

EXTERNAL EVALUATION of HORTICULTURE AND FOOD SECURITY PROGRAM

by SOLIDARIDAD, SNV, HIVOS and AgriProFocus
FINAL REPORT

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The mission appreciates the constructive interactions and discussions with above mentioned persons and stakeholders at all levels and for their suggestions and recommendations about the Horticulture and Food Security Program in Kenya.

The content of this report is the sole responsibility of the authors.

Abbreviations

ABEC	African Bird Eye Chilies
AFFA	Agriculture, Fisheries and Food Authority
APF	AgriProFocus
BC	Business Case
CBO	Community Based Organization
DCED	Donor Committee on Enterprise Development
EAC	Euro Africa Consult Ltd
EKN	Embassy of the Kingdom of the Netherlands
EKL	Equator Kenya Limited
EPC	Export Promotion Council
FPEAK	Fresh Produce Exporters Association of Kenya
FSAS	Fair & Sustainable Advisory Services
GAP	Good Agricultural Practices
GDP	Gross Domestic Product
HCD	Horticulture Crops Directorate
HFSP	Horticulture Food and Security Program
HIVOS	Human Institute for Co-operation with Developing Countries
ISO	International Standard Organization
KALRO	Kenya Agricultural and Livestock Research Organization
KEBS	Kenya Bureau of Standards
KEPHIS	Kenya Plant Health Inspectorate Services
KPI	Key Performance Indicator
M&E	Monitoring and evaluation
M4P	Making Markets work for the Poor
MAMU	Munyeki Agricultural Marketing Unit
MCFCS	Makueni County Farmers Cooperative Society
MoALF	Ministry of Agriculture, Livestock and Fisheries
MRLs	Maximum Residue Levels (Limits)
MT	Metric Ton
NGO	Non-Governmental Organization
PCPB	Pest Control Products Board
PPP	Public Private Partnership
QMS	Quality Management Systems
RC	Result chain
SECAEC	Solidaridad East & Central Africa Expertise Centre
SMART	Specific, Measurable, Achievable, Result oriented and Time Bound
SNV	Netherlands Development Organization
TOC	Theory of Change
VC	Value Chain
VCD	Value Chain Development

Executive summary

Introduction

This report presents the results of the final external evaluation of the Horticulture and Food Security Program (HFSP) in Kenya implemented by a consortium of SECAEC (Solidaridad East & Central Africa Expertise Centre), SNV, HIVOS and AgriProFocus, and supported by the Embassy of the Kingdom of the Netherlands (EKN) in Nairobi. The evaluation has been carried out between 15th of February and 29th of April 2016, by the consultancy firms Fair & Sustainable Advisory Services (FSAS), based in the Netherlands and Euro Africa Consult (EAC) based in Nairobi.

The objectives of the current evaluation were (1) To evaluate the effectiveness and the efficiency of the Horticulture and Food Security Program, and (2) To draw lessons for the Embassy of the Kingdom of the Netherlands, the HFSP consortium partners and Solidaridad Network about program management and program implementation.

Methodology

The evaluation had a largely qualitative character. It used the Theory of Change and the Most Significant Change (MSC) to collect information on key results of HFSP, as felt by farmers and companies.

The evaluation made use of all available HFSP documents, it interviewed consortium members, farmer (groups), companies, government officers; conducted field visits, and organised a debrief workshop for validation purposes.

The quality of the evaluation was affected by incompleteness of the reports; a lack of data on key performance indicators and lack of detailed result chains for the different business cases; not all companies were available for interviews.

Context/sector

A brief and concise overview is provided of the horticultural sector in Kenya, trends, opportunities and challenges, while reference is made to other in depth analyses of the sector.

Conclusions

Conclusions are presented as response to the six main evaluation questions:

1. *Assess the outputs realised by the HFSP: have the activities carried out efficiently contributed to delivering outputs planned for (Proposal phase 1, phase 2) and presented in the annual reports to the embassy.*

The response to this evaluation question is mixed:

- ➔ Yes, a large number of outputs were realized such as training of farmers on GAP, organization skills, use of pesticides and other topics; new crops and varieties were introduced ; a considerable number of infrastructures are realised, such as collection centres, charcoal coolers stores, and other buildings.

At outcome level the evaluation validated that thousands of smallholders generated income with the (new) value chain products such as chili peppers, snowpeas and French beans, as a result of outgrower contracts with the implementing companies in HFSP and linkage to brokers and other buyers. The level of income varied greatly between the BCs.

The increased production of (new) vegetables (such as potato, sweet potato, cassava, other), also enriched the diet of the farmer's household.

➔ No, because few systemic changes were achieved, the costs of interventions per farmer varied largely between Business cases, and HFSP did not properly analyse or report on these differences. HFSP did not analyse or reflect on costs, efficiency of interventions or value for money (=effectiveness).

2. *Have the 6 Business cases and interventions offered sufficient Value for money?*

This question has been addressed by calculating and comparing for each of the 6 business cases (BC): expenditures from HFSP phase 1 and 2 per farmer, 2014 (proxy year) gross income generated per farmer (from sales to HFSP companies), and the # of farmers reached.

Conclusions:

- Overall BC3 offered best value for money, as a relatively large number of farmers (723) benefitted with a substantial gross income: KES 54,000/farmer (€490) in 2014.
- BC 2 and 6 showed a mixed picture: interventions in BC2 benefitted a relatively small group of 254 farmers with a substantial income, but at high costs (3 times higher costs/farmer than the BC3). BC 6 reached a very large number of farmers (5,500), but with a very modest average gross income (KES 2100/farmer in 2014).
- BC1 is a tree crop, hence a long term investment; so far the farmers did not harvest/generate income. The evaluators see this as a good potential cash crop for smallholders; production will start in 2016, with an estimated gross income of around KES 14,000/farmer with 0.25 acre, and is expected to triple in 3 to 4 years' time to KES 40-45,000/farmer per year.
- BCs 4 and 5 have not offered sufficient Value for Money.
- As other results that are likely to be sustained, are noted (a) better organized producer groups in 3 BCs, with stronger bargaining power; (b) new relationships and contracts with buyers/companies; (c) improved food security as result of support in other food crops and improved varieties such as sweet potatoes and cassava.

3. *Has the project been successful in upscaling the results to create a broader sector impact?*

A broader sector impact also refers to improving sector policies and enabling environment. This has been reached to a limited extent. The HFSP showed some good examples of up scaling potential, such as the quality avocado seedlings grown by company and sold to farmers; farmers & government who gained interest in avocado and invested in it; cooperatives which themselves employed & trained lead farmers as extension agents. However in most cases up scaling has not been incorporated or aimed for explicitly. Up scaling (potential) depends on whether the underlying causes for bottle necks in the sector and specific value chains have been solved. The HFSP did not make the switch to (market based) solutions that will be sustained by their own profitability, both to the provider and the customer of the service.

4. *Has HFSP contributed to sustainable business cases and, to sustained trade and investment relations between Kenya and the Netherlands?*

Overall the evaluation team did not have sufficient information to adequately respond this question. We conclude that the private sector and market oriented strategy was a proper choice. But there is need for clear company selection criteria & conditions as well as close monitoring. There can be scope for more Dutch involvement and investments in top sectors of Dutch foreign cooperation, in case the added value is clearly demonstrated.

5. *Assess the synergy with other Dutch funded activities (e.g. FDOV, NICHE, 2Scale, 2g@thereOS).*

The consortium and especially AgriProFocus played an active role in promoting networking and learning through the organization of stakeholder meetings and workshops with the consortium members and many other stakeholders. Most respondents appreciated the meetings and workshops, because it enhanced their awareness, created publicity and contributed to learning and exchange. Some respondents (mostly from private sector) were also (very) critical, because they saw the meetings as a lot of talking without concrete actions. While several meetings were organised, the evaluators only observed a few illustrations of the learning within the consortium.

6. *What lessons can EKN and the Solidaridad network learn about designing and managing such a programme ?*

Key lessons are:

- Ensuring sufficient time and reflection for program design and formulation.
- M&E implementation with regular internal measurement of outcome indicators is a key success factor for a program. This requires: 1) sufficient management support for the M&E function; 2) time and resources assigned to M&E implementation; 3) well spelled out M&E responsibilities and roles between consortium partners and companies.
- Companies and (Business implementation) proposals must be selected and assessed with clear criteria. Negotiations are needed to ensure a proper match of company and programme financial contributions
- Analysis of profitability of the value chains and any proposed innovations for farmers and SMEs must be part of the design and implementation phase of the program.

Recommendations

Recommendations are presented and split up under the headings of program design and formulation, program implementation, and implementation strategies.

Program design and formulation

- Program period of a minimum of 4-5 years: needed to build up trust and relations between different VC actors, and develop and test profitable Business Cases and services
- Preparatory phase of 6-12 months for identifying those value chains, intervention partners and strategies with most potential to achieve the set objectives & targets. Tools: GIZ and ILO have developed value chain selection guidelines and tools, see this [link](http://www.giz.de/privatesector), or www.giz.de/privatesector.
- Sustainability and up scaling: use the M4P /DCED approach, to address the systemic and underlying causes; avoid direct service delivery.
- Cost/benefit analysis must be made to calculate the expected profitability for PS actors (smallholders and SMEs).
- Budget: allow for flexibility in the budget to enable adjustments in the work plans and strategies.
- The program contributions should leverage private sector investments. Only during a 'testing phase' the initial risk of the frontrunner SME can partially be covered by program funds.

Program implementation

- M&E: Ensure sufficient attention/priority from management by allocating time and resources for M&E function
- Elaborate more detailed result chains, including the necessary indicators that will serve as basis for data collection, analysis and learning.
- Organize regular (at least annual) review meetings for joint analysis and learning
- Check on the existing reporting instructions and formats from EKN and adapt them where necessary and relevant
- Assign the facilitator role to a (neutral) organisation that is recognised by all value chain actors involved. Ensure capacity to play the facilitation role and play a mediation role upon need.

Implementation strategies

- Role of SMEs: important to continue working with SMEs. But there is need to set clear criteria and conditions for partner companies such as their long term engagement with farmers.
- Role of brokers and side selling: improve the understanding of essential roles of brokers and strengthen their capacities. Analyze the underlying causes of side selling and then jointly seek solutions between producers and buying companies.
- Domestic versus export market: focus on the growing domestic and regional markets as they are more accessible than export markets especially for smallholders; moreover they may serve as springboard for accessing high end export markets.
- Contract farming: For best practices with contract farming we recommend to consult the *Contract farming Checklist* (2011) that was developed by WageningenUR, ICCO and RVO (previously called EVD), see [link](#).
- Gender: Invest in gender expertise, analysis and demonstrate the business case/benefits of gender inclusiveness.
- Access to finance: ensure financial services expertise (within the program consortium) and make use of existing agro finance providers (e.g. Equity bank, Cooperative bank, other), to develop relevant financial products.
- Adoption of appropriate technology: must be based on a proper costs/benefit analysis to ensure profitability of the investment.
- Dutch trade and investments: explore in depth the specific added value of Dutch investments and knowledge in the various value chains and how to sustain the results.

1. Purpose and methodology

The *Horticulture and Food Security program (HFSP)* in Kenya was implemented by a consortium of NGOs: Solidaridad-Eastern and Central Africa Expertise Centre (SECAEC- lead) with 3 implementing partners: SNV, Hivos and AgriProFocus, and supported by the Embassy of the Kingdom of the Netherlands (EKN) in Nairobi. The programme, implemented in two phases to improve horticultural value chain development, included up-scaling of existing business cases and venturing into new business areas. Enhancing integration of smallholders in the dairy, horticulture, potato and fish farming value chains is part of the EKN's MASP for 2014-2017. The expected outcome of the MASP is to reach scale in terms of number of smallholders with improved incomes and food security and developed linkages in the value chains. It is envisaged that part of the strengthened linkages in the horticulture value chain will be with Dutch goods and service providers, mainly from the private sector.

The implementation of the HFSP took place between October 2011 and March 2015, in two phases:

Phase 1: 1st October 2011- 31st December 2012

Phase 2: 1st January 2013 - 31st March 2015.

The total approved budget was KES 527.695 million or € 4.797 million, total expenditures amounted to KES 479 million (€ 4.25 million).

This evaluation has been carried out between 15th of February and 29th of April 2016, by the consultancy firms Fair & Sustainable Advisory Services - FSAS, based in the Netherlands and Euro Africa Consult (EAC) based in Nairobi. The evaluation team comprised of Jochem Schneemann (FSAS, team leader), Grace G. Kithusi (EAC, horticulture specialist) and Mike Wekesa (EAC director). Methodological support was provided by Ben Haagsma (FSAS, PME expert). This program evaluation took place nearly one year after the formal end of the program, which enabled the evaluators to observe whether effects were sustained one year later. The TOR of the programme evaluation can be found in annex 1 of this report.

Objectives of the evaluation

It is noted that in 2015, an evaluation of this Horticulture and Food Security Programme (HFSP) was already undertaken and was positive about the overall achievements of the programme reaching out to 11,000 smallholders, but it provided insufficient analysis on how this achievement could be accounted for in terms of Value for Money and it was generally weak in terms of providing an evidence base for what worked and what did not and why, hence the need for this external evaluation.

The objectives of the current evaluation were:

- 1) To evaluate the effectiveness and the efficiency of the Horticulture and Food Security Programme
- 2) To draw lessons for the Embassy of the Kingdom of the Netherlands, HFSP consortium partners and Solidaridad Network about programme management and programme implementation.

The main evaluation questions (see TOR in annex 1) were:

- 1) Assess the outputs realised by the HFSP: have the activities carried out efficiently contributed to delivering outputs planned for (Proposal phase 1, phase 2) and presented in the annual reports to the embassy.
- 2) Have the 6 BCs and interventions offered sufficient *Value for money* ?

- 3) Has the project been successful in upscaling the results to create a broader sector impact?
- 4) Has HFSP contributed to sustainable business cases and, to sustained trade and investment relations between Kenya and the Netherlands?
- 5) Assess the synergy with other Dutch funded activities (e.g. FDOV, NICHE, 2Scale, 2g@thereOS).
- 6) What lessons can EKN and the Solidaridad network learn about designing and managing such a programme ?

Evaluation character and scope

The key characteristics of this evaluation are **validation and learning**. Overall the evaluation has a **qualitative** character, aiming to provide plausible and reasonably validated answers to the evaluation questions that were formulated. It did not seek statistically based evidence, as is clear from the methodology agreed by both EKN and Consortium lead (see annex 3).

The EKN explicitly wanted to learn lessons for future programs and requested the team to include Business cases that failed in order to learn from the mistakes. This guided the selection of counties, the business cases and companies that were visited and analyzed. For instance in the case of the Fruits value chains (BC 5) Stawi (unsuccessful case) was selected and not the Makueni County Fruits Processors Cooperative (which was a successful example in BC5).

A matrix was developed to identify a representative sample of counties for the evaluation (interviews, field visits, FGDs). Besides the fact that the evaluators wanted to cover all six Business cases, they have taken **diversity** as a main principle. They made the selection of counties in such a way, that it included a mix of well performing and more 'problematic' counties, and also selected counties with easy market access and some with more difficult market access. With EKN and Solidaridad the following list was agreed (annex 4 explains the full details): Narok, Bomet, Nakuru, Nyandarua, Kirinyaga and Kilifi.

Solidaridad staff member Peter Okongo joined the evaluation team field trip from 11- 14 March 2016. This served in two ways: firstly, to get first-hand information about the way the HFSP program was implemented and the reason behind it. Secondly, it served for learning purposes: through his participation in FGDs and interviews Peter got insight in the evaluation methods and in the first results. This explains the learning and participatory character: it combines learning and capacity building of implementing partner.

Methodology

The basic methods proposed are Theory of Change (TOC) and the Most Significant Change (MSC). These two methodologies are interlinked: the TOC is the planning tool, describing the planned outcomes and impacts as a result of selected strategies and interventions of HFSP, and assumptions. Whereas TOC looks at the intended or planned changes in particular, the MSC goes a step further, as it looks at all changes that actually happened and the appreciation by the key stakeholders; it includes both intended and unintended changes, thus widening the scope of changes beyond TOC. Both methodologies take the changes and the in-depth assessment of the underlying processes of change as their key focus areas. Basically, the MSC serves to confirm or validate the TOC, and possibly to adjust it. It is noted that the MSC method does not need a control group, hence use of a control group was not part of the approved FSAS proposal and methodology.

For more details see the agreed 'Approach and methodology' in annex 3. The evaluators formulated *key questions* and made questionnaires for each category of respondents (for a sample see annex 7) to collect the necessary information to answer the evaluations questions.

Evaluation steps

The evaluation consisted of six steps:

1. Desk study of HFSP documents (see list in annex 2), including the analysis of monitoring data, progress and final reports by the consortium and companies.
2. Field visits to producers, cooperatives and other chain actors and stakeholders in the selected counties - to collect data and perspectives.
3. Production data collection from selected companies in each Business case
4. Data analysis
5. Debriefing workshop with consortium and EKN to present preliminary findings and recommendations, collect feedback and validate findings.
6. Draft report, collecting feedback, and final report

During the field work, the following data collection methods have been followed:

- 1) Key Informant Interviews were held with farmers, companies, government, service providers and the consortium members, using the questionnaire as guidance;
- 2) Focus Group Discussions (in total eight) were held with farmer groups, using a simplified *Most Significant Change (MSC)* method (see format in annex 9);

A total of 31 meetings (interviews and FGDs) have taken place, consulting 119 persons, of which 83 men and 36 women. Annex 5 presents details of the persons and organizations interviewed.

After a first analysis the preliminary findings and conclusions were presented and discussed during the Debriefing and validation workshop on March 22nd 2016 at the Embassy of the Kingdom of the Netherlands in Nairobi with around 10 participants from EKN and the consortium. The participants also made recommendations to the evaluation team regarding aspects that need consideration in the final evaluation report and lessons learned for future programs. The feedback on the draft report received from EKN and the consortium has been taken into account when making the final report.

Limitations of evaluation

The following factors describe the limitations for this evaluation and how these factors have been managed as good as possible:

- Incomplete sets of reports and data base of the consortium:
Important gaps in information concerned approved BC proposals/business plans, approved budget, BC progress and final reports (incl KPIs) and BC assessments (evaluations) by the consortium, value chain assessment reports, baselines. Moreover, no gender strategy or M&E plan was received, and only a 1.5 page final financial HFSP report. We received some additional documents by repeating the request and by asking SNV. See annex 2 for the reports that we did receive for each business case and for the overall program.
- Limited monitoring data on outcomes and impact
The evaluation had assumed that outcome and impact information would be available and that the evaluators would only validate these data during the interviews and visits. The data that we finally received was of low quality: it was not clear how that information was generated and most of it was output information, only a few outcome. The reliability of that information could not be established. Other data that we finally received, only arrived after concluding the field visits and could not be validated. We have partially managed this lack of data by collecting it ourselves, which took considerable effort and time.

- Lack of detailed Result Chains for the different business cases
It was therefore impossible to assess the attribution dimension of the HFSP to higher level of changes of income and food security. The lack of internal M&E information about intermediate outcomes (being the critical components of these detailed (RC) did not allow for a really credible assessment of this attribution. The only qualitative feedback on the attribution dimension has come from the open interviews in which respondents reflected on the overall attribution dimension. We used that information to make a credible **estimation** of this attribution.
- Inavailability for interviews: Some companies that had been contacted were not available for an interview for different internal reasons. In specific we managed this by interviewing other actors as an alternative source of information. Some producer groups selected - drawn from a list from the consortium, did not exist any longer. These interviews were simply skipped.
- Limited time and resources : this restricted our possibilities for a field visit and interview actors of BCs 5 and 6 (Kilifi county) in particular. It meant that for BC5 and BC6 the assessment has been less thoroughly. The assessment of BC6 was only based on interviews with the company director and 4 farmers (the latter ones by telephone).
- Different expectations of the scope of the evaluation:
It became clear that the expectations of some consortium participants deviated from the assignment provided by EKN; among other things they expected an end line measurement of outcomes. This showed that they were not well aware of the learning and validating character of the evaluation as stipulated in the TOR.

In spite of these limitations, the evaluators believe that they have managed to produce a sufficiently reliable and plausible picture of the HFSP implementation and results.

2. Horticultural sector and context in Kenya

This section serves to give a concise overview of the horticultural sector, it does not pretend to provide a complete or in depth analysis of the sector which would go beyond the scope of this external evaluation. For an in depth analysis of the horticultural sector we refer to other reports and sources, for instance the vegetable sector for the domestic market was analyzed in a desk study in 2015 by RSA, commissioned by EKN¹. Amongst other sources we have drawn information from this report.

Horticulture a leading subsector in agriculture

Agriculture (incl forestry and fisheries) is a leading economic sector and contributed 27.3% to the GDP of Kenya in 2014 (showing a growth of 3.5% compared to 2013), followed by the manufacturing sector with 10.0% and taxes on products with 9.7% (Economic survey report, 2015). Within Agriculture crop production is the largest subsector, it contributed 19.7% to national GDP in 2014, followed by animal production with 4.9%.

Horticulture is among the leading sectors of Agriculture, contributing some 36 percent of the agricultural GDP. The horticultural sector is among the leading foreign exchange earners and also contributes to household incomes, food security, nutrition, raw materials for agro processing industry and employment. Horticulture employs about 6.0 million Kenyans directly and indirectly. Of the total horticultural production in Kenya about 95% is consumed locally or sold at domestic markets, and 5% is exported (RSA, 2015)

Factors which have contributed to the growth and success of Kenyan horticulture and exports in the last 10 to 15 years, were its favorable agro-climatic conditions that ensure year round production, favorable conditions for foreign investors, a reasonable enabling (policy) environment and a growing domestic market. Although the sector has been rather successful, it still faces major challenges, such as: high cost of farm inputs (seeds, chemicals, machinery), poor quality planting materials and seeds, compliance with market requirements (MRLs, Traceability, standards), lack of quality control for local markets, dependency on rain fed agriculture, pests and diseases, and reduced technical support especially to the small holder farmers. Agro-processing, packaging and quality standards for the domestic market are little developed as well as coordination mechanisms between value chain actors (source: RSA, 2015). Kenya increasingly faces competition and import of horticultural products from neighbouring countries and also from Egypt for its export markets. This is caused by the relatively high production costs in Kenya. It is therefore key to increase productivity, lower costs of production and improve the competitiveness of Kenyan horticultural produce.

General Performance of the sector

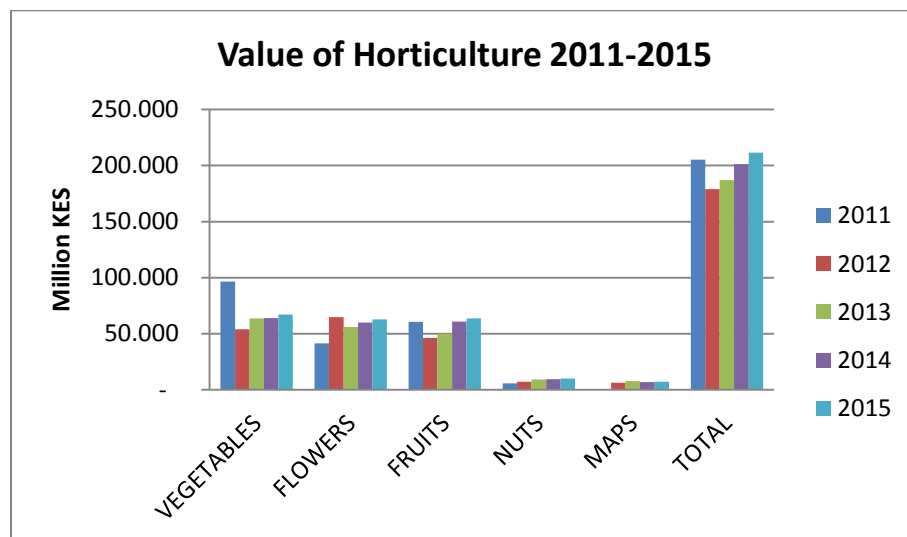
Provisional domestic value of horticulture is estimated to be KES 211 Billion (about USD 2.1 Billion) in 2015, compared to KES 201 Billion (about USD 2.0 Billion) in 2014 (HCD validated Report, 2014). The contribution to domestic value per category in 2014 was roughly 30-32% for each category: Vegetables (31.8%), Fruits (30.3%), and Flowers (29.7%), while the rest was from Medicinal and Nut crops. Figure 1 shows the value of horticulture over the last five years. It shows that 2015 has surpassed the figure of 2011, after lower figures in 2012-2014.

The leading crops in terms of production and value are Irish potatoes, tomatoes, cabbages and kales for local markets and fresh beans, snow peas and Asian vegetables for the export

¹ Research Solutions Africa, 2015. Study on Fresh vegetable market in Kenya (2015), 42 pp. See [link](#).

market. Major fruits include avocados, mangoes, bananas, pineapples and passion fruits. Flowers are grown mainly for export market. The major horticultural producing counties in Kenya are Nyandarua, Meru, Narok, Nyeri, Bomet, Kirinyaga, Elgeyo Marakwet and Uasin Gishu.

Figure 1: Value (Million KES) of Kenyan Horticulture 2011-2015



Source: Agriculture, Fisheries and Food Authority (AFFA), Horticulture Crops Directorate (HCD, 2016)

Analysis of the export trends

In 2014 horticultural products constituted the largest category of commodities with 21.1 % (KES 97.1 billion) of the total export value (KES 460.6 billion), even before tea with 20.4% (Economic survey report, 2015).

Total *fresh* horticultural exports (excluding processed) were estimated at KES 90.4 billion in 2015, an increase from KES 84.0 billion in 2014. See table 1.

Table1: Exports of fresh horticultural produce 2012-2015

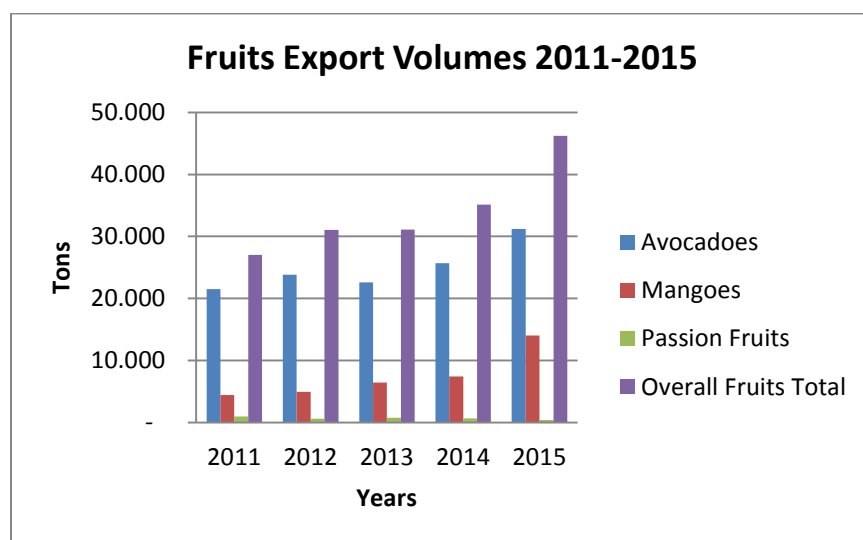
Year	Flowers		Fruits		Vegetables		TOTAL	
	Volume	Value	Volume	Value	Volume	Value	Volume	Value
	(Tons)	(million KES)	(Tons)	(million KES)	(Tons)	(million KES)	(Tons)	(million KES)
2012	108,306	64,964	31,070	4,680	66,352	20,226	205,728	89,869
2013	105,554	55,976	31,107	4,483	77,172	22,923	213,833	83,382
2014	114,764	59,893	35,149	5,411	70,335	18,781	220,248	84,085
2015 (Provisional)	122,825	62,937	46,246	6,561	68,942	20,939	238,014	90,438

Source: Horticulture validated Reports, 2011-2015

Table 1 shows that the volume and value of exported fresh fruits have gradually increased over the years. Vegetables exported have declined following restriction of Kenyan fresh beans and peas by the European market imposed towards the end of 2011 as a result of exceeding on Maximum Residue Limits (MRLs). The restriction led to the earnings from vegetable exports declining significantly especially in 2013 from KES 22.9 billion to KES 18.8 billion in 2014. Fresh beans and peas have been the most affected, which has led to some export companies running out of business due to failure to comply. About 5% of the export companies are reported to have been affected by these restrictions since 2011, as per records with HCD. Some export companies involved in the Horticulture Food Security Program (HFSP) were affected by this restriction and even stopped export business e.g. Hillside Green Growers. Figures 2 and 3 shows the export trends of selected fruits and vegetables targeted by HFSP.

Fruits: Avocados are the major export fruits from Kenya, exported to Europe mainly to the Netherlands and France. The export volumes have been increasing steadily over the years as fruit exports were not affected by export restrictions. However exports in 2013 were low and this is attributed to low demands by the market due to poor quality exports mainly because of exportation of immature fruits. A major challenge of avocado exports in Kenya has been harvesting of premature fruits that has negatively impacted on the competitiveness of avocado from Kenya. Increased demand in fresh market, pharmaceuticals and cosmetic industries provide feasible growth and expansion of avocado production. This provides the window of opportunity for the farmers in the HFSP business case 1 whose focus was on Avocado. See Figure 2.

Figure 2: Selected fruits export volumes (Tons) by Kenya 2011-2015



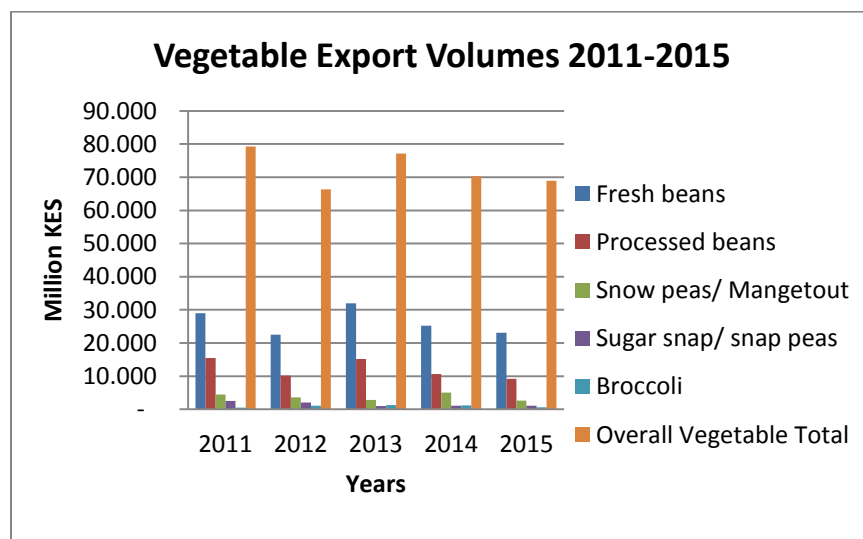
Source: Agriculture, Fisheries and Food Authority (AFFA), Horticulture Crops Directorate (HCD)

Vegetables: Fresh beans and fresh peas in Kenya are primarily grown for export market with some small quantities being consumed in the domestic market mainly in the hotels. Following the 2011 restriction of fresh beans and peas imposed on their exports by the EU, the major export market due to non-compliance with MRLs levels, have experienced a decline. Export volumes reduced significantly in 2012 as a result of many interceptions of the beans and peas.

However, in 2013 there was a slight increase attributed to concerted effort by both private and public actors to address the issue. Consequent years have still maintained low export volumes due to the challenge of quality and chemical residues on the vegetables. Reasons include poor technical support structures, a lack of certified quality and less dangerous pesticides and a lack of MRL control mechanisms in the value chain.

The opportunity presented here is for the crop protection companies to identify alternative products, especially biological controls which have no or less risk of exceeding MRLs thus ensuring food safety for the consumers. See figure 3.

Figure 3: Selected vegetables export volumes (Tons) by Kenya 2011-2015



Source: Agriculture, Fisheries and Food Authority (AFFA), Horticulture Crops Directorate (HCD)

Export destinations: The European Union (EU) is the largest consumer of Kenyan horticultural exports as it takes about 45% of the country's exports. Major export produce includes cut flowers, French beans, snow peas and Asian vegetables. The major destinations are Netherlands, United Kingdom, Germany, Austria, Italy, France, Belgium, Middle East and Far East. Most fruits are exported to France, UK and Netherlands while most vegetables are exported to the UK, France and the Netherlands (in order of importance).

Value chain: The RSA report (2015) presents an insightful analysis of the functioning and the roles of actors along the vegetable value chain for the domestic market in Kenya. It indicates among other issues the risks taken by traders and wholesalers due to the fresh product and inherent losses during transport and storage; the information asymmetry among actors which distorts market prices, reduces producer margins, skews trade benefits toward middlemen and traders, and blocks entry of new market players while increasing the wide gap between the farm gate and market price; lack of enforcement of standards, and poor consumer awareness about quality standards.

3. Relevance

The development of the Agriculture and Horticulture subsector in Kenya is guided by major policy documents of the Government of Kenya which include: Vision 2030, Second Medium Term Plan 2013-2017, Agricultural Sector Development Strategy (ASDS) 2009-2020 and the National Horticulture Policy, 2012. These documents identify critical strategic issues that need to be addressed in order to ensure accelerated growth of the agricultural sector. The strategies include among others: increased productivity, market orientation, value addition, farmer empowerment through strengthening of producer organizations, improvement of access to financial services and credit, encouraging growth of agribusiness, enhancing adoption of appropriate technology, facilitating access to affordable quality inputs (planting materials, pesticides etc), compliance with quality and safety standards, and pest and disease management. All above strategies were employed by HFSP. Among the different strategies the evaluators have identified a top four i.e. :1) market access, 2) farmer empowerment and training, 3) increased sustainable productivity 4) access to affordable finance and inputs. The relevance of the remaining strategies depends on their importance in each specific value chain and market. For instance: the specific market requirements and food safety regulations for product X will determine the attention to be paid to standards.

The Embassy of the Kingdom of the Netherlands (EKN) focuses currently on the transition from aid to trade, with clear objectives in its Multi Annual Strategic Plan 2014-2017 in the Agriculture and food security area which are increased sustainable agricultural production, better access to local and international markets, and improved business climate including access to finance, and improved Dutch-Kenyan trade relations and knowledge sharing.

This evaluation confirms that HFSP is relevant and in line with the most important government **policies and strategies** geared towards the development of agriculture as well as horticulture. The program overall goal, objectives and activities are also consistent with the Multi Annual Strategic Plan 2014-2017 of the Embassy of the Kingdom of the Netherlands in Kenya.

Relevance of the strategy to increase Dutch trade and investment: during the January 2016 networking meeting (initiated by EKN and FDOV, and organized by AgriProFocus), it was stressed that Dutch companies need to innovate, and their technologies, solutions and approaches need to be relevant to the Kenyan agricultural sector. For example, Latia Resource Centre is piloting three greenhouse technologies on their farm to determine which is most appropriate and business conscious in terms of cost vis-a-vis productivity. To reach European export markets, it is certainly beneficial to partner with Dutch traders and investors, because of their market knowledge and networks. While domestic and regional markets are gaining importance and 95% of the Kenyan horticulture production is consumed nationally, the value of the 5% production for export is relatively high with about 43 % of the total value of the horticultural sector production in 2015.

Moreover Dutch knowledge in top priority areas (water management, food security and agro technology) can be relevant in the Kenyan context and may play an important role to further develop the horticultural sector in Kenya, but needs to demonstrate its added value.

The evaluation has noted that the HFSP paid insufficient attention to strategies geared towards gender and youth; HFSP had not made a major analysis or strategy to address the issues of gender inequality and engagement of youth in agriculture and agri-business. That implied a gap as to a real gender and youth inclusive approach of smallholder farmer empowerment and sustainable performance.

4. Effectiveness

Introduction

In this chapter on effectiveness, we assess to what extent the project outputs have contributed to achieving the project outcomes. Prior to our assessment, we briefly reflect on the intervention logic and the Theory of Change (ToC). Thereafter we continue with the assessment of the results, first at impact levels food security and income, followed by an analysis of each of the six business cases (BCs) and a consolidated overview of the Most Significant Changes. Finally the chapter presents an assessment of cross cutting issues and program strategies of HFSP.

4.1 Reflection on the intervention logic and ToC

Intervention logic

The intervention logic of HFSP was presented in the two proposals (phase 1 and 2), and in an excel document consisting of the 'Overall Result Chain', a 'Measurement plan' and 'Key Performance Indicators'. The 'proposed' KPIs were consistently the same for the two phases. See Annex 7 for a summary.

The proposals presented a brief sector analysis, identified main bottlenecks and objectives for the program, including SMART KPIs, for each of the 3 Core Strategies: (a) Producer development and workers support, (b) Food security and (c) Policy influencing. In the executive summary of the proposals the overall objective and expected results were formulated in a clear and SMART way, the formulation of the 4 specific objectives was less clear and straightforward.

The overall result chain presented a global Theory of change, and in the proposals for phase 2, it promised to initiate baseline studies, and organize monitoring and evaluation according to the main criteria of the DCED standard², and the following basic steps:

1. Do thorough analysis
2. Develop a Result Chain for each proposed business case
3. Make a practical measurement plan for each business case and other intervention
4. Use common indicators that allow for comparing projects
5. Use practical research tools that generate approximate but credible numbers (on time)

Findings of the evaluators

Based on the documents received and our analysis we present our observations:

- Regarding step 1 above (*Thorough analysis*): baseline studies have been done and reports provided for the Avocado, Potato and Chili BCs, and by SNV for French Beans. For the BCs 2 and 5 baseline studies were not done, assumingly because these BCs consisted of a large number of different vegetables and fruits. The available baseline reports provide an in-depth analysis of the value chains and context.

² See: www.Enterprise-Development.org/page/measuring-and-reporting-results

- The formulated program objectives and KPIs at outcome level made sense. Unfortunately the indicators have not been measured during implementation of HFSP. Monitoring data which were supposed to be collected during implementation of the program were absent in the final HFSP Report or other documents by the consortium. Solidaridad was not able to produce these, although it promised to do so. The evaluators did receive the so called impact data that were generated during the first external evaluation exercise (in 2015), but it mainly contained data at output level, and only few outcome data.
In the final report no reference is made to the result chain or the measurement plan that was designed at the start of the program. There is also no comparison conducted between planned results and those achieved.
- Measurement plan: seemed to be work in progress, but it was neither finalised nor used during program implementation.
- The reference made to the DCED standard is correct, but it only makes sense if intermediate outcomes would have been monitored and evaluated (internally) by HFSP during implementation. As that was not the case, this is a strong indication that Solidaridad has not adopted and understood how to apply the DCED standard.

Theory of Change

Based on the project documents and especially the Overall result chain we have reconstructed pathways of change of the Theory of Change for the HFSP. The overall result chain covered 4 main result areas: (a) better organized farmer groups, (b) processors, traders, large farms are able and interested to work with small holders and apply sustainable models and practices, (c) smallholder inclusive policy changes, (d) increased income and food security. The pathways of change for the combined first and last result area(a and d) can be presented as follows :

- Extension services, soil testing, affordable and available quality agro inputs, access to appropriate technology, access to banks/finance, and cooperation among farmers and between farmers and buying companies will lead to improved agricultural practices: , good use of fertilizers, use of improved varieties, optimal spacing, pest and disease control, irrigation, pre- and post-harvesting
- Improved agricultural practices will lead to increased and more stable yields of fruits and vegetables and improved product quality
- Increased volumes and quality of vegetable and fruit supply will lead to increased gross and net income of farmers and to growth of volumes sold (income) by companies to their respective clients
- Application of standards (Global GAP, organic) will lead to increased quality, ensuring food safety through certified products, which will result in stable or growing demand (satisfied clients) and to additional income (depending on whether the additional costs for production are less than additional price).

We endorse the above pathway of change as valid and relevant for all business cases, even if absolute outcomes per BC have varied. For the specific BCs we refer to the respective sections. Because of lack of detailed M&E it has not been possible to determine which

combination of improved practices may have contributed most to the higher yields and income.

From the FGDs the validity of the first pathway of change in result area strengthened farmer groups is confirmed.

In our assessment of the TOC we have observed :

- Looking at the current pathways of change, they target farmer-producers, and also changes of other actors, like traders and buyers, and included also policy changes which are as necessary to sustain VC performance.
In principle this went beyond the classical VCD approach in the sense that the TOC of HFSP, was not only focusing on the position and access of smallholders in particular, but also on other VC actors, and policy changes: the system. This is in line with a more systemic approach such as M4P and DCED.
- However the fact that part of the services (e.g. training, greenhouses, collection centres) and investments were financed as a grant by the program is not conform and risks to undermine the sustainability and up scaling of the impact.
- The evaluators have used the **M4P approach**, a **market systems development** approach, to assess the outcomes of HFSP with a broader systemic view. The M4P approach is explained in some more detail in annex 12, also contrasting it with the classical or conventional VCD. The essence of M4P is that the point of gravity of interventions of the project may well move away from farmers, looking at the entire VC or market system of each BC. To start with, the VC analysis would try to assess the key obstacles in the VC that hinder development and growth of the VC. These key obstacles may be found at farmers' level, but as well at traders, processors or buyers level; they may also refer to policy obstacles or to a need for different types of support services (inputs, finance, equipment, etc).

A good example to explain the difference between VCD and M4P is the greenhouse technology for improved production. The classical VCD approach would try to introduce greenhouses as a necessary technology that would help farmers to produce better. The investments of greenhouse would be carried by the project and farmers then start using it. The possible sustained used of the greenhouse by farmers would then depend on the C/B ratio; enabling farmers to invest in the greenhouse and replace it when necessary. The copy or upscaling effect by other not-targeted farmers, would likely be extremely limited because of prohibitive costs. The M4P approach would dig deeper in the question why is there no affordable greenhouse on the market, supplied by businesses. The M4P would then first approach the businesses and discuss with them on their obstacles encountered: is it available technology or suitable design, lack of building materials, costs of materials, lack of finance, government regulations or policies, import restrictions on materials, or another obstacle. It would also discuss with them, what are you are willing to invest and risk yourself, if the project supports you in this greenhouse business? Once these obstacles would have been solved, the greenhouse company could offer their services to the project farmers and to all other farmers in the horticulture sector; hence becoming an upscaling process.

M4P does not exclude a project subsidy or investment, but the precise modalities matter. Subsidizing the greenhouse provider or builder to develop a better and affordable greenhouse type would fit well in this approach. Granting the greenhouse to farmers without involvement of greenhouse business risks distorting the market or creating an artificial situation. The

same applies to the introduction of charcoal cooling stores, and other investments which were largely subsidized by the program. The evaluators have used this M4P view to assess the sustainability and upscaling dimension for the different BCs.

4.2 Our assessment of food security and income results

In this section we will focus our assessment on the two main results at outcome level:

- 1) Improved incomes and livelihoods of horticultural smallholder producers and improved food security situation in Kenya.
- 2) Improved sustainability and efficiency of the sector

4.2.1 Food security and income of farmers

Outcome level: Food security

KPI as defined in the Phase 2 proposal: *# of producers and workers with increased food security (gender and age group disaggregated)*

Sources of information: Final HFSP report and FGDs with farmers.

Reports did not make founded statements about the supply of nutritious food for the local markets as a result of the HFSP.

The final report (section 1.2) makes an adequate analysis of the food security situation in Kenya and states the importance of horticultural produce (both vegetables and fruits containing vitamins, proteins, minerals and micro nutrients) for availability of healthy nutrition. In several business cases increased income was reported with potential to result in improved food security, although this was not measured in a direct way.

From the FGDs with farmers we note that improved food security has been mentioned by two (out of 9) groups (BC 2 and BC6) as an important change during the program period. It is reported to be caused by: 1) crop diversification, as the HFSP introduced new crops (vegetables such as broccoli, snowpeas, kale) and new varieties (avocado's , potatoes) to farmers which has improved their income and capacity to buy sufficient food, and have 3 meals a day.

We conclude that both increased income and crop diversification may have led to improved food security for a part of the farmers' households, especially when some of the new crops were also consumed by the farmer's household. But it has not been measured. We note that:

- (a) the level of improvement cannot not be validated ; this can only be determined by measuring direct food security (& nutrition) indicators (which has not been done);
- (b) the contribution of increased income which was modest for most of the BCs can only lead to a modest food security improvement.

(c) we are assuming that the increased incomes from the different BCs have not negatively affected other existing sources of income of the farmers.

(d) gender and age segregated data were rarely found in the documentation received, nor a written gender strategy or approach. Due to this lack of data and policies, the evaluators conclude that HFSP did not allocate the necessary attention and means to this important development dimension.

Outcome level: Income

KPI as defined in Phase 2 proposal: *# producers with increased income from horticulture products*

Only a few final reports were made available, hence the limitation to assess the number of jobs created in SMEs or at service providers.

The analysis in this section is based on figures collected by the evaluators, provided by the partner companies and for BC 2, 4 and 5 also partly by the consortium. Gross income per farmer is calculated by the evaluators. The year 2014 is chosen as proxy for income impact because it was the last full year of operation of the HFSP, so most impact of HFSP interventions would be expected. For most business cases (except BC1) income was also generated in other years (ranging from 2011 to 2015). Complete figures for each business case are provided in the annexes 10 a - f of this report.

The table 2 below presents the gross income per farmer in 2014 (purchased by partner companies of HFSP). For avocado (BC1, *) no income was generated until 2016 when the first harvest is expected. In order to give an indication of the income that will be generated as from 2016, an estimation is given, based on the company's production forecast for 2016 and 440 farmers with productive trees ready for harvest in 2016.

Table 2: Number of farmers that supplied to HFSP partner companies and gross income/farmer generated in 2014, for business cases 1 to 6

INCOME (2014)							
BUSINESS CASE	1	2	3	4	5	6	Total
PRODUCTS	Avocado *)	Vegetables	Fr. Beans, snowpeas, sugarsnaps	Potatoes	Fruits	Chilies	1+2+3+5+6
# of farmers that supplied to companies in 2014	440	254	723	200	256	5502	7375
Average gross income /farmer (KES) from product(s) sold to partner companies in 2014	14250	62990	54408	1500	6753	2113	
Notes:							
*) In 2014 avocado not yet in production; first harvest in 2016. Value is the 2016 expected income based on yield forecast and 440 farmers who will harvest in 2016							

According to the FGDs and consultants farmers increasingly implement the GAPs and have diversified their crops and hence have more production which they sell to the company, but also to neighbours and other buyers in the region or Nairobi. The figures in above table do not represent the whole picture as side selling is likely to have taken place.

Explanation of Table 2 (above):

- Avocado trees in BC 1 will start producing only in 2016, and yields will gradually increase up to a maximum in year 6 after planting. According to the company's forecast yields (ref. Business implementation plan by Songoroi) can still triple from 2016 till year 6 after planting.
- Vegetable producers in BC 2 and 3 generated the highest income of all BCs
- In BC 6 a large number of farmers (most female) benefit, but the average generated income is very small. Variations among chili growers seem to be large. The best off producers in BC6 generate a gross income of KES 20- 24,000/year, many others only have a few dozens of pepper plants and supply accordingly small amounts.
- The number of farmers that generated income varies from 250 in BCs 2 and 5 to 5,500 in BC6.

4.2.2 Improved sustainability and efficiency of the sector

KPIs as defined in Phase 2 proposal:

of private sector stakeholders working with smallholders

% of public versus private sector contribution

This section deals with findings and indications of sector improvements/changes, e.g. at the level of policies of the government and donors, in the business enabling environment, or of the market. Examples of the latter are the more strict EU policies on food safety and MRLs, or more attention for safe food at domestic markets.

Interviews with stakeholders have not provided substantial evidence of national policy changes as a result of HFSP interventions (lobby), except for the report on food safety as described below. This is not surprisingly as a lobby agenda was not developed except for a general agenda to promote inclusive value chains. However the evaluators collected a number of indications showing some policy effects that can (at least partly) be attributed to HFSP interventions.

At national level, the country has put more focus to ensure Kenya complies with the market requirements especially on MRLs and Traceability, with increased farm inspection, surveillance and audits being done by various regulators. This can however not be directly attributed to HFSP interventions. The program however in BC 1, BC 2, BC 3 and BC 4 contributed to facilitate development of infrastructure (produce collection centers, chemical stores etc) and GAPs training necessary for compliance and certification, for the companies and farmers involved.

HFSP has done a study on Food safety, with critical outcomes. Two weeks after publications in the media the EU established a ban on the import of Kenyan vegetables and fruit and put stricter controls into place. Ever since the EU ban and stricter rules, is the use of pesticides, application of GAPs and monitoring of MRLs high on the Government of Kenya's agenda. The EU ban was mainly caused by more frequent interceptions of Kenyan produce with exceeding MRLs, although HIVOS stated it was a result of the published food safety report outcomes.

At county level, there is evidence for Bomet County, Ministry of Agriculture to be supporting some of the program strategies like supporting establishment of nurseries for avocado and passion fruits to encourage crop diversification and the formation and strengthening of farmer cooperatives.

SNV reported that Makueni county identified the processing of mangoes as one the strategies to promote in the county. A processing plant is planned for and a budget of KES 17 million is allocated by the county government. The chairman of the Makueni cooperative is chairing the task force for the establishment of this mango processing plant, showing recognition for this partner of HFSP.

Moreover Isei cooperative received KES 1 million from Bomet county government as show of appreciation of their achievements, which is considered a clear indication of an improved reputation of the coop.

Mamu producer group has started to weigh in 50 kgs bags, instead of the large 100 kg or even 200 kg bags. At national level the government has proposed to mandatory weighing in 50 kgs bags instead of the current large bags. The aim is to make measurement of quantities and supply more objective and transparent. However there is lot of resistance to this new proposed policy, which is challenged and now put on hold. The Nyandarua county government is still trying to introduce the 50kg bags measurement system. And Mamu producers reported they lobby in support of having laws /regulation at county level for 50kg.

4.3 Business case 1: Avocado

The information and analysis are based on:

- interviews with Songoroi/Mara Farming- Christian Bernard, Kennedy Onyango , and visit of the company's nucleus farm and nursery; Interview with Alphonse Muriu (SNV)
- Visits and FGDs with Mulot & Isei cooperatives in Narok and Bomet county;
- Interviews: staff of Mulot ward in Narok county- Min of Agriculture, and the Min of Agri Assistant county director of Bomet county.
- Review of relevant documentation, Business Implementation Plan by Songoroi (March 2012); Assessment of Business implementation plan by the consortium (April 2012); Avocado Value chain in Kenya, report by SNV, July 2012; Avocado Baseline Report by Noble, Oct 2012. Semi-annual report- Sept 2012- April 2013; Final Program Report HFSP (2015); Songoroi Ltd.- Project Summary (2016), 6 pages; Lacking: final project report by Songoroi and final BC evaluation by consortium.

Introduction

After successfully testing avocado growth on the company's farm and based on a strong export market, Songoroi and HFSP undertook to establish an outgrower scheme with 500 smallholders in Bomet and Narok in combination with upgrading the company's nucleus farm. Interventions included: mobilization and awareness raising of smallholders, provision of quality seedlings on credit, training in GAP, management and bookkeeping of a cooperative , company - farmer contracts. SNV had the lead and hired service provider Real IPM for training in good farm management practices.

Results :

- Market access through Songoroi , translated in outgrower contracts with the farmer groups
- Buy in from 586 farmers who have planted and maintained a total of 30,000 avocado seedlings, resulting in a survival rate of 75%. Given that avocado is a new crop and the drought conditions, this % seems a reasonable to good result. The higher survival rate on the company's farm is probably due to consistent irrigation in young stages.
- In 2016 a first yield is foreseen from 440 smallholders, whereas the company's farm production started in 2015 (30 tons exported).
- Farmers increased knowledge and practiced GAP (crop spacing, control soil erosion, soil testing, use of chemicals) in their plantations
- Farmers worked together, organized in two cooperatives; they achieved stronger position to negotiate with e.g. brokers, having own Agrovat with agro inputs on credit, exchange and exposure, ...
- Farmers and government staff (Min of Agriculture) also in other (sub)counties (e.g. Lusiyo) got interest in avocado. They first did not believe that avocado could grow well, but now see how well the trees are producing. (*Copy effect*)

MOST SIGNIFICANT CHANGES (Isei and Mulot coops)	CAUSES
Farmer individual & producer group level:	
1. Knowledge sharing and training have enabled them to practice better farming; use and right amount of chemicals, soil testing, spacing, planting, esp for avocado production	Training on Avocado GAPs through farmer field schools, trained on spacing, planting, soil erosion control
2. Introduction of avocado as a cash crop will sustain their lives, implying that avocado is expected to become a main source of income on their farm	Songoroi as buying company, providing quality seedlings and guaranteeing (export) market
3. Coming together as a group, we know each other, two cooperatives were established, enabling to sell as a group and avoid being pressured by brokers	Community was already mobilized by Hugo Wood and Christian Bernard (Mara company), and trained; later SNV assisted to form group/ cooperative, training in leadership, management, etc

Why/ success factors:

- Company well connected with access to the export market (with growing demand)
- Clear and transparent contracts between Songoroi and farmers
- Close monitoring of smallholder plantations and advise by the company
- HFSP supported training in GAP, group management and leadership for all farmers

Challenges mentioned by farmers and possible responses:

- Waiting time of 2-3 years before return on the investment- is long for smallholders: trees planted in 2013-14, first harvest and income in April 2016.
This was mitigated by HFSP and company by introducing /supporting additional short duration crops on separate plots (vegetables were not allowed in between avocado trees because of use of chemicals in vegetables).
+ Fresh beans on other plots: this was not successful, because they are drought sensitive and demand a lot of labor. Conclusion of Songoroi: beans are not fit for the smallholder farmers Songoroi is working with.
+ In 2015: seed potatoes were supplied to farmers, first planting lost (bad seed potatoes), second crop is now in production. After the disappointment of the failed first crop, farmers are positive about the support on potatoes and hopeful for good results: new food and market crop. Moreover maize and sorghum were intercropped with the young avocado trees, this was allowed as they do not need pesticides.
- Drought and salty irrigation water affected the young trees, of which many died; especially farms of lower elevations (e.g. some Mulot coop members) suffered of salty water affecting the young trees. In clay soils avocado does not do well, according to the farmers. Responses were: a NGO is drilling for water.
- Company and farmers level: the increasing number of standards and certificates that are required by European buyers. Songoroi indicated that for all their products they deal with 75 standards from 23 different buyers. For instance the GLOBAL GAP requirements for a smallholder with 0.5 acre farm in Kenya is the same as for a high tech multimillion farm in the Netherlands.
Response from evaluators: internationally the issue of multiple standards and certifications is on the agenda, however practical solutions (e.g. 'standardized standards') still seem not available, although some certifying bodies can audit a client simultaneously for multiple standards.

Sustainability and up scaling potential:

- Dependence on one buying company; are there back up options if the company collapses? According to the evaluators this risk seems low as the demand for avocado's (for export) is very high, and brokers 'fight' for the fruits.
Farmer groups /coops are not very open for new members. Reasons given: 1) Current members want to keep the benefits for themselves ; 2) a smaller group is easier to manage; when growing (too much/fast), it may get out of control. Evaluators recognize: this is a common response. However there are clear examples that larger numbers of members are attractive for increasing income/farmer. It seems to be a reaction of a farmer group that does not fully understand market dynamics. There is need for the company to do further awareness raising on economies of scale, paired by capacity strengthening to manage a larger membership, enabling a gradual growth of the producer groups. Failing to do so, it would mean that for upscaling, investing in new farmer groups would be needed. This shows that the company has an interest.
- Scaling up / expanding planting of the seedlings is scalable because the seedlings are produced by the company and paid for by the farmers.
- Expanding the number of farmers is an issue of concern because training of the first 586 farmers was subsidized by the project. Providing subsidized training is not in line with a DCED/Making markets work for the Poor (M4P) approach, unless it serves to cover innovation risks of a first mover investor and the strategy includes a mechanism by which the innovation can reach many more users/producers without the same investment as initially. In order to reach systemic changes/improvements service development can be supported but preferably not the delivery of services, such as training. Because: who will take care of training costs for the expansion for the next group of farmers? Will the company cover the costs? Or will this need a new subsidized project? The program's strategy is not clear about this.
- The Isei cooperative has selected and trained five lead farmers (as extension officers) on GAP : They provide advice to and coach other farmers of the coop. The coop provides transport money and lunch allowance as incentives for lead farmers to do this work.
This can be a sustainable model of extension that can reach out to larger groups of farmers if the incentives are sufficient and if lead farmers have skills, time and motivation to do this. And provided that increased volumes of avocados are demanded by the company.

Conclusions by evaluators

We analyze this as a successful business case and HFSP intervention, with good potential for over 600 smallholders to generate sustained income during the next few years, because of: (a) good export market perspectives for the adopted Hass avocado variety, (b) widespread adoption of avocado planting by farmers, in which farmers have invested considerable time and money, and (c) because of the firm relationships between producer groups Isei and Mulot and the buyer Songoroi. Moreover avocado has attracted interest of producers in other counties and from the government which has started to support planting. All these are indications that it is a promising crop, with good market demand and perspective for growth and income generation by smallholders.

Looking at the pathways of change of the ToC for this BC we observe that the last two steps (income generation & certified produce) are expected to happen as from 2016. We endorse this, as the company and farmers (groups) validated this and the avocado plantations we

visited were full of nearly ripe fruits. However it will be very relevant to measure as from 2016 the real yields, production and volumes sold to the company, and analyse differences between producers, as well as the actual gross income generated by the smallholders, and the profitability of the crop.

Lacking information in this BC was a final report by the company, the final evaluation of BC results by the consortium and a Cost/benefit analysis of avocado production by smallholders. The latter C/B analysis should serve to validate and fine tune the predicted C/B analysis as presented in Songoroi's Business Implementation Plan.

4.4 Business case 2: Kales, garden peas, potatoes and sweet corn

The information and analysis are based on:

- Interviews with Steve Omondi (Njoro Canning), Warmolt Tonckens (Molly flowers), Gerald Mutua (CropCare) and Anne Wanjiru (Agronomist for CropCare and later Solidaridad ; Feb - Dec 2015) and on FGDs with Lusiro and Kihingo groups.
- Review of documentation:
For CropCare Technologies: Project Proposals for the periods January - March 2013 and January - March 2015. January - June 2013 BC2 Workplan.
Molly Flowers: Project Proposal 5- January - March 2015 (10 pages); Project Appraisal by of the Jan- March 2015 proposal (3 pages).
- Production and income data for 11 groups received from Solidaridad upon our request. Lacking: Production and income data from Njoro farming, progress or final reports of the consultants and final BC evaluation by consortium.

Introduction

In this Business case fifteen producer groups were supported in the production and marketing of various vegetables for local markets.

Our analysis goes in depth for two producer groups supplying Njoro Canning, based on our FGDs with them, and also covers the other groups that were supported by CropCare and Molly Flower consultants. The FGDs took place with two groups: Lusiro Dutch Potato Growers and Kihingo Small Scale Self Help group, in Njoro area, Nakuru County. In 2014 HFSP linked these two farmer groups to Njoro Canning Ltd, a processor of fruits and vegetables. These 2 groups have been producing kales, garden peas, potatoes, white beans and sweet corn through contractual arrangements. Interventions included: mobilization and strengthening of the farmer groups, market linkage to Njoro Canning Company, and training in Good Agricultural Practices (GAPs). Specific training topics included crop spacing, fertilizer use (foliar sprays), pesticide use and planting schemes. New varieties of avocado and potato were also introduced and demonstrated on demo plots.

Similar training and support was provided by Molly Flower and CropCare to 13 other groups, amongst which: Majuni, Tumaini, Warumi (all three in Nyeri), Karuangi (in Nyandarua), and Kamwoki (in Kirinyaga), Simba, Mwhoko, Aspodea and Kayatta.

Results/Achievements

- In 2011-2012 focus was on training, no income was yet reported. In 2013 one producer group (Karuangi) was reported to have generated income. In 2014 a total of 254 farmers (belonging to 8 groups) generated income as a result of the HFSP support.
- Market access through linkage directly to Njoro Canning Ltd, Fresh and Juicy or via brokers. The farmers had a contractual agreement with the Njoro company since 2014 for the sale of kales, garden peas, potatoes and sweet corns. Currently the company still buys most products, but stopped buying of sweet corn and potatoes, because of lack of demand.
- Construction of two (2) collection centres, one for each Njoro group. The farmers aggregated their produce for collection by the company, which made it possible to maintain quality and made it easy for collection and transportation by the company to its factory.

- Production and income trends (See annex 10b for details):
 # of farmers who produced increased from about 100 in 2013 to 272 in 2015, of which 63% male and 37% female.
 The total volume of produce decreased from 157 tons in 2013 to 97 tons in 2015, while the value of produce sold was 14 million KES in 2013, 16 million KES in 2014 and 10 million KES in 2015. As the number of farmers increased and the total value decreased, the average gross income per farmer decreased considerably from KES 139,000 in 2013, to KES 63,000 in 2014, and KES 38,000 in 2015. Note that those farmers that were trained but did not sell in a particular year have not been taken into account when calculating the average.
 The decreasing income per farmer may have been caused by the joining of less performing farmers to the initial very productive and successful frontrunners, but the weather may also have played a role, because the yields of snowpeas in 2014 were estimated at 1600 kg/acre, and in 2015 only 1000kg/acre. The evaluators were not able to validate these assumptions during their field visit.
 In Nyeri and Kinangop the groups generated income with production of snowpeas, especially the groups of Warumi, Tumaini and Majuni did very well.
- Improved food security; the farmers initially relied on maize as their major food crop and have since diversified to other crops especially potatoes which is now a food security crop
- Njoro Canning Ltd. has been able to get sufficient and reliable supply of produce from the two groups as the groups are well organized and also for aggregation of produce
- 4 farmer groups out of the 15 got loans, first from Solidaridad (KES 500 or 600,000 /group) and later from the bank; 3 members of Lusiro and Kihingo groups got an individual loan from the Equity bank, which they repaid.

Why/ success factors:

- Linkage to Njoro Canning Ltd, an established company that has been in operation since 1978 and has established markets in Kenya and other East African Countries (Uganda, Tanzania, Rwanda and others).
- Clear contractual agreements between the Njoro Canning Company and the two farmers groups.
- Ability of farmers to produce sufficient volumes to sustain supplies to the company.
- Implementation/ adoption of GAPs (pest and disease management, fertilizer usage) by the farmers resulting in quality produce.
- Technical support and close monitoring of the farmers by the consultants and the company's agronomist. Their practical training and regular and close guidance is a key success factor, as it enabled them to respond timely to concrete challenges in the field.

Challenges

- Governance and group management: 7 out of the 15 groups collapsed due to group governance and management issues (source: consultants). There is need to build the capacity of willing and committed farmers on group dynamics, governance and leadership. How to work as a team and build trust and transparency.
- Rejection rate of produce and delay to collect produce by Njoro canning; the rejection rate is high, sometimes reaching 10% of delivered volume, because the company has set very high grading requirements, and sometimes the delay to collect produce is affecting the quality. A solution would be to have alternative market that can take

produce rejected by Njoro Canning. Response generated during the FGD: The groups may also request the company to train their grader(s) who can then assist on (pre)grading by the producers at the collection centres.

- Consistent (quality) seed supply: the availability of quality seeds, is a challenge thus limiting the company and farmers. Response: explore seed company services expanding to the producer groups.

Sustainability and up scaling potential:

- Market linkage to Njoro Canning Ltd. is likely to be sustained. This will ensure farmers to continue farming; The Company is well established and prefers to work with farmers groups. The Lusiro and Kihingo groups have an advantage as they are well organized and are also very near the company (about 20 Kms).
- Lusiro farmers have adopted production of avocados as a long term cash crops,. Currently, about 5,000 seedlings of the Hass variety were reported to have been sold to groups members and other non-member farmers within the area, presenting a copy effect and scaling up of avocados.

Conclusions by evaluators

This business case is analyzed as successful for over half of the groups supported: of the total of 15 groups that were trained and supported by CropCare and MollyFlowers, 8 succeeded to generate income and one group (Majuni) achieved GlobalGAP certification. Three groups in Nyeri and both groups supplying Njoro canning were particularly successful. The Njoro groups developed a stable relationship with the processor company and raised their income, new avocado crop and potato variety were introduced and adopted.

Another 7 groups collapsed due to governance issues (weak leadership and management), and sometimes the buyer did not purchase the crop according to their expectations. This shows the importance of a strict selection of groups at the beginning of the program, as well as sufficient attention and training in group dynamics and management, governance and leadership. We conclude that the coordination and management of this BC by Solidaridad was not done in a consistent and structural manner.

4.5 Business case 3: Fresh beans, snow peas and mangetout/sugar snaps

The information and analysis are based on:

- Interviews with Mr. Stephen Wachira (Wamu Investments) and Mrs. Eunice Mwangera (Hillside).
- FGDs with Kabarú farmer group (Kirinyaga County - supplied to Hillside), Holy Oak United Farmers Association and Kitongo farmers group (in Kinangop, Nyandarua county- supplied to Wamu), and field visits.
- Review of documentation:
SNV, August 2012. The Beans value chain in Kenya. 59 pp;
Solidaridad 14th December 2013: Assessment of Hillside's progress report May/October 2013 (2 pages); Hillside, 21st September 2015: Final Report- February to August 2015 (9 pages); Wamu Investment Ltd., 6th March 2013: Horticulture and Food security Program: Project Proposal (16 pages); WAMU, January 2015. Project Report July - December 2014 (18 pages); Wamu, 1st January 2015: Project Report- Reporting Period 1st January 2015 (16 pages).
Production and income data received from the two companies and information cross checked by mails and phone calls with the companies.

Introduction

This analysis is based on the evaluation done for three farmers groups, the interviews with the two companies, the production and income data collected, and the review of documentation. The Holy Oak and Kitongo farmers groups, produced snow peas and sugar snap peas for Wamu Investment Ltd., and Kabarú farmers group produced fresh beans for Hillside Green Growers. Wamu got involved with the farmer groups in 2014 and Hillside got involved with Kabarú farmers in 2013. Both companies entered into a contractual farming arrangement.

Wamu worked with a total of ten groups comprised of about 400 farmers supplying; Hillside worked with ten groups comprised of an average of 316 producers. For the BC as a whole: 20 producer groups with approximately 716 producers supplied produce to the two companies.

Results/ Achievements

- Both companies provided markets for the farmer produce, with Wamu Investment still working with Holy Oak (22 members, 19 active) and Kitongo farmer groups (50 members, all active).
- Increased incomes; the case of Wamu has largely increased farmers' incomes from sales of the snow peas and sugar snap peas to the company. Figures received from both companies show for 2014 an average gross income per farmer of KES 54,400 from sales of fresh beans, snowpeas and sugar snaps. The Holy Oak group reported an income of KES 4.8 million in 2014 and 5.04 million in 2015, while Kitongo got KES 3.64 million in 2014 and 6.24 million in 2015. Increased volumes; Wamu farmers increased their production as they have implemented GAPs and knowledge gained from the trainings received as a result of the HFSP interventions. The trainings covered issues of use of certified seeds, soil testing and crop nutrition/ fertilizer use. The company has employed two technical assistants in Kitongo and Holy Oak, one for each group, who offer technical support to the farmers. The case of Wamu can be analyzed as successful with respect to the HFSP interventions and was a good selection by Solidaridad.

Kabaru group realized increased production and income in 2013 and part of 2014 but it started having challenges with Hillside in 2014. Hillside started buying less than the agreed volumes, paying farmers late (after 3 months) and made deductions which were not clear to the farmers. Hillside cited the lack of markets as the cause. The Kabaru group raised the issues but they were not solved, it finally decided to terminate the contract with Hillside in May 2015. All Kabaru group members were affected due to loss of income, relationship with banks suffered due to inability to repay loans obtained from the Family Bank as planned (some producers had taken loans of KES 50,000 - 200,000). Relationship between officials and members also suffered, and there was a lack of trust when farmers were not paid. This also led to the disintegration of the group, with individual members producing crops for local markets. Hillside stopped export business in December 2015 and in 2016 it decided not to buy any more from smallholders.

- Construction of two green houses for Holy Oak and Kitogo groups, one collection center for Holyoak group and chemical store for Kitogo group (Kitogo has a collection center build through a previous initiative). The farmers are able to aggregate their produce at the collection centers making collection by the company cost effective. With support from the project Wamu established a nearby farm and pack house, which will facilitate future supply by farmers. HFSP has contributed KES 4 million to Wamu's infrastructure: the construction of a Grading and training hall, equipment and toilets; and KES 6.5 million to the Fairtrade and GlobalGAP audit costs.
- Farmers are able to produce safe and quality produce as they have learnt safe use of chemicals. This has resulted to less rejection of the produce by Wamu.
- Availability of quality seeds at fair price; Wamu provides certified quality seeds at fair price on credit basis to farmers. The company recovers the cost of the seeds once the farmers sell the produce to them.

Why/ success factors:

- Linkage to Wamu Investment Company, which has provided market for snow peas and sugar snaps. The company is established and exports mainly to the European countries.
- Contractual agreement between the Wamu and the farmers groups (e.g. Holyoak and Kitogo) gives both parties confidence to undertake their businesses
- Ability of farmers to produce adequate volumes and quality produce
- Implementation/ adoption of GAPs (pest and disease management, fertilizer usage) by the farmers resulting to production of quality produce
- Technical support and close monitoring of the farmers by the company's technical assistant

Challenges

- Export produce restriction and compliance with export market requirements especially on MRLs; Hillside lost its market due to non-compliant produce; Kenyan fresh beans and peas faced restrictions in the EU market from 2011 due to MRLs, this has affected many export companies many of which lost businesses or stopped operations. Wamu was less or not affected by MRL policies or product interceptions, and apparently managed to overcome the more strict requirements. Hillside declared that it found working with smallholders for an export market too complicated, and therefore has changed its market strategy to domestic markets and mostly sourcing from its own farm.
- Cost of green house is high and farmers want to build in their own farms
- High cost of pesticides
- Weather, the farmers are affected by heavy rains, frost and hail storms. The quality of snow peas and sugar snap is affected by heavy rains which causes spots on the pods.

- Off season farmers plant less area due to low demand thus reduced income
- Side selling of produce to brokers by the contracted farmers; Brokers offer high prices, and pay cash right away during shortage and entice farmers
- Lack of a consistent export market; fluctuation of demand at the export market
- Group cohesion, governance and management are a challenge; group dynamics and Management issues
- Loss of market for Kabarú farmers following termination of contract with Hillside. This also resulted to farmers losing income and damaged the relationships with other actors, mainly the bank and workers whom the farmers had employed.

Sustainability

- The results are partly considered to be sustained: Wamu Investment Ltd is still engaging/ buying snow peas and sugar snaps from smallholder farmers since the end of HFSP in May 2015. The company and farmer groups have a running contract that has been witnessed by HCD, a government institution that regulates horticulture industry in Kenya.
- Production of quality produce is also likely to be maintained as a result of implementation of good agricultural practices by the farmers. Additionally, Wamu has employed Technical Assistants who are responsible for advising farmers on issues of pest and disease management, crop nutrition and other agronomic issues.
- Wamu company has invested and established its own farm (50 acres in size) in Kinangop area. The company has built a pack house at this farm, where they plan to undertake grading and packaging of the produce ready for export, already used it in 2015 but not packing from the facility at the moment. The company has confirmed to continue its operation with the farmers and from this area.
- The case of Hillside and Kabarú farmers has not been sustained due to marketing challenges which resulted to termination of contract and hence operation of groups. Hillside has also stopped its engagement with smallholders and its export business, it will focus on domestic markets. Interesting is to see that Hillside has shifted focus to domestic markets, because the company sees a profitable market closer by, with less strict requirements and standards compared to the EU market. EAT SAFE is the new brand which Hillside will establish. The company will increasingly source from its own farms and from a selected number of contracted smallholder farmers with aim of generating high quality nutritional produce.

Challenges that may affect sustainability

- Side selling of produce by the contracted farmers to other buyers and brokers; this mostly happens when there is shortage of produce and farmers are lured because they are offered higher prices. This can be mitigated by close monitoring by the company and by further strengthening company- farmer relationships which can improve farmers' integrity.
- Group cohesion and management issues may affect production; continuous support and capacity building for the groups will be required.

Conclusions by evaluators

This business case did generate the second highest level of incomes (behind BC2) among all BCs, despite the fact that the sustainability in the case of Wamu is ensured while Hillside has stopped buying from smallholders. The evaluators consider the case of Wamu as successful with respect to the HFSP interventions; it was a good selection by Solidaridad. The case of

Hillside was successful in 2013 and 2014, but supply and the relationship ceased in 2015. The pathways of change of the ToC for BC3 are validated by the evaluators' observations and data analysis, substantial income was generated. A point of improvement is to better negotiate with the companies: e.g. HFSP agreed to pay 100% of the costs of GlobalGAP and Fairtrade audit costs for WAMU. These are core company activities, which should not be paid by a subsidy. HFSPs contribution of KES 4 million to the infrastructure of WAMU was also too generous.

4.6 Business case 4: Potatoes

The information and analysis are based on:

- Interviews /FGD with Mamu Ltd - officials and members, and visit of agroshop, the collection center in Ol'Kalou- Nyandarua and a field of seed potatoes of the Mamu chairman;
- Visit and FGD with Isei cooperative;
- Interviews: staff of Mulot ward in Narok county- Ministry of Agriculture, and the Ministry of Agriculture Assistant county director of Bomet county;
- Review of relevant documentation, incl Final Program Report HFSP; Mamu Ltd.- records shown during visit; Mamu Business plan (2015-2019) made by SNV, March 2015; Mamu Business Implementation Plan (April 2014), Assessment report of Capacity of Mamu (undated).

Production and income data for Esei, Suera and Sereni Fries, received from SNV; data for Esei cooperative received from Solidaridad.

Note: we did not succeed to interview Suera Company, due to illness of the owner, and who seemed not very eager to talk to us anyway.

Introduction

SNV was lead in this BC, while contracting (in all BCs) was done by Solidaridad. The program undertook to contract 4 companies as implementing partners: 2 farmer based, notably: Isei cooperative and CBO organization Mamu Ltd; and two larger processing companies: Suera Company and Sereni Fries.

Interventions with Isei coop focused on: supply of improved potato seed variety, propagation techniques, increased yields, charcoal coolers and collection centers, and market access. The cooperative also established its own agro vet (shop) with agro inputs and trained extension officers (5). For the other three companies interventions included: supply and testing of improved varieties and propagation methods, facilitating access to farm inputs and markets, training GAP, management and bookkeeping of a CBO company (case of Mamu), company - farmer contracts.

Shangi is the dominant variety in Kenya with 95 - 99% of the market/production. It cannot be stored and due to too much supply of Shangi, the prices are low. Seed potatoes get KES 3000/bag of 110 kg in peak season, and 1500-2000 /bag 110 kg in normal season (Source: CropCare Agronomist Anne Wanjiru).

Mamu

Munyeki agricultural marketing unit (MAMU) Ltd. is a company that was formed by members of MAMU community based organisation (CBO) that has operations across Ol'kalou, Milangine and Nyandarua west sub-counties of Nyandarua County. The company serves marketing needs of the CBO that has 400 registered members (212 men and 188 women) with 181 members actively involved in production of ware potato through contract farming business model. MAMU Ltd has 51 shareholders drawn from the community based organization who are potato farmers in Nyandarua County. The average yield stood at 3.3 ton/acre. (Source: Mamu Ltd. Business implementation plan, 2014).

Data for Mamu received from SNV (in April 2016) indicated 200 selling potato farmers in 2014 and 500 in 2015 (source Chair of board); these figures are conflicting with information from our FGD/interview with Mamu and with the Business implementation plan (of April 2014), the latter mentions 181 members actively involved in potato production. See annex 10d for details. In our interview Mamu (Chair of board) explained to us that potatoes were sold individually, not as group, therefor Mamu did not know how much each of the members had

produced and sold. Mamu has not bought potatoes from farmers, nor has it done any processing. In the data received from SNV the Chairman of the Mamu board is stated as the source of information. Given the above conflicting information, the evaluators cannot endorse the production and income data for Mamu.

Results/achievements

Mamu Ltd case:

- In 2015 farmers planted improved potato varieties supplied by Agrico. The first crop of Mamu farmers (and also Isei coop) failed because of poor quality planting materials provided by Agrico.
- Market access is still a challenge as contacts with buyers are not stable.
- Prior to the project farmers did not know how and when to plant, and how to sell. They were not aware of quality seeds, and during many years used their own potatoes for planting again. Through training by the HFSP (SNV- Solidaridad and service providers) they learned about new varieties, need to change seeds, apply crop rotation, when to spray, which chemicals to use. Their field officers were also trained.
- Increased yield at farm level; from 20-30 bags (approx. 3 tons) /acre in 2013 to 40-50 bags or 5 tons /acre in 2015. As result of training/rotation.
- Production and sales: potatoes were sold individually, not as group, therefor Mamu did not know how much each of the members had sold. Mamu has not bought potatoes from farmers, nor has it done any processing.
- Farmers are working together, and are organized in a CBO company Mamu cooperative; benefits mentioned were stronger position to negotiate with e.g. brokers, having own Agrovat with inputs on credit, exchange and exposure.
- Farmers and government staff (Min of Agriculture) in (sub)counties (e.g Bomet, Nakuru, Narok) have raised their interest in the potato crop.

Isei cooperative:

- Building of 3 potato collection centres with charcoal cooler store: farmers can aggregate and store their potatoes, and are less susceptible to be forced selling to first come broker at period of low prices. No production of potato in 2014 and 2015.
- Availability of quality certified potato seed varieties

Sereni Fries and Suera

- Suera did not yet buy potato from smallholders. Sereni Fries did start buying from 200 smallholders supported by HFSP in 2014, and from 500 farmers in 2015. Gross income generated per farmer was very modest: KES1500/farmer in 2014 and KES3000/farmer in 2015.

Why/ success factors:

- Clear demand for potato on local market, with several buyers
- HFSP provided training in GAP, group and company management, etc

Challenges:

- Mamu: many issues poor management, lack of reporting, concerns about decision making. Mamu seems totally disorganized when it comes to show reports, accounts, production and how the agro shop is managed. Sol and SNV have trained staff but they have either left the organisation or are not up to the job. There are no consolidated

records or accounts, as records Mamu showed stock cards showing sales transactions. The company has not performed according to the agreed business plan.

- Our field visit and FGD also raised serious concerns about the management of the HFSP funds, governance and decision making of the group. Only one large collection centre was built on the chairman's land (which he granted to the company), instead of three collection centres at 3 locations as it was planned and agreed in the agreement with Solidaridad. The costs of the collection centre were far higher than budgeted.
- Farmer groups/coops do not seem very open for new members. Reasons given by the groups: 1) Current members want to keep the benefits for themselves; 2) a smaller group is easier to manage; when growing (too much/fast), it may get out of control. Mitigation is needed: awareness raising about benefits of growth and scale and training management skills.

Sustainability and up scaling potential:

- The risk of side selling is there, as the local market is large.
- Scaling up/expanding potato production with a market depends on availability of good quality seed potatoes and improved varieties. This is still an important limiting factor. Local professional multiplication of selected and tested improved varieties is priority.
- Expanding # of farmers is a question as during HFSP the farmer groups training was fully subsidized by the project. See also chapter 8.

Conclusions by evaluators

We analyze this as a business case with mixed results. Based on a good local demand for potato (for consumption and processing) farmers are interested to produce potatoes, adopt new varieties. However they encounter major bottlenecks such as: lack of consistent availability of good quality seed potatoes, lack of cooling storage capacity, limited storage and shelf life of the dominant local variety (Shangi), which is also less suitable for processing, acidic soils, and unstable relationships with middlemen/brokers.

While connections were made with other potato initiatives, e.g. sourcing Dutch seed potatoes from Agrico, it is not clear how the complementarity of programs was and is organized.

The potato VC holds promise, especially if new varieties suitable for processing and which can be stored will become available in volumes and in a consistent way. However there is need to analyse the specific markets and do cost/benefit analysis to ensure profitability. The multiplication in Kenya of sufficient volumes of certified seed potato of improved varieties will be very useful. It can be a promising income earner for smallholders if accompanied by increasing storage capacity at farmer group level and by access to credit, availability of affordable and appropriate financial services.

4.7 Business case 5: Fruit

The information and analysis are based on:

- Interviews with the Ministry of Agriculture in Kirinyaga county and with Alphonse Muriu (SNV).
- Review of relevant documentation:
 - Kimwangu CBO:** Kimwangu CBO, 7th August 2014: Project Proposal- 12 months (20 pages); Kimwangu CBO, 24th December 2014: Smallholder Passion Fruit Project for Improved Livelihoods Progress Report- Period 21st October to 30th December 2014 (H&F/KE/BC5/Kimwangu CBO/2014 (24 pages);
 - Makueni County Fruit Processors Cooperative Society (MCFPCS) Ltd.;** MCFPCS, 7th August 2014: Project Proposal- 12 months (19 pages); MCFPCS, 8th November 2014: Business Implementation Plan -Period 1 year (15 pages); Makueni County Fruit Processors Coop Society Ltd. (MCFP CO-OP); 9th September 2014: Fruit Trade Support Program: Semi Annual Report (January to August 2014 (14 pages); 22nd September 2015: Fruit Trade Support Program: Progress Report (March to September 2015 -8 pages)
 - STAWI: Stawi Foods and Fruits** 14th August 2014: Project Proposal (16 pages); Stawi, 23rd March 2015: Project Report: Reporting Period 2nd February 2015 to 31st March 2015 (10 pages)
- Production and income data received from Solidaridad.

Introduction

Information on this business case (which was started up in phase 2 of HFSP -as from 2013) is scarce, because (a) STAWI (the banana processing partner company) was selected for this evaluation as a case to learn from but STAWI refused to have an interview, and (b) there were no farmers that could be visited, because the project has not yet taken off. The only information from the field are the interviews with the Ministry of Agriculture and with SNV. Furthermore we have analyzed the documentation and production data of the two other implementing partners in the BC: Makueni County Fruit Processor Cooperative Society (MCFPCS, 244 members) and Kimwangu CBO, both in Makueni county.

Results

Makueni CFPCS

Respondents of the consortium and the Final HFSP Report reported that in particular the Makueni County Fruit Processor Cooperative Society (MCFPCS) was successful in organizing farmer groups in 5 clusters, in building 6 collection centers where sorting, grading and collective marketing improved. In 2014 MCFPCS exported container loads of mangoes to Dubai and to Uganda (value not provided). Based on the production and income data provided, the average gross income per farmer generated in 2014 (see annex 10 e for details) was estimated at nearly KES 6800, by 256 producers (210 members of MCFPCS and 46 members of Kimwangu CBO).

SNV reported that Makueni county identified the processing of mango as one the strategies to promote economic development in the county. A processing plant is planned for and a budget of KES 17 million is allocated by the county government. The chairman of the Makueni cooperative is chairing the task force for the establishment of this mango processing plant, showing recognition for this partner of HFSP. This is an acknowledgement for MCFPCS.

STAWI case

The proposed collaboration involved Stawi Foods and Fruits Ltd setting up of a banana processing factory in Kirinyaga County for processing Cavendish bananas from 2,400 farmers. Since 2014 various discussions took place between county government, Solidaridad and STAWI. The arrangement was: the County would provide the existing building and the land, Solidaridad the funds, and Stawi would be the manufacturer and expert in food production with a secured market in Europe. Farmers would provide the bananas /raw material. The County noted as benefits: 1) employment for some people, 2) extra outlet for banana's, 3) a factory often leads to more entrepreneurial activity around the factory. Equipment was needed and Solidaridad would pay for it. According to the county the problem was the selected equipment as ordered by Stawi. The equipment was not acceptable for the county officials, because according to them the drying machine was technically not suitable for the purpose (food production) intended. Ministry of Agriculture: *'We agreed that some other external expert be given the assignment to evaluate the machine. This took a while, due to some internal factors in Stawi , but in February 2016 the expert was found by Solidaridad and proposed. To us it is not clear if the job has been given. We are waiting for the evaluation report of the machine. But the door is still wide open'*. Solidaridad stated (April 2016 response to draft evaluation report): *'We have a report from an independent institution (Jomo Kenyatta University of Agriculture and Technology) that was identified and they assessed the machine and their findings shows the drier can work for the function it was ordered; the report was presented to the County government team, Stawi and Solidaridad, who are still working on an amicable solution.'*

In the Final HFSP report however Solidaridad presented another analysis: that the factory did not materialize due to disagreements between the Stawi and the county officials on the market and the processing facility, and as a consequence that STAWI was no longer interested to invest in Kirinyaga. *'The county would have demanded STAWI to reveal its market, which was not acceptable for the company.'* The lesson learned by the consortium : *'The consortium noted that thorough due diligence before commitment is very important; clear guidelines need to be put in place in the engagement with government institutions.'*

An analysis of the STAWI report dated 31st of March 2015, showed that about 68% of the total budget was covered by Solidaridad. And 70% of the budget consisted of *Factory and processing equipment* (value KES 22,474,000 or € 204,000). Except for the land (contributed by the county government) all equipment would be contributed 100% by Solidaridad/HFSP. It is surprising that Stawi has not contributed at all to the equipment for their own factory. See table 3 below more the details. Due to non-delivery of some outputs and the disagreement about the equipment not all funds were disbursed by Solidaridad (source: final financial HFSP report). A total of KES 7,591,000 was put on hold/retained.

Table 3: STAWI Budget, sources of funds and expenditures in the period 2nd February - 31st March 2015

STAWI Budget and expenditures										
Period 2nd February - 31st March 2015										
		BUDGET	as % of total	BY			ACTUALS in this period	PAID BY		
#	Main budget categories	KES		County gov	STAWI	HFSP	KES	County Gov	STAWI	HFSP
1	Factory and processing equipment	22474000	70,0%	4050000	0	18424000	12831200	0	0	12831200
2	Proposal writing	190000	0,6%	0	190000	0	190000	0	190000	0
3	Certification	1778120	5,5%	0	0	1778120	300000	0	0	300000
4	Training of farmers	2163000	6,7%	1000000	0	1163000	1000000	1000000	0	0
5	Operations and quality control	5520000	17,2%	0	4920000	600000	1480000	0	880000	600000
	TOTAL	32125120	100,0%	5050000	5110000	21965120	15801200	1000000	1070000	13731200
		<i>as % of budget</i>		16%	16%	68%	<i>as % of actuals in this period</i>	6%	7%	87%
Source: Revised progress report Stawi Foods , 31st March 2015										

Source: Evaluation team, based on Stawi progress report of March 2015.

Conclusions by evaluators

Overall we conclude that the BC5 has not given value for money: low numbers of farmers have increased generated a very modest income in 2014 - 2015. 200-250 members of the Makueni fruits processor cooperative Society have generated between KES6400 and 8000-farmer per year.

The Stawi business case has not delivered any result so far, and risk to fail and run a loss of KES 14.4 million invested by HFSP.

Stawi sub Business case analysis

Based on the collected information it still is difficult to determine the underlying reasons for the (so far) failed initiative. It is uncertain whether the partnership will still succeed to repair the relationships and realize the planned processing plant and banana supply by 2400 smallholders. Hopefully the efforts by Solidaridad will lead to *the amicable solution* as Solidaridad is hoping for, and putting on hold some disbursements is a good measure. However it is surprising that it took a full year before an external expert delivered a second evaluation of the machine. Given the above mentioned contradicting statements there is a substantial risk that the investments will be lost or not used to reach the targeted objectives, being to raise incomes of 2400 smallholders. There are no indications that in case of failure to reach an agreement contractual arrangements are in place that would ensure the return of (part of the) investments to the consortium.

How to ensure the quality of a public private partnership

Was there attention for the explicit and implicit expectations of each actor involved? Solidaridad drew the lesson () that before committing itself thorough due diligence is very important, and clear guidelines be put in place in the engagement with government institutions. The evaluators agree to this; more specifically a fruitful partnership between Civil society, government and private sector requires a good analysis and mutual understanding of the aspirations and expectations of each actor, agreement on a common target, and complementary roles.

Sufficient time is required to analyse the context, the business opportunity and the stakes

and roles of actors for the partnership, and to facilitate the exchange and mutual understanding of each other's roles and expectations.

Analysis of the approved project proposal and contract between Solidaridad and STAWI

The contribution of 68% by Solidaridad and only 16% by the company is not a justified and acceptable division of costs. Solidaridad's agreement to pay for all the equipment (amount of € 204,000) undermines the company's ownership of the project and a sound entrepreneurial engagement. A program such as HFSP should challenge companies to co-invest in projects. As a comparison the IDH's (Sustainable Trade Initiative) SIFAV program contributes a maximum of 33% of a company's project budget, or 40% under specific conditions.

The evaluators conclude that the consortium lacked clear criteria and conditions for companies and their business proposals, including a minimum level of own contribution by the company. In absence of such criteria it seemed that proposals from companies were accepted too easily, without a critical assessment of the finance plan, the commitment by the company, and quality control of reports submitted.

4.8 Business case 6: African Bird's Eye Chilies

The information and analysis are based on:

- Interview with Almut van Casteren (Equator Kenya)
- Interviews with 4 producers in Kilifi
- Review of relevant documentation:
 - Equator Kenya, 4th March 2013: Project Proposal- April 2013 - March 2015 (11 pages);
 - Equator Kenya, 4th March 2015: Final Project Report: Reporting Period July 2014 to March 2015 (21 pages);
 - IDESO Prime, January 2014: Baseline Survey Report on the African Bird's Eye Chilies Value Chain in Selected coastal Counties in Kenya (72 Pages);
 - Outcome data in table format, received from Equator, March 2016;
 - Model (format) Outgrowers contract by Equator.

Introduction

- In this BC it was agreed with EKN and Solidaridad that a visit to the region would demand too much time and means. As alternative 4 producers based in Kilifi were interviewed by phone. This information was complemented by an interview with one of the directors of Equator Kenya in Nairobi, and the production and income data provided by the company.
- All the three groups interviewed were in existence before Equator Company Ltd. came to work with them and some were already involved in chili business. Equator Company Ltd. only came to support and improve members' farming activities;
- Equator Company Ltd. has provided more support to the groups than just purchasing and marketing of the produce. It has provided planting material for cassava and sweet potatoes; chilli seeds for farmers to plant in their nurseries; carried out training and capacity building in agricultural farming and agri-business development; provided drip kits for irrigation because water is a serious constraint to farming in Ganze ward; continues to purchase the produce throughout the year; provides post- harvest technology and pest-control advice to farmers;
- The members of the groups have a 3-year chili growing and supply contract with Equator Ltd. They can therefore not sell the produce to another company although 2 other companies have come into the area and are offering more cash per kg of chilli;

Results/Achievements

- Women who were interviewed have all the leadership positions in the three groups. So the role of women is leadership and governance of the groups. The chair, treasurer and secretary are all women. The groups are all registered with the Ministry of Labor, Social Security and Services;
- The women farmers grow the chili on individual farms ranging between 0.25 and 1 acre. Each 0.25 acre plot will have a population of 1000 stems of chili plants. Some individual farmers have up to 4000 stems;
- Each 0.25 acre can produce about 50-60 kg per week during the growing season and harvesting can be up to 8 weeks in a year, meaning that it can be a total of 400kg of chili a year, giving gross income of about 8 weeks x 50kgx KES 60/= KES 24,000/= a year. If you remove production costs, which can go up to 50%, it is an average of KES 12,000/= per year for any farmer with 1000 stems of chilli. Costs of production include labor costs for tractor use, weeding, harvesting and grading.
- The level of income varies a lot between producers. Part of the farmers is able to generate a much higher income than the average. For instance the farmers who were interviewed reported a gross income of between KES 20,000 and 24,000/year (and 50% of it costs, leaving KES 12,000 net income). Besides income the women reported improved food security as most significant change at outcome level, thanks to crop diversification, an increased income, production, and a contract with the company. The evaluators conclude that the women interviewed were not randomly sampled from

their groups. From the interviews, it seems they are the better off category, with some of them having more resources to invest in more chili business and some are growing more than the 1000 stems of chili which is the average for most groups. Three of them are married to working spouses. So for the interviews we were linked to prominent chili farmers and leaders of their groups.

- Increased # of farmers and production by the farmers; according to figures received from Equator the total volume and value of chili purchased by Equator from all farmers tripled between 2011 and 2014. See annex 10f for a complete overview of chili production and value purchased between 2011 and 2015.
- Introduction of drip kits by end of 2015 to 1000 farmers, with an irrigation capacity of is 200m² /kit; the cost of the kit was KES 7,000 but this was subsidized for farmers who paid KES 3,000 per kit. The drip irrigation has led to higher and more stable production.
- Establishment of a revolving fund with funds from Solidaridad and the company which was used to purchase fertilizers and agro chemicals and provide these to farmers on credit
- To enhance food security through crop diversification : introduction of improved variety of cassava from KALRO Mtwapa and sweet potato as a food security crop for the farmers

Why/ success factors:

- Linkage to Equator Kenya Ltd. The company has provided market for the fresh chilies which they process and export mostly to Europe (Germany, Netherlands and Spain)
- Established market of chilies. The demand of chilies is high at the export market and the company has not been able to fulfill the market orders, so there is potential for further growth
- Contractual agreement (3 years) between the company and the farmers groups gives both parties confidence to undertake their businesses
- Adoption of the drip irrigation kits by the farmers to facilitate production during dry periods
- Implementation/ adoption of GAPs (pest and disease management, IPM, fertilizer usage) by the farmers resulting to increased production and quality produce

Challenges mentioned by farmers and possible responses:

- Labor intensive during harvesting and this is expensive for the farmers. It is extra work on top of what the farmers is already doing.
- Risks of losing investments in farming due to rainfall failure. The producers suffered 4 years of below normal rainfall and did not get maximum yields.
- Farmers have no control of the prices of chilies. The farmers feel that prices of chilies (Equator pays them KES 51-53/kg) are low and have been pushing for higher prices i.e at least KES 70/= per kg, but this seems not very realistic as Equator is not willing to negotiate on price.
- Water; farmers depend on rain-fed production. Irrigation is also a major constraint as farmers also depend on rainfall for the irrigation. Poor water infrastructure development in the rural areas to benefit the women e.g. construction of water pans, dams and sinking of boreholes, where such potential exists has not been exploited.
- Illiteracy is still pulling many members down. Some do not even want to diversify their cropping systems because of lack of knowledge and are slow to take up technology.
- Poor extension services from government, which is generally found across the agricultural sector

- Competition; Already two companies have come in to compete with Equator although they are not offering the support services Equator is providing. Yet their higher prices for produce i.e. 65/= per kilo may sway some farmers not to honor their contracts with Equator
- Group purchasing of the chili by Equator is unfair to the farmers producing good quality produce. Some farmers have poor grades of chili but at purchasing, all produce is put together as group produce and any losses in kg at grading is distributed across all members. Suggestion by the producers: in future, it would be good for farmers to sell their produce individually or find a way of standardizing the grade through rigorous extension services.

Sustainability and up scaling potential:

- Equator Kenya Ltd is a well-established company involved in chilies processing business. The company is operating at the Coastal region of Kenya since 2008 and has been working with the farmers. It has invested in additional dryer, with a capacity of 1,000 tons/hour. Based on the aforementioned we expect the company to pursue and expand its supply from smallholders .
- The company also has contracts with the farmers which are witnessed by relevant government institutions mainly the Ministry of Agriculture

Conclusions by evaluators

This BC was successful in reaching scale - a large number (5500) of smallholder farmers in the less privileged counties at the coast, generating a small income. This is by far the largest outreach. On the average the supply of chilies provided is very modest generating income varying between KES 1217 and 2113/year per farmer (2011-2015). Overall the average is too small to build a value chain. However there is a group that earns far more than the average while others only sell a few to 10 kg per year. The combination of providing seeds, inputs, training and a market (contract) is key to the success of this BC. For the company it has also succeeded to triple the volume purchased from smallholders. In terms of quality assurance a success factor is the fact that the company does the drying in a fully controlled manner.

4.9 Most Significant Changes

The method used in the Focus Group Discussions with farmers was a simplified Most Significant Change (MSC) method (for further explanation see chapter 1 and annex 8) Nine Focus Group Discussions with farmers took place, in BCs 1, 2, 3, 4, and 6; only for BC5 it has not been possible to meet farmers.

During each session first of all changes were listed and after that the group was requested to identify the three most significant changes. These are presented in the table 4. The outcome consolidated for the 9 groups shows the following the most significant changes in order of importance:

Most significant changes	BC	frequency
Increase of income	2, 3 and 6	5
Market access	2 and 3	4
Building of collection centers	1, 2, 3 and 4	4
Gained knowledge on GAPs	1, 2 and 6	3
Coming together as a group Availability of quality certified seed varieties Improved food security Increased production	1, 2, 3, 4 and 6	2

The result clearly shows that securing a market and thus income is the key interest of farmers. Farmers also showed appreciation for the program linking them to buying companies and the support to organize themselves and work together, being trained in GAP.

Table 4: Most Significant Changes consolidated for 9 producer groups visited

MSCs CONSOLIDATED FOR ALL 9 FGDs												
			BC1	BC1	BC2	BC2	BC3	BC3	BC3	BC4	BC6	Fre- quency
MOST SIGNIFICANT CHANGES	FOR WHOM	CAUSE	Mulot	Isei	Lusiro	Kihingo	Holy Oak	Kitogo	Kabaru	Mamu	Kilifi group s	
Coming together as a group	Farmers	Mobilization by SNV/ Mara farming	√	√								2
Gained knowledge on GAPs	Farmers	Trainings through HFSP (SNV, consultants, Solidaridad)	√						√		√	3
Introduction of avocado as a cash crop will sustain their lives	Farmers	Mara Farming/ Songoroi	√									1
Building of collection centres	Farmers	Funding by the project		√		√	√			√		4
Availability of quality certified seed varieties (potatoes for Isei, Snow peas/snap peas for Kitogo)	Farmers	Potato seed:Introduced by SNV/ Agrico, Snow and snap: Provided by Wamu		√				√				2
Food security, didn't have other source of food crops, relied on maize	Farmers/ family	Crop diversification			√						√	2
Availability of market/ Market access	Farmers	Market linkage			√	√	√	√				4
Increase in income	Farmers	Increased production, high yields, less produce rejection			√	√	√	√			√	5
Increased production	Farmers	Implementation of GAPs following trainings							√	√		2
Loss of markets and income	Farmers								√			1
Agro shop owned by us, availing of agro inputs	Member/ non members									√		1

The *unintended changes and results* are presented in table 5.

Most striking is that seven out of nine farmer groups mentioned bad and unpredictable weather (notably hail storms, flooding and droughts) due to climate change as a negative change, with increasingly severe effects for crop production. This goes across all value chains. As such this 'unintended' change is not linked with or caused by the implementation of HFSP. It is part of the changing or variable context in which farming takes place. What matters here is, whether HFSP had developed the proper approach to minimize the effects of this climate change. For vegetable growing the access to water is often the key condition. The issue is then whether HFSP (and companies) made the right selection of farmers ensuring this access to water. Or, if farmers did not avail of water, did HFSP take proper measures to ensure an affordable, simple irrigation technology for the crops involved. In BC2 the farmers were introduced to water pans through the intervention of HFSP, three pans were established but the harvested water is only sufficient for raising seedlings. This intervention hence did not provide a solution. The introduction and use of drip irrigation for BC6 showed an appropriate measure. This water availability and the business case for investing in irrigation technology will have to be a central condition for further consideration in the selection process of regions and farmers.

Other unintended changes included both positive and negative changes, often only mentioned for one specific BC and related to different aspects of production, marketing and relations with buyers. Especially for the negative unintended changes it would have been relevant to know which measures farmers, buyers, companies or HFSP have taken to reduce these negative effects. The evaluation has not been able to collect this information.

Table 5: Unintended changes and results identified by 9 farmer selected farmer groups of HFSP

			BC1	BC1	BC2	BC2	BC3	BC3	BC3	BC4	BC6	Fre- quency
UNINTENDED RESULTS	FOR WHOM	CAUSE	Mulot	Isei	Lusiro	Kihingo	Holy Oak	Kitogo	Kabaru	Mamu	Kilifi group	
Loss of avocado seedlings for some members at lowers side of the Mulot project area	Farmers	Salty water	√									1
Bad weather (Drought, frost, hail storm) affected crops production (young avocado trees, vegetabes grown)	Farmers	Drought, hail storm and frost	√		√	√	√	√		√	√	7
Lost opportunity to grow other crops for 4 years (especially vegetables) only allowed to intercrop with maize, sorghum which don't require use of pesticides	Farmers	Avocadoes are being grown organically thus no intercropping with crops that require use of pesticides	√									1
Failure of potato seeds supplied by Agrico to germinate, Agrico compensated the farmers and are now expecting this first harvest in three weeks	Farmers	Expired seeds		√								1
Lack of capacity to run the cooperative	Farmers	Not worked in cooperative model before		√								1
Farmers were introduced to avocado growing	Farmers	Introduction by HFSP consultant			√							1
Have been known Egerton university and students have been visiting to train the farmers		Coming together as a group				√						1
Rejection of produce by Njoro canning		Quality and high grading requirements				√						1
Delays in produce collection affect quality		Delays by Njoro Canning				√						1
Payments challenges: Hillside started delaying payments from 2014, sometimes up to 3 months									√			1
Loss of market; In May 2015 farmers' terminated operations with Hillside. Farmers lost beans that were in production									√			1
Stopped production of fresh beans after breaking with Hillside.									√			1
Chilie production is labor intensive during harvesting thus expensive and extra work for farmers											√	1

4.10 Cross cutting issues gender and youth

In this section the cross cutting topics **gender and youth** as relevant for HFSP are described and analysed. Gender and youth sensitive or inclusive value chain development is high on the international development agenda. As to gender this is the result of a growing recognition that neglecting different roles and tasks of women and men in economic activities is counterproductive and in breach of international human rights. As to youth this is the result of the recognition that both for economic (future of farming) and security reasons, youth need to have better perspectives on and access to profitable employment. Both issues are dealt with separately below.

Gender

The box below illustrates the relevance of paying attention to gender and gender sensitive analysis and interventions.

Box: Women as inclusive business partners

Evidence shows that enabling women to have equal access to inputs, services, and land improves agricultural yields. It also shows that female farmers often pay greater attention than men to crop quality and that productivity increases as a result of increasing their access to technical training.

If your suppliers are smallholders, it is important to realize that men and women often perform different, but equally important tasks on the farm as a family business. Distinctively recognizing the added value of women in agricultural production, manufacturing and processing makes it possible to improve women's capacities and strengthen their qualities. This in return results in better productivity, effectiveness and efficiency for the company to become more competitive. Besides, it builds a positive company image and reduces a company's risk of sudden reputational damage.

These are pragmatic and business oriented arguments for paying due attention to the gender dimension in agri- business.

Source: ICCO leaflet on Women as business partners in SIFAV supported projects (2016), with inputs from FSAS Gender and Value chain experts. www.Sifav.com

Strengths

- **Gender skills** HIVOS having most expertise was given the role to take the lead on gender issues. Besides HIVOS, also AgriProFocus has a strong track record, expertise and tools on gender in value chains, See for instance their [toolbox](#) on Gender and value chains
- **Gender analysis:** Within the HFSP gender (analysis) studies were planned
- **Gender sensitive indicators:** In several of the 'proposed' KPIs of HFSP (see annex 6) such as '*# of producers trained*', '*# of producers with increased income from horticultural products*' mention is made of '*gender and age group disaggregated*' data collection
- **Women representation:** The consortium promoted and ensured that in boards women were represented in at least 1/3 of seats, which is actually a legal obligation in Kenya. In trainings between 20 up to 33% of participants were women, according to Solidaridad. It used its expertise on gender in the tea and coffee sectors. Women in the HFSP producer groups were found to often have the position of treasurer of the producer group or cooperative.

At the level of the HFSP implementing companies there are some good examples of women led companies that grow and do well. Hillside is woman-led and employs women, Wamu, Suera, EKL are all family farms with women in founding or key management positions.

- **Women suppliers:** The table 6 shows that consolidated for all BCs slightly more female producers supplied fruits and vegetables than male producers. In BC 1 and 2 male producers form the majority, the tree crop avocado is apparently a male dominated crop. In the other BCs the numbers are more or less equal. The data were collected by the evaluation team and provided mostly by companies and also some by Solidaridad.

Table 6: # of farmers (male/female) that supplied to HFSP partner companies or other buyers in 2014 for each business case

GENDER : counting 2014								
BUSINESS CASE (including all sub business cases)	1	2	3	4	5	6	Total	
PRODUCTS	Avocado *)	Vegetables	Fr. Beans, snowpeas, sugarsnaps	Potatoes **)	Fruits	Chilies		as % of total # of farmers
# of farmers that supplied to companies : male	466	170	380	50	118	2440	3624	48,2%
# of farmers that supplied to companies : female	120	84	343	150	138	3062	3897	51,8%
Total # of farmers that supplied to companies	586	254	723	200	256	5502	7521	100,0%
*) In 2014 avocado not yet in production; first harvest in 2016. Value is the 2016 expected income based on yield forecast and 440 farmers who will harvest in 2016								
**) For BC 4: only Sereni farmers sold potatoe in 2014								

Challenges

- **Poor quality of disaggregated M&E:** The above disaggregated data show numbers, but provide no further information on reasons for the differences between BCs. Moreover, such disaggregated data only yield meaningful information if M&E produces data over various years, needed to assess how tasks or responsibilities between men and women change. Just 'counting the m/f' is insufficient.
- **Lack of gender analysis:** The work HIVOS was supposed to do on gender studies and analysis never got off the ground, because of problems with regard to budget allocations (see also chapter 7)
- **Insufficient awareness on gender:** apparently, the awareness about the importance on gender was not shared among all consortium its members in spite of all available skills and resources. Gender remained therefore very shallow. The fact that most proposals made by companies were approved by the consortium whereas they did not even have a gender dimension or approach, illustrated this lack of

awareness. With a total program budget of € 4.3 million it is difficult to understand why no allocation could be made for these important issues.

- **No gender sensitive design:** based on known differences between men and women in different crops (as demonstrated by table above) the design of interventions should also have been gender sensitive. For instance: if men are responsible for pruning of mango trees, they should have been involved in design of the training and be trained in that aspect and not the women. Similarly in the case that women are responsible for picking and handling of fruits, they should have been targeted and supported for improved (post)harvesting techniques, contributing to product quality.

Youth

Youth also featured in the KPIs, but it was less clear what the objective of the program regarding youth was. Youth was defined as aged under 35 years.

In the interviews and FGDs the evaluators have addressed questions regarding youth, such as :

- # of youth members of the producer groups
- The engagement of youth in agriculture and the producer groups
- The vision of respondents on the role of youth in agri-business and production
- Identifying underlying causes for relatively few youth among the agricultural entrepreneurs
- What producer organizations can do to get youth members

Key findings from these interviews were:

- Very few youth are member of the producer groups. Most groups do not have youth members or only a few ones. Reasons given were: youth have no interest in agriculture, because they see it as a last resort, it is not possible to make money. Youth have no farms and cannot afford the group's (entry) cost of buying shares to join the group. Moreover the group members did not show a lot of motivation to engage youth, also because they are not willing to share 'the pie' with more people. In most cases little was done to attract youth to join the existing group. This will affect continuity and sustainability of the group as the majority of the members are elderly.

The evaluators wish to highlight the following aspects, which remained untouched in these interviews, but would need further attention:

- The separation between younger and older generation in the farmer groups will affect the long term continuity and sustainability of the group
- Youth are already involved in agriculture as hired labour/daily workers and some as service providers (e.g. the case of an agronomist and the spray teams).

Apparently, both the producer groups and HFSP are not very aware about age related opportunities and challenges. Youth inclusiveness can be seen in the same way as for women; it has to start with a good analysis.

- Other recent experiences have shown that there are promising developments that are worth to be studied and used as a source of inspiration:
 - In 2015 AgriProFocus and FSAS commissioned a study carried out by from 6 Wageningen UR MSc students, that identified factors that determine how agri business should look like, to be attractive for youth. Report can be downloaded from the APF and FSAS websites.
 - Image of farming: interesting will be to follow the effects of the Reality shows for television broadcasting in Kenya and Tanzania that is in the making with the title: “Don’t loose the plot” (DLTP). This reality TV show (produced by Ishamba, with support from US Feed the Future program) will focus on four young East African farmers who will compete to achieve the highest profits in one-acre plots, each with access to a range of advisory services. It is expected to be broadcasted in 2017, and follows up on the soap ‘Makutano Junction’. See [link](#).
 - Research done in 2013 by Ben Haagma (of FSAS) for IICD on the use of ICT by youth in West Kenya. It showed the surprisingly motivating power of access to simple ICT and internet for young farmers to invest in new farming technology and achieving higher incomes. Young persons became new knowledge hubs in their communities and were actively contacted by extension officers.

4.11 Strategies in program

The HFSP used a number of strategies to achieve its objectives. In this section we present our findings as to the effectiveness of these implementation strategies.

Results or outcomes with regard to the implementation strategies:

Better access to local and international markets

Strategies and activities used by HFSP to promote and facilitate market access are analyzed as relevant and in line with the national policies and the EKN objectives.

These successful market linkages connected farmers to buyers of local produce such as Njoro Canning Ltd for kales and garden peas and buyers of produce destined for export markets e.g Mara farming Ltd (avocado) and Wamu Investment Ltds (snow peas, and sugar snaps) and Equator Kenya Ltd for African Birds Eye chilies.

Construction of produce collection centers through the program's support was appreciated a lot by companies and farmers as these facilitated market access and ensured aggregation of the products by the farmers. This functioned satisfactorily.

Lack in establishing market relations:

The cases of Stawi (BC5, banana processing) and Mamu Ltd (BC 4, potatoes) were not successful: relationship and contracts were not established, markets not accessed.

Unknown: Suera and Sereni fries.

Some of the relationships were sealed through contractual agreements, though in some instances there were terminations of contracts as a result of challenges that arose, for example in BC 3, the case of Hillside and Kabaruru farmers in Kirinyaga County. It was reported that close monitoring and arbitration role lacked to try ensuring that relationships were sustained. Farmer groups (with a total of 320 farmers) that did supply Hillside in 2014, went down as from 2015 due to problems with market access and MRLs. Early 2015 Indufarm closed their doors and in 2016 Hillside decided to entirely stop buying from smallholders.

Farmer empowerment

The strategy to form and strengthen farmers groups, community based organizations and cooperatives were seen as effective. The cooperatives included Mulot (Narok), Isei (Bomet), and Makueni County Fruit Processors (Makueni). Over 20 groups were strengthened with regard to leadership and management skills, establishment of groups and (formal) cooperatives, bargaining skills and position, and infrastructure such as collection centers, storage and grading sheds, and charcoal cooling stores. This is a proper approach as it ensured efficiency and effectiveness for the program particularly while offering services to the farmers such as trainings and technology transfer during farm demonstrations. Farmers appreciated this support leading to 'working together' and increased learning.

Farmer organizations ensured adequate and reliable produce supplies to the buyers because they aggregated their produce to larger volumes and facilitated continuous supply. This has been confirmed by some companies working with the farmers like Njoro Canning and Wamu.

Remaining challenges are leadership and management of the groups. In a number of cases producer groups have collapsed, e.g. in BC 2, 7 out of 15 groups. According to consultants involved this was caused partly by the abrupt end of program interventions and support, without a planned exit strategy and communication and partly by weak group dynamics and leadership. There was need to build the capacity of farmers on group dynamics; but there was no expert on community development.

Increased sustainable productivity

According to MSCs mentioned by farmers and company interviews the program has contributed to increased productivity in some of the business cases through the training provided to farmers on soil nutrition (soil testing and fertilizer use), pest and disease management, crop spacing and crop rotation. Training was done by Solidaridad, SNV, consultants, service providers such as Real IPM, and the companies. Some companies paid for the trainings, others requested HFSP to pay. While we collected quantitative data through interviews during our field work, a consistent set of data about measured (changes of) yields was missing. So the data on the increased production had gaps and can only be taken as indicative since most of it are estimations from the companies and farmers. It is also not possible to determine which training or which (combination of) improved practices may have contributed most to the higher yields.

Better access to affordable quality inputs (seeds, planting materials, pesticides etc)

The input supply through buyer companies has been successful; e.g. Wamu, Hillside and Njoro Canning advanced (=company contribution during implementation) farmers seeds and other inputs which they recovered during payment of farmers produce (= outcome). So farmers have successfully produced better yields and were able to repay the advances. The program has also facilitated farmers accessibility to quality/certified seeds, fertilizers and pesticides, by support to cooperatives to establish agro chemical shops (Agrochemical shops, BC 1 (Isei), BC 4 (Mamu) and BC 5 (Makueni). The program provided revolving funds and subsidized inputs. The management of these shops is an area of concern, as the level of credits to members was often considerable, with a risk of non-repayment and undermining cash flow. The agroshop case of Mamu Ltd was not successful because it was not managed well, Mamu lacked the capacities and commitment, and was not profitable. The program paid the first stock of inputs in 2014, but Mamu was not able to restock the shop, and it did not have (consolidated) records to evaluate income and expenditures. Despite the worrisome situation (see also 4.6) the program disbursed the full contract amount to Mamu, and did not discontinue the support. The evaluators assume that Solidaridad was not monitoring closely enough and lacked clear criteria or management support to propose and take such steps. Finally spending pressure may have played a role too.

Access to financial services and credit

Linkage to financial institutions for access to credit was achieved minimally despite the presence of relatively established banking systems and other micro financial institutions. Equity bank and Family bank provided loans to farmers in BC 3 and BC 4. Some were able to pay back, others failed due to do poor yields or side selling. Some farmer groups like Kitogo and Holyoak in BC 3 have group bank accounts and this is likely to enhance their credit worthiness for future accessibility to loan. Reportedly due to a lack of bank credit options, in BC6 a revolving fund was established by Solidaridad and the company to pre-finance agro inputs and the drip irrigation kit that farmers reimbursed when selling the produce.

The Final program report (p.41) noted that financial institutions were not eager to provide credit to the smallholders, because of a lack of collateral and perceived risks associated to farming (weather, markets and prices), high interest rates and fear by the farmers. And therefore HFSP established revolving funds with some implementing companies, with the aim to directly provide inputs to smallholders on credit.

However through our interview with Equity Bank- Naivasha branch, the evaluators collected different information and wonder whether the consortium did fully explore all opportunities with existing financial institutions. The Equity bank was open for smallholders and seemed to have affordable products, agro input loans with an annual interest rate of 12% and no collateral required. See annex 11 for more information.

With regard to the revolving fund we think that on the one hand it is good that the organization managed to repay and thus it could in future stimulate some buy in from the bank.

Our concerns are on three points with regards to revolving funds:

1. The final solution found was to establish a revolving fund but in fact this is no risk for the bank nor for the company (as the risk capital is provided by HFSP). Normally this is not a long term sustainable solution. On the one hand farmers have to become more creditworthy; and usually farmers repay well if the credit is useful to them, meaning that the credit comes in time, is flexible and easily accessible. On the other hand the banks have to reduce their risk perception on farmers and this can be done by providing them with tools that analyse and establish the risk (agri-analysis tools, producer assessment, linking finance to marketing). In the program the evaluators did not see any sign of this. If such is the case, it would be strongly recommended to build this into the next phase.
2. The client does not build a track record and trust with a bank, which would facilitate a follow up loan.
3. The company and Solidaridad may not be fully equipped with tools to assess real risks in lending to producers' (organizations) and may be less efficient in managing a credit scheme.

Therefore (more) attention and perseverance should have been there, to:

1. Guide producer (organizations) to get a loan from a Bank.
2. Access or develop tools that can assess farmer's creditworthiness.
3. Negotiate and guide the bank or other financial service providers in developing and providing (new) loan (product)s to producers.
4. Explore whether any other type of loans (either through small groups or individual small holder loans) have been given to horticulture producers, and if so to know how the repayment has been.

Enhanced adoption of appropriate technology

The program showed some relevance in promoting appropriate technologies to farmers. Green house (BC 3 for Kitogo and Holyoak groups) and drip kits (BC 6 chilies production in the coast) , charcoal cooler stores (Isei coop) were promoted for adoption by farmers. The drip kits facilitated production during the dry season. The farmers are receptive to greenhouse technology as they see advantages such as higher productivity and protecting their crops from adverse weather (frost and hail storm). However the cost of the pilot greenhouse is prohibitive and not affordable for farmers. The charcoal has not been adopted by other groups beyond the initial groups benefitting from the subsidized ones. Cost benefit analyses have not been done, except in the case of avocado production by the company.

Better Pest and disease management

In most of the business cases, farmers were trained on pest and disease control methods such as use of integrated pest management (IPM) , safe use of chemicals and crop rotation. A few groups were GLOBAL GAP certified, see next paragraph. Spray teams were established, but little was reported about their functioning since the project ended. MRL issues played up for the entire horticultural sector as from 2013/2014 as interceptions by EU caused EU to become more strict on produce from Kenya.

Outcome: Establishment of agrochemical shops and chemical stores ensured availability of pesticides for use by the farmers, though management of the shops needs improvement.

Compliance with quality and safety standards

Facilitating compliance with quality and safety standards especially Global GAP was a major focus for HFSP, with consultants and companies training and assisting farmers on Global GAP certification. Isei cooperative linked to Mara Farming was undergoing Global GAP certification audits for avocados (during the time of the evaluators visit) in readiness for marketing to retailers in Europe. Mulot cooperative was said to follow later in 2016. Some groups like BigFive working with Wamu are also certified.

Increased Dutch trade and investment

The Dutch companies involved were Mara Farming in BC1, Agrico in BC 4 (Dutch potato seed supplier), Soil Cares in BC 2, 3, 4 (soil testing) and Equator Kenya Ltd in BC6, and 2 or 3 Dutch consultants. The HFSP contribution towards increased Dutch trade and investment in the business cases implemented was minimal. Except for Equator that has tripled its chili business as a result of HFSP support, and Mara has the potential when the smallholder avocado supply gets going as from 2016. For the other companies the evaluators have not found clear indications of the same. Of course some of the export crops (Fresh beans, snow peas and sugar snaps) were exported to Europe including the Netherlands. In BC 3 the green houses in the sub BC with Wamu company were supplied by a Kenyan irrigation company [Irrico International](#). There might be scope for Dutch greenhouse technology.

5. Efficiency

This evaluation has focused on the ability and capacity of all implementing partners of HFSP to critically look at the quality implementation of activities and assess whether these activities indeed led to intended results. The evaluation has not looked at the quality of proper implementation of HFSP work plans and use of budgets exactly according to planning, trying to assess the deviations and its reasons. For learning purposes that dimension was of lesser importance for this evaluation.

The extent to which the intended results happened after implementation would link efficiency with effectiveness.

To start with it is remarkable that the program did not make any major adjustment and improvement in its own implementation approach or strategy during the entire implementation period, for example by making a strategy on gender or financial services. Comparing phase 1 and phase 2 of the HFSP programme, the evaluation has not noted and learnt from any major update in the followed approach. This is remarkable because it may demonstrate that the approach and plans were properly chosen right from the beginning, which however is not supported by the findings of this evaluation. The evaluation team concludes that the consortium lacked a clear mechanism to jointly reflect and learn. See also chapter 7, M&E component.

The evaluation has noted the following strengths and challenges with respect to efficiency.

Strengths that raised the efficiency:

- **Mobilizing and Sharing resources:** quite a number of the **companies** involved contributed to implementation, they were Mara Farming in BC1, Njoro, Indu Farm, Hillside and Wamu in BC 3, Suera, Sereni fries, Mamu and Agrico in BC 4, Soil Cares in BC 2, 3, 4 (soil testing) and Equator Kenya Ltd in BC6. The companies contributed with training on improved farm practices, using their technical skills and experiences, and have contributed to the project with financial resources.
- **Input supply by companies:** in those BC where companies provided affordable quality inputs and they recovered it from farmers, this input supply efficiently replaced inputs that would otherwise have needed to be provided by the program.

Challenges that reduced the efficiency:

- **Lack of sufficient skills and resources:** several planned outcomes were not or insufficiently achieved as a result of inadequate implementation. The following examples have been gathered by the evaluators:
 - The lack of financial expertise in the consortium, needed to negotiate with and support banks to develop appropriate and affordable financial products for smallholders.
 - Under-utilisation of available budget, the lack of the allocated program budget and staffing time to achieve the outcome in a structured manner.
 - The lack of community development skills to identify and accompany the strongest and best farmer groups. This caused underperformance of farmer groups.

- In BC 2: Lack of the consultant's and consortium's capacities in the choice and proper profile of farmer groups to link with. 7 out of 15 producer groups collapsed. The attention for group dynamics, basic leadership and management skills was insufficient to guide the selection, and accompany the selected groups.
- **Lack of proper cost-benefit analysis at start:** low adoption rates of greenhouses by farmers were caused by high, prohibitive costs of the greenhouse selected for the pilot. The greenhouses were not affordable for farmers, even though they saw the advantages. Apparently, the program had not made a proper cost-benefit analysis at the start to assess its potential profitability. The same applied for the charcoal coolers that were not further adopted beyond those built and paid by the programme. Spending program resources on a non-affordable technology has therefore reduced the efficient use of its resources
- **Lack of programme M&E:** to assess the use and adoption of new information and knowledge by farmers, traders and companies. Problems with regard to M&E will be further explained in chapter 7, it is sufficient here to state that the lack of this M&E has reduced the chances to quickly adjust program implementation and use of budget in case of challenges and problems noted. The lack of proper M&E in conjunction with consortium level learning has therefore reduced the programme efficiency and has increased risk of wasting resources.
- **Lack of (sufficient) financial contribution by companies.** There was no clear criteria as to the minimum financial contribution by implementing companies and the type of costs the HFSP could co-finance. E.g. in the case of STAWI (BC5), the HFSP agreed to pay 100% of costs of drying equipment to be used by the company.

6. Sustainability and up scaling potential

In the Effectiveness chapter the different direct outcomes as a result of the program were described and analyzed. In this section we will consider **sustainability** and in particular the following questions. What is the likelihood of sustainability of the program results (effects, outcomes, impacts) after completion of the program? Are there indications of scaling up or copying efforts by small producers, by companies or service providers; or by other VC actors that were not targeted in the pilot phase and did not receive funding? Do we observe newly emerging business opportunities and initiatives, and /or emerging favorable government policy and relevant context factors, inspired by the results of HFSP?

Box: definition of up scaling (or scalability)

The possibility to increase impact of an intervention by adoption of an innovation or improved practice by a large group of actors (using their own resources) without the need to invest an equivalent amount of capital as was done in the pilot (test) phase.

The *upscaling potential* is high when the innovation /improved practice can be replicated by value chain actors (farmers, companies, etc) who were not targeted in the pilot phase, hence on a larger scale without donor funding

Source: FSAS

The following assessment looks at the indications and challenges (both internal and external) of this sustainability and up scaling.

6.1 Indications of sustainability and up scaling

Part of the results (effects, outcomes and impacts) of the business cases analyzed during this evaluation have shown potential to be sustained and also to be scaled up, with some having greater potential than others.

Continued application of better practices:

Producers and companies that have benefitted from the program and improved their farming and trading practices, will continue to apply these practices because they experienced that these better practices have resulted in better business performance (increased and more stable yields and improved quality, premium prices for quality and certified volumes) and thus in higher return on their investments. The knowledge acquired will sustain these practices.

- For BC1, 2 (in particular Njoro Canning groups), 3 (Wamu groups, not the Hillside groups) and BC 6 the production and income generation effects are likely to be sustained because of the good relationships (often formalized in contracts) between company and groups, current level of aggregation of produce already taking place in the collection centers and the access to a stable or growing market. E.g. Export markets for chilies and avocado show a growing trend.
- **Changed mindset:** Farmers (part of them) changed their mindset towards collaboration with companies; they do not any longer see companies as potentially exploiting them, but they think more in terms of win-win situations. This underlying change will support sustainability.

- **Stronger groups and relations:** Likewise, the stronger farmer groups and organizations will continue to sustain their relationships with buyers, This became clear from the Most Significant Changes identified by 9 producer groups.
- **Farmers invest in (expensive) inputs;** Avocado seedlings are grown by the Mara company, and fully paid by the farmers. This a critical change within the market system, which can be replicated by themselves. There is no need to subsidize. When also other (new) farmers see avocado as a profitable crop, they will buy quality seedlings and plant, after ensuring that they have a reliable buyer. Farmers outside the targeted Bomet and Narok counties got interest to also invest in planting avocado seedlings, which is an example of copying after having seen productive avocado's elsewhere.
- **County government got new interest in avocado:** The County government in Bomet supports multiplication of avocado trees and provides seedlings to farmers. We are not fully sure of the precise conditions; whether the seedlings are granted to farmers, which could mean market distortion, or sold, and why they do the job of a private seedling supplier.
- **Farmers employed as extension agents:** Isei cooperative has started to self-employ & train lead farmers as extension agents: it has selected and trained five lead farmers (as extension officers) on GAP. They provide advice to and coach other farmers of the coop. The coop provides small incentives to the lead farmers to do this work: transport money and lunch allowances. This can be a sustainable model of extension that can reach out to larger groups of farmers if the incentives are sufficient and if lead farmers have skills, time and motivation to continue doing this.
- **Accepted and recognized brokers:** In BC 2 brokers ('Marketing agents') were recognized and organized and they developed win-win relationships with smallholders.

6.2 Challenges regarding sustainability and up scaling

- **Limited openness of farmer groups:** Many farmer groups /cooperatives do not seem very open for new members. The reasons they gave were: 1) Current members want to keep the benefits for themselves ; 2) a smaller group is easier to manage; when growing (too much/fast), it may get out of control. This is a well-known attitude which requires closer attention during implementation, demonstrating to groups that increased membership is not a threat but an asset for overall profitability. The fear that the pie has to be divided among more members neglects the fact that the pie can grow. A greater role of the companies in this coaching process is worth considering.
- **Side selling to other buyers.** While the extent of it has not been estimated, companies see it taking place and consider it as a considerable risk. They do not know how to handle this and may very well need assistance. This side-selling demonstrates an early phase in the development of sound business relations between farmers and companies. The role of a VC facilitator would fit here naturally.
- **Free service delivery:** The majority of interventions was comprised of direct and free service delivery or subsidized training, products/inputs and infrastructure. This free service approach was not well designed and conceived

in terms of duration, type of services, conditions, analysis of existing market for these services. This requires a major redesign so that it would not stand in the way of upscaling. Some of the above mentioned positive examples (avocado) may serve as an input in this process.

- **The ever increasing export (especially EU) market requirements** may undermine smallholder inclusions (making it too complex and demanding to align).
- **Government policies enabling upscaling:**
The evaluators have not collected any information on government policies in favor or constraining upscaling.

7. Program management and implementation

In this chapter the main findings on the program management and coordination by the consortium are presented. Chapter 5 on efficiency briefly mentioned some strengths and challenges with regard to implementation, but this chapter will deal much more in detail with management and coordination within the consortium. It will look at 1) overall management, composition and collaboration; 2) contracting of consultants; 3) relations with the companies; and 4) M&E and reporting. All these components will be assessed in terms of their achievements and challenges.

7.1 Overall management, composition and collaboration

Achievements

- **Quick response capacity:** When the funding opportunity arose in 2011, Solidaridad and consortium formulated a proposal in a very short period, which was approved by the embassy
- **Complementary expertise:** for HFSP implementation Solidaridad, SNV, HIVOS and AgriProFocus formed a program consortium and collaborated intensively. Since this time consortium members also implemented other programs together, e.g. Solidaridad and HIVOS managed to access funds from the Bill and Melinda Gates Foundation.
- **Advisory role EKN:** The consortium members appreciated EKN's strong advisory role, especially after the arrival of the new staff M. Leenstra: being well informed and guiding the NGOs during field visits.
- **Learning capacity:** though in a formal sense, the learning process (see 7.4 M&E and reporting) was not well designed or structured, the consortium certainly demonstrated a learning capacity for adjusting programme design. The example of HORTImpact in the challenge section here below was a good example.

Challenges

- **Rushed proposal:** too little time was provided by EKN (fast track) for thorough program design (including sector analysis and baselines), formulation and strategy development. The implicitly adopted strategy was to reach quick results, by being pragmatic and grasping opportunities arising within EKN's network. The strategies on gender and financial services were weak.
- **Too short programme duration:** The program in two phases was too short to achieve the stated impact. The impacts as formulated in the ToC were not realistic and achievable within the set programme duration.
- **Lack of clear roles and budget allocations:** the roles and mandate among the consortium members were not properly elaborated and only described in a general manner. They also lacked a clear indication of what it would take to implement that role, including the necessary budget allocations. A striking example was the work that HIVOS was supposed to do on gender, policy and (access to) finance. No budget allocation was made for this work and therefore HIVOS could not implement this task, even though it had made a TOR and proposal.
- **Too rigid budgets:** The approved budgets of the HFSP (phase 1 and 2) were global ('rough') budgets, but with the understanding that the programme had to be flexible and be able to respond to (new) opportunities and needs. However, in reality Solidaridad as the lead organization was not flexible enough when it came to allocating funds to newly arising needs. As a result the necessary space for budget revisions was too limited, as all the available budget was already allocated.

- **Weaknesses in collaboration:** even though regular (quarterly) meetings of the steering committee took place, they did insufficiently enhance synergy between members and critical strategy development. Partners did not hold each other accountable for agreed actions and commitments. This was also enhanced by the fact that responsible HFSP staff of each consortium member was only accountable to their own superior and not to the overall coordinator or team leader of HFSP. This issue has been addressed in the HortIMPACT program where all (delegated) staff are sitting in one office and are accountable to the HortIMPACT Team leader.
- **Weaknesses in communication:** the funding decision of some BCs took place without due communication to all consortium members. The lack of a communication strategy was most clearly shown by the confusion that arose around the publication of the critical food safety study, in which HIVOS had played a lead role. The consequences of the publication, possibly putting relations with GOK under stress, had not been discussed by all consortium members. The different appreciation of the results of this study by the consortium members demonstrated the different agenda's and lack of coordination. In the evaluators view this will have affected the spirit of working together as a team.

7.2 Contracting consultants

Achievements

- **Relevance of services:** the role and responsibility of consultants was diverse and relevant, covering training and coaching of farmers, linking them to markets and introducing new crops or varieties.
- **Quality (technical) of work:** in general the consultants were very experienced and had their boots on the ground. Their practical approach and highly relevant consultancy background in the sector were well appreciated by farmers.
- **Experiences gained:** consultants reported that they had gained from the HFSP assignments, increasing their exposure, expanding their network and strengthening their track record. Indirectly, HFSP contributed to capacity building of consultants.

Challenges

- **Quality of contract;** their contracts were too much output oriented, and mostly described in terms of activities. The contracts did not specify the expected results for which the consultants would be accountable³.
- **Lack of coaching of consultants:** the consortium partners did not sufficiently coach or guide the consultants, leaving too much liberty to them to act on their own account.
- **Lack of involvement in consortium management:** the consultants were too little used by the consortium management and the members for experience sharing and learning. This was a missed opportunity for tapping their knowledge and practical experiences.
- **Too late contracting:** Solidaridad contracted the consultants again in the beginning of 2015 for a 3 months period, because there were funds left, leaving too little time to achieve results.

³ As example: The CropCare Jan - June 2013 workplan is an excel sheet with list of activities (such as Global GAP training activities) and the estimated number of consultancy days per activity. It does not have a budget, nor specification of expected results, number of farmers trained.

7.3 Working with companies

Achievements

- **Private sector approach:** engaging companies as main partners was an effective strategy, which ensured access to markets and expertise on GAP, quality management and market requirements including standards.
- **Contribution to implementation:** Provision of technical inputs; technical trainings and coaching of producers.
- **Collaboration with consortium:** the relationship between companies and consortium members was generally speaking good. In most case the companies appreciated their relations with and the inputs of individual members.

Challenges

- **No explicit selection criteria:** their selection was based on already existing relations between EKN and the companies, and Dutch entrepreneurs, at the very start of the programme. This resulted in reduced ownership by consortium partners to the programme, as they felt obliged to engage with these companies
- **Lack of skills:** though the companies had established relations with farmer groups, they apparently lacked skills to identify strong farmer groups. They did not receive guidance by consortium to improve this situation.
- **Unclear financial contributions:** the HFSP did not properly negotiate and define the level and modality of financial contributions of HFSP with those of companies. The programme made far too big contributions in hardware and equipment, which could have been easily co-provided by the companies. This lowered the ownership and engagement of the companies.
- **Weak quality of contracts and reporting by companies:** for several proposals and most reports the quality was low, as they focussed on activity and output level, but apparently they were accepted by the consortium. Results were often not described in a consistent SMART way, # of farmers to be reached were lacking, as well as ways to measure if the results would be sustained beyond the project interventions. Focus of the contract is on knowledge and skills transfer.

7.4 M&E and reporting

Achievements

- **Well-designed M&E plan:** HFSP had defined appropriate outcome indicators as key component of the measurement plan and linked with the overall result chain at the very beginning of the programme in 2011-12. This plan had specified relevant outcome indicators or KPIs such as yields, volumes, product quality and income generated by companies and farmers.
- **Relevant M&E investment:** Solidaridad as the lead agent invested in M&E (in 2012), inspired by the DCED result measurements standard. The trained officer developed the M&E plan.

Challenges

- **Lack of M&E implementation:** actual measurement of these outcome indicators did however not happen, because of lack of 1) sufficient management support for the M&E function; 2) time and resources assigned to M&E implementation; 3) well spelled out M&E responsibilities and roles between consortium partners and companies. Sadly, the

trained M&E officer of Solidaridad left the organisation. This illustrated the apparent lack of management support or recognition of this M&E tool; insufficient handing over took place.

- **Turning lessons into decisions:** consortium members have demonstrated their capacity to formulate lessons (see case of Solidaridad in final programme report, 2015), but they lacked the capacity to turn these lessons into management decisions to adjust or stop certain activities during implementation.
- **Poor understanding of M&E concept:** from the feedback received it appeared that the staff expected the measurement of KPIs to be done only at the end of program during the evaluation. This is a surprising (disappointing) statement, because this is neither in line with any conventional M&E concept, nor in line with the DCED standard. Constant M&E of KPIs would have been a key component of implementation, as it serves for ongoing learning and adjustment of interventions if and when needed.
- **Weak quality of narrative and financial reporting:** the progress reports and final program report lacked a sharp analysis, mostly focusing on activity and outputs level; they lacked a consistent comparison and analysis of planned and realized results at outcome and impact level. The factors contributing to this weakness were 1) EKN did not have suitable or appropriate reporting guidelines or formats, 2) Solidaridad lacked adequate reporting skills; 3) lack of consistent collection of outcome and impact information.
- **Lack of proper information management:** the consortium did not avail of good procedures to store and manage reports, in case of staff changes.
- **Lack of management for Value for Money:** the fact that no or hardly any outcome information with the KPI (yield levels and quality, incomes, number of farmers) was systematically collected, made it impossible to measure the actual VC related improvements achieved by HFSP money. This also referred to the contribution of individual consultants and companies to the expected outcomes. These contributions were too much restricted to outputs. As a result managing for value for money by the consortium did not take place.

8. Conclusions

In this chapter we present our conclusions as a response to the **six main evaluation questions**.

Main evaluation question no 1:

Assess the outputs realized by the HFSP: have the activities carried out efficiently contributed to delivering outputs planned for (Proposal phase 1, phase 2) and presented in the annual reports to the embassy.

First of all it is noted that in program documents no targets were set for:

- 1) the number of farmers to be trained and provided inputs to, and
- 2) the final number of farmers (male/female) with more access to markets, more income and more food secure.

The response to this evaluation question is mixed:

- ➔ Yes, a number of outputs were realized such as outgrower contracts with companies, which ensured market access and generated incomes, infrastructures such as collection centres, charcoal cooler (store for e.g. potatoes which can be cooled using charcoal technology). New crops and varieties (potato, sweet potato, cassava, other) were introduced, serving as cash crop but also enriched the diet when consumed by the farmer's household.
- ➔ No, because few systemic changes were achieved; the costs of interventions per farmer varied largely between BCs, which was never noticed by HFSP; It did not make proper analyses or reporting with explanations for such differences. The final financial report of HFSP 2011-2015 was a condensed document of 1.5 page with a factual comparison between budget and expenditures and an explanation for some under expenditure. There was no analysis or reflection on costs, efficiency of interventions or value for money (=effectiveness). It appeared that EKN did also not request for such type of analysis in the reporting. The reports submitted to the embassy were not satisfactory, as consistent data and analysis of results at outcome and impact level were missing, also in the second /revised 'Final Program report- HFSP 2011/2015'.

Main evaluation question no 2:

Have the 6 Business Cases and interventions offered sufficient Value for money ?

This question has been addressed by calculating and comparing for each of the 6 business cases (BC):

- ➔ expenditures from HFSP phase 1 and 2 per farmer,
- ➔ 2014 gross income generated per farmer from sales to HFSP companies,
- ➔ scale reached: number of farmers in 2014 that have sold to HFSP companies.

The year 2014 is chosen as proxy for income impact because it was the last full year of operation of the HFSP, so in 2014 most impact of HFSP interventions would be expected. The expenditures per farmer are calculated by dividing total expenditures on the BC by the number of farmers in 2014 that generated income as a result of HFSP interventions. The calculations are based on data collected by the evaluators from the implementing companies and from Solidaridad. The results are presented in table 7.

In the annexes 10 a-f the complete data for 2011-2015 are presented; only for BC 3 (Hillside) and BC6 it shows data for the entire period 2011-2015, for the other BCs 2011, 2012 and/or 2013 are missing. While in BC2 the average gross income per farmer declined

from KES 138,000 in 2013 to 37,000 in 2015 (probably due to increase with a number of less performing farmers and lower yields in 2015), the gross income in BC3 and 6 was relatively stable throughout the years.

A limitation in assessing the value for money has been the very limited financial reporting available to the evaluation team. It was difficult to analyze whether € 4.3 million could have yielded more or better outcomes as the only information we received was a 1.5 pager with total expenditures for 3 cost categories for each BC, without a justification-rational or explanation behind actual expenditures and on the way funds were spent. The total income by farmers as a result of HFSP interventions will have been larger than we have calculated, because in our calculations we have not considered the income generated through side selling. Quantitative information on side selling is lacking, but side selling was mentioned by a number of companies, as a considerable issue and risk factor. Side selling is a well-known phenomenon; it is frequent especially in early stages of relation and trust building between buyers and farmers. *Contract farming*⁴ as practiced in many BCs by HFSP is a proper way to reduce side selling, but this needs time. See also the recommendations of this report for further ways to mitigate side selling.

Results of the comparison:

- ➔ Expenditures (in period: Oct 2011- March 2015) per farmer varied from KES 8,100 for Chilies (BC6) to KES 325,000 (BC 2). This is a very large variation. The very low expenditures in BC6 are a result of a high number of farmers reached and relatively low costs of equipment. The total expenditures are divided by more than 5,500 farmers: economies of scale. And in BC6 by far the largest part of the budget was destined for supporting the farmer (groups) with training, drip irrigation, credits, etc. and only a small % for an investment improving dryer equipment. The high costs in BC2 are due to relatively low number of farmers reached: 254 in 2014, which was partly due to the collapse of 7 out of 15 farmer groups that were supported. If we compare BC2 to BC3, the total expenditures are the same, but the number of farmers reached in BC3 is 3 times higher, so expenditures per farmer 3 times less. In some cases, e.g. BC5 (STAWI sub case) a large part of project budget consisted of capital and equipment investments for the benefit of the company: this was 70% of the total budget. Except for the land (contributed by the county government) all the equipment (costs of KES 22,474,000 or € 204,000) was agreed to be contributed by Solidaridad; an illustration of the weak negotiation process by the consortium. Besides the expenditures for specific business cases, HFSP spent KES 110 million, equal to 22.9% of the total budget on management and coordination of the program. This seems to be a high %, compared to commonly accepted range of between 5 and 15%. It must be noted that value chain analyses and stakeholder meetings were also included. See annex 13 for a more detailed overview of expenditures.
- ➔ Gross income in 2014 generated per farmer from sales to HFSP companies: This varied from KES 1500/farmer in BC 4 and KES 2100 in BC6 to KES 54,400 in BC3 and KES 63,000/farmer in BC2. The low average income for 5500 farmers in BC 6 can be due to a large number of farmers that supply only small quantities, while a smaller more active group can reach incomes of between KES 20,000 and 24,000/farmer per year. The variation between farmers in supply and income is very large. The low income in BC4 can be due to bad quality seed potato supplied to farmers, but this needs to be verified.

⁴ Definition of Contract farming: Agricultural production carried out according to a prior agreement in which the farmer commits to producing a given product in a given manner and the buyer commits to purchasing it.

➤ **Conclusions:**

- (a) Overall BC3 offered best value for money, as a relatively large number of farmers (723) benefitted with a substantial gross income: KES 54,000/farmer (€490) in 2014.
- (b) BC 2 and 6 gave a mixed picture: interventions in BC2 benefitted a relatively small group of 254 farmers with a substantial income, but at high costs (3 times higher costs/farmer than the BC3). BC 6 reached a very large number of farmers (5,500), but with a very modest average income (KES 2100/farmer in 2014).
- (c) BC1 is a tree crop, hence a long term investment; so far the farmers did not harvest/generate income. We see this as a good potential cash crop for smallholders; production will start in 2016, with an estimated income at around KES 14,000/farmer with 0.25 acre, and is expected to triple in 3 to 4 years' time to KES 40-45,000/farmer per year.
- (d) BCs 4 and 5 have not offered sufficient Value for Money, if we look at the figures in table 7 below.
- (e) Few systemic changes or upscaling (potential) was observed except the high # of farmers in BC6, avocado seedling sales, and organization of brokers.

Besides the income generated other results and positive changes should also be considered, such as eventual policy or sector wide -systemic changes or up scaling. We noted a number of results that are likely to be sustained, notably:

- Better organized producer groups (BC 1, 3 and 6), with stronger bargaining power;
- New relationships and contracts with buyers/companies (BC 1,3 and 6);
- BC 6 also noted improved food security as result of support in other food crops and improved varieties such as sweet potatoes and cassava;

Table 7: Expenditures Oct 2011 - March 2015, gross income per farmer in 2014 and # of farmers in 2014 that supplied to partner companies

BUSINESS CASE	1	2	3	4	5	6
PRODUCTS	Avocado *)	Vegetables	Fr. Beans, snowpeas, sugarsnaps	Potatoes **)	Fruits	Chilies
PROGRAM EXPENDITURES /farmer (KES) in period Oct 2011-March 2015 (***)	142020	326811	115642	275800	157758	8094
Average gross income /farmer (KES) from product(s) sold to partner companies in 2014	14250	62990	54408	1500	6782	2113
Total # of farmers that supplied to companies in 2014	586	254	723	200	256	5502

*) In 2014 avocado not yet in production; first harvest in 2016. Value is the 2016 expected income based on yield forecast and 440 farmers who will harvest in 2016

**) For potatoe BC only Sereni farmers sold potatoes in 2014

***) excluding programme development & coordination costs, amounting to 22.9% of total program costs

Main evaluation question no 3:

Has the project been successful in upscaling the results to create a broader sector impact?

To a limited extent and in a few examples, upscaling potential is there, examples are:

- + avocado seedlings grown by company, paid by farmers- this can continue
- + farmers & government have gained interest in avocado and invest in it
- + cooperatives have themselves employed & trained lead farmers as extension agents, independently from donor funding
- + some 6 brokers were organized in BC2 in an association, and were linked to producers, and provided smallholders a stable market.

However in most cases up scaling has not been incorporated or aimed for explicitly. Up scaling (potential) depends on whether the underlying causes for bottle necks in the sector and specific value chains have been solved. Two examples illustrate the point of the lack of an explicit upscaling strategy .

- 1) HFSP facilitated import of certified quality seed potatoes which were appreciated by farmers. However one year after HFSP has ended the evaluators did not find evidence that in 2016 and coming years the improved seed potatoes will become available again without this support of HFSP. HFSP had not managed to engage providers of seed potatoes in a structural way and long term.
- 2) HFSP provided a lot of free training (GAP, etc) to farmers, but it is unclear who will pay the training for the next season or for a new group of farmers (upscaling). The direct and free service delivery provided by the program has yielded quick results, but HFSP does not provide a market-based solution. It would have been better to focus on developing a market for affordable training services and on their commercial service providers; meaning that buyers and/or producers (the VC) will get used to and be willing and able to cover the costs of training offered by commercial service providers.

Both examples illustrate the pitfall of HFSP: lacking to make the switch to more (market based) solutions that will be sustained by their own profitability, both to the provider and the customer of the service.

Main evaluation question no 4:

Has HFSP contributed to sustainable business cases and, to sustained trade and investment relations between Kenya and the Netherlands?

Overall the evaluation team did not have sufficient information to respond adequately to this question. Some elements of response include:

- We conclude that the Private sector and market oriented strategy was a proper choice, which has worked out well in part of the cases. The partnership with some companies did not work out, but were still fully funded till the end. Hence the need for clear company selection criteria & conditions as well as close monitoring.
- While some good partnerships and VCs were developed, with good potential for growth, more could have been reached with a more systemic approach and closer monitoring.

The Dutch companies involved were Mara Farming in BC1, Agrico in BC 4 (Dutch potato seed supplier), Soil Cares in BC 2, 3, 4 (soil testing) and Equator Kenya Ltd in BC6, and 2 or 3 Dutch consultants. Outcome: Some of the export crops (Fresh beans, snow peas , sugar snaps, chili) were exported to Europe including the Netherlands. However (changes in) trade and investment figures for HFSP companies were not available. Given the growing international demand, for BC1 and 6 (Mara and Equator) the traded volumes and value are expected to grow. In the other BCs this is (very) uncertain. Agrico's role in seed potato supply was not well developed and would need attention to have a sector wide effect.

- Dutch and Kenyan SMEs; there could be scope for more and more structural Dutch involvement and investments in capacity building in top sectors of Dutch foreign cooperation, such as: water management, potato expertise, WUR and nutrition security. But there is need to identify the added value of Dutch knowledge in specific value chains and business cases.
- The introduction of new crops or varieties (potatoes), has led to food & income diversity.
- A challenge in terms of access to the EU and Dutch export market was the issue of exceeding MRLs, causing many requirements and withdrawal of many export licenses: this has weakened the perspective for smallholders and companies supplied by outgrowers to supply vegetables and fruits for high end export markets. Growing domestic and regional markets are more easily accessible and therefore have good potential to gain importance.

Main evaluation question no 5:

Assess the synergy with other Dutch funded activities (e.g. FDOV, NICHE, 2Scale, 2g@thereOS).

The consortium and especially AgriProFocus played an active role in promoting networking and learning through the organization of stakeholder meetings and workshops with the consortium members and many other stakeholders. A quote: *'APF has played a role in awareness, publicity and bringing stakeholders together in forums.'*

The exposure of certain companies facilitated by HFSP benefitted them and gave them a broader network and new contacts which have led to new partnerships (case of Hillside and Molly Flowers).

Most respondents appreciated the meetings and workshops, because it enhanced their awareness, created publicity and contributed to learning and exchange by bringing stakeholders together. Nevertheless, some respondents (mostly from private sector) were also (very) critical, because they saw the meetings as a lot of talking without concrete actions. EKN noted that the meetings gathered the usual suspects and little effort was undertaken to explore new opportunities and work with new partners (e.g. Growing solutions Kenya). While several meetings were organized, the evaluators observed only limited learning capacity within the consortium, see also chapter 7.

Main evaluation question no 6:

What lessons can EKN and the Solidaridad network learn about designing and managing such a programme ?

With reference to chapter 7 of this report for a full analysis of the design and management of the HFSP, we present a few key lessons here:

- Ensuring sufficient time and thinking for program design and formulation is a must, because a rushed proposal has resulted in limited buy in and ownership by the 4 consortium members. Amongst other things this resulted in a lack of clear roles and budget allocations to deliver on responsibilities.
- M&E implementation with regular internal measurement of outcome indicators by the program is needed for effective and efficient program management, ensuring value for money, and to enable learning and adjusting interventions. M&E plans in HFSP were well developed but not implemented due to departure of M&E expertise and poor understanding of M&E concepts by the consortium, remaining staff. The lesson is that a program requires: 1) sufficient management support for the M&E function; 2) time and resources assigned to M&E implementation; 3) well spelled out M&E responsibilities and roles between consortium partners and companies.
- The lack of clear selection criteria and conditions for companies and (Business implementation) proposals and weak negotiations resulted in a lack of sufficient

company financial contributions and some high program investments in company equipment.

- Analysis of profitability of the value chains and any proposed innovations for farmers and SMEs should be part of the design and implementation phase of the program, as this determines success and up scaling potential. The lack of this analysis meant that the selected greenhouses and charcoal cooled stores were not fit (affordable) to be copied by farmers.

9. Recommendations

In this section the recommendations are presented and split up under the headings of program design and formulation, program implementation, and implementation strategies.

Program design and formulation

- **Program period:**
Donors should engage for a program period of minimum 4 or 5 years: for analysis , preparations, building trust and relationships between stakeholders in a value chain, developing markets for services, and overall capacity building of VC actors.
- **Preparatory phase:**
Allow time and budget for a 6-12 months period to identify and analyse those value chains, intervention partners and strategies with most potential to achieve the set objectives & targets. It is recommended to involve private sector actors and partners in this analysis. Tools: GIZ and ILO have developed value chain selection guidelines and tools, see this [link](#), or www.giz.de/privatesector. Thereafter EKN should take a decision about the full proposal that is submitted.
- Make use of the achievements and lessons learned of the HFSP in follow up programs such as HORTImpact.
- Ensure sustainability and up scaling through the M4P system approach addressing underlying causes, avoiding direct service delivery, developing (markets for) services and capacity of (commercial) service providers. Various options of embedded services would be integral part of such an approach; they have shown their potential elsewhere.
- Make cost/benefit analysis -profitability for PS actors (smallholders and SMEs) at production and processing/trading level, going beyond (the limited indicator) gross income calculation. The use of gross income as an indicator is insufficient for profitability. Apply this cost/benefit analysis also for innovations (charcoal cooling stores, drip irrigation kits and greenhouses). Engage directly with relevant private sector supplying companies to make this C/B analysis and its consequences for the technical design of the product.
- **Budget:**
Allow for flexibility in the budget to enable adjustments of interventions.
- **Company contributions:** Develop clear criteria for the private sector contribution. The program contributions should leverage private sector contributions or investments. In the M4P approach only during a 'testing phase' the initial risk of the frontrunner SME to test an innovation can partially be covered by program funds. Do not fund any mainstream operations or investments of SMEs.
- Ensure adequate capacity at EKN to facilitate the pre-phase, the assessment of consortia and full proposals and a well informed decision making. Allocate time and budget for the choice of the consortium/program team and their capacity building.

Program implementation

- **M&E:** Ensure sufficient attention/priority from management by allocating time and resources for M&E function

- Elaborate more detailed result chains, including the necessary indicators that will serve as basis for data collection, analysis, reporting and learning.
- Organize regular (at least annual) review meetings for joint analysis and learning, and adjust the implementation where appropriate and necessary
- Check on the existing reporting instructions and formats from EKN and adapt them where necessary and relevant
- Assign the facilitator role to a (neutral) organisation that is recognised by all value chain actors involved. Ensure capacity to play the facilitation role and play a mediation role upon need.

Implementation strategies

- Role of SMEs: important to continue working with SMEs. There is need to set clear criteria and conditions for partner companies such as long term engagement with farmers and upscaling strategy and milestones. The same holds for their reporting and accountability.
- Role of brokers and side selling:
 - + do awareness raising of smallholders on the key aggregation roles of brokers; brokers also need to be strengthened in this role.
 - + analyze underlying causes of side selling and seek solutions to mitigate. Building of relationships and trust between producers and buying companies will probably be one of the key elements.
 - + for best practices with contract farming we recommend to consult the *Contract farming Checklist* (2011) that was developed by Wageningen UR, ICCO and RVO (previously called EVD), see [link and](#) box below.

Box: Suggestion from Contract farming Checklist by WUR, ICCO and RVO

Contractors may deal with side selling at two levels by working on improved chain coordination:

- Horizontal coordination: e.g. establish a Code of Conduct with other buyers
- Vertical coordination: invest in a good relationship with contract farmers.

Building trust can also mitigate (the level of) side selling, with the following suggestions:

- Make sure that you are regularly in touch with farmers so that you know the produce on their fields and their problems.
- Farmers need money on the spot: make prompt payments!
- Be transparent and honest with your price: create and reinforce a collective memory of the company paying a higher price when local market prices were low.

Source: WUR, ICCO, RVO (2011) Contract farming Checklist

- Domestic versus export market: focus more on the growing domestic and regional markets because they often are more accessible than export markets for smallholders; domestic markets may later serve as springboard for accessing high end export markets.

- Gender: Invest in gender expertise, analysis and demonstrate the business case/benefits of gender inclusiveness. Ensure gender differentiated M&E.
- Access to finance: ensure financial services expertise, and make use of existing agro finance providers (e.g. Equity bank, Cooperative bank, other), build relationships, lobby for improved and tailor made financial products.
- Dutch trade and investments: explore in depth the specific added value of Dutch investments and knowledge in the various value chains and how to sustain the results. E.g. leading to how to partner with Dutch companies and knowledge institutions to improve the availability of quality seed potatoes in Kenya.

Annex 1. TOR Evaluation Horticulture and Food Security Programme

Proposed Period: mid-January 2016 – mid-March 2016

Introduction

This evaluation will assess the effectiveness and the efficiency of the Horticulture and Food Security Programme as well as its contribution to the trade and development agenda of the Embassy of the Kingdom of the Netherlands in Nairobi.

Background

In 2011, The Embassy of the Kingdom of the Netherlands in Nairobi (EKN) formulated a Multi Annual Strategic Plan for the period 2012-2015 (MASP), which contained ambitions to invest in private sector development and food security. Among various objectives the embassy undertook to contribute to:

Enhanced smallholder integration in four agro-food value chains

These value chains: Dairy, Horticulture, Potatoes and Fish Farming were selected based on their potential for change, Dutch business interests and trade/investment leads that could be leveraged.

Under horticulture, the following intended results were formulated:

- By 2015 about 5000 horticulture smallholders will be sustainably linked through chain managers to domestic and regional retail markets.
- By 2015, more than a 100,000 potato will be linked to retailers (e.g. supermarkets and fast food) in Kenya and in the region, thereby benefiting from fast track importation of seed potatoes and commercial multiplication.

At this time a consortium of three NGOs led by Solidaridad Eastern & Central Africa Expertise Centre (SESAEC) was stimulated to develop a 'fast track proposal' for a Horticulture and Food Security programme (HFSP) aimed at Strengthening smallholder entrepreneurial farmers in Kenya, initially focusing on the fresh bean and avocado value chains. This fast track phase ran from September 2011- December 2012, and focused on three business cases. This was followed by a proposal for a second phase from January 2013 – December 2014, which expanded the scope of the project to six business cases.

In its revised MASP for 2014-2017, EKN reaffirmed its commitment to invest in the horticultural sector. Also, EKN more explicitly stressed that its agriculture and food security programme was to reflect an integration of trade and development cooperation, as part of a transition of the embassy's strategy from aid to trade. This is reflected by two supplementary objectives for the programme 1) to invest in sustainable value chains for produce into the Netherlands and the EU, and 2) to invest in creating a market for Dutch knowledge, goods and investments in the Kenyan agro-food sector. Also a phasing out for EKN's agriculture and food security programme was planned for 2020.

In 2014 planned the final year of HFSP the focus was put on the implementation of the last three business cases, upscaling results from the first business cases. However, due to belated payment by EKN, as a result of a rejected annual report, delays occurred in the implementation and finalisation of the project. This prompted a request for a budget neutral exemption which was granted. Due to challenges in the finalisation of the programme, a second budget neutral exemption was requested and granted until June 2015.

To inform HFSP's final report, an evaluation was commissioned by SESAEC. This evaluation was generally positive about the programme concluding that the programme had reached and benefitted 11.000 farmers. The first submission of the final report however was rejected it was felt the report failed to realistically present the results achieved by the project, its tone exaggerated the achievements of the project and in short did not provide the basis for accounting for the money spent under the project. A second version was approved, while concerns remained as to whether the project delivered what it could have. This generated the desire for an external evaluation to draw lessons on what could have been done differently to effectively manage the project to achieve trade and development results.

Objective of the evaluation

- To evaluate the effectiveness and the efficiency of the Horticulture and Food Security Programmes and
- To draw lessons for the Embassy of the Kingdom of the Netherlands, HFSP consortium partners and Solidaridad Network about programme management and programme implementation.

Due to the learning character of this evaluation, it is strongly recommended that a representative of the Solidaridad Network through Solidaridad Netherlands is involved in the evaluation team

Scope of Work

To contribute to this objective the evaluation will focus on the following:

- Assess the outputs realised by the HFSP: have the activities carried out efficiently contributed to delivering outputs planned for (Proposal phase 1, phase 2) and presented in the annual reports to the embassy.
- Assess the success of HFSP's upscaling strategy: has the project been successful in upscaling the results within the business cases to create a broader sector impact?
- Assess whether the project has contributed to sustainable business cases and, sustained trade and investment relations between Kenya and the Netherlands?
- Assess value for money: have the outcomes of the project and the assumed impact of farmers, agribusiness and trade relations with the Netherlands justified the funds spent under HFSP?
- Assess the synergy with other Dutch funded activities (e.g. FDOV, NICHE, 2Scale, 2g@thereOS).
- What lessons can Solidaridad network learn about designing and managing such a programme
- What lessons can EKN draw about effective and efficient programme design and management

It is estimated that the assignment takes a total of 10 days preparations, 15 days of Nairobi based interviews, 15 days of field visits and 10 days of report writing.

Methodology

The evaluation team will study relevant project documentation: proposals, reports to EKN, project correspondence with EKN, internal project reports, steering committee minutes, financial reporting and internal financial records.

The evaluation team will have in-depth interviews with direct programme stakeholders: EKN representatives, current project management staff, consortium staff, previous project management staff, responsible staff for activities with private sector partners, representatives of farmers involved in business cases.

This will require work in Nairobi and field visits to project representative or problematic project sites such as: Nakuru/Bomet, Nyandarua, Kirinyaga/Murang'a/Nyeri.

Competencies

A team of one or two consultants will combine the following competencies:

- Higher university qualification in a relevant field
- Experience with private sector development and agricultural value chains in Africa
- Strong track record (10 years) on PME, particularly relating to end of project evaluations
- Experience with internal organization and accountability within not-for-profit development organizations
- Experience with contract management with private sector companies
- Past experience working in Kenya is an added advantage
- Financial auditing skills
- Experience with DGIS and Netherlands Embassy programme management and reporting procedures.
- Strong interpersonal and intercultural communication skills, and networking capacities;
- Fluency in English and strong communication and writing skills.

The team will facilitate appropriate involvement of a representative of the Solidaridad Network in the evaluation in such a manner that lessons are drawn, but critical strength of conclusions is not diluted.

Duration

The assignment should last no longer than sixty calendar days

Deliverables

Draft report within fifty days after commencement of the assignment delivered to SESAEC for a factual check and to EKN for comments and remarks.

Final report within 10 days after receipt of comments and remarks from EKN.

Proposal

Qualified consultants that meet the above requirements are invited to submit their technical and financial proposals, including CVs, and a minimum of two references for each team member within 14 days from the date of receipt of the call for proposals. The technical proposal should include their proposed approach and methodology, also with regard to sampling of business cases along with a section detailing understanding of the assignment and/or any gaps identified in the terms of reference. The financial proposal should contain a clear breakdown of the costlines.

Annexes

- HFSP fast track proposal
- HFSP 2nd phase proposal
- HFSP contracted evaluation
- HFSP Final report
- EKN Assessment memo, memo extension

Annex 2: Documentation

EKN documents

- **Embassy of the Kingdom of Netherlands, Kenya: Multi- Annual Strategic Plan 2014-2017** (21 pages)
- **Solidaridad, 2015: Final Program Report-** Horticulture and Food Security Program- 2011-2015 (74 pages)
- **Agribase Consultants, May 2015:** Evaluation for The Horticulture and Food Security Project (HFSP)- Final Report (88 pages)
- **Research Solutions Africa (RSA), December 2015.** Report of a study on fresh vegetables market in Kenya. Desk review by Research Solutions Africa (RSA) Ltd. Report commissioned by EKN, Nairobi. 42 pp.
- **AgriProFocus Nairobi, January 26-27, 2016: Workshop Report.** Sustainable partnerships for food security Increasing the efficiency of current and future Public Private Partnerships in the context of food security in Kenya (21 pages)

Solidaridad documents

PHASE 1 (Fast Track October 2011- December 2012):

- **Solidaridad, Version 24th of August 2011:** Horticulture and Food Security Strengthening smallholder entrepreneurial farmers in Kenya Fast track focusing on the value chains of fresh beans and avocados; **Fast Track Proposal** (14 pages)
- **Noble Consultants Company Ltd, 22nd March 2012:** Report on Baseline on Horticulture & Food Security in Kenya (60 pages)
- **Solidaridad and Partners, Version 26th of March 2013:** Horticulture and Food Security Program: Strengthening smallholder entrepreneurial farmers in Kenya-Fast Track Phase - focusing on the value chains of fresh beans and avocados- **Annual Report: 1 January - 31 December 2012** (14 pages)

PHASE 2 (January 2013- March 2015):

- **Solidaridad and Partners, Version 7th of November 2012:** Horticulture and Food Security in Kenya Innovative business solutions driven by the private sector & up scaling with entrepreneurial (smallholder) farmers, **Proposal 2nd Phase**
- **Solidaridad, Version January 2013:** Copy of Horticulture Program Result Chain (Excel sheet)
- **Solidaridad:** Monitoring Plan (Excel sheet)
- **Solidaridad and Partners, Version 28th of February 2013:** Horticulture and Food Security in Kenya. Innovative business solutions driven by the private sector & up scaling with entrepreneurial (smallholder) farmers 2nd Phase **Annual Plan 1 January - 31 December 2013** (12 pages)
- **Solidaridad and Partners:** Horticulture and Food Security Program Phase Two: Horticulture and Food Security in Kenya- strengthening smallholder entrepreneurial farmers in Kenya - **Annual Report: 1 January - 31 December 2013** (12 pages)

- **Solidaridad and Partners:** Horticultural Production and Marketing a Training Guide (50 pages)

FINAL PROGRAM DOCUMENTS:

- **Solidaridad, 2016:** SECAEC Horticulture and Food Security Program Financial Report 2011-2015 (1.5 page).
- **Solidaridad, 2015:** Final Program Report Horticulture and Food Security Program (HFSP) 2011- 2015 (60 pages)
- **Solidaridad:** Summary of Business Cases, Locations & Contacts (6 pages)

BC1

Noble Consultants Company Ltd, October 2012: **Baseline Survey on the Introduction of Avocados** to Smallholder Farmers in Narok and Bomet Districts (93 pages)

SNV, July 2012. The Avocado value chain in Kenya. 71 pp.

Songoroi (5th March 2012): **Business Implementation Plan**, Horticulture and Food security- Strengthening smallholder entrepreneurial farmers in Kenya Focusing on **value chains of avocados and beans** (21 pages)

Solidaridad and Partners, April 2012: **Assessment of business case 1- Avocado:** Strengthening Smallholder Farmers in Narok and Bomet Districts in the development of Avocado Production and Food Security (4 pages)

Songoroi, 2013: Semi Annual Report (Sept 2012 - April 2013) (4 pages)

Songoroi, 2015: List of farmers and # of avocado plants for Isei and Mulot in Bomet and Narok Counties (Excel sheet)

BC2

CropCare Technologies:

CropCare **Project Proposal- BC2 January - March 2013** (15 pages)

CropCare, **January 2013: BC2 Workplan- January- June 2013** (Excel sheet); CropCare **Project Proposal- BC2 January - March 2015** (15 pages)

Molly Flowers:

SECAEC: **Project Proposal 5- January - March 2015** (10 pages)

SECAEC version of 25th January **2011:** Project Appraisal (3 pages)

BC3

SNV, August 2012. The Beans value chain in Kenya. 59 pp.

Hillside:

Hillside December 2013: Report Assessment - (2 pages)

Hillside, 21st September 2015: Final Report- February to August 2015 (9 pages)

Wamu Investment Ltd.:

Wamu Investment Ltd., 6th March 2013: Horticulture and Food security Program: **Project Proposal** (16 pages)

WAMU, January 2015. Project Report **July - December 2014** (18 pages)

Wamu, 1st January 2015: Project Report- Reporting Period **1st January 2015** (16 pages)

BC 4

Noble Consultants Company Ltd, November 2013: Report on **Baseline Survey on the Potato Value Chain** in Selected Counties in Kenya (48 pages)

Esei:

Esei, 1st April 2014: Esei Business Implementation Plan- April to December 2014 (11 pages)

Esei, 31st December 2014: Esei Business Implementation Progress Report- Reporting Period April- December 2014 (14 pages)

Mamu Ltd:

Mamu, 10th April 2014: Mamu Business Implementation Plan 1st May to 31st December 2014 (10 pages)

Solidaridad and Partners (un dated): Report of an Assessment of the Capacity of Munyeki Agricultural Marketing Unit (Mamu) to deliver on the results of its Business Plan Proposal for Business Case 4 (2 pages)

Sereni Fries Ltd.:

Sereni, 7th August 2014: Sereni Business Implementation Plan - August to December 2014 (11 pages)

Sereni, 5th February 2015: Sereni Business Implementation Progress Report- August 2014 to March 2015 (16 pages)

Suera:

Suera Company Ltd, 11th June 2014: Business Implementation Plan - 6 months period (15 pages)

SCOPEinsight, July 2014: Scope Report for Suera Company Ltd (27 pages)

Suera, 14th January 2015: Project Report: Reporting Period June to December 2014 (14 pages)

BC5

Kimwangu CBO:

Kimwangu CBO, 7th August 2014: Project Proposal- 12 months (20 pages)

Kimwangu CBO, 24th December 2014: Smallholder Passion Fruit Project for Improved Livelihoods Progress Report- Period 21st October to 30th December 2014 (H&F/KE/BC5/Kimwangu CBO/2014 (24 pages)

Makueni County Fruit Processors Cooperative Society (MCFPCS) Ltd.:

MCFPCS, ,

7th August 2014: Project Proposal- 12 months (19 pages)

MCFPCS,

8th November 2014: Business Implementation Plan -Period 1 year (15 pages)

Makueni County Fruit Processors Coop Society Ltd. (MCFP CO-OP):

9th September 2014: Fruit Trade Support Program: Semi Annual Report (January to August 2014 (14 pages)

22nd September 2015: Fruit Trade Support Program: Progress Report (March to September 2015 (8 pages)

STAWI:

Stawi Foods and Fruits Limited 14th August 2014: Project Proposal (16 pages)

Stawi, 23rd March 2015: Project Report: Reporting Period 2nd February 2015 to 31st

March 2015 (10 pages)

BC 6

Equator Kenya Ltd., 4th March 2013: Project Proposal- April 2013 - March 2015 (11 pages)

Equator Kenya Ltd., 4th March 2015: Project Report: Reporting Period July 2014 to March 2015 (21 pages)

IDESO Prime, January 2014: Baseline Survey Report on the African Bird's Eye Chilies Value Chain in Selected coastal Counties in Kenya (72 Pages)

Outcome data in table format, received from Equator, March 2016.

Model (format) Outgrowers contract by Equator.

Kenya policy documents

Government of Kenya, 2009: Agricultural Sector Development Strategy (ASDS) 2009-2020 (160 pages)

Government of Kenya, June 2012: National Horticulture Policy (74 pages)

Government of the Republic of Kenya, 2013: Second Medium Term Plan, 2013-2017 (194 pages)

Government of the Republic of Kenya, 2007: Kenya Vision 2030, The Popular Version (32 pages)

Contract farming:

- Yuca Waarts & Gerdien Meijerink, June 2010. The HCDA Code of Conduct in Kenya: Impact on transaction costs and risks. For the Netherlands Ministry of Foreign Affairs, by WageningenUR. 31 pp.
- Wageningen UR, ICCO and RVO (Previously called EVD), 2011. Contract farming Checklist, tool for reflection on critical issues in contract farming arrangements in developing countries. [See link](#). 10 pp.
- Nicholas Minot (IFPRI), 2011. Contract farming in Africa: Opportunities and Challenges Presented at the AAMP Policy Seminar "Successful Smallholder Commercialization" 22 April 2011 Lemigo Hotel, Kigali, Rwanda. 25 pp.

Annex 3: Approach and methodology

See separate document.

Annex 4: Criteria and considerations for selection of the counties

HFSP COUNTY SELECTION MATRIX by EAC and FSAS

Final version 24th February 2016

The matrix as below was developed to identify a representative sample of BCs and counties for the evaluation (interviews, field visits, FGDs). As central principle we have taken diversity. For instance: select counties in such a way, that it includes a mix of well performing and more 'problematic' counties, or e.g. select counties with easy market access and with not easy market access.

After consultation with EKN and Solidaridad we have agreed to the following list for our evaluation, while the notes below the matrix explain the reasoning and considerations.

FINAL LIST OF AGREED COUNTIES WITH EKN AND SOLIDARIDAD:

- 1. Narok**
- 2. Bomet**
- 3. Nakuru**
- 4. Nyandarua**
- 5. Kirinyaga**
- 6. Kilifi**

County	Business case/s (BCs)	¹ Performance (well/difficult (problematic) ¹ as per EKN	² Enabling Environment (good/fair)	Accessibilit y (max 3 hrs)	³ Scale of investment (highest=1 /lowest = 10)	⁴ # of sector players involved	Market access(easy / not easy)	Market (export / local)	⁵ Poverty rating (high/low)	SELECTED COUNTIES As agreed with EKN & Solidaridad
Nyandarua	2, 3, 4	Difficult	Good	Yes	1	8	Easy	export/ local	Low	Nyandarua
Nakuru	2, 4	Difficult	Good	Yes	4	8	Easy	export/ local	Low	Nakuru
Kirinyaga	3, 5	Difficult	Good	Yes	5	6	Easy	export/ local	Low	Kirinyaga
Machakos	2	Well	Good	Yes	10	5	Easy	export	High	
Nairobi	4	Well	Good	Yes	6	7	Easy	local	Low	
Meru	3,4, 5*	Well	Good	Yes	3	6	Easy	export/ local	Low	
Kwale	6	Well	Good	No	8	5	Not easy	export	High	
Nyeri	2	Difficult	Good	Yes	10	7	Easy	export	Low	
Murang'a	3	Difficult	Good	Yes	7	7	Easy	export	Low	
Bomet	1, 4	Difficult	Good	No	2	6	Easy	export/ local	High	Bomet
Narok	1, 4	Well	Good	Yes	2	6	Not easy	export/ local	Low	Narok
Kilifi***	6	Well	Good	No	8	5	Easy	export	High	Kilifi
Tana	6	Well	Fair	No	8	5	Not easy	export	High	
Lamu	6	Well	Fair	No	8	5	Not easy	export	Low	
Makueni**	5	Well	Good	Yes	9	5	Easy	Export/ local/	High	

REMARKS

¹ **Problematic (difficult) project sites**;- were identified as Nakuru, Bomet, Nyandarua, Kirinyaga, Murang'a and Nyeri as pointed out by the EKN in the TOR. All other sites/ counties are assumed to have performed well.

² **Enabling environment;**— considerations made were based on various issues such as trade, export and marketing policy, legal and regulatory frameworks, institutional capacities in the relevant value chains, county development support capacity e.g. status of infrastructure, security, community cohesion across ethnic lines (social capital formation), etc. that may affect access to markets, both local and export among other.

³ **Scale of investment by EKN;**— rated based on investment/ funding for the BCs implemented by the counties, Rating No. 1 being the highest investment.

⁴ **No. of players;**— categorized as Farmer groups, Companies, Consultants, NGOs, Consortium, Banks, Government institutions, Associations and a total of 8 categories were identified;— Rating denotes no. of categories involved in the BCs implemented.

⁵ **Poverty rating;**— rating is based on data from the Commission on Revenue Allocation (CRA) of Kenya. Counties were rated as having high poverty level where their rating by the commission is over 50% i.e high poverty rating means counties that are poor while low means richer counties. Counties with higher poverty ratings are likely also to have household food security problems. So, if the programme aimed at addressing food security challenges for households involved in these business cases and value chains, it might be good to target the poorer programme counties as well to see greatest impact or outcome of the programme on household food security

*Although the End of HFSP programme Report, 2015 (annex 5) indicates BC 5 to have been implemented in Meru County, there is no evidence on this, however BC 3 was implemented though not indicated in the same annex.

****** Makueni County was missed out in the final report, where BC 5 was implemented and also represents a poor county. Following discussion with EKN and Solidaridad, this county will not be sampled, as BC5 is already represented in Kirinyaga and as it would take too much time.

******* Kilifi County is selected to represent BC 6. It is reported to have involved or reached a large number of farmers (7000) and also being due to high poverty rating, it will be important to review the impact of the project intervention especially the projects contribution to incomes and food security among others. Due to the distance and other logistical challenges, a different approach will be used. Instead of visiting the county, we shall involve telephone discussions with relevant stakeholders, and if possible meet company reps in Nairobi. We shall also identify a qualified extension officer residing in the county to administer the interview questions, which will then be interrogated and validated by the team.

Bomet and Nakuru counties;— following a skype meeting with EKN and Solidaridad, it was agreed to include these counties, especially the boundary area where BC 1 and 4 take place, in the evaluation because of the diversity of the Business Cases they implemented as well as the results achieved. In addition, EKN and Solidaridad clarified on their focus for the project which was mainly on Business case.

Annex 5. Overview of persons /organizations interviewed

Summary of FGDs + Interviews by evaluation team

Categories	# of interviews (incl.FGD)	# of respondents	# of male	# of female
Farmers:				
BC1	2	16	10	6
BC2	2	26	21	5
BC3	3	34	24	10
BC4	1	6	4	2
BC5	0			
BC6	1	4	0	4
<i>Subtotal farmers</i>		<i>86</i>	<i>59</i>	<i>27</i>
Partner companies	6	10	8	2
National/ County Government	6	8	6	2
Service providers	4	4	3	1
Consortium	5	9	6	3
Donor EKN	1	2	1	1
Total # of interviews + FGDs	31			
Total # of respondents		119	83	36

*Note: Focus group discussions (FGD) are counted as one 'meeting';
while the number of Beneficiaries present are more.

For full list see next page with overview of all respondents for interviews and Focus Groups Discussions.

During the debriefing meeting on 22nd of March 2016 participated staff of SNV, EKN, Solidaridad, HIVOS and AgriProFocus.

Focus Group Discussions & interviews HFSP Evaluation March 2016									
	County/location	Name of organization	Business case(s)	Project relation/activity	Name person (except for benef.)	Total	Men	Women	Position
FARMER GROUPS									
	Narok/ Mulot	Mulot coop	BC 1	beneficiary		10	6	4	
	Bomet	Isei coop	BC 1	beneficiary		6	4	2	
	Nakuru/ Njoro	Lusiro	BC 2	beneficiary		9	8	1	
	Nakuru/ Njoro	Kihingo	BC 2	beneficiary		17	13	4	
	Nyandarua/ Kinangop	Holy Oak Group	BC 3	beneficiary		17	14	3	
	Nyandarua/ Kinangop	Kitogo	BC 3	beneficiary		14	10	4	
	Kirinyaga	Kabaru	BC 3	beneficiary		3	0	3	
	Nyandarua/ Nyahururu	Mamu Farmers	BC 4	beneficiary		6	4	2	
	Kilifi/ Malindi	Amani Majengo, Kuluhiro Self Help, Amkeni Women Group	BC6	beneficiary		4	0	4	
					Total Farmers	86	59	27	
PARTNER COMPANIES:									
	Narok/ Bomet	Songoroi Ltd/ Mara Farming	BC 1	Buyer	Christian Bernard, Kennedy Onyango,	3	3	0	Director, Agronomist
	Nakuru/ Njoro	Njoro Canning	BC 2	Buyer	Steve Omondi, Sudheer D. Vaidya	2	2	0	Agronomist, Director
	Nairobi	Wamu Investment	BC 3	Buyer	Stephen Wachira, Mr. Mu	2	2	0	Directors
	Nairobi	Hillside Green Growers	BC 3	Buyer	Mrs. Eunice Mwongera	1	0	1	Director
	Kilifi/ Malindi	Equator Kenya Ltd	BC 6	Buyer	Almut Bayerkoehler	1	0	1	Director
	Nyandarua/ Nyahururu	Mamu Ltd	BC 4	Buyer	Leonard Ndambuki	1	1	0	Chairman
NATIONAL/ COUNTY GOVERNMENT:									
	Nairobi	State Department of Agriculture		Government	Mr. Nehemiah Chepkwor	1	1	0	Assistant Director, Horticulture
	Nairobi	Export Promotion Council		Government	Mr. Charles Tumbo	1	1	0	Manager, Trade information & Business Service
	Narok/ Mulot	Ministry of Agric	BC 1	Government		2	1	1	Subcounty Min Agric
	Bomet	Ministry of Agric	BC 1	Government	Robert Ngeno, Mr. Ruto	2	2	0	Assistant County Director, Agric, Crops Officer
	Nyandarua/ Nyahururu	Ministry of Agric	BC 4 + BC 3	Government	Mrs. Margaret Kambo	1	0	1	County Director Agric
	Kirinyaga	Ministry of Agric	BC 5	Government	Mr. Benson Mureithi	1	1	0	County Director Agric
SERVICE PROVIDERS:									
	Nairobi	Crop Care Technologies	BC 2+ BC 3	Consultant	Gerald Mutua	1	1	0	Agronomist
	Kiambu/ Tingoni	Molly Flowers	BC 2+ BC 3	Consultant	Warmolt Tonckens	1	1	0	Managing Director
	Nyandarua/ Kinangop	Solidaridad Agronomist	BC 3	Consultant	Anne Wanjiru	1	0	1	Agronomist
	Nakuru/ Naivasha	Equity Bank		Financial provider	Gilbert Kaburu	1	1	0	Credit Manager
CONSORTIUM:									
	Nairobi	Solidaridad	BC 1 - BC 6	Lead Consortium	Mr. Karugu, Mr. Kamanu, Peter Okong'o	3	3	0	Director, Co- Director, Programme Manager Horticulture
	Utrecht, Netherlands	Solidaridad		Head office Solidaridad	Mrs. Saskia Nijhof	1	0	1	Head of PME department
	Nairobi	SNV	BC 1 + BC 4	Consortium Team	Alphonse Muriu, Stefan Engels, Jane Kamau	3	2	1	Stefan and Jane of HortIMPACT
	Nairobi	Agriprofocus	BC 1 - BC 6	Consortium Team	Maurine Munjua	1	0	1	
	Nairobi	HIVOS		Consortium Team	Boniface Kiome	1	1	0	
EKN	Nairobi	Embassy of the Kingdom of the Netherlands	BC 1 - BC 6	Donor	Mr. Melle Leenstra and Mrs. Rose Makenzi	2	1	1	
					TOTAL	119	83	36	

Annex 6: Format Data sheet # of farmers and income generated

HFSP Evaluation					
Companies requested to fill out					
- For the years since your involvement in HFSP, kindly provide the figures					
- Please fill this table separately for each product					
- Only fill out relevant boxes; e.g. if the activity started only in 2013, you can leave 2011 and 2012 columns empty					
Date:					
NAME COMPANY:					
COUNTY/COUNTIES:					
BUSINESS CASE NUMBER:					
PRODUCT:					
	YEARS				
INDICATOR:	2011	2012	2013	2014	2015
# of farmers that supplied to your company : male					
# of farmers that supplied to your company : female					
Volume of product purchased (tons)					
Total payments made to farmers for this product (KES)					
Average farm gate price you paid during this year (KES/kg)					
Quality of produce (grades if applicable)					
% of volume rejected					
# of farmers trained: male					
# of farmers trained: female					
Yield (kg/acre)					
Source(s) of information:					
1)					
2)					
3)					
etc					

Annex 7: Executive summaries, objectives and KPIs of proposals phase 1 and 2

Executive summary of Fast track -phase 1 (September 2011 – December 2012):

Project name	Horticulture and food security – Strengthening smallholder entrepreneurial farmers in Kenya – fast track focussing on value chains of fresh beans and avocados.
Project time frame	Fast Track (September 2011- December 2012) <ul style="list-style-type: none"> • 2011: Value Chain Analysis & Start first business cases • 2012: Implementation and Scaling up Phase II (2013-2014) <ul style="list-style-type: none"> • 2013: Identification of new business cases • 2014: Impact measurement and phasing out
Countries	Kenya
Program Overall Objective	To improve the incomes of the smallholder producers and their food security situation, as well as contributing to improved sustainability and efficiency of the horticultural sector in Kenya, during fast track especially in the value chains of fresh beans and avocados.
Specific Objectives	<ol style="list-style-type: none"> 1. To contribute to increased marked share of horticulture smallholder producers and more sustainable and efficient value chains (especially fresh beans and avocados) in Kenya and improved access to healthy food and food security by supporting producers, especially smallholder producers, to increase productivity and quality production for the domestic and regional markets as well as the export markets creating jobs and income as well as private assets; 2. To stimulate improved business solutions to further develop a market led horticulture sector in Kenya, giving smallholders improved access to finance and credit, inputs and extension services and technology; 3. To stimulate knowledge development and policy influencing about the sustainable horticulture sector in Kenya and improving food security, through value chain assessments, baseline documentation, systematization of best practices, establishing centers of excellence, research and development of new models and tools for smart and sustainable land use and impact assessments; 4. To improve risk resilience of Kenyan horticulture, through stimulation of market differentiation, offering more stable growth opportunities for participating smallholder producers.
Expected Results/ Main outputs	Fast track <ul style="list-style-type: none"> • Business case 1: Smallholders in Narok have entered the production/ value chain for avocados • Business case 2: Horticulture smallholder groups have increased productivity and quality and are linked to retailers • Business case 3: Fresh beans smallholders' benefiting the EU premium markets Phase II <ul style="list-style-type: none"> • Business case 4 and 5 to be identified in 2012

	<ul style="list-style-type: none"> • Impact measurement and phasing out.
Total budget	<ul style="list-style-type: none"> • Fast Track: 203.695.000,- Ksh (approx 1.5 million euro's) • Phase II: 324.000.000,- Ksh (approx 2 million euro's)
Important stakeholders	<ul style="list-style-type: none"> • Producers/ Exporters, such as Indu-farm, Tropical Fresh FairFields, potentially AgriFRESH Kenya Ltd. • Business support partners and input suppliers, such as Mivena, Support networks, such as Agri-Profocus Agri-Hub Kenya • Trade associations, such as FPEAK • Government Institutions, MOA (Ministry of Agriculture) HCDA • Civil Society Organizations, including Dutch NGOs in the region SNV, HIVOS, ICCO and Solidaridad

Source: Fast track proposal on fresh beans and avocado, version 24th August 2011 by Solidaridad.

Executive summary of Phase 2 (Jan 2013– June 2015 -incl extension of 6 months):

Project name	Horticulture and food security in Kenya – Innovative business solutions driven by the private sector and up scaling with entrepreneurial (smallholder) farmers – 2 nd Phase
Project time frame	<p><i>Fast Track (September 2011- December 2012)</i></p> <ul style="list-style-type: none"> • 2011: Value Chain Analysis & Start first business cases • 2012: Implementation business case 1,2 and 3 <p>Phase II (2013-2015)</p> <ul style="list-style-type: none"> • 2013: Identification of Business Case 4,5 and 6 and + scaling up 1,2 and 3 • 2014: Implementation and scaling up of all cases • 2015: Impact measurement and phasing out
Countries	Kenya
Program Overall Objective	To improve the incomes and livelihoods of horticulture smallholder producers and the food security situation in Kenya, as well as contributing to improved sustainability and efficiency of the horticultural sector in Kenya.
Specific Objectives	<ol style="list-style-type: none"> 1. To contribute to increased production of food crops by smallholder producers increasing their market share, and improving their access to healthy food, through supporting producers, especially smallholder producers, to increase yield per unit and improve product quality for the domestic, regional markets and the export markets. ; 2. To stimulate to a sustainable and efficient horticulture sector in Kenya through development of innovative business solutions with horticulture sector players. To facilitate interventions leading to more farmer smallholders having improved access to finance services, inputs, extension services and technology, and reducing the ecological food prints (incl water) 3. To stimulate up scaling by deepening outreach and participation of more small holder farmers and private sector players involved in the horticulture sector in Kenya, focusing attention to under- or unexploited regions of the country. Consequently improving risk resilience of Kenyan horticulture (through

	<p>exploiting agro-ecological conditions suitable for wide range of horticultural crops, enhance value addition, stimulation of market differentiation and offering more stable growth opportunities for participating smallholder producers.</p> <p>4. To stimulate knowledge development and policy influencing about the sustainable horticulture sector in Kenya and improving food security, through forming NGO's & Private Sector consortia who jointly undertake value chain assessments, baseline documentation, systematization of best practices, establishing centers of excellence, research and development of new models and tools for smart and sustainable land use and impact assessments.</p>
Expected Results/ Main outputs	<p><i>Fast track (2011 – 2012)</i></p> <ul style="list-style-type: none"> • <i>Business case 1: Smallholders in Narok are actively participating in the production/ value chain for avocados and other food crops</i> • <i>Business case 2: Horticulture smallholder groups have increased productivity and quality and are linked to retailers</i> • <i>Business case 3: Fresh beans smallholders' benefiting the EU premium markets</i> <p>Phase II (2013 – 2015)</p> <ul style="list-style-type: none"> • Business case 1: Smallholders in Narok are earning increased incomes from horticulture (avocado's) + Private sector sources more produce from smallholders in Narok • Business case 2: Horticulture smallholder groups market together and have increased incomes from horticulture + Private sector sources more produce directly from smallholder groups • Business case 3: Smallholder groups in Kenya benefit from the EU premium market + Exporters and importers source more produce directly from farmer groups • Business cases 4, 5 and 6 to be identified and started in 2013 • Impact measurement and phasing out.
Total budget	<ul style="list-style-type: none"> • <i>Fast Track: 203.695.000,- Ksh</i> • Phase II: 511.000.000,- Ksh
Important stakeholders	<ul style="list-style-type: none"> • Producers/ Exporters, such as Indu-farm, FairFields, potentially AgriFRESH Kenya Ltd. • Business support partners and input suppliers, such as Mivena, Rijk Zwaan, Kenfab Services Ltd, Nikifarm care, Amiran, Pannar, Equity bank, Co-op bank, Chase Bank. • Support networks and knowledge institutions, such as Agri-Profocus Agri-Hub Kenya, DLV, KARI, JKUAT, KEPHIS • Trade associations, such as FPEAK, Thika Practical Training Centre • Government Institutions, MOA (Ministry of Agriculture), Ministry of Cooperatives, HCDA • Civil Society Organizations, including Dutch NGOs in the region SNV, HIVOS and Solidaridad

Source: 2nd Phase Proposal Horticultural & Foodsecurity, version 9th November 2012 jp, by Solidaridad

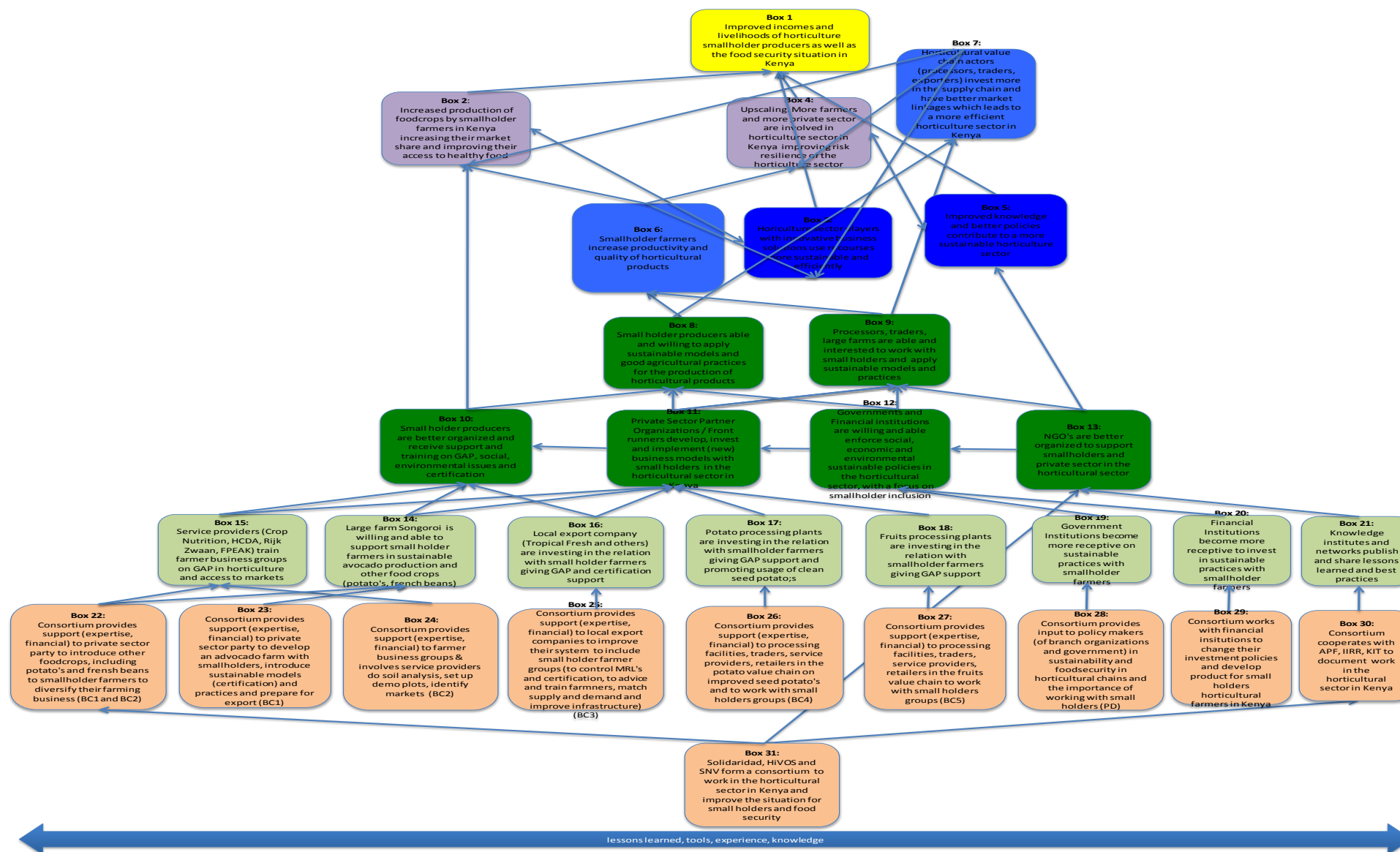
KPIs:

The following KPI's were suggested to monitor the outputs and outcomes⁵:

Core Strategies	Suggested KPIs
Producer Development & Workers support	# of producers or workers trained on sustainable practices (gender/ age group disaggregated)
	# of producers or workers certified against a sustainability standard (gender/ age group disaggregated)
	# of jobs created and returns per labour day (gender/ age group disaggregated)
	# of producer organizations or factories involved in improvement programs
	# of domestic and regional wholesale/retail companies supplied directly by smallholders groups
	# producers with increased income from horticulture products
Food security	# of producers and workers with increased food security (gender and age group disaggregated)
Policy Influencing	# of private sector stakeholders working with smallholders
	% of public versus private sector contribution

Next page: the Overall Result Chain

⁵ Source: proposal HFSP phase 2, version 9th November 2012



Annex 8: Key questions as in interview format for individual farmers

HFSP External Evaluation

Date of interview:

Place and county:

Name of person(s) met:

Male/female;

young/old

Other relevant characteristics

Name of interviewer

Introduction and explanation of evaluation

	QUESTIONS	ANSWERS
1	Please explain to us shortly the history of the HFSP in your community. When did it start? How did it start?	
2	Selection process: How were you selected as a 'beneficiary' in this programme? Why were you selected?	
3	Problem analysis: what did you see as the main problems in the production and market access at the start of HFSP /your involvement? You may refer to own problems as a farmer and to wider, external issues.	
4	Role Which was your role in HFSP? Your appreciation of that role? Try to talk about the farmer's possible involvement in different stages: planning, implementation, M&E, or otherwise.	
	Programme appreciation	
5	What were the main activities of HFSP in which you were involved? Which activity was most successful; least successful? Why?	
6	Did HFSP change its implementation, for example the choice of activities; the inputs supplied, training topics? Do you know or remember why these changes happened?	
7	Check: Did other similar VC projects	

	take place in your community (or nearby villages!) over last 5 years? How do you compare these projects with HFSP? Differences? Positive, negative; examples?	
	Outcomes and impact	
8	<p>Effectiveness: If a visitor would have visited your farm (or household) 4 years ago (2012, at start of programme) and now, what would be the main changes he/she would have seen?</p> <p>Try to list the 3-5 most important or significant changes on your farm and in your business? Why do you consider them significant? Specify them clearly!</p> <p>Check on access to inputs; profitability (C/B ratio); food security; crop volumes sold; quality of crops; crop incomes; farm diversification; risk (perception); and others.</p>	
9	<p>Check: on Market access: further to previous question: distinguish between input markets and sales markets. What is easy & difficult in accessing markets? Why? How has this changed over last 4 years?</p>	
10	<p>Outcome distribution: Did all selected farmers benefit equally? If yes, how do you know? If not, who benefited most? Why? Who benefited least? Why?</p> <p>Attention for gender (in particular), youth, other vulnerable categories.</p>	
11	<p>In case of observed unequal benefits, which measures were taken to reduce these differences? (if any) By whom?</p>	
12	<p>VC relations: as compared to 4 years ago what have you noted as most significant changes with regard to your relations with the business or VC actors, you are collaborating with? Positive and negative changes? Why? How did these changes</p>	

	happen?	
13	VC relations: same question for Dutch businesses you have collaborated with.	
14	Policy environment: as compared to 4 years ago what have you noted as most significant changes with regard to your relations with government, business climate, policy changes relevant for you? Positive and negative changes? Why? How did these changes happen?	
15	Attribution: To whom do you attribute these changes? (How) did HFSP contribute to these changes? In your opinion, which activities contributed most to these changes? Why?	
16	(optional) Sources of Income: over the last 4 years what have been your main 3-5 income sources? (on-farm or off farm) Try to rank them! If you try to compare those income sources 4 years ago and now, how has the importance or weight of the income from the HFSP 'business case' changed as compared to the other sources? Why and how?	
17	(optional) Income spending: during the last year which have been the 5 most important items for which you used your total income? Try to rank them! If you try to compare that income spending of last year with the 5 most important spending items at the start of the HFSP programme, what has changed in the meantime? Why and how?	
	Monitoring and evaluation	
18	Record keeping: which records do you keep of your business case? Why do you keep records? How do you appreciate record keeping? What is easy and what is difficult in record keeping? Can you show your records?	

19	<p>Unintended changes: Apart from the changes that we discussed already before, there may also be unintended or surprising changes: positive and/or negative.</p> <p>Positive change: Which changes surprised you most? How did these positive unintended changes happen? For who was this positive and why?</p>	
20	<p>Negative change: Which negative changes caused you most concerns or challenges? How did these 'negative' changes happen? For who was this negative and why?</p>	
21	<p>What was then done about these negative changes to respond to them? By whom?</p>	
	Sustainability	
22	<p>Sustainability: which comment can you give us whether you will be able to sustain these outcomes? Why? Why not? Which examples of sustainability can you share with us?</p>	
23	<p>External appreciation: which feedback did you receive about the appreciation of HFSP by others in the community or beyond? Explain.</p>	
24	<p>Copy effects: Have you observed that other farmers also apply your improved business practices on their fields and crops? Why do they copy? Why not? Any specific examples?</p>	
	Concluding questions	
25	<p>What do you consider as remaining key bottlenecks for success of your business case? Internal and external obstacles? Why?</p>	
26	<p>What do you consider as the key opportunities for the success of your business case? Internal and external opportunities? Why?</p>	
27	<p>Any final comment or question that you wish to share with us?</p>	

Annex 9: Most Significant Change method

Most Significant Change (MSC) method

The use of MSC will especially look for changes within the targeted beneficiaries in terms of their overall livelihood, food security and income situation, whether positive or negative. Here we refer to changes as a result of the increased income by the selected Value Chain: - What use was made of this income by and for whom? For investment in production? For consumer goods? For health and education? This is the appropriate moment to monitor and evaluate at the gender and generation dimension. It is also relevant to assess how this increased VC income affected the other possible income sources the same household will have as they usually follow diverse livelihood strategies. The question becomes how has the selected VC influenced the overall income and poverty situation of the household? Has the entire household benefited from this Value Chain and moved out of poverty? Or only some members within the household in particular? Have respondents observed changes in the sector's enabling environment? Which?

This MSC tool serves very well for collecting more qualitative information from the various stakeholders and beneficiaries. This qualitative information will deepen the insights and understanding with regard to the quantitative information, and the underlying processes: which factor(s) caused this change and how did that happen? In the table we have briefly elaborated our experiences and the advantages of using this tool.

Based on our field experiences in several evaluations with this tool, MSC offers the following advantages:

- It is highly suitable to collect result and impact related information in an open manner, producing info on planned as well as unforeseen changes and impacts. MSC also looks for the reasons behind changes described (the WHY question) so that these changes are well understood
- The information generated by the MSC can easily be related to the result chain. MSC information is often diverse and rich, well illustrating the planned changes at different points of the result chain. It therefore contributes to validating the result chain. It brings in elements of field based evidence, provided that the team takes proper care of the quality of information about these changes.
- The MSC will then also enable us to review and reconstruct the result chain, if need arises. It therefore constitutes an important basis for conclusions or formulate recommendations for upscaling and/or replicating
- In our experiences MSC is highly appreciated by project staff, as it produces rich sometimes surprising information on - intended and unintended - changes; it builds their capacity to learn by practicing.
- The answers provided by different stakeholders, whether among the final beneficiaries (looking at gender and age) and between the various value chain actors will usually vary, because each actor will follow his/her own perspectives. These different views and appreciations of changes will deepen the learning and reflection. They also enable the evaluators to validate and triangulate collected information and data.

For the proper application and use of MSC we have designed a **questionnaire** with a set of open questions that serve to collect key information on the various changes that different respondents have experienced and their appreciation of these changes.

We recommend to do the FGD with 5 to 8 persons of the same category (type of stakeholder, for instance farmers) and to have a separate FGD for men and women.

Materials needed:

- Flip chart and markers to list the results of FGD (make it visible to the group)

Focus group discussion with Most Significant Change exercise in the field
Kenya HFSP evaluation
Total duration 1.5 hours

Leading question	Clarifying/ Probing question	Remarks about process
FIRST 30 MINUTES QUESTION 1- 4 : <i>Changes for whom and select most important change</i>		
<p>1. Looking back over the last (three-four) years what do you think was the most significant change in:</p> <p>a) your farm business? b) your farmer organization? c) your relationship with other VC actors? d) your relationship with local government services?</p> <p>2. This change you mention - do you mean it is a change for yourself or for your household or for the whole community?</p>	<p>If the change mentioned does not relate to farm production, income or business, ask how the participants see the link between the change and income or farm business.</p>	<p>ask each member of the group one by one</p> <p><u>Output: list of changes</u></p>
<p>3. Were the changes that you mentioned (all) improvements to your situation? Are there also negative changes related to production, income and /or farm business that occurred? Do you mean negative changes for yourself, your household and/ or the community?</p>		<p>ask a few people to react, not every one</p>
<p>4. We like to talk about a change that is most significant to all of you - which change(s) can you select? And why?</p> <p>Which groups in your community have changed their situation in this way?</p>	<p>check/probe: men, women, young and old people, female headed households, poorer and more wealthy members, etc.</p>	<p><u>Output: priority of MSC</u> Explain that in every community some people have more opportunities or chances than others. We do not want to know certain people's names but try to understand what happens.</p>
ABOUT 20 MINUTES FOR QUESTION 5	<i>Causes of the change- list of causes</i>	
<p>5. What has caused the change in your situation ? (wait for answer)</p> <p>And how did this cause affect the change in living</p>	<p><i>It could be that people later on realize that they did get training. If that is the case, come back to the question.</i></p> <p>This can be a long answer -</p>	<p>ask one person to start, then ask others if their story is the same or different - and let them explain</p> <p><u>Output: List of causes</u></p>

conditions?	while participants give their story, check if they talk about the possible causes and if not, ask: 'what about'	
LAST 30 MINUTES QUESTIONS 6-8	Relation between changes and program, and future	
<p>6. Does this change in your situation link to the HFSP ? Which activity(ies) of the HFSP contributed most or could have to this change?</p> <p>If no, skip the question.</p> <p>If yes, how? can you tell us more about it: Which kind of support is it ? was it the result of any training or other support that you received? E.g. if it was training, what did you learn? how did you apply the learning ? what happened after you applied the learning? what did you do yourself? How important was it to cooperate with other producers - why?</p>	<p>see comments in the previous question. Check if they did get training/other support from other projects/people or organizations.</p>	ask one person to start, then ask others if their story is the same or different - and let them explain
	How sustainable is the change?	
<p>7. We talked about your present situation compared to the situation three (or 4) years back. Now we like you to look at the future. Do you feel that this change in situation will persist the coming two years? Why? Are there any issues you are concerned about that may affect your situation? Do you expect that it will affect you and/or your household and/or the community at large?</p>	<p>This is a long question - ask one by one.</p>	ask one person to start
<p>8. You have told us many things. Thanks so much for this. Is there anything that you still like to add? Thanks again for your time and contribution.</p>		

Annex 10a: Avocado (BC1) - # of seedlings planted, survival rate and # of farmers

AVOCADO PLANTED	# of seedlings			Survival rate	# of Trees survived
planted by small holders	30000			75%	22500
planted by Songoroi on own farm (Nucleus)	25000			95%	23750
TOTAL Planted	55000				46250
FARMERS	# of farmers	# male	# female	# of farmers ready to harvest in 2016 *)	
Total # of farmers that planted improved avocado seedlings provided by Songoroi	586	466	120	440	Majority of the households are headed by men culturally in these areas
of which :					
- member of Mulot coop	285			285	
- member of Isei coop	301			155	
average # of seedlings planted per farmer	51				
average # of trees surviving per farmer	38				

Annex 10b: Kales, garden peas, potatoes and sweet corn (BC2) - Production volumes, values, # of farmers and gross farmer income

Data per group received from Solidaridad								
Note: Consolidation and Gross income calculation by Evaluation team								
Date received:		18 March 2016						
Business case 2: Vegetables for the local markets								
TOTAL (7 groups): Majuni, Tumaini, Warumi, Karuangi, Lusiro, Kihingo, Kayatta								
PRODUCTS:		Snowpeas, Courgette, Carrots, Capsicum, Potatoes, Kales, Garden peas, Bullet Chilli, Bandai Chilli, Butternuts, Sweetcorn						
		YEARS						
INDICATOR:		2011	2012	2013	2014	2015	Average #	as % of total # of farmers
# of groups that supplied to market		0	0	4	6	7	2013-2015	
# of farmers that supplied to partner company : male		Depending on group: no activity or Training Phase	Depending on group: no activity or Training Phase	60	170	164	131	63%
# of farmers that supplied to partner company : female				41	84	108	78	37%
Total # of farmers that supplied to partner company				101	254	272	209	100%
Volume of product purchased (kg)				157354	110014	97081		
Total value of purchased volume (KES)				13993162	15.999.559	10260111		
Average price during this year (KES)								
Average gross income /farmer (KES) from products sold to partner company				138546	62990	37721		
		Gross income as % of 2013 value		100%	45%	27%		
Source(s) of information- as noted by Solidaridad:								
1) Farmers group records								
2) Company Delivery notes								
3) Field Agronomist data/reports								
Notes:								
1) In 2012 the 4 groups of Kamwoki, Simba, Mwihoko and Aspodea only did demonstration plots, their production was minimal and is not included. It is reported that these 4 groups collapsed in 2013 due to governance issues								
2) It can be noted that the # of farmers increased from 2013 onwards, while volumes/values topped in 2013 and declined since. In 2015 the average Gross income/farmer was 27% of the 2013 figure. Reasons for this trend were not provided.								
3) On the average 63% of the farmers supplying the market between 2013 and 2015 were men, and 37% women.								

Annex 10c: Fresh beans, snow peas and mangetout/sugarsnaps (BC3) Production volumes, values and # of farmers

Table A: Mangetout Production and value purchased by WAMU 2014-2015

Received from Mr. Stephen Wachira					
<i>Note: Gross income calculated by Evaluation team</i>					
Date received:	19 March 2016				
NAME COMPANY:	WAMU INVESTMENTS LTD				
COUNTY/COUNTIES:	NYANDARUA				
PRODUCER GROUPS NAMES	Holy Oak, Kitogo, Big five, Evergreen, Munyaka, Mukuna, Nandarasi, Kiamweri, Mwangaza, Kajufa (joined later); Aspondea group fell out.				
BUSINESS CASE NUMBER:	3				
PRODUCT:	MANGETOUT				
PERIOD OF HFSP Support	2014-2015				
	YEARS				
INDICATOR:	2011	2012	2013	2014	2015
# of farmers that supplied to your company : male				130	144
# of farmers that supplied to your company : female				272	267
Total # of farmers that supplied to your company				402	411
Volume of product purchased (Kg)				180.204	166.370
Average price during this year (KES/kg)				KES 90	KES 100
Total value of purchased volume (KES)				KES 18.251.458	KES 17.760.305 *)
Average gross income /farmer (KES) from product sold to partner company				KES 45.402	KES 43.212
Quality of produce (grades if applicable)				N/A	N/A
% of volume rejected				10%	12%
# of farmers trained: male				130	144
# of farmers trained: female				272	267
Total # of farmers trained				402	411
Yield (kg/acre)				2000	1800
Source(s) of information:					
1) Provided by WAMU : Field Records					
2) Provided by WAMU: Packhouse Records					
*) Confirmed by WAMU (21022016) this is gross payments. Advance for inputs yet to be deducted					

Table B: Sugar Snap Production and value purchased by WAMU 2014-2015

Received from Mr. Stephen Wachira					
<i>Note: Gross income calculated by Evaluation team</i>					
Date received:	19 March 2016				
COUNTY/COUNTIES:	NYANDARUA				
PRODUCER GROUPS NAMES	Holy Oak, Kitogo, Big five, Evergreen, Munyaka, Mukuna, Nandarasi, Kiamweri, Mwangaza, Kajufa (joined later); Aspondea group fell out.				
BUSINESS CASE NUMBER:	3				
PRODUCT:	SUGAR SNAP				
PERIOD OF HFSP Support	2014-2015				
	YEARS				
INDICATOR:	2011	2012	2013	2014	2015
# of farmers that supplied to your company : male				142	135
# of farmers that supplied to your company : female				261	254
Total # of farmers that supplied to your company				403	389
Volume of product purchased (kg)				120392	103451
Average price during this year (KES/kg)				KES 90	KES 100
Total value of purchased volume (KES)				KES 12.835.250	KES 11.354.600 *)
Average gross income /farmer (KES) from product sold to partner company				KES 31.849	KES 29.189
Quality of produce (grades if applicable)				N/A	N/A
% of volume rejected				13%	15%
# of farmers trained: male				142	135
# of farmers trained: female				261	254
Total # of farmers trained				403	389
Yield (kg/acre)				2000	1800
Source(s) of information:					
1) Provided by WAMU : Field Records					
2) Provided by WAMU: Packhouse Records					
*) Confirmed by WAMU (21022016) this is gross payments. Advance for inputs yet to be deducted					

Table C: Fresh beans, Sugar Snaps, snowpeas- Production and value purchased by Hillside 2011-2015

Received from Mrs. Eunice Mwongera						
<i>Note: Gross income calculated by Evaluation team</i>						
Date received:	10 March 2016					
NAME COMPANY:	Hillside					
COUNTY/COUNTIES:	Kirinyaga + XXX?					
PRODUCER GROUPS: names	Forest Edge, Kabaru, Young matendo i, Kaburuku, Matunda, Lusoi, Kanzalu, Katitu, Masimba, Kajulia,					
BUSINESS CASE NUMBER:	3					
PRODUCTS:	Mangetout, sugarsnaps, fresh beans					
PERIOD OF HFSP Support						
	YEARS					Average
INDICATOR:	2011	2012	2013	2014	2015	
# of farmers that supplied to your company : male	150	250	280	250	250	236
# of farmers that supplied to your company : female	60	80	100	70	90	80
Total # of farmers that supplied to company	210	330	380	320	340	316
Volume of product purchased (kg) *)	96.000	98.000	120.000	100.000	96.000	**)
Average price during this year (KES/kg) Snowpeas/mangetout	100	100	80	100	120	
Average price during this year (KES/kg) Fr Beans ***)	65	65	65	65	65	
Total value of purchased volume (KES)	7.920.000	8.085.000	8.700.000	8.250.000	8.880.000	
Average gross income /farmer (KES) from product sold to partner company	37714	24500	22895	25781	26118	
Quality of produce (grades if applicable)						
% of volume rejected						
# of farmers trained: male						
# of farmers trained: female						
Yield (kg/acre)	60%	60%	60%	50%	50%	
Source(s) of information:						
Hillside data						
Notes:						
- farmers were male and female						
- farmers work with 2 or more support persons comprising one household						
- all farmers were trained on governance, good agricultural practices and standards						
- due to MRL chemical residues, farmers kept jumping in and out of contract						
*) 50% of the volume was fresh beans, the other 50% sugar snaps and mangetout						
**) Figures were confirmed by Hillside 21 03 2016						
***) Price of fresh beans varied between 50 and 80 KES/kg. Assumption: average price of KES 65/kg						

Annex 10d: Potatoes (BC4) - Production volumes, values and # of farmers

Table A: Potato Production and value purchased by Sereni Fries Ltd in 2014-2015

Received from EKN/SNV					
Note: Edited and Gross income calculated by Evaluation team					
Date received: 17 April 2016					
NAME COMPANY:	Sereni Fries Ltd				
COUNTY/COUNTIES:					
BUSINESS CASE NUMBER:	4				
PRODUCT:	Potatoes				
PERIOD OF HFSP Support	January 2014 - March 2015				
	YEARS				
INDICATOR:	2011	2012	2013	2014	2015
# of farmers that supplied to parter company : male				50	200
# of farmers that supplied to parter company : female				150	300
# of farmers that supplied to your company : Total				200	500
Volume of product purchased (kg)				15000	75000
Total value of purchased volume (KES)				300000	1500000
Average price during this year (KES/kg)				20	20
Average gross income /farmer (KES) from product(s) sold to partner companies				1500	3000
% of volume rejected				25%	25%
# of farmers trained: male				50	200
# of farmers trained: female				150	300
Yield (kg/acre)				unknown	unknown
Source(s) of information:					
1) CEO Sereni and SNV					

Table B: Potato Production and sales by Mamu Ltd in 2014-2015

Note:

The data for Mamu received from SNV (in April 2016) were conflicting with information from our FGD/interview with Mamu (in March 2016) and with Mamu's own 2014 Business implementation plan. Evaluators does not endorse the figures for Mamu as presented below. See section 4.6.

Received from EKN/SNV							
Note: Edited and Gross income calculated by Evaluation team							
Date received: 17 April 2016							
NAME COMPANY:		MAMU Ltd					
COUNTY/COUNTIES:		Nyandarua					
BUSINESS CASE NUMBER:		4					
PRODUCT:		Potatoes					
PERIOD OF HFSP Support		January 2014 - March 2015					
		YEARS				Comments	
INDICATOR:		2011	2012	2013	2014		2015
# of farmers that supplied to partner company : male				N/A	75	175	
# of farmers that supplied to partner company : female				N/A	125	325	
# of farmers that supplied to your company : Total				N/A	200	500	1)
Volume of product purchased (kg)				N/A	500000	1250000	2)
Total value of purchased volume (KES)				N/A	7000000	17500000	
Average price during this year (KES/kg)				N/A	14	14	
Average gross income /farmer (KES) from product(s) sold to partner companies				N/A	35000	35000	
% of volume rejected				N/A	30	30	
# of farmers trained: male				N/A	75	175	
# of farmers trained: female				N/A	125	125	
Yield (kg/acre)				N/A	5000	5000	
Source(s) of information:							
1) Board Chair, through SN and EKN							
Comments:							
1) The number of farmers indicated especially for 2015 is not in line with the business implementation plan (2014), which noted 181 members actively involved in production of ware potato.							
2) The calculation as provided by SNV is based on assumptions that each farmer had 0.5 acre and yield of 5 tons/acre. This does not seem to reflect actual measured production and yields, and makes the figures questionable. Moreover in the interview with the evaluation team the Chairman of the Mamu board indicated that he did not know potato production and income of their members , while he is the source of above data.							

Annex 10e: Fruits (BC5) - Production volumes, values and # of farmers

Table A: Mango/orange Production and sales by Makueni FPCS

Received from Solidaridad					
<i>Note: Edited and Gross income calculated by Evaluation team</i>					
Date received: 18 March 2016					
NAME COMPANY:	Makueni FPCS				
COUNTY/COUNTIES:	Makueni				
BUSINESS CASE NUMBER:	5				
PRODUCT:	Mangoes, Oranges				
PERIOD OF HFSP Support	January 2014 - March 2015				
	YEARS				
INDICATOR:	2011	2012	2013	2014	2015
# of farmers that supplied to partner company : male	N/A	N/A	N/A	80	100
# of farmers that supplied to partner company : female	N/A	N/A	N/A	130	144
# of farmers that supplied to partner company : total				210	244
Volume of product purchased (tons)	N/A	N/A	N/A	18	26
Total value of purchased volume (KES)	N/A	N/A	N/A	1357532	1960880
Average price during this year (KES) per ton	N/A	N/A	N/A	75418	75418
Average gross income /farmer (KES) from product(s) sold to partner companies in 2014				6464	8036
Quality of produce (grades if applicable)	N/A	N/A	N/A		Grade 1
% of volume rejected	N/A	N/A	N/A		10%
# of farmers trained: male	N/A	N/A	N/A	257	200
# of farmers trained: female	N/A	N/A	N/A	134	800
Yield (kg/acre)	N/A	N/A	N/A		6800
Source(s) of information:					
1) Progress report					
2) Manager MFPCS					
Notes:					
a) Total value 2014 is calculated by evaluation team, and estimated with assumption that in 2014 price is same as in 2015					

Table A: French Beans /passion fruits Production and sales by Kimwango CBO

Received from Solidaridad						
<i>Note: Edited and Gross income calculated by Evaluation team</i>						
Date received: 18 March 2016						
NAME COMPANY:	Kimwango CBO					
COUNTY/COUNTIES:	Makueni					
BUSINESS CASE NUMBER:	5					Comments
PRODUCT:	Passion fruits & French Beans					1)
PERIOD OF HFSP Support	November 2014 - March 2015					
	YEARS					
INDICATOR:	2011	2012	2013	2014	2015	
Passion Fruit. # of farmers that supplied to partner company : male	N/A	N/A	N/A	0	161	2)
# of farmers that supplied to partner company : female	N/A	N/A	N/A	0	80	
French beans. # of farmers that supplied to partner company : male	N/A	N/A	N/A	38	46	
# of farmers that supplied to partner company : female	N/A	N/A	N/A	8	32	
# of farmers that supplied to partner company : TOTAL	N/A	N/A	N/A	46	78	
Volume of product purchased (kg) French Beans	N/A	N/A	N/A	6311	92251	3)
Total value of purchased volume (KES) French beans	N/A	N/A	N/A	6311	92251	4)
Average price during this year (KES/kg) French Beans	N/A	N/A	N/A	60	60	
Average gross income /farmer (KES) from product(s) sold to partner companies in 2014 French Beans	N/A	N/A	N/A	137	1183	
Quality of produce (grades if applicable)	N/A	N/A	N/A			5)
# of farmers trained: male	N/A	N/A	N/A	283	161	6)
# of farmers trained: female	N/A	N/A	N/A	161	80	
Yield (kg/acre)	N/A	N/A	N/A		2427	
Source(s) of information:						
1) Vert Fresh Expoters Ltd						
2) Project Performance Report						
Comments:						
1) French beans has been the CBO'S principal crop therefore the value chain couldn't have been isolated from the project. The intention was to support french beans farmers diversify production from French beans to Passion fruits						
2) Orchards were established in April 2015, up to now farmers have not realized any harvests i.e. the crop isn't mature. Farmers indicated here are the ones who have established orchards.						
3) Whereas the project engaged farmers full time in 2015, in 2014 the project had 2 months only since the project took off in November 2014. Thus the sales indicated in 2014 cater for 2 months only						
4) Through the technical staff engaged during the project timeframe farmers were able to reduce post harvest losses. This was also made possible by establishment of post harvest management facilities and equipments facilitated by the project.						
5) Farmers are only involved in the initial process of harvesting and grading. The final process undertaken before exporting is undertaken by the buyer at his premises in Nairobi.						
6) This includes beneficiaries of the entire project. This figure includes farmers benefiting under food security component at the start of the initiative and who were later dropped.						

Annex 10f: Chili/ABEC (BC6) - Production volumes, values and # of farmers

Received from Mrs. Almut van Casteren					
<i>Note: Gross income calculated by Evaluation team</i>					
Date received:	15 March 2016				
NAME COMPANY:	Equator Kenya Ltd				
COUNTY/COUNTIES:	Kwale/Kilifi/TanaRiver/Lamu				
BUSINESS CASE NUMBER:	6				
PRODUCT:	African Bird's Eye Chilies				
PERIOD OF HFSP Support	January 2013 - March 2015				
	YEARS				
INDICATOR:	2011	2012	2013	2014	2015
# of farmers that supplied to your company : male	927	1350	1529	2440	1910
# of farmers that supplied to your company : female	2112	2026	2908	3062	3592
Total # of farmers	3039	3376	4437	5502	5502
Volume of product purchased (kg)	76.296.93	90,843.43	146,635.59	232,861.11	163453.30
Total value of purchased volume (KES)	3.880.347	4.845.127	7.332.736	11.623.438	8.304.945
Average price during this year (KES)	51	53	53	53	52
Average gross income /farmer (KES) from product sold to partner company	1277	1435	1653	2113	1509
Quality of produce (grades if applicable)	Premium, Grade B	Premium, Grade B	Premium, Grade B	Premium, Grade B	Premium, Grade B
% of volume rejected	5	2	6	8	5
# of farmers trained: male	1046	5141	2083	622	505
# of farmers trained: female	2110	2447	8475	3501	1745
Yield (kg/acre)					
Source(s) of information:					
1) E-Prod_DBMS					
2) Production report (xls)_ EKL Production dept					
3) Farmers trainings data (xls)_ EKL Production dept					

Annex 11: Interview notes with Equity Bank (Naivasha Branch)

Naivasha Credit Officer- Mr. Gilbert Kaburu- 16-3-2016

Agricultural Products available from Equity Bank

- **Farm input loan**

- a. **Small scale**

- Maximum of KES 100,000/-
 - Interest is 12% annually
 - Repayment period is one year
 - Repayment plan is based on the crop cycle i.e repayments coincides with harvesting and selling
 - The Farmers identifies the Agro input supplier and gets an invoice of the inputs he requires, the bank then pays for the inputs directly to the Agro supplier. The bank may stagger the disbursement of the payments depending on the input usage requirements
 - The loan may also be disbursed all of it at once ("Bullet")

- Loan conditions:**

- Bank account
 - Undertaking farming; this is verified by field visit by the bank officer
 - Farming records
 - If the farmer/(s) are working with a buyer, the payment is supposed to be done through the bank, where bank deducts the loan payments before paying the farmers
 - Crop insurance; this is required for the loan to secure the farmers and the bank from any unforeseen event that may affect the repayment. There is also Livestock insurance that serves same purpose as the crop on

- b. **Larger scale**

- From 100,000/- to 2,000,000/-
 - Loan above 300,000/- require physical collateral
 - Conditions are the same as for the small scale loan

- c. **Commercial Agricultural loan**

- e.g. greenhouse loan, piping, water tank

- Repayment period is one year
 - Interest rate is 24% on a reducing balance; eventually this amounts to 13%
 - This loan must be 100% secured i.e collateral must be equivalent to the value of the loan
 - No maximum for this loan, can be up to KES 25 million

Gender issues on loan

- Both men and women perform the same when it comes to loan repayment
- More women have been applying for the loans in the past but this trend is changing and men are now applying
- Youth take loans for dairy/livestock mostly
- Crop production is seen as unstable due to challenges especially drought and price changes
- The banks offers advice on the loan applied depending on the value of the business to avoid over or under loaning the farmers

Client base

- The Naivasha branch has a client base of 450 customers from Kinangop area. This being a reduction from 600 due to competition from SACCOs and other Micro Finance Institutions
- Equity Bank has 168 branches country wide.

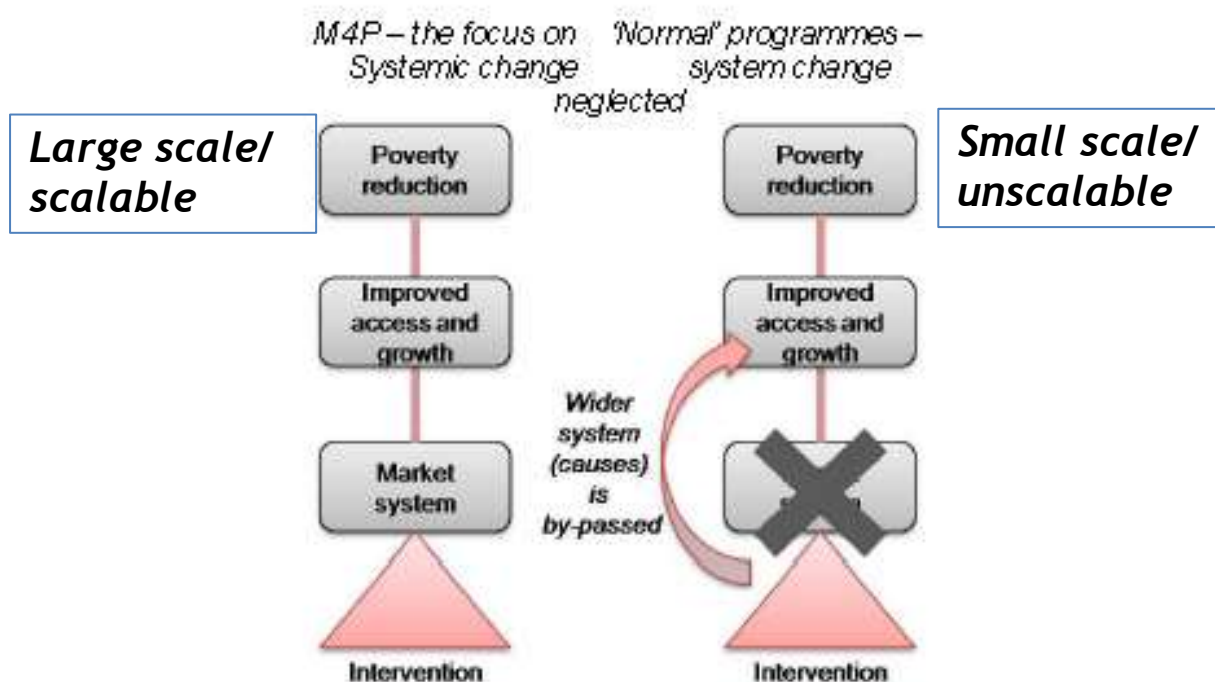
Annex 12: M4P-DCED Approach/short introduction

This annex presents some key elements of the DCED /M4P approach. For more information, see <http://www.enterprise-development.org/page/m4p>

Introduction

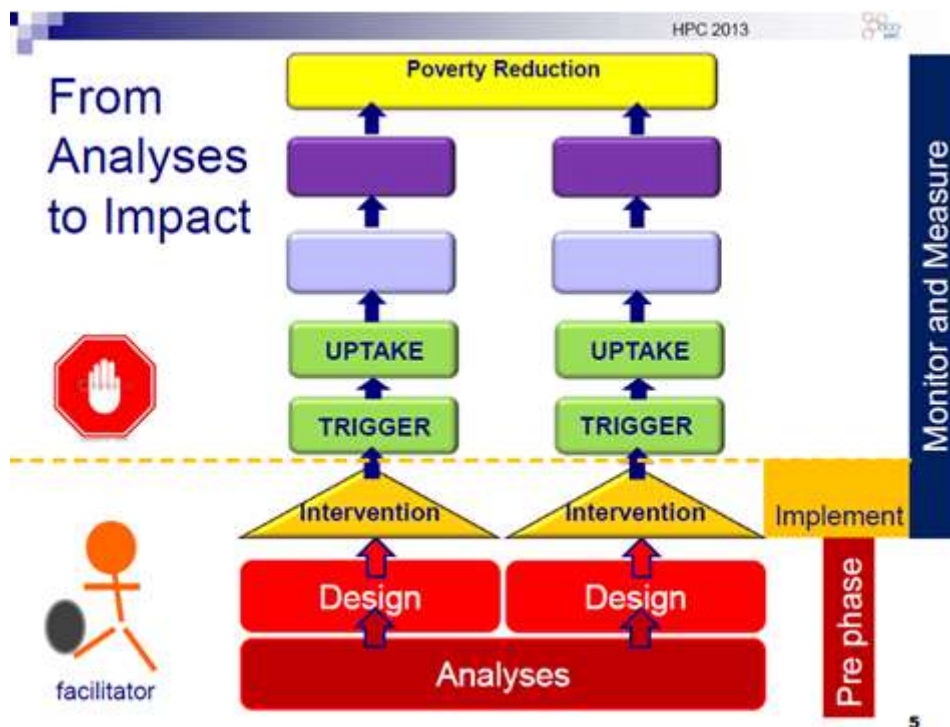
The Central question addressed by Making markets work for the Poor (M4P) is not:
how can we directly solve the problems in accessing markets by the target population?
BUT
how can we tackle the underlying causes in the market system which prevent the poor men and women from participating in a market?

The following figure shows the M4P Market system with on the right side: the 'normal' program approach in which the wider system and causes are by-passed, by delivering a direct solution, which is not scalable. On the left side the M4P intervention addresses the underlying cause in the market system, which once solves, offers a system solution which is scalable.



Source: Hans Posthumus Consulting (HPC), 2013.

The figure below shows the role of facilitator and of trigger and uptake in a (M4P) system approach



Source: Hans Posthumus Consulting (HPC), 2013.

Annex 13: HSFP actual expenditures & break down of management expenditures

a) HSFP actual expenditures

[illegible]

b) Management expenditures (actuals)

EXPENDITURES 2011-2014 (Total in KES x1000)			
Program development and coordination:			
	KES	€	as % of total management costs
Value chain analysis	KES 18.690	€ 169.909	17,0%
Multistakeholder meetings	KES 15.810	€ 143.727	14,4%
Program monitoring and coordination	KES 39.848	€ 362.255	36,3%
Communication and learning	KES 14.365	€ 130.591	13,1%
Impact measurement	KES 20.730	€ 188.455	18,9%
TOTAL	KES 109.443	€ 994.936	
Contingencies	KES 274	€ 2.491	0,2%
TOTAL incl contingencies	KES 109.717	€ 997.427	100,0%
Source:			
*) Final financial report Solidaridad			
**) rate: € 1 @ KES 110 as per March 2016			