

A Regional Observatory for Producers' Climate Change Adaptation in Thies, Senegal

In Senegal, as in most Sahelian countries, the livelihoods of rural populations are closely related to the performance of rain-fed agriculture, which is highly subject to inter-annual climate variability.

In the region of Thies, climate change and variability have a strong impact on the vulnerability of rural households. The volume of rainfall varies greatly from one year to another and also throughout the decade. This variability is inherent in the climate of West Africa. Thus, in the period 1920-1967, the average annual rainfall measured at the meteorological station of Thies was pegged at 660 mm. According to the Senegalese Meteorological Agency, the next period recorded successive shortfall years with rainfall reaching less than 300 mm (1968, 1972, 1973, 1977 and 1983),

while the average annual rainfall recorded between 1968 and 1999 was measured as 440 mm.

Building capacity for climate change adaptation : the information literacy challenge

These changes exacerbate the vulnerability of rural populations in the region of Thies. The knowledge and practices acquired by farmers through a trans-generational accumulation of observations, innovations and forms of adaptation that guided their technological and economic choices, are now in most cases obsolete. The sowing, cultivation techniques and tillage dates used today seem inappropriate to new climate conditions.



A demonstration session on mango planting techniques during a 2009 forum (Photo : A. Sall, CSE)

The frequency of droughts, for example, from the beginning of the rainy season calls into question the relevance of common wisdom that says “one must sow as soon it rains”. In the new climatic context, it is imperative for farmers to adjust their norms and practices.

Accessing and understanding information on climate change and technical alternatives to address it is one of the challenges facing rural populations. Information (meteorological, agricultural advisory services, etc.) are produced by different stakeholders, but at the individual level, access to these sources of information is very limited. How can farmers, who are often poor and isolated, be given greater access to relevant information to help them adapt their farming practices and socio-economic strategies to climate change?

To address this challenge, the project “InfoClim,” led by Senegal’s Ecological Monitoring Centre (CSE) with support from the CCAA program, aims at improving the access of farmers and other local stakeholders to information deemed relevant to strengthening adaptation. It has established a participatory platform, known as an “observatory”, to collect and share information in order to build the capacity of vulnerable populations to adapt to climate change and variability.

The observatory : a multi-stakeholder information platform

The observatory, which is managed by communities, offers a mechanism for climate monitoring and information dissemination to rural producers. Its goal is to provide a forum for sharing experience and expressing information needs.

The partnership developed by the InfoClim project helped to establish an organizational mechanism for information sharing between different stakeholders.

bodies and operational methods. It also specifies the operational relationships between bodies, including information flows.

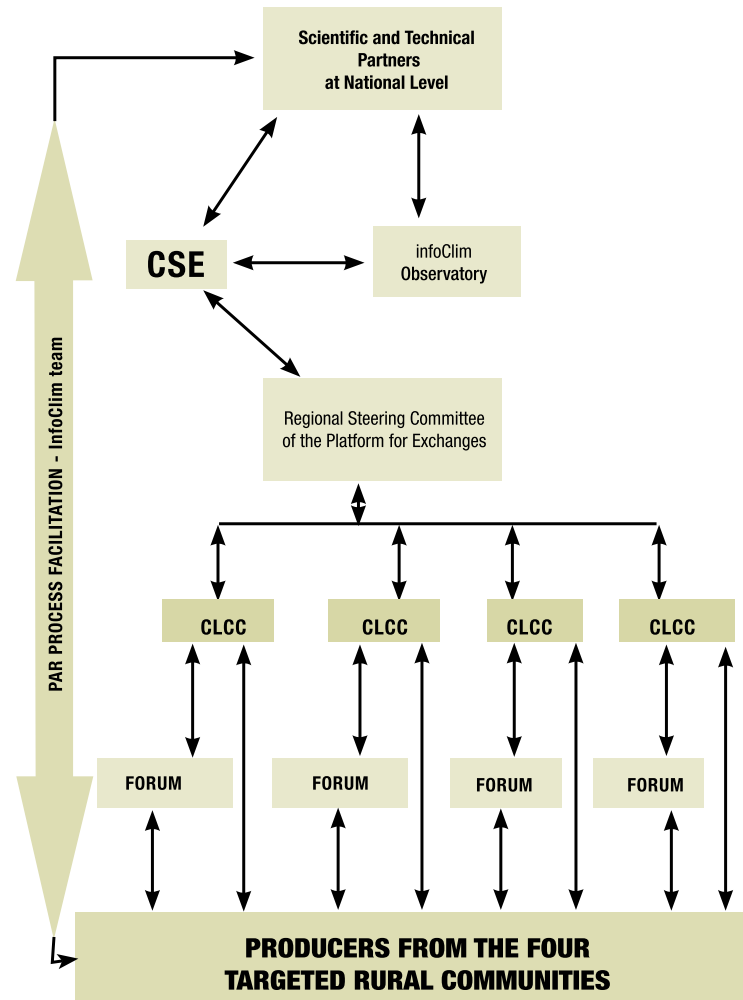


Figure 1: Organizational chart of the observatory

At the national level, an inventory of distribution channels enabled the project partners to agree on the structure of the observatory, the choice of information to be collected, data management methods, and so on. A second step enabled local actors to identify information needs and build their adaptive capacities. From this reflection, an organizational chart for the participatory platform (see Figure 1) was designed and an implementation plan finalized. The organizational chart defines the observatory’s

The observatory is made up of three main bodies: the Forum, the Local Committee for Climate Change Adaptation (CLCC) and the Regional Steering Committee (CRP). The Forum, consisting of producers, selects the seven members of the CLCC that lead the process of local information sharing on various topics. The CRP is composed of technical services and the chairmen of the CLCC. Through this structure, the information provided by scientists becomes more accessible and useful to producers.



Producers' Forum held in the Notto Diobass community house in preparation for the 2008 crop year (Photo : Gora Beye, CSE)

Changes in stakeholder behavior

The project has succeeded in creating a multi-stakeholder exchange and information sharing framework, based on a partnership model that values existing organizational frameworks. The first forum held at the community level in 2008, have confirmed the use by producers of certain information shared, thereby encouraging project technicians to provide agro-meteorological advice on the next season. Amadou Kala Diakhate from Fandene, for example, shared his experience and expertise on local indicators of weather forecasting and cultivation techniques used by elders in case of extreme events such as drought or flooding. Following the forum, some producers took the initiative to seek improved seeds, including

cowpea and millet. The convincing results of their initiative were shared with other producers in the second set of forums in 2009. These seeds enabled them to cope with “hunger season”, improve their reserves and increase millet yields.

CLCC initiatives have promoted this exchange framework by bringing information to producers. For example, they advocated rotating CLCC meetings among different villages within the local community. These practices have been documented and preserved in print or audio testimonials.

Operational problems experienced

Some constraints can be noted in making the observatory operational. These include : (i) accessibility issues related to

the provision of information technology tools in a context where new information and communication technologies are not very widespread in rural areas;

A participatory observation can play an important role in sharing information relevant to the vulnerable communities' climate change adaptation at community level.

(ii) issues of the validity and quality of information collected by various Forum stakeholders; and (iii) the fact that the observatory's activities are currently being carried out primarily by the CSE, as it is not a decentralized technical service in the region of Thies.

For sustainability reasons, the project must work towards transferring the role to the regional body, which is the CRP, by:

- seeking to improve the internal functioning of the observatory's various bodies and the synergy between them; and
- reinforcing the operational autonomy of the various bodies, including building farmers' research capacities.

The sustainability challenge

Planning tools at national, regional and local levels must incorporate climate change adaptation mechanisms. The choice of the CRP as the regional planning coordinator reflects a desire to integrate

climate change issues in the various planning processes in the short, medium and long terms, in a holistic and concerted approach that favors synergies of action.

Also, the majority of scientific partners who hold information (such as the meteorological office, the Institut sénégalais de recherches agricoles and the Laboratoire de physique de l'atmosphère) raised challenges related to information access and sharing between partner institutions, noting the confidential nature of data, among other issues. A participatory approach to climate observation can facilitate the development of a dynamic partnership based on the comparative advantages of each organization. ■

Acknowledgment :

The project "InfoClim" is supported by the Climate Change Adaptation in Africa (CCAA) program, a joint initiative of Canada's International Development Research Centre (IDRC) and The United Kingdom's Department for International Development (DFID). The views expressed in this paper do not necessarily represent those of IDRC or DFID.

