

Community-led approach sustains livelihood improvement in Kotoba, Ethiopia



Above: Figure 1: Kitchen-Keyhole garden.



Figure 2: Cabbages planted by a farmer in a copy group. Those on the lower left side were planted with fertiliser, on the upper using compost.

Most of the crop succumbed to a secondary soft rot but the composted area plants were able to resist this. Balanced soil nutrition makes plants less susceptible to disease, particularly bacterial rots (Saharan et al, 2005) and good field management for drainage, weeding and rotation will help avoid soil borne pathogens such as fungi which causes damping off.

Logical planning of training topics in groups builds up learning with reduced risks, although this example was also instructive to the group members.

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State of Farming Communities in Rural Ethiopia

In rural Ethiopia, most families are reliant on agriculture as their sole source of livelihood. Most of them face a steady decline in agricultural productivity due to the degradation of natural resources, fluctuating rainfall, reduced soil fertility, low quality livestock and poor livestock management. Ensete ventricosum is the staple food crop and although it is drought-resistant, it is nutritionally poor. Animal manure is generally used as cooking fuel and so there is usually none left for composting or field application.

Most households do not produce sufficient food to sustain their families throughout the year. Vegetable production is uncommon and fruit trees are generally non-existent in many parts. Many households have livestock, but of poor breed. Livestock diseases are prevalent and veterinary services and drugs are not readily available. Milk production is low and animal protein availability is limited, so chronic malnutrition is rampant. The Ethiopian Demographic and Health Survey (2011) stated that about 44% of children under five were stunted in growth.

The most vulnerable households are those with very small plots of land which rely on hand-digging for planting. As parents share land with their adult children, population pressure on the land increases while land parcels per family decrease. The high population density of the area has resulted in a shortage of suitable arable and grazing land so farmers have resorted to cultivating marginal swampland or very steep slopes in the forest. This has contributed to deforestation and soil erosion.

The people have very limited access to safe drinking water and hygiene and sanitation conditions are poor. Springs are not protected and people and animals share water sources, causing contamination and spread of water-borne diseases. Some communal water sources are dry for part of the year.

Some farming practices are unproductive and damaging to the environment. The farmers lack knowledge about improved technologies which would help them increase productivity and sustain the environment. They also lack access to information and services necessary to support their activities. Even if farmers were able to produce enough crops for sale, access to markets is often limited.

There are few opportunities for non-farm related income-generating activities and this lack of diversity in income sources means that households are vulnerable to shocks and stresses. Vulnerable households headed by women or youth try to raise income from handicrafts, brewing local drinks or collecting firewood to sell. However, lack of access to credit for business start-up costs also limits opportunities.

Cultural and religious customs put women and girls at a disadvantage in the home and community. Harmful traditional practices such as female genital mutilation and early marriage are common. Women are precluded from owning assets or taking part in decision-making. Women and girls have very heavy workloads in the household; daily water collection alone can take 2-3 hours per day and contributes to an exceptionally low rate (10%) of girls attending school. HIV/AIDS prevalence is estimated to be 3.5%, affecting more women than men (Economist Intelligence Unit, Ethiopia profile, 2011). However, because of limited awareness in rural areas, these estimates are likely to be inaccurate as it is difficult to ascertain whether the incidence of the disease is rising or not.

Kotoba Sustainable Livelihoods Project

The above scenario was the general situation in the Kotoba region of Ethiopia until several years ago. In 2004, TAM Consult, an Ethiopian consultancy agency, carried out a preliminary needs assessment in Kotoba. They initiated a few pilot activities in the area including training on manure composting, seedling preparation, and fruit tree grafting and production, and found that the communities were very receptive to learning these new skills.

TAM then invited the Programme Co-ordinator for Ethiopia of Send a Cow, an NGO based in the United Kingdom, to visit the area. Early in 2007, the Send a Cow Ethiopia staff team travelled to TAM's project site to carry out a full needs assessment with the local communities. This was followed by a joint appraisal visit later in the year by a team composed of staff from the Alliance of Knowledge and Action for Sustainable Livelihoods Management (AKAM), Send a Cow Ethiopia and the District Office for Agriculture and Rural Development.

The team carried out focus group discussions, key interviews and a literature review. Informal discussions were held with women, men, boys and girls as well as government employees in schools and health centres. The information collected made it clear that whilst the communities were struggling with multiple challenges which directly and indirectly contributed to their food and livelihood insecurity, they were very keen on working with AKAM and Send a Cow to address these.

"[Before the project] I had no saving habit and would spend all I made, and was always quarrelling at home. I spent all I earned and even sold assets. I had only a small amount of degraded land and no seed and couldn't use it. Now I have changed my behaviour and attitude; I rent 2 hectares of land and have pasture for fodder. I am growing crops. Our food at home has improved, the children are in school and I am sharing my practices with others. Who am I? I am a man, fully human, who can sit with others."

–Kabata Merga, a farmer from the project



Figure 3: Improved traditional stove at the home of Kabata Merga.

A project area in the Dendi District of Oromia Regional State, around 120 kilometres west of Addis Ababa was chosen. The residents there carried out a wealth-ranking exercise facilitated by Send a Cow Ethiopia staff using farm size, livestock holding and enset (enset is also known as false or Ethiopian banana and is the country's most important root crop) plantation as determinants of wealth. The results showed that 90% of the people living in the Kotoba region were poor and 60% were very poor.

Based on these findings and consultations with the community, a project plan was developed. The project would promote a variety of agroecological practices including agroforestry; soil fertility enhancement through composting, intercropping and crop rotation; organic pest management; post-harvest management; and improved animal management.

The project lasted from 2008 to 2013. Three farming communities which suffered from severe poverty were targeted. The initiative involved 5,000 people in 1,000 households, members of 50 self-help groups in the project area. The organizations coordinating and supporting the project were Send a Cow, Big Lottery UK, and AKAM.

Project Interventions

The project focused on increasing the capacity of farmers to improve their livelihoods through innovative training methodologies. AKAM moved from the conventional "training" to "participatory learning" approach, from "teaching" to "facilitation", and from "knowledge transfer" to "knowledge sharing", based on the principle of the project families passing on the gift of help received to other needy families. There were several measures that were implemented as described below.

Community Organizing

- AKAM first consulted and shared with the communities the proposed interventions in order to seek their full participation. It facilitated the establishment of 50 self-help groups with 15-25 members each made up of the most vulnerable members of the communities, including very poor families, widows, women household heads, youth and disabled people.
- The establishment of Project Steering Committees was also facilitated; these were to oversee project implementation. These committees were made up of elders, leaders, men, women and youth from the communities. A community project fund for communal projects was also set up.

Integrated Crop and Livestock Farming Systems and Improved Farm Management

- Training was provided for the 1,000 households in sustainable organic agriculture technologies including manure composting, setting up kitchen gardens, making double-dug beds, and using natural pesticides in order to increase crop and vegetable production.
- Vegetable seeds, tree seedlings, fodder trees and other planting material were given to the households. Highland fruit trees were introduced for fruit production for income-generating and nutritional purposes.
- Access to agricultural tools and equipment was facilitated through providing credit facilities.
- Soil conservation was promoted through manure composting, mulching and crop rotation.
- The planting of multi-purpose fodder grasses, legumes and fruit trees allowed for a diversification of farm income activities, improved animal management and improved soil fertility. Community-owned tree plots were established, boosting the target groups' incomes.
- Livestock (cows, sheep, poultry, bees or donkeys) was placed in resource-poor households. Priority was given to households that were without livestock at all.
- The project households were trained in improved animal husbandry techniques so that their livestock would be healthier and more productive. This included the introduction of stall feeding, under which livestock were housed in light airy sheds and fed grass and leguminous plants cultivated for fodder.
- Increasing the genetic quality of livestock for better productivity was a key aspect of the project.
- Improved livestock breeding was achieved through the introduction of a village bull scheme with pure-bred bulls and the provision of artificial insemination equipment and training for para-vets and government staff.
- Training in improved dairy and poultry management was provided in order to increase production.
- Supplementary feed for cows and poultry was provisioned on a revolving fund loan basis to be repaid from milk or egg sales.
- The project also promoted the construction and use of fuel-efficient stoves in order to reduce fuel consumption and release manure to be composted into organic fertilizer.

Support Services

- 15 farmer-owned and managed demonstration and learning sites were established as training centres and seedling nurseries for the dissemination of knowledge on sustainable organic agriculture and seedlings. The more capable and innovative farmers from the self-help groups were given further training on how to set up the demonstration and learning sites so that they could provide training and advice to other farmers.
- The capacity of the district veterinary offices to deliver support services was strengthened. An animal health post in the Kotoba market centre was constructed in collaboration with the Office of Agricultural Rural Development. Para-vets were also trained to provide veterinary support to group members.

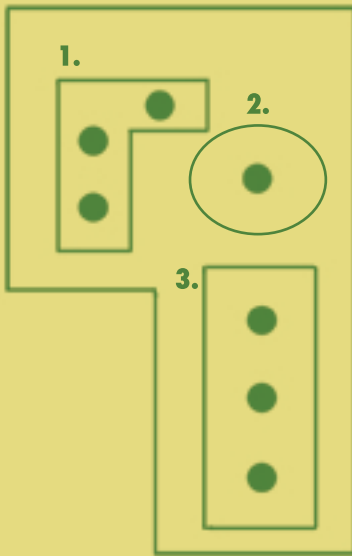


Figure 4: Sketch of Kitchen Gardens
 1. Kabata's new garden
 2. Kitchen Garden
 3. Kotoba Garden



Figure 5: Improved animal management is a key feature of the KoSuLP training. Improving production through better management in tandem with genetic improvement creates a resilient system and also enables key on farm resources such as animal wastes to be collected efficiently.

Livelihood Improvement

In order to sustain the improvements in farmers' livelihoods, the self-help group members were trained in enterprise development, business skills, marketing and financial management. They were assisted in establishing community-based savings and credit schemes.

The groups identified and initiated income-generating activities such as vegetable and fruit production, bamboo plantations, poultry and milk production and sheep rearing in order to diversify income sources. They were also supported in processing milk products for marketing.

Community access to information on markets, services and appropriate technologies was facilitated through distribution points and access centres using various means like the radio.

AKAM mobilised the communities to build a road link to the main Addis Ababa road.

Natural Resource Management and Protection

Another important element was to improve natural resource management (soil, water, trees and land) within the target communities. This was achieved by promoting land reclamation and the regeneration of gullies, steep land, backyards, marginal land and boundaries.

Studies of water needs and potential sources were conducted; these led to the development of springs, hand-dug wells and ponds to increase access to water for household and agricultural use.

Environmental clubs for unemployed youth to learn about conservation management were established. The wider community was trained in biodiversity and the importance of environmental conservation.

Outcomes

The project organizers say that the success of the project has been largely due to the action learning attitude of AKAM, its willingness to change from being teacher to facilitator, the favourable responses from the donors, and the project being driven by the participants in Kotoba. The communities stressed that this project was unique because it was owned by them. This was the reason for the high level of implementation after the training programmes, leading to significant increases in income.

Increase in Income

The significant impact on the income of farmers is considered as the project's central achievement. The average annual household income reported in the baseline survey was 679 Birr (35 USD) in male-headed households and 642 Birr (33 USD) in female-headed households (Baseline Survey Report, 2010). The survey at the end of the project found that participating households were earning incomes of 9,352 Birr in male-headed households (481 USD) and 8,356 Birr (429 USD) in female-headed households, around a thirteen-fold increase for the families. There is a wide range of increases. However, even the lowest reported income is four times that in the baseline survey. Credit for business has been used by 67% of the participants, coming mostly from the self-help groups or non-governmental organizations, suggesting that the farmers now feel able to use greater working capital productively.

Higher Crop Yields

Some of the increase in incomes has come from higher production per unit area. The kebele Chairperson in Kotoba reported a doubling of barley yields, attributing this to the better varieties brought in by both the project and the government. The farmers also attributed yield increases to using compost on their fields and vegetable plots.

Increased Crop Diversity

Increasing the diversity of crop varieties lowers the farmers' exposure to risk of crop loss and thus is an essential component of a resilient food production system. This has been a significant and visual change in the project area and was highlighted by both individual farmers and focus groups discussion interviewees. It was listed as a very important development in the focus group discussion with women farmers who said that growing vegetables had brought about positive changes in family diets and incomes as well as more effective land use. Project members are proud to show off their gardens. They reported that all cash expenditure in the households was now subject to discussion and decision by the whole family, not only the person who generated the income (in the context of sales from project members' kitchen gardens).

Improved Nutrition and Health

Improved nutrition and access to healthcare through a new government centre has lowered the number of schooling days lost by school children due to sickness. A health worker reported a 70% decrease in childhood diarrhoea cases recorded since the project began and attributed this to the use of toilets and hand-washing facilities introduced by the project.

The local Elementary School Director commented that due to the project activities, the school students now saw agriculture as a positive means of improving family life and incomes, and that the students now wanted to form self-help groups for themselves.



Figure 6: Improved animal management is a key feature of the KoSuLP training. Improving production through better management in tandem with genetic improvement creates a resilient system and also enables key on farm resources such as animal wastes to be collected efficiently.

This case study is dated May 2014. The information was provided by Send a Cow. Questions may be sent to the author: Martin Vieira, Policy Executive, Send a Cow at martin.vieira@sendacow.org

Enhanced Social Skills

As well as the practical skills needed to implement the new technologies learnt in the home and field, social skills have been enhanced as project members have been trained on group formation and management, credit and savings organisation and maintenance, self and group representation, conflict resolution, and managing family relationships. About 16% of the baseline survey respondents had believed that their efforts could bring about changes in their communities; by the end of the project, this had risen to 99%, with 90% believing women could make community decisions equally well as men.

Coordination and Resources

The project relied heavily on consulting the communities to define their challenges and needs, so a large part of the project effort was to build trust with the communities. This involved getting them to buy into the project and establishing the necessary framework (infrastructure, human resources and inputs) to provide an enabling environment for the farmers to overcome the challenges they were facing. Working with all the stakeholders (communities, government and AKAM) in a coordinated way was the cornerstone of the project.

The budget for the project was 5,079,900 Birr (USD 261,270). This translates into approximately 1014 Birr (52 USD) spent per person, or 5,074 Birr (261 USD) per household.

The highest cost was for staff salaries as the project success relied heavily on intensive training being delivered to the groups. Agricultural inputs and livestock took up another significant share of the project budget. Finally, another main expenditure of the project was the facilitating the participation of self-help groups which were paramount to the success of the project. It must be stressed that this model of community-led development was a defining feature of this project's success.

In terms of infrastructure, a project office was established in Kotoba which entailed renting suitable premises and purchasing computers, photocopiers and other necessary equipment and furniture. One four-wheel drive vehicle was purchased for transport along with motorbikes for project staff and community facilitators to enable them to visit the self-help groups and individual farmers.

Upscaling

The project introduced the principle of "Passing on the Gift" whereby farmers who received livestock and other inputs were to pass on the equivalent as a gift to another needy family. In the same way, those who attended the training programmes were encouraged to share their new skills and knowledge with others in the community.

There are many opportunities for upscaling and mainstreaming the elements of this initiative. The self-help groups have been using their savings and credit schemes for group-based income generating activities. This pooling of resources has given them the edge to upscale their activities. Some self-help groups have also evolved into larger federated organisations, thus enabling a greater outreach scope for the dissemination of agroecological techniques as well as the benefits of working as a group for the wider community.

Furthermore, functional learning alliances and networks have been established to share and upscale good practices and lessons among self-help groups and with other development agencies including other Send a Cow Ethiopia partners. The involvement of the government has also provided an opportunity for mainstreaming training in agroecological practices into government extension programmes and policies.

Food Sovereignty and Advocacy

The project has advanced the central message of food sovereignty in that the main actors of change in food systems should be the smallholder farmers themselves. The most effective advocates for food sovereignty are farmers who are living proof that smallholders can indeed make a successful living off their land while conserving and enhancing ecosystem services. Putting smallholders at the centre of agricultural programmes and policies and giving them culturally, technologically and environmentally appropriate support on a broad scale has the potential to radically transform the face of agriculture in Africa.

Supporting self-help groups to function effectively is a strong sustainability factor for any intervention. Organised communities not only create informal social security nets, they are also strong platforms for policy advocacy. Successful initiatives such as this project are powerful ways to influence the way the government perceives smallholder farmers and what policies are effective for rural development. There are opportunities to showcase this project as an example of the importance of agricultural knowledge transmitted in a participatory way for rural poverty reduction and national and regional food security.

The project underscores the importance of the appropriateness of government policies and extension services in poverty reduction. Government staff capacity-building and strengthening their links with the communities proved to be a valuable resource for the project farmers. The latter now have improved access to better extension services and more capacity to advocate for policies that are favourable to them. Farming communities should call for greater agricultural spending by the government in providing appropriate services to farmers as opposed to policies such as providing fertiliser subsidies which are fundamentally unsustainable and harmful to the environment.