

Case Study 3: Participatory Extension Strategies for Promoting Agroforestry in the Drylands of West Pokot District, Kenya

Background.

The Pokot people are a community inhabiting the West Pokot District in North Western Kenya and northern parts of Baringo District. West Pokot District is largely a dryland area experiencing erratic climatic conditions and difficult terrain.

Traditionally, the Pokots are nomadic pastoralists whose lifestyle is rapidly changing to sedentary mixed farmers, especially in areas where conditions permit. Like many other semi arid areas in the country, the area has been experiencing population increase both human and livestock. The harsh climatic conditions over most of the area and difficult terrain makes the area inaccessible. Traditional pastoral lifestyle is still practiced by most of the community members. The climatic conditions, terrain and traditional lifestyle practiced makes the area impossible to cope with increasing population in terms of sustainable resource management and use. The area is prone to periodic droughts accompanied by famine and poverty. Land degradation is evident over most places further threatening the livelihoods of the local people.

Realising the magnitude of the problem Vi-Agroforestry Programme became concerned and showed interest in participating in the fight against desertification which was spreading fast, threatening the lives of people, animals and vegetation. Vi-Agroforestry programme, which has its headquarters in Kitale town, is funded by the Vi-planatarar Träd Foundation, an International NGO with headquarters in Stockholm, Sweden. Its overall goal is to contribute towards better living standards of the small-scale farmers in the project areas, i.e. farmers who own at least 1 to 5 acres of land and are fully dependent on their farms on a daily basis. Three immediate objectives were identified as the key towards achieving the project goal: increased food and nutritional security, fuelwood availability and income generation. The programme began by carrying out a survey of the Kainuk area, along the Wei-Wei River and in Chepareria Division, which revealed the loss of both soil and vegetation. The seasonal rivers indicated unreliable water source, surface sealing, soil erosion, and loss of useful trees and shrubs, annual grasses and less productive species in the area as well as deep gullies. The situation constituted a threat to both human and livestock movement.

Conservation and rehabilitation by planting trees on the large bare patches was the immediate way of solving or arresting the problem. Conservation involves management of natural resources to prevent destruction and neglect. Well-conserved grazing lands are seen as properly utilized

and managed resources that provide for present and future generations without depleting the resource base. On the other hand rehabilitation is a process whereby a misused and over utilised area is reinstated or replenished through soil conservation and tree planting. The study also involved socio-economic measures on how land can be utilized to its usefulness.

Programme Approach and Strategy

During the initial stages of implementation, the Project had some difficulties of gaining acceptance from the community, especially with regard to some of the technologies like enclosure system given past experience where the government used such approaches to acquire land. To overcome this challenge, the project identified representative public institutions; schools and churches which had suffered degradation and established enclosures. The project did all the work, paying for all the costs. After sometime these sites recovered and were used as demonstration sites for the local community. On observing the regeneration and rehabilitation of the land within the enclosures, some pastoralists volunteered a portion of their land for rehabilitation activities. On realising the benefits, their fears were removed and more came to request the project for assistance while others spontaneously established their own pasture enclosures.

Today, the project has applied the principal of participatory extension that involves the following stages;

- **Participatory Rural Appraisal (PRA)**

Vi-Agroforestry Project applies PRA which helps the community to identify or diagnose their own problems and seek possible solutions to address them. PRAs are based on the real needs and within the capacity and skills of the community and their local institutions, which could assist the community in the implementation of the plan with either technical advise or other forms of support. The programme works with the District development office, other government ministries and NGOs thus, the PRA process has been institutionalised. Areas requiring PRA exercise have been identified by the project extension officer in-charge, other collaborators or the community themselves who on many occasions had observed the benefits of this activity from their neighbours.

PRA has been used in a broader scope as the Project's entry point to make community members decide and analyse their own problems and identify their own resources for solving them. This promotes farmer participation in the development of Agroforestry. The

awareness created enables the community to develop their own community action plan addressing different sectors of development.

- Community Action Plan (CAP).

The community's needs and priorities are prepared in the form of CAP for implementation. The implementation is at two levels; through groups or individuals. Group approach is more common i.e. a group of farmers are identified on the basis of established groups. The extension workers enter into discussion with the groups over the agroforestry activities to be undertaken, get targets per agreed activities, discuss inputs and agree on the role the group will play in the provision of required input. They also monitor implementation. The same procedure is applied to individual farmers who for one reason or another cannot join a group.

To ensure that a given area is properly covered, the project has adopted an Area of Concentration approach (AoCA). In this approach the project extension agent is stationed in an area of concentration where he/she progressively and intensively works with 200-350 farmers for a period of 3-5years depending on the community response. At this point the community shall have been gradually empowered to sustain various agroforestry activities on their own. The extension officer then moves to a new area, and constant follow-ups are frequently made in the old areas to establish their progress.

Apart from establishment of enclosures and construction of water catchment structures for land rehabilitation, the project has identified and tested other technologies for good land use management practices. These include;

- Soil fertility improvement based on the principle of organic farming (trees/crop residues, farm yard manure or promotion of short term fallows).
- Local seed collection and tree management.
- Woodland management,
- Apiculture (bee keeping) promoted alongside tree planting and woodland management.

Field demonstrations, short courses and related activities are offered to improve the farmers' capacities in sustainable management. Training activities include field days, farmers study tours, especially to the

projects Agroforestry Centre, as a model and to other successful farmers and relevant institutions. Basic nursery and agriculture courses as well as advanced Agroforestry training activities are also offered. The aim of several training activities offered is to enhance human resource development and ensuring the project's efficiency. It is worth noting that farmers have been trained on agroforestry practices, direct sowing techniques, organic farming, farm planning and home tree nursery establishment and seed collection. About 95% of the projects seed supply is from trained women groups.

Results and lessons learned

The project is presently working in both Trans Nzoia and West Pokot Districts with over 25,000 farmers. From evaluation and survey report of the project activities during the year 2001, more than 6,500 households were reached who have acquired knowledge and skills in agroforestry. Out of these, 452 were new farmers. 168 home nurseries produced 7,643 seedlings in W. Pokot while 5 group nurseries in Kongelai produced about 6,300 seedlings. 127 farmers in Chepareria were involved in the collection and use of seeds. Regarding soil and water conservation, there were 45 demo plots and 4,025 ditches in Kongelai and 1,000metres of retention ditches in Chepareria



Rehabilitated areas have trees of both exotic and indigenous species. Among the exotic species doing well in the areas include *senna siamea*, *Azadirachta indica (neem)*, *Leucaena leucocephala*, *Faidherbia albida* and *Parkinsonia aculeata*. Indigenous species predominate rehabilitated areas. Major ones are *Acacia nilotica*, *A. tortilis*, *Balanites aegyptiaca*, *Terminalia browinii* and *Zizyphus macronata*.

The enclosure system has had great impact on:

- Land tenure and value. Land tenure is slowly changing from communal to individual ownership hence, raising the value of the land. Some farmers are now selling grass to

their neighbours for thatching which has led to be better housing or rental as pasture (improved animal health) to earn income.

- Reduced migration in search of off-farm grazing hence, families are now staying together for longer time, improved enrolment in schools, improved pasture and animal health.
- Increased food production as more land is now under crops. Maize, beans sorghum, millet and other new crops like cassava, pigeon peas, green grams, kales and assortment of fruits e.g. paw paws, bananas, guavas and mangoes are cultivated.

Changes in roles within families e.g. women assist in herding due to availability of fodder near homes, presence of men in the homes provide extra labour hence, diversification and expansion of the cropped area. Due to increased milk production and commercialisation, men are now involved in milking which was exclusively a woman's job. House construction, previously a woman's responsibility is now almost entirely taken over by men. Tree planting and management has greatly improved since the seedlings are now more protected in the enclosures, especially during the cropping period

Conclusion and Recommendations

Vi-Agroforestry upholds the policy of co-operation with local development partners in its realization of meaningful success in community development. A lot of tangible benefits have already accrued from the project's efforts in the areas of intervention including abundant availability of fodder in West Pokot as the main output of land rehabilitation. This has gone along way to change the lifestyle of the traditionally nomadic community to sedentary life. Many new farmers are getting interested in agroforestry within and outside the Project's area of jurisdiction. This calls for an elaborate Project resource base and a combined effort with other stakeholders to satisfy the increasing desirable viable socio-cultural and economic needs of the communities.

Vi-Agroforestry Project has made every step to work together with the community, transforming from an initial extension approach of demonstration and paid activities over time to one that responds to spontaneous demands from the local community. The changing requirements of farmers should be taken into consideration in extension programmes.

Contact:

Programme Manager,
Vi-Agroforestry Project,
P. O Box 2006,
Kitale, Kenya.