



SPECIAL NEWS BULLETIN EDITION

ICLEI Africa and local governments hold pioneering meeting on ecosystem approaches to urban transformation in a changing climate

In an urbanising world, where more than 50% of the population already lives in cities, addressing the effects of climate change at the local level is critical to saving lives and livelihoods as well as to maintain social and economic well-being. There are numerous different approaches that can be taken and a suite of policies, tools and on the ground adaptation actions will be required to ensure overall resilience. One of the approaches in this suite, is an ecosystem-approach. **Ecosystem-based adaptation is the use of biodiversity and ecosystem services as part of an overall adaptation strategy to help people to adapt to the adverse effects of climate change.** ICLEI – Africa advocates for Ecosystem-based Approaches as critical on the African continent, where urbanisation rates are among the highest in the world, and as a strategy that offers the potential for multiple co-benefits for job creation, cost-savings, and no-regret adaptation options.

The role of ecosystems based approaches is increasingly recognized as an important aspect in the context of urban adaptation and DRR, but it is not yet well defined or a usual part of city land use planning. Climate change adaptation in itself is a relatively new field and there is an acknowledged need by local authorities for direction around assessing meaningful impact of adaptation actions and for frameworks to guide decision-making and M&E. This is particularly so, for the even newer field of work around utilising ecosystems and natural infrastructure to reduce vulnerability and risks in an increasingly uncertain climate in highly populous areas.

The Climate & Development Knowledge Network (CDKN) recognised this challenge posed by ICLEI – Africa as one that requires some investigation, experimentation and innovative thinking and awarded funding to support an innovative process under the Innovation Fund, Round II.



Everyday untransformed environments become more scarce, so the services they supply are increasing in value

- Myles Mander

Key elements and steps of the initiative

Desktop reviews, site visits and contextualised case studies for three of the five cities fed into a Background Paper that was drafted preceding the workshop and which described key concepts and good practice for prioritising functioning ecosystem management for adaptation and DRR in an urban context, particularly in relation to the water sector, of job creation, linking knowledge with action, the science-policy interface and the role of M&E. It provided relevant background case study reports for three cities, examining processes, challenges of complexity, competing values and beliefs, and positive synergies. It can be downloaded from the ICLEI – Africa and Durban Adaptation Charter websites.



The 3-day Workshop The key unlocking mechanism within this project was the innovation workshop. In June 2013 ICLEI Africa and partner city eThekweni Municipality, hosted a three-day innovative workshop, bringing together urban practitioners and policy makers from five southern Africa cities (eThekweni and Tshwane in South Africa; Mutare in Zimbabwe, Dar es Salaam in Tanzania, and Gaborone in Botswana) and thought leaders – Dr John Colvin and Myles Mander - to draft a “framework” for decision-making criteria around Ecosystem-based Adaptation and ecosystems management for Disaster Risk Reduction (DRR).



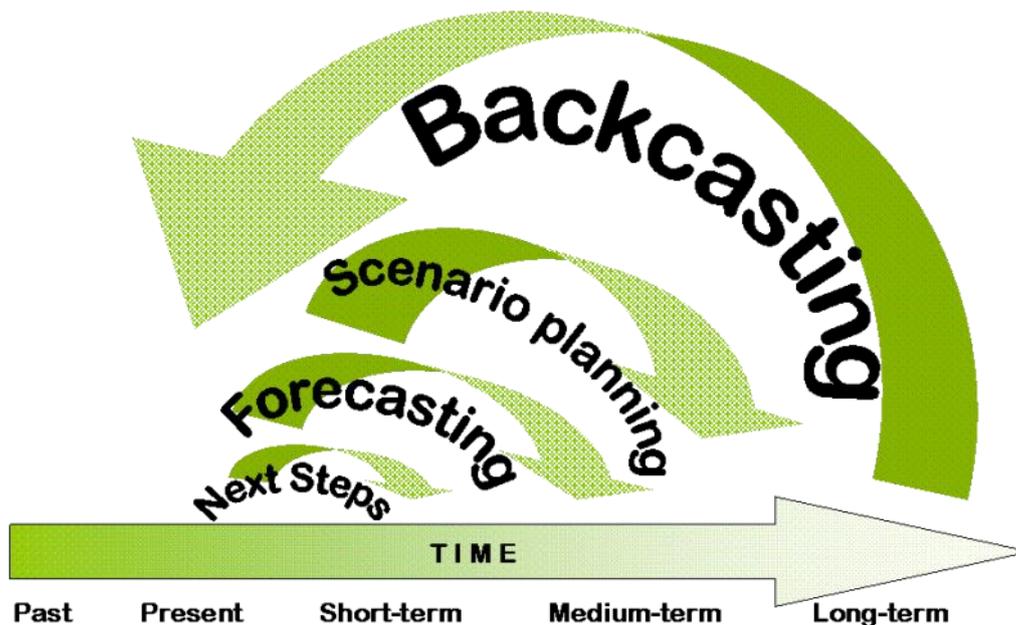
The “framework” (or help guide) that emerged out of the workshop provided insights into how EbA can be supported through the dynamic development of normative pathways based on a set of core principles. The usefulness of this dynamic framework is that it supports a range of questions that can be used to shape EbA initiatives as well as measure the success of these initiatives as they roll out, informing process and presenting proxy indicators.

The emergence of the social learning based Community of Practice (see www.durbanadaptationcharter.org/blog) is a key enabler in the global operationalization of the Durban Adaptation Charter for Local Governments (the global commitment for cities on climate change adaptation), contributing to increasing capacity to prioritise the role of functioning ecosystems and climate change adaptation in general. Discussions focussed in on urban areas, exploring the vast potential benefits that might be gained from using the multiple functions performed by large, often contiguous and interconnected, natural ecosystems such as soils, wetlands, catchments and coral reefs. The workshop was both a learning process for many stakeholders and a back-casting process to determine what would constitute effective EbA, and how one would monitor its effectiveness. (See Principle Six of the DAC: <http://durbanadaptationcharter.org>)



Participants of the ICLEI Africa Workshop: “Ecosystems-based approaches to building resilience in urban areas: Making the case for a framework for smart decision-making criteria”.

The Innovation Workshop



What made this an innovative process?

The innovative process involved bringing two processes together:

- i) **Backcasting**, which is a creative process of envisioning alternative futures and creating a shared road map for realising these futures; and
- ii) **Change Laboratories** (theories of Engeström), which enable expansive organisational learning through processes of widening of collective expertise by means of debating, negotiating and hybridising different perspectives and conceptualisations in context and through practice.

Backcasting is used in complex situations with many stakeholders where, although there is a desired future vision, it is unclear how to reach this. It leads to plans for implementation of the actions needed and participation is an essential feature. It can be characterised as a social learning process and the long term perspective makes it possible to let go of the present way of meeting certain specific social needs.

The main characteristic of the backcasting approach to involve stakeholders in the development of a future long term vision. Then all participants work together and in smaller contextually relevant groups to translate this back to actual actions and indicators to monitor, evaluate and guide these actions. (<http://www.transitionnetwork.org/ingredients/starting/backcasting>)

The Innovation Workshop continued

Day One involved a “Culture of Sharing and Inspiration”. By sharing innovative new approaches to managing urban areas, including the potential of ecosystem-based adaptation approaches, the possibility of alternative futures were opened up. Rather than starting with the challenges and limitation of the current situation, this process laid the seeds for visioning a new future and the steps needed to get there. The “Background Paper was presented and there was a half day inspirational field-visit to an EbA project related to water and waste.

Day Two was “Planning the Future of resilient urban systems”. It started with a synthesis of the process that was being followed as well as a review of the definitions, principles and possible future pathways/ states that had been shared the previous day. This led into a more explicit presentation on ecosystem services and a systems approach to thinking about adaptation within an ecosystem services narrative. This required the city groups to go through a backcasting process focused specifically on a few key opportunities within their cities.

The final day of the workshop involved “Action Plans and Learning Processes”. Taking the insights from the backcasting exercise process forward, the participants built a process of concretising and testing the model i.e. of “ground-truthing” the criteria created in the backcasting process. It provided an opportunity for the city groups to report back on their backcasting exercise. In particular the groups were asked to expand on the principle that informed their work and the criteria or indicators that they would use to measure progress and success of EbA in their particular contexts. These report backs were followed by a review and mapping of the principles that were informing both the local city work, as well as the broader work on ecosystem based adaptation.

Communities of practice are “a new tool for managing in a fast-paced, fluid environment where they need to reach beyond traditional organizational boundaries to solve problems, share ideas, and develop peer and stakeholder relationships”
- Snyder & Briggs, 2003, p. 3

The final component of the workshop focused on building communities of practice within the broader landscape of EbA practices as well as expansive learning processes that may be useful for taking this work forward. More specifically, possible areas for future collaboration were identified with the strongly expressed desire from all present to take the processes that had been started forward through further work together. This will be done through the Communities of Practice that is hosted on the DAC website.



Field visit on day one to Mariannhill Landfill site (<http://www.afristruct.co.za/landfill.html>) The site is believed to be the only operational landfill in South Africa to have achieved National Conservancy Status.



Field visit on day one to the Community Ecosystem Based Adaptation (CEBA) Wildlands Conservation Trust/eThekweni municipality project (<http://durbanceba.org/ceba-credits>).



Feedback by Simbi Zondai, Mutare

Lessons Learned

What have we learnt and how does this help local governments?

Providing practical guidance on decision making for CCA (and specifically to EbA) is complex, if not daunting. There are many dimensions to adaptation and there are long timeframes to be taken into consideration. Adaptation has to be tailored specifically to the context and to the challenges posed; measuring “are we doing the right things and doing things right” has wide interpretations; indicators of success relate to both institutional processes and actions - results based outcomes and which operate at different scales; and there is a shift from adaptability to acknowledging the importance of “transformative resilience”. There will always be gaps, methodological pitfalls and nuances to be considered. This points to the importance of developing responsive and thus flexible frameworks that will require ongoing knowledge development and thus learning if we are to develop EbA processes and actions that respond appropriately to the changes in our societies, and particularly the changes likely to be exacerbated by climate change.

- The sheer complexity of natural/social systems and the uncertainty of how different systems change in the context of climate change can be so daunting that they are often ignored in the development of city level planning and performance management.
- Current key performance indicators and other management metrics used by municipalities do not seem to take a systems approach and if they consider climate change adaptation at all, it is dealt with in a piecemeal way.
- We need indicators that focus on both, i) planned adaptation to climate change and ii) the actual state of adaptation achieved. Indicators are needed to measure progress and performance in building adaptive capacity (process-based indicators) and delivering adaptation actions and outcomes (outcome-based indicators).
- While broad (proxy) indicators are useful in terms of guiding responses, city specific groups developed Indicators that were influenced by the specific contexts within which they were working.



The Gaborone, Botswana team: Samuel Aaron, Bashemi Phillime (National Government representative), Bethel Koonste and Meshack Keabetswe



Simbisai Zhanje (CDKN) with the team from Zimbabwe: Morgen Hungwe (National Government); Simbi Zondai, Donaldson Nyatoti, and Lawrence Nyagwande (Mutare)

The rationale for a “framework”

There is an acknowledged need to raise Local government understanding of the importance of natural resources to the functioning of urban areas. There is also a need to bring in an awareness of climate change adaptation. Given the threats to ecosystem services on the one hand, the multiple benefits to society of ecosystem services on the other, and the importance of adaptation to environmental changes, it is important that there be the ability to: i) report trends in the quantity and quality of ecosystem services, and (locally appropriate) progress in sustaining them; ii) understand how effectively adaptation keeps development on track; and iii) understand how equitably adaptation costs and benefits are distributed.

These are enormous challenges since adaptation “plans and policies now emerging are largely in their infancy and relatively untested” (Spearman & McGray 2011, 7). Testimony to the growing importance of monitoring and evaluation of adaptation initiatives is the “growing need for frameworks and tools that enable organisations to track and measure the outcomes of adaptation interventions” (Brooks, 2011, 3; See also South Asian Evaluation (SEA Change): www.seachangecop.org). Likewise, approaches to analyse information about ecosystem services and apply it to climate change are relatively new (Spearman & McGray 2011, 41) and evolving indicator frameworks are generally under-developed (UNEP-WCMC, 2009).

Tracking and allowing assessment of the contribution of ecosystem-based adaptation to broader issues of human well-being such as poverty alleviation, reduction and economic growth, need not add yet another layer of complexity but rather should be incorporated into local area and development planning.

Lessons Learned *continued*

The 3-day workshop sought to increase common understanding (at local and national levels) of the imperative of: i) valuing the ecosystem goods and services produced by each city's natural capital, appreciating that these are not limitless; ii) of the groups of people benefitting from these goods and services; and, iii) the sustainable development objectives that EbA strategies can address. The outputs of the workshop were integrated with lessons learnt from the review of international best practice and provide the basis for a developing decision-making framework for EbA applicable to the African context.

The group also explored the critical governance issues that need to be in place in order to implement EbA – the “process” indicators. Referred to here are the agents, systems and institutions that govern access to resources – but often do not represent the poor – and that enable and facilitate EbA planning and management. By way of example, it is necessary to ensure that: i) planners and policy-makers appreciate the value of ecosystem services and gain the knowledge and skills to make informed decisions about inevitable trade-offs; ii) that they prioritize the role of functioning ecosystems as core municipal green infrastructure; iii) that plans and actions are part of an integrated, coordinated and participative city-wide initiative; iv) that city managers and officials establish put in place the foundations for planning and implementation (gathering of data; history; vulnerability assessments; scenario planning, etc.); v) that there is better cross-sectoral collaboration on analysis, planning and implementation, changing how we programme rather than what we programme; and vi) that government budgets (at all tiers) allow for allocations to ecosystem management functions. EbA that can also meet the broader needs of the urban poor is dependent on such improved institutional capacity and urban governance.

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UNEP (2012). “Using ecosystems to address climate change – Ecosystem based adaptation”, Regional Seas programme report, 2010.



The Dar es Salaam team: Juliana Letara (Kinondoni); Photidas Kagimbo (Temeke) and Gonsalves Rutakyamirwa (Kinondoni).



The Tshwane, South Africa team: Ernst Wohlitz, Mercedes Mathebula and Ernst Lodewyk Venter.