

# Making the invisible visible

## The Role of Impact Assessments in Climate Change Adaptation Measures



## Making the Invisible Visible

### The Role of Impact Assessments in Climate Change Adaptation Measures

#### The need to assess the full range of costs and benefits of planned adaptation measures

This paper highlights the need to incorporate Ecosystem-based Adaptation approaches as vital components of adaptation strategies. It also calls for the establishment of mechanisms that help to avoid adverse environmental impacts resulting from well-intended adaptation projects, which in the long run might lead to mal-adaptation.

Impact and vulnerability assessments are practical tools that can help to make invisible environmental services visible, and therefore help to judge how ecosystems can contribute to climate resilience. They can be applied throughout the adaptation planning cycle.

#### What do we mean by making the invisible visible?

For a very new issue such as climate change adaptation, solutions can remain elusive once problems are identified. Especially in addressing climate change impacts, it is important that at the earliest stages, the wide range of options for adaptation are considered and compared for both their positive and negative impacts. Unfortunately, this strategic analysis is not uniformly performed yet by authorities or demanded by donors.

Wetlands and other ecosystems make powerful contributions to increasing resilience to climate change through their role in the mitigation of floods and droughts, protection against storms and prevention of erosion, among other functions. Many of these environmental services are not directly visible or known and therefore overlooked when no proper assessment of these and other options is carried out.

Thus Wetlands International calls for the adoption of (strategic) impact assessment tools as mandatory elements of proposals that are submitted to the Adaptation Fund. We believe that full assessment of costs and benefits of different adaptation strategies—including those related to ecosystem services—is crucial to prioritize actions and reduce costs. It also offers a mechanism that aids the development of integrated and complementary adaptation approaches.

## What is not visible?

### Environmental benefits and services are not visible.

Sustaining and restoring wetlands is a cost-effective strategy for climate adaptation with strong benefits for poverty reduction and sustainable development. Reefs, mangrove forests and inland wetlands in arid regions can play a very cost-effective role in attenuating the impacts of extreme weather events such as hurricanes and cyclones, extremes in precipitation and increases in evaporation due to higher temperatures. Efforts to provide protection via embankments, dams or breakwaters may still be needed, but their effectiveness can be improved by combining these with often less expensive measures such as wetlands conservation.

### Costs and benefits of adaptation options are not always visible

Ecosystems such as mangroves and sea-grasses help to bind marine and terrestrial sediments, reducing coastal erosion and supporting clear offshore waters that are favourable to corals. Yet, the ecosystem services provided by mangroves are not always considered in the process of mangrove conversion. For example, villages in Bhitarkanika, India, suffered higher losses where they were not sheltered by mangroves but by embankments, and fared best where they were protected by mangrove forests during a large cyclone in 1999<sup>1</sup>.

### Local stakeholder opinions and perspectives are not visible

The relationship between ecosystems, health, human well-being and economic growth has been noted by many international agreements and fora. Sadly, this repeated acknowledgement has had an insufficient impact on the levels of engagement, especially for poorer local communities when confronted by decisions that impact ecosystems. Procedures that give local people and especially women a voice in planned adaptation are needed.

---

<sup>1</sup> Badola R, Hussain SA. 2005. Valuing ecosystem functions: an empirical study on the storm protection function of the Bhitarkanika mangrove ecosystem, India. *Environ. Cons.* 32: 85-92  
Das S and Vincent JR. 2009. Mangroves protected villages and reduced death toll during Indian super cyclone. *Proc. Natl. Acad. Sci USA* 106:7357-7360

## What can be done about this?

### Increasing Visibility and Reducing Vulnerability

#### Tools for selecting the best solutions

Strategic Environmental Assessment (SEA) helps to identify the role that ecosystems play in attenuating climate impacts during early-stage vulnerability assessments. Environmental Impact Assessment (EIA) ensures that proposed adaptation actions don't inadvertently lead to increased climate vulnerability due to the loss of ecosystem functions.

#### Tools for identifying all impacts

A major difference between both assessment tools is that SEA takes place at an earlier stage in the planning process, when only the problem has been identified. SEA also examines the impacts at a wider geographical and time scale, not just at the project area.

#### Tools for involving all stakeholders

SEA also encourages the participation and sampling of local communities to ensure they are engaged in the decision-making process. Despite the name, it must be made clear that one of the key purposes of SEA is to ascertain the sustainability of projects or policies. This means they do not (have to) focus solely on the environmental component but can and should cover the social and economic issues.

## Brief assessment of SEA and EIA within Adaptation Fund Policies and Guidelines

1. The Adaptation Fund has very limited policies and guidelines to ensure project impacts are given full consideration. The World Bank, serving as trustee for the Adaptation Fund, has many well-developed social and environmental policies, and is currently scaling up its use of SEA. There could be arguments made for the Fund to consider some of the environmental safeguards used by the World Bank or even other Multilateral Implementation Entities such as UNDP and UNEP.
2. The current Operating Policies and Guidelines of the Adaptation Fund are overly vague and provide no guidance to Multilateral Implementation Entities (MIEs) and National Implementation Entities (NIEs) on the use of environmental assessments.
3. The Results Based management framework of the Adaptation Fund does helpfully indicate the need to consider impact assessments but more clarity needs to be given on the nature and role of these vulnerability assessments.

## Conclusions

1. The Adaptation Fund does not explicitly demand strategic or environmental impact assessments. This should become the case in order to enable the Board and stakeholders to see the full impacts of, and alternative options to, the submitted projects before a final decision on financing is made.
2. Involving local stakeholders by applicants is already a good prerequisite of the Fund; however without accompanying impact assessments and full stakeholder engagement this may lead to an incorrect picture regarding the level of local support for a proposed project.
3. Strategic priorities are very general and not detailed in the policies. It is therefore not clear what is meant by 'adaptation priorities' or how the 'particular needs of vulnerable people' are taken into account. There seem to be no specific safeguards.
4. The MIEs and NIEs are to some extent already aware of the advantages of SEA and incorporate this in their guidance on adaptation programming. There needs to be uniformity across all the Entities to facilitate the process of proposal development and review.

## Recommendations

1. Wetlands International recommends to the Adaptation Fund to **include explicit mention of Strategic Environmental Assessments** as part of the review of the existing Operational Policies and Guidelines.
2. Although a good start has been made through the Civil Society Dialogue at the Adaptation Fund Board meeting of 12 in December 2010, **civil society engagement needs to be better improved through transparent mechanisms** such as the technical review process of the Adaptation Fund. Additional civil society dialogues are needed at earlier stages of proposal development via mechanisms such as SEA.
3. The Adaptation Fund's Operational Policies and Guidelines do not describe if, when and how the opinions of the public and civil society organisations are taken into account. Public comments can be submitted on the website when proposals are posted, but it is not clear what will be done with the comments. The Adaptation Fund states that posting of user comments does not imply that either the Adaptation Fund Board or its secretariat has endorsed, reviewed or approved a posted comment. **We recommend upgrading the status of public comments.**
4. The review committee may use the services of independent adaptation experts to provide input into the review process. Wetlands International suggests extending an invitation to **environmental impact assessment experts to play an independent role in furthering the use of SEAs.**

## For more information

### Kemi Seesink

Senior Policy Officer  
Wetlands International  
Tel. 0318-660922

[Kemi.seesink@wetlands.org](mailto:Kemi.seesink@wetlands.org)  
[www.wetlands.org/adaptation](http://www.wetlands.org/adaptation)



Watch our videos on Climate Change Adaptation on our YouTube Channel: [WetlandsInt](http://www.youtube.com/user/wetlandsint)  
[www.youtube.com/user/wetlandsint](http://www.youtube.com/user/wetlandsint)



Follow us on Twitter: [WetlandsInt](http://www.twitter.com/WetlandsInt)  
[www.twitter.com/WetlandsInt](http://www.twitter.com/WetlandsInt)