



ETHIOPIA: Agricultural Production and Food Security in the Amhara Region

Institut für
Entwicklung
und Frieden



UNIVERSITÄT
DUISBURG
ESSEN

Offen im Denken

Ways out of extreme poverty, vulnerability
and food insecurity (AVE)

10B GOOD
PRACTICE
SERIES

Karin Gaesing

Agricultural Production and Food Security in the Amhara Region of Ethiopia

The project „*Multi-dimensional food and nutrition security in Amhara*“, carried out by Welthungerhilfe and the Ethiopian non-governmental organisation ORDA (Organization for Rehabilitation and Development in Amhara), works in three *woredas* (districts) in the highlands of Northern Ethiopia. Around 10,400 smallholder households, or a total of 50,000 people, benefit from the project measures. The project addresses the problem of food security in the region from several angles. On the one hand, agricultural production is increased and thus more food is produced directly on the smallholder farm. Erosion control, compost formation, irrigation and other measures help to sustainably increase agricultural production. Instead of just one harvest a year previously in rain-fed agriculture, small farmers can now achieve up to three harvests a year. On the other hand, improved storage models are made available in order to minimise the high post-harvest losses. A third area of intervention is the further training of men and women in improved hygiene and nutrition, combined with gender training.

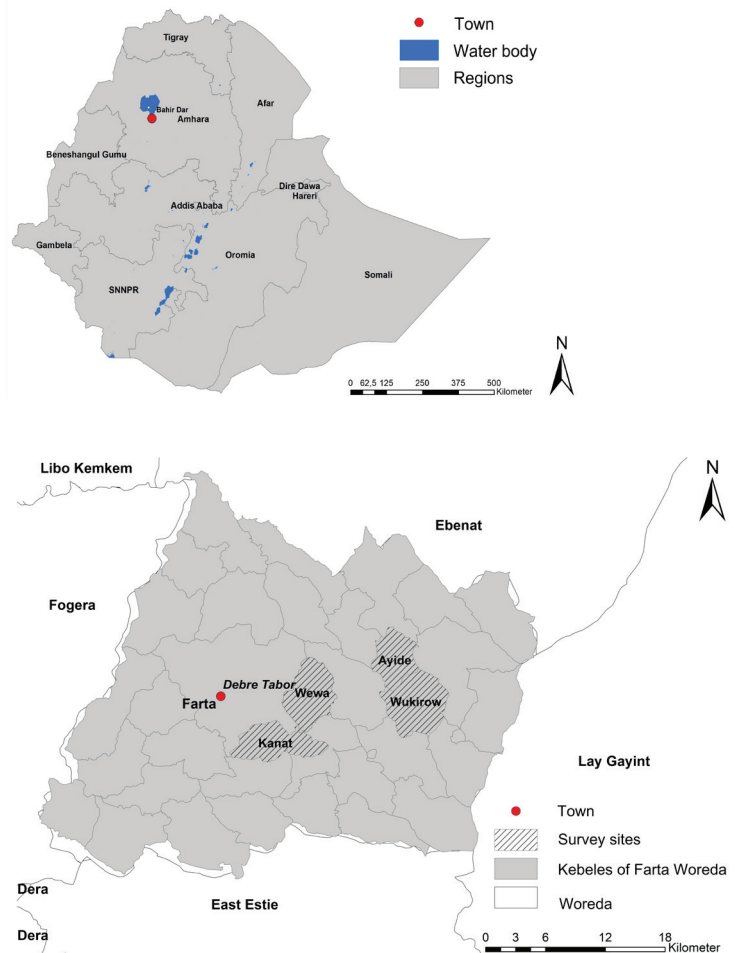
Participation in the project has led to a quantitative and qualitative improvement in nutrition and a higher income for all families surveyed in this study. The introduction of savings and credit groups helps people to use their additional income profitably. The additional income is first invested in the education and care of the children. In addition to the economic impact of the project, the farmers also appreciate its social effects, which have increased the standing of poor families and strengthened cohesion in the community.

Increasing production for small farmers, small-scale irrigation, food security, Amhara, Ethiopia

Country and project background

Ethiopia ranks 147th out of 188 countries included in the Human Development Index (UNDP 2015), making it one of the poorest and least developed countries in the world. Nevertheless, the Ethiopian government's declared goal is to become a medium-income country within the next ten years. In the last two decades Ethiopia has indeed made considerable progress in terms

of economic development. Between 2004 and 2011, it recorded growth of 10.6% in gross national income compared to its neighbouring countries, which recorded average growth of 5.4% over the same period (World Bank 2015).



The vast majority of the Ethiopian population (more than 70%) lives from agriculture (cf. CIA 2018). However, this sector is characterised by land degradation, high dependency on precipitation, climate change, the consequences of deforestation and recurrent droughts, and its productivity is severely impaired. In response to these challenges and the resulting food insecurity of large sections of the rural population, the Ethiopian government is implementing three nationwide packages of measures for rural development, depending on the socio-economic and ecological situation of the respective *woredas* (an administrative unit which corresponds to a district): The Productive Safety Net Programme (PSNP) for social security is implemented exclusively in *woredas* classified as food insecure. The Sustainable Land Management Project (SLMP) focuses

on vulnerable *woredas* with high soil erosion, and the Agricultural Growth Programme (AGP) is applied in food-secure *woredas* with potential for agricultural production.



The multi-dimensional food and nutrition security project in the Amhara region in northern Ethiopia, funded by Welthungerhilfe, is based on the LANN approach (Linking Agriculture, Natural Resources and Nutrition), which combines the promotion of agriculture with the protection of natural resources and food security. The project is funded by the special initiative ONEWORLD – No Hunger. The project region was selected because of the high poverty rate and food insecurity of the population. The area is classified as highly vulnerable, i.e. an area where sustainable land management measures should be implemented to prevent it from slipping into the classification for the PSNP with the corresponding need for social security measures.

Overview of objectives and activities

The overall goal of the project is the qualitative and quantitative improvement of the nutritional situation in the Amhara region. The project's objective was to improve food security for 10,398 farming households in the three *woredas* East Estie, Farta and Fogera through improved agricultural practices, resource management, market integration, agricultural processing and nutritional advice. It is intended to achieve this objective through four different strands of activities: (i) increasing agricultural productivity and production through improved cultivation techniques, product diversification and sustainable resource management and measures to improve soil fertility, (ii) increasing livestock productivity through the introduction of fodder crops

and pasture management and through breeding measures, (iii) stimulating value chains and market access for diversified sources of income and (iv) training in nutrition and hygiene for mothers and other key persons (Welthungerhilfe 2017).

A team of the Institute for Development and Peace (INEF) of the University of Duisburg-Essen carried out research work in Farta *woreda* in August 2017. In the local communities (*kebeles*) of Wukirov, Ayide and Kanat, the average arable area is 0.5 to 0.75 hectares per family. For the Ethiopian highlands, such as here at an average altitude of 2500 m, this is quite normal.



The project, called AMELD (Amharic acronym for ORDA) by the local population, began its work in these communities in 2013 and will have ended in April 2018, promoting the cultivation of new crops such as apple trees and potatoes or improved varieties of wheat or barley. Erosion protection measures such as terracing and planting grass varieties or legumes along soil bunds that follow slope contours improve the infiltration of rainwater in the soil and prevent the washing away, of nutrients, fertile topsoil and seeds in heavy rainfall. Soil fertility is thus increased, which in turn leads to higher crop yields. The legumes and grass are also regularly cut and used as animal feed.

Through the project, the farmers market a large part of their barley via the local cooperative to a brewery in the region. The usual service cooperatives here, through which primarily agricultural inputs such as fertiliser and tools can be obtained at reduced prices, each serve three to four *kebeles*.

Many families use small-scale irrigation. In Ayide alone, 157 households with a total of 40 hectares of land are connected to the irrigation system. The project included technical improvements to an

existing irrigation system, the partial construction and concreting of the canals, and a significant expansion of the irrigated area. Those households whose land is not in the catchment area of the irrigation system can benefit from pump irrigation. A hand pump (rope and washer pump) for irrigation of fruit and vegetable gardens can be purchased on credit from the cooperative. Farmers usually plant white cabbage, chard, carrots, chillies, onions, garlic, beetroot, tomatoes, potatoes and apple trees in the gardens close to the house.



Rams of an improved breed of sheep were given to some of the extremely poor households for breeding. Young men and women of the community received part of the common grazing land for beekeeping and sheep breeding. A group of single women runs a dairy farming business with commitment and success. Other project activities include nutrition and hygiene courses that are not only aimed at women but also specifically involve men, further training in conflict management and community promotion, and the promotion of savings and credit groups.

Project impact attained to date

In the villages surveyed, the INEF team carried out a wealth ranking in which participants in a focus group discussion first defined the categories „poor“, „medium“ and „wealthy“ and then classified the households of their village into the respective categories for the time before and after the project activities. Before the project began, all three communities had about 75% poor, about 20% middle-class families and less than 10% wealthy families. At the time of the interview, three years after the start of the project, the

proportions of households have completely shifted: approx. 40% wealthy, 45% average incomes and only 10 to 15% poor households. Respondents attribute this mainly to increased soil fertility due to erosion control measures, small-scale irrigation and improved cultivation techniques, which yield significantly higher yields in agricultural production. The higher yields and thus incomes have enabled families to invest in agricultural and non-agricultural activities. They are also able to build up reserves and save money.

The farmers emphasise that the biggest change through the project is the intensification of land use. Instead of harvesting only one cereal crop a year and growing some pulses in addition, as was previously customary, farmers now achieve up to three harvests from a more diversified product range due to erosion protection, new cultivation techniques and small-scale irrigation. The land is now used intensively all year round and no longer remains fallow from mid-November to April.

The project has also been shown to have a positive effect on people's nutrition: Before the project began, the families' food in the region often did not last until the next harvest. Families would often have had to forgo breakfast altogether. For lunch and dinner, people always ate *Injera* and *Shiro*, the local pancake-like bread with a bean sauce. According to the families interviewed, they now eat three meals a day and can drink the highly esteemed coffee in Ethiopia in the mornings and evenings. Small irrigation almost automatically goes hand in hand with the cultivation of vegetables and thus the qualitative improvement of nutrition. The AMELD project also introduced a number of vegetables, such as carrots, tomatoes and potatoes, which are little-known or unknown to the families. These now enrich the families' menus and lead to a more balanced diet.



The profits from agriculture are invested in the children's schooling, in the construction or renovation of the house or in measures to make work easier for women in particular. Instead of grinding the grain by hand with the millstone, the family now brings the grain to the mill. Instead of transporting water and firewood on their backs, some women or families buy a donkey to carry loads. This also facilitates the marketing of agricultural products, because a donkey can carry more than a woman – and men usually carry no burdens here. A large part of the profit is invested in measures to increase agricultural productivity and production. Some farmers (rarely farmers' wives) rent additional land for cultivation, they buy oxen as draught animals, fertilisers, tools such as hoes and watering cans, or they employ workers in their fields. Sheep or goats for fattening are a very popular investment. These animals also serve as capital investments, which can be sold if required.



In addition to the economic effects, the farmers emphasise above all the social impact of AMELD. The increased income is also noticeable on the outside, e.g. through better clothes, the increased school attendance of the children (especially in the secondary school), a tin roof on the house instead of a thatched roof or through a mobile phone. A better standard of living and a higher self-esteem lead to a higher reputation in the community. This in turn goes hand-in-hand with inclusion in social networks (*Idir*) for mutual support at weddings, funerals and the like and in traditional savings and credit groups (*Equib*). Extremely poor people are often excluded from these networks. AMELD itself actively encourages the establishment of savings groups. Formerly poor people no longer feel excluded but now a valued part of society.

The gender impact of the project is considerable. Women receive more help in the household from their

husbands, not only in obtaining water and firewood, but sometimes also in cooking, for which traditionally only women are responsible. The extremely poor single women, some of whom are widowed, from the dairy cooperative are becoming increasingly interesting as marriage partners and receive offers of marriage. Many women state that they are treated with more respect and that decisions in the household are made jointly. Greater prosperity took away worries about money and food, and hence also removed one of the biggest causes of conflict in families. Overall, the project has contributed to a more peaceful and content coexistence both within the family and in the community, creating a feeling of security.

Conditions for success

► The integrated LANN approach, which links the management of natural resources (especially erosion control) with further measures to increase agricultural productivity and food security accounts for a large part of AMELD's success. Erosion protection measures are the basic prerequisite for increasing productivity, on which further activities are based. The approach is integrated into measures to strengthen the resilience of the communities by creating a new sense of belonging and structures for mutual support.

► The very close cooperation between the German NGO, regionally well established local NGO and government agencies (e.g. the agricultural department) creates the conditions for the sustainability of the measures and also offers the opportunity for further dissemination of the approach. The method of targeting (landscape approach) and the awarding of dairy cows to extremely poor women instead of, as in the past, to potential farmers have good prospects of being taken over by the state agricultural advisory service.

► One of the conditions for the success of the project's high impact on poverty, food and gender is the very committed staff of the local NGO ORDA, which is implementing the project.

► The establishment of savings and credit groups, which also exist traditionally in Ethiopia, enables farmers to build up reserves from their profits and thus make larger investments at a given time. The accumulation of assets, which is important for strengthening the resilience of poor households, is therefore possible.

► A sustainable, already existing cooperative structure enables ORDA to sell agricultural inputs to farmers on a credit basis. It also gives small farmers a stronger negotiating position vis-à-vis larger buyers of products such as the nearby brewery for the marketing of barley.



► In the Amhara region, a government programme has made considerable progress in awarding land titles to farmers. Both husband and wife are registered on the certificate. The certificate offers security and a valid negotiating position in conflicts with neighbours or potential investors. The entry on the certificate guarantees the rights of women in the event of divorce or death of their husbands. The land title also gives men and women the security of investing in permanent structures to increase the productivity of their arable land without having to fear that they will no longer be allowed to cultivate the land in the near future and that someone else will benefit from their measures.

► Close cooperation between the NGOs and the local authorities in the villages makes precise targeting of the extremely poor households in the villages possible. For example, the project staff were informed about possible extremely poor participants for the dairy cattle groups and for the groups of young unemployed who were intended for a beekeeping and sheep fattening project. The names mentioned by the authorities were confirmed by village assemblies or in some cases replaced by others that met the criteria of extreme poverty more closely.

Conclusions for development cooperation in general

► Where soil degradation is significant, for example due to water or wind erosion, and severely impairs agricultural productivity, sustainable management of natural resources, especially with erosion control measures, is a basic prerequisite for agricultural production. If this basis is given and its necessity and effect is anchored in the minds of farmers, productivity and production can be additionally increased with other measures.

► The use of small-scale irrigation demonstrably leads small farmers out of poverty and can help a region to attain economic growth (cf. INEF Good Practice 01 from Kenya). The promotion of infrastructure (such as the construction of access roads which are negotiable all year round) as well as the marketing and processing of agricultural products lead to an additional increase in value.

► Small-scale irrigation almost always leads to vegetable and possibly fruit cultivation and thus to a better, more balanced diet.

► The participatory selection of beneficiaries for the various project activities guarantees the acceptance by those who do not take part in the respective activities.

► The issue of land titles creates security for farmers in the long-term management of their land and thus has a decisive influence on their investments in the country. If, as in the case of Ethiopia, spouses are listed together on the certificates, in the event of divorce or husband's death, women can enforce their rights under modern land law on the land of the farm. In Ethiopia, as in other African countries, women have the right to a share of the land in these cases, but this is often handled differently de facto. Women are often deprived of their land or urged to give up their right to it. However, it will only become clear in the future whether this modern regulation can be enforced against the traditional ideas of land being exclusively in the hands of men.

► In the documented case, as in most cases generally, a strengthening of resilience at the household level succeeds primarily through economically effective measures. Support is provided by a simultaneous strengthening of resilience at community level, above all through the creation of a feeling of solidarity and structures of mutual support and assistance. This is an area of support in which specifically NGOs often show their particular strength.

Literature

CIA. Central Intelligence Agency (2018): The World Factbook Ethiopia. <https://www.cia.gov/library/publications/the-world-factbook/geos/et.html> [03/2018].

INEF. Institut für Entwicklung und Frieden (2017): Good Practice 01, Kenia: Mitungu Smallholder Irrigation Project. Universität Duisburg-Essen.

UNDP. United Nations Development Programme (2015): National Human Development Report 2014 ETHIOPIA. Accelerating Inclusive Growth for Sustainable Human Development in Ethiopia. Addis Ababa.

Welthungerhilfe (2017): ETH 1126 Multi-dimensional Food and Nutrition Security on the Abyssinian Highland. Interim Report for the Year 2016, March 2017. Addis Ababa.

World Bank (2015): Ethiopia: Poverty Assessment 2014. Poverty Global Practice Africa Region. Washington.

Images

Cover picture: irrigation channels and potato growing, 1. + 2. Maps of the project region (cartography by Ann-Kathrin Kaiser), 3. Typical landscape with soil erosion in the foreground (communal land) and slope terracing in the background (private land), 4. Slope terracing, 5. A farmer with his rope and washer pump, 6. Wealth Ranking for the time before the beginning of the project (the sticks represent poor, medium and rich households), 7. Wealth Ranking for the present day, 8. Group of extremely poor women who are jointly carrying out dairy farming.

© all photos Abdi and Karin Gaesing 2017

Project characteristics*

B6 – Intensity of research team involvement

G1 – Gender index

P4 – Participation

A1 – Target group index

* For explanation see Good Practice Handbook or www.inef-reachthepoorest.de

Previously published in the Good Practice Series:

- AVE Handreichung zur Good-Practice-Reihe
- 01 Kenia: Mitunguu Smallholder Irrigation Project
- 02 Kambodscha: Das Kommunale Landtitelprogramm für indigene Bevölkerungsgruppen
- 03 Kambodscha: Schulspeisung mit lokaler Beschaffung. Das "Home-Grown School Feeding Project" des World Food Programme
- 04 Kenia: Der Selbsthilfegruppen-Ansatz in Kitui
- 05 Kambodscha: Verbesserung der Ernährungssicherung ehemals landloser und landarmer Haushalte
- 06 Kambodscha: Gesundheitsfürsorge für die Ärmsten durch den „Health Equity Fund“
- 07 Kambodscha: Wer sind die Ärmsten im Dorf? Erfahrungen mit dem ID Poor-Ansatz
- 08 Kenia: Hunger Safety Net Programme – Soziale Sicherung in Turkana County im Norden Kenias
- 09 Kenia: Diversifizierung der Existenzgrundlage durch Agropastoralismus

INEF - Research Project

The research project aims to develop recommendations for state development cooperation. The aim is to identify measures that can better reach extremely poor, food-insecure and vulnerable population groups.

We examine the interdependencies of extreme poverty, vulnerability and food insecurity in order to identify both blockages and success factors for development cooperation.

Based on literature analyses and surveys of professional organisations at home and abroad, successfully practised approaches ("good practices") are to be identified and intensively analysed within the framework of field research. In addition to a socio-cultural contextualisation, the gender dimension is consistently

taken into account throughout. The local investigations focus on the participation of the affected population in order to capture their perception of the problems and ideas for solutions.

We initially conduct our research in Ethiopia, Benin, Kenya and Cambodia.

The project is funded by the German Federal Ministry for Economic Cooperation and Development (BMZ) under the special initiative "One World – No Hunger".

Authors of the series

Prof. Dr. Frank Bliss
Prof. Dr. sc. pol. Tobias Debiel
Dr. rer. pol. Karin Gaesing
Anika Mahla, M.A.

Editor

Institut für Entwicklung und Frieden (INEF)
Universität Duisburg-Essen

Layout

cMore.MEDIA
Lucy Yang

© Institut für Entwicklung und Frieden 2019

Lotharstr. 53 – D-47057 Duisburg
Tel: +49 203 379-4420 – Fax: +49 203 379-4425
inef-sek@inef.uni-due.de
www.inef-reachthepoorest.de
www.inef.uni-due.de
ISSN: 2512-4552