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Adaptation Insights

Addressing Climate Change Adaptation in Africa through Participatory Action Research

Benin

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How can Political and Administrative Authorities Contribute to Local Community Adaptation to Climate Change in Benin?

Since 2002, Benin has moved towards the decentralization of state power, to actively involve local communities. The community is now the institutional locus for the exercise of local democracy and governance, through the participation of its citizens. Among the powers conferred under Law No. 97-029 of January 15, 1999, which established the organization of districts in the Republic of Benin, are those relating to the design of a municipal development plan that integrates local communities' profound aspirations for a better quality of life and the major development challenges facing each municipality. This paper presents evidence of climate change in Benin and offers some concrete steps to be taken by decision-makers and elected officials to incorporate climate change adaptation into local community development.



Exchanges with the Oueme, Plateau-based CDCC in January 2010 (Photo: PARBCC)

The vulnerability of Benin's agriculture to climate change

For about three decades, rural communities in Benin have been subject to the adverse effects of climate change. While the situation varies from one town to another, the effects are felt especially in the agricultural sector, which is already struggling to develop. The main recurrent and scaling climate risks faced by farmers are, among others:

- decline in rainfall
- · pockets of drought
- · delay in rains
- high winds
- excessive heat
- floods
- drought

The direct consequences are yield losses, destruction of crops, disruption of the agricultural calendar, degradation of land and natural resources, increased poverty and food insecurity. These in turn lead to population migration, resulting in potential conflicts in land management, foreign exchange loss for the economy, and a deteriorating quality of life. The scarcity of viable water sources and grass in the dry season forces pastoralists and their herds to move to summer pastures, thereby exacerbating conflicts between farmers and herders.

Consultation frameworks supporting adaptation

The Departmental Administrative Conference (CAD) and the Departmental Consultation and Coordination Framework (CDCC) were established as governance tools to support decentralization in Benin. Both are crucibles for exchange and local development planning, to improve the living conditions of populations. These bodies, in their statutory meetings, are required to address the challenges faced by communities in order to make recommendations to the departmental authority for consideration and inclusion in sectoral development policies.

Communications with these authorities under the PARBCC capacity building project "Strengthening the Capacity to Adapt to Climate Change in Rural Benin" have helped to improve their level of knowledge on climate change, its manifestations and effects observed on the ground in local communities, and possible coping measures (both adaptive and mitigative). The outcomes of diagnostic exercises and exchanges the project undertook with communities on their adaptation needs have also been taken into account.



Members of the PARBCC team in January 2010 (Photo: PARBCC)

priorities identified by communities included the need to update cropping calendars, boost the irrigation potential of each town, and develop simple options for better management of soil fertility and water resources in the agricultural sector. The aim is to raise awareness about the need to act now and integrate these concerns into development planning. The main recommendation that emerged from interactions with communities is that adaptation should be integrated into new communal development plans.

The role of elected officials and political and administrative authorities

Local officials empowered by law to manage at the grassroots level should actively take part in the process of integrating adaptation and mitigation into local development planning. Actions to strengthen adaptation practices already devised by rural populations should occupy a prominent place in development planning. The participatory appraisal PARBCC conducted with local communities revealed the need for irrigation support; for improved agro-meteorological information

to aid the planning of agricultural activities; and for the creation of a fund to support climate disaster response. Other ways forward, such as weather insurance, a national climate warning system, etc., could also be explored. These explorations should be carried out through a co-learning process with all stakeholders involved in addressing local communities' vulnerability to climate change.

Involving local elected officials and political and administrative authorities is essential in reducing local communities' vulnerability to climate change and in integrating adaptation into local development.

Table 1. Climate risks and their effects in the study sites

Climate risks	Manifestations	Adaptation measures
Pockets of drought	Several consecutive days without rainfall (up to 30 days) in the rainy season	 Use of traditional techniques of water conservation in the soil (zai, mulching, mucuna, etc.) Use of resistant varieties
High winds	Increase in the force of the wind; crop destruction; damaged homes	 Installation of wind blocks in disaster-prone areas Strengthening roofs of houses and social and community facilities
Recurrent floods	Flooding and overflow of rivers; high concentration of rainfall	Desertion of floodplainsDevelopment of drainage techniques
Lower rainfall	Decrease in rainfall and number of rainy days	Use of short-cycle cropsReforestation
Spatio-temporal changes in rainfall	Poor distribution of rainfall and decreased rainfall; early onset and late rains	 Use of potential watering sources to water crops Promotion of irrigation

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