iCoast Research Brief No. 2, March 2014

Preparing for Climate Change

A Climate Development Future for Coastal Kenya

Key messages:

1. In Kenya, the policy landscape is conducive for the incorporation of CCD into development projects at the coast. Mechanisms exist that support CCD,e.g.ICZM,Co- management, and Payments for Ecosystem Services (PES). They need strengthening for effectiveness.

2. Political support is essential for the mainstreaming of climate change and poverty reduction in all policy areas if CCD is to be realized.

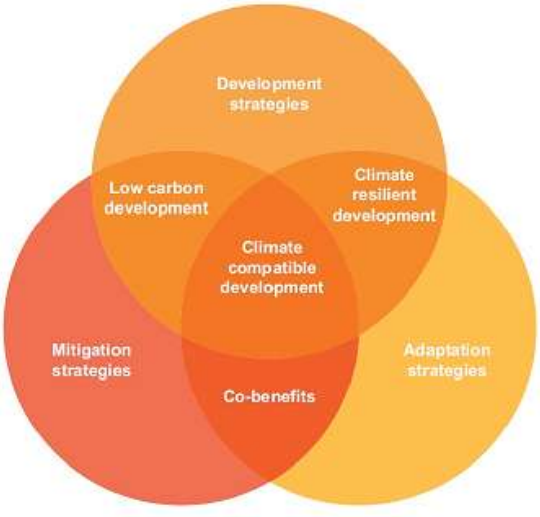
3. Most natural resource management policies in Kenya are currently under review following the new Kenya Constitution 2010. This raises opportunities to strengthen policy support for CCD.

4. The promotion of community participation in the management of natural resources, for example through CFAs and BMUs, can help achieve CCD in Kenya. Greater support, both financial and technical, is needed to strengthen co-management initiatives.

Authors: Caroline Wanjiru, Kenya Marine Fisheries and Marine Research Institute (KMFRI), carolwanjiru80@gmail.com Fiona Nunan, Birmingham University; Mark Huxham and Ingvild Harkes, Edinburgh Napier University

Climate Compatible Development (CCD) refers to an integrated development strategy that takes the threat posed by climate change seriously. In the words of the originators of the term it is "development that minimises the harm caused by climate impacts, while maximising the many human development opportunities presented by a low emissions, more resilient, future" (Mitchell and Maxwell 2010).

Related terms such as '*climate proofing', 'climate smart'* and *'climate change adaptation mainstreaming'* apply to adaptation (preparing for the effects of climate change) and to development. CCD however goes a step further and includes mitigation strategies in the mix of the three dimensions of *adaptation, mitigation* and *development* (Fig 1). Climate compatible development therefore asks policy makers to consider 'triple win' strategies that encourage low emissions development that in turn will lead to a low carbon climate resilient development (Mitchell and Maxwell 2010).



Climate Compatible Development. Reproduced from Mitchell and Maxwell (2010)

Getting there – How can CCD be achieved in Kenya?

For CCD to be realized in Kenya both institutional and legislative support are needed. Many current policy approaches already have the potential to contribute to mitigation, adaption and development; the challenge is to co-ordinate their implementation. This policy brief explores some of the existing mechanisms that can be used to help achieve CCD. These include:

Integrated coastal zone management

The *Integrated Coastal Zone Management Plan 2011-2015* provides a framework for coastal planning with explicit reference to managing the impacts of climate change (adaptation), encouraging equitable sharing of the benefits of growth (development) and mandating the restoration of coastal habitats (which could be mitigation if these involve carbon sinks). One of the key objectives is to develop and implement a strategy for protection of the coastal area against the impacts of climate change.

Climate change mainstreaming

The National Climate Change Action Plan (NCCAP) 2013 - 2017 analyses climate change issues and provides clear steps to tackle climate change in Kenya. It has 8 sub components including a National Adaptation Plan which will be anchored in the low carbon climate resilient pathway. County stakeholders will develop adaptation action plans based on this guidance.

As Kenya moves to achieve its Vision 2030development goals, it is expected that greenhouse gas (GHG) emissions will rise unless a dynamic mechanism is put in place to counter this. The National Climate Change Action Plan addresses the options for a low-carbon climate resilient development pathway.County governments are now enabled to mainstream climate change at the local level and design county level climate change action plans. These will need to be coordinated with other coastal zone management plans.

Environmental Impact Assessment (EIA)

For most projects in Kenya, EIAs are mandatory including those that involve major land use change (Environmental Management and Coordination Act 1999). The anticipated effects of climate change need to be reflected in the design of major projects and EIA regulations should include adaptation measures. The 2003 EIA regulations and guidelines need revision and include mitigation measures where possible, for example by protecting the carbon storage capacity of coastal ecosystems. The revision should also include guidelines and tools to protect the adaptive capacity of coastal ecosystems and settlements.

Box 1: Kasigau Corridor REDD+ Carbon Project

The establishment of the Rukinga Wildlife Sanctuary in 1998 in Taita Taveta County led to the return of many species that disappeared due to deforestation. In 2009, the sanctuary was certified as a REDD+ Carbon project under the Voluntary Carbon Standard and the Climate Community and Biodiversity Alliance. The project provides and income to the community, government and local landowners for protecting their land instead of destroying it.

The current protected area covers over 500,000 acres with a population of about 120,000 people. It is expected to offset circa 1 million tons of CO_2 emissions per year for the next 30 years. The carbon funds are used to provide education, alleviate poverty, and improve environmental governance. Mitigation activities include the replanting of trees by the community. Sustainable charcoal production is promoted as well as solar lights to replace kerosene lamps. The production of eco-garments, soap and handicrafts provides alternative sources of income.

Payment for Ecosystem Services (PES)

PES schemes provide an incentive for conservation by paying the providers of an ecosystem service (such as farmers in a watershed). These payments come from local or international beneficiaries. The ICZM draft policy 2012aims to achieve sustainable economic development in coastal areas, including the promotion of market based instruments for PES. Early examples of this approach in Kenya are encouraging (Box 1).

These mechanisms can be used to compensate in cash or kind for the protection of key ecosystem services including carbon capture and storage and watershed protection. The payments made to the sellers (individuals or communities) can be used to enhance local development as well as improve livelihoods.

REDD+

The international Reducing Emissions from Deforestation and Forest Degradation (REDD) programme aims to create a financial value for the carbon stored in forests, offering incentives for developing countries to reduce emissions from forested lands and invest in low-carbon paths to sustainable development. REDD+ goes beyond deforestation and forest degradation, and includes the role of conservation, sustainable management of forests and enhancement of forest carbon stocks.

Figure 1Gazi (Makongeni) planting group shot (by Mark Huxham).

Land tenure

The current land tenure system in Kenya acknowledges individual land ownership at the expense of communal rights over land. This has weakened the traditional institutions and uncertainty about land rights among communities along the coast. This has contributed to weakened local resource management and unsustainable exploitation of resources, exposing these communities to climate variability.

The2012Kenya Land Policy stipulates that land tenure issues will include historical claims (from before community land was dispossessed), consultation with local people about settlement schemes and land use projects, and the sharing benefits of these resources with the communities. Clear land tenure systems and collective management will support the sustainable use of coastal resources and protection of key coastal ecosystems. This will enhance local livelihoods.

Protected area status

Some coastal ecosystems in Kenya are designated Marine Protected Areas (MPAs) managed by the Kenya Wildlife Service (KWS). These MPAs are important tourist attractions and generate fees for the KWS. To motivate the communities living around the MPAs to cooperate in the conservation efforts, part of these fees could be invested in community- and livelihood projects.

The KWS has adopted a more participatory approach in Community Conservation Areas (CCAs) where communities designate their own protected areas. This creates enhanced welfare and equity among community members.

Co-management of natural resources

Co-management structures allow for communities, the private sector, NGOs and the government to collaboratively work on coastal conservation, sustainable resource utilization and the sharing of benefits that accrue.

The Forest Act 2005 ushered in the prospect of co-management of forests in Kenya through Community Forest Associations (CFAs). Although the Kenya Forest Service retains the forest resource ownership, the CFOs participate in the conservation and management of the forest and benefit from the resources. One mechanism through which communities can benefit is a PES scheme. The Mikoko Pamoja project, for example, sells carbon credits from the mangrove forest in Gazi Bay to fund conservation and community development (see www.eafpes.org).

Since 2007, co-management of marine resources is facilitated by the Beach Management Units (BMUs), (Box 2).

A next step, adaptive co-management, aims to reduce vulnerability and strengthen the adaptive capacity of the ecosystem and management.

Box 2: Beach Management Units

In 2007, Beach Management Units were established to allow co-management of coastal resources. This allowed for decisions on fisheries policy and management to be taken on the local level. The Fisheries Department plays a supportive role.

Co-management fits into the ICZM policy framework and supports:

(a) Sustainable use and development of the fisheries sector.
(b) Poverty alleviation and improved livelihoods and health.
(c) Empowerment of local communities by democratic participation and improved self-reliance.
(d) Acknowledgement of all groups working in fisheries related business, including women.
(e) Improved local capacity for the effective management of fisheries in collaboration with other stakeholders.

Ecosystem-based approaches

The *National Environmental Policy 2012*aims to "Ensure a better quality of life for the current generation without compromising the quality of life of future generation through sustainable management of the environment and natural resources."

The Ecosystem Approach was defined by the Convention on Biological Diversity (CBD) and refers to the recognition and integration of ecosystem processes, interactions (e.g. nutrient flows) and structures (e.g. species) rather than on the single components. The definition includes humans as key components of ecosystems; it supports fair and equitable benefit sharing, and underlines the need for adaptive management. This means that management can change in response to unpredictable and non-linear changes in ecosystems. The official endorsement of ecosystem-based management provides a useful platform for CCD as adaptive management is a key tool in reducing vulnerability to climate change impacts.

Embedding CCD in Kenyan policy

Strong government leadership and recognition of the need for adaptation are important drivers for CCD (Ellis *et al.* 2013). Challenges include a lack of awareness and limited state capacity to respond and implement strategies. There are clear opportunities in Kenya to strengthen CCD. One of these is the on-going review of current policies to align them with the Kenya Constitution 2010, the devolved government structures, and realities at the local level.

The review of the Forest Act and the Environmental Management Coordination Act (1999) are good examples of this process and a public consultation is expected to pave the way for the inclusion and re-enforcement of CCD principles in these policies.

In Kenya, many policies and laws have the potential to influence CCD in the coastal zone. Analysis of six themes central to CCD across a wide range of Kenyan policies shows how there is considerable implicit statutory support for CCD as well as excellent scope for policy complementarity (Table 1).

There are extensive areas of overlap and synergy between different policies. In particular the importance of facilitating local participation in and benefit from policy is clear in most of the policy instruments.

Sector	Climate change adaptation/ mitigation	Policy integration	Education	Economic growth	Participation/ equality	Ecosystem conservation/ restoration
Climate change	√	√				
Coastal zone planning	√	√	√		√	√
Development			√	√	√	
Energy	√			√		
Environment		√	√		√	√
Fisheries					√	√
Forests	√				√	√
Land			√		√	
Planning				√		√
Tourism	√			√		

Table 1 summary of the key themes drawn from policy relevant to nine different sectors.

Challenges of implementing CCD in Kenya

Kenya has many good policies on the management of natural resources but there have been challenges in implementation, which include:

- Overlap and lack of coordination: Coastal zone management and climate change mainstreaming require multi-sectoral and multi-stakeholder commitment at multiple levels of governance. Bringing in a social component on development and poverty alleviation adds a layer of complexity, but essential in delivering on CCD.
- The cost of co-management: The formation of CFAs and BMUs is expensive and currently left to communities who must seek technical and legal assistance to develop management plans and user agreements. It is often difficult to do this without external funds to facilitate the process.
- Competition over coastal resources: Business interests and from the tourism industry in particular leads to intense competition for land use. To benefit from the high potential of tourism whilst achieving CCD objectives, eco-tourism and perhaps PES mechanisms should be explored.

Recommendations

1. **For ICZM policies to be effective, an ecosystem-based approach is essential, including adaptive management structures. This means strengthening the capacity of stakeholders and building resilient ecosystems that can respond to the effects of climate change.**

2. **The costs for communities to participate in co-management need to come down through support from government and NGOs.**

3. **Climate change impacts can now be anticipated and the impacts of major projects on adaptation and mitigation should be assessed as part of the EIA process. There should be a strong presumption against projects that may bring short term gains but result in long-term vulnerability.**

4. **The alignment of Kenyan policies on natural resources with the new Constitution of Kenya 2010 presents a unique opportunity for incorporating CCD principles and to address devolution. A public consultation in this review is essential.**

5. **CCD a new concept. Lead agencies guiding coastal development are the National Environment Management Authority (NEMA)and the Coast Development Authority (CDA). Relevant staff from these two organizations should be trained on CCD after which they should become trainers for the other institutions and organizations.**

References

Ellis, K., A. Cambray and A. Lemma (2013) *Drivers and Challenges for Climate Compatible Development*, Climate and Development Knowledge Network, London.

Mitchell, T. and S. Maxwell (2010) Defining climate compatible development, *Policy Brief November 2010/A*, Climate and Development Knowledge Network, London.

The *i*Coast project is funded by the Climate & Development Knowledge Network (CDKN) and carried out by Edinburgh Napier University (lead), LTS International, Birmingham University in the UK, the Kenya Marine and Fisheries Research Institute (KMFRI), and Ruhuna University in Sri Lanka, in collaboration with Ecometrica and the Environment Management Group. Some of the issues in this document were discussed during the 1st Regional Workshop on CCD/PES that was organized by KMFRI in Mombasa through financial support from the Western Indian Ocean Marine Science Association (WIOMSA) Grant No. MASMA/Workshop/2013.03

For more information, contact: Dr Ingvild Harkes, *i*COAST project co-ordinator at Edinburgh Napier University, email: i.harkes@napier.ac.uk.

This document is an output from a project funded by the UK Department for International Development (DFID) and the Netherlands Directorate-General for International Cooperation (DGIS) for the benefit of developing countries. However, the views expressed and information contained in it are not necessarily those of or endorsed by DFID, DGIS or the entities managing the delivery of the Climate and Development Knowledge Network, which can accept no responsibility or liability for such views, completeness or accuracy of the information or for any reliance placed on them.