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NEWSBRIEF

WIOMSA

Coasts Ocean and People



Fishermen in northeast Madagascar are highly dependent on coastal resources for food security



A genus is named in honour of **Dr. Chantal Conand**, in recognition for her contributions to the Holothuroidea. See page 32

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MIJI BORA HOSTS FIRST EXCHANGE LEARNING EXPERIENCE. *By Justus Kithiia*



*Stormwater flooding the streets of Mombasa in November 2019.
(Photo courtesy: Sean O'Donoghue)*

The Smart and sustainable transitioning for coastal cities in the face of global environmental change (Miji Bora) project is a transdisciplinary action research project with a project team drawn from researchers and city officials **in Mombasa, Kenya and Durban (eThekweni Municipality), South Africa.**

MijiBora is implemented by Coastal and Marine Resources Development (COMRED) in Mombasa and funded by WIOMSA through its Cities and Coasts programme.

The aim of the Miji Bora project is to develop and prototype smart and sustainable solutions for a climate resilient County Government of Mombasa (CGM). The peer to peer (P2P) learning component of the Miji Bora project seeks to develop and test a framework for “P2P learning between cities”, critically assessing the efficacy of the CGM experience.

P2P learning between cities protocols have been established within the [Durban Adaptation Charter's](#) Hub and Compact Approach to Adaptation since 2011.

The first P2P learning exchange between officials of eThekweni Municipality and the CGM took place from 11 to 13 November 2019 in Mombasa, Kenya. These two coastal cities share many similarities and challenges, and both have committed to improving the functioning of their governments and addressing climate change through engaging in a series of learning exchanges. The November exchange focused on sustainable solutions to climate change-related challenges in the water, sanitation, solid waste, environment, transport and energy sectors and was convened as one of the key activities of the Miji Bora action research project.

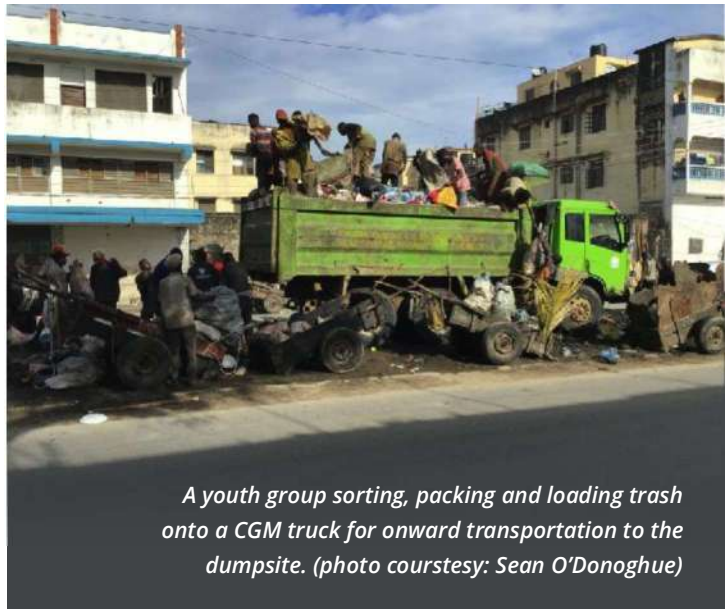


*A courtesy call to the speaker of the County Assembly of Mombasa by the team from Durban.
(Photo Courtesy: County official)*

The first exchange visit coincided with unusually persistent rainfall in Mombasa. The so-called short rains of October and November were said by many to resemble the long rains of April to June. **This was due to the state of the Indian Ocean Dipole (analogous to the better known El Niño event).**

The increased rainfall served to highlight challenges around transport and drainage, which was useful, but also an impediment to visiting sites.

For example, access to the new landfill site is not possible during persistent rains and some CGM officials were not able to attend meetings due to not being able to make it to the venues. Despite these challenges, there was a real commitment from, and an interest shown by the CGM officials in the peer learning process, and the meetings exceeded expectations in terms of highlighting topics and projects for the main exchange in Durban early in 2020. The exchange visit culminated in a visit to the MCG Committee Clerk's office and the opportunity to present to the Environment, Solid Waste and Energy Committee.



A youth group sorting, packing and loading trash onto a CGM truck for onward transportation to the dumpsite. (photo courtesy: Sean O'Donoghue)



FOR MORE INFORMATION:

The exchange programme and details of discussions for each meeting can be found in the project report on the [Miji Bora](#) website.

MIJIBORA PROJECT MINI SYMPOSIUM.

By Justus Kithiia

The world is currently battling the challenges brought about by COVID-19. The **uncertainty surrounding this pandemic** has continued to **present unique and unprecedented challenges to project execution**, management and the organization of various sectors of the economy.



The pandemic has resulted in a **postponement** of the second peer to peer (P2P) learning exchange to Durban by Mombasa County Government (MCG) officials, and the postponement of all field-related activities, most of which are centered in Mombasa.



Another result of the pandemic is that the project **embraced video conferencing** and held its first virtual mini symposium on 8 May 2020. Project partners were invited to attend the symposium to review and discuss the project's progress.

To assist Mombasa County to become smart and sustainable, the status-quo assessment of the key urban drivers – including water and sanitation and solid waste management – were reviewed and presented during the mini symposium. Results from the review showed that challenges in water and sanitation in Mombasa are historical and caused by a lack of government investment in the sector. Colonial racism and pyramidal allocation of water and sanitation services gave way to post-colonial classism, whereby poor people living in informal settlements are disproportionately affected by the water and sanitation backlogs.

“There seems to be some invisible hands which determine the outcomes of market forces, with formal and legal transaction, but also informal arrangements underpinned by strong rent-seeking and illegal connections perpetuated by cartels,” said Prof. Justus Kithiia.

On solid waste management, the project is reviewing relevant consultancy and technical reports, as well as scientific publications that highlight the solid waste management

situation in Mombasa. The review will contribute to a solid waste management bill for Mombasa County. Key for the solid waste management review are information gaps such as the documentation of waste collection and transfer centers and dump site; analysis of waste recyclers based on the type of waste, and area of operation; and the quantification and monitoring of waste/solid waste. The project acknowledges the bold step undertaken by the MCG in decommissioning the Kibarani dumpsite. **It plans to commission a mini study and propose a monitoring framework for the decommissioning.** Due to the uncertainties over when normality could return, the project is now considering mitigating this by beginning to undertake virtual interviews through teleconferences and social media to enable completion of focus groups and surveys with stakeholders.

With the key challenges for urban drivers identified, it was noted that identification of smart interventions and sustainable approaches need to be applied to add value and constitute prototypes for implementation. One means of smart intervention is through the use of geospatial technology. Many

urban residents these days will find it hard to imagine a life without mobile apps that help them to locate a restaurant, hail a taxi, or find a railway station – usually in a matter of seconds. The Miji Bora project is utilizing similar geoinformation technology to understand key urban forms for the City of Mombasa. For example, the **use of satellite data as a source of information to monitor and analyse the city state and the impact of urbanization on environmental aspects** such as Urban Heat Island, land-use/landcover, and estimates of carbon footprint for the city.

Decision support tools are being developed under the Miji Bora project, including one on sea level rise; a prototype tool for Mombasa City was presented during the mini symposium.

The sea level rise tool will offer access to information about the risks of sea level rise, storm surge and flooding and will allow city planners, city officials, and coastal residents the opportunity to identify flood-prone locations in their area.

P2P learning exchange is a key activity in Miji Bora. The first exchange visit was conducted in November in Mombasa, with two officials from Durban visiting MCG to ascertain the key focal areas for the return exchange planned for March 2020 in Durban. The visit coincided with unusually heavy rainfalls for the time of year, and consequently some roads to sites were unpassable. This served to underline the climate-related challenges the MCG is facing. The report for this exchange visit is available on the Miji Bora website. The return trip was postponed the week before the delegation was due to arrive, due to Covid-19. This was fortunate timing, because the delegation would have been at risk of being stranded in South Africa with the borders closing during the week of the planned exchange. One of the project investigators Sean O'

Donoghue has offered to set up webinars on key focus areas for the exchange, until travel is allowed again. This would be in the ecosystem-based adaptation, water, solid-waste and wastewater management and renewable energy focus areas.

One key outcome of the mini symposium was the need for closer partnerships and collaboration, including knowledge and experience sharing.

For instance, Coastal Oceans Research and Development – Indian Ocean (CORDIO) has implemented the Knowledge project in Mombasa and the Sustainable Development Goals Lab project and has experience in scenario development. Likewise, the previous studies undertaken by the MCG, in partnership with UNHABITAT, form a key baseline for Miji Bora interventions.

