

Stories from the field

Adapting fishing policies to address climate change in West Africa



Coastal West Africa, from Mauritania to Guinea, benefits from a marine upwelling of nutrient-rich cold water which makes it one of the world's most productive fishing zones. The fisheries sector is therefore extremely important to both national and local economies and to the food security of local people. But fish stocks are threatened by destructive fishing practices, ecosystem decline and competition within the sector. This crucial resource faces further uncertainties because of climate change.

Led by the Dakar-based organization Environment and Development Action in the Third World (ENDA), the project "Adapting Fishing Policy to Climate Change in West Africa" (which goes by the French acronym APPECCAO) aims to integrate an improved understanding of climate change's potential impacts and options for adaptation into plans and policies governing fisheries. Through action research, it seeks to widen dialogue so that those whose livelihoods depend on the fisheries (fishers, boat owners, outfitters and those in the packing and processing industry) can contribute to sustainable management.

**Women of Joal, Senegal race
to meet the morning's catch.**
Photo: IDRC/Djibril Sy

The team is widening dialogue so that fishers, boat owners and others whose livelihoods depend on fishing have input on plans and policies.

The team is reinvigorating regional policy dialogue, providing vital analysis on how to address climate change, and linking decision-makers and resource users at local, national and regional levels so that adaptation strategies can be addressed at the most appropriate level. Regulations to protect fish stocks and reinforcement of port infrastructure, for example, are best enforced at the local level, but require direction and funding from the national level. Agreements on fisheries quotas are best undertaken at a regional level, among member states, but must be translated into regulation at the national level.

The project builds on two existing regional structures: ENDA's West African Fisheries Policy Network (*Reseau sur les politiques de pêche en Afrique de l'Ouest*, REPAO) and the Sub-regional Fisheries Commission for West Africa (*le Commission sous-régionale des pêches*, CSRP). Prior to this research project, neither of these bodies had focused on climate change adaptation.

Figure 1: Research is injecting climate change knowledge into efforts to coordinate fisheries policy among Cape Verde, Gambia, Guinea, Guinea-Bissau, Mauritania, Senegal and Sierra Leone.



Marie Youmané and her children collect shellfish from a lagoon which has been given a one-month “rest” to ensure sustainable harvests. Photo: IDRC/Djibril Sy

Through REPAO, national research teams in Cape Verde, Guinea and Senegal are now studying the likely impacts of climate change and aim to identify adaptation strategies, drawing on both scientific and local knowledge. The research team in Guinea presented a synthesis report on climate change implications to a November 2009 meeting of the national committee on fisheries policy coordination, presided over by the secretary general of the Ministry of Fishing and Aquaculture. A similar briefing will take place in Cape Verde in 2010.

National fisheries directors from seven countries are being briefed on the potential impacts of climate change.

In Senegal, an alliance for sustainable fisheries (*Alliance pour une pêche durable*), jointly created by the national maritime fisheries directorate and other institutions, including REPAO, will be reviewing fisheries policy in the context of climate change.

The CSRP is a regional body with a mandate to harmonize fisheries policy in the sub-region that includes national fisheries directors from each of seven member countries – Cape Verde, Gambia, Guinea, Guinea-Bissau, Mauritania, Senegal and Sierra Leone. In January 2009, the project team organized a meeting to create a regional advisory body within the CSRP that would include representatives of professional organizations and NGOs involved in fisheries in the region. The advisory body's role is to support CSRP's work on improving the coherence of fisheries policy, taking into account a variety of issues including climate change.

“This project is all about policy influence. It does not aim to produce books for a library shelf.” – project leader Cheikh Guèye

In February 2010, these different stakeholders reviewed synthesis studies conducted by national teams and the coordination team. This review may prove an important step towards regional policy harmonization, using local and national input from different stakeholders, as well as both scientific and local knowledge.



Master carpenter Pape Diop's livelihood depends on the fisheries. The 23 metre boat he is building will be sold for about 4 million CFA or CAD 8,000. Photo: IDRC/Djibril Sy



Faces behind the research



Cheikh Guèye, project coordinator, Adaptation des politiques de pêche aux changements climatiques en Afrique de l'Ouest (APPECCAO).

For project leader Cheikh Guèye, this research project fulfills a long standing interest in the fisheries sector.

“Back when I was doing my Masters degree in 1990, my research took me to a place near one of our current study sites – Djifère, a small strip of land off Senegal's coast used as a fishing port. I remember well going out in the pirogues (small local fishing boats) and seeing a fish caught that was almost as big as me. Today, Djifère has become a small island due to coastal erosion. Part of the land has been completely submerged.”

Through this project, Guèye hopes to see research translate into concrete measures to protect the fisheries sector against the as yet poorly understood impacts of climate change.

“For our research project, the national directors are critical to seeing national policies put into place, so they are for us a key stakeholder. I expect the CSRP will certainly deal with climate change in its next plan of action. This is where we hope to see the policy impact of this project most concretely.”

“We've looked at factors such as illegal fishing and overexploitation before, but looking specifically at climate change impacts is quite new, and the techniques we are using are new. This project is all about policy influence. It does not aim to produce books for a library shelf.”



Karim Abdou Sall, president of Joal's young fishers' association, is taking part in dialogue on fisheries policy through APPECCAO. He is also active in local marine protection efforts such as mangrove planting and sustainable harvesting. Photo: IDRC/Djibril Sy

Participants at the regional meeting were made aware of the diverse risks posed to fisheries by climate change. These include sea level rise, storms of higher frequency and intensity that threaten port and fishing infrastructure, a change in the composition of species in the fisheries stocks, and acidification of waters that can hamper shell formation on crustaceans. The stakeholders recognized that there is a lack of policy coordination between member countries and that laws against unsustainable fishery practices are not enforced. Researchers presented on a number of international, regional and national efforts to promote responsible fishing practices and policies, including those coordinated by the New Partnership for Africa's Development, large conservation NGOs such as the International Union for the Conservation of Nature and the World Wildlife Fund, and United Nations bodies such as UNESCO.

Both presenters and participants acknowledged that strengthened policies and institutions would be necessary to adapt to climate change. Participants asked that researchers give more emphasis to inland fishing and its vulnerability to increased salinity, and wanted to know more about aquaculture as an option that may alleviate stress on wild stocks.

At the local level, policy discussions are underway at nine sites in Cape Verde, Guinea and Senegal. These dialogues engage agencies that represent those directly involved in fisheries activities, ensuring input from those most directly at risk from climate change. The results of these local-level discussions, as well as forthcoming surveys of local knowledge, will be discussed at upcoming regional meetings.

Fisheries are threatened by rising sea levels, more frequent and intense storms, changes in the composition of fish stocks, and acidification of sea water.

In addition to documenting scientific evidence and local knowledge and supporting dialogue on several levels, researchers will begin this year to develop scenarios for possible adaptation options which policy dialogue groups will discuss at future meetings. These scenarios are intended to help decision-makers and representatives of the community to identify the options most likely to sustain the sector by projecting the possible implications of different policy choices in the face of the uncertainties of climate change.

The project "Adapting Fishing Policy to Climate Change in West Africa" illustrates progress towards CCAA outcome area 4:
Policy processes are informed by good quality science-based work on vulnerability and adaptation and by the experiences of the rural and urban poor.