

## THE FAILURE OF SO-CALLED "MODERN" EROSION CONTROL STRATEGIES in haiti

From the 1960s until 1990, national authorities were advised by international bodies and donors that the answer to the crisis of the rural sector lay in solving natural resource conservation problems. The special situation in Haiti encouraged implementation of a large number of schemes and projects based on a "modern" strategy of rural development, thus turning this country into a kind of erosion control laboratory.

Unfortunately, this approach to improvement and development nearly always led to closing off large areas to livestock, or else to soil and water conservation schemes (SWC) that turned erosion control into an isolated experience. Such projects achieved only mixed and questionable results, and often ended in failure.

The strategy adopted concentrated on developing a unified area, usually a watershed, emphasizing the physical coherence of the various processes. It gave priority to infrastructure installations (roads, feeder roads, gully control, contour channels, dry stone walls, radical terraces) with most of the work being done with the help of the local populace in exchange for some remuneration (in money or kind). And it was meant to have an almost immediate effect on the conservation of natural resources.

Failure sprang basically from the fact that "general interest" was the paramount factor, legitimizing infrastructure development and making soil conservation (SWC) the prime objective although Haitian farmers had a very different view, and saw such projects simply as ways of ensuring an immediate income, even though the proposed conservation techniques failed to offer short-term improvements in yields and income.

Furthermore, there is no direct relationship between these techniques and the set of constraints that farmers have to face. This gap between proposals and constraints arises from a deep ignorance of the farmers' economic perspective, of how farming systems work in general, and of land tenure issues in particular.

The latter entail an inheritance system that encourages fragmentation and joint ownership, aggravating land insecurity and the danger of food insecurity as farm plots shrink in size.

The installation of erosion control structures means sacrificing some of the already limited arable land, with no possibility of improved yields for many years to come. The extra work required for their upkeep is work that only the farmers themselves can assure. Furthermore, these techniques neither reduce degradation on the land between the structures nor improve productivity. They are not very effective, and sometimes increase such risks as overflow, gullying and landslides by upsetting ecological balance on the slope. To avoid these constraints, erosion control structures are often built on land marginalized by farmers.

Similarly, research work focuses more on selecting species and on the depth or inclination of terraces than on ways of integrating trees or mechanical structures into traditional farming systems.

Project organization needs revision, and a change from the approach whereby the population is used as a labour pool without any real participation. Project monitoring and evaluation are also needed.

There is thus a complete divergence between the objectives of a project that prioritizes the capital development approach and the objectives of the people involved (who are rarely consulted). The situation is now such that it is no longer enough either to protect or to conserve the soil. The population is growing rapidly, and production must be increased without degrading the environment.

#### A NEW PARTICIPATORY APPROACH: THE SALAGNAC/AQUIN PROJECTS AND PRATIC

Another approach, based on rural development, has been worked out since 1985, aiming mainly at solving the people's immediate problems (food security, improved yields, better returns for work) through better land use using techniques, suited to the Haitian context, that safeguard the environment and land resources. Soil and water conservation, from being an end in itself, becomes a means of establishing stable production systems.

This approach, now known as land husbandry, seeks to improve infiltration on fields so as to increase biomass production (and hence yields) by providing better soil cover and reestablishing the balance of organic and mineral matter in the soil. It attempts to reduce the impact of erosion and sediment transport by modifying production systems, while ensuring that farmers take responsibility for their own environment.

It was adopted by two French aid projects, Salagnac-Aquin (1978-92) and PRATIC (1988-92), concerning the Petite River transect Nippes-Salagnac-Aquin (Figure 75), with activities<sup>1</sup> aimed at encouraging intensification and diversification of farm production while stabilizing slopes: new cash crops, increased foodcrop yields on land with the best potential. The goal was to relieve the most vulnerable land from cropping pressure (frequent tillage and overgrazing) and transform it into a forest- and fruit-tree farming area, improving animal husbandry conditions, etc. It was based on the following principles:

- **Farmer participation right from the project design stage.** This is a decisive factor for protection activities and vital to project success, as the farmers are the only people who can guarantee upkeep of erosion control structures at the plot level and/or on the slope as a whole.
- **Reinforcing traditional methods of soil and water conservation.** Haitian farmers have themselves adopted traditional survival strategies to control erosion and boost soil fertility.
- **Selecting zones that have retained maximum** agricultural production potential.
- **Intervening on individual plots and slopes,** and then, whenever possible, at the watershed level. Erosion control thus focusses first on the plot, then on the farm, and finally on the whole area. Piecemeal treatment of individual plots is no alternative to treatment of a watershed, for they require different strategies (the rural development and capital development approaches), which should in fact be complementary.
- **Combining soil conservation activities with convergent activities** that allow enhanced production systems (intensification and diversification of cropping, improved animal husbandry, creation of savings and credit).
- **Setting up a system of contractual relations** with precise definition of the conditions of intervention, and of farmer-project relationships, with clarification of the activities that are the

strict responsibility of each farmer (improvements on individual plots), those that are the responsibility of the rural community (roads, feeder roads, communal cisterns, gully control), and finally the commitments of the project.

- **Allowing for planning, monitoring and evaluation** (measuring the effects). This type of programme will require much time (8 to 10 years) before it has any noticeable effect on production systems or can modify practices while ensuring that farmers take responsibility for management of their environment. It has three necessary phases:

- **1st phase: analysis of local conditions** in order to discover the potential and limitations of the physical environment, including the processes of soil degradation (where, when and how they arise), but also the farmers' traditional methods of farming their land and managing water and fertility. This analysis will foster dialogue with the communities and help build trust.

- **2nd phase: on-site trials** in order to establish technical terms of reference (comparing traditional techniques with the proposed techniques).

- **3rd phase: evaluation of the results by both communities and experts**, prior to planning intervention on whole hillslopes and watersheds.