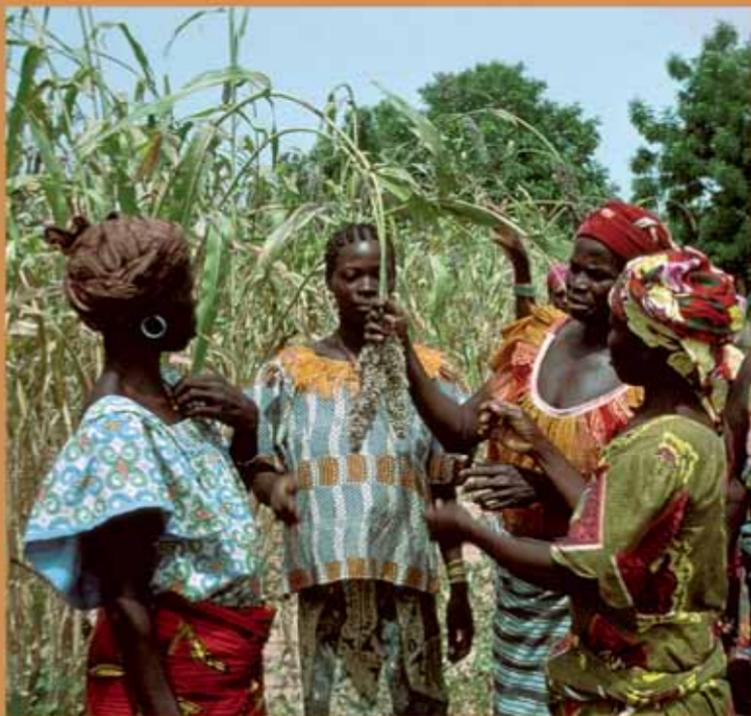




# Innovating with rural stakeholders in the developing world

## Action research in partnership

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## ▮ Land management in Senegal

The example of the land-use plan in Senegal (Box 13) shows how stakeholders came together for improved management of land and natural resources and the tools they used to do so.

### **Box 13. Assistance to local communities and the land-use plan in Senegal**

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The Senegal River valley is a strategic space for animal husbandry, agriculture, and fishing. Nevertheless, in the last three decades the valley has become gradually covered by irrigated-agriculture schemes. This has negatively impacted animal husbandry and has led to social tensions.

Policies of decentralization implemented in the 1990s have transferred some powers for managing land to local communities. The decentralization has, however, excluded the hydro-agricultural schemes from the process; they are still managed without any great coordination by the State. This situation has led to frequent complaints and several conflicts.

That is why, in 1997, a development-research team put in place a pilot project to test, in a real-world situation, a program to empower local communities to manage their own space. This program was destined to reconcile the development of different productive activities and the preservation of natural resources.

The issues were clearly defined: strengthen the effective powers of local communities, consisting of elected rural personnel, to cooperatively manage the space. This meant:

- Creating the necessary space for communities to act without institutional interventions;
- Creating and transferring suitable technical capabilities;
- Helping learn in action, without supervision, for a sustainable acquisition of new skills;

A three-stage supporting approach was retained:

- A stage for raising awareness of local institutions, lasting a minimum of six months, so that they agree to let local communities take decisions and undertake actions. This also meant the new roles of everyone involved (local administration, technical services, traditional and tribal leaders) were valorized and supported in the new arrangement;
- A stage, lasting about a year, for local communities to construct their own geographic information system. This stage was to culminate in the creation of a tool suitable for their needs and perceptions, and included phases for learning its use and discussions on its limitations;
- A discovery stage of about six months by the communities of the complexity of territorial management. As and when necessary, the development-research team would provide fresh assistance for collective analysis, such as role playing and territorial modeling, and also new information, such as on available intensification techniques.



...  
Thus in three years, the project led to independent actions by local communities, with the drawing up of a land-use plan, grassland planning, and the resolution of conflicts with a national park. In addition, it led to a method which the technical services decided to scale up by themselves to cover the entire valley (45,000 km<sup>2</sup>), without any assistance from the initial team or any external project and without external funding.

This example shows that rural stakeholders, as part of local communities, can construct, use, and master complex tools such as a geographic information system. They do so by using their knowledge of the environment (resources, spaces, uses, etc.) and also scientific knowhow, for example, on soils and vegetation. Maps then become a basis for mediation processes on the management of space, for pinpointing difficulties, and for identifying possible actions – such as new rules or new arrangements.

The local communities need to acquire new technical skills to master the geographic information system and to use its results, the maps. They have to learn what can be expected from such a system and become capable of defining mappable areas and zones that will be meaningful to them, of interpreting a map, and of taking land-use decisions based on the map.

Training is thus an essential part of the project. As this process of learning is supposed to take place while undertaking actions (“learning while doing”), time will be required to let stakeholders participate in the design of the tools, master their use, and employ them in their activities.

The training itself used a set of tools. For example, role playing (see Box 14) involved rural stakeholders living out a simulated history of the management of their community’s resources.

We observe that, just like in the first example of Guatemalan farmer experimentation, it is not the tools mobilized as such (geographic information system, maps, and role playing) that are central to the ARP. It is the approach on which everything depends; it has to be clearly explained and designed to achieve the goals fixed by the stakeholders.