava, l'impact des aménagements (notamment des canaux) sur les dynamiques d'érosion et de sédimentation, ainsi que la vétusté des infrastructures de protection, notamment sur le front de mer, rendent la commune de Morondava particulièrement vulnérable aux aléas climatiques. Les conflits relatifs à la gestion des ressources en amont du fleuve accroissent encore plus cette vulnérabilité.

D'autre part, le taux de chômage important et le faible niveau d'éducation accroissent fortement la vulnérabilité sociale et économique des habitants de Morondava. La précarité des infrastructures d'assainissement et du système de collectes des déchets dans certains quartiers, ainsi que l'accès ou l'usage limite des services publics de santé et d'hygiène, pèsent sur la santé des habitants et accentue leur vulnérabilité en cas de crise.

Figure 5.

CARTES DES RISQUÉS IDENTIFIÉS PAR LES HABITANTS DES FONKONTANY: AVARADROV ET AMPASY



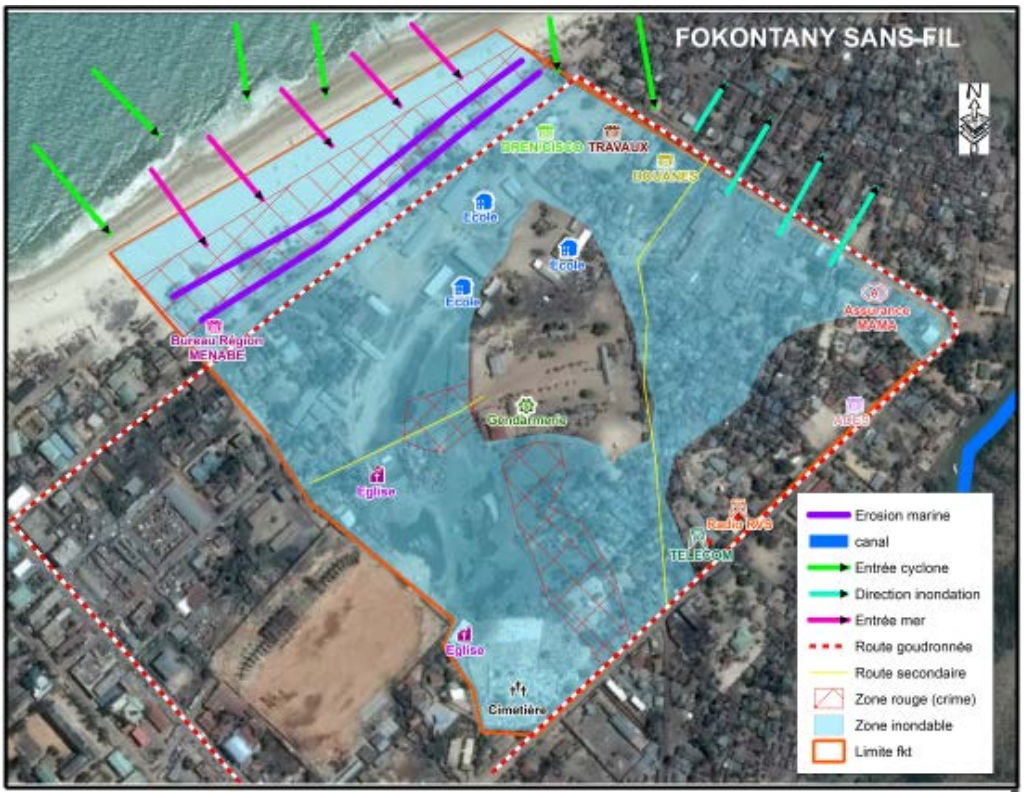
2.3.3. Changement climatique et stratégies d'atténuation de la Commune Urbaine de Morondava

Le Programme d'Action National d'Adaptation au Changement Climatique (PANA) mis en œuvre dans la région du Menabe et à Morondava prévoit une série de mesures pour atténuer les effets du changement climatique sur les régions côtières de Madagascar. Ces mesures prévoient entre autres:

- la mise en place des infrastructures tels que les digues, les épis pour prévenir la monté de niveau de la mer
- la gestion rationnelle du milieu marin et côtier par les communautés locales;
- la mise en place et promotion des associations de gestion de l'eau;
- l'adoption de la lutte antiérosive par les techniques de défense et de restauration du sol;
- la mise en place de structure légère et/ou renforcement du Service Météo décentralisé;
- la remise en état des secteurs dégradés par la déflation au reprofilage du bourrelet littoral, pose de brise vent par les reboisements des filaos, des plantations des mangroves;
- le reboisement des zones rurales disposant de plans de reforestation avec des espèces adaptées / appropriées;
- le désenclavement des zones de production potentielle, par la réhabilitation des réseaux de communication et de télécommunication pour favoriser les échanges et la commercialisation;
- le développement de l'IEC (information, éducation et communication) par des supports appropriés (opération radio ; système d'information);
- l'IEC de la population sur : les causes de la maladie et les mesures adéquates à entreprendre pendant la période propice à sa transmission, la nécessité de rejoindre les centres de soins, la construction des latrine, la nutrition, la nécessité des moustiquaires imprégnées;
- le renforcement et/ou la consolidation de la capacité des services de santé de base par la décentralisation du personnel, le renforcement des équipements, des médicaments pharmaceutiques communautaires appropriés, par la valorisation du COSAN (communauté sanitaire), par les mesures préventives de constitution de stocks, intensification de la surveillance épidémiologique;
- la dotation des ressources nécessaires pour la prévention et la lutte contre les vecteurs des maladies;
- l'élaboration, communication et application des normes en matière de conception et de construction couvrant l'ensemble des infrastructures pour s'assurer qu'elles peuvent résister à des évènements

Figure 6.

CARTES DES RISQUES IDENTIFIÉS PAR LES HABITANTS DES FOKONTANY SANS FIL ET TANAMBAO

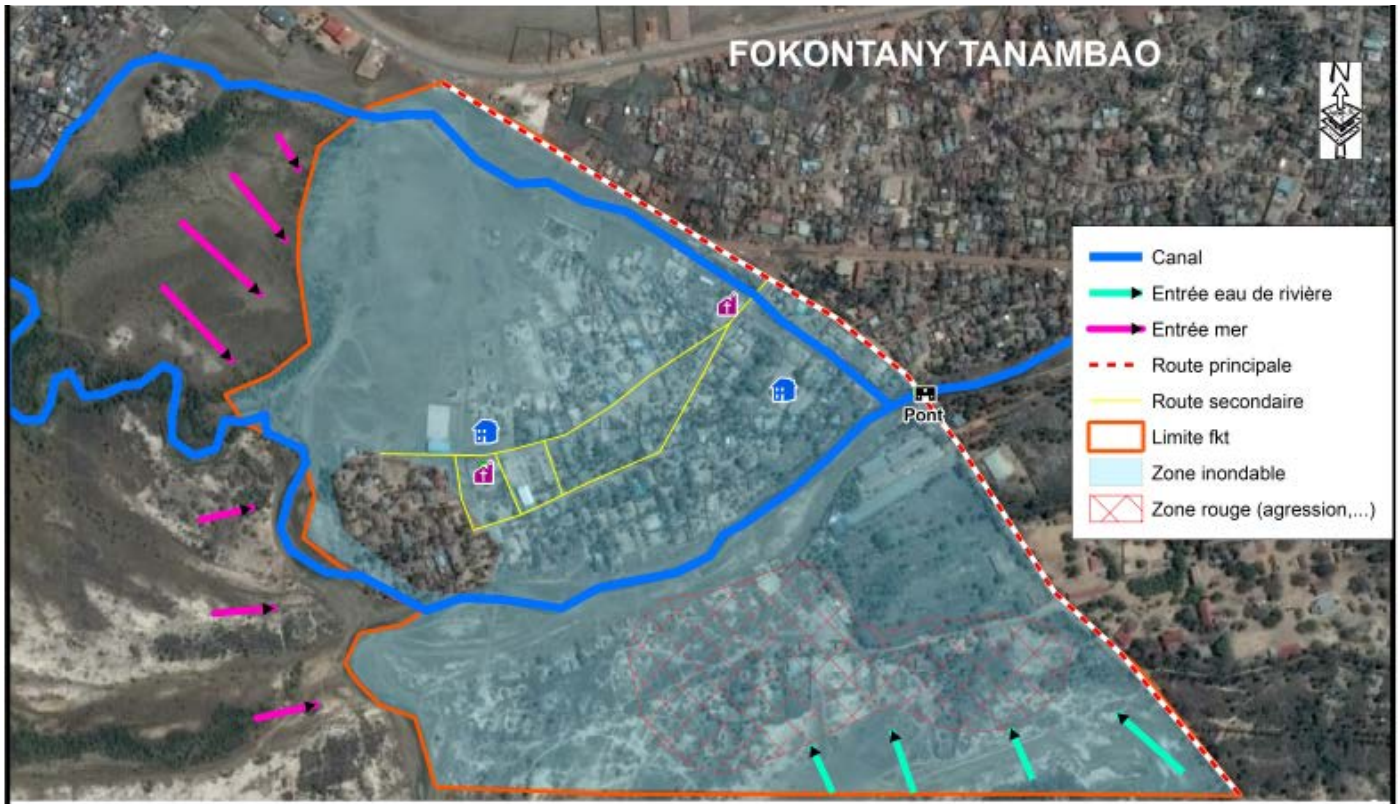


2.3.4. Gestion des risques et des catastrophes au sein de la Commune Urbaine de Morondava

Des efforts significatifs en matière de gestion du risque ont été faits au niveau national. La politique de Madagascar exposée dans la Stratégie Nationale de Gestion du Risque de Catastrophe prévoit notamment de:

- mettre en place une structure intersectorielle et décentralisée efficace pour la gestion des risques de catastrophe;
- renforcer les compétences nationales, provinciales, régionales et communales pour la préparation, la prévention, la mitigation et la réponse face aux catastrophes;
- renforcer les systèmes d'informations globalisants pour renforcer l'efficacité de l'analyse, de l'alerte, de la communication et de l'éducation publique en matière d'information sur la gestion des risques et des catastrophes;
- développer les mécanismes financiers à long terme;
- intégrer la réduction des risques et de la vulnérabilité dans la planification macro-économique;
- intégrer Madagascar dans la coopération régionale et internationale pour la réduction des catastrophes.

La commune de Morondava participe dans tous les aspects de la gestion des risques et des catastrophes. Un conseil communal de secours est responsable de la mise en œuvre des programmes au niveau communal, ainsi que d'assurer la liaison avec le conseil régional.
Etant donné que Morondava est un chef de lieu de Région, différents comités de GRC ont été mis en place par le BNGRC et ses partenaires entre autres le Comité Régional de GRC (CRGRC), le Comité de District de GRC (CDGRC), le Comité Communal de GRC (CCGRC)
Morondava bénéficie aussi de nombreux appuis de la part des entités œuvrant dans le domaine de la GRC notamment dans l'élaboration du plan de GRC régional.



3.

Actions Prioritaires pour la Résilience de la Commune Urbaine de Morondava

3.1 Plan de mise en œuvre

Pour devenir une ville plus résilience, la Commune urbaine de Morondava va exécuter les activités essentielles qui lui permettront de réduire sa vulnérabilité. Dans le but d'identifier et détailler ces activités, quatre actions prioritaires, listées ci-dessous, ont été sélectionnées comme étant le fil directeur du Plan d'Action pour la Résilience Urbaine lors de la mise en œuvre de la méthodologie de l'outil PARU. Pour chacune de ces actions prioritaires, une série d'activités spécifiques a été identifiée à court terme, à mettre en œuvre grâces aux ressources financières facilement mobilisables, à moyen terme, qui nécessiteront un travail de mobilisation de fonds, et à long terme.

Figure 7.

LES ACTIONS PRIORITAIRES DE LA COMMUNE URBAINE DE MORONDAVA

1	Améliorer le système de drainage
2	Protéger le littoral
3	Planifier la ville de Morondava
4	Améliorer la gestion des déchets

Action Prioritaire 1 :

Améliorer le système de drainage

Résultats attendus

Morondava a un système de drainage efficace et bien maintenu qui permet de réduire l'impact des inondations

Il manque à la commune de Morondava un système de drainage performant, qui joue notamment un rôle important lors des inondations. Dans certains cas, les tranchées de drainage et les fosses naturels sont tellement obstruées qu'elles empêchent l'écoulement des eaux. Les bacs à ordures, les déchets domestiques et les amoncellements de pierres, mais surtout les constructions illicites bloquent fréquemment l'évacuation des eaux. Il existe quelques efforts de sensibilisation auprès des communautés pour nettoyer les tranchées mais malgré ces actions, des interventions techniques sont cruciales telles que: la réhabilitation de certains tronçons du système de drainage, la maintenance du réseau, le déplacement éventuel des constructions illicites, etc. Etant donné l'importance du système de drainage pour l'atténuation de l'impact des inondations et de l'érosion, la commune a pour but d'améliorer le système de drainage et des activités précises sont définies à cette fin. Par ailleurs, améliorer le système de drainage contribuera également à une amélioration de la qualité de vie des citoyens et des communautés.

Figure 8. Activités planifiées pour améliorer le système de drainage

Activités planifiées	Budget estimé	Secteur municipal responsable	Autres partenaires	Localisation
Court terme (0-2 ans)				
Réaliser une étude d'impacts et effectuer les travaux d'urgence pour éviter les eaux stagnantes	Etude : 15/20 000 $	Voirie	BNGRC Travaux publics MEPATE	Ville de Morondava
Terminer les travaux prévus d'extension de canaux de drainage	600 000Ar/ j x 60 jours pour chaque quartier	Voirie	Chefs des quartiers, communautés	Sans fil, Morondava Centre,Tanambao
Nettoyer et effectuer les travaux de maintenance nécessaires	50 millions Ar.	Voirie	Opérateurs économiques locaux, WSUP, Wateraid,	Morondava centre, Avenue principale
Multiplier les mécanismes de pompage	6 millions Ar/ unité Besoin de 4 pompes	Voirie	BNGRC	Ville de Morondava

Elaborer un plan du système de drainage	60 000$	Voirie	BNGRC, JICA, UNICEF, AFD	Ville de Morondava Ville de Le Grand-Quevelly
Renforcer le s ystème de financement et le matériel disponible	5000$	Voirie	FDL (fond de développement local) ONU-Habitat	Ville de Morondava Ville de Le Grand-Quevelly
Moyen Terme (2 - 5 ans)				
Réhabiliter les routes en incluant le système de drainage	1 milliard/km 10 km à réhabiliter	Voirie	Travaux publics, MEPATE, autorité routière de Madagascar	Tribunal, Jirama, avaradrova, cisco, orange, esso maty, ankisirasira, bar vololona,chambre de commerce, andakabe. Mairie harizo, LPCIC, bureau foret
Construire de nouveaux canaux de drainage	1m20 largeur 1m20 hauteur en béton : 2millions d'Ar	Voirie	Travaux publics	1m20 largeur 1m20 hauteur en béton : 2millions d'Ar
Long Terme (5 - 10 ans)				
Finaliser le système de drainage selon le plan de drainage		Voirie		
Améliorer le réseau routier		Voirie		

Action prioritaire 2:

Protéger le littoral

Résultats attendus

Le littoral de la ville de Morondava est préservé et bénéficie à la ville de manière durable

L'évaluation des reculs de côte, laisse supposer qu'à la longue, une bonne partie due littoral de Morondava disparaîtrait de la carte actuelle. Le port, les sites culturels, les sites historiques implantés en bordure de mer et les plages touristiques sont ainsi exposés à des risques élevés de dégradation, voire de disparition. L'impact des changements climatiques se manifeste par l'inondation de toutes les zones basses côtières et la réduction de la superficie des récifs marginaux, des perturbations des systèmes des courants océaniques, l'augmentation du niveau de la mer entraînant une érosion côtière et une intrusion d'eau salée. Il est donc crucial pour la commune de Morondava de protéger son littoral, en évaluant de façon précise l'impact du changement climatique sur sa destruction et en en déduisant une stratégie d'adaptation, ainsi qu'en agissant sur les infrastructures et l'environnement physique pour les rendre plus résistants.

Figure 9. Activités planifiées pour protéger le littoral

Activités planifiées	Budget estimé	Secteur municipal responsable	Autres partenaires	Localisation
Court terme (0-2 ans)				
Faire réaliser une étude d'impact pour une stratégie d'adaptation au changement climatique	40 000$	Voirie	Direction Régionale de l'écologie, de l'environnement de la mer et des forêts (DREEMF) ONU-Habitat	Ville de Morondava
Maintenir les digues existantes	N/A	Voirie	Direction Régionale des travaux publics	Avenue principale, Tanambao (rue de France), Ampasy
Établir un accord de coopération décentralisée sur la question de l'adaptation au changement climatique	N/A	Bureau du Maire		

Renforcer la plantation et le renchérissement de la mangrove et autres espèces de végétaux permettant la protection de l'écosystème	100 000$	Voirie	Direction Régionale de l'écologie, de l'environnement de la mer et des forêts (DREEMF). Code Menabe Voary project Association Izay Mitambatsy Ro Vato ONU-Habitat (système argent contre travail)	Avaradrova
Moyen Terme (2 - 5 ans)				
Mettre en place un système de digue et gabionnage	Gabion, 1 millions/m linéaire	Voirie	Direction Régionale des travaux publics	Morondava centre, sans fil, Avaradrova, Nosy Kely
Long Terme (5 - 10 ans)				
Construire un barrage pour drainer le bras de l'Ankabatomena et des digues pour protéger la ville des inondations du fleuve		Voirie		

Action prioritaire 3:

Planifier la ville de Morondava

Résultats attendus

Morondava est une ville bien planifiée incluant des infrastructures et des services résilients

La vulnérabilité de nombreux quartiers de Morondava est liée à la croissance de la ville et a l'installation sauvage ou semi-formelle dans des zones inondables et/ou menacées par l'érosion. Cette croissance non contrôlée est en grande partie le résultat d'un manque de planification, qui affecte également l'accès aux services et infrastructures de base pour certains fokontany. Pour renforcer sa résilience, la commune de Morondava doit prendre un ensemble de mesures législatives contrôlant l'aménagement du territoire et la planification urbaine, mais également s'engager dans des actions d'information, d'éducation et de communication à ce sujet auprès de la population et des techniciens municipaux.

Figure 10. **Activités planifiées pour planifier la ville de Morondava**

Activités planifiées	Budget estimé	Secteur municipal responsable	Autres partenaires	Localisation
Court terme (0-2 ans)				
Mobiliser des ressources pour financement de la mise à jour du plan d'urbanisme	1000 $	Bureau du Maire	SRAT Service Régional de l'Aménagement du Territoire, Ministère d'Etat en charge des projets présidentiels ONU-Habitat	Ville de Morondava
Informer et former les techniciens municipaux à l'application du Règlement National d'Urbanisme	25 000$ par formation	Service de l´aménagement	ONU-Habitat	
Sensibiliser la population sur les processus des permis de construire (via les média :radio, télé, prospectus)	40/50 000 $	Voirie	Councilor of the ward; Ward Committes; ONU-Habitat	
Terminer de cartographier l'ensemble des quartiers de la ville	500$ / quartier 18 quartiers 9000 $ (déjà commencé)	Bureau du Mire et Conseil de la Commune de Morondava	Service de la Réunion	
Réaliser le diagnostic territorial et des risques	30 000$	Bureau du Maire	Service de consultant ONU-Habitat	

Mettre en place une médiation communautaire pour la gestion des conflits fonciers et de voirie	25 000 $	Aménagement	Circonscription domaniale topographique, travaux publics, Chefs des quartiers Autorités traditionnelles ONU-Habitat	
Inventorier les réserves foncières	40 000 $	Service technique de l'aménage-ment	Circonscription domaniale topographique, travaux publics, ONU-Habitat	
Finaliser les infrastructures clés (hôpital, stade bureau de la Mairie)	Hôpital 9 milliards Ar. Mairie 150 millions d'Ar	Bureau du Maire		Morondava centre, Namahora Sud, Andakabe
Renforcer l'éclairage public dans les zones les plus prioritaires				
Moyen Terme (2 - 5 ans)				
Elaborer un plan d'urbanisme	60 000$ (- prix des étu-des déjà faites)	Aménagement	SRAT , ONU-Habitat , MEPATE , Conseil Municipal	
Constituer une réserve foncière		Service technique de l'aménagement	Circonscription domaniale topographique, travaux publics, ONU-Habitat	
Long Terme (5 - 10 ans)				
Opérationnaliser le plan d'urbanisme				

Action prioritaire 4:

Améliorer la gestion des déchets

Résultats attendus

Morondava a un système de gestion des déchets efficace qui intègre les communautés et permet de réduire les risques de catastrophes

On peut estimer qu'à Morondava Ville, la production quotidienne est estimée à près de 35 tonnes de déchets ménagers et probablement 5 tonnes de déchets organiques banals auxquels se rajoutent 6 tonnes à 7 tonnes de déchets issus des activités commerciales et sur les marchés. La plupart des déchets ménagers sont, soit dispersés dans la nature, soit enterrés dans la cour de chaque ménage ou dans les ruelles, soit jetés dans les points d'ordures en même temps que les ordures ménagères quotidiennes. Dans les fokontany périphériques, les habitants enfouissent leurs ordures dans des trous, et les incinèrent afin d'éviter la propagation de maladies, suivant les ordres des autorités locales. Afin d'améliorer la résilience de Morondava, la commune doit améliorer la gestion des déchets en établissant un plan d'assainissement ainsi qu'une association coopérative et un système de pré-collecte, de collecte, de recyclage, et d'élimination des ordures.

Figure 11. Activités planifiées pour améliorer la gestion des déchets

Activités planifiées	Budget estimé	Secteur municipal responsable	Autres partenaires	Localisation
Court terme (0-2 ans)				
Elaborer un Plan d'assainissement, définissant les responsables de la collecte, pré-collecte et gestion du site de décharge et identifiant les sites de collecte. (Déchets, accès à l'eau potable, bornes fontaines, questions d'ordres sanitaire)		Service technique de l'eau et assainissement et hygiène	ONG ECA Wateraid ONU-Habitat	Ville de Morondava
Mettre en place une association coopérative. (brigades vertes) dans chaque quartier pour la Pré collecte des ordures et sensibilisation des communautés (cotisation des habitants pour le fonctionnement)	25 000$	Voirie	Wateraid ECA ONU-Habitat	Ville de Morondava

Mettre en place un système du ramassage des ordures, site de ramassage et bacs à ordures (bac de pré collecte et bac de collecte)	45 millions Ar. /bac X18 quartiers 1, 5 millions Ar/ cyclo-pousse X 36 (2/quartier)	Service technique de l'eau, assainissement et hygiène	ONG ECA Wateraid	Ville de Morondava
Aménagement du site et de la route d'accès de la décharge (3-4 km du centre ville)		Service technique de l'eau et de l'aménagement	Wateraid	Ampasy
Moyen Terme (2 - 5 ans)				
Planification intercommunale de la gestion des déchets et assainissement		Bureau du Maire	Ministère de tutelle de la décentralisation et déconcentration District Commune de Bemanonga ONU-Habitat	
Définir une stratégie de recyclage	20 000$	Service technique de l'eau et de l'aménagement	Secteur privé ONU-Habitat	
Long Terme (5 - 10 ans)				
Système de gestion des déchets durable. Prévision de la fermeture, extension ou délocalisation des sites de décharges.		Service technique de l'eau et de l'aménagement	JICA, AFD, UNICEF, ONU-Habitat	

4.

Coordination, suivi et évaluation

4.1 Mécanismes de coordination

Pour assurer le bon fonctionnement d'un mécanisme de coordination, il est crucial de veiller à ce que le personnel en charge soit adapté aux besoins et que le responsable ait suffisamment d'autorité et d'expérience pour mener à bien les opérations. Ce soutien permettra au responsable de la coordination de se concentrer sur les enjeux essentiels relatifs à la construction et au renforcement des partenariats et des capacités, aux activités de plaidoyer, de mobilisation des ressources, assurer la mise en œuvre et suivi / évaluation des plans d'action, etc.

Après la mise en place du mécanisme de coordination, plusieurs activités décisives devront être exécutées au cours du premier mois. Associées à de bonnes compétences de gestion et d'encadrement, ces activités donneront aux partenaires l'élan et le dynamisme nécessaire pour avancer.

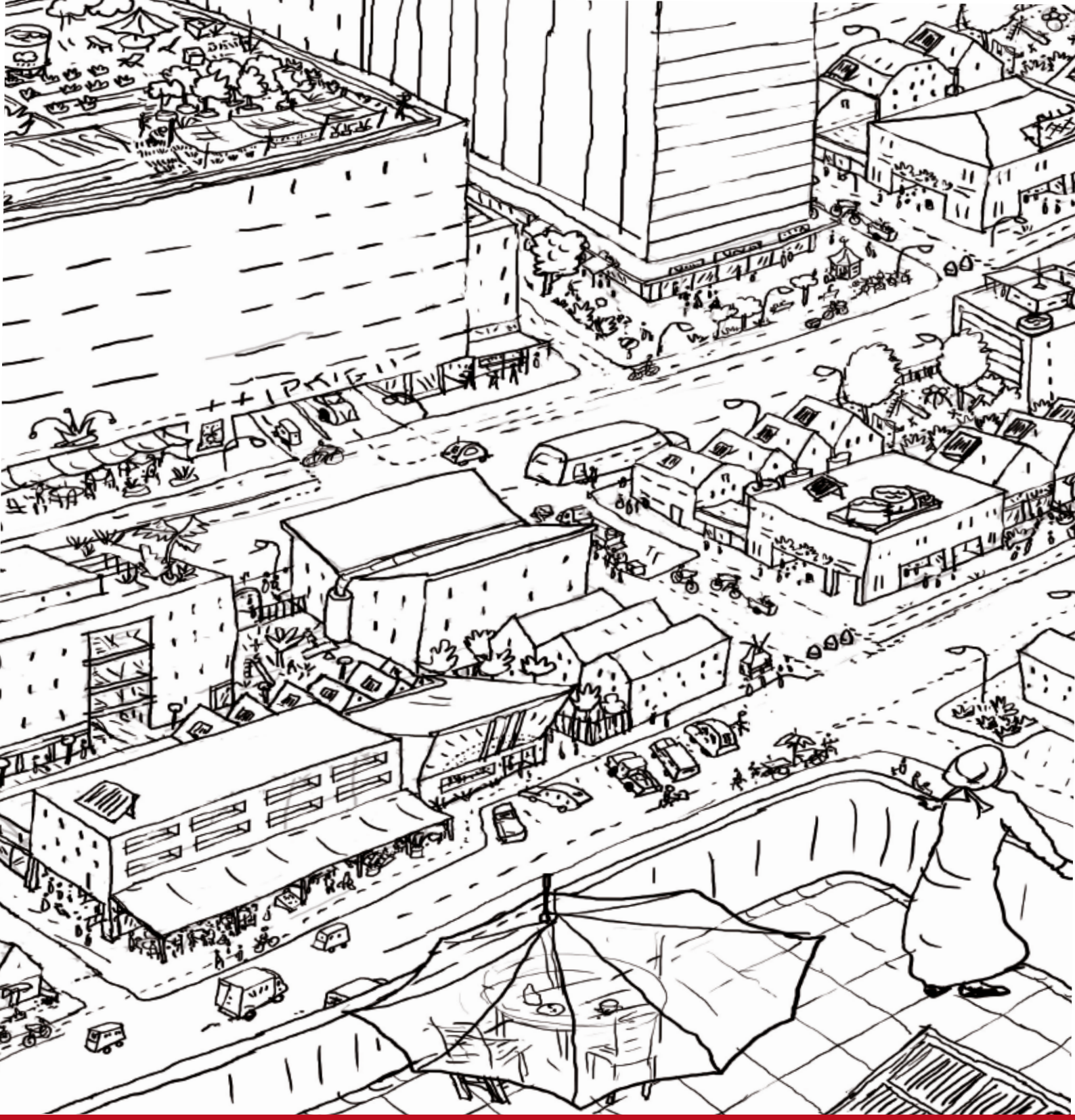
La mise en œuvre du plan d'action sera coordonnée par la municipalité, qui organisera des réunions de manière régulière, selon une fréquence déterminée au préalable. Des termes de référence (TdR) du mécanisme de coordination doivent être écrits afin de parvenir à un accord commun au sujet des objectifs de la coordination, de la direction, de la participation, ainsi qu'au sujet de la nature et des objectifs des activités de coordination.

La contribution des différents secteurs, des acteurs de la mise en œuvre et les partenaires pertinents est requise, conformément à la nature et aux possibilités de chacun. La municipalité peut convier les acteurs et donateurs potentiels de la mise en œuvre de certaines activités et des spécialistes pour qu'ils puissent prendre part aux aspects techniques des activités planifiées et de leur ordonnancement (ceci entrant dans le cadre de la promotion du partenariat public privé dont la loi y afférente a été promulguée très récemment). Afin de coordonner efficacement ces tâches, la municipalité peut décider de nommer des points focaux responsables par exemple pour la coordination avec les partenaires ou la coordination des mécanismes de mise en œuvre. L'assemblée municipale est quant à elle en charge du suivi et de l'évaluation de la mise en œuvre des activités.

4.2 Mécanisme de suivi et d'évaluation

Le mécanisme de suivi et d'évaluation pour la commune de Morondava sera développé par l'Assemblée municipale. Dans certains cas, un consultant externe pourra être recruté et mis à contribution, conformément aux besoins. Le mécanisme de suivi et d'évaluation devra pouvoir répondre aux questions suivantes:
Dans quelle mesure les activités et les fonds sont déployés au bon endroit?
Dans quelle mesure les activités et les fonds sont mis en œuvre conformément au plan?
Dans quelle mesure la mobilisation des ressources et le support technique sont efficaces?
Dans quelle mesure les objectifs du PARU ont été atteints?
Dans quelle mesure cela a-t-il impacté le niveau de résilience de la commune?
Les éléments importants pour le suivi et l'évaluation sont décrits ci-dessous. Ils seront détaillés plus en avant par l'Assemblée municipale:

- Les objectifs du processus de suivi et d'évaluation
- Les activités prévues pour chaque action prioritaire
- Elaboration du plan d'action de suivi pour la mise en œuvre des activités
- Identification des utilisateurs finaux du plan de suivi et d'évaluation
- La période de suivi et d'évaluation durant laquelle le suivi sera fait annuellement tandis que l'évaluation sera faite tous les 2 ans pour les activités à court terme, tous les 5 ans pour les actions à moyen terme et tous les 10 ans pour les activités de long terme.
- L'établissement d'un niveau de référence pour la formulation des indicateurs
- Le développement de méthodes et techniques de collecte des données et de définition des indicateurs
- Les dispositifs institutionnels pour comprendre l'implication de tous les acteurs dans le PARU.



Élaboré par:

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Disaster Risk Management, Sustainability and Urban Resilience

Resilience Action Plan

City of Zomba (2016-2026)

Executive Summary

The City of Zomba established a partnership with the United Nations Human Settlements Programme (UN-Habitat) and with the Technical Centre for Disaster Risk Management, Sustainability and Urban Resilience (DiMSUR) for the elaboration of **Zomba City's Resilience Action Plan (RAP)**. Zomba City's RAP creates a strategic framework identifying comprehensive and inter-sectoral **priority actions**. It also defines short, medium and long term **specific activities** to reinforce the city's resilience and adaptation capacity to the threats posed by climate change. The ultimate goal of the RAP is to serve as a guideline for the interventions of the city council, of communities and of other relevant partners.

City Profile of Zomba

Zomba City is located in the Southern Region of the Republic of Malawi. The city experiences a considerable process of social and economic development. According to the 2008 census, it had a population of 88,314 inhabitants, with an annual growth rate of 3%. However, disaster risks and climate change pose serious threats to its growth and its welfare provision capacities. Most of the risks occurring in Zomba are due to its geographic location, at the foot of the Zomba plateau, and is exposed to strong winds, flash floods, mudflows, landslides and debris flows; but the condition of vulnerability of the city is also directly linked to the urban development pattern and the socio-economical conditions of its residents. The vulnerability of Zomba is mainly due to its environmental degradation linked to a number of factors such as poor land use planning, lack of urban services, poor urban farming practices and deforestation. Rapid population growth is putting pressure on land and is one of the causes of deforestation.

The City Resilience Action Plan of Zomba

The CityRAP was conducted through a participatory and comprehensive process involving key stakeholders involved in Zomba urban governance and development including city councillors, management and technical staff, as well as local communities and civil society. Municipal technicians forming the CityRAP team were trained to conduct the process themselves, with UN-Habitat and DiMSUR providing support and strategic advice.

Overall, 142 participants contributed to the elaboration and the adoption of the plan. All municipal sectors were involved and 4 communities were consulted. The Resilience Action Plan should guide policy makers in order to improve Zomba City's resilience through the implementation of the priority actions selected, namely:

1. Reduce and Mitigate Floods
2. Improve the Drainage System
3. Strengthen Citizen Security
4. Promote Sustainable Forest Management
5. Foster Strategies to Cope with Rainstorms

The Resilience Action Plan also provides a comprehensive description of the pathway that the municipality should follow, presenting the stakeholders to work with, a calendar and a budget.

Resilience Action Plan

City of Zomba

2016-2026

UN HABITAT
FOR A BETTER URBAN FUTURE

Humanitarian Aid
and Civil Protection

DiMSUR
Disaster Risk Management,
Sustainability and Urban Resilience

Table of Contents

1. Introduction

1.1. Background

Zomba City is located in the Southern Region of the Republic of Malawi and is the capital of the district of the same name. The city experiences a considerable process of social and economic development. It is the 4th major urban centre of Malawi, after Lilongwe, Blantyre and Mzuzu. Its major function is administrative, with a significant share of the population employed by the government and related sectors. The city is also an important learning centre, due to the presence of the University of Malawi. According to the 2008 census, it has a population of 88 314 inhabitants, with an annual growth rate of 3%. However, disaster risks and climate change pose serious threats to its growth and its welfare provision capacities. Zomba City is indeed located at the foot of the Zomba plateau, and is exposed to cyclones, flash floods, mudflows, landslides and debris flows.

Environmental degradations and climate change impacts are likely to aggravate Zomba's vulnerability to natural hazards. Deforestation is major issue, as it increases the likeliness of floods, mudflows and debris flows incidence. Bad sanitation and urban growth management also contribute to hinder Zomba's capability to face and to recover from such events. Climate change also poses a threat on the city's development. Based on the 5th report of the Intergovernmental Panel on Climate Change (IPCC) published in 2013, it may be inferred that average temperatures in inland areas such as Zomba will rise dramatically over the next decades, in case global mitigation efforts are not implemented. As a consequence, rain patterns will become less predictable, making floods and mudflows mitigation efforts more complex. Moreover, deforestation may also increase migrations to marginal land areas prone to landslides and floods and exacerbate urban sprawl. Presently, part of the population increase in Zomba is characterized by the informality and the bad quality of housing, very often constructed without considerations for hazards that frequently affect the city.

In this respect, the Municipality of Zomba established a partnership with the United Nations Human Settlements Programme (UN-Habitat) and with the Technical Centre for Disaster Risk Management, Sustainability and Urban Resilience (DiMSUR) for the elaboration of **Zomba's Resilience Action Plan (RAP)**. Zomba City's RAP creates a strategic framework identifying comprehensive and inter-sectoral **priority actions**. It also defines short, medium and long term **specific activities** to reinforce the city's resilience and adaptation capacity to the threats posed by climate change. The ultimate goal of the RAP is to serve as a guideline for the interventions of the municipality, of communities and of other relevant partners of the field.

The RAP resorted to an innovative methodology based on the City Resilience Action Planning tool (CityRAP). Elaborated by UN-Habitat and DiMSUR, this tool enabled the municipality to implement methodologies using and valorising local knowledge in order to understand and plan activities that integrate risk reduction elements. Therefore, through several exercises and consultations with municipal technicians and authorities, and with communities and other relevant actors**, five priority actions were identified to reinforce Zomba City's resilience:** (1) Reduce and mitigate floods; (2) Improve the drainage system; (3) Strengthen Citizens Security; (4) Promote sustainable forest management and (5) Foster strategies to cope with rainstorms.

Mention should be made that the Resilience Action Plan also aligns itself to national and global efforts for resilience building, meeting Malawi's Environment Management Act as well as the international Sendai Framework for Disaster Risk Reduction 2015-2030, which sets as priorities the necessity of understanding risks and of investing in risk reduction for resilience building.

1.2. Elaboration of the RAP: the process

The CityRAP was successfully conducted throughout a participatory and comprehensive process involving key stakeholders of Malawi and Zomba urban governance, as well as local communities and civil society. Municipal technicians forming the CityRAP team were trained to conduct the process themselves, with UN-Habitat and DiMSUR providing support and strategic advices:

- First, municipal staff assessed their own services under the supervision of the CityRAP team, in order to identify and prioritise key issues to be addressed.
- In a second time, the CityRAP team conducted the community risk mapping exercise in four neighbourhoods, namely **Chambo, Likangala, Mbedza and Mtiya**. These communities were selected due to their high social and hazards vulnerability. The goal was to collect the knowledge and the opinion of communities about the risks that threaten and affect their neighbourhoods.
- Based on the compilation of the municipality's assessment results and the community risks maps, a list of priority actions for reducing risks, fostering resilience and enhancing adaptive capacities has been established and discussed.
- Finally, the city endowed itself with a Resilience Action Plan based on the five priority actions. Priority actions were further detailed with expected results, planned activities, budget and calendar. Responsible for the implementation of each action were identified, and activities were geographically localized.

Overall, 142 participants contributed to the elaboration and the adoption of the plan. All municipal sectors were involved and 4 communities were consulted. The Resilience Action Plan should guide policy makers in order to improve Zomba City's resilience through the identification of priority actions and specific activities to be implemented. It provides a comprehensive description of the pathway that the municipality should follow, presenting the stakeholders to work with, a precise calendar and an accurate budget.

Source: Zomba CityRAP participant feedback survey, 2016, UN-Habitat.

Participant's Background	
City Authority (Mayor, Chief of Department) and CityRAP Focal Points	24%
National Government technician	12%
Municipal technician	15%
Community representative	26%
Other: civil society and NGO (3); information department (1)	12%
No answer	12%

2. CITY PROFILE OF ZOMBA

2.1 General Framework

2.1.1 Geographic location

Zomba city is the fourth largest urban centre in Malawi after Blantyre, Lilongwe and Mzuzu. The City, divided into ten wards, is located at the Center of Zomba District in the Southern Region of the Country and covers an area of 39km^2 sharing all its boundaries with Zomba District Council.

Located at the foot of Zomba plateau, 2085m above sea level and the fourth highest plateau in Malawi, the city is situated in a mountainous and hilly area whose ground elevations vary between 790m and 1265m above sea level. The terrain is varied and undulating due to dissection made by numerous streams that's flow through the town. Diverse natural resources and landscapes of the Zomba Plateau make it one of the renowned tourist attractions of the country.

2.1.2 Demography

According the Population and Housing Census published by the National Statistical Office in 2008, Zomba had a population of 88,314 with an annual growth rate of 3.0%. Population is estimated at 138,583 inhabitants in 2015. Population density is 2,264 persons per square kilometre and it is the fourth city of the country in terms of population density. About 65 % of the population leaves in unplanned areas.

Zomba City has a heterogeneous population composed of different ethnic groups, cultures and languages. The Iowe, Yao, Mang'anja, Chewa, Ngoni, Tumbuka, and Indians are the dominant ethnic groups. The Europeans, Tongas and other Africans are in minority.

2.2 Socio-economic aspects

2.2.1 Economy

Zomba has a wide range of economic activities including trade, agriculture and industry. However the economy of Zomba is constituted largely of informal income generating activities, and few formal activities. The lacks of adequate regulation and support, infrastructure and basic urban services and the lacks of access to business capital for expansion are major obstacles to economic growth. In general, the absence of an economic development plan makes economic investments complicated. Concerning formal employment, 29 percent are dedicated to financial series, 26 percent to agriculture and mining, 25 percent to marketing, 9 percent to manufacturing and 4 percent to construction. Small-scale enterprises represent 93 percent of the economy; medium enterprises represent 6 percent and large-scale enterprises 1 percent[1]. Finally, it is important to note that the majority of small and medium sized businesses are informal activities.

[1] UN-Habitat, *Malawi, Zomba Urban Profile*

The largest part of the Zomba City Council revenue come from property rates but also from other kind of fees such as market fees, parking fees, etc. However, the city council needs to reinforce its capacity for providing the necessary improvement of infrastructure and basic service provision improving financial management and transparency in revenue collection.

2.2.2. Socio-economic context

The city is testifying of a high level of poverty resulting from different factors such as unemployment, rapid population growth and an economy largely dependent on small and medium enterprises. High interest rates on loans and collateral requirements make the access to adequate loan facilities for economic development almost inaccessible for the population. According the National Statistical Office[2], 66 percent of Zomba's population lives in informal settlements lacking of basic urban services and social infrastructure.

2.3 Political structure and public infrastructure

2.3.1 Local governance structure

Zomba City Council is mandated by the Local Government Act of 1998 and the Decentralization Policy of 1998. According section 6 of the Local Government Act number 42 of 1998, the city council makes policies and decisions on local governance and development of the city. The mayor heads the city council while the chief executive officer heads the secretariat which is divided into 11 departments, each headed by a director.

Zomba City shares all its boundaries with Zomba District Council, which forms an integral part of its sphere of influence. The city is headed by the Chief Executive officer and each of the 10 wards of the City is represented by a ward councilor who is elected every five years.

The Zomba City Council must work to secure additional resources to adequately meet resident's needs and make available suitable land for the delivery of low income housing. The lack of a comprehensive physical, economic or environmental plan affects the capacity of the city council to collect and generate revenue, to deliver the needed services and to maintain a dynamic environment allowing development and economic growth in the city. However, Zomba City Council developed a local Revenue Mobilization Strategy to improve local revenue collection, which overall objective is to maximise revenue collection and outlined new revenue sources.

[2] National Statistical Office 2008, *Statistical Yearbook*

Table 1: Zomba city Council[3]

Department/ Section	*Sector*
Mayoral	Local governance
Chief Executive	Local governance and city management
Administration Services	Local governance and city management
Financial Services	City financial management and services
Trade and Commerce	Local economic development
Health and Social Services Department	Health and social services
Engineering Services Department	Infrastructure provision and environmental management services
Agriculture and Public Health Services Department	Public and open spaces and environment health services
Planning and Development Services Department	Town planning, development control and land administration services
Education Services Department	Urban education services
Internal audit Section	Internal auditing services

2.3.2 Infrastructure and public services

The city council is mandated through the Local Government Act of 1998 to provide social infrastructure and basic urban services to all citizens, both in the formal and informal areas. But provision of infrastructure and public services benefits, for the most part, to planned areas while the high density and informal areas do not have appropriate access to these infrastructures. In general, the city council lacks adequate financial and technical capacity for expanding and providing basic urban services to all its citizens.

Considering the educational system, the city has 17 primary schools. Primary school in Zomba is free and the city counts a total of 21, 748 pupils, with a ration of almost 1.1 between boys and girls. There is a good teacher-pupil ration; however the quality of education in Zomba's schools has been suffering lately due to inadequate learning equipment, lack of instructional material and uneven distribution of teachers. The City has several colleges and technical schools, both public and private. But the number of secondary schools in Zomba is inadequate to cater all students. [4]

The Central hospital, health centres and clinics run by the government and private organisations provide medical care services in Zomba. Tradition healers and traditional birth attendants are still very much solicited by the population for health services. Poor health facilities and lack of medical equipment and qualified staff prevent the proper and efficient functioning of the health care system. Also, Zomba faces major health challenges such as high rate of HIV/AIDS and malaria which strongly affect the development of the city.

[3] UN-Habitat, *Malawi, Zomba Urban Profile*
[4] UN-Habitat, *Malawi, Zomba Urban Profile*

According the National Statistical Office[5], only 27 percent of Zomba's residents have access to piped water, supplied by the Southern Region Water Board. Formal areas have adequate access to water supply while the majority of informal settlements have little or no access to water supply. For their water needs, the population of informal areas mostly relies on communal water points. The same observation can be made concerning sanitation and waste removal services. Wastes are collected at regular intervals in the formal areas, but the city does not yet provide waste management services in the informal settlements.

Transport facilities are mainly provided by minibus and bicycles. Buses network offer long transportation services as well as taxis. Since footpath and bicycle paths have not been provided, the city faces a growing challenge of congestion and frequent conflicts between road users such as cyclists, pedestrians and drivers.

The majority of Zomba's residents use electricity, charcoal, firewood and petroleum as common sources of energy. The Electricity Supply Commission of Malawi provides the major source of energy for industrial development. However, the city suffers multiple power failure as a result of restricted availability at national level, resulting in a major challenge for the city development. In Addition, the city is now confronting a major issue of deforestation and environmental degradation due to the high use of wood fuel.

2.4 Risk Profile

The City of Zomba is facing a significant number of natural or human caused disasters. Disaster risks result from the interaction between the occurrence probabilities of hazards and the vulnerability of the territory and the affected population. Most of the risks in Zomba occurring in Zomba are due to its geographic location, but the condition of vulnerability of the city is directly linked to the urban development pattern and the socio-economical conditions of its residents.

2.4.1 Probability of natural hazard

Zomba lies on the southern part of the Malawi rift and is bisected by the Main Rift Fault on the west side. The Malawi rift is becoming seismically active and as a result earthquakes are occurring within 200-250 km away from Zomba City. The fact that some areas of the city are covered by sediments and that the city sits in close proximity to the main rift fault means the city is particularly exposed to moderate or strong ground shaking resulting from rupture on the fault or other seismic activities.

The city has two mains rivers flowing through, namely Likangala and Mulunguzi, having Zomba Plateau as their source. Soils in Zomba, mainly lithols and ferruginous, are generally well-drained. More rainfall tends to fall on the windward (eastern) side of Zomba Mountain. Areas to the west of Zomba Plateau experience little rainfall throughout the year, as they are located on the leeward side.

The natural vegetation described as open canopy plateau woodland has been greatly reduced and disturbed in recent years due to cultivation and urbanization. Only little remnants remain along river

[5] National Statistical office, September 2009*, Population and Housing Census 2008 Main Report*

banks, grave yards and in inaccessible areas of the upper sloped of the plateau. Besides, bush fires continue destroying vegetation and animal life.

The city is facing several disaster risks including floods, wind storms, environmental degradation, high occurrence of road accidents and disease epidemics. Besides, illegal urban sprawl on inadequate lands and environmental degradation led to the multiplication of landslides.

2.4.2 The vulnerability of Zomba City

The vulnerability of Zomba is mainly due to its environmental degradation linked to a number of factors such as poor land use planning, lack of urban services, poor urban farming practices and deforestation. Rapid population growth is putting pressure on land and is one of the causes of deforestation. Population growth has also resulted in people migrating to marginal land areas which are prone to disasters such as landslides.

Due to a lack of specific regulations for the management of informal settlement, Zomba city has experienced a growing of permanent settlement at the foot of the plateau and illegal settlements along the main rivers. Construction of mad brick houses, mostly in unplanned areas, make such build environment particularly prone to disasters. It is also important to mention that social and economical activities of the city tend to increase threats of disaster, Timber Trading, for instance, is the most criticized activity. Other activities like firewood, moulding and burning of bricks, large scale sand mining and small scale Quarrying business are also criticized.

The lack of a proper sanitation and waste management system increases the vulnerability of the city. The limited coverage of the sewer system has led to high reliance on pit latrines, which has resulted in high levels of pollution of the water table. Liquid and solid waste disposal in rivers and along the roads has turned as a huge challenge, since many rivers are heavily polluted, which significantly increases the risk of epidemics.

Almost every year the city has experiences heavy rainfall causing floods and destroying houses, strong winds destroying roofs, earth tremors and unpredictable rock avalanche potentially occurring at any time, landslides in every rainy season, as well as dangerous tree falls, fire hazards and public disorder, mainly related to demonstrations and academic freedoms.

2.4.3 The impact of climate change

Zomba experiences a tropical climate with three main seasons – cold-dry, hot-dry and hot-wet, ranging respectively from April to July, August to October and November to March. The hottest months are September, October and November, with average temperatures ranging between 28 and 30 degrees Celsius. June and July are the coldest months, with minimum temperatures as low as 10°C. The annual rainfall varies between 600mm and 1500mm (1999-2005). On average, February is the wettest month.

Malawi is located in a region expected to experience significant impacts of climate change. It is also designated as one of the Least Developed Countries and “the Most Vulnerable Countries” regarding climate changes according the UN Framework Convention on Climate Changes (UNFCCC). There is insufficient detailed climatic information about changes in the past to make accurate conclusions, but the frequency of extreme weather events has been significantly increasing in recent decades.

Furthermore, Malawi has one of the highest rates of deforestation in Southern Africa and these environmental degradations are resulting in alterations in winds and rainfall patterns.[6] Rapid adaptation measures are absolutely necessary for coping with climate change impacts. For example, reforestation can help preventing soil erosion, acting as wind breaks, shading and soil moisture and reducing flooding by reducing water flows.

In Zomba, deforestation appears as one of the biggest challenge and the city is already carrying out some afforestation and re-afforestation activities. There is an urgent need to expand and strengthen these activities, mostly in water catchment areas. Other priorities for the city should consist in conducting awareness campaigns on environmental conservation and adaptation practices for reducing the impacts of climate change.

2.4.4 Disaster Risk Reduction and Management in Zomba City

In terms of Disaster and Risk Management, responsibilities are distributed ranging from Central Government to local authorities. At national level, OPC/DODMA provides policy directions and resources mobilization while, at local level, the City Council provides coordination of disaster activities during disasters. At city level, the city civil protection committee is responsible for providing leading role in implementation of disaster activities at city level, while the civil protection committee group offers technical support in specific disaster response areas. Lastly, city ward protection committees ensure proper linkage between local communities and city council on disaster activities.

At national level, Malawi has made significant efforts and progresses to promote disaster risk management and climate change adaptation and mitigation through strong political commitment, policy and legal framework and institutional arrangement to tackle climate change effects. At local level, Zomba city has already launched a local strategy and integrated disaster management into its urban policy. In 2015, the Municipality has adopted the Disaster Risk Management Plan showing that Zomba City fully understands its role in disaster preparedness, mitigation and prevention demonstrating the concern and willingness of the city to take concrete action to build resilience and reduce disaster risks.

[6] Oxfam International, *The winds of change:Climate change, poverty and environment in Malawi*

3. Priority Areas to Build Resilience in Zomba City

3.1. Implementation Strategy

Priority Area 1: Reduce and Mitigate Floods

In Zomba City, floods occur almost yearly. The 2015 floods were the most devastating in terms of geographical coverage, severity of damage and extent of loss. There are several negative impacts that usually derive from flooding: interruption on water and electricity services; damages on roads and bridges disrupting business; loss of people and livelihoods; damage in infrastructure, crops and livestock; erosion due to the deforestation, which is one of the biggest hazards in Zomba and some other areas in Malawi. Despite the fact that many activities are being undertaken for reducing and mitigating risks (Risk management Plan; community awareness campaigns; etc), there is still a strong need to work on reducing and mitigating floods to reduce the City's vulnerability towards floods. Six activities have been prioritised and identified that will take the lead in the process of reducing and mitigating risks, targeting several actors in the process, from the City officials to the urban communities and stakeholders.

REDUCE AND MITIGATE FLOODS

Expected Result

Zomba City is committed to upholding and enhancing the regulatory framework related to flood mitigation at all levels of society.

Activities	Estimated budget	Responsible City Council Division	Other City Divisions/Stakeholders	Location
Short Term				
1.1 Establish Community by laws for mitigating floods (1.local risk assessment/ community maps 2.create awareness on local risks and need for bylaws 3. formulation of bylaws on ward level 4.submission 5.disseminate bylaws to city council, police, other communities and wards)	N/A	Department of Administration and Planning	Ward councilors; Ward chairmen; Ward committee;	All wards
1.2 Conduct awareness and education campaigns on effects of living in flood prone areas as well as disaster early warning signs	N/A	Responsible: Department of Planning	Other departments and stakeholders: Police, NICE, Red Cross, CADECOM	Location: Mtiya, Chambo, Sadze, Likangala, Mbedza

1.3 Identification of evacuation sites (undertake local risk assessment/ community maps)	N/A	Dept of Planning	Wards ; Dept. of Lands: Red Cross; Dept. of Education and Engineering; MDF, DHO	Mtiya, Chambo, Sadze, Likangala, Mbedza
Medium Term				
1.4 Trainings on building back better approaches	N/A	Department of Planning, Dept. of Engineering	Water department, ESCOM, CCODE, Red Cross, CADECOM, NICE	Mtiya, Chambo, Sadze, Likangala, Mbedza
1.5 Plant fast growing trees	N/A	Parks and Recreation	Department of Planning, Dept. of Forestry, LEAD, FRIM	All wards
Long Term				
1.6 Community level by laws on flood mitigation established				

Priority Area 2: Improve the Drainage System

Zomba City lacks of a well-functioning drainage system, which, for instance plays a big role for floods occurrence. In some cases, the drainage ditches and natural channels are so obstructed that it impedes the water flowing. Garbage, domestic detritus and rock stones usually block the normal water flow. There are several community awareness campaigns in order to clean the drainage ditches but nevertheless the efforts, there are technical matters that also count such like: rehabilitation of some drainage channels; maintenance of the drainage system, etc. Given the fact that the drainage system is very important for mitigating floods, impacting on erosion, the City aims to improve the drainage system and specific activities are proposed in order to achieve the desired result. Moreover, improving the drainage system, will also improve the quality of life of the citizens and urban communities

Improve the Drainage System

Expected Result:

Zomba City has a well-functioning drainage system

Planned Activities	Estimated budget	Responsible City Council Division	Other City Divisions/Stakeholders	Location
Short Term				
2.1 Elaboration of a geotechnical study of the city's drainage system	N/A	Dept. of Planning;	Dept. of Engineering; Ministry of water (regional office), Chanco	Zomba City
2.2 Clear drainage channels	N/A	Dept. of Health	Dept. of Engineering, Ward committees	All wards

2.3 Conduct awareness and education campaigns on need to keep drainage clear	N/A	Dept. of Health	Ward Committees	All wards
Medium Term				
2.4 Construct drainage system	N/A	Dept. of Engineering;	Wards Committees; RA	Likangara, Chambo, Sadze
2.5 Rehabilitate drainage system	N/A	Dept. of Engineering;	Wards Committees; RA	Likangala, Chambo, Sadze, Mtiya, Mbeza
2.6 Establish community waste collection sites/refuse banks and skips	N/A	Dept. of Health	Ward Committes	All wards
Long Term				
2.7 Institutionalize the maintenance of drainage systems		Dept. of Engineering	Dept. of Health	

Priority Area 3: Strengthen Citizen Security

The informal settlements do not have adequate street lighting, further worsening insecurity in these areas. The city council needs to put up street lights in all areas and security floodlights in the informal settlements where electricity supply is minimal.

Zomba City Council is charged with the responsibility of protecting its residents from physical danger or harm, and ensuring a secure environment for living and doing business. The city council ensures that physical infrastructure such as public buildings and other private properties are safe and that proper building codes are followed in building construction. With the City RAP, specific activities are proposed to be implemented to strengthen the security of the Citizens, besides the efforts that have been undertaken so far.

The police are responsible for ensuring that people and property are secure at all times and that people can go about their day-to-day businesses without fear.[7]

[7] Zomba Urban Profile (...)

Strengthen Citizen Security

Expected Result:

Zomba City is providing adequate security for its inhabitants.

Planned Activities	Estimated budget	Responsible City Council Division	Other City Divisions/Stakeholders	Location
Short Term				
3.1 Improving community policing	N/A	Dept. of Administration	Dept. of Planning; City Ward Committees; Police services	Zomba central, Chambo, Mbedza,
3.2 Establish community based security by-laws (1.local crime assessment and community maps 2.create awareness on the need for security bylaws 3. formulation of bylaws on ward level 4.submission 5.disseminate bylaws to city council, police, other communities and wards)	N/A	Dept. of Administration	Dept. of Planning; City Ward Committees; Police services	Zomba central, Chambo, Mbedza,
3.3 Registration of inhabitants on ward level	N/A	Dept. of Planning	Councilor of the ward; Ward Committes; Police; National Registration Bureau; Dept. Of Health	All wards
Medium Term				
3.4 Introduce and enhance street lighting and area tower lighting	N/A	Dept. of Engineering	ESCOM	Mtiya, Mbedza, likangala, Chambo, Chilamuali, Chikanda
Long Term				
3.5 Community based security by-laws established				

Priority Area 4: Promote Sustainable Forest Management

Although lot of sensitisation has taken place on the dangers of encroaching, cultivation in the forest reserves and production of charcoal, the level of deforestation is still highly contributing to increased level of impact of the natural disasters. Large areas of the hillsides of Zomba have been cleared in recent years for construction, fuel and agricultural use. Zomba experiences flash floods due to trees being cut down on surrounding hills promoting deforestation process that has removed the natural barriers to flooding that once surrounded the city, as well as causing soil erosion and soil degradation. Usually, the deforestation on Zomba mountain, combined with the torrential rain, results in flash floods that causes destruction in nearby townships around the city of Zomba, in particular Matawale township. Clearly, floods and deforestation are directly correlated, where the deforestation promotes floods and floods in deforested area promotes soil erosion. This said, mitigating deforestation through a sustainable forest management, erosion and floods will have their impact reduced. It is hoped that Malawi's new National Disaster Risk Management Policy, will mean better regulations to protect forested areas, and where possible, areas stripped of trees will be reforested, and so protect surrounding areas from floods and landslides.

Nevertheless, through the Resilience Action Planning participatory approach, the Zomba City has defined a set of actions in short, medium and long term that will effectively promote a sustainable forest management, reducing the impatc of the disasters caused by the high rates of deforestation in Zomba.

Promote Sustainable Forest Management

Expected Result

Zomba City is Committed to Preserving and Enriching its Forest Resources.

Planned Activities	Estimated budget	Responsible City Council Division	Other City Divisions/Stakeholders	Location
Short Term				
4.1 Establish area based forestry protecting by-laws (1.local forestry inventory and mapping 2.create awareness on the need for forestry bylaws 3. formulation of bylaws on ward level 4.submission 5.disseminate bylaws to city council, police, other communities and wards)	N/A	Dep. Of Parks and Recreation	Dept. of Forestry; Forestry Research institute	All wards except central and Chilunga,
Establish environmental patrol units by the communities		Dept. of Parks and Recreation	Ward Committees	All wards except central and Chilunga wards,

Medium Term				
4.2 Ward committees assume responsibility of sourcing and protecting seedlings and nurseries	N/A	Dept. of Parks and Recreation	Ward Committees	All wards
Long Term				
4.3 Area based forestry protecting by-laws established				

Priority Area 5: Foster Strategies to Cope with Rainstorms

Rainstorms in Zomba City usually leave thousands of people houseless. It is being of regular occurrence during the rainy season. It also causes people death and crop loss, affecting negatively the City economy. Rainstorms are generally caused by a high pressure area in the Indian Ocean. In order to cope with this disaster, the Zomba City Council is keen to develop and implement strategies which can cope with rainstorms and reduce the vulnerability of its urban communities towards this hazard.

Foster Strategies to Cope with Rainstorms

Expected Results:

Zomba City is building on and enforcing its capacity to adapt to rainstorms.

Planned Activities	Estimated Budget	Responsible City Council Division	Other City Divisions/Stakeholders	Location
Short Term				
5.1 Plant wind resistant trees	N /A	Dept. of Parks and Recreation	Dept. of Forestry; FRIM; LEAD; Ward	All wards except
5.2 Awareness raising on building codes and dissemination	N/A	Dept. of Planning	CCODE; CRIS (Catholic Relief Service)	All wards
5.3 Awareness campaigns on early warning signs for rainstorms		Dept. of Planning;	Dept. of Meteorological Services	
5.4 Formation of search groups		Dept. of Engineering	Red Cross ; Dept. of Planning; Ward Committe	
Medium Term				
5.5 Promote adaptive architecture		Dept. of Planning	Dept. of Lands, Housing and Urban Development; Ward Committees	All wards except central ward
5.6 Training of local artisans on improved safer building methods and materials		Dept. of Planning		

4. Coordination Mechanism

When planning for a coordination mechanism, it is critical to ensure there is sufficient staffing and that leadership of the coordination mechanism has authority and experience. This support will allow the coordination lead to focus on substantive issues related to building partnerships and capacity, conducting advocacy, ensuring the implementation of action plans, etc.

After the coordination mechanism is initiated, several key activities should be undertaken within the first month. When combined with appropriate leadership skills, these activities will help to ensure that coordination partners have the momentum to move forward.

The implementation of the Action Plan will be coordinated by a Specific Department which will meet with certain frequency, as will be determined. The selected Department will be considered the Executive entity, assumed as the focal Department for Urban Resilience and Risk Reduction Management. A Term of Reference (TOR) of the coordination mechanism should be created in a first sight. The TOR will help to ensure a common understanding about the coordination goals, leadership, membership and the nature and objectives of the coordination activities.

Relevant sectors, implementation actors and partners may be invited to contribute, as appropriate. Considering the agenda of its meetings, the Executive Department can invite key actors and donors in the implementation of certain activities and specialists to contribute in the technical aspects of the planned activities and their sequencing. In order to efficiently coordinate tasks, the Executive Department may decide to identify focal points to be responsible for issues such as coordination with donor partners, coordination of implementation mechanisms, monitoring and reporting on progress.

5. Evaluation and Monitoring mechanism

The Monitoring and Evaluation mechanism for the City RAP of Zomba will be developed by a specific Municipal Department in coordination with the Municipal Assembly. In some cases, an external consultant can be recruited to cooperate with, accordingly. The monitoring and evaluation mechanism should allow responding to concerns such as:

To what extent activities and funds are on the proper place?

To what extent is the implementation of activities is being carried out as planned?

To what extent the mobilisation of resources and support technical are effective?

To what extent the PARC goals were achieved?

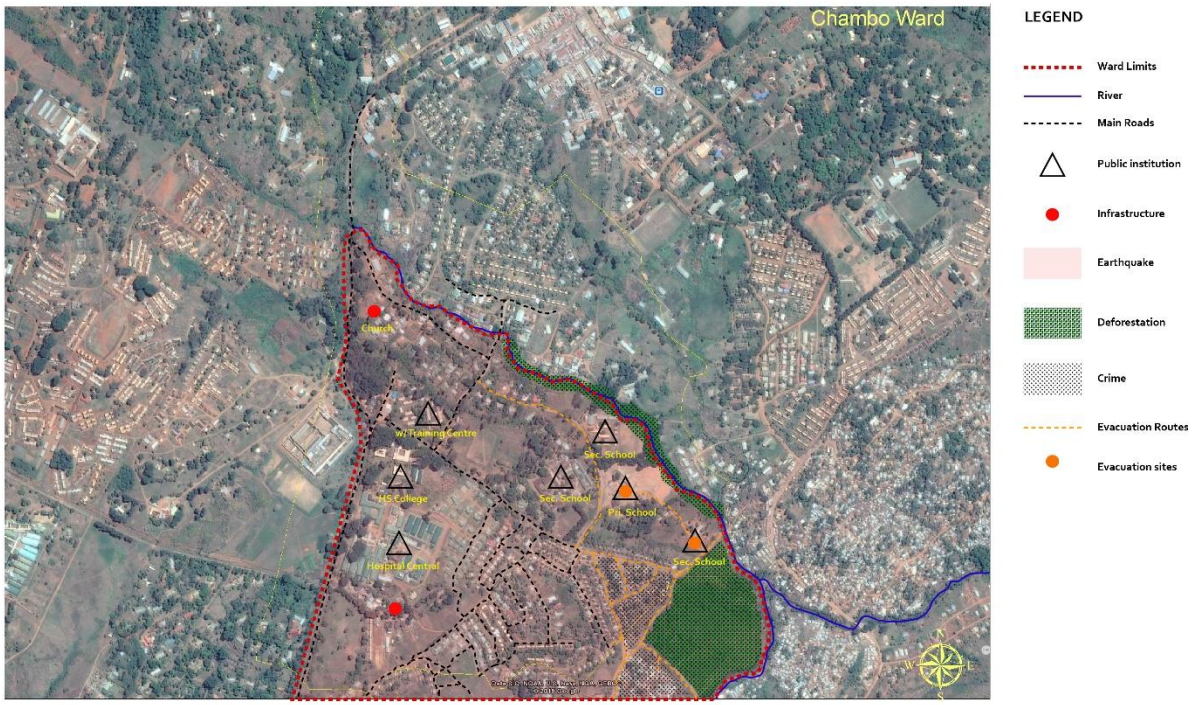
To what extent was some impact on the state of resilience of the City?

Important vehicles to perform the monitoring and evaluation activities are described below. These will be developed in more details by the Departments responsible for monitoring and evaluation:

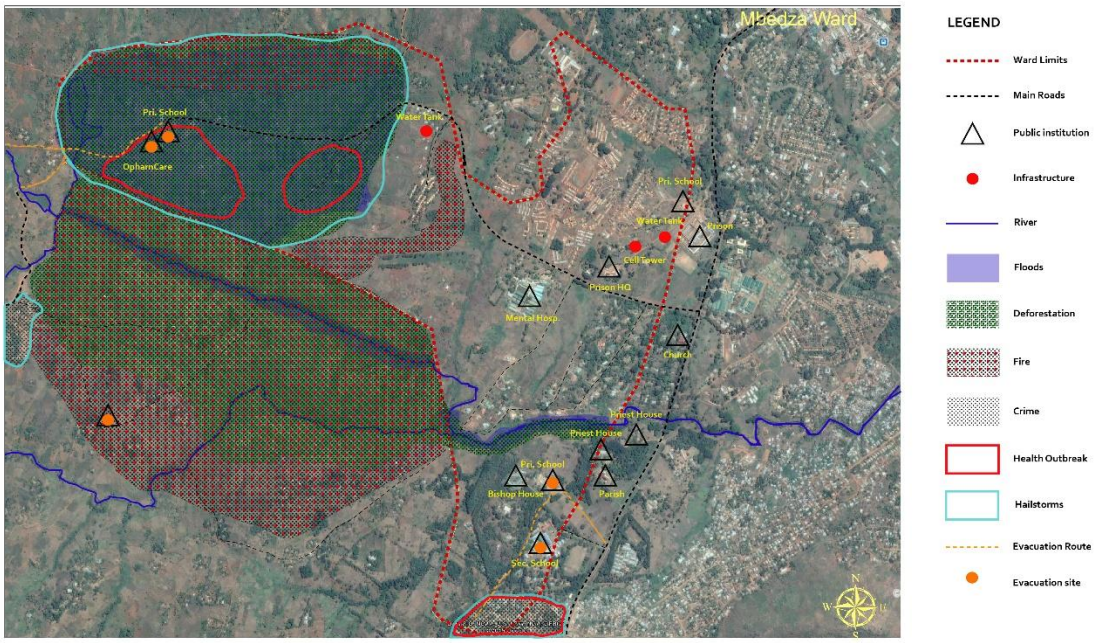
- Objectives of the Monitoring and Evaluation process
- Scheduled activities for each priority areas
- Elaboration the monitoring action plan for the development of the activities
- Identification of the final users of the Monitoring and Evaluation Plan
- Monitoring and Evaluation time spam, where the monitoring will be done annually while the evaluation will be made of 2 in 2 years for short-term activities, 5 years for activities in the medium term and to 10 years for long-term activities.
- Establishment of a baseline for the formulation of indicators
- Development of methods and techniques of data collection and definition of indicators
- Institutional arrangement to understand the involvement of all actors within the City RAP.

Annexes

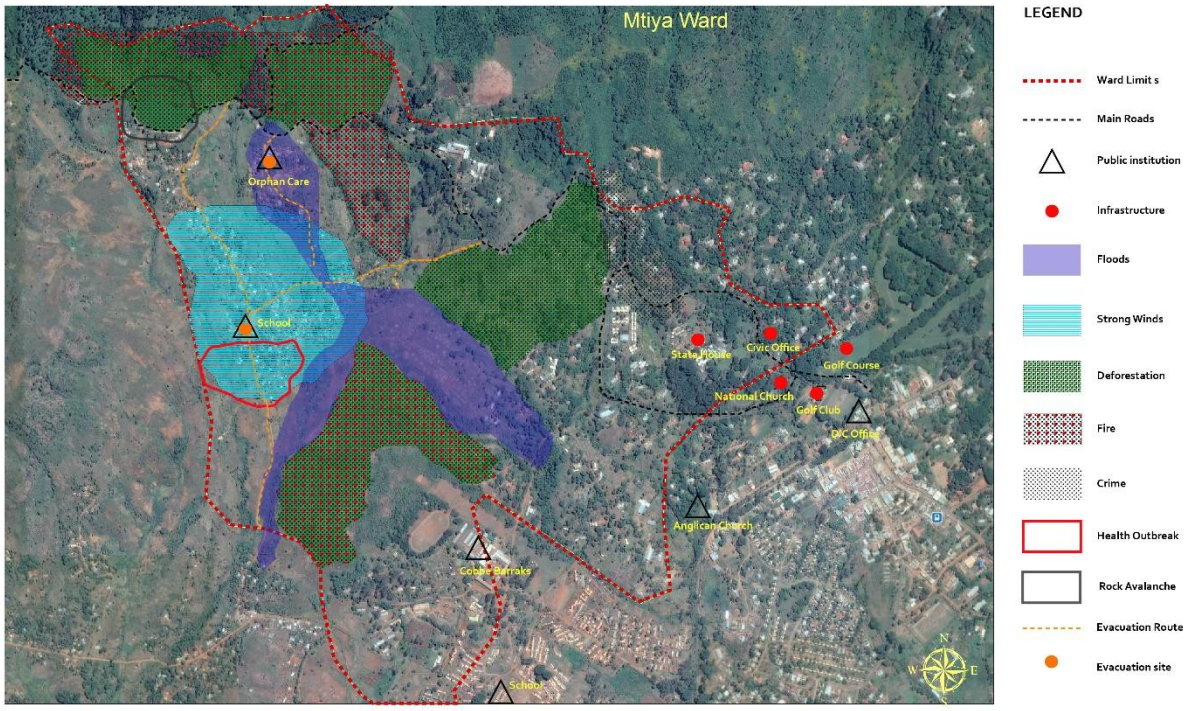
Annexe 1: Community Risk Assessment of the Chambo neighbourhood



Annexe 2: Community Risk Assessment of the Mbedza neighbourhood



Annexe 3: Community Risk Assessment of the Mtiya neighbourhood



Zomba City Resilience Action plan was realised thanks to the financing of the **Disaster Preparedness programme of the European Commission's Humanitarian Aid and Civil Protection Department (DIPECHO)** and through the technical support of **the United Nations Human Settlements Programme (UN-Habitat)** and of the **Technical Centre for Disaster Risk Management, Sustainability and Urban Resilience (DiMSUR)**.

Resilience Action Plan

City of Chókwè (2017-2027)

Executive Summary

The City of Chókwè established a partnership with the United Nations Human Settlements Programme (UN-Habitat) and with the Technical Centre for Disaster Risk Management, Sustainability and Urban Resilience (DiMSUR) for the elaboration of its **Resilience Action Plan (RAP)**. Chókwè City's RAP creates a strategic framework identifying comprehensive and inter-sectorial **priority actions**. It also defines short, medium and long term **specific activities** to reinforce the city's resilience and adaptation capacity to the threats posed by climate change. The ultimate goal of the RAP is to serve as a guideline for the interventions of the city council, of communities and of other relevant partners.

City Profile of Chókwè

Chókwè has a population of approximately 55,000 inhabitants, and is located 230 km far from the capital Maputo. It is generally regarded as the economic core of the Province of Gaza, especially due to its high agricultural potential and fertile lands. It experienced an annual growth rate of around 5% between 1997 and 2007, which was characterised by an increase of informal settlements. Its growth and the well-being of its citizens are threatened by the environmental risks associated with its vulnerable location in the lower Limpopo River basin, namely cyclones and frequent flooding. Moreover, Chókwè also suffers from chronic drought. In general, Chókwè is also affected by the effects of climate change causing temperature rise, unpredictability of droughts and raining patterns, and more recurrent flooding.

The City Resilience Action Plan of Chókwè

The RAP was elaborated in alignment with the city's Economic and Social Plan for 2015 and 2016, the Mozambican Government's Five Year Plan 2015-2019 and the Sendai Framework for Disaster Risk Reduction 2015-2030. It was conducted by the Municipal Council, with technical support from UN-Habitat and DiMSUR, through a participatory methodology that involved around 140 residents representing a vast range of stakeholders, including: community leaders, civil society and private sector representatives, and management and technical staff from the municipal council and the provincial government of Gaza. The process started in July 2015 with 4 visits of the UN-Habitat and DiMSUR team which gave place to preparatory activities, training sessions, workshops and consultations with community representatives of two vulnerable neighbourhoods.

As a result, six priority actions were identified to reduce vulnerability and build resilience:

1. Informal settlements upgrading
2. Improving the drainage system
3. Improving solid waste management
4. Improving public lighting
5. Developing the urban economy
6. Improving education and health facilities

The RAP also outlines, for each action, specific short-, medium- or long-term activities that need to be undertaken in the next 10 years, for a total of 54 activities. Moreover, for each priority action an expected outcome was set, responsibilities were assigned and budget requirements estimated, as much as possible.

PLANO DE ACÇÃO DE RESILIÊNCIA

CIDADE DE CHÓKWÈ

2017-2027

Município de
CHÓKWÈ

Plano de Acção de Resiliência da Cidade de Chókwè, 2017-2027
Município de Chókwè
Todos os direitos reservados

Design e layout por UN-Habitat Moçambique, Maputo, Moçambique
Foto: UN-Habitat Moçambique

Mensagem da Presidente do Conselho Municipal

É sempre estimulante e gratificante quando podemos realmente responder a uma inquietação dos nossos munícipes e neste caso, trata-se de dar esperança para os mais de 55 mil habitantes da nossa autarquia que constantemente fazem frente a questão das inundações e cheias.

Através do Plano de Acção de Resiliência Urbana, elaborado em parceira com o Programa das Nações Unidas para os Assentamentos Humanos (UN-Habitat) e o Centro Técnico Sub-Regional para a Gestão do Risco de Desastres, a Sustenta- bilidade e a Resiliência Urbana (DiMSUR) com o apoio financeiro da Direcção-Geral da Ajuda Humanitária e da Protecção Civil da Comissão Europeia (ECHO), podemos afirmar que a Cidade de Chókwe dá o seu primeiro passo para mitigar e adpatar-se às mudanças climáticas e seus efeitos, uma resposta clara que evidencia que o impossível somente perdura até que se ache uma solução.

O presente Plano de Acção de Resiliência Urbana é o principio de uma longa jornada que vai requerer uma conjuntura de esforços e conhecimentos a vários níveis para torna-lo eficaz e uma realidade.

Aos laboriosos, incansáveis, determinados e destemidos munícipes desta bela e acolhedora cidade de Chókwè, que não obstante aos vários desafios continuam movendo a cidade rumo a um futuro risonho, são a quem dedico o Plano de Acção de Resiliência da Cidade de Chókwe.

Lídia Frederico Cossa Camela
Presidente do Conselho Municipal da Cidade de Chókwè

Índice

1

INTRODUÇÃO

1.1 **Contexto**

O Município de Chókwè, sede do distrito de mesmo nome, encontra-se em franco processo de desenvolvimento social e económico. A cidade de 55256 habitantes é considerada por muitos como a capital económica da Província de Gaza, principalmente devido ao grande potencial agrícola de suas terras férteis. Conhecido como “Celeiro da Nação”, a cidade tem se desenvolvido em ritmo acelerado nos últimos anos, apresentando uma taxa de anual em torno de 5% de crescimento entre 1997-2007 .

No entanto, o potencial de crescimento e geração de riqueza e bem-estar para a população do Município de Chókwè enfrenta os desafios impostos pelos riscos que ameaçam a cidade. Localizada na Bacia do Rio Limpopo, a cidade está exposta aos fortes impactos das secas, dos ciclones e principalmente das cheias que afectam a região e põe em cheque o desenvolvimento do município.

A situação de vulnerabilidade às ameaças naturais em Chókwè será agravada pelos efeitos das mudanças climáticas. Com base nos resultados Quinto Relatório de Avaliação do Painel Intergovernamental sobre mudanças climáticas (IPCC), publicado em 2013, pode-se inferir que as temperaturas médias em áreas do interior como Chókwè aumentarão drasticamente nas próximas décadas caso esforços de mitigação em nível global não sejam implementados.

Como resultado, os padrões de precipitação se tornarão menos previsíveis, assim como as cheias e as secas nessas regiões. Ademais, a elevação do nível do mar pode exacerbar dinâmicas migratórias que podem vir a acelerar ainda mais o crescimento urbano do município. Actualmente, parte do aumento populacional acelerado em Chókwè é marcada pela informalidade e pela qualidade precária das habitações, muitas vezes construídas sem levar em consideração as calamidades que frequentemente afectam a cidade.

A Cidade de Chókwè tem se desenvolvido em ritmo acelerado nos últimos anos e é considerada por muitos como a capital económica da Província de Gaza

Neste contexto, o Município de Chókwè estabeleceu uma parceria com o Programa das Nações Unidas para os Assentamentos Humanos (UN-Habitat) e com o Centro Técnico para a Gestão de Riscos de Desastres, Sustentabilidade e Resiliência Urbana (DiMSUR) para a elaboração do Plano de Acção de Resiliência da Cidade (PARC) de Chókwè. O PARC de Chókwè traça um quadro estratégico que identifica acções prioritárias abrangentes e intersectoriais e define actividades específicas a curto, médio e longo prazo para reforçar a resiliência da cidade e adaptar às ameaças colocadas pelas mudanças climáticas, com o intuito de servir como norteador das intervenções do município, das comunidades e demais parceiros neste âmbito.

O PARC lançou mão de uma metodologia inovadora baseada na Ferramenta para o Planeamento de Acções para a Resiliência da Cidade (PARC). Esta ferramenta, idealizada pelo UN-Habitat e pelo DiMSUR, permitiu ao município aplicar métodos que usam e valorizam o conheci-mento local para compreender e planear actividades integrante elementos de redução de risco.

Assim, por meio de uma série de exercícios e consultas com os técnicos e autoridades do Município, com as comunidades e demais intervenientes relevantes, seis acções prioritárias para a reforçar a resiliência da Cidade de Chókwè foram identificadas: (1) Reordenar os Bairros; (2) Melhorar o Sistema de Drenagem; (3) Melhorar a Gestão de Resíduos Sólidos; (4) Reforçar a Iluminação Pública; (5) Desenvolver a Economia Urbana e (6) Melhorar as Infraestruturas de Educação e Saúde.

O Plano de Acção de Resiliência da Cidade de Chókwè foi elaborado em harmonia com o Plano Económico e Social do Município de 2015 e de 2016 e levando em consideração os documentos estratégicos norteadores já existentes. Importa referir que o PARC também alinha-se com os esforços a nível nacional e global para construção de resiliência, indo ao encontro do Programa Quinquenal do Governo de Moçambique 2015-2019, que define como prioridade para os próximos 5 anos a criação de capacidade para a prontidão e resposta as calamidades ao nível dos Governos locais e municípios e a elaboração de Planos Locais de Adaptação pelos Municípios e Distritos, e globalmente ao Quadro Sendai para Redução de Risco de Desastres 2015-2030, que destaca como prioridades a necessidade de compreender melhor os riscos e de reforçar a governação para gestão de risco de desastres, e ao Objectivo 11 de Desenvolvimento Sustentável: *Cidades e comunidades sustentáveis - Tornar as cidades e os assentamentos humanos inclusivos, seguros, resilientes e sustentáveis.*

TABELA 1.

ENQUADRAMENTO NACIONAL E GLOBAL DO PLANO DE ACÇÃO

NÍVEL GLOBAL

QUADRO SENDAI PARA REDUÇÃO DE RISCO DE DESASTRES	**Prioridade 1**: compreender os riscos de desastres **Prioridade 3:** Reforçar a governação de risco de desastres para gerir os riscos de desastres
OBJECTIVOS DE DESENVOLVIMENTO SUSTENTÁVEL	**Objectivo 11**: Cidades e comunidades sustentáveis - Tornar as cidades e os assentamentos humanos inclusivos, seguros, resilientes e sustentáveis.

NÍVEL NACIONAL

PLANO QUINQUENAL DO GOVERNO DE MOÇAMBIQUE	**Prioridade V**, Objectivo Estratégico: Reduzir a vulnerabilidade das comunidades, da economia e infra-estruturas aos riscos climáticos e às calamidades naturais e antropogénicas.

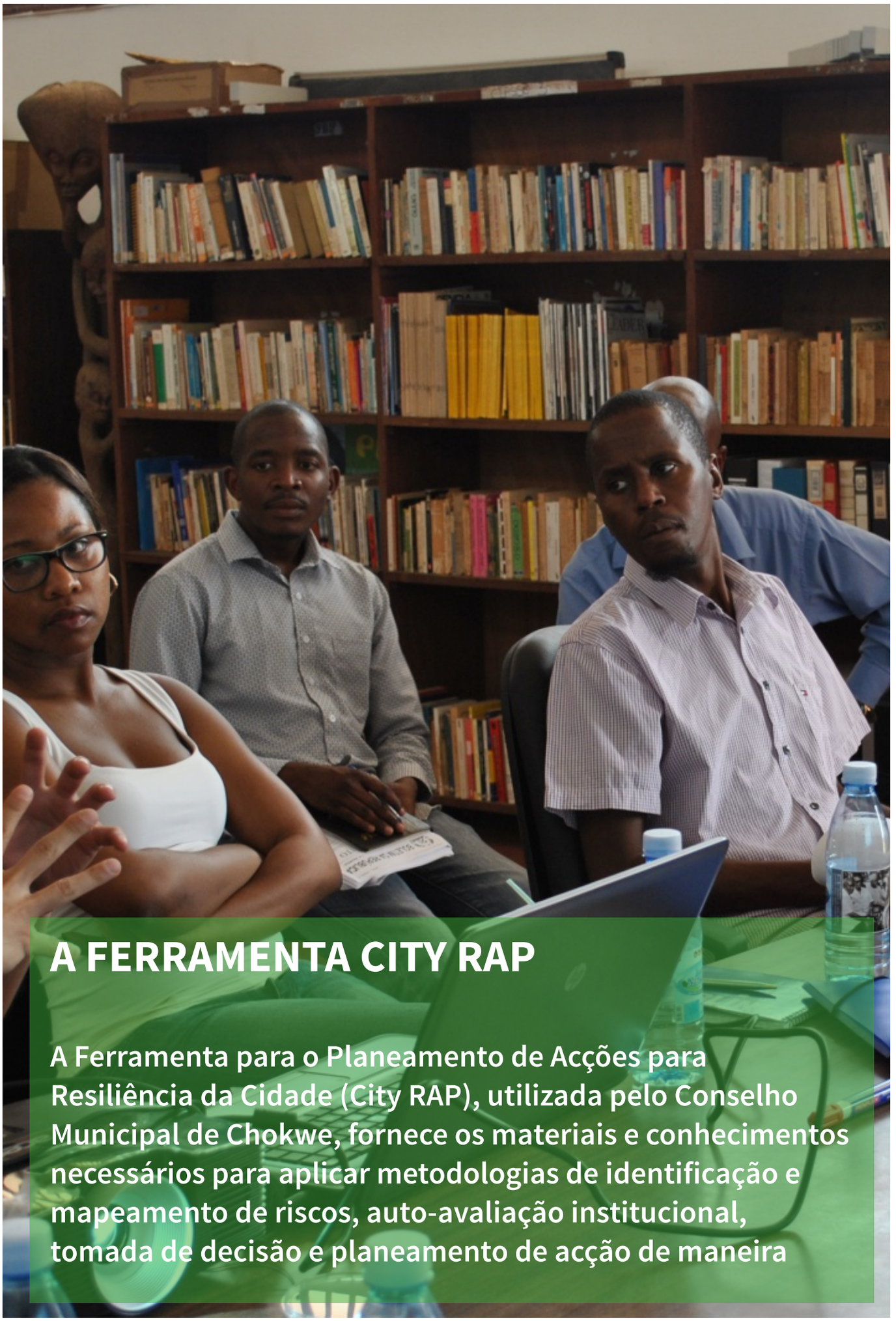
1.2 **O Processo de elaboração do PARC**

O Plano de Acção de Resiliência da Cidade de Chókwè foi elaborado por meio de uma metodologia participativa aplicada pelo Conselho Municipal com o apoio técnico do Programa das Nações Unidas para os Assentamentos Humanos (UN-Habitat) e o Centro Técnico sub-regional para Gestão de Risco de Desastres, Sustentabilidade e Resiliência Urbana (DiMSUR).

O processo de planeamento foi guiado pela Ferramenta para Planeamento de Acções para a Resiliência da Cidade (Ferramenta City RAP), que forneceu os instrumentos necessários para que o Município identificasse as acções prioritárias transversais e temáticas para reforçar gradualmente a resiliência de Chókwè com o envolvimento de uma gama variada de intervenientes. Além da elaboração do Plano de Acção, a Ferramenta PARC tem por objectivo reforçar as capacidades dos gestores municipais, líderes locais eleitos e técnicos municipais.

O processo de elaboração do PARC em parceria com o UN-Habitat e o DiMSUR teve início no mês de Julho de 2015 com uma primeira visita preparatória à cidade, durante a qual a equipa do Conselho Municipal definiu as datas para a implementação da Ferramenta PARC em Chókwè durante os meses de Agosto e Setembro. A utilização dessa ferramenta inovadora permitiu ao Município de Chókwè conduzir um processo participativo que envolveu cerca de 150 munícipes directamente entre representantes das comunidades, da sociedade civil, do sector privados, técnicos do município e representantes das instituições do distrito de Chókwè e da província de Gaza.

No total, 5 seminários de formação, consulta e discussão com os munícipes foram organizados, além de consultas a membros dos bairros considerados mais vulneráveis na cidade: o 4º e o 5º Bairro. O processo de elaboração do PARC em Chókwè pode ser melhor visualizado na Tabela 2 a seguir.



A FERRAMENTA CITY RAP

A Ferramenta para o Planeamento de Acções para Resiliência da Cidade (City RAP), utilizada pelo Conselho Municipal de Chokwe, fornece os materiais e conhecimentos necessários para aplicar metodologias de identificação e mapeamento de riscos, auto-avaliação institucional, tomada de decisão e planeamento de acção de maneira

TABELA 2. **O PROCESSO DE PLANEAMENTO CITY RAP EM CHOKWE**

FASE 1 CURSO INTENSIVO

Data: 3-7 Agosto de 2015

54 participantes

- **Autoridades e Técnicos do Município**
- **Organizações da Sociedade Civil**
- **Comunidades**
- **Mídia (Rádio)**
- **Instituições públicas**

Objectivo:

Apresentar o processo da Ferramenta City RAP e introduzir o município e a população aos principais conceitos sobre resiliência urbana

Principais Actividades:

1. Realização de 3 seminários para formação e consulta
2. Mapeamento participativo de riscos da cidade
3. Treinamento intensivo dos pontos focais do City RAP

Técnicos do município e representantes das comunidades participam do exercício de mapeamento de riscos da cidade

FASE 2 TAREFAS DA CIDADE

Pontos focais do município compilam os resultados obtidos durante a auto-avaliação institucional

Data: 8-31 de Agosto de 2015

65 participantes

- **Técnicos do Município(Pontos Focais)**
- **Organizações da Sociedade Civil**
- **Comunidades**

Objectivo:

Colectar informações importantes para avaliar o estado da resiliência da cidade por meio de metodologias inclusivas que valorizam o conhecimento e as capacidades locais

Principais Actividades:

1. Realização da auto-avaliação institucional
2. Condução do processo de planeamento participativo nos dois bairros mais vulneráveis
3. Compilação e organização das informações

FASE 3 ELABORAÇÃO DO PARC

Data: 1-4 de Setembro de 2015

47 participantes

- **Autoridades e Técnicos do Município**
- **Organizações da Sociedade Civil**
- **Comunidades**
- **Mídia (Rádio)**
- **Instituições públicas**

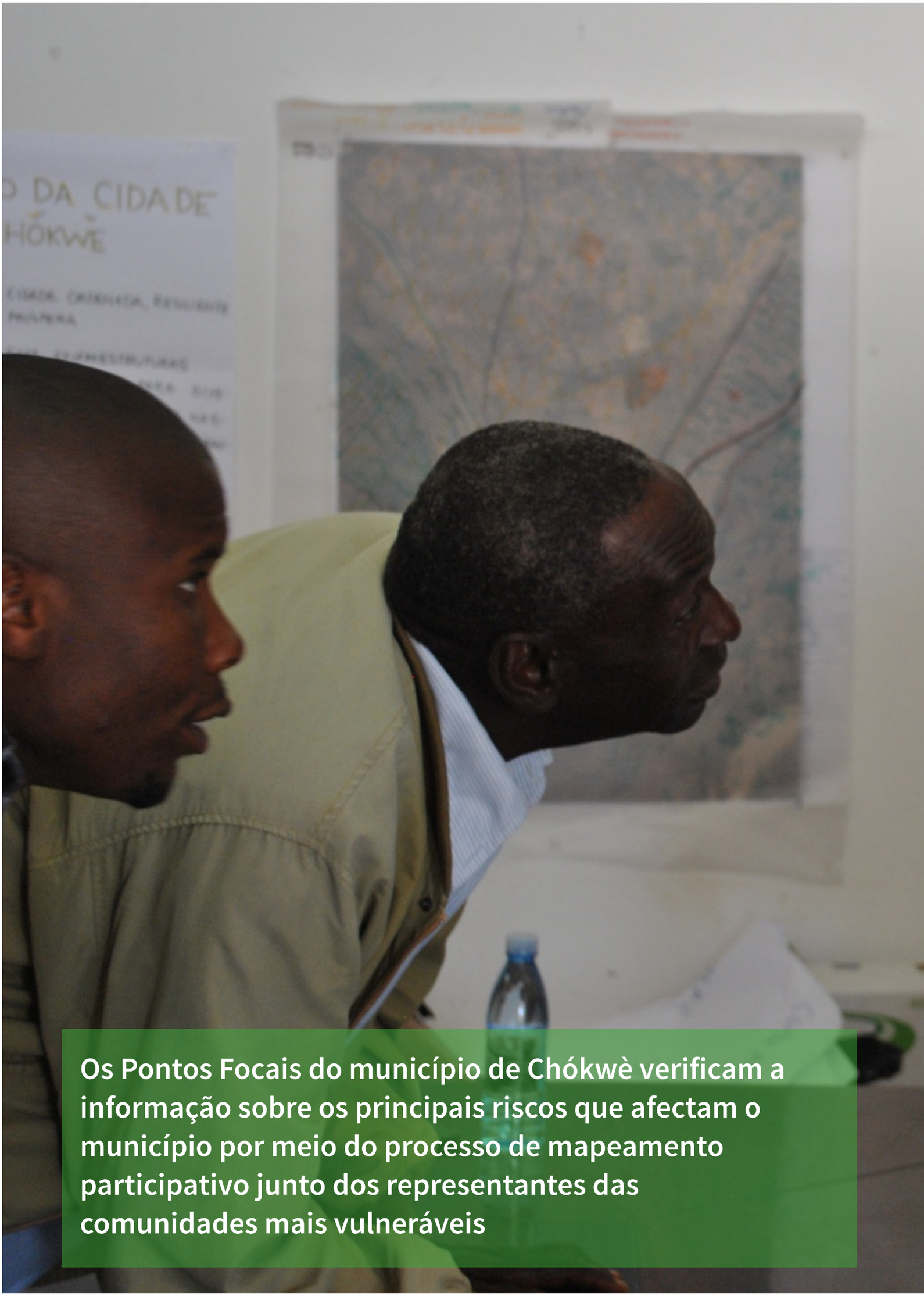
Objectivo:

Definir de maneira participativa as acções prioritárias para resiliência na cidade, as actividades a curto, médio e longo prazo e validar o plano de acção junto a população

Principais Actividades:

1. Realização do Seminário de Priorização
2. Planeamento de actividades junto dos pontos focais
3. Apresentação e validação do Plano durante semiário

Técnicos do município e representates comunitários participam do Seminário de Priorização



Os Pontos Focais do município de Chókwè verificam a informação sobre os principais riscos que afectam o município por meio do processo de mapeamento participativo junto dos representantes das comunidades mais vulneráveis

2

PERFIL DA CIDADE DE CHÓKWÈ

2.1 **Enquadramento Geral**

2.1.1 LOCALIZAÇÃO GEOGRÁFICA

O Município de Chókwè localiza-se no Distrito do mesmo nome, a Sudoeste da região central da Província de Gaza no sul de Moçaambique. O Distrito tem uma superfície terrestre com cerca de 2.466Km^2, dos quais 28km^2 correspondem à área do Município, o que representa cerca de 3,6% da área do Distrito (Figura 1).

O município situa-se entre os rios Limpopo e Mazimuchopes, este último delimitando a fronteira entre a Província de Gaza e Maputo, dentro da bacia hidrográfica de Limpopo. O clima da área é do tipo semi-árido (seco de savana), com temperaturas médias anuais que variam entre 22ºC e 26ºC, precipitação variando entre 500 a 800mm anuais e humidade relativa média anual entre 60-65% . A morfologia quase plana é caracterizada por solos cinzentos arenosos; argilosos granulosos, calcimórficos e hidromórficos.

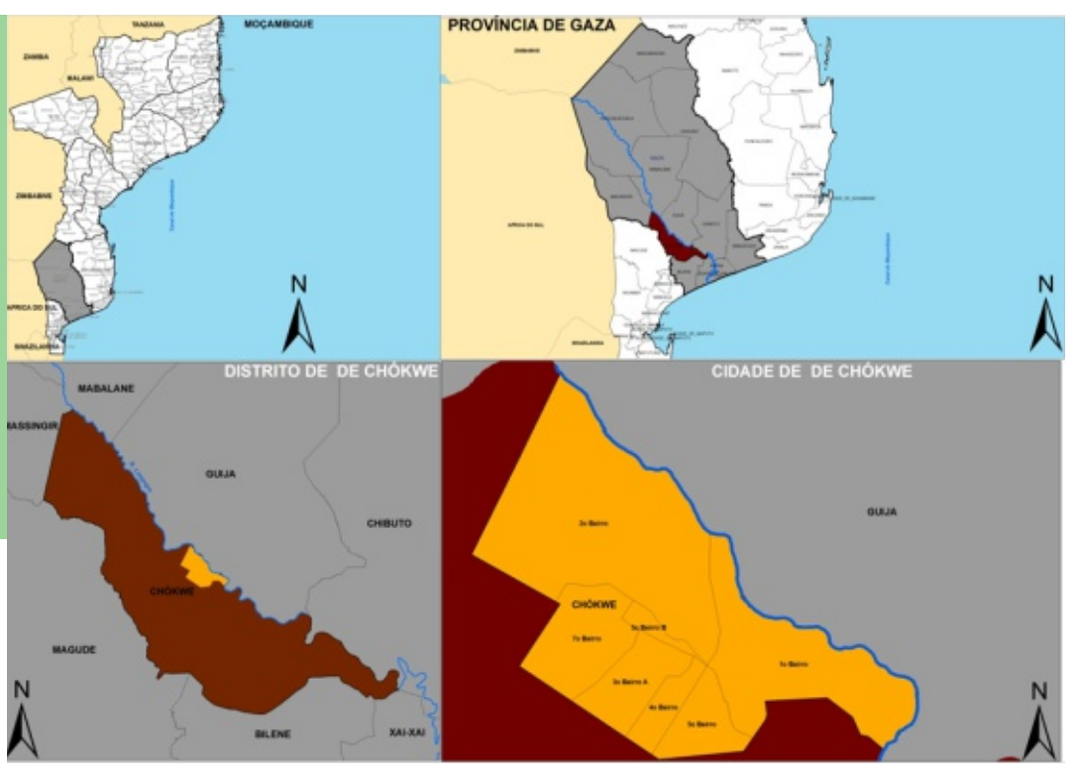
2.1.2 POPULAÇÃO

Segundo os dados do último Censo oficial conduzido em Moçambique, em 2007, o município de Chókwè possui uma população de 53,062 habitantes. O Conselho Municipal estima ter cerca de 55. 256 Habitantes hoje na cidade, com uma maior concentração populacional no 4º, 5º, 3º e 1º Bairro. Estudos variados todavia têm estimado cifras populacionais consideravelmente mais elevadas . A cidade tem apresentado um ritmo de crescimento urbano acelerado (cerca de 5% entre 1997-2007) , em um contexto de proximidade espacial a outros centros urbanos menores – tais como Lionde. Segundo projecções do Instituto Nacional de Estatísticas (2010), o número de habitantes vivendo em áreas urbanas no Distrito de Chókwè aumentou em cerca de 25% entre 2007 e 2016. A urbanização continuará a acontecer em ritmo acelerado e a maioria dos habitantes do distrito viverá em áreas urbanas a partir de 2040 .

Além das fronteiras Guijá no Norte e do rio Limpopo em Nordeste, os limites da cidade não estão definidos com claridade (ANAMM 2009), o que torna difícil estimar a população do município com precisão. Um

FIGURA 1.

LOCALIZAÇÃO DA CIDADE DE CHÓKWÈ



2.2 **Aspectos Sócio-Econômicos**

2.2.1 ECONOMIA

O Municipio de Chókwè apresenta forte potencial económico graças às suas terras férteis e as condições privilegiadas de produção agrícola, em particular a produção orizícola. De facto, a agricultura emprega cerca de 80% da força de trabalho activa no distrito (MAE 2005) e 40% dos campos de irrigação de todo o país estão concentrados no distrito de Chókwè. O principal cultivo As actividades de pastorícia também tem função primordial na economia de Chókwè. Outras actividades económicas importantes são a indústria alimentar, de vestuário e de mobiliário e o comércio. Assim como no restante do país, importa referir que grande parte da economia no município caracteriza-se pela informalidade.

2.2.2 SOCIEDADE

Apesar das evoluções testemunhadas nos últimos anos, a população do município de Chókwè caracteriza-se em sua maior parte por um elevado nível de vulnerabilidade social. No distrito de Chókwè, a proporção da população cujo consumo per capita está abaixo da linha da pobreza é estimada em cerca de 60% . De acordo com as informações do Censo oficial de 2007, 43% dos habitantes do distrito declarou não possuir nenhum bem durável.

No que se refere à habitação, 55.7% da população vive em casas tipo mista e apenas 4.3% vivem em casas tidas como convencionais . Além disso, de acordo com dados de 2009, havia apenas 376 edifícios registados como habitação no âmbito do Conselho Municipal para a totalidade da cidade (ANAMM 2009).

Segundo o último Censo oficial (2007), a esperança de vida ao nascer da população de Chókwè ao nível distrital era de cerca de 44 anos, ao passo que a mortalidade infantil chegava a 107 mortes por mil nascimentos. Os números são mais altos que às médias nacionais no período equivalente (40.9 anos de esperança de vida e 109 mortes/mil nascimentos), mas significativamente mais baixos que os números mundiais (65.8 anos e 43.5 mortes/mil nascimentos) .

Quanto ao nível de escolaridade da população, apenas 9.1% dos habitantes do distrito chegaram a concluir o nível secundário e 0.1% dentre eles possuem nível superior de educação. Cerca de 71.1% da população não completou nenhum nível escolar. A taxa de analfabetismo global atinge 31.6% da população, com incidência desproporcional sobre as mulheres (40%, comparado a 18.9% entre os homens).

FIGURA 2. **A AGRICULTURA EM CHÓKWÈ**

Campos de irrigação em Chókwè (Foto: Magazine Independente)

O CELEIRO DA NAÇÃO

A agricultura - e principalmente o cultivo do arroz - tem um peso muito importanto para as economias do Distrito e do Município de Chókwè. A região é onde se localiza o **Regadio de Chókwè.** Construído em nos anos 50, foi dimensionado para cobrir uma área de 33.848 ha e é o maior perímetro irrigado de Moçambique. No entanto, o regadio tem seu potencial limitado pelos desgastes gerados pelas inúmeras cheias que atingiram a região e pelo tempo de uso. Em Dezembro de 2013, após processos de reabilitação nos anos 2002-2006 e 2012-2013, cerca de 9600 ha estavam em condições de cultivo. A meta é de expandir esta área para 22500 ha reabilitados até 2017, explorando cerca de 67% do regadio e continuar beneficiando mais de 12000 famílias de produtores. (Hidráulica de Chókwe)

2.3 **Estrutura política e serviços públicos**

2.3.1 GOVERNAÇÃO LOCAL

A cidade de Chókwè assumiu o status de município em 1997 com a aprovação da Lei nº 2/97, ao lado de outras 32 aglomerações urbanas em Moçambique. Hoje, o município de Chókwè é um dentre 53 existentes em moçambique, sendo a "capital" e única autarquia do distrito de mesmo nome - um dos mais densamente povoados na província de Gaza, Sul de Moçambique.

A cidade de Chókwè é gerida por um aparato governamental composto por dois órgãos principais: a Assembleia Municipal e o Conselho Municipal. O Conselho Municipal, liderado pelo Presidente do Conselho Municipal, é o órgão executivo do município, composto por 6 Vereações (Figura X abaixo) e 186 funcionários. Compete ao conselho a gestão corrente dos assuntos municipais nas áreas do desenvolvimento économico e social local, o meio ambiente, saneamento básico e qualidade de vida; abastecimento público, saúde, educação, cultura e desporto, polícia, urbanização construção e habitação. Já a Assembleia Municipal de Chókwè é composta por 17 membros eleitos directamente e tem por competência deliberar e se pronunciar sobre os assuntos chaves para o desenvolvimento municipal, assim como acompanhar e fiscalizar as actividades dos demais órgãos municipais.

A cidade está dividida em 8 bairros, todos com representação assegurada na estrutura administrativa do Conselho Municipal por meio dos Chefes de Bairro.

2.2.2 INFRAESTRUTURA E SERVIÇOS PÚBLICOS

O Município de Chókwè conta com 14 escolas de ensino primário, duas escolas secundárias e uma instituição de nível técnico, o Instituto Agrário de Chókwè. A rede sanitária no município é composta por quatro unidades. O hospital de Chókwè possui uma maternidade e 40 camas para internamento. O Centro de Investigação e Treino em Saúde de Chókwè (CITSC) realiza análises e pesquisas biomédicas.

O acesso à água se dá principalmente por meio de rede canalizada fora de casa, fontenário ou poço. Uma minoria (4.1%) possui canalização direta da água dentro de casa. A eletricidade é a principal fonte de energia para cerca de 22% dos habitantes do distrito, sendo que a maioria da população ainda depende do petróleo/parafina/querosene (Censo). A maior parte dos habitantes tem acesso à latrinas (cerca de 80%, principalmente latrinas tradicionais) e somente 5.1% possuem retrete ligada à fossa séptica. (INE – lll Recenseamento Geral da População e Habitação 2007) O município é servido por uma rede de vias rodoviárias que possibilitam uma ligação rápida à Estrada Nacional de Moçambique. Ademais, a cidade de Chókwè conta com um aeródromo e conecta-se à Maputo e ao Zimbabwe por meio da Linha Férrea do Limpopo, gerida pelos Caminhos de Ferro de Moçambique.

Por fim, Chókwè possui espaços públicos essenciais como jardins, a biblioteca municipal e uma área de conservação.

TABELA 3.

AS VEREAÇÕES DO MUNICÍPIO DE CHÓKWÈ			
	Administração e Finanças	**Urbanização**	**Agricultura Urbana, Pesca e Meio Ambiente**
	Area Social, transporte, comunicação e saúde pública	**Desporto e Cultura**	**Mercados e Feiras**

2.4 **Perfil de Riscos da cidade de Chókwè**

O Município de Chókwè enfrenta uma série de riscos ligados a possíveis choques e estresses de origem natural e resultantes da acção humana. Os riscos de desastre resultam da intersecção entre a probabilidade de ocorrência de ameaças naturais e a vulnerabilidade do território e da população afectada. Grande parte dos riscos que afectam Chókwè existe devido à sua localização geográfica, mas a condição de vulnerabilidade do município está directamente ligada ao padrão de desenvolvimento urbano da cidade e das condições socio-économicos de sua população.

2.4.1 AS AMEAÇAS NATURAIS

A região da bacia do Limpopo, onde o município se situa, é uma das áreas mais propensa às ameaças naturais em Moçambique (Silva et al 2010: 7.). As cheias representam uma ameaça particularmente grave para a parte moçambicana da bacia principalmente devido a mudança na elevação do rio Limpopo, que nasce a 1000m acima do nível do mar mas cai para 200 metros antes de entrar em Moçambique (ibid). Localizado a jusante do Rio, a porção moçambicana da Bacia do Limpopo e as cheias que atingem a área dependem dos níveis de precipitação em toda a bacia assim como das decisões de gestão de águas dos rios tomadas nos outros três países atravessados pelo Rio Limpopo antes de chegar ao seu delta: Africa do Sul, Zimbabwe e Botswana . A África do Sul possui diques que influenciam as correntes tanto do Limpopo quanto de seu principal afluente, o Rio Elefantes.

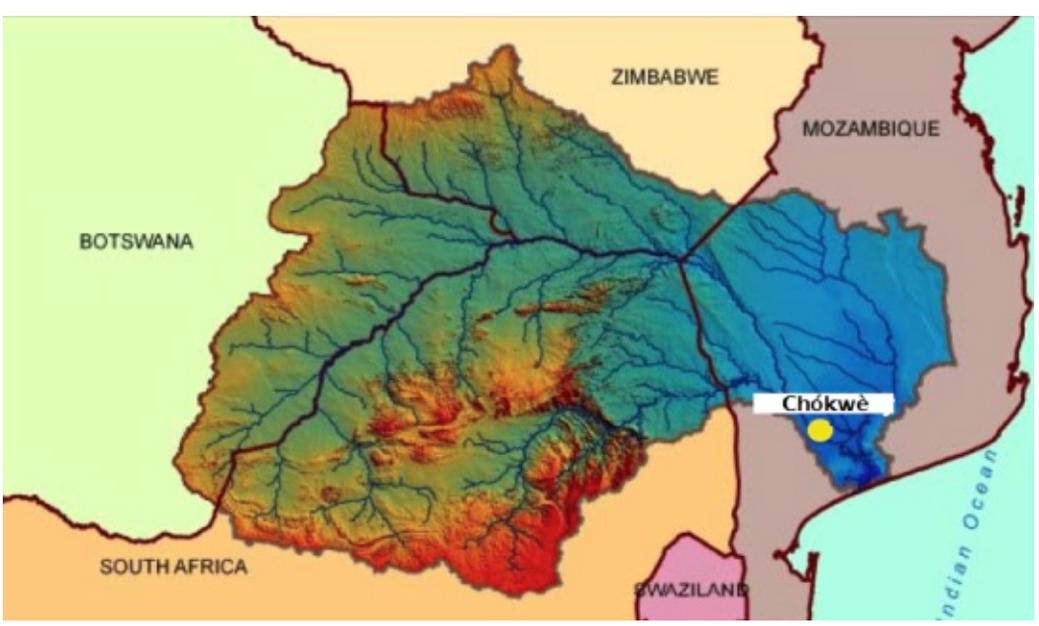
Chókwè também é afectado com frequência por precipitação de grande intensidade em curto espaços de tempo que condicionam enchentes em inúmeras áreas do município. Os elevados níveis de precipitação muitas vezes derivam das depressões tropicais originadas no Canal de Moçambique. De facto, a costa de Moçambique, de cerca de 2470 km, forma a fronteira ocidental duma das mais activas bacias dos ciclones tropicais, o Sudoeste do Oceano Índico. Todos os anos, esta bacia produz cerca de 10% de todos ciclones do mundo. Assim como em muitas partes do território moçambicano, ventos ciclónicos e chuvas torrenciais causam danos a população da cidade de Chókwè e a seus bens.

Situado em região de clima semi-árido, o município de Chókwè também sofre com o fenómeno da seca devido a escassez da água resultante do difícil acesso aos aquíferos e a pluviometria irregular e muitas vezes baixa.

FIGURA 3.

A BACIA DO LIMPOPO

A cidade de Chókwè situa-se a jusante do Rio Limpopo



2.4.2 A CONDIÇÃO DE VULNERABILIDADE DE CHÓKWÈ

Grande parte do risco que afecta a cidade de Chókwè se deve ao processo de urbanização acelerado e muitas vezes desordenado que o município tem presenciado. Este crescimento gerou a criação e a expansão de assentamentos informais densamente povoadas e unidades de habitação precárias com quase nenhum acesso aos serviços básicos. Com uma área estimada de 28 km2, a cidade de Chokwe é quase duas vezes mais densa do que a capital provincial, a cidade do Xai-Xai (2000P / km2 em comparação com 1100p / km2 no último).

Aa casas e edifícios em Chókwè são construídos em sua maioria com materiais não convencionais como caniço, paus, bambus, palmeiras, paus maticados, muitas veze sem levar em consideração as calamidades que frequentemente afectam a cidade . A vulnerabilidade habitacional multiplica o impacto de ameaças naturais como cheias e ventos fortes, aumentando os riscos de danos a população e seus bens. Ademais, a falta de planeamento urbano adequado pode gerar a impermeabilização do solo quando não há uma rede de drenagem adequada. Em Chókwè, as áreas informais encontram-se mais isoladas das infraestruturas e serviços públicos como escolas, hospitais, rede de comunicação, energia, água e vias rodoviárias, agravando as condições de vulnerabilidade nessas áreas.

A população no município de Chókwè também enfrenta condições de vulnerabilidade socio-économica. A proporção da população cujo consumo per capita está abaixo da linha da pobreza é estimada em cerca de 60% . Já dependência excessiva de um único tipo de actividade económica – a agricultura - resulta em pouca flexibilidade para estratégias de subsistência em períodos de fortes cheias e secas, por exemplo. A região do distrito também é afectada por epidemias como a malária e especialmente o HIV/AIDS: de acordo com dados de 2008 do governo, o distrito de Chókwè contava com a maior prevalência de HIV no país (27%).

Importa referir que o rápido crescimento da cidade, juntamente com os desafios socioeconómicos de desenvolvimento, gera outros riscos de carácter antropogénicos como a criminalidade, os incêndios e crises sanitárias.

FIGURA 4. **O IMPACTO DAS MUDANÇAS CLIMÁTICAS**

UMA PREOCUPAÇÃO PRESENTE

Caso a emissão global de gases com efeito estufa continue a aumentar, o Quinto Relatório de Avaliação do Painel Intergovernamental sobre mudanças climáticas (IPCC), publicado em 2013, estima que a temperatura média em Moçambique irá aumentar drasticamente. As áreas do interior do país – como é o caso de Chókwè – serão mais afectadas que as áreas costeiras, enfrentando um aumento de 4 a 5 º C em sua temperatura média no interior do país até 2100. O nível de precipitação diminuiria cerca de 30% na região de Chókwè, levando à consequências drásticas para a população causadas por intensas secas e cheias imprevisíveis caso as medidas de mitigação e adaptação não sejam tomadas.

O Banco Mundial (2010) prevê que Moçambique poderia perder até 0,6% da sua área de terras nacionais (4,850km2) até 2040 se nada for feito para impedir a subida do nível do mar, forçando a migração de aproximadamente 916.000 pessoas. Tais dinâmicas migratórias podem afectar diretamente o desenvolvimento urbano de Chókwè.

2.4.3 GESTÃO E REDUÇÃO DE RISCO DE DESASTRES NA CIDADE DE CHÓKWÈ

Chókwè e outros distritos da Província de Gaza estão particularmente expostos a grandes cheias por se localizares nas áreas planas da Bacia do Limpopo, onde a água flui e cobre grandes planícies. O munício, situado às margens do Rio, foi tomado por águas em sua totalidade mais recentemente nos anos de 2000 e 2013. Em ambas ocasiões as cheias afectaram quase a totalidade da população, impactando às actividades de subsistência e cobrindo a maioria das casas e infraestruturas públicas como escolas, hospitais, estradas. A provisão de eletricidade, água e as redes de comunicação também foram afectadas e a população em sua maioria foi evacuada para centros próximos.

No que se refere à resposta durante o período de emergência, nota-se uma grande evolução entre o primeiro e o segundo evento. Nos anos 2000, havia apenas alguns barcos e menos de uma dúzia de helicópteros para evacuar mais de 100 mil pessoas na região e o sistema de aviso prévio chegou apenas a poucas comunidades. Já em 2013, a grande maioria da população foi evacuada em segurança e campos com infraestruturas provisórias foram estabelecidos nas imediações do município. A evolução na qualidade da resposta às cheias é resultado dos esforços feitos a nível do governo central por meio do reforço das capacidades do Instituto Nacional para Gestão de Calamidades (INGC) e também do município e se traduz na diminuição drástica no número de mortos.

Ademais, o município de Chókwè, em parceria com o INGC e outras organizações como o Programa das Nações Unidas para os Assentamentos Humanos, tem feito esforços para não só melhorar a resposta às calamidades mas também para reduzir os riscos por meio de iniciativas como a sensibilização da população, a identificação de riscos e a construção de edifícios e habitações adaptadas ao risco de desastres.

O presente plano representa uma iniciativa do Município de Chókwè com o intuito de coordenar as acções para reforçar a resiliência da cidade e integrá-las com a gestão urbana sustentável de uma maneira durável por meio de seis acções prioritárias.

3

ACÇÕES PRIORITÁRIAS PARA A RESILIÊNCIA

Acções prioritárias para reforçar a resililência de Chókwè

O caminho em direcção a uma Cidade de Chókwè ordenada, resiliente e próspera passa pela execução de actividades essenciais para a diminuição da vulnerabilidade do município. Com o intuito de identificar e detalhar tais actividades chave, as seis acções prioritárias listadas a seguir foram selecionadas como a espinha dorsal do Plano de Acção de Resiliência da Cidade, por meio da metodologia participativa da Ferramenta PARC.

Para cada uma destas acções prioritárias, uma série de actividades específicas foram delineadas a curto prazo, que deverão ser implementadas com recursos de fácil mobilização, a médio prazo, que deverão ser financiadas com fundos a serem obtidos nos próximos 2-3, e a longo prazo, que constituem uma visão de como fortalecer sua resiliência num horizonte de 10 anos. A implementação destas actividades contribuiria para que Chókwè alcançasse o estado idealizado na Visão da Cidade de Chókwè, elaborada conjuntamente pelos munícipes durante este processo e detalhada abaixo.

TABELA 4. **ACÇÕES PRIORITÁRIAS PRIORIZADAS POR CHÓKWÈ**

ACÇÃO PRIORITÁRIA 1	REORDENAR OS BAIRROS
ACÇÃO PRIORITÁRIA 2	MELHORAR O SISTEMA DE DRENAGEM
ACÇÃO PRIORITÁRIA 3	MELHORAR A GESTÃO DE RESÍDUOS SÓLIDOS
ACÇÃO PRIORITÁRIA 4	REFORÇAR A ILUMINAÇÃO PÚBLICA
ACÇÃO PRIORITÁRIA 5	DESENVOLVER A ECONOMIA URBANA
ACÇÃO PRIORITÁRIA 6	MELHORAR AS INFRAESTRUTURAS DE EDUCAÇÃO E SAÚDE

FIGURA 5. **VISÃO DA CIDADE DE CHÓKWÈ**

CHÓKWÈ, UMA CIDADE ORDENADA, RESILIENTE E PRÓSPERA

Uma cidade com infrastruturas sustentáveis, que contribua para diminuir a vulnerabilidade às ameaças naturais, que seja bem planeada e que proporcione amplo acesso a serviços básicos eficientes, que garanta a segurança de seus habitantes, que valorize seus recursos naturais e que promova espaços verdes.

A visão da cidade foi elaborada colectivamente pelos participantes do seminário do Curso Intensivo da Ferramenta City RAP. Ela resume as principais aspirações para o futuro da cidade.

ACÇÃO PRIORITÁRIA 1

Reordenar os bairros

RESULTADO ESPERADO

Os bairros da Cidade do Chókwè são ordenados levando em consideração medidas que reduzem os riscos e reforçam a resiliência da cidade

As classes do uso do solo que mais se destacam na Cidade de Chókwè são as áreas habitadas urbanizáveis mas sem planeamento, expressando as dificuldades de promover o crescimento ordenado devido ao rápido ritmo de urbanização da Cidade. Chókwè é composta por 8 bairros, dos quais apenas 3 encontram-se ordenados/planeados. As áreas urbanizáveis não planeadas constituem cerca de 70% da área total onde residem cerca de 1.400 habitantes por bairro, vivendo predominantemente em habitações feitas com material precário e com acesso limitado a infraestruturas. Esta situação resulta no aumento da vulnerabilidade da Cidade e dos munícipes aos riscos de desastres naturais e aos impactos das mudanças climáticas. Com o intuito de construir resiliência e reduzir riscos de desastres, dez actividades a curto, médio e longo prazo foram planeadas para ordenar os bairros de Chókwè.

TABELA 5. **ACTIVIDADES PLANEADAS PARA REORDENAR OS BAIRROS**

Actividades Planeadas	Sector Municipal Responsável	Outros Sectores/ Parceiros	Localização na Cidade
CURTO PRAZO (0-2 ANOS)			
1.1 Finalização do Plano de Estrutura da Cidade	Urbanização	MITADER	Toda a Urbe
1.2 Elaboração de Planos Parciais de Urbanização do 4º e 7º Bairro	Urbanização	OCB, Secretaria do Bairro, Chefes de quarteirão, comércio, UN-Habitat	4º Bairro 7º Bairro
1.3 Elaboração de Planos de Pormenor com enfoque em arruamento e espaços públicos para 4º e 7º Bairro	Urbanização	Secretaria do Bairro, Chefes de quarteirão	4º Bairro 7º Bairro
1.4 Implementação de actividades prioritárias segundo Planos Parciais de Urbanização do 4º e 7º Bairro	Urbanização	Secretaria do Bairro, Chefes de quarteirão	4º Bairro 7º Bairro
MÉDIO PRAZO (2-5 ANOS)			
1.5 Elaboração de Planos Parciais de Urbanização para 3º Bairro B e 5º Bairro	Urbanização	OCB, Secretaria do Bairro, Chefes de quarteirão, comércio, UN-Habitat	3º Bairro B 5º Bairro
1.6 Implementação de Planos de Pormenor com enfoque em arruamento e espaços públicos no 4º e 7º Bairro	Urbanização		4º Bairro 7º Bairro
1.7 Elaboração de Planos de Pormenor com enfoque em arruamento e espaços públicos no 3º Bairro B e 5º Bairro	Urbanização		3º Bairro B 5º Bairro
1.8 Elaboração de Planos de Pormenor adicionais para os 4º e 7º Bairros	Urbanização		4º Bairro 7º Bairro

LONGO PRAZO (5-10 ANOS)			
1.9 Elaboração de Planos de Pormenor adicionais no 3º Bairro B e 5º Bairro	Urbanização		3º Bairro B 5º Bairro
1.10 Implementação de Planos de Pormenor	Urbanização		3º Bairro B 4º Bairro 5º Bairro 7º Bairro

ACÇÃO PRIORITÁRIA 2

Melhorar o sistema de drenagem

RESULTADO ESPERADO

Chókwè possui um sistema de drenagem expandido e bem mantido que reforça a resiliência da Cidade frente às inundações e cheias

A cidade de Chókwè é um dos municípios mais afectados por cheias e inundações em Moçambique. Não é raro que chuvas corriqueiras resultem em áreas extensas inundadas, muitas vezes danificando seriamente os bens materiais dos munícipes e prejudicando sua saúde e bem-estar. Os impactos crescentes das cheias e inundações não decorrem somente do nível pluviométrico e da localização da Cidade nas margens do Rio Limpopo, mas resultam também das limitações do sistema de drenagem actual na Cidade. O crescimento urbano acelerado de Chókwè – em particular nas áreas não ordenadas – não foi acompanhado pela construção de valas de drenagem que respondam a nova demanda populacional e às mudanças nos níveis de impermeabilização do solo. Bairros total ou parcialmente desordenados – como é o caso do 4º e do 5º Bairro -, apesar de estarem entre os mais vulneráveis as cheias e inundações, não contam com estrutura básica para drenagem de águas. A situação se agrava pelo facto do sistema de drenagem existente muitas vezes encontrar-se obstruído por resíduos sólidos ou danificado. Assim, onze actividades visando melhorar o sistema de drenagem da cidade foram definidas num horizonte de 10 anos.

TABELA 6. **ACTIVIDADES PLANEADAS PARA MELHORAR O SISTEMA DE DRENAGEM**

Actividades Planeadas	Sector Municipal Responsável	Outros Sectores/ Parceiros	Localização na Cidade
CURTO PRAZO (0-2 ANOS)			
2.1 Estudo e elaboração do Projecto Executivo de Drenagem da Cidade	Urbanização	HICEP	Toda a Urbe
2.2 Manutenção do Sistema da rede da drenagem da cidade	Urbanização	HICEP, Chefes dos Bairros e membros das comunidades, Política Social	Toda a Urbe
2.3 Construção de um descarregador no 1º Bairro	Urbanização	HICEP	1º Bairro
2.4 Construção de vala de drenagem no 5º Bairro para aliviar impacto das inundações, seguindo orientações de Projecto Executivo	Urbanização	HICEP	5º Bairro
2.5 Condução de seminários e actividades de sensibilização com comunidades alvo para identificar e promover soluções de manutenção de limpeza de valas de drenagem no 1º Bairro, 3º Bairro B, 4º Bairro e 5º Bairro	Política Social	Urbanização, UN-Habitat, HICEP	1º Bairro 3º Bairro B 4º Bairro 5º Bairro
2.6 Construção de vala de drenagem no 3º Bairro B	Urbanização	HICEP	3º Bairro B

MÉDIO PRAZO (2-5 ANOS)			
2.7 Construção de demais valas de drenagem com base no Projecto Executivo	Urbanização	HICEP, MOPH	3º Bairro B 5º Bairro
2.8 Realização de operações de manutenção e reabilitação de valas danificadas	Urbanização		Toda a Urbe
LONGO PRAZO (5-10 ANOS)			
2.9 Concluir a construção de valas de drenagem necessárias segundo o Projecto Executivo	Urbanização	HICEP	A ser definido
2.10 Realização de monitorias e controle técnico de manutenção periódico para garantir bom funcionamento dos sistemas	Urbanização	HICEP, MOPH	Toda a urbe
2.11 Institucionalização da realização de eventos e intervenções de sensibilização comunitárias de maneira frequente para	Política Social	Urbanização, HICEP, Chefes dos Bairros e membros das	Toda a urbe

ACÇÃO PRIORITÁRIA 3

Melhorar a gestão de resíduos sólidos

RESULTADO ESPERADO

A gestão de resíduos sólidos na Cidade de Chókwè é eficiente, sustentável e contribui para a redução de riscos de desastres

A Cidade de Chókwè, assim como grande parte das áreas urbanas em Moçambique, sofre com os desafios de gerir a produção de resíduos sólidos de uma população urbana crescente. A situação actual apresenta desafios para a colecta, para o transporte e para o depósito de resíduos. O resultado muitas vezes é o lixo espalhado por espaços públicos, infraestruturas urbanas e áreas habitacionais, afectando o funcionamento básico destes e prejudicando a higiene e saúde dos munícipes. A falta de um sistema de gestão de resíduos sólidos que responda as demandas da cidade de Chókwè contribui para o aumento da vulnerabilidade do município às cheias, inundações e epidemias, entre outros choques e estresses. As 11 actividades planeadas detalhadas abaixo pretendem reforçar a resiliência da cidade de Chókwè por meio da melhoria da gestão de resíduos sólidos.

TABELA 7. **ACTIVIDADES PLANEADAS PARA MELHORAR A GESTÃO DE RESÍDUOS SÓLIDOS**

Actividades Planeadas	Sector Municipal Responsável	Outros Sectores/ Parceiros	Localização na Cidade
CURTO PRAZO (0-2 ANOS)			
3.1 Criação de pontos de colecta de lixo acessíveis bem identificados em coordenação com as comunidades	Urbanização	Política Social, FUSP-FRISIO	Toda a Urbe
3.2 Sensibilização e formação dos munícipes para depósito de lixo em locais apropriados (incluindo compostagem e reciclagem) por meio de seminários, eventos e actividades comunitárias	Urbanização	FUSP-FRISIO, Política Social	Toda a Urbe
3.3 Reforçar a capacidade do Comité Local de Gestão de Riscos de Calamidades no que refere-se a gestão de resíduos sólidos e redução de riscos por meio de formações	Política Social	GIZ, INGC, ARA-Sul, Cruz Vermelha, World Vision, UN-Habitat/ DiMSUR	Toda a Urbe
3.4 Estudo sobre demandas ligadas a colecta e armazenamento/ tratamento de lixo (produção de lixo, pontos de colecta, transporte, identificação apropriado de sítios de depósitos, reciclagem, incineração)	Urbanização		Toda a Urbe
3.5 Ampliar frequência e abrangência da recolha regular de lixo e limpeza nos bairros da cidade (equipamentos básicos – luvas, máscaras – gestão de rotas e horários, recursos humanos)	Política Social	Urbanização, UN-Habitat, HICEP	Toda a Urbe

MÉDIO PRAZO (2-5 ANOS)				
3.6	Elaboração de um Plano de Gestão Integrada de Resíduos Sólidos da Cidade de Chókwe incluindo medidas de redução de riscos	Urbanização		Toda a Urbe
3.7	Obtenção de equipamentos para aperfeiçoar a colecta e transporte de resíduos (tratores/veículos), assim como limpeza da Cidade	Urbanização		Toda a Urbe
3.8	Estabelecimento de pontos de colecta selectiva	Urbanização	FUSP-FRISIO, AMOR	Toda a Urbe
LONGO PRAZO (5-10 ANOS)				
3.9	Institucionalização do sistema de colecta selectiva e reciclagem	Urbanização	FUSP-FRISIO	Toda a urbe
3.10	Construção de centro de gestão de resíduos e reciclagem por meio de biogás no 4º Bairro	Urbanização	UN-Habitat	Toda a urbe
3.11	Criação de sistema de limpeza da cidade sustentável e abrangente	Urbanização	Política Social	Toda a urbe

ACÇÃO PRIORITÁRIA 4

Reforçar a iluminação pública

RESULTADO ESPERADO

O Sistema de iluminação público na Cidade de Chókwè é abrangente e eficiente, contribuindo para uma cidade mais segura

Grande parte dos bairros não-planeados e mesmo dos já ordenados na cidade de Chókwè sofrem com a limitação da infraestrutura de iluminação pública. A falta de iluminação prejudica a convivência comum, afecta a realização de tarefas diárias e ameaça a segurança dos munícipes, considerando o alto índice de criminalidade em áreas mal iluminadas. Ambientes bem iluminados também podem facilitar os esforços de resposta às emergências, facilitando acesso e evacuação da população. Seis actividades foram identificadas para construir a resiliência de Chòkwè por meio do reforço da iluminação pública, levando em consideração a importância de integrá-las ao processo de reordenamento dos bairros.

TABELA 8. **ACTIVIDADES PLANEADAS PARA REFORÇAR A ILUMINAÇÃO PÚBLICA**

Actividades Planeadas	Sector Municipal Responsável	Outros Sectores/ Parceiros	Localização na Cidade
CURTO PRAZO (0-2 ANOS)			
4.1 Aquisição e instalação de postes elétricos no 3º, 4º, 5º e 6º Bairro	Urbanização	Electricidade de Moçambique	3º, 4º, 5º e 6º Bairro
4.2 Reabilitação e manutenção de infraestruturas de iluminação pública	Urbanização	Electricidade de Moçambique	Toda a Urbe
4.3 Instalação de infraestruturas de iluminação nas áreas de maior criminalidade	Urbanização	Electricidade de Moçambique	3º B, 4º e 5º Bairros
MÉDIO PRAZO (2-5 ANOS)			
4.4 Expansão de rede de iluminação pública em áreas a serem reordenadas	Urbanização	Electricidade de Moçambique	
4.5 Expansão de rede de iluminação pública concomitante a implementação dos Planos de Pormernores/ Parciais de Urbanização dos 3º B, 4º, 5º e 7º Bairro	Urbanização	Electricidade de Moçambique	3º B, 4º, 5º e 7º Bairros
LONGO PRAZO (5-10 ANOS)			
4.6 Manutenção e controle técnico frequente de rede de iluminação pública	Urbanização	Electricidade de Moçambique	Toda a urbe

ACÇÃO PRIORITÁRIA 5

Desenvolver a economia urbana

RESULTADO ESPERADO

A Cidade de Chókwè possui uma economia diversificada e próspera que proporciona oportunidades de emprego decentes e meios de subsistência sustentáveis aos munícipes

O município de Chókwè localiza-se em uma das regiões com maior potencial agrícola de Moçambique, não por acaso recebendo a alcunha de "celeiro da nação". Cerca de 40% dos campos irrigáveis em Moçambique encontram-se no Distrito de Chókwè (MAE 2005). Esta grande vantagem comparativa da Cidade deve ser aproveitada por meio da promoção de estratégias urbanas e políticas que fortaleçam a capacidade de atingir seu pleno potencial como motores do desenvolvimento económico, da riqueza e criação de emprego, reduzindo a vulnerabilidade da população através do empoderamento económico que resulta em acesso a bens, serviços, infraestruturas e informação.

Importa referir que a cidade de Chókwè também encontra-se em uma situação favorável para o desenvolvimento do comércio e da indústria. A construção de resiliência passa necessariamente pela diversificação da estrutura económica da cidade de Chókwè, principalmente pelas plantações agrícolas de Chókwè estarem altamente expostas aos impactos das cheias e secas, o que afecta directamente as estratégias de subsistência e a segurança alimentar. Neste panorama, o PARC propõe 9 actividades que visam diminuir a vulnerabilidade da população por meio do desenvolvimento da economia urbana a curto, médio e longo prazo.

TABELA 9. **ACTIVIDADES PLANEADAS PARA DESENVOLVER A ECONOMIA URBANA**

Actividades Planeadas	Sector Municipal Responsável	Outros Sectores/ Parceiros	Localização na Cidade
CURTO PRAZO (0-2 ANOS)			
5.1 Estudo para levantamento de potencial económico da cidade de Chókwè, incluindo mapeamento de campos verdes	**Agricultura**		
5.2 Melhoria das condições físicas nos Mercados para reduzir riscos de desastres e adaptar-se às mudanças climáticas	**Mercados e Feiras**	Urbanização	Mercado Hangane Franice Senta baixo
5.3 Apoio ao INEFP e ao IAC para ampliar as oportunidades de formação técnica da população mais vulnerável de Chókwè e seguimento de inserção no mercado de trabalho	**Política Social**	INEFP, IAC, ILO	Toda a Urbe
5.4 Promover sensibilização e construir capacidade em relação a gestão financeira responsável e empreendedorismo por meio de campanha de rádio/média e sessões de treinamento	**Política Social**	Rádio Nhluvuku, ILO	Toda a Urbe
5.5 Criação de áreas apropriadas para piscicultura	**Agricultura**	MINAG	

MÉDIO PRAZO (2-5 ANOS)			
5.6 Aquisição de equipamentos (tratores) para aumentar a produtividade agrícola	**Agricultura**		Toda a Urbe
5.7 Utilizar o potencial da infraestrutura de agroprocessamento existente para geração de empregos e movimentar a economia local	**Agricultura**		Toda a Urbe
5.8 Ampliação do acesso ao crédito das populações mais vulneráveis por meio de parcerias com ONGs, OIs e organizações locais	**Política Social**		Toda a Urbe
LONGO PRAZO (2-5 ANOS)			
5.9 Programa de capacitação dos jovens e comunidades vulneráveis para integração ao mercado de trabalho	**Cultura, Juventude e Desporto**	IAC, INEFP, ILO	Toda a urbe
5.10 Criação de novos postos de empregos utilizando potencial agroindustrial e serviços	**Agricultura / Política Social**	UN-Habitat	Toda a urbe

ACÇÃO PRIORITÁRIA 6

Melhorar a infraestrutura de educação e saúde

RESULTADO ESPERADO

A população da Cidade de Chókwè tem fácil acesso a infraestruturas de educação e saúde adaptadas aos desastres naturais e aos impactos das mudanças climáticas

A população crescente da Cidade de Chókwè apresenta uma demanda crescente por infraestruturas de educação e saúde, essenciais para o bem-estar da população, para a prosperidade da cidade e a resiliência urbana. A cidade já conta com uma Sala de Aula elevada resiliente às cheias construída no 5º Bairro. Esforços devem ser feitos para ampliar a abrangência e o acesso às infraestruturas resilientes que possam servir como peça central para a diminuição da vulnerabilidade da população tanto por sua função básica de fortalecimento social quanto por sua integração ao sistema de gestão de desastres da cidade. Para tanto, 10 actividades foram planeadas:.

TABELA 9. **ACTIVIDADES PLANEADAS PARA MELHORAR A INFRAESTRUTURA DE EDUCAÇÃO E SAÚDE**

Actividades Planeadas	Sector Municipal Responsável	Outros Sectores/ Parceiros	Localização na Cidade
CURTO PRAZO (0-2 ANOS)			
6.1 Criação de capacidade dos construtores e locais e instituições relevantes (departamentos responsáveis por construção) no que refere-se a infraestruturas adaptadas e resilientes por meio de treinamentos no local	Urbanização	Política Social, UN-Habitat, OCB, Secretaria do Bairro, Chefes de quarteirão, membros das comunidades	Toda a Urbe
6.2 Identificação de principais necessidades de construção e manutenção de infraestruturas de saúde e educação na cidade	Urbanização	UN-Habitat, OCB, Secretaria do Bairro, Chefes de quarteirão, membros das comunidades	Toda a Urbe
6.3 Exercícios e seminários de sensibilização comunitária de prácticas de manutenção de infraestruturas existentes	Política Social		1º Bairro
6.4 Organização de simulações e eventos para sensibilização de como utilizar infraestruturas adaptadas em períodos de emergência	Política Social	Urbanização, INGC, GIZ, CVM, UN-Habitat	5º Bairro
6.5 Construção de Sala de Aula resiliente às cheias na 4º EPC e adaptação de infraestrutura existente	Urbanização	Urbanização, UN-Habitat	1º Bairro 3º Bairro B 4º Bairro 5º Bairro

MÉDIO PRAZO (2-5 ANOS)			
6.6 Construção de Centro de Saúde adaptado aos desastres no 7º Bairro	Urbanização	UN-Habitat, OCB, Secretaria do Bairro,	7º bairro
6.7 Construção de 5-6 salas de aulas no 7º Bairro adaptadas aos impactos das mudanças climáticas	Urbanização	UN-Habitat, OCB, Secretaria do Bairro,	7º bairro
6.8 Institucionalização de monitoria e seguimento da aplicação de Códigos de Construção	Urbanização	UN-Habitat, OCB, Secretaria do Bairro,	
6.9 Manutenção e reabilitação de infraestruturas de saúde e educação danificadas	Urbanização	UN-Habitat, OCB, Secretaria do Bairro,	
LONGO PRAZO (5-10 ANOS)			
6.10 Institucionalização de mecanismos e capacitação de pessoal para monitoria e consulta técnicas de manutenção das infraestruturas de educação e saúde	Urbanização	UN-Habitat, MOPHRH	Toda a urbe

4

IMPLEMENTAÇÃO, COORDENAÇÃO E MONITORIA

4.1 Estratégia de Implementação do PARC

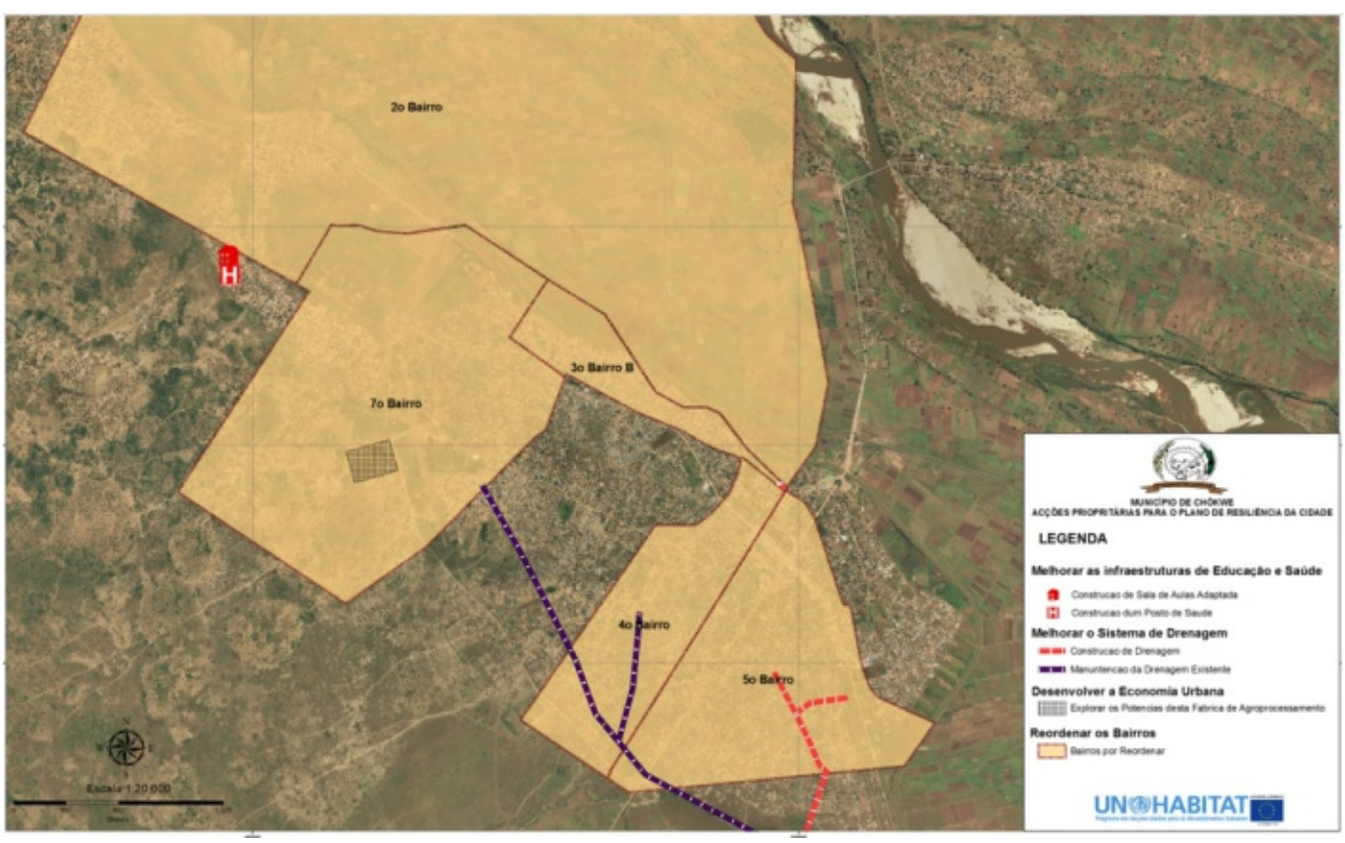
iO PARC reúne um total de 54 actividades planeadas, variando de 6 a 11 actividades visando responder a efectivação de cada Acção Prioritária. Cada Acção Prioritária também conta com um Resultado Esperado. Sectores específicos foram identificados como responsáveis pela implementação de cada uma das actividades planeadas, e os custos de implementação foram estimados quando possível.

Cabe ressaltar que, para assegurar a coerência e garantir maior sustentabilidade ao PARC, outros planos já existentes foram considerados, mais notadamente o Plano Económico e Social (PES) de 2015 e de 2016.

A implementação do PARC pressupõe o envolvimento de intervenientes de diversos sectores. Enquanto a maior parte das actividades planeadas estão sob responsabilidade primária das vereações do Conselho Municipal, outros parceiros de instituições locais e nacionais, do sector privado, ONGs e das comunidades também deverão estar envolvidos na implementação das actividades. Durante a execução do plano, um mecanismo de coordenação será estabelecido, possibilitando a comunicação e organização entre os vários sectores municipais e parceiros para realizar as várias acções prioritárias no âmbito deste plano de uma forma ordenada.

O PARC reconhece a necessidade de manter a flexibilidade na sua estratégia de implementação, fim de acomodar as possíveis mudança de prioridades nacionais ou então municipais, bem como as futuras decisões inerentes aos planos municipais.

FIGURA 6. **O MAPA DE ACÇÕES PRIORITÁRIAS DO PARC**



4.2 Mecanismo de Coordenação

A implementação do Plano de Acção será coordenada por um Departamento Especifico que se reunirá determinadas com frequência, segundo ira determinar. O Departamento da Urbanização será o Departamento Directivo, assumido como o Departamento focal para Resiliência Urbana e Gestão de Redução de Riscos. Sectores, actores de implementação e parceiros podem ser convidados a contribuir, conforme apropriado. Considerando a agenda das suas reuniões, o Departamento Directivo pode convidar os actores chave e os doadores no âmbito da implementação de determinadas actividades e especialistas para contribuir nos aspectos técnicos inerentes a actividades do plano e seu sequenciamento. A fim de coordenar as tarefas de forma eficiente, o Departamento Directivo (Urbanização) pode decidir identificar pontos focais, que se encarregarão de questões como a coordenação com os parceiros doadores, a coordenação dos mecanismos de implementação, monitora e relatórios sobre os progressos.

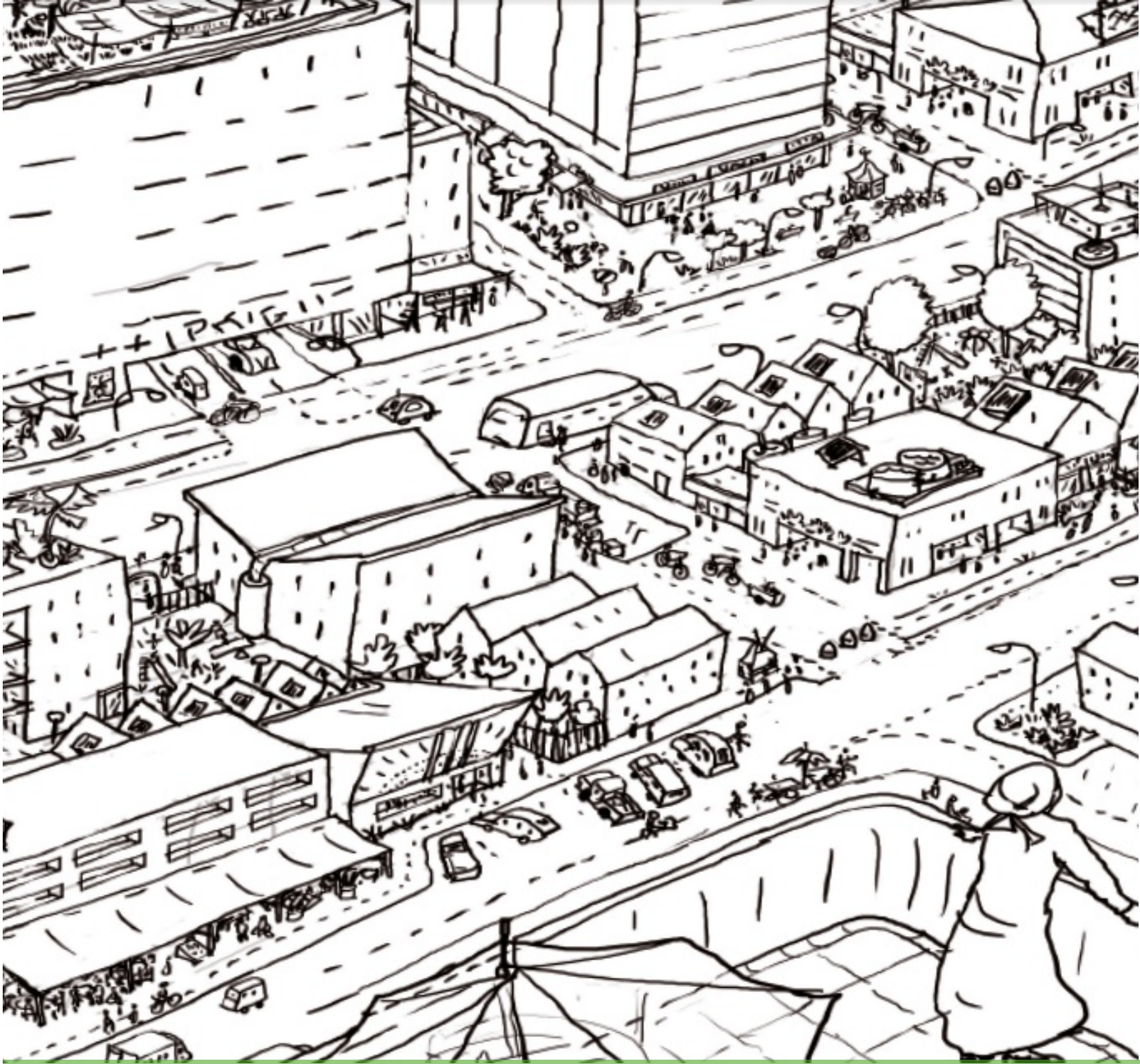
4.3 Mecanismo de Monitoria e Avaliação

O monitoria e avaliação da implementação do PARC deverão ser conduzidas pela Assembleia Municipal do Município de Chókwè, cuja função chave é fiscalizar a actuação do Conselho Municipal. O mecanismo detalhado para este processo será definido na brevidade possível e deverá responder as seguintes questões:

- Em que medida é que a implementação das actividades esta sendo feita conforme o planeado?
- Em que medida a mobilização de recursos e apoio técnico é eficaz?
- Em que medida as metas do PARC foram alcançadas?
- Até que ponto as actividades estão a ser implementadas nos lugares mais apropriados?
- Até que ponto ocorreu algum impacto sobre o estado de resiliência da Cidade?

Importantes veículos para se efectutar a monitoria e avaliação estão descritos a seguir. Estes serão deenvolvidos com mais detalhes pelo sector responsável:

- Objectivos da Monitoria e Avaliação
- Cronograma de actividades para cada acção prioritária
- Elaboração de Plano de acompanhamento das actividades segundo o cronograma desenvolvido
- Identificação dos usuários do plano de acompanhamento e difusão junto a sociedade civil
- Definição da Periodocidade dos processos de monitoria e avaliação; recomenda-se que a monitoria seja feita anualmente enquanto que a avaliação ocorra em três ocasiões: 2 anos (curto prazo), 5 anos (médio prazo) e 10 anos (longo prazo) após o início do período de implementação.
- Estabelecimento duma Linha de base para a formulação dos indicadores
- Montagem/definicção dos indicadores
- Identificação de Métodos e técnicas de colecta de dados
- Arranjo institucional apropriado para acompanhar a implementação do PARC



ELABORADO POR:

Conselho Municipal de Chókwè
Cidade de Chókwè
Província de Gaza
Moçambique

ASSISTÊNCIA TÉCNICA:

UN-Habitat Moçambique
Rua Macombe Macossa, 151
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