



Placing African Fisheries on the COP 17 Agenda

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RECOMMENDATIONS

- Fisheries should be recognised as a critical facet of public policy on climate change adaptation and food security in Africa. National adaptation plans of fisheries-dependent states should clearly outline strategies related to climate change impacts on fisheries.
- Existing governance challenges, such as overfishing, illegal fishing, pollution and habitat destruction, should be addressed in order to increase the resilience of ecological systems to climate-related impacts.
- Knowledge-sharing and co-operation in the area of fisheries adaptation to climate change should be pursued on a regional, continental and global level.
- African states should engage strategically with financing and knowledge-sharing resources, such as the Adaptation Fund and the UNFCCC Database on Local Coping Strategies, in order to strengthen local and regional adaptation efforts.

EXECUTIVE SUMMARY

Climate change is set to have far-reaching ecological and economic consequences for the African continent and globally. Developing countries are particularly vulnerable to climate change, not only as a consequence of resource and technology constraints to adapt to climate change, but also due to a greater reliance on the productive capacity of land and natural systems. Agriculture employs 65% of Africa's labour force and accounts for 32% of its gross domestic product. Fisheries play a critical role in contributing to food security in many African states, as well as in supporting livelihoods through economic activity in the capture, processing and trade of fish products. Although agriculture has received significant attention in the climate change discourse, particularly related to adaptation and food security in Africa, there has been insufficient focus given to the critical role of fisheries as an economic activity and source of nutrition in many African states. African countries are among the most vulnerable to climate change impacts on fisheries. It is important for fisheries-dependent states to ensure that the issue of climate change impacts on marine and freshwater systems and fisheries communities are integrated into their national adaptation plans. Fisheries should also be given due recognition in regional and continental policymaking on African adaptation to climate change.

VULNERABILITY TO CLIMATE CHANGE IMPACTS ON FISHERIES

Climate change has wide-ranging impacts on marine and freshwater fisheries as well as aquaculture. Ecological impacts on marine and freshwater life may result from factors such as coral bleaching and ocean acidification or changes to water temperature, ocean currents, salinity, or river run-off. Climate change also affects

fishing communities directly through, for example, growing competition for freshwater resources, the threat of sea-level rise to coastal infrastructure, and the increasing frequency of extreme weather events such as tropical cyclones and droughts. Finally, regulatory developments in the governance of climate change, such as the potential impact of carbon taxes on the viability of exports to international markets, may also have an impact on fisheries.

Not all states are equally vulnerable to climate change impacts on fisheries. The level of exposure to various climate change impacts, such as sea-level rise or coral bleaching, will differ from country to country. Moreover, certain states may be more sensitive to climate change impacts given their greater reliance on fisheries as an economic activity and source of nutrition. States also differ in their capacity to adapt to climate change impacts on fisheries depending on their levels of social capital, economic diversification and human capital development. Higher adaptive capacity will result in a lower level of vulnerability. Vulnerability to climate change impacts on fisheries is therefore a function of exposure, sensitivity and adaptive capacity,² as shown below.

African countries are among the most vulnerable to climate change impacts on fisheries. A study aimed at assessing which countries are particularly vulnerable to climate change impacts on fisheries identified 33 countries, 21 of which were in Africa.³ The high level of vulnerability within many African states results from the important role that fisheries play in the economy and as a food source (high sensitivity), combined with relatively low levels of adaptive capacity.

PRIORITISATION AND INTEGRATION

African fisheries are already under severe pressure as a result of poor governance, habitat

destruction, overfishing and illegal fishing. It is estimated that sub-Saharan Africa loses about a billion dollars of revenue to illegal and unreported fishing every year. Governance of fisheries stocks is hampered by limited resources and technical capacity to undertake monitoring, control and surveillance activities, and to complete regular stock assessments and other scientific studies. These challenges pose an urgent and immediate threat to Africa's fisheries. It is therefore important to place climate change within this broader context and give due consideration to the prioritisation of interventions. Climate change adaptation initiatives in the fisheries sector should be aligned not only with existing fisheries governance initiatives, but also with urban and rural development strategies, such as in the context of integrated coastal area management.

In certain respects, the responses required to address the impacts of climate change on fisheries intersect with existing governance imperatives. For example, addressing illegal fishing and habitat destruction to improve the health of fish stocks also improves the resilience of ecosystems and communities to climate-related impacts. Improved scientific monitoring of fish stocks may contribute to better governance of fishing pressure through appropriate licensing and quota systems, while also providing an early warning of changes to fish stocks that may result from ocean temperature changes or other environmental factors. These synergies should be incorporated into adaptation plans and initiatives in addition to the direct interventions aimed at issues such as sea-level rise and coastal erosion.

The livelihoods of fishing communities are closely tied with environmental conditions and in many communities local strategies have emerged to deal with environmental and ecological changes. These local coping strategies should be encouraged and expanded through support measures and knowledge-sharing. There is a need

Vulnerability

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Exposure

+

Sensitivity

-

Adaptive capacity

to incorporate both top-down and bottom-up approaches in climate adaptation strategies. Initiatives such as the UN Framework Convention on Climate Change (UNFCCC) Database on Local Coping Strategies are important tools for disseminating the lessons learnt as communities respond to resource pressures and climate change.

A number of adaptation projects have been initiated to address climate change impacts on fisheries and coastal zones. The Adaptation to Coastal Climate Change Project, funded by the Global Environment Facility and implemented by the UNDP and UNESCO, is aimed at strengthening the resilience of vulnerable coastal communities in West Africa. The project focuses on identifying areas particularly vulnerable to erosion and climate change; implementing pilot projects within the framework of integrated coastal area management (such as the protection of mangroves, reinforcement of sand dunes, and urban planning); and formulating national and regional strategies on coastal adaptation. The Caribbean Planning for Adaptation to Climate Change Project was implemented from 1997–2001 and focused on building capacity in the Caribbean region for adaptation to climate change impacts, particularly sea-level rise. These projects, which are setting important precedents for the prioritisation and integration of climate change responses to fisheries and coastal zone management, should be implemented in other regions.

A recent World Bank study on the cost of adapting fisheries to climate change drew a pithy conclusion that ‘adapting fisheries to climate change will not be cheap, especially for developing countries, many of whom lack adaptive capacity’.⁴ A large number of dedicated funds have been established to finance climate change adaptation projects. These include the Adaptation Fund, the Global Climate Change Alliance and the Special Climate Change Fund. African states should continue to press for the establishment of innovative financing mechanisms to support climate change adaptation efforts. They should also strategically access existing mechanisms to

support adaptation initiatives across a range of sectors, including fisheries.

AFRICAN FISHERIES AND COP 17

The Bali Action Plan, adopted at the Conference of Parties (COP) 13 negotiations in 2007, identified adaptation as a central component of the global response to climate change. In 2010 during the COP 16 negotiations in Cancun, Mexico, the Cancun Adaptation Framework was adopted in order to support planning and implementation of adaptation measures through increased financial and technical support. The conference also established an Adaptation Committee to provide technical support to countries and support knowledge-sharing. These developments build on earlier initiatives such as the UNFCCC support for the development of national adaptation plans for least-developed countries.

African states have indicated that they will prioritise the issues of climate change adaptation and food security at the COP 17 negotiations in Durban, South Africa. Currently, however, much of the debate on food security has focused on climate-smart agriculture. It is important to ensure that the issues of fisheries and coastal adaptation are included in the broader agenda on food security and adaptation during the COP 17 negotiations.

Efforts to outline common strategic interests for African states in the climate negotiations, currently being pursued through the African Group of Negotiators and the African Ministerial Conference on the Environment, should consider the important role of fisheries in supporting food security and economic activity in many African states. There is also a need to engage with coalitions and organisations focused on the area of fisheries and climate change. Such examples include the Global Partnership for Climate, Fisheries and Aquaculture, a voluntary global level initiative among some 20 international organisations and sector bodies; and the Partnership for African Fisheries, a programme under the New Partnership for Africa’s Development.

CONCLUSION

Africa is particularly vulnerable to climate change impacts on fisheries, and should therefore take the lead in ensuring that the fisheries sector is given due recognition in the current discourse on climate change adaptation and food security. Adaptation efforts on the continent should recognise that ecological systems that are weakened by habitat destruction, overfishing and illegal fishing will be less resilient in the face of climate change. Dealing with these pressing governance challenges, together with the emerging climate-related threats, forms a crucial part of the continent's response to climate change.

ENDNOTES

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- 2 Allison EH *et al.*, 'Vulnerability of national economies to the impacts of climate change on fisheries', *Fish and Fisheries*, 10, 2, 2009, pp. 173–96.
- 3 Algeria, Angola, Burundi, Côte d'Ivoire, Ghana, Guinea, Guinea-Bissau, Malawi, Mali, Mauritania, Mozambique, Niger, Nigeria, Senegal, Sierra Leone, Tanzania, the Democratic Republic of Congo, the Gambia, Uganda, Zambia and Zimbabwe.
- 4 World Bank, 'Cost of Adapting Fisheries to Climate Change', Development and Climate Change Discussion Paper, 5. Washington, DC: World Bank, 2010.

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