

DESERTIFICATION

Integrated Rural Development Programme in the Ader Doutchi Maggia (Projet Keita) Niger

- › GENDER ISSUES
- › SUSTAINABLE AGRICULTURE AND RURAL DEVELOPMENT
- › WATERSHED MANAGEMENT



UNOPS



Ministero degli Affari Esteri



Background and rationale

The Italian engagement in areas deeply affected by desertification, among which the African Sahel, began in 1982. In that year, with public opinion highly sensitised on the drought in Sahelian countries, which menaced catastrophic consequences similar to those experienced ten years earlier, the Italian Parliament was led to approve the "Italian Initiative for the Sahel", with an initial envelope of 500 million US\$. Interventions during this period were characterised by the adoption of an integrated approach to rural development, including emergency initiatives whenever necessary, flexibility in implementation and local populations' involvement in project activities.

Niger, like other Sahelian countries, was experiencing a process of climatic deterioration, adding to the increasing social and economic needs of the growing population and causing a general economic crisis. Agriculture and livestock represented the unique source of livelihood for more than 80% of the population, but the Country had to import more and more cereals, mainly rice, to meet national requirements. Livestock was the second source of foreign currency and produced 12% of the GNP. Investments in agriculture were extremely scarce and no credit system or dynamic marketing network existed. The Ader Doutchi Maggia presented serious environmental degradation, due to overpopulation and the effects of wind and water erosion, which required that priority action be given to land reclamation and soil conservation and to activities aimed at improving agricultural production.

The local strategies adopted under these negative circumstances have been forcefully described by P. Hugon (1993): "The individual rationality of extensive cropping patterns - risk minimisation, saving work force, land tenure strategies foreseeing land scarcity, etc.- increase ecosystem degradation. Sahelian farmers and pastoralists destroy their environment in the attempt to postpone their own destruction".

In this context, the Italian Cooperation met Niger's request to launch a project which is still operational today: the "Integrated Rural Development Project in the Ader Doutchi Maggia", Niger, better known as "Projet Keita", executed by FAO from 1984 to 1999 and by UNOPS since 2000.

Three main phases have been financed subsequently, and a fourth is under formulation.

Total investments amount to more than 106 million euros, including more than 17,5 million euros provided by the World Food Programme as Food for Work.

Goal, objectives and implementation

The development objective of the Project, since its beginning in 1984 and still valid today in its core aspect, is to contribute to the attainment of food-security in the entire Keita District and to improve livelihood conditions for rural populations, by restoring the ecological balance and pursuing social and economic development in the area.

During Phase I, specific objectives were concerned mostly with the physical amelioration of the area, but in Phase II a wider approach was adopted as follows.

- Restore the ecological balance in the area and natural resources useful for agro-sylvo-pastoral purposes.



Vegetation growth on soil conservation works

- Utilise restored land with appropriate sustainable cultivation techniques, based on the conservation of plants-water-soil balance, which allow increased agricultural and animal production.
- Improve the living conditions of the local population, through increased food-security and strengthened social services.
- Contribute, wherever possible, to increase farmers' revenues and decrease emigration flows.
- Contribute to strengthening community institutions, through their direct involvement in the management of equipment and revolving funds, as well as of restored communal natural resources.

In 1989, a smaller bilateral project was entrusted to the Italian NGO COSPE to collaborate and strengthen Phase I achievements in the fields of land recovery and environmental management, through community development initiatives aimed at tackling social and economic issues, such as credit lending for agricultural and income-generating activities, development of water supply facilities, nutritional education.

The NGO intervention came to a conclusion in 1995.

Activities were planned on a yearly basis. During Phase I (1984-1991), the Project covered about 5,000 sq km with a population of about 160,000 people. During Phase II (1991-1996) the area of intervention was enlarged to include the Bouza and Abalak districts, for a total of 12,000 sq km and 286,000 people.

Main activities were the following.

- Anti-erosion land management, i.e., the rehabilitation of desertified lands for agricultural and forestry use.

- Consolidation of dunes, stream control and forestation to improve control of water run-off.
- Technical, logistical and financial support of agricultural activities through local assistance services.
- Development of basic infrastructures and small irrigation units.
- Strengthening of credit systems and marketing infrastructures for agricultural production.
- Dissemination of appropriate agricultural inputs and establishment of demonstration fields to introduce innovative agricultural techniques and crops.

Methods and approach adopted to solve the problems during this long period proved extremely fruitful, and results were very successful:

- positive conditions for the regeneration of the physical environment were established, through soil conservation on 12,000 sq km of severely degraded slopes and hill tops;
- income-generating opportunities were developed, through the huge amount of labour required for the soil conservation works, mostly for women;
- male rural migration decreased, thanks to the development of agro-sylvo-pastoral activities on recovered land;
- production and service cooperatives were set-up at village level.

All activities concerning anti-erosion land management were carried out through the food-for-work payment system, with food-rations provided by

the World Food Programme. It should be noted that the workforce has been composed mainly by women throughout the whole Project's life. Phase III (1996-1999) was justified by the need to strengthen and optimise results gained during the previous phases. It mostly focused on the development of the fragile pastoral zone in the Abalak district North of Keita, area of great importance for the sustainability of the ecological, social and economic progress obtained in Keita and Bouza districts. A Transition Phase was managed exclusively by Niger national staff in 2000 and 2001, to conclude outstanding works, gradually reduce the Project structure and strengthen the involvement of local communities in the sustainable management of the Project's physical achievements. The present "Bridge Phase" should allow the detailed formulation of the fourth and final "disengagement" phase, which is tentatively planned to last three years. Other activities are also foreseen: strengthening entrepreneurial capacities at local level, including promotion of women-targeted capacity-building; development of credit and savings networks, studies on Arab gum, fisheries and apiculture development; re-introduction of endemic wild fauna; capacity and institutional building for community and village associations. In order to add value to this important Project, the Italian Cooperation also launched a complementary initiative, aimed at evaluating land conservation and reclamation works carried out by the Keita Project through the definition



of an appropriate methodology for arid environments. The Project for the Evaluation of Environmental Conservation and Rehabilitation Interventions (PEICRE) was implemented from 1995 to 1997, through CeSIA - *Accademia dei Georgofili* in Florence.

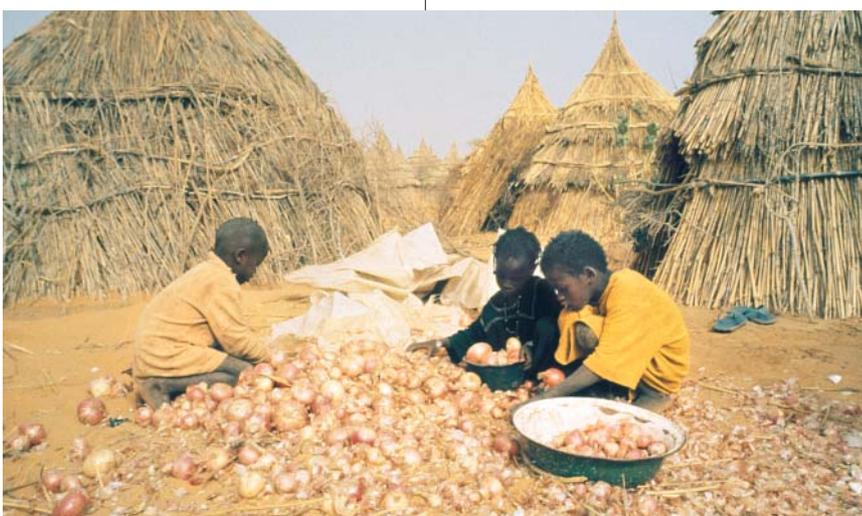
Activities carried out were:

- establishment of a territorial database on the Project area (socio-economic, cartographic, meteorological, inventory of Project's interventions);
- production of thematic cartography on the Project area, about 5,000 sq km;
- analysis of the hydrological characteristics of watersheds and of erosion risk;
- analysis of the vegetation biomass distribution in the area;
- climatic analysis;
- multi-temporal and multi-spectral analysis of temporal evolution of the effects of conservation and reclamation works; processing and integration of satellite (LANDSAT TM, SPOT) and aerial photos;
- development of environmental information system on the Project area;
- training of fifteen experts from the Ministry of Environment and other technical institutions.

At present, Keita Project is also the site of one of the two observatories in Niger, together with Banizoumbou, of the ROSELT Initiative promoted by the Sahara and Sahel Observatory (OSS), for the establishment of a Long Term Environmental Observatories Network.

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Methodology and lessons learned

The Keita Project was successful in its efforts to combat desertification, through a pragmatic methodology based on two pillars.

- A systemic territorial approach, stemming from the concept of Basic Land Unit (*Unité Territoriale Élémentaire*, UTE) which tackles catchment basins as a whole, from upstream to downstream. The accurate initial analysis of landscape features through aerial photographs, and continuous efforts to improve technical solutions and ameliorate their impact and sustainability, allowed the implementation of soil and water conservation works targeted to the optimal physical scale and location. At the same time, while respecting environmental priorities, UTEs with higher population pressure were often selected first for intervention.
- The use of adequate financial and logistical means, the results of which would be visible only in the medium term, to ensure the sustainability of physical Soil and Water Conservation (SWC) works in the long term: heavy machinery and thousands of person/days work have been used, according to circumstances.

Since its beginning, the Project has also recognised the importance of social and economic aspects in the pursuit of sustainable development, acknowledging the notion of the environment as the territory where human beings live and perform all activities useful for their livelihoods. Interesting to note is that, in spite of the efforts to promote entrepreneurship among the local population over a range of agricultural and soil-conservation related Income-Generating Activities (IGAs), SWC activities have had a much stronger impact on local social and economic development. Reasons may lie in the obstacles opposed by local hierarchies and power management mechanisms to wider participation and inclusion processes at the village level, the obliged site for all activities except SWC. On one hand, IGAs benefits did not reach the poorest and weakest groups in the communities. On the other, the promotion of larger, inter-village associations for the common management of natural resources has met with difficulties and resistance from a long time.

In the Keita Project, women have played a crucial role: physical works were carried out mainly with their contribution. However, due to traditional customs, they have suffered from marginalisation in all non-SWC activities: about 26,000 women worked on the construction sites, whereas no more than 350 women, mostly wives of local leaders, were reached by other actions. It should be noted that the monetary value of WFP rations was very well

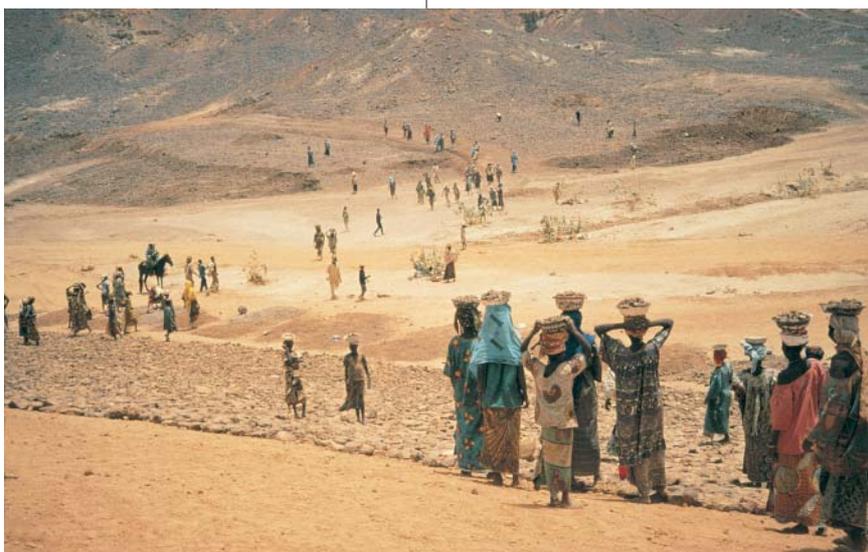


Bunds support crops on the glacis (low potential, slightly sloping land) and trees stop soil erosion

known to women workers, who perceived food as salary and who have gained a strong self-esteem out of their participation to the SWC works.

These facts and observations lead to the following conclusions.

- The most important social impact stems from SWC activities: they were successful - an apparently inexorable trend was reversed - and they changed people's perspectives in terms of solidarity, self-esteem and self-sufficiency.
- Whenever development actions are nested into and limited to the village social environment, possibilities to change lie in the hands of power-holders and their impact becomes limited in space and time. Although certain actions must be conceived and implemented forcedly at village level, they have to be identified and implemented through real participatory processes and they should be integrated into larger frameworks of action, beyond the single village dimension.



Women working on the SWC sites