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## **Social Enterprises in Agricultural Promotion**

The One Acre Fund Model in Kenya

**AVE-Study 27b/2022**

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## **Social Enterprises in Agriculture Promotion**

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**AVE Study 27b/2022**

**Ways out of Poverty, Vulnerability and Food Insecurity**

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## List of abbreviations

AVE	Research Project “Ways out of Poverty, Vulnerability and Food Insecurity”
BMZ	German Federal Ministry for Economic Cooperation and Development
DC	Development cooperation
FAO	Food and Agriculture Organization of the United Nations
FGD	Focus group discussion
FO	Field Officer
FC	Financial Cooperation
ha	hectare
HH	Household(s)
INEF	Institute for Development and Peace
KES	Kenya Shilling
KfW	Kreditanstalt für Wiederaufbau (German development bank)
KNBS	Kenya National Bureau of Statistics
M&E	Monitoring & Evaluation
NGO	Non-governmental organization
OAF	One Acre Fund
SDG	Sustainable Development Goal(s) (= Agenda 2030)
SHG	Self-Help Group
SROI	Social Return on Investment
TLU	Tropical Livestock Unit
TC	Technical Cooperation

## Summary

This study examines the social enterprise One Acre Fund (OAF) in Kenya, which is funded by the Kreditanstalt für Wiederaufbau (KfW). Here, beyond the evaluation of social impact, the social enterprise is also understood and analysed as a development policy actor. As part of a field study, intensive interviews, focus group discussions (FGDs) and a household (HH) survey were conducted with farmers and OAF staff, supplemented by expert interviews. A special focus was placed on the farmers' perceptions and assessments.

The OAF is a social enterprise registered under 501(c)(3) in the US as a non-profit, non-governmental organisation (NGO) that supports smallholder HH through a broadly holistic approach to agricultural development. The company began its activities in western Kenya in 2006, but has since been able to establish them in other parts of the country and, in the core programme, across national borders in Rwanda, Tanzania, Burundi, Malawi and Nigeria.

The holistic model of the OAF provides for a combination of different development policy interventions. It follows the basic idea that a combined provision of access to credit, inputs and training in agriculture achieves a higher impact than the isolated improvement of only one of the aspects mentioned. The credit is only given in kind for farm inputs or agricultural goods and consumer goods, in order to ensure that the credit is used productively as far as possible. The accompanying training ensures economic success.

The study shows that the holistic approach does have a positive effect on HH income and, in particular, increases the supply of staple food by increasing subsistence production. The OAF's range of products is now diversified, but clients mainly ask for maize seed and fertilizer. The improved supply of staple food and the slightly increased incomes lead to a reduction in competing needs. Monetary income has to be spent less often on staple foods and, according to the farmers, is instead used mainly for school education and improved consumption in the sense of a more nutritious diet. This helps central development policy goals to be attained.

The model of the OAF in Kenya shows that social entrepreneurial approaches can achieve a very great reach. The decentralized and thus rapidly scalable business principle reached over 1,400,000 HH on the African continent in 2021, about 500,000 of them in Kenya. The OAF provides quality inputs and, through the credit model, gives rural HH much improved access to agricultural implements and other products to improve their livelihoods.

However, the entrepreneurial principle is a hurdle for deeper developmental interventions. Adapting agricultural practices in the sense of agro-ecological cultivation requires intensive advisory services. However, an increase in these training sessions inevitably leads to an increase in costs for a social enterprise. This therefore jeopardizes the economic viability according to which they are evaluated via corresponding indicators within the framework of funding by German development cooperation (DC), among other things. The simultaneous reduction of input-intensive farming systems reduces sales and is therefore contrary to the generic interests of a (social) enterprise. In the field of sustainable agriculture, social enterprises are accordingly only able to promote the spread of adapted farming methods up to a certain point.

With the OAF's increasing presence as an agricultural input provider, it is taking a strong role in the Kenyan market, serving a large number of HH at the local level. This inevitably has an impact on existing market players, but also on the general development of the market. This effect is reinforced by the establishment of a network of OAF retail points, which removes the focus on small farms and allows OAF products to be purchased by farmers outside the core



programme. Whether this effect is in the sense of sustainable economic development and whether the systemic effects of this strong presence of the OAF as a donor-supported social enterprise on the Kenyan market are to be assessed positively, must be examined for further promotion from a development policy perspective.

## Project background

Against the background that the number of extremely poor people in many developing countries is not declining despite multiple efforts, the Institute for Development and Peace (INEF) at the University of Duisburg-Essen, with funding from the German Federal Ministry for Economic Cooperation and Development (BMZ), conducted a four-and-a-half-year research project entitled “*Ways out of Extreme Poverty, Vulnerability and Food Insecurity*” (AVE) from October 2015 to March 2020. The aim of the project was to develop recommendations for German official development cooperation (DC) with regard to improving the target group accessibility of extremely poor, vulnerable and food-insecure population groups and the sustainable improvement of their living conditions.

The focus of the INEF team’s research was on examining projects that work primarily within the following topics:

- (i) Access to *land and legal security of land ownership* and use,
- (ii) *agricultural value chains* and
- (iii) *social security*.

*Socio-cultural aspects of development, participation* of the population in decision-making and *gender justice* were always considered as cross-cutting issues.

Since October 2020, with a planned duration until the beginning of 2023, the research project has been continued with a slightly different target group: poor, vulnerable and food-insecure people. The first phase focused on extremely poor households (HH) and individuals, or the ultra-poor, who had no self-help capacities and were often “overlooked” in the context of DC. In contrast, the focus is now on groups of people who cultivate at least some land and can thus be reached in DC projects through classic agricultural and rural development approaches.

As before, the focus is on the search for *good practices* for successful poverty reduction and the review of the respective conditions for success. The focus of the research is now on *agricultural financing* and *holistic support approaches* for smallholder HH, i.e. *support approaches that combine financial services with advisory services and the provision of productive goods*. A particular topic in agricultural financing is the provision of credits to smallholder HH without land titles as collateral for loans. In all three research areas, the successful consideration of the cross-cutting themes of socio-cultural aspects of development, participation and gender is maintained as criteria for good DC approaches.

## 1. Introduction<sup>1</sup>

In view of Kenya's growing population in the coming decades<sup>2</sup>, it is of utmost importance to reduce dependence on food imports and increase national production. As one of the countries most effected by climatic changes, having almost completely developed agricultural land and facing a progressive degradation of resources, Kenya finds itself in a massive conflict of interests in agriculture. On the one hand, agricultural productivity must be increased rapidly to ensure the supply of the population, and on the other hand, ecosystems must be preserved or restored, otherwise the basis of the food system will be destroyed. In this field of tension, various actors and development policy approaches can be found, such as the Green Revolution for Africa or the agro-ecological restructuring of agriculture. In addition to government programmes to increase productivity, there are multilateral and bilateral DC programmes and a wide variety of national and international civil society organizations at work in the rural regions of the country and in political operations in Nairobi. These often overlap spatially and in substantive terms. Social enterprises are receiving increasing attention from international donor institutions, donors and foundations, also beyond the agricultural sector. These enterprises are often established in response to private sector market failure, but also driven by the failure or insufficient success of public development projects. With the help of rapid growth strategies, these companies try to have a broad social impact through their business activities and make services or products available to the poor and poorest sections of the population.

In the agricultural sector, social enterprises in Kenya are mainly found in the provision of financing and digitalization. The One Acre Fund (OAF), a social enterprise registered as a non-governmental organization (NGO) in the USA since 2006, has not only gained international attention for years, but has also received public funds from classic donor institutions from the Global North. With its model of providing agricultural inputs, implements and consumer goods through a credit model, the OAF served over 1,400,000 clients on the African continent in 2021, about 500,000 of them in Kenya (cf. OAF 2022). Through its retail structures and partnerships with governments, a further 1.5 million people have been reached through various channels, and with its lobbying department, the OAF has long been heard by national governments and at the global level.

The focus of this study is on public promotion of social enterprises such as the OAF in the context of DC. The example of the OAF will be used to show which development policy goals can be realized from the donor's point of view in cooperation with social enterprises and which social, poverty-reducing effect is achieved in concrete terms in this case. The study also raises the question of what impact social enterprises trigger as actors in the market.

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The research team would also like to express its gratitude to the many staff members of the OAF, especially the Field Officers assisting in the field, the Global Government Partnerships Department and the research / M&E team, who fully supported the study at all times and made it possible through the transparency and provision of information.

<sup>2</sup> The Kenyan population is estimated to be likely to reach 80 to 100 million in 2050, growing by at least 25 million people (cf. United Nations 2019).

As part of the second phase of the research project “Ways out of Poverty, Vulnerability and Food Insecurity” (AVE) at the Institute for Development and Peace (INEF), research on social enterprises was included as a focal topic under the working concept of “holistic agricultural promotion”. In the case of agriculture, holistic support describes the improvement of cultivation methods throughout the entire cultivation cycle, support in obtaining inputs and agricultural equipment, the provision of financing, and an improvement in post-harvest processes such as storage and marketing. Coupled with resilience-building measures such as support in diversifying production, building up livestock or access to (agricultural) insurance, households (HH) are to be sustainably protected against external shocks and an improvement in the food and living situation of the participating HH is to be made possible in the medium to long term.

## 2. Definition and role of social enterprises in developmental agricultural promotion

For a development policy evaluation of social entrepreneurial approaches, but also for the development of criteria for the promotion of social enterprises with public funds, it is necessary to formulate a clear definition of social enterprises. In particular, the concept needs to be distinguished from approaches involving private sector promotion. Depending on the perspective on the sector, social enterprises use market-based approaches to achieve a social impact. Money is invested for a social impact rather than a profit. These approaches are a response to the realization that there are vulnerable groups who are able to pay for certain services or goods that have a positive social impact and thus become clients rather than recipients of assistance. This strengthens the role of the target group in that clients always have the choice to participate and that they have certain rights vis-à-vis the company as consumers. Inevitably, therefore, a social enterprise must be responsive to the needs and desires of its clients and constantly evolve its business model to achieve its central goal of maximizing social impact through a large and ideally growing clientele. However, this constant process of adaptation makes it more difficult to embed social enterprises in classic monitoring processes of DC.

### 2.1 Definition of social enterprise

A social enterprise describes a company that uses entrepreneurial means to pursue a social or ecological goal. It usually arises as a reaction to a market failure. In this context, market failure describes the absence of a market, the limited existence of a market or the inability to profitably serve a market (cf. Wale-Oshinowo et al. 2019). Wale-Oshinowo et al. see this condition as being fulfilled by the high poverty rate in many sectors in Africa, where clients but also entrepreneurs are not sufficiently solvent. Accordingly, social enterprises fill an important gap and can act as a driver for social, but also for economic development in countries of the Global South (*ibid.*).

In definitional terms, the “social” in social enterprises is often justified by a narrative, e.g. by the orientation of the company’s business activities towards a specific target group, such as particularly poor clients. These narratives are difficult to distinguish from the myriad of private sector enterprises that have developed a business model tailored to poorer people but do not necessarily pursue or trigger social benefits. It is precisely by selling the smallest quantities of products that many manufacturers and traders reach poorer target groups with products for everyday use. From a definitional point of view, it is accordingly extremely difficult to evaluate the social impact of a product. Inevitably, grey areas arise here. When looking at different definitions of social enterprises<sup>3</sup>, objective criteria are always mixed with subjective criteria (cf. Whitley et al. 2013). An intended social or environmental impact is included in the definition. This does not necessarily have to be the focus of the business activity and is not measurable. The definition hereby opens the door to understanding almost every company in the Global South as a social enterprise, as all of them create e.g. urgently needed jobs. However, this is not conducive to funding through DC with a view to the Sustainable Development Goals (SDGs). World Bank authors Tinsley and Agapitova (2018) use a definition that focuses on social impact: “Social enterprises are defined as private for-

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<sup>3</sup> For the transformation of the term and its definition in recent decades, see Addae (2018) and for different understandings by country group, see Hoyos / Angel-Urdinola (2019) and Liu (2019).

profit, nonprofit, or hybrid organizations that use business methods to advance their social mission”.

A concise and helpful definition for this study is provided by the US approach, which defines social enterprises as “organizations that advances [sic!] their primary social or environmental missions using business methods” (Social Enterprise Alliance 2013 *in* Liu 2019). The company exists for the purpose of implementing a social (or ecological) mission and thus does not pursue private profit objectives. Surpluses are primarily reinvested for social purposes instead of serving to maximize profits for shareholders and owners (cf. Bull / Ridley-Duff 2019). According to Tsai et al. (2020), with the rise of social enterprises, the boundaries between society and business are blurring, as social innovation and social enterprises change the concept of the non-profit organization. This is mainly because social enterprises strike a balance or trade-off between making profits and social goals (cf. Murphy / Kornetsky / Nixon 2021).

One aspect that is largely omitted from the definitions is the form of the enterprise. However, with regard to development policy support, the ownership structure and also the possible mobility of the company shares are central. If it is possible for individuals or shareholders to sell them freely and thus gain a profit from the investment, there are solid reasons to place such an enterprise, however socially oriented, in the realm of private sector development. Otherwise, public funds help to scale and build extensive distribution networks of a company, which potentially changes hands later on, possibly also dismantling its social orientation. Compared to profit-oriented enterprises, social enterprises have greater opportunities to obtain financing, as they can access public funds or grants from relevant foundations in addition to traditional investors and financial service providers, and often receive better conditions (cf. Liu 2019). This creates the risk that social enterprises will exploit this status.

For the following report and with regard to DC in the context of agricultural promotion, further criteria will be added in order to narrow down the case selection more clearly and to better categorise social enterprises. Smith / Darko refer to use four characteristics which are different from a classic enterprise, of which at least one should apply in order to consider a social enterprise as such:

1. Surpluses being shared with the target group by making them co-owners;
2. Surpluses being deliberately kept low to allow for lower prices, higher wages, better purchase prices, etc;
3. Cross-financing of a specific client group in order to achieve a social impact on them;
4. Claiming long-term grants from governments, donors, NGOs, etc. to establish a business model that would otherwise not be profitable (cf. 2014).

## 2.2 Impact measurement in the field of social enterprises

For assessment in the context of development policy, an analysis of the social impact is central. Rogerson et al. (2013) use two indicators for this, reach and depth. For the present study, these are supplemented by two further points – quality and externalities. This extension is necessary because existing literature in the field of social enterprises is mostly focused on social enterprises with a private ownership structure. As the OAF is registered as an NGO, does not seek profits and is funded by a variety of donors, criteria for evaluating the model should be more far-reaching and focus even more on social impact, as funding with DC funds also

increases accountability. The quality indicator allows for the evaluation of the approach, especially for the classification in development policy debates on agricultural promotion. The externalities indicator allows to shed light on the donor-supported approach in terms of sustainable economic development and to understand social enterprises as both developmental and market actors.

## Reach

One strength of social enterprises in contrast to traditional development projects is their scalability through an entrepreneurial approach. In this way significantly more people can be reached, especially in the agricultural sector. However, reach is not solely a question of the total number, but also the question whether the poor and poorest groups in a society are also reached by the activities of a social enterprise. Since social enterprises follow the logic that vulnerable groups are sometimes able to raise smaller amounts for necessary services, the clientele should also reflect this:

“It should also ideally contain at least the same share of poor people as the region or country as a whole, a measure that helps identify how well the SE focuses on supporting the most disadvantaged group” (*ibid.*).

## Depth

As social enterprises aim for an economic model, it is much more difficult for them to offer the same degree of in-depth support services as NGOs or a DC project. When evaluating social entrepreneurial models, it is therefore of particular interest to see whether a social enterprise can support graduation, i.e. sustainable liberation from poverty. This parameter certainly depends very much on the product and services of a social enterprise and on the extent to which a social enterprise claims a holistic approach to support. In the field of agriculture, the extent to which the approach interacts with existing structures, value chains, forms of organization, etc. is certainly also decisive.

## Quality

Picking up on the previous point, the evaluation of social entrepreneurial approaches should look not only at quantifying impact but also at qualitative aspects and examine which strategies are used to support vulnerable groups. In the field of agricultural promotion, each actor has a responsibility at the HH as well as at the sectoral and societal level. “*Quick gains*” at the HH level can have long-term negative consequences at both the HH and societal levels, such as incentives to switch to more input-intensive agriculture. This point requires very contextually specific analyses, and it is always necessary to balance the three levels mentioned, which may not always go hand in hand.

## Externalities

It is precisely the sectoral consideration of the activities of a social enterprise that may entail externalities. Social enterprises, regardless of the market in which they are present, compete with private (local and national) enterprises. The market power of a social enterprise, which may only have to operate profitably to a limited extent and can cushion economic shocks with donor support, can force other players out of the market.

In addition to the listed (partly qualitative) criteria, social enterprises often use the value of Social Return on Investment (SROI) to make their social impact measurable and accountable to investors and donors. The SROI describes how much social and economic impact is created for every dollar invested at the level of the target group. A problem with an evaluation of different social enterprises is the lack of comparability of the SROI due to non-uniform monitoring systems and indicators that end up with the same value (cf. also Arvidson et al. 2013). Increases in income at the HH level can be recorded with a certain degree of accuracy, but the provision of products, e.g. implements in the agricultural sector, do not create direct but indirect social or economic benefits. There are no clear criteria for assessing this impact. Accordingly, there is great scope for social enterprises to calculate this generously (cf. *ibid.*). Quantifying these indirect effects and including them in the SROI is legitimate, necessary and provided for in common SROI approaches (cf. *ibid.*), but leads to an artificial value. Qualitative aspects cannot be included in a single indicator.

When focusing on SROI, especially also when assessing the eligibility for funding of a social enterprise, unprofitable business areas become problematic for a donor-supported enterprise (as long as the calculated impact does not exceed the costs). If the aim is to keep the SROI high in order to present the highest possible impact to donors, social enterprises are unlikely to venture into unprofitable business areas. One such area is agricultural insurance, which is important in order to increase HH resilience. However, establishing these profitably is extremely difficult, especially for smallholder HH (cf. Surminski et al. 2016). This puts holistic approaches to agricultural promotion at a potential disadvantage, as they are very likely to have a smaller SROI than companies that focus on a specific value chain and may only cover a small area within it (e.g. input supply), although in terms of the SDGs, the holistic approach is potentially more worthy of support.

### 2.3 Donor-supported social enterprises

In an analysis of the social enterprises supported by development banks, international institutions and development organizations from the Global North, Hoyos and Angel-Urdinola (2019) show that social enterprises are usually supported through a mix of loans and grants. The social enterprises are often active in the field of counselling and training, but mainly in the provision of financial services in South Asia or Africa. They are therefore active in the regions with the highest poverty rates. A large proportion of the social enterprises studied are NGOs that are supported in their transformation into social enterprises (*ibid.*). Even though the business models of these social enterprises differ greatly from those in the agricultural sector, general conclusions can be drawn for the promotion of social enterprises. Promoting social enterprises that provide services to poorer sections of the population is financially risky. As social enterprises usually operate in business areas that private sector actors shy away from or respond to market failure, profitability is usually difficult to achieve. However, through external support, potentially innovative approaches are tested that the private sector itself would not finance (*ibid.*). According to Hoyos and Angel-Urdinola, the social impact of the social enterprises which are supported is difficult to assess because evaluations and impact analyses are lacking. It is unclear whether this is due to a lack of analytical tools or simply a lack of interest on the part of investors. In any case, this means that little can be determined about the advantages of social enterprise promotion compared to classic models of DC (*ibid.*).

The interest in promoting social enterprises lies primarily in the assumption that organizations that operate according to market principles are more responsive to the needs of



the target group and achieve market inclusion for this group (cf. Rogerson et al. 2014). It also seems plausible that promoting social enterprises is a very cost-effective method of implementing certain pro-poor objectives, as the target group covers part of the costs itself, whereas bilateral DC projects or NGOs have to be fully financed. It may therefore be assumed that it is not always necessary for a social enterprise to support itself in the long term, as long as the financing costs remain lower than commissioning an implementing organization. However, as long as an alternative, comparable model is missing, this assumption is not verifiable. Monitoring systems in the public sector are very different from private sector approaches of “continuous learning” (*ibid.*). Without comparable approaches to impact measurement, it is difficult to identify whether the social entrepreneurial approach promoted is more cost-efficient. It is also difficult to determine whether it even corresponds to the development policy guidelines of the promoting institution (*ibid.*).

In conclusion, the existing academic literature is only partially applicable to the donor-supported non-profit social enterprise OAF. Through its hybrid form between an NGO and a social enterprise, the OAF acts in a more impact-oriented manner and, with the help of ongoing support from external donors, does not aim at financial independence. Unlike private sector development approaches, the OAF is thus not a case where start-up funding is sufficient by itself, but remains part of the ongoing portfolio for donors.

### 3. The One Acre Fund Model

The OAF is a social enterprise in the field of agricultural promotion, founded in Kenya in 2006 and registered as an NGO in the USA. It is currently particularly active in East Africa. With over 1,400,000 clients (as of 2021), it is one of the largest and most influential social enterprises in the field of agricultural promotion.

The core activities of the OAF have been successively expanded over the years to other countries in Africa – in 2006, the OAF started with 40 HH in western Kenya – and today include Rwanda, Tanzania, Burundi, Malawi, and Nigeria in addition to Kenya. The rapid growth is linked to the basic idea that only a steady expansion of activities can make a relevant contribution to the fight against hunger and poverty. Scaling at this rate is achieved institutionally through replicable decentralized structures and made possible financially primarily through 70% cost recovery of the business model and broad support from private foundations, private donors and public funders.

#### 3.1 Core programme

The core programme of the OAF comprises a four-staged support model for participating farmers. At the beginning of the growing season, on the basis of a (1) loan, the clients receive (2) agricultural inputs such as seeds and fertilizers. During the growing season, they receive regular (3) training on the improved use of inputs and regionally adapted agricultural practices and after the harvest they receive (4) support in storing production and in marketing.

The four-staged model follows the central idea that the above steps cannot achieve the desired results when delivered in isolation. The OAF combines classic strategies of agricultural promotion. By combining different support services, the chances of success are mutually increased. Through agricultural extension, the organization ensures the correct use of inputs and thus ultimately an increased yield. As well as inputs, the OAF also sells agricultural implements, such as wheelbarrows and storage bags, and life improvement products, such as solar lamps and mobile phones. The OAF thus responds to the needs of its clients and facilitates the procurement of products by including them in the credit model.

The loan is repaid over a period of approximately eight months, with repayment beginning even before the products and operating resources are delivered. On the one hand, this enables the OAF to check the repayment capacity of a client by requiring him/her to pay off a certain amount by a certain time before delivery, otherwise the clientele is terminated and any money already saved is paid out again. On the other hand, the repayment period is extended for the clients and thus reduces the payment pressure. The OAF supports repayment strategies by clients through regular small repayments, as this corresponds to the economic reality of people in rural areas. Originally, the loans were secured through a solidarity system similar to the models often used in the microfinance sector. However, this has been abolished in recent years. The OAF sanctions late repayment of the credit via exclusion from supply for the following year and until at least full repayment of the outstanding credit. Unlike clients of traditional providers in the microfinance sector, clients do not have to fear seizure of assets. The solidarity system specified that the entire group was excluded for the following year in the case of default of one of the members<sup>4</sup>. However, such a model has two crucial disadvantages. Firstly, there must be a sense of solidarity within the group for this to be

<sup>4</sup> In the new system, the remaining group members are still “penalized” in that they do not receive the discount for returning clients.

accepted and to achieve the desired effect. Secondly, the remaining group members are excluded as potential clients for the following year, which also eliminates the turnover associated with these clients. In the case of the OAF, this led to an unwanted reduction in the number of clients requesting a loan package year after year.

Nevertheless, clients are still organized in groups of five to 25 members. This allows the concentration of training sessions conducted by OAF Field Officers (FOs). Currently, there are over 2,400 FOs working for the OAF in Kenya alone. The FOs are recruited from the region and thus bring with them knowledge of local structures and conditions. They monitor the repayments of the individual clients, support them with the planning of repayment amounts, and offer small training sessions to match the agricultural season. Each FO is responsible for about 220 clients. They are supported in their daily work by the *group leaders* of the respective groups, who take on this role on a voluntary basis and receive a small allowance for it.

The prices for the purchase of inputs (on credit) are comparable to common market prices in the respective countries. In this way, the OAF tries not to squeeze private actors out of the market through its publicly funded service. The product range for agricultural goods differs between the regions and is adapted to the agricultural conditions. The tools and products, on the other hand, can be purchased uniformly in all project regions in Kenya.

Funds from public donors are not intended to be used for price reductions, but only for training and other support measures as well as for the OAF structures in the background, even if it is difficult to make a clear distinction. Absolute financial independence from external donors (national governments, DC funds, private foundations, etc.) is not a stated goal of the OAF. The rapid scaling of the business areas always requires large upfront investments and the focus on poor populations as the primary target group makes a profitable business model according to market principles difficult.

The central objective of the OAF core programme is to increase income among farmers and improve the nutritional situation. The aim is to maximize agricultural yields through the provision of high-quality inputs and adapted farming practices. The OAF aims to reduce poverty through these measures, but also through the distribution of equipment. As rural livelihood strategies are complex and partly translocal and go beyond agriculture, the influence of the OAF is limited, and only in rare cases will it allow clients to be sustainably free from poverty.

The adapted agricultural techniques of the OAF follow the approach of the smallest possible behavioural change, i.e. the smallest possible stepwise change in traditional farming methods. In smallholder maize cultivation, the main crop of the vast majority of OAF clients, this can be described as largely conventional cultivation, i.e. with high use of chemical fertilizers. The fields are usually cultivated with hoes; mechanization is rarely worthwhile on the small areas. Rotation or fallow is rarely if ever used. Maize is set as a staple food and is grown either in monoculture or in mixed cropping with beans. The OAF does not recommend any fundamental changes to clients within the framework of these techniques but aims at efficient use of operating resources. For this, planting distances, depth of sowing and techniques for the targeted application of chemical fertilizer are taught<sup>5</sup>. In addition, the OAF recommends mixed cultivation with beans and supplementing the chemical fertilizer with organic compost. The techniques go under the label "*environmentally appropriate green revolution*", which already indicates that the OAF has no plans to change the approach to a

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<sup>5</sup> The OAF refers to this as micro-dosing, but since about 100kg of chemical fertiliser is recommended per acre (about 0.4ha), this technique is described in this report as "targeted application of fertiliser".

purely agro-ecological model. In recent years, however, it has been recognized that measures for soil and water protection, composting, mineral fertilization, etc. are unavoidable and have been included accordingly in the consultation and training of clients.

### 3.2 Systems Change

As the OAF also works with governments and other actors, such as the private sector, in the respective countries beyond the core programme, people also come into contact with the work of the OAF in this way. The OAF justifies this strategy with the aim of supporting as many smallholder farmers as possible as soon as possible. At present, however, “only” 2% of Africa’s approximately 50,000,000 smallholder HH are reached through the core programme.

This work of government partnerships and indirect forms of farmer support falls under the second area of OAF activity, the *Systems Change Platform*. This varies from country to country. In Rwanda, for example, the OAF advises the government on building smallholder extension systems and established a partnership with the government and national input distributors. In Kenya, cooperation with the government and the private sector is limited to small-scale programmes.

In the field of indirect cooperation, the establishment of a retailer structure by the OAF in Kenya deserves a special mention. In the rural project regions, the OAF has started to set up its own small *duka* (KiSwahili for shop) where the products, which are also distributed through the core programme, can be bought directly. The OAF argues that a market failure is remedied through the *duka*. For example, the OAF sees a lack of certified and high-quality inputs in rural regions. The products of the shops are grouped in four categories: 1) Staple Crops, 2) Cash Crops, 3) Life Improvement and 4) Farm Management.

**Fig. 1: Products in an One Acre Fund *duka*.**



Some *duka* have an adjacent small demonstration field where clients can look at the different varieties of grains, beans and vegetables and staff can illustrate OAF-specific farming techniques.

Through the *duka*, a certain degree of pressure is to be exerted on the Kenyan private sector to offer high-quality products and to increase quality control of the goods offered in the regions. Again and again, counterfeit or impure fertilizer and seeds are sold in retail outlets. The OAF does not put pressure on the shops in terms of price, which is based on current market prices, but the pressure is exerted by the high quality of the products on offer. Likewise, the *duka* are positioned in such a way that they do not spatially compete directly with other traders. Data collected by the OAF show a positive effect of their own inputs on their clients' harvests, compared to farmers who buy products on the traditional market. Apart from the quality, this is also due to the fact that *duka* clients receive small brochures with the recommended techniques and advice.

The OAF also plans to build a more individually oriented credit model through *duka*, but this is still in the experimental phase.

### 3.3 Government Relations & Policy

The OAF is committed to supporting smallholder farmers. To serve this mission holistically, the organization also relies on lobbying and advocacy work, recognizing that the central actor in the field of poverty and hunger alleviation and agricultural development is the respective government.

The Government Relations & Policy Department works in various fields to improve the legal framework for its own activities, but also for the agricultural sector. A key problem for social enterprises in Kenya, for example, is the lack of legal recognition as such. Accordingly, the OAF is registered as a company in Kenya and is therefore not exempt from tax levies. For the agricultural sector, for example, the OAF lobbied for recognition as a key sector under the Corona restrictions so that traders were exempt from exit restrictions and could continue to serve markets with agricultural goods.

Beyond national policy work, the OAF also gains international attention and was represented at the UN Food Systems Summit in 2021.

## 4. Methodology

The field study was conducted in November and December 2021 by Dr Andrew Kiplagat, University of Eldoret, and INEF staff member Arne Rieber. The study was characterized by a mixed-methods approach and a triangulation of the results. In the run-up to the study, INEF researcher Dr Karin Gaesing conducted expert interviews with three representatives of the OAF management team, sent questionnaires to the OAF Monitoring & Evaluation Team and the Partnership Department and held talks with representatives of German civil society and government DC. These were supplemented by expert interviews during the field visit.

The field research was divided into three regional focuses, in addition to interviews in Nairobi and Kisumu. Both qualitative and quantitative data were collected for a fortnight each in Kisii and Kakamega County in the west of the country. In both regions, the OAF has been active for years (nine and eleven respectively) and it was possible to build on the target group's many years of experience with the service. While the agro-ecological conditions do not differ significantly, the decisive factor in the selection of the two study regions was the observed cultural difference. In addition, qualitative data were collected in Embu County in the Mount Kenya Region, in the centre of the country. This region was chosen because of the different climatic conditions and focused on the semi-arid areas in the south-east of the county. However, an interest also rose in the region as one that had only become part of the OAF's business in recent years. This made it possible to observe the early phase of the intervention.

In collaboration with the farmers in the study region, Participatory Rural Appraisal (PRA) tools, in particular Wealth-Ranking as well as income and expenditure surveys, were conducted in the context of seven Focus Group Discussions (FGDs) with OAF clients. In addition, 36 HH were interviewed in intensive interviews (30 of which were OAF clients) and a total of 814 interviews were conducted as part of a HH survey. For the quantitative survey, equal numbers of OAF clients and non-clients were distinguished.

For the quantitative survey, a digital questionnaire was developed using KoboToolbox. This focused on demographic and socio-economic aspects, aspects related to the demand of OAF supply and issues around food security. The questionnaire was tested over two days with about 20 interviews and adapted to local conditions.

For the selection of OAF clients for the HH survey, HH were randomly selected based on the OAF client database. For this purpose, five sites (a geographical delimitation within the OAF structures) were randomly selected within the counties from five randomly selected sub-counties. Within these sites, approximately 40 HH were then randomly selected and contacted by the OAF to enable consent to share contact details. The reference HH were each selected in the immediate neighbourhood, where every third HH was approached. As the project team performed above initial expectations in the survey, additional clients of the OAF were included in the survey in the same system.

This distributed and randomized selection of sites, but also of HH, ensured that data were collected in different regions within Kisii and Kakamega counties. This is of central importance, as basic agricultural conditions can differ greatly due to topography, but also due to very small-scale differences in access to public goods and natural resources.

As a weakness in the case selection, it must be noted that in the reference group only those HH were included in the survey, where at least one HH member could be found near the farm. This may have led to distortions, and single persons and persons with regular employment may be underrepresented. The quantitative data collected are also based solely on the estimates and information provided by the farmers interviewed, who were partly

supported by the research assistants. Accordingly, it must be assumed that not all figures collected on, e.g. income or land ownership, are completely accurate. The data are therefore treated in the analysis with an expected margin of error.

In the context of the study, the controversial term “impact” is used. The researchers are aware that alternative explanations of impact and direct project effects are possible with the method used. However, the triangulation of the methods and a careful handling of the quantitative data do reveal clear tendencies. In its approach, the impact analysis very consciously relies on the experience and knowledge of the farmers and FOs concerned.

## 5. Research regions

The two main research regions, Kisii and Kakamega County, are located in western Kenya, a region which is considered one of the most agriculturally productive in the country. A large number of DC projects are concentrated there, especially German governmental DC in the field of agriculture. Nevertheless, this economically relatively strong region is also characterized by rural poverty, high vulnerability in agriculture and, in parts, food insecurity. The very small amount of land owned per capita requires farmers to take ever stronger adaptation measures. The opportunities for the young following generation in agriculture are very limited. In addition, qualitative data were collected in Embu County in the centre of the country, where the model could be studied in a different agricultural context due to different agro-ecological conditions.

### Kisii County

With an estimated population of nearly 1.5 million people, Kisii County is considered one of the most populous of the country's 47 counties (cf. Kisii County Government 2019). The population is rural and scattered across the rural regions. As elsewhere in Kenya, there are hardly any central settlement structures. Only about 10% of the population lives in urban agglomerations. Kisii County is characterized by a very high population density. For 2022, this is estimated at 1,135 persons per km<sup>2</sup>, which has a corresponding negative impact on per capita land ownership. The division of land through the traditional inheritance system<sup>7</sup> and the conversion of agricultural land for housing leads to a fragmentation of land ownership. The average area per farm is about 0.4ha (~ 1 acre)(*ibid.*).

The poverty rate in Kisii County is high by national standards at 44.5% (Kenyan average is 32%) (cf. Kenya Integrated Household Budget Survey 2018 in Kisii County Government 2019).

The average annual rainfall of approx. 1,500mm and the comparatively mild climate due to the altitude (Kisii Town is located at 1700m above sea level) allow the cultivation of a variety of crops, fruits and vegetables. These include mainly maize, beans, millet, bananas, sweet potatoes and cassava. In the area of market production, particular mention should be made of tea and coffee cultivation as well as pyrethrum and sugar cane (*ibid.*). Mechanization is not widespread due to the small areas, and there are no significant irrigation systems (*ibid.*). Accordingly, the farmers are dependent on rain-fed agriculture and are hardly protected against periods of drought. However, due to the bimodal rainfall, there are two growing seasons from about February to June and August to December.

### Kakamega County

With an estimated 2.3 million people, Kakamega is among the five most populous counties in the country (cf. County Government of Kakamega 2018) and is located about 150km north of Kisii County. The region has very similar agro-ecological conditions and also has a predominantly rural population (90.1%) (cf. KNBS 2019b). The problems of rural poverty are of a similar nature, with an official poverty rate of 49.2% (cf. County Government of Kakamega 2018).

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<sup>6</sup> The Kenyan Bureau of Statistics gives a slightly different figure of 958 persons per km<sup>2</sup> (cf. KNBS 2019b).

<sup>7</sup> The land is divided equally to the sons (in more progressive HH to all the children) and given to them after they have finished school. In many cases, the youngest descendant takes over the remaining land of the parents.



Fig. 2: Maize field in Kisii County.



With an altitude of 1,240-2,000m above sea level and a rainfall of 1,280-2,214mm (*ibid.*), there is little difference in cultivation possibilities between the two research regions. Only sugar cane cultivation is more widespread in Kakamega, as processing industries are located in the region. However, sales opportunities have declined in recent years, which is why many farms are reducing cultivation accordingly.

The region's economy is extremely dependent on agriculture, which accounts for 65% of economic output and about 80% of employment (*ibid.*). The population density of 618 persons per km<sup>2</sup> and the prevailing inheritance system also lead to small-scale land use in Kakamega County, but the average farm size is slightly higher than in Kisii County, although exact data from the local government are unfortunately not available.

These differences are visible in the statistical survey conducted as part of this study. The average landholding in Kisii County is 1.08 acres per HH (median 0.75 acres; N=400), and 1.42 acres for Kakamega (median 1.0 acres; N=413).

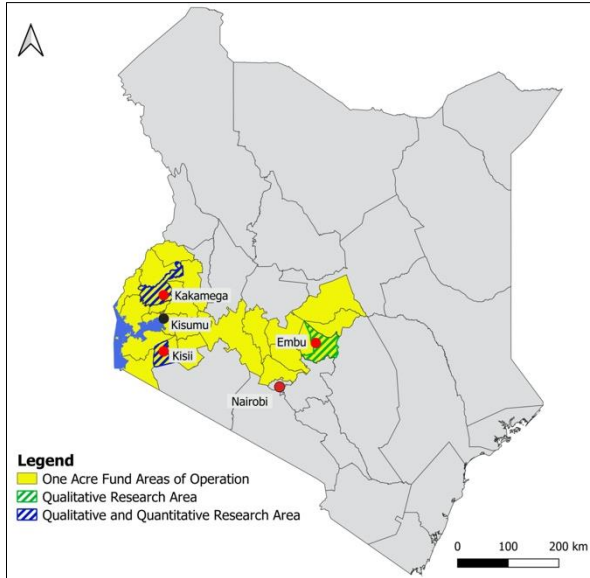
## Embu County

Embu County has an estimated population of just under 600,000 people (cf. Embu County Government 2019) and is located in the centre of the country, about 120km north of Nairobi. The county is part of the Mount Kenya region. Due to the topography in the Mount Kenya massif, the county has very different agro-ecological zones. The upper zone from 1,600m above sea level is known for tea cultivation, but is affected by extreme land scarcity. For a long time, the middle zone from 1,400m above sea level was considered a cultivation zone for coffee in addition to the cultivation of basic food. Due to falling prices in the sector, however, more and more farmers are focusing on khat cultivation as a source of income. In the past, cotton

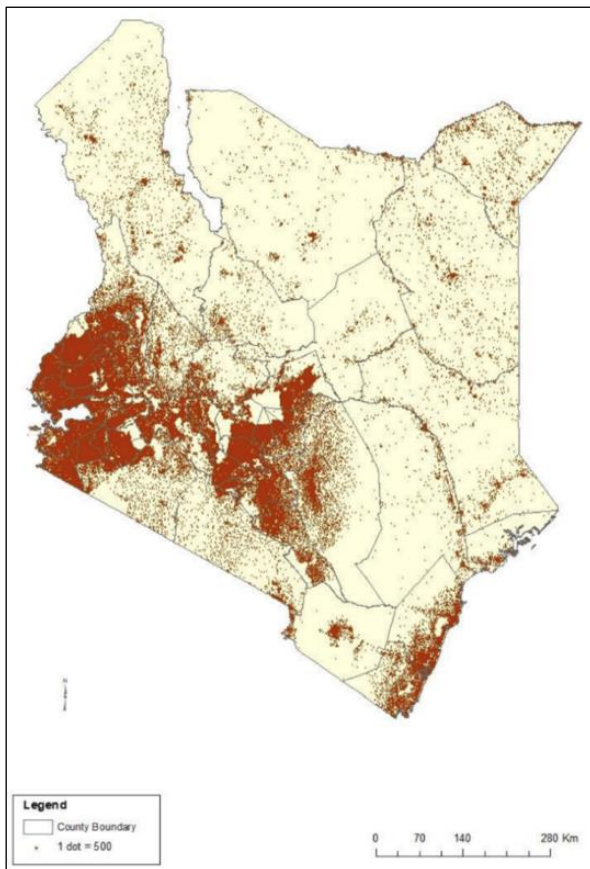
was grown in the semi-arid zone below 1,200m above sea level, but this market has collapsed. The zone is known for extensive livestock farming, khat cultivation and, besides maize, for the cultivation of relatively drought-resistant crops such as cowpea, mung bean, millet or pigeon pea. The surveys in this study focused on qualitative interviews in the lower, semi-arid zone. What was of interest here was the farmers' reaction to the OAF intervention. As the region has very fertile soils and organic fertilizer is available, the use of chemical fertilizer is less common.

A comparison of the OAF regions with Kenya's population density illustrates the focus on densely populated rural areas (see Figure 3 & 4). The potential regions in Kenya thus seem to be largely tapped.

**Fig. 3: One Acre Fund business areas and research regions.**



**Fig. 4: Population density by county.**



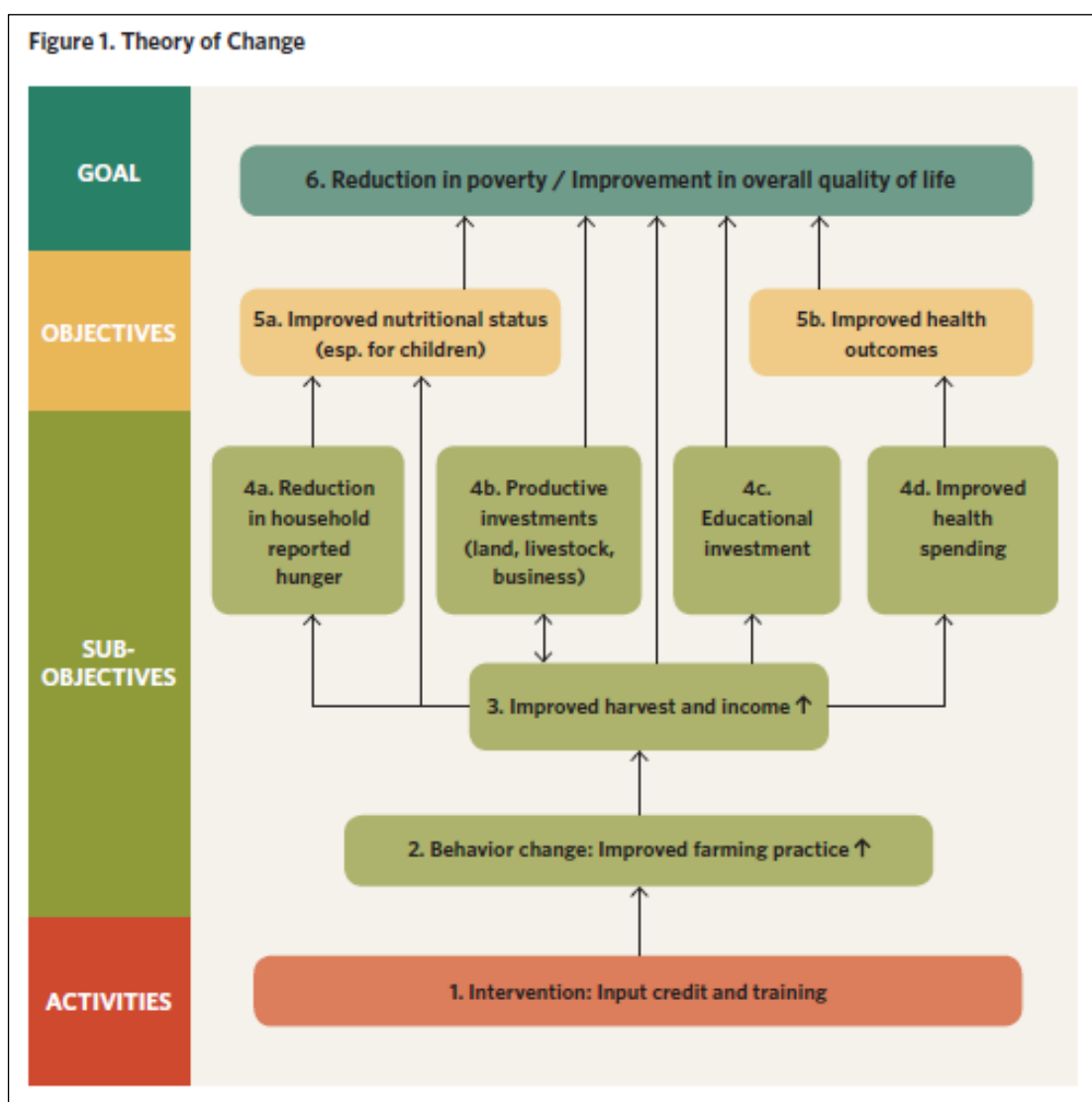
Source: KNBS 2019a.

## 6. Impacts of the One Acre Fund model

The aim of the OAFs activities is to reduce hunger and poverty and to improve the living conditions in the HH of its clients. Evidence of this impact is of central importance for the multitude of institutions, organizations and private donors providing financial support. The OAF regularly collects data through its own monitoring and evaluation team to make impacts transparent. Independent external controls help to verify, critically question or supplement these results.

This study collected data through the methods presented, particularly in the area of livelihood improvement, but also had a special focus on impacts on agricultural practices and the social and economic environment in the business regions. The impact data are presented below along the OAF's Theory of Change.

Fig. 5: Theory of Change of the One Acre Fund.



Source: One Acre Fund 2015.

## 6.1 Intervention and target group

Intervention through the provision of credit, originally through a collective liability system and now through a more individual-oriented credit model, has already been described in Chapter 3. In every development intervention, including the field of a social enterprise, the target group being reached is of interest. As the name of the OAF suggests, the credit offer as well as the training service is to be targeted in particular at poor smallholder farmers with low resource endowments.

The Kenya National Bureau of Statistics (KNBS) uses a poverty line of 3,252 Kenya Shillings (KES)<sup>8</sup> per adult per month for rural areas for monetary poverty. In addition, a multidimensional poverty measurement is carried out in which deprivations in the area of health, education or the standard of living are recorded<sup>9</sup>. In total, the KNBS cites 15.9 million poor people in Kenya (36% of the population), with poverty disproportionately high in rural areas at 40%. In the area of multidimensional poverty, more than half of the population is affected and about 67% of the rural population, which underlines the disparity in access and availability of public services (cf. KNBS 2020). Women are more affected than men in both indicators (*ibid.*).

For the assessment of the target group, this shows that supporting a HH with an average income in rural Kenya already contributes to development goals in terms of the SDGs. In the two main research regions, multidimensional poverty is 52.2% in Kisii County and 70.8% in Kakamega County.

This consideration is important insofar as the offer of a credit model cannot reach such HH that do not have a minimum income. These HH are difficult to reach with agricultural development programmes due to the low level of resources at their disposal (cf. Bliss 2020).

The results from the HH survey show very similar socio-economic values for the OAF clients and the reference group for both study regions (see Table 1). The OAF clientele is thus largely representative of the rural population in the regions. This shows that the OAF model is adapted to poor, rural HH and that the target group aimed at can be reached.

In particular, land ownership, one of the central indicators, shows no relevant differences between the two comparison groups, which illustrates that the OAF offer also appeals to farmers who have fewer resources. The significantly higher median livestock numbers among OAF clients are striking, even though they are relatively low for both groups. This is one of the few indicators where OAF clients stand out from the reference group. Whether this is directly related to the fact that they are clients of the OAF is not clear from the data. However, the HH income structure shows that OAF HH are less likely to engage in non-agricultural activities and are more focused on agriculture.

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<sup>8</sup> 1 US dollar = 113.55 KES (as of 02/2022).

<sup>9</sup> For an overview of different poverty indicators and the multidimensionality of poverty, see Bliss, Frank / Gaesing, Karin / Mahla, Anika (2017): *The Perpetuation of Poverty in Developing Countries. Analysis of Causes and Counterstrategies*. Institute for Development and Peace (INEF), University of Duisburg-Essen (AVE Study 2b/2017, 2nd updated edition 2021, *Ways out of Poverty, Vulnerability and Food Insecurity*).

**Tab. 1: Socio-economic indicators in comparison.**

	OAF clients (N=411)	Reference group (N=401)
Ø persons per HH	6.24	5.43
Households with only one head of household <sup>10</sup>	20.5%	17%
Ø Land ownership in acres	1.31	1.21
Median land ownership in acres	1	1
Ø cultivated agricultural area <sup>11</sup> in acres	1.16	1.04
Secondary education or higher of the woman	32% N=407	37% N=395
Secondary education or higher of the man	47.1% N=380	52.2% N=372
Ø Livestock; Tropical Livestock Unit (TLU) <sup>12</sup>	1.38	1.29
Median TLU	1.42	0.82

In addition to land ownership and livestock, a consideration of HH objects and agricultural implements is one way of classifying HH economically within their environment. For this, respondents were asked whether they owned a number of devices. Again, the differences between the OAF clients and the reference group are small. Only the ownership of motorbikes, at 19.1%, is slightly higher in the comparison group than among the OAF farmers, at 15.1%. A clear difference can be seen in the equipment with solar systems for the electrification of the house: here the OAF clients, at 78.1%, clearly stand out from the reference group at 61.5%. The OAF sells solar systems and solar lamps, among other things, through the credit system, which triggers high demand and is reflected in the figures. The OAF credit model thus makes an important contribution to the minimum supply of electricity to HH.

However, the central component of the OAF intervention is the provision of agricultural inputs on credit, combined with a training offer. As described in Chapter 3, the loan is applied for by the farmers through the FOs at the end of a calendar year and subsequently repaid to a relevant extent even before delivery. In 2021, the average loan amount in the survey region

<sup>10</sup> Single-parent HH / single-headed HH applies if the generation that primarily contributes to the HH income and care consists of only one person.

<sup>11</sup> The average agricultural area refers to the last growing season before the survey (long rain season 2021, approx. March - July) and includes both agricultural land owned by HH and land rented or used without payment for growing crops and vegetables. Area for living space, livestock or storage is deducted accordingly. The value, like all values on land ownership, is based on farmers' estimates and is correspondingly inaccurate.

<sup>12</sup> For the study, a simplified TLU value is applied, which summarises the livestock per HH. A value of 0.7 per animal is used for cattle, 0.1 for goats and sheep and 0.01 for chickens (cf. Ghirotti 1993).

was KES 10,697 with a median of KES 9,370, averaging about US\$ 90 per participating HH<sup>13</sup>. Early repayment is like a kind of savings model in which clients have to prove a certain ability to pay. By the end of a year (i.e. approx. three months before delivery of the products), 10% of the loan amount must already have been paid off, otherwise the OAF will withdraw the offer.

The system of regular small repayment amounts is a method adapted to the reality of life in rural areas. Many HH regularly earn smaller incomes through casual labour or through small-scale sales of livestock, vegetables or parts of the harvest. This income can be used directly for repayment accordingly. This also allows HH to avoid being forced to sell parts of the harvest after harvesting, which are needed for their own needs throughout the year.

The provision of the credit is coupled with agricultural training by the FOs. The FOs receive basic training in basic adapted agricultural techniques through the OAF and impart these to their groups in training sessions. The provision of inputs on credit, combined with training on correct application, ensures productive use of credit and thus the ability of HH to repay. This clearly distinguishes the OAF model from traditional microfinance approaches and reduces the risk of over-indebtedness for clients.

The agricultural training sessions focus primarily on the targeted and efficient use of agricultural inputs. Through the product range<sup>14</sup>, clients select packages for cultivating a specific area with a specific crop (in the case of Western Kenya, mainly maize) and receive recommendations for cultivation in the annual trainings. In maize cultivation, this includes, in particular, row sowing with specific planting distances and a defined sowing depth, as well as the targeted dosage of artificial fertilizer with the aid of a measuring cup supplied for this purpose. The OAF recommends and trains mixed cropping, especially with beans, but the uptake rate among clients is still relatively low. Some farmers justify this with lower maize yields with mixed cropping. The dissemination of agroecological approaches, such as the use of compost or agroforestry, is gradually being incorporated into the extension programme, but could only be observed sporadically during the survey.

## Behaviour Change

The implementation of the recommended techniques is very high among the clients and could be observed on site. 96.4% of the farmers surveyed stated that they implement the recommended row sowing and planting distances, 90.7% stated that they implement the recommended targeted dosage of fertilizer.

In the early years in Kenya the OAF carried out industrially influenced advisory services in agricultural techniques, with a strong focus on fertilizer use and monocultural farming. Over the years, this has been better adapted to the local realities of smallholder farmers. Adaptations in agricultural technology require time and intensive consultation (cf. Fleming / Vanclay 2010), which is why the OAF generally refrains from excessively strong interventions.

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<sup>13</sup> As of 04/2022.

Occasionally, borrowing by several HH members still occurs, but this practice is currently discouraged by the OAF, as over-indebtedness of HH is to be avoided. The OAF sets a credit maximum of KES 24,000 for returning HH and KES 11,000 for new clients.

<sup>14</sup> In Kisii, the 2021 crop range included maize, sorghum, beans, pigeon peas, mung beans and various vegetables. Fertilisers are offered for all varieties on offer and are also sold for the cultivation of tea, coffee, potatoes and bananas.

According to the organization, in the worst-case scenario, this leads to HH no longer being reached, which would be contrary to the stated strategy of rapid growth.

The common agricultural practice in the regions is an agricultural system that is largely focused on external *inputs*. In recent decades, various national and international actors have promoted the need for increased use of chemical fertilizers and improved seeds, especially through government subsidies and liberalization of the fertilizer market in the 1990s (cf. Ariga / Jayne 2010; Ochola / Fengying 2015), but without communicating appropriate agricultural techniques or recommendations for locally adapted inputs. Coupled with the fragmentation of agricultural land and very low mechanization, this leads to a stagnation in productivity in maize cultivation at an extremely low level. In the period 1992 to 2013, production even declined slightly to 1116kg/ha (cf. Jena et al. 2020)<sup>15</sup>.

This development once again shows how important it is to combine improved access to high-quality inputs (provided that input-intensive technology is used) with training adapted to smallholder practice and is an example of how unused potential can be activated. Crop improvements were attained by the combination of improving access to inputs, ensuring the quality of inputs, providing agro-ecologically adapted recommendations for the purchase of seeds, and training the efficient use of the purchased products. These improvements were measurable, but also identified by respondents in dialogues.

### **Higher harvest and improved household income**

OAF monitoring was able to record an average productivity increase of 24% among OAF clients in all countries for 2020, despite the market disruption caused by the Covid-19 pandemic. For Kenya, the figure was 21.3% in 2020 and 17% in 2021<sup>16</sup> compared to farmers who do not source products through the OAF. The OAF uses randomized control trials and comparative studies between existing clients and new clients for its monitoring. The latter group is suitable for obtaining a comparison group that is as homogeneous as possible in the immediate environment of one's own clients. For Kenya, the harvest increase was able to generate an additional income from supported agricultural activities of US\$80 per HH in 2021 (cf. OAF 2022), as well as a 12% reduction in moderate to severe food insecurity and a 22% reduction in severe food insecurity in 2020 (OAF 2021)<sup>17</sup>. This information was largely confirmed by the survey conducted within the framework of this study, and the farmers' perceptions of it were also exceeded in some cases.

In qualitative interviews, farmers reported yield increases of often well over 100%. Comparing harvests across seasons is only possible to a limited extent, but farmers are quite capable of taking into consideration various factors affecting the yield. In particular, a significant and disproportionate benefit was gained by HH that previously had inadequate access to inputs and possibly also applied inefficient agricultural practices. The quantitative

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<sup>15</sup> One of the reasons for the low productivity is the low use of chemical fertilisers compared to the rest of the world. On the access difficulties for smallholder farmers to high-quality inputs and facilitating factors for higher fertiliser use in maize cultivation, see e.g. Jena et al. (2020), Sibiko / Qaim (2020) and Duflo et al. (2008).

<sup>16</sup> The data were supplied to the research team from as yet unpublished reports.

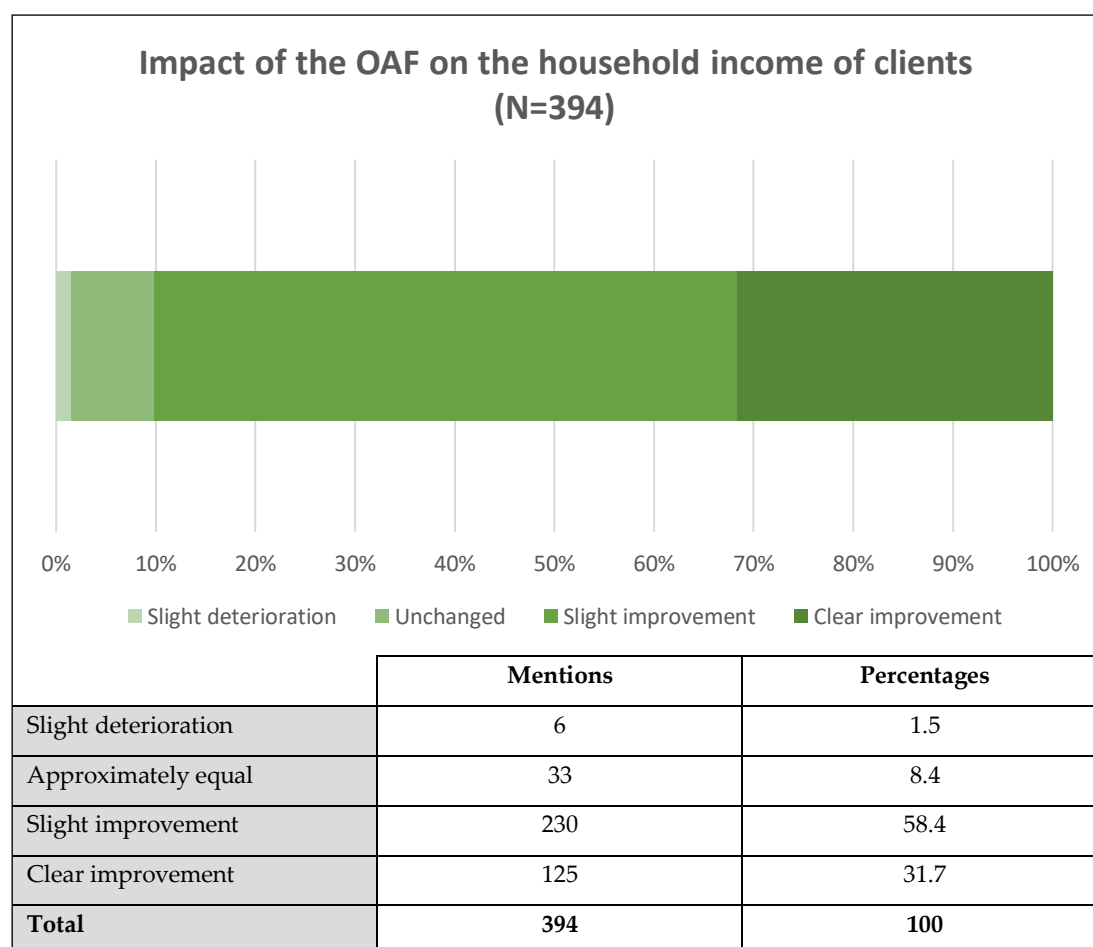
<sup>17</sup> To measure food insecurity, the OAF uses a scale from the Food and Agriculture Organization of the United Nations (FAO), which is applied in HH surveys. See <https://www.fao.org/in-action/voices-of-the-hungry/fies/en/>.



survey covered the harvests in the maize sector, which, adjusted according to the available acreage, are higher among OAF clients for the first season in 2021 than in the reference group<sup>18</sup>. However, this should only be understood as a tendency, as it hides possible variations in the use of the available area<sup>19</sup>.

The question about the impact of being a client of the OAF on HH income gives a clearer picture. Fewer than 10% of respondents see no positive change in income, while 90% perceive slight or clear positive changes. Of course, it is important to note that the question was asked of clients who continue to request the offer in the season following the field stay (and who have usually been clients for years) but does not include those who may have terminated their participation due to negative developments.

**Fig. 6: Perceived impact of OAF participation on household income.**



The HH survey captured the estimated income of HH for the first half of 2021. For this purpose, the income was divided into different agricultural and non-agricultural incomes in order to simplify the estimates for the farmers. The figures should be treated with caution, as deviations and possibly under-reporting of further income are inevitable. Nevertheless,

<sup>18</sup> Without reference to acreage, OAF clients reported having an average of about 600kg of maize available after harvest in the first half of 2021, compared to 518kg for the control group.

<sup>19</sup> Earlier (external) studies can give a clearer picture on this and can be found at <https://oneacrefund.org/impact/rigorous-evaluations/> [05/2022].

certain tendencies can be identified through the very broad survey. No attribution to the impact of OAF activities is made, as the coverage cannot be compared over a fixed period of time. Accordingly, however, an impact also cannot be ruled out.

**Tab. 2: Income survey.**

	OAF households (N=409)	Reference group (N=398)
<b>Ø Total income (in KES)</b>	<b>97,715</b>	<b>109,274</b>
<b>Ø Agricultural income</b>	<b>35,731</b>	<b>34,212</b>
Median agricultural income	23,000	18,400
<b>Ø Non-agricultural income</b>	<b>61,553</b>	<b>75,069</b>
Median non-agricultural income	36,975	48,000

Looking at the income estimates, which also show similar values in the distribution between the groups, indicates that the OAF activities do not appeal to groups with greater resources. The median in agricultural income tends to indicate that the group of OAF clients mainly includes HH that (still) concentrate more on agricultural activities. This is also shown by the fact that in the reference group, incomes are higher in the area of permanent employment, but also in self-employment, e.g. as a driver of motorbike taxis.

Nevertheless, in both groups, income from crops, vegetables and fruit is the most important source of income. It should be noted that the table does not capture and monetize farmers' consumption of their own agricultural production. However, when considering rural livelihood strategies, subsistence production plays a weighty role in HH income. All HH surveyed were engaged in agriculture (at least with part of their labour capacity).

Referring to the KNBS Kenyan poverty line of KES 3,252 monthly income per adult, the incomes collected indicate a very high poverty rate in the study regions. The recorded median of 59,975 KES among the OAF HH and 66,400 KES in the reference group even exceeds the number of poor from the development reports of the local governments, but is certainly also due to different survey methods and inconsistent poverty lines.

### **Improving food security**

Increases in harvest and income lead to improvements in food security. In particular, the noticeable improvement in maize production achieves positive quantitative effects, i.e. the availability of food. A qualitative improvement is achieved through the increase in income. What is meant by this is a balanced and nutrient-rich diet.

In particular, the increased availability of maize, the key staple food in the study regions, reduces the need for HH to spend income from various economic activities on staple foods. This reduces spending conflicts between different basic needs.

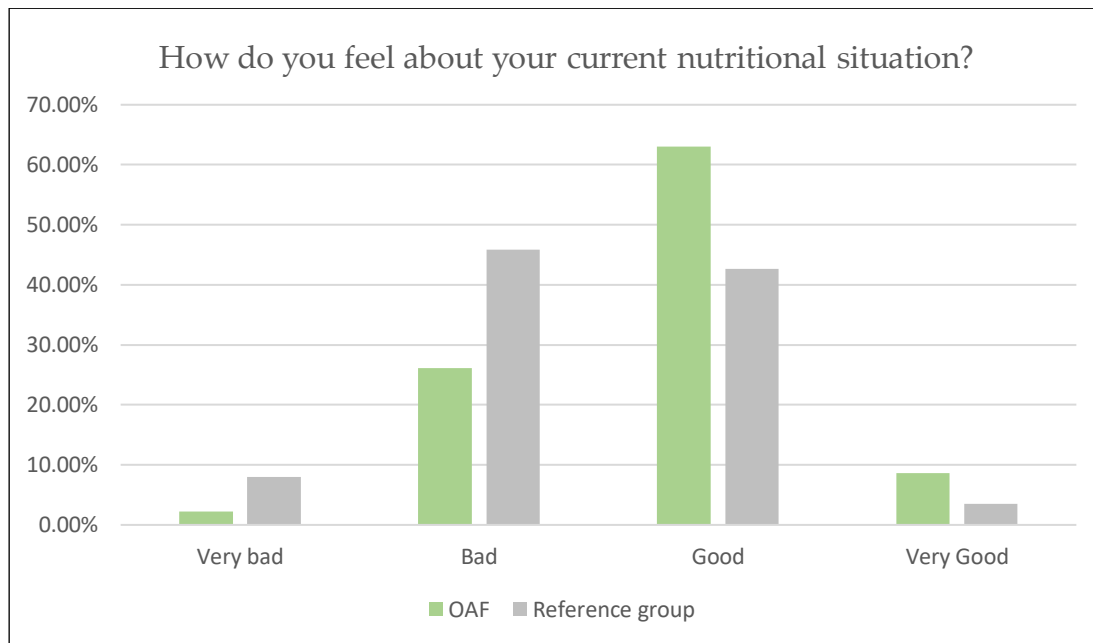
The OAF is also focusing on increasing diversification of the agricultural product range in order to directly contribute to a qualitative improvement in food security, and markets beans and vegetable seeds as well as fertilizer in addition to maize in the study regions. However, demand for these products is still relatively low. In the area of widespread bean cultivation,

many farmers continue to rely on traditional seeds. Vegetable seeds are increasingly bought on the local markets; the comparably low prices do not require buying on credit.

The survey quantifies this as follows: only 4.4% (N=383) of farmers bought a package for beans, and 14.9% for vegetables. By comparison, 93% included a maize package (for cultivation of an area of at least 0.25 acre) in their loan.

The direct improvement in the basic food situation as well as the slight improvement in HH income lead to an improved nutritional situation in the HH. As illustrated in Figure 7, less than 30% of OAF clients perceive their nutritional situation as poor or very poor, while this figure is significantly higher in the reference group at 53.9%.

**Fig. 7: Perceived nutritional situation.**



As this does not yet provide a direct answer with respect to the impact of the OAF, it is worth looking at the perceived development over the last five years (the median number of HH surveyed have been clients of the OAF since the 2017 season). Here, 46.2% of the respondents say that the nutrition situation has improved at least slightly, while another 14.2% see no great change. In the control group, only 23.5% see at least a slight improvement and 18.5% no significant change. This suggests a positive effect of the OAF offers on this area, which was confirmed in the interviews<sup>20</sup>.

Conversely, the survey shows that a large part of the rural population in Kakamega and Kisii County sees negative development, which makes interventions in this area all the more important.

The HH survey in this study also recorded food consumed by category (e.g. fruit, vegetables, meat, etc. in the past seven days) to show possible effects on the qualitative nutritional situation. However, the comparison with the control group does not show clear

<sup>20</sup> Alternative explanations for this development are conceivable; through the recording of the actual state and the comparison over five years, as well as the results from the intensive interviews, a connection with participation in the OAF model is very likely.

differences in any category. OAF HH report investing additional income in improved food consumption, among other things, but this is not reflected in the data. This may be due to a different understanding of qualitative aspects of food.

### **Use of the additional revenue**

When considering the additional income, it is first important to put it in the context of the overall HH income. Smallholder livelihood systems often include a wide variety of agricultural and non-agricultural sources of income. The increases in income from OAF clients, especially in the area of maize cultivation, therefore trigger only small measurable additional revenues in the HH budget. The OAF communicates this fact transparently and estimates the positive change at around 15%, pointing out that the improvement in agricultural incomes only contributes part of the solution to the insufficient incomes of the rural population (cf. One Acre Fund 2016).

When asked about the use of the additional income (asked of those who had also mentioned perceived additional income), clients mentioned two areas in particular, with ~65% each (N=350): improved consumption (usually buying vegetables, milk, eggs and very rarely meat) and increased spending on school fees. School fees in particular put extreme financial pressure on poor HH and are very high in relation to HH income, especially for secondary education. It is not uncommon for expenditure on school fees to prevent productive investment in farming and thus also prevent the parents' generation from being lifted out of poverty. In FGDs, farmers emphasized this problem. Due to the school fees, they see no possibility of escaping poverty themselves, but by paying them they enable the next generation to find employment in the formal sector. Thus, it is especially the family members who benefit from the additional income.

Furthermore, investments in agriculture (37.7%), home improvement (32.3%) and purchase of consumer goods (28.9%) are mentioned for the use of additional income. 16% of the respondents mention the purchase of livestock, but it is very questionable whether this explains the increase in livestock compared to the reference group.

Another goal of the OAF activities is to improve the health situation of the clients. While increased income favours this, the study could not find any explicit changes at this point. Access to health insurance is a crucial factor in improving the health situation. The National Health Insurance Fund (NHIF), with an annual contribution of KES 6,000 per HH, exceeds the ability of many rural families to pay. The OAF therefore offers health insurance through the credit model, which covers the costs in severe cases, from a hospital stay of at least two nights. In addition, a life insurance policy is automatically taken out through the core programme, which covers the (often very high) costs of a funeral in the event of death. For both insurances, however, there have been difficulties among farmers in the past in making claims because the bureaucratic process overburdened those affected. This shows how important a target group-specific solution is in this area.

### **Reducing poverty and improving the living situation**

The data evaluation was able to show that the activities of the OAF at the HH level do lead to a slight improvement in HH income and improve food security.

Poverty reduction in the sense of graduation, i.e. sustainable liberation from poverty, is not achievable for most farmers. However, this is not so much due to a lack of impact through the

OAF, but rather structurally due to the massive financial pressure through school fees on HH with school-age children.

Viewed from a holistic perspective, there is an improvement in the living situation. One factor to be emphasized in this context is the improved access of HH to agricultural tools, improved HH equipment or consumer goods that can be purchased through the credit system. Some clients only participate in the purchase of goods and forego the purchase of inputs<sup>21</sup>.

In 2021, the following products could be purchased on credit through the OAF:

**Tab. 3: Products offered via the OAF.**

Agricultural implements	Improving the household	Consumer goods
Wheelbarrows	Solar system for the household	Mobile phone
Backpack sprayer	Solar lamps	Smartphone
Tarpaulin for drying the harvest	Corrugated iron	Reusable sanitary pads
(PICS) storage bags	<i>Jiko</i> (charcoal-burning stove)	

The OAF has developed its product range over the years, focusing on the needs of its clients. While agricultural implements also have a positive economic impact, consumer goods serve the need for life-enhancing aspects, such as access to digital financial services with mobile phones or access to information with the purchase of smartphones.

The goods are usually also offered by retailers in the rural centres, but farmers sometimes report poor quality. What is more crucial, however, is the difficulty of saving up to gain the purchase amount. The OAF loan model enables the smallest repayment amounts over a long period of time, and it is only this that makes acquisition possible for poorer HH. So far, it has been difficult for private-sector providers to set up such a credit model, because lending would probably be too risky. Possible negative impacts of the OAF on local markets are addressed in the following chapter.

## 6.2 The reference group

As broadly shown in chapter 6.1, the OAF's holistic model of support achieves a positive effect on the poverty and living situation of the clients. In order to find out about the weaknesses of the approach, it is therefore useful to examine the reference group more closely, since a model that enables the target group to exit or enter the system every year will naturally only be demanded on a long-term basis by those HH that benefit from it.

The HH survey was first able to show that the OAF is extremely well known in the research regions. From the reference group, 91% of the respondents had already heard of the OAF and of these, a further 70% were largely aware of what the OAF offers. In total, 95 of the 402 respondents (approx. 24%) in the reference group had been clients of the OAF for at least one

<sup>21</sup> This could be observed especially in the semi-arid zones of Embu County. The region has very fertile soils and maize cultivation is somewhat less common than in the higher altitudes of the country. Accordingly, the demand for artificial fertiliser and seeds is limited. The clientele is therefore built up through the goods in the product range. Nevertheless, it remains questionable whether this is enough to build a solid business model. The cost of attracting new clients is comparatively high, and existing clients drop out after the products offered and demanded by the HH have been purchased.

season in the past. This provides evidence of a very strong market penetration of the OAF in the long-standing project regions. The dominant reason for leaving the OAF groups is difficulties in repaying the loan, representing 64.2% of the mentions (multiple mentions possible). In contrast to loans from microfinance institutions, clients are not threatened with seizure of valuables by the OAF if they do not repay or repay late, but the pressure exerted by the FO and the social pressure from the farmer group were often described as a great burden. The FOs are encouraged to work with the debtors to find a solution for repayment, often recommending the sale of assets such as livestock. How much pressure is really exerted is difficult to generalize given the variety of FOs. Fear of this situation or a general lack of financial resources to apply for a loan is also the main reason, among the HH not reached so far, why they have chosen not to take up the offer. In a question with multiple answers possible, 60% cite risk or financial constraints as the reason, and 13.1% have already heard of negative experiences with the OAF in their environment.

Financial pressure and the associated risk of indebtedness is the main reason why poorer HH are inhibited in taking up the OAF offer. In particular, HH that lack a regular income are quickly overwhelmed by the constant pressure to repay (in instalments). The OAF offer – albeit for understandable reasons – does not envisage repayment of the (bulk of the) loan(s) through additional income from the harvest, but through steady small repayments. Only 32.2% of current clients report also using income from maize harvesting (among other sources). If there is no other income, e.g. from casual work, returns or the sale of vegetables, it is difficult to make use of the offer. It is not so much the amount of income that is decisive, but rather the regularity. Participation in Village Savings and Loan Associations or Self-Help Groups (SHGs)<sup>22</sup> can help to save smaller amounts through a rotation system and use this capital for repayment. The OAF establishes these systems in the OAF farmer groups.

<sup>22</sup> See from the AVE project series Mahla / Gaesing (2017) on the importance of SHGs in rural regions of Kenya and the positive effect on the poverty situation.

## 7. Social enterprises in developmental agricultural promotion

As part of the accompanying research project “Ways out of Poverty, Vulnerability and Food Insecurity”, social enterprises in agricultural promotion were selected from the German Financial Cooperation (FC) portfolio in order to examine them with regard to their holistic approaches to supporting rural HH and to potentially demonstrate that a combined intervention in the field of agriculture can achieve success. In addition to presenting the impact of the approach at the HH level, it is therefore of interest to classify social enterprises as an instrument of development policy, but also to include overarching development policy issues in the analysis that go beyond classic indicators of DC. In the following, the criteria on the scope, depth, quality and externalities of social enterprise activities referred to in Chapter 2 will be addressed. In the broad field of social enterprises, OAF’s organizational form and business model means that its core programme focuses on social impact and uses entrepreneurial methods to achieve it. The OAF can therefore be classified as a social enterprise even when viewed very narrowly.

### 7.1 Social enterprises as actors in rural development

The promotion of social enterprises can be located between classic bilateral and multilateral development projects and private sector promotion. Depending on the orientation of the social enterprise, funding is positioned more strongly in one direction or the other.

In the case of the OAF, the funding can be said to be relatively close to the funding of development projects, since the OAF does not aim for profitability and will therefore be permanently dependent on external public and private funding and, as a social enterprise registered as an NGO, cannot be sold at a profit by the shareholders. With the OAF approach, the impact is measurable and classic indicators of DC are partially applicable in cooperation. Unlike Technical Cooperation (TC) projects, however, the OAF is registered as a company in Kenya and can also act as such. For DC, this also means that the project regions are not dependent on bilateral government negotiations and neither the national government nor international partners can exert any compelling influence on this. Due to the private sector logic of the social enterprise, the activity is based on demand. The social enterprise thus enables a development presence in regions that otherwise benefit little or rarely from DC interventions. During the study, this was particularly evident in Kisii County, where the OAF deals with a very great shortage of agricultural extension services. Only 11.7%<sup>23</sup> of OAF clients mention advisory services offered by the local government as a source of information for their own agricultural practice in addition to the training offered by the OAF, and NGOs are also hardly present, with 2.3% of mentions.

The reach described is one of the great strengths of social enterprises. Through its long intensive strategy of rapid scaling, OAF now works with approximately 500,000 HH in Kenya. With a rough HH size of five people, this amounts to about 5% of the Kenyan population; a reach that classic DC projects in agriculture rarely achieve so directly. Compared to DC projects, the intervention does not directly focus on a systemic effect, but rather sees itself as the solution to a market failure. As a result, the OAF and social enterprises in general are not

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<sup>23</sup> N = 393, multiple answers possible. The difference between the regions is marginal, which is why the information applies to both project regions.

planning an exit. It is the generic interest of a company to maintain and continue existing client relationships. The sustainability question that TC projects have to face, specifically the question of how the project impact can be continued after the end of the intervention, does not have to be addressed in the case of social enterprises. These are geared towards a permanent presence as long as a region is more or less economically viable. In the case of the OAF, it is necessary to operate in regions with high population density for (partial) cost recovery; according to the organization, the decentralized structures are too uneconomical in peripheral regions. Nevertheless, the OAF estimates that its approach can reach 50% of smallholder farmers on the African continent<sup>24</sup>.

The entrepreneurial model of social enterprises also results in weaknesses due to the intended economic efficiency. While not all donor institutions or major donors require a profitable business model, the SROI discussed in Chapter 2 refers to the cost structure. The social impact achieved is always related to the costs of the company. This, of course, encourages the company to keep costs as low as possible. This makes it difficult for social enterprises in agricultural promotion to set up an offer that is extremely cost-intensive. To address this problem, the OAF has started to cross-finance unprofitable regions or even project countries through more profitable ones<sup>25</sup>. The activities in Burundi, for example, are a clear loss-making business due to the extremely small agricultural areas and therefore the small loan packages per client. Nevertheless, this business is maintained in the spirit of poverty reduction.

## 7.2 Agroecology and resilience building

The economic viability of the OAF is made more difficult by the shift to a more agro-ecological orientation of the advisory services, which is now underway. Agroecological approaches are extremely consultation-intensive and require an adaptation of the target group's agricultural techniques (see Chapter 3). While in the early years of the OAF in Kenya an industrially oriented, monocultural maize cultivation technique was still being promoted, in recent years – influenced by possible increases in productivity and positive effects on the ecosystem – the model and extension services have been set up in a more sustainable way. According to OAF surveys, this is reflected in clients' farming practices, where OAF clients show higher diversification of their production and better land values than the comparison group<sup>26</sup>. Nevertheless, it should be noted that this is far from an agro-ecological transformation.

TC projects of German DC in Kakamega County show that agro-ecological approaches can certainly be implemented in the project regions and require significantly less or no inorganic fertilizers or pesticides for comparable yields. However, such an approach is diametrically opposed to the self-perception of a company. In order to implement agro-ecological techniques in the context of OAF, it would be necessary to intensify further training for FOs and to increase the number of training sessions for OAF farmer groups. In addition, a serious reduction in the products sold would have to be accepted, especially the comparably

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<sup>24</sup> See OAF CEO Andrew Youn's TedTalk from 2016: [https://www.ted.com/talks/andrew\\_youn\\_3\\_reasons\\_why\\_we\\_can\\_win\\_the\\_fight\\_against\\_poverty](https://www.ted.com/talks/andrew_youn_3_reasons_why_we_can_win_the_fight_against_poverty). However, according to the OAF, in Tanzania the model could be adapted to include less densely populated areas in the business area.

<sup>25</sup> Interview with OAF CEO Andrew Youn from 30.09.2021.

<sup>26</sup> [https://oneacrefund.org/documents/341/Farmer\\_Resilience\\_White\\_Paper\\_One\\_Acre\\_Fund\\_2018.pdf](https://oneacrefund.org/documents/341/Farmer_Resilience_White_Paper_One_Acre_Fund_2018.pdf) [05/2022].



expensive fertilizers. At the same time, costs would be increased and revenues reduced. The social entrepreneurial model therefore allows for an ecologization of the approach, e.g. through erosion control or agroforestry only to the extent that it does not jeopardize the sale of the farmers' own products. Even integrated agriculture, which only provides for a minimum amount of inorganic fertilizer and pesticides, already forms a conflict of goals. As the OAF sees itself as a non-profit social enterprise, it is open to the process and, according to its own statements, has recommended farmers to reduce the use of fertilizers from 2022 onwards, where internal investigations suggested this. It remains to be seen to what extent donors will support this in terms of lower cost recovery and subsidize accordingly. Donors play a central role in the future orientation of agricultural extension.

At present, a number of measures to make agricultural techniques more sustainable are at the experimental stage or are already being included in the advisory measures. However, dissemination of these techniques, e.g. increased compost spreading, is not yet widely established. The application of inorganic fertilizer is often referred to as micro-dosing. However, the OAF recommends an application of about ~250kg of artificial fertilizer per hectare, spread over the season (phosphate-nitrogen fertilizer + NPK<sup>27</sup> / complete fertiliser or calcium-ammonium-nitrate). This is a value which is above the Kenyan average (cf. Ariga / Jayne 2011; Oseko / Dienya 2015), but according to the OAF it follows the recommendation of the Kenyan government.

At this point, the study does not intend to weigh up the debates on the need for increased use of industrial inputs<sup>28</sup>, but merely to embed the promotion of social enterprises in the context of an expanding focus on the promotion of agroecology in smallholder agricultural support (FAO 2017; Deutscher Bundestag 2019; interview with Federal Minister Schulze<sup>29</sup>).

Accordingly, it must be recognized that social enterprises can only establish agro-ecological, developmental goals up to a certain point within agricultural promotion, and that the input-intensive approach can also create a dependency on the part of the clients. A setback within the HH, such as an illness, can mean immediate payment difficulties and thus immediate exclusion from the clientele for the following year. Besides internal shocks, farmers become additionally dependent on external shocks, e.g. in global supply chains. This was recently illustrated by supply shortages during the Corona pandemic in 2021, which meant that not all clients could be supplied on time. Directly following this, clients are affected by the massive increase in fertilizer prices in 2022, which the OAF will have to pass on to clients (leading to a decline in client numbers for the first time).

### 7.3 Impact on local and national economic development

As a social enterprise, the OAF addresses a market failure by offering smallholder farmers inputs on credit, something which has not yet been realized by the private sector. While this increases the use of high-quality seeds and fertilizers, these are in demand by farmers even without the OAF intervention. In almost every rural centre in the densely populated regions of Kenya, there is a so-called *AgroVet shop* that offers agricultural inputs and equipment, but

<sup>27</sup> Nitrogen (N), phosphate (P) and potassium (K).

<sup>28</sup> Sheahan et al. (2013) were able to observe a predominantly economically rational application in Kenya.

<sup>29</sup> Strauss, Hagen / Marschall, Birgit (2022): Development Minister Svenja Schulze. "Afrika ist keine Resterampe für abgelaufene Impfstoffe". Rheinische Post Online, 10.02.2022. URL: [https://rp-online.de/politik/deutschland/entwicklungshilfe-schulze-will-exportverbot-fuer-gefaehrliche-pestizide\\_aid-66120421](https://rp-online.de/politik/deutschland/entwicklungshilfe-schulze-will-exportverbot-fuer-gefaehrliche-pestizide_aid-66120421) [05/2022].

also basic veterinary services. The dominant farming strategy in regions without drastic external intervention is an agricultural system based on external inputs. The amount of inputs purchased, often depends on the capital available during the growing season. The presence of the OAF in rural areas is thus in direct competition with the local *AgroVets*. The market penetration of the OAF is concentrated within the regions, so that a relevant market share goes to the OAF in these parts of the country. The externalities possibly triggered by this, such as the decline in the turnover of retailers, cannot be quantified within the scope of the study, but should be examined in the case of further funding by public institutions. The expansion of the OAF's product range to include consumer goods but also building materials (corrugated iron) also affects retailers in the non-agricultural sector. This externality is largely absorbed in the core programme by the income increases and the resulting increased purchasing power. Whether this is also transferred to the established retail structure cannot be assessed within the framework of this survey.

Fig. 8: OAF *duka* in Kisii County.



Beyond the local level, the OAF is taking on an increasingly strong role in the national market. With 500,000 clients, the OAF supplies a relevant part of the agricultural enterprises in maize cultivation. While the seeds are produced in East Africa, the fertilizers are largely purchased on the international market. Due to widespread problems with poor quality and counterfeit products in the agricultural input sector, the OAF recently decided to address another market failure beyond its own core programme. More than 70 *duka* (see Chapter 3) have already been established in the rural regions to sell high-quality inputs and products through a retailer structure. This offer, which is initially not linked to a credit model, is most likely aimed at HH with stronger resources (compared to the target group in the core programme) and thus abandons the direct link with poverty reduction. Rather, the retailer structure is intended to

put pressure on the competition<sup>30</sup> and force them to improve the quality of the products on offer (see chapter 3). The research team does not know to what extent the retail structure will be expanded in the future. However, the competitive advantage of the OAF, as a donor-supported social enterprise that is not forced to operate profitably, should be critically considered at this point with regard to the market for agricultural inputs, which is not unimportant in Kenya. The brand “One Acre Fund” was established through the core programme and stands for good quality. Accordingly, it is not unlikely that the OAF will not so much drive competitors to improve their offerings as instead take a market share. While high-quality products on the market are certainly welcome and increase productivity (which the OAF can measure and include in the SROI), from a development perspective the question must be asked whether a market failure at this point, which is not so much a gap in the market but is primarily triggered by weak regulation and quality control, should be filled by a social enterprise. Here the hypothesis is formulated that in terms of sustainable economic development it is important to have a private sector that operates according to market economy principles, and which has an interest in reinvesting profits. This hypothesis should be specifically tested when considering further promotion.

According to the OAF, the OAF *duka* structure is built up through private sector loans, so in this sense it corresponds to private sector standards, but with a different ownership structure. In this area, there is definitely a gap in the state of research for the relatively special case of the OAF and the comparable enterprises in agricultural promotion. This gap cannot be closed within the framework of this study.

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<sup>30</sup> Interview with OAF CEO Andrew Youn from 30.09.2021.

## 8. Conclusions and recommendations

This study deals with social enterprises in agricultural promotion using the example of the OAF. Here, in addition to the actual project impact, social enterprises are also understood as development actors and the consequences of increased promotion of these actors are analysed.

The OAF achieves both a poverty-reducing effect and an improvement in the agricultural productivity and food security of the clients through its holistic offer, in which the provision of financing, inputs and training is made possible in combination. By expanding the range of products, the OAF also achieves improved access to various agricultural and consumer goods that contribute to improving clients' economic and living situation. Additional income from OAF activities is largely used by HH to improve nutrition and for the education of school-age children. Thus, OAF activities influence a number of key development policy goals. When placed in the context of the overall livelihood strategy, it becomes clear that this additional income is not sufficient to sustainably escape from poverty.

The case presented illustrates, that holistic approaches to agricultural promotion, implemented by donor-funded social enterprises, can be an effective means of supporting the rural population in general and also resource-poor HH. With 500,000 clients in Kenya alone, the OAF has managed to build up a reach in recent years that traditional TC projects rarely achieve, and FC projects can rarely implement so directly. The sustainability of the intervention is generically present in entrepreneurial approaches, as the model relies on an ongoing business relationship and constantly works on the further development of business activities.

However, the entrepreneurial model also has weaknesses, especially when it comes to the depth of intervention at the HH level. Compared to traditional DC projects, social enterprises are required by some donors to keep their cost structure low and to operate as cost-neutrally as possible in the medium term. In the field of agriculture, this makes consultation-intensive approaches more difficult and prevents the establishment of measures with a large social impact that are associated with excessive costs. The entrepreneurial approach also poses a problem when approaches are used to reduce HH dependencies. An agro-ecological transformation can only be implemented by social enterprises to a limited extent, as a reduction in input-intensive agriculture would lead to a decline in turnover and is thus diametrically opposed to the business interests of a social enterprise. This illustrates that social entrepreneurial approaches are not able to cover all aspects of agricultural promotion, nor do they reach all population groups. As a result, social entrepreneurial approaches in poverty reduction should always be understood as complementary and not as stand-alone measures or must be heavily subsidized like classic DC projects.

The qualitative research with OAF clients, but especially the reference group, highlighted the importance of health insurance and crop protection when using a credit-based model. The expansion of insurance benefits, but above all an adapted process for making claims, should play a central role in the further development of business processes in the near future. Protection against payment difficulties or over-indebtedness due to illness, a death in the family or crop failures is of the highest importance for development policy. The number of those who are excluded from the model for the following year due to late repayment should be reduced to an absolute minimum, as this leads to a break in the livelihood strategy and is also associated with social consequences due to exclusion from the farmer group.

Kenya faces enormous challenges in the field of agriculture. The declining average agricultural land area per HH, the ongoing degradation of resources and the preservation of

ecosystems require orientation towards more sustainability in agricultural cultivation. The OAF has recognized this and launched a number of measures. However, in a model that depends on over 2,400 FOs in the field, it is the implementation across the board that is particularly challenging. The need to train a large number of employees in sustainable agricultural cultivation techniques, the need for farmers to adapt, and the need to maintain the economic viability of the model clearly show that this will require a lengthy process. From the authors' point of view, it is important to make this process measurable and transparent and thus to create incentives for the company to implement the plans as quickly as possible and to constantly develop them further.

A major advantage of social entrepreneurial approaches is the changed role of the people reached. As clients, they have more rights and are subject to consumer protection. For donor-funded companies in particular, however, this must also be reflected in reality. In the interest of development, such companies should also adhere to a higher standard than national laws may stipulate. Improving the transparency of the OAF in the area of the credit model and the credit conditions vis-à-vis the clients is a basis for this, with a special focus on consumer rights. In order to be able to enforce these, the next step would be to establish an easily accessible complaints mechanism. In the event of delayed or defective provision of products, farmers must be given the opportunity for compensation, as especially in the area of inputs this leads directly to harvest losses, which must be compensated.

Finally, from the farmers' point of view, support is needed in the field of marketing. Maize as a staple food does not promise high returns. Although the sale of production in the study regions is not a difficulty, the bargaining power of individual farmers is low due to the small sales volumes. In terms of holistic support, it would therefore be important to develop models that support them not only in storage but also in marketing.

As the promotion of social enterprises in agriculture continues, future development policy studies will have to investigate their impact on economic development at the local level. It is necessary here to specifically focus on ongoing donor-supported social enterprises in agriculture. This is the case because the current state of research in the field of social enterprises can only be transferred to the case of the OAF, or the FC projects of German DC in West Africa, to a limited extent. Additional revenue for clients will have to be weighed up against possible external factors on the market.

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