



Global Adaptation Network (GAN) and Durban Adaptation Charter (DAC) Regional Knowledge Sharing Exchange Visit

06 – 08 March 2017

Durban, South Africa



Executive Summary

The Global Adaptation Network funded the Durban Adaptation Charter Knowledge Exchange between eThekweni Municipality, Durban and the Mozambican cities of Pemba, Quelimane and Nacala from the 6th – 8th March 2017. The exchange, hosted by Durban, sought to build capacity and extend the partnership between these four cities in order to advance and coordinate climate change action in the region.

This second leg of the Exchange followed on from a successful first leg where eThekweni Municipality officials visited Pemba to discuss sea level rise, catchment management and climate governance issues. The focus of the return trip was community-oriented biodiversity planning and water governance approaches, Community Ecosystem-based Adaptation (CEBA), environmentally-sensitive solid waste management systems and renewable energy. At the conclusion of this exchange the cities agreed to cooperate on the development of a climate change funding proposal for submission to international funding organisations. Mayor de Araujo of Quelimane Municipality also extended an invite to Her Worship, Mayor Gumede, to visit these Mozambican cities in support of the development of this proposal.

Key outcomes from the exchange included:

- Participants agreed to pursue the issue of conservation planning, in particular in the marine environment in Mozambique where there is conflict between tourism, marine resource harvesting and sustainability.
- Participants agreed to develop a cooperative approach to support the Mozambican cities' efforts to establish landfill sites that align with the sustainability principles espoused in eThekweni Municipality's landfill sites.
- Participants agreed to continue developing the Hub and Compact approach in Mozambique, whereby neighbouring municipalities would be approached to collaborate in city-region partnerships to advance climate change action in the Mozambican hub cities (participating in the exchange).
- By developing this approach in Mozambique, it would provide a network of cities along the African south-east and east coasts, along with Durban and Dar es Salaam, whereby climate change would be tackled using a set of shared principles, and that these principles would form the basis of large-scale, transformative funding proposals.
- Participants agreed that the development of research partnerships to provide evidence-based support for further adaptation action in Mozambican cities is paramount, and that the establishment of these partnerships should be prioritised.
- Participants agreed that Durban would take the lead in developing a concept note for funding proposals based on the DAC Hub and Compact approach, the outcomes from the learning exchanges, and including the establishment of research partnerships to guide climate change action.



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Introduction

The Durban Adaptation Charter (DAC) was the principle outcome of the Durban Local Government Convention, held during the COP17/ CMP7 climate negotiations in Durban in 2011. The DAC, hosted by eThekweni Municipality, is local government-led and focused, with a signatory base that now exceeds 1000 cities and district municipalities, covering 45 countries, with the majority being African, and many from the sub-Saharan region. One of the DAC's ten principles states that signatories accelerate their adaptation efforts through committing to "Promote partnerships at all levels and city-to-city cooperation and knowledge exchange". This is in alignment with the Paris Agreement, and has given rise to a number of learning exchanges between DAC signatories designed to build capacity through knowledge sharing and peer-to-peer exchanges. This experience in conducting previous exchange visits enabled eThekweni Municipality, more commonly known as Durban, to secure support from the United Nations Environment Programme's Global Adaptation Network (GAN) for this regional knowledge sharing exchange visit with Mozambican cities.

The purpose of the exchange visit, held in Pemba, Mozambique from the 23rd - 25th November 2016 was to foster discussion through which experiences, opportunities and challenges of coastal erosion, catchment management and sea level rise could be shared between the South African city of Durban and the Mozambican cities of Pemba, Quelimane and Nacala. The workshops were led by technical experts from Durban and the participants in the workshop were engineers, Mayors and climate change officials drawn from the three Mozambique cities.

A return exchange visit was then hosted by eThekweni Municipality from 6th – 8th March 2017 and focused on community-oriented biodiversity planning and water governance approaches, Community Ecosystem-based Adaptation (CEBA), environmentally-sensitive solid waste management systems and renewable energy. In total there were thirty participants drawn from the four participating cities, the representative from the Global Adaptation Network and members of the Central KwaZulu-Natal Climate Change Compact (CKZNCCC) who attended the first two days' workshops. During the exchange, the Mozambican delegation leaders, led by Mayor Manuel de Araujo, met with eThekweni Municipality Mayor, Councillor Zandile Gumede, to discuss deepening the partnership between the cities. Mayor de Araujo agreed to provide an invitation to Mayor Gumede to visit the Mozambican cities in pursuit of the partnership.



Day One

Dr Sean O'Donoghue from eThekweni Municipality's Climate Protection Branch (CPB) of the Environmental Planning and Climate Change Department (EPCPD) opened the three-day exchange visit by welcoming all participants and thanking the United Nations Environment Programme's (UNEP) Global Adaptation Network (GAN) for support that enabled the DAC exchange visits. Mayor Manuel de Araujo of Quelimane Municipality, leading the Mozambique delegation stressed the importance of the exchange visit for the Mozambique cities in terms of capacity building.



Figure 1: Members of the Central KwaZulu-Natal Climate Change Compact were amongst the participants for the Systematic Conservation Session of the Exchange Visit.

Durban's 100 Rockefeller Resilient Cities Programme Experience

Ms Joanne Douwes, Project Manager for eThekweni Municipality's 100 Resilient Cities project, presented on the project currently funded by the Rockefeller Foundation to explore the concept of resilience in 100 cities around the world. Durban was one of the first cities selected for the programme. The key points highlighted in the presentation were:

- The programme not only focusses on assisting cities in preparing for climate change resilience but also prepares for cities to be resilient with other socio economic changes that may occur.
- The project has identified six resilience levers for change.
- The need to establish stakeholder engagement plans is essential for the resilience strategy development process, this includes a public communication plan to ensure all stakeholders are continuously informed of the ongoing processes of the project.
- A key challenge for eThekweni Municipality is integrating municipal and traditional forms of governance.
- One of the key critical sectors most vulnerable to climate change impacts for Durban is the human settlements sector due to the extensive number of informal dwellings. These areas

require a special focus regarding resilience building and planning. EThekwini Municipality has engaged with relevant stakeholders within this sector to secure political and administrative champions to assist in facilitating the process.

- A municipal wide community led information platform has been utilised as means of communication with community members and all interested parties, this platform allows for the public to actively contribute through the provision of comments on policy and keep updated with all processes.



Figure 2: Mrs Joanne Douwes presenting on the 100 Resilient Cities Programme and Durban's Involvement with the Programme.

Mayor de Araujo highlighted the relevance of the presentation in understanding their capacity as Quelimane Municipality as they seek to engage in an application process with the 100 Resilient Cities programme. The mayor expressed interest in the stakeholder communication platform which provides continuous updates on the project process. Ms Douwes offered to add all delegates to the mailing list which would keep them updated through a regularly circulated newsletter.

Action: EThekwini Municipality will add all delegates to eThekwini Municipality's 100 Resilient Cities Project Mailing List.

Introduction to conservation planning using participatory approaches, conservation planning tools and legislation

Planning for biodiversity in Durban: The Systematic Conservation Assessment

Mr Cameron McLean from the EPCPD unpacked the tools and methodologies used by eThekwini Municipality for systematic conservation planning through his presentation. Conservation planning involves identifying critical biodiversity and planning to preserve them through prioritising plans for the identified critical areas by setting quantitative targets. Through the presentation, Mr McLean covered aspects of policy and explained the use of the Durban Metropolitan Open Space System (D'MOSS) with regards to conservation planning. It was noted that the methodology used was advantageous in its ability to be replicated, objective and highly efficient.

The presentation also provided a brief overview of Durban's current biodiversity and how a biodiversity plan is particularly essential to nurture endangered species as a city that faces rapid urbanisation. The planning process involves specialists who are able to identify critical species, habitat and vegetation. A mapping process is a key tool used to identify specific information required.



Figure 3: Participants discuss the approach to conservation planning.

Establishing Urban Nature Reserves

Ms Natasha Govender from the EPCPD presented on the development and planning of nature reserves. A brief introduction to the history of nature reserves was provided. Since 2002, a budget was allocated for the purchase of land with the intention of preserving nature due to the growing need for development. One of the identified challenges is that grasslands are often dismissed as priority zones due to a higher focus on preserving wetlands, forests and other areas whereas 85 percent of grassland has been lost in Durban. One of eThekweni Municipality's strategies was preserving the natural resources currently being stressed by the evolving city. These are the areas that are within the city and often dismissed due to high levels of urbanisation as the need to provide housing and boost the economy have become a critical development strategy for many cities.

It has been noted that Durban has experienced high levels of transformation with over 50 percent of the land area increasingly altered. Ms Govender also highlighted that the transformation of the natural ecosystem reduces the ability of the environment to deliver critical ecosystems services to the residents of Durban, services such as the provision of clean air and water. The involvement of the

greater community was once again identified as a crucial aspect in developing nature reserves and Ms Govender stated that private landowners are highly involved in this process.

Discussion

The floor was then opened for questions. The following key points were noted:

- Data is a critical resource and tool for conservation planning, in this case, maps with local specific data which represents the habitat used. A good data management system is required to ensure data is constantly being updated to represent the most recent developments.
- Vegetation assessments are conducted to provide information on the status of the activities within the identified sites and a number of specialists are required to provide the necessary information to ground truth area mapping.
- The land acquisition process requires lengthy legal processes.
- Research partnerships with local universities and other organisations is advised for data collection.
- Aligning with national targets: Using national targets sets a baseline for the municipality in setting their own targets, continuous assessment is done to measure the progress. This means the biodiversity plans fit the national targets.



Figure 4: Mayor Manuel de Araujo of Quelimane Municipality in Mozambique emphasised the need to conserve marine biodiversity as a critical area for Mozambique.

- EThekwini Municipality produces a State of Biodiversity report which provides an update on progress and new developments within the Biodiversity Planning Branch.
- The conservation plans for eThekwini Municipality are inserted into the Spatial Development Framework.

- Certain areas are strictly reserved for conservation, whilst others are available for communities for social benefits. It is important to remember that communities, especially rural, rely extensively on the use of natural resources to sustain livelihoods.
- Enforcement is applied with regards to access in the restricted areas.
- Delegates from Mozambique indicated the relevance of the systematic conservation planning information shared by eThekweni Municipality as they are currently experiencing challenges with reserving sea and prawn harvesting.
- Access to data was also identified as a challenge for Mozambique and the first step to conservation planning would require retrieving data.
- Delegates indicated interest in developing a link with eThekweni Municipality to further share skills on conservation planning and means of acquiring data. A potential avenue is the involvement of universities in conducting research on green infrastructure.
- One of the key findings identified in the previous exchange visit in Mozambique was the need for assessment studies within the Nacala Municipality in Mozambique. There is a lack of capacity within the municipality and budget to plan and implement.
- Increasing populations put pressure on conserved areas. It is therefore important to have a robust enforcement system in place.



Figure 5: Mr Essey Daniel representing UNEP's Global Adaptation Network.

Proclamation for biodiversity protection.

Mr Bheka Memela, a specialist ecologist at eThekweni Municipality's EPCPD provided a brief background to the proclamation of the Roosfontein Nature Reserve located between Chesterville, Westville and Queensburgh in Durban. The nature reserve is one of the City's biodiversity protection areas to ensure that the area is formally protected as a national asset by legislation. The process to proclaim the area involved various departments within the Municipality, ward councillors, Ezemvelo KZN Wildlife and residents of the surrounding areas. In managing these new reserves, the Municipality plans to involve community members to ensure that they are first beneficiaries of the reserve. Several employment opportunities are planned for local community members to be involved in the management of the reserve.

Environmental Protection – Town Planning Solutions

Planning tools for biodiversity protection assist in identifying important terrestrial, freshwater and marine environments. Mr Gerald Clarke of eThekweni Municipality EPCPD expanded on the tools required for conservation planning which uncovered various policies that have guided eThekweni Municipality. The Spatial Planning and Land Use Management Act (SPLUMA) is one of the key policies used by the Municipality. SPLUMA is a national policy applicable to both rural and urban areas to govern land use processes and specifies the various relationships between spatial planning and land use management systems and other forms of planning. SPLUMA recognises environmental rights and principles that developers need to align with in the case of decision making that will minimise negative environmental impacts whilst aiming to achieve economic development. Clarke also introduced the Durban Metropolitan Open Space System (D'MOSS). D'MOSS promotes the protection of biodiversity, this is a local policy developed specifically for the Durban area. D'MOSS covers the protection of various ecosystems ranging from grassland, forests and wetlands. D'MOSS has been beneficial to both land owners and provides a range of ecosystem services such as the management of soil erosion, water supply and regulation and the provision of recreational opportunities which in turn provide further employment opportunities for Durban residents.



Figure 6: An area of conservation, Giba Gorge, located near the Pinetown industrial area in Durban.

Biodiversity Stewardship - Conservation in partnership with the landowners

Ms Zodwa Ngubeni from the EPCPD provided a presentation on the Biodiversity Stewardship Programme in traditional communities of the eThekweni Municipal Area. Ms Ngubeni started with highlighting that a large percentage of the eThekweni Municipal Area sits within areas governed by traditional authority, outside of formal town-planning processes and this land is critical in terms of conservation. Apart from creating reserves, eThekweni Municipality has initiated a Biodiversity Stewardship Programme to promote the involvement of land owners and users in environmental management. Ms Ngubeni also covered the various legal arrangements that occur between the Municipality and the various community stakeholders to allow for protected areas to remain protected whilst within residential areas both rural and urban.

Discussion

Following the three presentations, the floor was opened for a round of questions. The following key points were noted:

- Mayor Manual requested for the distribution of the conservation assessment diagram that was presented. Mayor Manual also requested for the information on the different types of reserves to be disseminated after the exchange.
Action: EThekweni Municipality should include a conservation assessment diagram, tools and types of reserves information to Mozambique delegates.
- EThekweni Municipality's partnership with the University of KwaZulu-Natal is to draw in relevant sources of research information. One of the partnerships with the universities was formed in 2011 on global environmental change and reforestation. During the discussion session eThekweni Municipality then suggested for an international research workshop that

could be planned with the Mozambique cities and an international university to work on the issues discussed.

- Restrictions with regards to land use, specifically rivers by the community and private developers is a challenge but progress has been made by eThekweni Municipality to stop any form of development occurring within the particular areas.
- Biodiversity is already incorporated into SPLUMA. The competition between development and natural resource conservation, cognisance must be taken for the environment. Planners are bound by SPLUMA to ensure ecosystems services are adhered to.
- With regards to the offsets of taking care of land that is already damaged, eThekweni Municipality stated that environmental consultants provide technical expertise in this regard.

Quelimane Municipality

Conservation is a challenge in Mozambique and better planning is required. The Mozambique law stipulates all the aspects on biodiversity and conservation planning yet implementation is difficult as private land owners have full power over their land. Conserving land for no monetary gain is difficult. This poses a challenge for securing land for conservation efforts in the country. There are two approaches to land conservation one being formal which requires adequate legislation and the other through working with communities. Mayor de Araujo also noted that the concept of conservation is appreciated by them as government officials but the greater challenges include lobbying the public into agreeing and seeing the benefits of the concept of reservations and biodiversity planning. Mayor de Araujo also added that the direction could perhaps be steered towards a 'people benefit' model which focuses highly on the human benefit of the concept.

Pemba Municipality

Pemba Municipality indicated that privatisation of certain areas seems to be a challenge in Pemba. Tourism operators have access to roads that lead to the seaside yet there are signs prohibiting big cars from entering. Currently coastal ecosystems such as dunes are damaged by driving and parking on them, this is against biodiversity conservation efforts. Other tourism sites, roughly two or three hotels have blocked cars on the beach and have assistance from government to help protect coastal ecosystems. Seafood harvesting is a major challenge as it is a food security measurement for communities and generates business for the local economy. Foreign investors pose a threat to critical biodiversity as some areas are privatised and this poses a challenge to the sustainable use of natural resources within the municipality.

Nacala Municipality

With existing legislation, both in the country and municipality, the constitution should theoretically allow the municipalities to declare conservation areas. There is however conflict with what happens on the ground and what is stated in policy, this the challenge. Enforcement agencies and the link with communities are a challenge.

Site Visits

In the afternoon participants were taken to two sites to observe areas subject to conservation planning and Biodiversity Stewardship. The following points were noted for each site:

Giba Gorge

Giba Gorge Environmental Precinct (GGEP) was established in July 2009 after being endorsed as a Special Rating Area (SRA) by eThekweni Municipality. The site was identified as a conservation area as it possesses critical ecosystems. An agreement was made between eThekweni Municipality and private land owners for the area to be used both for recreational and conservation purposes. The effective partnership between private landowners and the municipality has strategically made arrangements where landowners are required to pay an additional levy over their property taxes. This amount is used in collaboration with funds from the municipality to assist in the maintenance and management of the site. Through regulated meetings, staff from eThekweni Municipality and private landowners sit to discuss the implementation of a developed management plan. The management plan seeks to address issues pertaining to the eradication of alien invasive plants, fire management, recreational services and litter control. Fire management was a key discussion during this site visit as participants were interested in how the fire breaks are controlled. It was noted that the Municipality uses a tracer belt to deliberately burn grassland near private properties, this process is led by a well capitated fire management team.

Monteseel

Monteseel Conservancy is located between Drummond and Inchanga. The area is dedicated to conservation and biodiversity management through partnership between eThekweni Municipal departments and the local community bound by the Management Plans. The site visit was led by Mr Bheka Memela of eThekweni Municipality, EPCPD who is also part of the Municipal team that engage with various organisations and community members involved in the maintenance of the Monteseel area. Part of the Monteseel area is land that was given to the municipality through a private land owner to increase the land space available for the protection of the identified threatened vegetation. Certain portions of the land have been purchased by the municipality and the land purchased is uninhabitable land.



Figure 7: Participants were taken to site visits to observe the various plots of land dedicated for conservation.

Discussion:

- Pemba Municipality made mention of a challenge encountered with regards to the purchasing of land and the removal of the human population for the use of development. Apart from planning for development, Pemba indicated their interest to learn more of the process of purchasing land as a municipality for conservation purchases.
- Maintenance of the area is conducted by the Municipality through consultation with the local community.



Figure 8: Ecologist from eThekweni Municipality, Bheka Memela outlines the various roles played by the community surrounding the Monteseel area.

Day Two

Site One

Mariannhill Landfill Site

The second day of the exchange visit began at Mariannhill landfill site. The participants were hosted by Mr Richard Winn a specialist ecologist with the Durban Solid Waste Department. Mr Winn provided a brief background to the landfill site making special mention that the landfill site was previously a degraded valley and has been transformed into a rehabilitation area that includes a wetland. The Mariannhill landfill site is South Africa's first landfill site conservancy. Mr Winn explained other components of the landfill site including the various processes that occur. Mr Winn emphasised the importance of an area specific aspect to planning for a landfill site, this includes aligning processes with the country's existing policy. The landfill site has an impact assessment and a monitoring committee to track progress of the site. The landfill site receives approximately 800 tons a day of waste. He emphasised that a good waste management stream will attract good business and people. This requires good town planning processes. There has to be a link with economic development and the entire concept has to be holistic. This should be determined after conducting an impact assessment.



Figure 9: The Mariannhill Landfill Site.

Good landfill site management relies on a trust relationship between the Municipality and waste collecting businesses. Waste is weighed and observed critically to ensure the right waste is allocated at the right areas of the landfill site. Contribution from various experts has assisted in understanding the engineering aspects linked to managing odour and the carbon footprint dynamics. The landfill site is lined with different layers of materials to protect the natural environment from leachate. Mr Winn demonstrated the various materials used around the landfill site which are reusable and friendly to

the surrounding environment. One of the main processes occurring at the site is the capturing of methane from the site for use in a landfill gas to electricity plant located at the landfill. The landfill trucks used also run on the gas produced on site instead of diesel which cuts running costs. The site also makes use of 'living fences' using thorny plants and reeds and use nature to protect people where rats and maggots are controlled by the snakes which are then controlled with the birdlife in the conservation site.

A buffer zone is a legislated requirement for all landfill site in South Africa and precludes building of houses around the dumpsite. Various assessments such as air quality sampling are a requirement for areas around the landfill site. The presentation was followed by a discussion that allowed Mozambique delegates to provide the status of waste management process and landfill sites within their particular cities.



Figure 10: Participants were taken around the landfill site to learn about the various social, economic and environmental aspects of the landfill site.

Discussion

The following points were noted in the Discussion session:

- In Mozambique, law enforcement is a challenge. The priority is to provide housing for population and therefore houses tend to be built near landfill sites.
- Pemba Municipality has an arrangement with NGOs for recycling initiatives. The landfill sites are located in urban areas and recycling individuals sell the rubbish to the site. There is an issue in the relocation of the landfill site. The challenge of relocating the landfill site to a new area is accessibility, as it is muddy and prevents accessibility to the site. Mr John also indicated that they have attended workshops to understand the concept but at this stage it is all basic steps for Pemba Municipality.
- Industries are also locating close to the landfill which is putting pressure on the landfill site.

- In order to minimise fuel usage in transporting waste to the landfill site, it was recommended that Mozambique cities contract out service providers who deliver waste to the landfill site, this encourages small waste business for local communities that would ensure community support of the landfill.
- Nacala Municipality indicated that they have a landfill site and some funding has been acquired to rehabilitate the landfill site and build a natural fence using trees. A composting site is also going to be built on the landfill site.
- A key suggestion was made regarding the technical team back in the Mozambique cities to allow them to be exposed to the concepts that have been discussed in Durban on waste management and rehabilitating landfill sites. Mr Joao de Brito requested that technical expertise from Durban's landfill process is shared with Quelimane's landfill bid. The technical papers of the Mariannhill landfill site are also available on its website.
- A suggestion was made for the sharing of any documented information by eThekweni Municipality.
- The overall discussions ended with an agreement to liaise with eThekweni Municipality Mayor Gumede and waste management experts from eThekweni Municipality to invite them to travel to Mozambique for a site visit to assist in skills sharing regarding waste management. **Action:** The Mayor should be invited to Mozambique accompanied by DSW and UNEP. Documents will also be shared with Mozambique cities though they would require translation into Portuguese.
- **Action:** eThekweni Municipality should find out if there are translation facilities in the municipality.



Figure 11: The tour around the landfill site was led by Specialist Ecologist Richard Winn of eThekweni Municipality.

Site Two

eThekweni Municipality Solar Photovoltaic (PVC) Rooftop Project

Later in the afternoon delegates were escorted to Ushaka Marine World where they were briefed on the solar rooftop project led by eThekweni Municipality's Energy Office. The project was recently launched in January 2017. Mr Sbu Ntshalinthsali project manager of the project presented on the background of the project, the objectives, key sustainability objectives which include the estimated saving from the project and the Green House Gas (GHG) emissions reductions aspects of the project. The policy fits into the Municipality's renewable energy policy and has provided the Municipality with the opportunity to learn from the various technologies associated with green technology. Energy is generated through the solar panels that are placed on the rooftop of one of Durban's largest tourism attraction site. Inverters are used to convert the direct current to electricity.

The Solar Edge system used for the project allows for monitoring process to take place frequently allowing the Municipality to conduct further research in the area of renewable energy.



Figure 12: Solar panels installed on the rooftop at Ushaka Marine World.

Day Three

Palmiet Catchment Rehabilitation Project

Ms Zama Khuzwayo from eThekweni Municipality's CPB, EPCPD presented on the Palmiet Catchment Project. The project is a climate change adaptation orientated project aimed to improve efficiency of ecological infrastructure and build community resilience. Ms Khuzwayo indicated that project implementation has encountered challenges, some of which include change in capacitated staff and issues of accessibility as there are existing communities around the project area. Research has been conducted around the community regarding the relationship between the water and the community with through a partnership formed between Durban's University of KwaZulu-Natal and the Municipality.



Figure 13: Community Liaison Officer, Thozeka Ntlukwana introduces the Palmiet River Rehabilitation Project.

Ms Khuzwayo clarified that the key drivers of the project were based within the project areas, these include youth who pioneer the safeguarding of the rivers and educate the local community on the benefits of waste management around the banks and in the rivers. One of the key challenges experienced is the lack of general waste management within the informal settlements as storm water is contaminated by waste from households and industries.

The project is divided into three categories, one being governance, which includes built governance structures with the community to be responsible about the project and to ensure sustainability of the

project. A sense of ownership and involvement is felt by the community members involved in the project. The other two categories are biophysical and social.



Figure 14: The Palmiet River Rehabilitation Project is located near informal settlements where local community members have taken the initiative to actively manage the river.

Recap and Way Forward

The morning session was followed by a recap of the previous two days and a way forward. Before the recap of the previous days' exchange visit was delivered, Mayor Manual expressed his gratitude to UNEP (GAN) for creating the learning opportunity provided.

Quelimane

The landfill site was an eye opener that motivates them to explore the various initiatives for planning and implementation within the Quelimane municipality. The Municipality is willing to explore the experience and the linkages in the concept of a landfill site which brings about social and local economic benefits. The information shared by eThekweni Municipality has enlightened their perspective and Quelimane as a municipality request eThekweni Municipality's assistance and UNEP with regards to the methodologies used at the Marianhill landfill site.

Pemba

Pemba Municipality indicated that the privilege to have been exposed to the team of eThekweni Municipality and having to explore on site of the landfill site has been immensely beneficial, provoking thought into the extent of which some of the methodologies could be applicable to their own Municipality. Apart from the experience, methodologies and techniques shared during the exchange visit, there was a particular concept which flowed through most of the projects showcased by eThekweni Municipality which was the involvement of society and instilling ownership and highlighting the benefits of the project to the communities. Mr John also noted that the work implemented in Pemba lacks community engagement especially those in informal settlements. Mozambique needs to do more to get communities interested in projects and help them understand that they are part of the solution. Dr O'Donoghue suggested using the Pemba estuary settlement area as a point of engagement with the community as some officials have a personal connection with the area. Mayor Carimo could also be positioned as a local government coordinator to bring the Mozambique cities together.

Dr O'Donoghue wrapped up the session pointing out that between eThekweni Municipality and the Mozambique cities, there is similarity in demonstrating strong political leadership with well capacitated city staff which has influenced the way climate change work is being conducted within the Mozambique municipalities and eThekweni municipality. Thereafter Dr O'Donoghue summarised the key discussions from the previous exchange visit which took place in Mozambique in November 2016 and the following main discussions were noted:

- The possibility of involving other municipalities in Mozambique within the partnership to ensure that surrounding municipalities implement and plan on climate change and climate change related projects such as the ones showcased by eThekweni Municipality during this exchange visit.
- The ability of forming scientific partnerships with tertiary institutions to submit research proposals such as the EPICN proposal. Dr O'Donoghue urged delegates to take advantage of the opportunity and apply.
- The concept of community based adaptation projects pioneered by various community members proves to be an efficient approach to addressing issues of climate change.

- There were discussions on soil erosion issues and the use of maps to help identify and reduce the existing challenges whilst also preserving natural vegetation along catchment areas.
- Capacity building and raising awareness on communities and catchment areas was an essential approach.
- Suggestions were made regarding the formation of principals that could be key drivers in developing a Green Climate Fund proposal for a regional project.

With regards to forming further partnerships with neighbouring municipalities in Mozambique to build onto the partnership with eThekweni, Pemba, Quelimane and Nacala municipalities indicated that communication with their neighbouring municipalities has commenced.

The following key objectives were identified as a way forward after this exchange visit:

- **Action:** Ms Fezile Matandela will compile a report of the exchange visit.
- The Mozambique cities who are interested in submitting proposals for the Green Climate Fund (GCF) need to prepare concept notes which they will submit and present to the GCF. The proposal should include a feasibility study and pull in various expertise who are able to advise and locate the proposal within the countries priorities in terms of national policy.
- EThekweni Municipality indicated that they have engaged in a process of developing a concept note and perhaps sharing the proposal with Mozambique cities will assist in their way forward.
Action: EThekweni Municipality will circulate the concept note.
Action: Mozambique cities will translate the concept note into Portuguese.
- The concept note should be in line with African development perspectives, particularly issues of informal settlements.
- It was suggested to bring in Tanzania into the partnership with Mozambique and eThekweni Municipality in sharing implementation methodologies and techniques on projects themed around biodiversity, energy, solid waste, sea level rise and catchment management.
- **Action:** Quelimane will contact their national key person for their GCF application process through submitting a letter with the assistance of UNEP (GAN).
- A meeting on the partnership and the GCF proposal will be held during LoCS 2017 where mayors from the other Mozambique cities will be present together with eThekweni, Nacala, Quelimane and Pemba municipalities.
- With regards to the EPICN training, there is a possibility for regional training in 2018. A Southern African training session will primarily focus on local specific areas of focus.
Action: SOD will provide feedback on the formal stance of the EPICN training.
- Pemba Municipality will attend Resilient Cities Congress in Bonn. This could be an opportunity for the Municipality to be involved in the training provided a few days prior to the Congress.

END

Appendix

List of Participants

City	Name of Participant	Designation
Quelimane	Mayor Manuel de Araujo	Mayor and delegation leader
	Mr Joao de Brito	Director
	Mr Fernando Pequenino	Advisor
Nacala	Mr Momade Amade	Director and delegation leader
	Mr Adelino Emilio Cobre	Engineer
Pemba	Councillor Abdulcarimo Fadile	Climate Change Councillor:Waste Management & Water Supply
	Mr Armando John	Advisor to Mayor Carimo and delegation leader
	Mr Abdulremane Chaca	Director: Climate Change Unit
GAN - UNEP	Mr Essey Daniel	Project Manager
eThekweni Municipality	Dr Sean O'Donoghue	Manager: Climate Protection Branch (CPB)
	Ms Zama Khuzwayo	Climate Protection Scientist: CPB
	Ms Nongcebo Hlongwa	Climate Protection Scientist: CPB
	Ms Kathryn Kasavel	Senior Environmental Technician: CPB
	Ms Zodwa Ngubane	Specialist Ecologist: Biodiversity Planning Branch (BPB)
	Mr Bheka Memela	Specialist Ecologist: BPB
	Mr Bheki Mdletshe	Senior Environmental Technician: BPB
	Mr Cameron Maclean	Senior Specialist Ecologist: BPB
	Ms Natasha Govender	Senior Specialist Ecologist: BPB
	Mr Gerald Clarke	Regional Coordinator: BPB
	Mr Richard Win	Specialist Ecologist: DSW
	Ms Jo Douwes	Manager:Strategic Environmental Integration &Resilience Branch
	Mr Mazwi Mkile	Candidate Electrical Technician: Energy Office
	Ms Thozeka Ntlukwana	Community Liason Officer, Aller River Pilot Project
Central KZN Compact members	Ms Shannon Farnsworth	UMsunduzi Local Municipality (LM)
	Mr Mxolisi Ngubane	Conservation Planner, UMGungundlovu Dictrict Municipality(DM)
	Mr Masupha Mathenjwa	Environmental Manager, Ilembe DM
	Ms Noloyiso Walingo	Manager: Environmental Management, Ugu DM
	Ms Marc Hatting	Environmental Management Officer, Umngeni LM
	Ms Phumzile Mhlamvu	Environmental Officer, Umzumbe LM
	Ms Sharin Govender	Projects Manager: Environmental Planning, Umhlathuze LM
	Ms Tshepo September	Environmental Officer, Ray Nkonyeni LM
FutureWorks	Ms Fezile Matandala	DAC Secretariat: Coordinator

Programme

Global Adaptation Network (GAN) and Durban Adaptation Charter (DAC) Regional Knowledge Sharing Exchange Visit Programme

6th – 8th March 2017

Monday 6th March: Day 1, venue: Durban Natural Science Museum Research Centre, 151 K. E. Masinga Rd (entrance on Wyatt Road).

Morning:

07h30: Pick up from Belaire Suites Hotel (151 Snell Parade, Durban) and transport to meeting venue.

08h00 – 08h30: Introduction to GAN-funded DAC exchange visit and confirmation of aims and planned outcomes (Sean O’Donoghue).

08h30 – 09h00: setting the scene - Durban’s 100 Rockefeller Resilient Cities Programme experience (Joanne Douwes).

09h00: Tea.

09h30 – 12h00: Introduction to conservation planning using participatory approaches, conservation planning tools and legislation: Planning for biodiversity in Durban: the Systematic Conservation Assessment (Cameron McLean) and Establishing Urban Nature Reserves (Natasha Govender and Bheka Memela); 2 x 20 min presentations + 20 min Q&A.

Videos: Giba Gorge Environmental Precinct (10 minutes); Biodiversity Impact Assessment (10 minutes).

Environmental Protection – Town Planning Solutions (Gerald Clarke) and Biodiversity Stewardship-Conservation in partnership with the landowners (Zodwa Ngubeni); 2 x 20 min presentations + 20 min Q&A.

12h00 – 13h00: Lunch.

13h00: Courtesy meeting with Mayor Gumede: Mayor Rui Chong Saw, Mayor Manuel de Araujo and Councillor Abdulcarimo Fadile will be escorted by Dr Sean O’Donoghue via a City Fleet shuttle to meet eThekweni Municipality Mayor Zandile Gumede. The shuttle will then transport them to the site location to re-join the rest of the delegation.

Afternoon: 13h00 – 16h30: Site visits to Giba Gorge, Monteseel and Paradise Valley (time permitting).

Tuesday 7th March: Day 2, venue: Mariannhill Landfill Site

Morning:

07h30: Pick up from hotel and transport to Mariannhill Landfill Site.

08h00 – 15h00: Environmentally sensitive solid waste management, including water remediation through wetland construction, landfill gas to electricity and recycling. **PARTICIPANTS WILL BE WALKING THROUGH BUSH AND POSSIBLY MUDDY AREAS AND SUITABLE CLOTHING, SHOES, HATS AND UMBRELLAS SHOULD BE BROUGHT WITH.**

10h00: Tea.

12h30 – 13h30: Lunch. Afternoon:

15h00: Return to uShaka Precinct.

16h00 – 17h00: Energy Office mitigation projects and the uShaka Solar Panel Site Visit (Magash Naidoo, Energy Office).

17h15: Transport to Suncoast Casino for supper event.

Evening **18h00:** Welcome Supper Event at the Havana Grill, Suncoast Casino.

Wednesday 8th March: Day 3, venue: Durban Natural Science Museum Research Centre

Morning:

08h00: Pick from hotel and transport to meeting venue.

08h30: Review of past two days' workshops, possible action items.

09h30: Project planning meeting including progress report from first exchange visit, planning for Resilient Cities 2017 and EPIC-N.

10h30: tea.

11h00: site visits to Palmiet River Rehabilitation and/or Aller River Projects (Zama Khuzwayo).

Participants will travel to the Eco-champ's office at the Sizakala Centre in Clermont with the Aller River Pilot Project Community Liaison Officer Thozeka Ntlukwane (+27 82 431 9945), and 3 Clermont eco-champs, Nokuthula Mkhize, Silindile Bhengu and Silindile Sithole.

12h00: Travel by vehicle and road through Clermont, passing some of the schools where the eco-champs have Eco-Clubs, to the lower section of the Aller River near 31st Avenue, Indunduma. Participants will observe the condition of the river while the eco-champs explain the importance of community awareness raising, door-to-door visits, school's events and eco-clubs, Kidz Clubs, clean ups, and monitoring and reporting.

12h45: Travel by vehicle to upper Aller River, New Germany, observation and explanation by eco-champs of IAP clearing done by the DUCT clearing team.

Afternoon:

13h00 – 13h45: Packed picnic lunch next to the river at Louisa Place, New Germany.

14h00: Debriefing at Gateway or Pavilion Centre.

17h30: Return to hotel.
