MULTI-PRONGED ADAPTATION APPROACHES:

Natural ecosystems, engineering solutions, and local communities

Learning exchanges between Mozambican cities and Durban, South Africa

The importance of natural ecosystems and communities at the center of climate change adaptation efforts was an important theme of the exchange. This was especially apparent in the discussion around harvesting of mangroves in Quelimane which increases the vulnerability of the city but will not stop unless alternative resources are available to the community.

From 23rd -25th November 2016 an exchange visit between the Mozambican cities of Pemba, Quelimane and Nacala with Durban, South Africa was held to discuss experiences, solutions and challenges related to climate change issues of coastal erosion, catchment management and sea level rise. The exchange, held in Pemba, involved site visits and workshops which were led by technical experts from Durban and the participants in the workshop were engineers and officials drawn from the three Mozambique cities.

This exchange is part of a new initiative by the GAN to connect practitioners working on adaptation with their counterparts in other places, to enable them to learn from the experience of others. The visit built upon a previous exchange in which a Pemba and Quelimane delegation led by their mayors made an exploratory visit to the city of Durban to investigate areas of collaboration particularly within urban adaptation planning, under the Durban Adaptation Charter (DAC). The DAC was the principle outcome of the Durban Local Government Convention, held during the UNFCCC COP17 in Durban in 2011. The DAC, hosted by eThekwini Municipality, is local government-led and focused, with a signatory base that now exceeds 1000 cities and district municipalities and covering 45 countries.

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The need to utilize local knowledge was also stressed in tackling problems of sea-level rise and erosion on the Pemba shoreline. The importance of partnering with universities was emphasized, including a burgeoning partnership which both Pemba and Quelimane have with their universities, which can complete this local knowledge and drive site specific solutions.

The economic risks of climate change were apparent in the erosion problem which threatens the deep water port in Nacala which provides port services for the neighboring country of Malawi. This also raised the issue of the need to make road and rail infrastructure more resilient throughout the country. The site visits in Pemba explored a variety of issues such as large scale erosion which can be seen in the picture herein.

In this case, an engineering solution needs to be found to ensure the road does not collapse further and more damage is not done to the community below. In a further site visit, the group saw a community that lives adjacent to a tidal lagoon, but where solid waste has stopped water from flowing in and out. Solutions focused on improving regulation and management instead of relocation.

The short intensive exchange between Durban and the three Mozambican cities of Pemba, Nacala and Quelimane explored a range of issues and solutions from engineering to regulation to ecosystem-based adaptation involving the community. The exchange demonstrates the opportunity for neighboring countries to share knowledge and African countries to lead on practical climate change adaptation solutions.