

## **Maputo, Mozambique**

### **Initiative: Adaptation to and Mitigation of Climate Change in the City of Maputo: Preliminary Assessment**

#### **General description of the initiative:**

With support from the UN-Habitat Cities and Climate Change Initiative (CCCI), a team carried out a preliminary assessment with stakeholder involvement of the impacts of climate change on the City of Maputo.

#### **Detailed description of the initiative:**

With support from the UN-Habitat Cities and Climate Change Initiative (CCCI), a team carried out a preliminary assessment with stakeholder involvement of the impacts of climate change on the City of Maputo. Summary results are as follows.

Maputo, the capital of Mozambique, is highly vulnerable to the impacts of climate change as it is situated on the Indian Ocean and is the most densely populated urban area in the country. According to the 2007 census (INE, 2008)<sup>1</sup> the population of the city is about 1.1 million. But the combined metropolitan area of Maputo-Matola-Marracuene has an estimated population of between 2.5 and 3 million. Maputo, like other African cities, is experiencing rapid population growth (1.2 per cent) causing an increasing demand for housing and infrastructure (UNFCCC, 2006)<sup>2</sup>, especially in the peri-urban slum areas. Consequently, there is a risk of severe impact on urban poor, which will increase as a result of their incapacity to improve their circumstances or move to safer areas.

A preliminary assessment of climate change impacts in the urban areas of Maputo identified the following vulnerable areas:

- Coastal zones and ecosystems
- Human settlements and infrastructure
- Health, food security and waste management
- Transportation system
- Wetlands and urban agriculture

The main climate-related hazards with destructive consequences are floods, droughts, rising sea level and storms (cyclones).

The predicted sea-level rise related to global warming would result in flooding of the lowest areas of Maputo, which are the most populated and where slum dwellers are concentrated. This prediction is also supported by the Mozambique National Adaptation Plan of Action to Climate Change. The National Institute for Disaster Management recently produced a study on the impacts of climate change in Mozambique showing that in the next 20-30 years most of the coastal area of Maputo, including its harbour and other important infrastructures, will be affected by sea-level rise if no adaptation measures are adopted, resulting in severe economic and social repercussions<sup>3</sup>.

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<sup>1</sup> INE – National Statistics Institute: <http://www.ine.gov.mz/censo2007>

<sup>2</sup> UNFCCC - United Nations Framework Convention on Climate Change (2006). Background paper on: Impacts, vulnerability and adaptation to climate change in Africa. African Workshop on Adaptation Implementation of Decision 1/CP.10 of the UNFCCC Convention. Accra, Ghana, 21 - 23 September.

<sup>3</sup> INGC. 2009. Main report: INGC Climate Change Report: Study on the impact of climate change

The assessment also identifies the main steps to be followed for setting up a climate change adaptation strategy for Maputo city, namely:

1. Actively involving key stakeholders from the public sector, private sector and academia, civil society and development partners in the process of raising awareness about the impacts of climate change at all levels.
2. Establishing an appropriate institutional arrangement between the city and the central government through the Ministry of Coordination of Environmental Affairs, the National Institute for Disasters Management, among others, to ensure proper management and implementation capacity of the climate change issues;
3. Establishing communication mechanisms to ensure a participatory and inclusive process in the identification and implementation of sustainable solutions, perhaps including the creation of a Natural Disasters Risk Reduction and/or Climate Change Unit at local level.
4. Preparing a more in-depth assessment of the impacts of climate change in Maputo, in order to determine the required adaptation and/or mitigation measures to be implemented.
5. Developing methods and tools for the analysis of climate change effects in order to facilitate the financial planning and decision-making and preparation of a Climate Change Adaptation and Mitigation Plan, which identifies priority interventions to be implemented in the short, medium and long term.
6. Creating synergy and coordination mechanisms with new initiatives or ongoing projects, to jointly identify potential sources of funding to ensure continuity of operations.

A CCCI-inception workshop was held in Maputo in May, 2009, with a large stakeholder attendance, including Ministry for Coordination of Environmental Affairs, National Institute of Meteorology, Maputo Municipal Council, representatives from academia, private sector, civil society, NGO's and development partners.

An important outcome was a proposal for a communication mechanism to ensure the participatory and inclusive process of all stakeholders, leaving the ownership of projects in the hands of the municipal authorities.

With regard to the need to implement immediate and demonstrative adaptation/mitigation actions in priority areas of Maputo, the threatened mangroves surrounding the Costa do Sol neighbourhood were identified as a good pilot project. The aim of these interventions is to provide clear and physical limits of the mangrove area and make the recently approved master plan legally binding, including special provisions for the protection of endangered species.