

## NRM success stories in Niger

### **A. Introduction**

USAID has played the major role in holding back the desert in Niger. Due to our efforts, land once farmed to sterility and abandoned has been regenerated by the precise interventions, but mainly the sweat of the farmer and today is productive again. A farmer or herder touched by USAID interventions is able to associate freely now, where in the past his formal activities were tightly controlled by the state. He or she is able to manage the forest nearby to provide resources for s/he, his/er family and his/er progeny. A rural woman in one of our zones of intervention is able to spend less time searching for firewood, and more on economic endeavors. The entire family is able to enjoy the shade of trees which improve soil fertility, but didn't exist a decade or two ago. We have not touched enough Nigeriens yet and have not with other donors influenced the policy environment as much as required. That is why Niger still scores so low in overall development indicators. Nonetheless, we have set the example in NRM for other donors, but more importantly for a critical mass of Nigeriens who are committed to continue with reform efforts and grassroot activities that will improve the lives of more and more Nigeriens in the future.

The interventions of USAID in Agriculture and Livestock production and range management, go back to the sixties and stretch out through the nineties with a focus on natural resources management to include water, soil, forestry, agriculture, livestock, biodiversity and pasturelands. In the 1960's the population of Niger was around 3 million; today it is over 8 million. Where people used to move to regenerate soils and woodlands by long fallows, the fallow option is not available. In many cases--probably the vast majority--people have to do more work to get the same production. Because they have no immediate alternative, they inadvertently contribute to the degradation spiral by gathering animal droppings or digging up stumps from shrubs which have already been cut.

From a macro level, Niger appears to be in a downward spiral with a stagnant economy and deteriorating environmental situation. Since the majority of the population depends upon the natural resources base for a proportion of their livelihoods, this is a serious situation. However, there is a movement emerging across Niger which has started to reverse the downward spiral. It is characterized by investments in soil and forest resources, particularly in intensification.

While the positive movement remains in the small minority (it is estimated for example that only about 5% of the woodlands from which fuelwood is harvested is under improved management), the trend is strongly positive. For example, over the last 15 years, the area under improved management has grown from a few thousand hectares to nearly 450,000. [see graph] Will this trend continue and become the general case? To address this, it is necessary to assess how the current trend was produced. USAID and other US agencies such as Peace Corps played critical roles in producing the trend.

### **B. Specific Contributions of the US Government**

*The Pioneer, Fred Weber, Forester.* Fred Webber was named by USAID in the early 1960 to be the advisor to the Director of Forestry in Niger. Fred introduced many basic innovations in forestry. He was also instrumental in large scale plantings of trees in the “green belt” of Niamey. This work was important in several respects. First, it was a good test of matching species to land types. Secondly, these plantings later became the examples which inspired others in Niger to establish plantations. Fred also initiated interest in management of native species.

In the late 1970’s Fred conceived the idea of community-based natural forest management where communities would manage classified forests on a sustained-yield basis. This idea became the USAID Forest Land-use Planning (FLUP) Project. The experiment (funded by USAID from 1981-1986) developed an innovative approach for building institutional capacity within the Forest Service for forest land use mapping, inventory and monitoring. Following many years of field-level technical support by Peace Corps volunteers in nursery management, inventory of forest reserves, and development of forest management plans, USAID program support helped to establish a technical unit within the Forest Service which served as a clearinghouse for information on the forest resources of Niger. With continued support from ASDG II, this unit has evolved as part of the Environment Department to become one of the principal implementing agencies for the natural resource information systems component of the national NRM program.

The FLUP project also supported experimentation with new field techniques at a number of “model sites” including the Guesselbodi forest reserve. This experience in the restoration and participatory management of degraded, over-exploited natural woodlands was the proving ground for new approaches in community-based natural forest management which have been supported with substantial investment by the World Bank and many other donors across the Sahel. What had been viewed as “useless brush”, to be cleared away at great cost for the establishment of plantations of fast-growing exotics, is now recognized to be a valuable resource for local communities which can be managed for their benefit in a cost-effective and ecologically sustainable manner.

Webber was also involved in the two Range and Livestock projects funded by USAID and implemented after the 1972/73 drought which decimated more than 50% of the livestock and degraded the pasture land in Niger. By determining the carrying capacity and organizing the destocking of animals, the project was able to save the remainder of the pastures and the animals. The second phase which organized the herders around livestock centers, set up credit schemes, introduced better range management practices and improved livestock production practices was considered less than a complete success. However, it was a model for other successful projects throughout the region (e.g. Menaka Oasis in Mali) and can be partially credited with the resurgence of the national herd.

The Cooperative League of the USA (CLUSA): Under the Rural Organization Development (ROD) Project CLUSA had been working with over one hundred self-selected cooperatives. Since the national policy was to have only State-organized cooperatives (which were not made up of self-selected members), these were allowed on an exceptional basis. The success of these cooperatives were instrumental in the change in GON policy in the late 1980’s which

permitted people to form cooperatives along lines of economic interests. Because self-interested people are forming associations so that they can make decisions that they could not make as individuals, Niger at the village level has become a much more self-governing society.

Peace Corps: Work in the Majjia Valley by Peace Corps volunteers in the 1960's and 70's and Care International, are having impacts today. One PCV, John Heermans (who later managed FLUP), working with Dauda Amadou of Eaux et Forets, initiated the first "commercial" cut of poles in Niger in about 1970. This demonstration contributed to the change in GON policy that allow people to cut green trees on a sustainable-yield basis. This change in policy facilitated the spread of "farmer-managed natural regeneration" initiated in the early 1980's and private wood plantations started in the 1970's in the Majjia and Matameye.

In 1974, Dauda and Don Adams, a PCV in Garadoume in the Majjia initiated windbreaks. Today, there are over 7,000 hectares of land in the Majjia protected by windbreaks. Farmers say that they are able to sow their grain crops earlier and harvest more because of the reduction in sand-blasting by the winds. In addition, because they harvest trees every four years, they have gone from a deficit of wood (where women used to walk two days a week to gather fuel) to a "glut" of wood.

USAID/Niger also pioneering the use of non-project assistance (NPA) in combination with project assistance in the Agriculture Sector Development Grant (ASDG). The first phase of the ASDG program anticipated and preceded efforts supported by the World Bank and others to encourage policy reforms related to the production, distribution and pricing of agricultural inputs such as improved seeds and fertilizers, as well as reforms in the areas of cereals pricing and marketing. Having addressed the major policy constraints to increased *production* of basic food crops, the second phase of ASDG II continued to combine NPA and PA in support of the policy and institutional reforms needed to increase the *sustainability* of crop production by encouraging the widespread adoption of NRM practices and protecting against further degradation of soil, water, forest and pasture resources which were the essential foundation for increasing productivity in rural areas.

The improvement management of natural resources was also a critical element in a comprehensive rural development strategy which was elaborated by the Government of Niger with support from USAID and other donors. This strategy aimed to diversify and intensify production systems and income-generating opportunities, while decentralizing decision-making for rural development program support and encouraging the reorganization and empowerment of rural producers. ASDG II led the way in pursuing reforms in the coordination and administration of government technical services, in improving relationships between extension agents and rural producers, in the implementation of new decentralization policies, in the reduction of conflicts over access to natural resources, and in the expansion of services provided to rural producers by NGOs and the private sector.

Program investment funds derived from NPA released by USAID after the satisfaction of ASDG II policy conditionalities have been used to strengthen the national technical services

which are responsible for implementation of the rural development policy reforms and the new components of the national NRM program (PNGRN). Additional investment related to key elements of the programmatic framework launched by ASDG II has been provided by the World Bank and other donors as these program elements have been included in the emerging National NRM Program (PNGRN) for Niger. Another portion of the NPA funding from ASDG II has been set aside to fund small grants to NGOs and community-based organizations which intervene at the village level to encourage the improved management of natural resources. Given the extent and depth of technical and financial support by USAID, it is no accident that the program impacts which are evident today have in fact occurred.

**AFRICARE:** In 1992, Africare started a planned four year grassroots project aimed at improving the agro/sylvo/pastoral resource management and environmental protection in a true sahelien district of Niger. It evolved into a model of the participatory, decentralized approach to NRM which is now promoted in most donor programs. Villagers are continuing NRM efforts even in areas where the project no longer works.

In Agadez Irazer area, Africare carried out a a rehabilitation project project which helped resettle several hundreds of displaced villagers while helping the integration of the former twareg rebels and creating a viable economic environment.

#### **D. Activities, accomplishments and impact:**

Substantial positive changes have occurred in Niger over the last 25 years. In many cases, US-supported innovations contributed to these. In other cases, an enabling environment produced by a US-supported program made it possible for the inputs of others to have an impact.

In many respects, the USAID/Niger program has been a leader and testing ground for innovative approaches which have provided a valuable learning experience for the Agency and the region. This is particularly true in the case of natural resource management programs, where Niger was a critical proving ground for advancement of the Africa Bureau's analytical agenda for NRM programs. As the Agency searched for ways to increase the field-level impacts of rural development programs and the effectiveness of programs designed to “combat desertification”, there was a steady evolution from sectoral, technocratic interventions to policy-based strategic interventions coupled with participatory and capacity-building interventions. First generation projects which independently pursued development objectives in agricultural research, crop production, livestock, forestry, water resources development and other sectors gave way to more integrated area development projects. The localized and frequently unsustainable impacts of these projects were broadened and made more lasting by program support which coupled policy reforms with institutional development at the central, regional and local levels.

USAID/Niger led the way in moving beyond agriculture and rural development to support PVO's such as CARE, AFRICARE and Lutheran World Relief for localized interventions in agroforestry, natural forest management and extension of community forestry practices. Niger has a long history of collaboration between USAID and Peace Corps in the areas of

reforestation, conservation of biological diversity and improved management of forest reserves and protected areas, including several internationally recognized interventions. The “top-down” policy reforms in combination with “bottom-up” field support by volunteers and NGO/PVO extension efforts have had a lasting impact in many areas of Niger.

### **People level impact:**

- Experience and research have demonstrated the potential impact of the NRM practices we have promoted upon productivity and the environment. Tree planting along field boundaries and in the form of windbreaks has contributed to a 20% increase in yields in the Majjia valley of Niger. Rock bunds, infiltration ditches, stone lines along contours and other soil and water conservation practices have increased yields by over 50% in many sites in Niger and elsewhere in the Sahel. Demi-lunes, zai holes or tassa, in combination with mulching and higher levels of use of manure are helping to reclaim degraded lands and renew soil fertility. Farmers in the departments of Tillaberi and Tahoua have increased yields 2-3 times, from 300 to over 800 kg. of millet/hectare with the use of demi-lunes. Through the use of zai, farmers have produced harvests of 200-600 kg/hectare from land that had been unproductive. In the vicinity of Badaguicheri, degraded sites have been restored and production increased from less than 200 kg/ha to 1500 kg/ha. Protection of regrowth of trees and shrubs in farmfields increases the overall density of vegetative cover, and woodfuel production. It checks wind and water erosion and improves prospects for reversing the steady decline of cropland soil fertility.

- Niger has progressed from a country with very few democratically-organized, community-level, user-based organizations which supported the improved management of natural resources within a context of sustainable rural development to a country with an increasing diversity and number of such organizations. These organizations play a critical role in providing a focus and mechanism for training in a wealth of areas ranging from improved techniques for seedling production and soil fertility management to functional literacy and management of cereals banks, to extension and transfer of technical information, and for increased access to decentralized financial services and other support services needed to intensify and diversify rural production systems. These organizations also play an important role in developing the capacity of producers to organize and govern themselves and to more effectively represent their interests vis a vis local administrative and customary authorities. As such, these organizations have been a powerful vehicle for locally-driven, more sustainable development that is responsive to local needs, interests, opportunities and constraints.

- In the 1980's it was illegal to form a cooperative made up of self-selected members. Cooperatives were formed by the State along political boundaries. Today, the country has registered more than 420 cooperative-type organizations, including 129 women's organizations. There are now over 174 officially recognized development NGOs in Niger, including 122 national NGOs and some 67 NGOs that have program objectives related to NRM and the environment. This is a remarkable change from 1990, when there were only 10 officially registered national NGOs operating in Niger, and the NGO/PVO community was dominated by international organizations. The upward trend was triggered in large part by legislative and policy changes by the GON which were aimed at facilitating the creation and

operation of NGOs in an effort to expand their role in Niger's development programs. While many of the recently established NGOs may have very limited staff and financial resources, a number of programs are in place to offer training and other resources designed to increase their effectiveness and contributions to rural development and environmental management. ASDG II and other AID funded programs have actively supported these critically important legislative changes and prompted greater collaboration between the GON and NGOs through the organization of round tables and workshops. ASDG II NPA resources released as a result of favorable legislative changes have also been used to provide grants and training to help these organizations become more operational. 106 million CFA in small grants to NGOs/CBOs were provided in 1996 by ASDG II.

-There are currently more than 200 community-based NRM institutions (CBOs) in Niger, such as the increasingly numerous "marche ruraux", "comite de gestion de terroir" or comite de developpement villageois. These community-based organizations (CBOs) are actively involved in local initiatives aimed at improving land use planning and greater use of NRM and related sustainable agriculture practices. To a greater and greater extent, these CBOs are being empowered to protect and sustainably manage their natural resources in ways that reward them for their efforts. And local communities are quick to take advantage of the opportunity to generate revenue for themselves while insuring the long term productivity of their rural production systems and protecting their children's livelihoods..

- US-trained people have made a difference in Niger. At one time the heads of the directorates for the environment and for agriculture were US University alumni. Many of the changes made under the Environment Ministry came under US-educated GON leadership. These are longterm resources who will continue to have an effect on the future of Niger for decades to come.

- Ideas and institutions initiated by USAID have been picked up and funded by other institutions. The innovative Badiguichiri and Hamdallaye researches on water-harvesting led to substantial increases in yields on hard-pan soils and a spread of cultivation. We are attempting right now with some success to "hand-off" our ASDG II activities to the World Bank and the UNSO.

- Working at the rhythm of the population and promoting farmer to farmer visits were two of the methods used by the AFRICARE project in Gouré. This experience in Goure provided a good lesson for a reengineered USAID. AFRICARE did not impose deadlines. Their principle was to allow communities to come up with their own priorities on their own timetable. Because AFRICARE followed the communities approach, the rural producers owned the initiatives and made sure that they were sustainable.

- The Principes Directeurs d'une Politique de Developpement Rurale pour le Niger (PDPDR) form the basis for NRM reforms in Niger. Over the last two years, AFRICARE put both the spirit and letter of the PDPDR in implementing the GOURE project by supporting the empowerment of communities to make their own NRM investment choices. This was not done without expense to individuals, but in the end it put critical principles into action. As a result the World Bank's NRM project has taken over the activities in Gouré and will continue

to finance the expansion of this program to more villages.

In the north, in an effort to keep a fragile peace, AFRICARE's work with the twaregs has provided the following lessons:

- 1-The participatory approach can be used as a tool for emergency activities,
- 2- Empowerment of villagers improves chances of sustainability,
- 3- More than 900 ex-combattants participated in the project,
- 4- The nomadic population will attempt to become sedentary when the right approach/methodology is used.

In only eight months, changing 900 combattants into farmers/herders is an amazing feat. So far, most other donors have not even figured-out how to work in the North. This USAID emergency grant is the kind of action which will lead other donors in making the peace process viable in the North of Niger.

- Initiation of the process to change the role of the forester agent and establishment of the community based forest management schemes. More than 400,000 hectares under management today. For Natural Forest Management and private woodlots, it is worth pointing out that this has led to a growing number of cases where both the land and people are better off today than 10 years ago. Also, the income that is now being produced from fuelwood and construction poles is a source of revenue which was unknown to rural people ten years ago. That income will only grow.

#### **E. The challenges that remain:**

Approaches have evolved in a generally positive direction, and we are now able to point to many examples of workable, effective approaches for community-based NRM, notably in the area of "gestion de terroir" and associated land use planning and extension of NRM practices at the village and farm level. However, progress at this level remains dependent on continued efforts in training, extension and technical support for diagnostic studies, planning, organization and monitoring of activities.

With respect to the overall support for NRM programs in Niger, while USAID's contribution through ASDG II NGO funds will be missed, a number of efforts funded by the World Bank, other donors and PVOs are continuing. It is recommended :

-To continue the management of the funds set aside in the "SDSA" account for small grants to NGOs and community-based organizations in support of NRM activities; these funds should support farmer to farmer visits and related training activities among rural producers, as well as investments in the improved management and use of natural resources (rehabilitation of degraded farmland, forest and rangelands, watershed protection, development of water resources, etc.)

-To provide additional short term training courses, and other capacity-building activities for potential SDSA grantees (NGOs, CBOs) as well as public sector organizations which provide

support services for NRM field activities.

- To put more emphasis on activities by the C/GRN and others in the area of program coordination (at the district and regional levels as well as nationally), information networking, resource inventory and assessment, impact monitoring, tracking and "capitalization" of experiences, in collaboration with the CILSS and Sahel Institute as well as the major NRM projects active in Niger.

- To follow-up on the adoption of the new Forestry Code, and application texts for the Rural Code, including a proposed text to legally recognize community-based organizations active in NRM.

- To follow through with the administrative and management reforms targeted by ASDG II, including the improved coordination and management of information for program development and the monitoring of program impacts, and the improved management of human resources.

- To pursue the preparation and implementation of a national program for the environment and sustainable development (PNEDD), which includes provisions for the implementation of the PNGRN and related programs in support of the International Convention on Desertification.