Linking Poor Rural Households to Microfinance and Markets in Ethiopia

Baseline and Mid-term Assessment of the PSNP Plus Project in Doba

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Acronyms and Abbreviations

AEMFI	Association of Ethiopian Microfinance
CARE	Cooperative for Assistance and Relief Everywhere
CRS	Catholic Relief Services
DECSI	Dedebit Credit and Saving Institution
DPPA	Disaster Preparedness and Prevention Agency
ETB	Ethiopian Birr
GFDRE	Government of the Federal Democratic Republic of Ethiopia
HH	Household
HI	Home Improvement
HIBRET	Household Income Bearing for Transformation *(Project)*
HIWOT	Health Initiative Women Owned for Transformation
Kg	Kilogram
LIS	Longitudinal Impact Study
LIU	Livelihoods Information Unit (DPPA)
M&E	Monitoring and Evaluation
MDTCS	Micro Development Training and Consultancy Services
MFI	Micro Finance Institute
MoARD	Ministry of Agriculture and Rural Development
OCSSCO	Oromia Credit and Saving Share Company
OFSP	Other Food Security Programs
PA	Peasant Association *(administrative unit)*
PT/IGA	Petty Trade/Income Generating Activities
PSNP	Productive Safety Net Program
PSNP-PIM	PSNP Program Implementation Manual
PSNP Plus	Linking Poor Rural Households to Microfinance & Markets (Project)
REST	Relief Society of Tigray
RFA	Request for Applications
RI	Results Initiative
SCUK	Save the Children Fund (UK)
SNV	Netherlands Development Organization
SRM	Social Risk Management *(Framework)*
RIC	Rural Investment Climate
USAID	United States Agency for International Development
VSLA	Village Savings and Lending Association
WPB	White Pea Beans

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SUMMARY

This report presents the findings of the first two stages of an assessment of the PSNP Plus project in Doba woreda in West Hararghe. These assessments are part of a broader longitudinal impact study of the PSNP Plus project, which aims to link poor rural households to microfinance and markets, as a strategy to assist people in accumulating assets, and graduating from the Government of Ethiopia's Productive Safety Net Program (PSNP). The PSNP provides poor food insecure households with either food or cash in exchange for work, or direct support to people who are physically unable to work. PSNP participants are expected to graduate from the program within five years, and certain types of financial and productive assets are used as benchmarks for graduation.

The PSNP Plus project started in the last quarter of 2008 and aims to link PSNP participants to both formal microfinance, and in the interim, or in the absence of this, to informal microfinance by establishing Village Savings and Lending Associations (VSLAs). The project also aims to link PSNP households to markets, through the development of different types of commodity value chains. In Doba the PSNP Plus project activities started in early 2009, and the project in Doba is supporting three value chains; cereals, white pea beans, and honey. This study specifically focused on the last two of these value chains, as well as on the VSLA activities. The assessment was carried out roughly ten months after the project activities had started in Doba.

The assessment described in this report had three key objectives:

1. To collect a retrospective baseline on specific types of household assets;
2. To carry out a midterm assessment of the project. This included measuring changes against the assessed baseline and documenting the project activities implemented;
3. To make recommendations for real time adjustments of PSNP Plus strategies and activities.

In terms of measuring actual project impact, the timing of the assessment was somewhat premature in relation to the project cycle. Essentially it is too early to meaningfully assess the impact of the project and any significant impact is unlikely to be realized until all the project activities have been implemented in a complementary way. The earliest this is likely to happen is in the last quarter of 2010, but any anticipated impact on assets is unlikely to be measured until early 2011, in other words at the very end of the project. Secondly, the assessment took place at a time when people were selling their assets in response to rain-failure, with the income and production losses associated with this.

The results show that there has been a significant decline in livestock assets since the project started. The main reason given for the sale of livestock was so that people could purchase food. There has also been little change in the level of land holdings, tools, or household items, although it appears that people do not sell these items even in the event of a shock. Participants also indicated that they had experienced a significant reduction in income in 2009. These negative changes can largely be attributed to income and production losses associated with rain-failure.

Although production activities for the white pea bean and cereal value chains had started, delayed planting of the white pea beans due to seed procurement issues followed by rain-failure resulted in production losses for these crops. Little impact can be expected from these value chains until after the 2010 harvest. The cereal value chain may however have provided people with important food

security benefits, as the improved seed varieties fared better than the traditional cereal varieties grown in the area.

There have also been no direct production benefits for the honey value chain. This largely has to do with delays in procuring and transferring modern beehives to the honey value chain participants. Given the time it takes for honey production to yield benefits from new hives, the very earliest that production benefits might be realized from this value chain would be towards the end of 2010.

On a more positive note the establishment of VSLA groups has gone smoothly and the results indicate that these groups have helped people cope with the crop and income losses associated with rain-failure. For example members are using their savings and loans to purchase food, invest in petty trade, education, and to cover medical expenses. As such, this component of the project has probably helped protect assets by preventing some stress sales.

The results indicate however that these groups alone are unlikely to have a significant impact on financial asset accumulation for the majority of members. The main reason for this is that the amount people can borrow is too small to invest in high return income generating activities. Nonetheless, these groups provide people with a valuable savings and borrowing instrument, particularly in the absence of formal microfinance services.

At the time of the assessment the linkage to formal microfinance was limited to the transfer of value chain inputs. No impact had been realized therefore from this component. The study findings indicate however that access to larger loans could potentially translate into significant benefits for project participants. Although the challenges involved in linking poor households to formal microfinance are considerable, the findings indicate that there is a strong demand for certain types of financial products, specifically larger loans and cattle credit. Linking participants to formal microfinance represents an important opportunity for the PSNP Plus project and one that could potentially yield significant benefits.

The project has faced a number of challenges and will continue to do so. Timely delivery of assets and linking people to formal microfinance and markets remain major internal project challenges. External challenges such as frequent rain-failure, high medical and schooling costs, animal disease, crop pests, and the poor quality of land will continue to undermine people's productive capacity, and prevent them from accumulating assets, or graduate out of chronic poverty or food insecurity. Some challenges, such as rain-failure, food insecurity and the quality of land holdings, will have a direct impact on the white pea bean and cereal value chains. Food insecurity and poverty will indirectly limit people's productive capacity and ability to benefit from the project or accumulate assets.

One of the most salient findings from the study is the importance of livestock in the area. Not only are cattle considered the most important financial asset, but livestock production and livestock trading also represent two of the most important livelihood strategies and sources of income. Cattle ownership (particularly oxen) is associated with a household's ability to produce crops, as it is directly linked to a household's productive capacity and the quality of its land holdings. Consistent with this, the study findings indicate that crop production is not so much dependent on the quantity of land a household has access to, but rather the quality of land, the household's labor capacity (in terms of time), the number of able-bodied household members, and access to draft animals.

Although the assessment did not set out to investigate livestock issues specifically, the findings suggest that certain types of livestock interventions (such as oxen credit and animal health interventions) may have an important role in improving crop production, and in helping people accumulate assets and ultimately graduate from the PSNP. There are risks involved; the results

show high livestock mortality in 2009, which can partly be attributed to the lack of animal health services in the area. The findings indicate however that certain types of livestock-related interventions could complement the PSNP Plus project and contribute to greater impact. It also appears that livestock-based livelihood strategies are less risky than certain types of cash crops and the findings suggest that project participants attach a greater value to interventions such as livestock credit and cattle fattening than they do to project value chains.

A number of recommendations have been proposed based on the assessment findings. These include activities that could contribute to greater project impact and that can be implemented more or less immediately. A number of complementary innovations or intervention concepts have also been identified. These innovations might not only go some way towards addressing some of the production constraints faced by the project value chains, but could also potentially play a significant role in facilitating graduation from the PSNP. It has been recommended that some of these innovations be piloted under the PSNP Plus project in Doba.

1. INTRODUCTION

1.1 PSNP Plus Project Background

While responses to food insecurity in Ethiopia have typically been dominated by emergency food assistance, a trend has been observed over the past two decades: '…in spite of a steady increase in humanitarian food aid, recurrent shocks and structural food insecurity have resulted in an ever increasing number of chronically food-insecure Ethiopians' (Devereux et al, 2006). This has largely been attributed to the fact that humanitarian food aid has had little impact on poverty, asset depletion, and the resulting vulnerability to food-related shocks (Devereux, et al, 2006). In recognition of this, and with the objective of addressing the underlying causes of vulnerability to food insecurity, the Government of Ethiopia launched its PSNP in 2005 as one component of a broader food security strategy including a Voluntary Resettlement Program and Other Food Security Programs (OFSP).

The PSNP was designed to assist chronically or 'predictably' food insecure households, as opposed to households affected by transitory food deficits caused by a specific event. The program provides either cash or food in exchange for labor on rural infrastructure projects, or direct cash and food transfers for households unable to participate in physical labor. The overall goal of the program is to address predictable food insecurity through interventions designed to build household assets, household asset protection, and community asset creation (Gilligan et al, 2008). Participating households are ultimately expected to 'graduate' from the PSNP and out of chronic food insecurity. The concept of 'graduation' is however fairly nuanced and remains one of the key technical and policy issues associated with the PSNP.

The PSNP Program Implementation Manual (PSNP-PIM, 2006) recognizes that in order for households to graduate from the program (or out of food insecurity), there is a need for them to be linked to OFSP that go beyond PSNP food and cash safety net transfers. The OFSP include interventions that provide credit and loans for agriculture as well as non-farm income generating activities, as well as the provision of 'agricultural technologies' such as extension services and inputs (Gilligan et al, 2008). The overall goal of these programs is to address food insecurity through household asset protection and community asset creation. Participating households are expected to graduate from the PSNP within five years and thresholds for graduation are based on household asset levels. Although a number of different definitions for graduation have been proposed, most of these involve the concept of households moving out of chronic food insecurity (see PSNP-PIM, 2006, Slater et al, 2006, and Devereux et al, 2006). Graduation involves a two-stage process: the first stage is graduation from the PSNP program, while the second stage involves graduation from the OFSP. A recent PSNP graduation guidance note defines graduation as follows (MoARD, 2007: 2):

"A household has graduated when, in the absence of receiving PSNP transfers, it can meet its food needs for all 12 months and is able to withstand modest shocks. This state is described as being food sufficient".

Households that have graduated from the PSNP are no longer considered to be food insecure and they are therefore no longer entitled to PSNP food or cash transfers (MoARD, 2007).

Annual assessments to determine PSNP graduation are carried out by a Community Food Security Task Force using broadly defined regional benchmarks based on household assets, such as education levels, land, livestock and tool holdings. Flexibility in assessing graduation based on these asset portfolios may be applied to different livelihood zones within a region (MoARD, 2007). While households with asset levels higher than the established benchmarks are expected to graduate from the PSNP, some households may choose to self-graduate on a voluntary basis (MoARD, 2007).

The use of assets as a benchmark for graduation is based partly on the assumption that assets are a more reliable indicator of long-term food insecurity and partly because they are easier to observe (and therefore measure) than income-based indicators (MoARD, 2007).

This rationale is supported by a growing body of evidence suggesting that the poor prioritize assets over income (Narayan et al, 2000) as well as recent research that attempts to identify the existence of an asset-based equivalent of a poverty line, or an asset (or 'Micawber') threshold (Carter and Barrett, 2007). People falling below such a threshold are essentially caught in a poverty trap (chronic poverty), whereas those above the threshold can "productively invest and accumulate" and even recover in the event of a livelihoods shock (Carter and Barrett, 2006 cited by Carter *et al,* 2007: 126).

Although it was originally anticipated that PSNP households would graduate from the program within five years, a recent evaluation of the PSNP and OFSP suggests that while the PSNP has had a significant impact on food security, the combination of PSNP plus OFSP does not guarantee household graduation (Slater et al, 2006). The same report argues that for certain PSNP households to accumulate assets: *"they require access to a wider range of package options to support diversification into new agricultural activities – especially high value crop production and irrigated agriculture"* (Slater et al, 2006: VII). The report also identifies access to investment capital and savings as an important enabling factor in facilitating graduation (Slater et al, 2006).

Consistent with this, one of the two pillars of the World Bank's poverty reduction strategy focuses on the Rural Investment Climate (RIC) and recent pilot studies identify markets and financing as significant constraints to promoting a healthy RIC (World Bank, 2006).

In view of these considerations, in support of a continuation of the Government of Ethiopia's Food Security Program and building on the achievements and lessons learned from the PSNP and other initiatives (including the Market-Led Livelihoods for Vulnerable Populations project), USAID launched a Request for Applications (RFA) entitled 'Linking Poor Rural Households to Microfinance and Markets in Ethiopia' in March 2008.

1.2 Linking Poor Rural Households to Microfinance and Markets in Ethiopia

The RFA recognized that without the additional OFSP packages, such as microfinance and complementary market development interventions, PSNP households were unlikely to move out of poverty (USAID, 2008). Although the PSNP was established with the assumption that OFSP interventions would complement the program, evaluations of the PSNP highlighted the limited uptake of microfinance or credit amongst PSNP households (USAID, 2008). The RFA was launched therefore in order to demonstrate that "adoption of market-led livelihood options for the persistently poor through sustainable links to markets and microfinance services… [leads to] …increased assets at the household level and therefore more resilient households." (USAID, 2008: 18). The RFA also suggests that the value chain approach be considered as an appropriate methodology for linking poor households to markets.

The RFA called specifically for projects that would contribute to the following higher goals (USAID, 2008: 18-19):

- Reduced food insecurity and improved resiliency in vulnerable households;
- Increased rural economic growth opportunities for the poor, to diversify livelihoods;
- Demonstrate a new market-driven approach to poverty reduction in Ethiopia;
- Expanded adoption and scaling up of market-driven approaches by new actors such as the Government of the Federal Democratic Republic of Ethiopia (GFDRE);
- Improved access to microfinance services through a graduated assistance program.

The RFA also required that proposals demonstrate how project results, outcomes, and the 'replicability' and sustainability of interventions would be measured and documented. Consistent with this, the RFA called for a preliminary causal model presenting the logic of how the project would achieve the desired outputs, outcomes and impacts, and how these would be measured (USAID, 2008).

The PSNP Plus project proposal was designed by a consortium of partners (led by CARE) in response to this RFA. The PSNP Plus consortium was awarded the RFA grant of $ US 12,000,000 during the last quarter of 2008.

2 THE PSNP PLUS PROJECT

2.1 PSNP Plus Overview

Consistent with the objectives of the RFA, the PSNP Plus project was designed to facilitate the graduation of poor rural households from the PSNP through the provision of microfinance services and market-driven interventions aimed at building assets and diversifying livelihoods.

The project, which is being led by CARE, was launched towards the end of 2008 and is being implemented by CARE and Catholic Relief Services (CRS) working with partners in Oromia including the Relief Society of Tigray (REST) in Tigray and Save the Children UK (SCUK) in Amhara. The project will be implemented in ten woredas across the three regions[1].

[1] Originally it was nine woredas, however Sire/Dodota woreda has since been split into two separate woredas

The project targets households currently enrolled in the PSNP, with the objective being to graduate these households from the program. The project aims to provide a variety of microfinance products to participants, through interventions such as Village Savings and Loan Associations (VSLA) and by creating direct linkages with formal microfinance institutions. The project also aims to link households to markets though livestock, cereal, honey and white pea bean value chain interventions. Technical support for the value chain development activities is being provided by SNV[2], while the Feinstein International Center, Tufts University is conducting a Longitudinal Impact Study (LIS) of the project in selected areas. The project will run until the middle of 2011 and is expected to assist a total of 42,414 participating households.

Under the original proposal, the goals and the objectives of the project were stated as follows[3]:

The goal of the PSNP Plus program is: "*Targeted PSNP households' resiliency improved and livelihood assets*[i] *enhanced as a means towards achieving graduation*." This goal is met through three interlinked objectives:

- Objective 1: Targeted PSNP households have increased their financial assets as a result of access to financial products and services.
- Objective 2: Targeted PSNP households are engaged in functioning markets.
- Objective 3: Government and private sector strategies show greater support for engaging PSNP participants in market-based activities.

The objectives have been structured to bring immediate, positive impact to participants while building upon lessons learned (PSNP Plus, 2008).

As discussed, the RFA requested a preliminary causal model. The causal model proposed under the PSNP Plus assumes that as part of the OFSP, improved linkages between poor households and commodity markets, plus enhanced use of microfinance services leads to asset accumulation at household level with associated improvements in PSNP graduation. This causal model seeks to validate the assumption that the activities and strategies implemented under Objectives 1 and 2 do indeed result in asset accumulation and more resilient households.

2.2 LIS Overview

In order to test this causal model the LIS was included under Objective 3, which is being implemented by Tufts University in four of the ten project woredas. The selected woredas are Doba, Sire, Dodota and Raya Azebo woredas in Oromia and Tigray respectively. It was originally proposed that the LIS would focus on one value chain in each of the study areas. While the study areas were selected to capture different socioeconomic and livelihood zones, practical and budgetary considerations were also taken into account.

The overall objective of the LIS is to generate evidence on how combinations of microfinance and market-oriented interventions lead to asset accumulation at the household level, with associated improvements in PSNP graduation. This evidence will be used to influence and inform the Government of Ethiopia and other stakeholders on their strategies pertaining to the design of food

[2] Netherlands Development Organization

[3] Following the start up of the project, a supplemental water, sanitation and health (WASH) component was included and the geographical scope of the project was expanded. The objective of the WASH component is to improve the health and productivity of the targeted participants through improved access to water. The research activities outlined in this report focus on the three objectives stated above.

security and safety net programs around microfinance and market-based interventions. With this objective in mind, the study will specifically involve measuring the impact of the project's micro-finance and value chain activities on the livelihood assets of the project participants, these being proxy indicators for both resiliency and PSNP graduation.

In summary, the design of the LIS is as follows:

- Baseline assessment focusing on household assets;
- After six months, to document project implementation, re-measure household assets, and conduct a preliminary assessment of project attribution;
- Final assessment, using panel data collection to complete documentation of project implementation, re-measure household assets, and finalize assessment of project attribution.

This report covers the first two stages of the LIS in Doba, namely baseline and midterm data collection. For reasons explained later in this report (section 3.1) the two data collection activities were conducted simultaneously with retrospective measurement of the baseline.

2.2 Overview of PSNP Plus Project Activities in Doba

2.2.1 Study Area General Characteristics

Doba Woreda is situated in West Hararghe; it is predominantly rural with only 1.54% of the estimated population of 126,840 being urban dwellers (Anon, 2010[4]). The Woreda is estimated to be over 700 square kilometers, the majority of the population is Muslim (86.14%) and the primary language spoken is Oromiffa. The main livelihood strategies involve crop and livestock production, however elevations range from lowland to midland to highland, each with its own unique characteristics. The Livelihoods Information Unit (LIU) classifies three different livelihoods zones in the area; Sorghum, Maize and Chat Livelihood Zone, Wheat, Barley and Potato Livelihood Zone, and North East Agro Pastoralist Zone (DPPA, 2008). Although maps for the LIU Livelihoods were not available at the time of the assessment, comparisons with the LIU profiles and the study findings suggest that the study area was limited to the first two livelihoods zones.

CARE Ethiopia is implementing the PSNP Plus project in 33 out of the 40 Peasant Associations (PAs) in Doba. The project activities, which started in early 2009, fall under two complementary components, namely microfinance and value chains.

2.2.2 Microfinance Linkage Component

Under the microfinance component the project in Doba aims to improve access to financial products and services by linking participants to formal microfinance institutions (MFI). Because no MFIs existed in Doba prior to the PSNP Plus project, the project will work with the Oromia Credit and Savings Share Company (OCSSCO) to establish an office in Doba. In the interim the project will work with OCSSCO to provide credit services to project participants.

[4] Wikipedia

It is well-documented however that formal microfinance institutions are often unwilling to provide savings facilities for poor households (Amha, 2008). As Dercon et al. (2008: 78) point out, *"financial savings are not tailored to the poor, offer low or negative returns, and involve extremely high transaction costs imposed on the saver".*

Poor households are also unwilling to accommodate the risk of borrowing from formal loan facilities for fear of defaulting on the loan and the penalties associated with this (Amha, 2008). The PSNP Plus project acknowledges these constraints and will work with local MFIs such as OCSSCO to identify appropriate financial products and services, which will be tailored to the needs of the project's clients. It will also advocate for PSNP households to be accepted as MFI clients. In view of this the project does not expect the microfinance linkage to take place during the first year of the project (CARE, 2009).

Preceding the launch of the MFI component and in the absence of other financial products and services in the area, the project will also promote informal microfinance based on the Village Savings and Lending Association (VSLA) model.

2.2.3 Village Saving and Lending Associations

The VSLA approach typically involves a group of between 10-25 members. The project aims to provide training and resources to these groups to enable them to manage, maintain and increase their own financial assets such as savings and loans. Under the VSLA approach, members should use their own cash resources to lend funds to one another, charge an acceptable interest rate, and re-lend funds on a rotating basis.

Other features of the VSLA approach are as follows:

- Groups typically meet twice a month. Each member will contribute a specified amount of money to a savings pool and a smaller amount to a social fund. After a certain amount of capital has accumulated in the savings fund members can take out loans, which they are obliged to repay with interest within a certain time period. Group members will collectively agree upon the contribution amounts, interest rates and repayment periods. The approach is intended to be flexible and for some groups, individuals can contribute whatever amount they can afford. In such cases the amount they can borrow is proportional to their accumulated savings.

- Group members will collectively decide which members can borrow during a given loan disbursement cycle. In order to borrow, a member will present a proposal to the group, outlining what they intend to use the loan for and how they will be able to repay it. For example in Doba, members might use the loan to invest in petty trading or other income generating activities. In principle, members will select the person with the most convincing proposal. However it is also not uncommon for loans to be given to the person who appears to need it most, for example to cover medical expenses, as long as the members are confident that the person can repay the loan. Penalties are imposed on members who fail to repay their loans within the specified time period, which is usually between 1-3 months.

- In some cases, a group may also decide not to disburse loans on an individual basis, but to collectively invest their savings in a group business venture and then share the profits. However, the study rarely came across this in Doba.

- After a certain period, usually between 9-10 months, the group will share the savings and any interest accrued with all the members. VSLA members can earn dividends on their savings whether they borrow from their group fund or not.

- The social fund is typically meant to provide group members with insurance against idiosyncratic shocks such as illness, though it can also be utilized in other ways. No interest is applied to social fund disbursements and again group members will collectively decide who receives this support. Given that the social fund is smaller than the savings fund, members may in certain cases be allowed to borrow from the savings fund to pay for medical expenses or other contingencies. Some groups may decide to use the social fund for other activities of benefit to the whole group.

- Each group selects a chairperson and a treasurer. A secretary is also selected to keep records on savings and loan transactions. The savings are kept in a wooden or metal box, with either two (sometimes three) padlocks. The keys for these locks are given to different members, selected by the group based on their honesty and standing within the community. The box cannot be opened by any individual group member and would only be opened in the presence of the entire group during the bi-monthly meetings. In Doba VSLA participation is not limited to PSNP households and anyone in the community is eligible to join the groups. Under the PSNP Plus the VSLA activities include the establishment of new VSLA groups, as well as providing support to re-form or strengthen existing groups that were established under earlier projects.

- In terms of inputs, the project pays community facilitators to provide support to the groups. The project also provides training in the VSLA methodology to community agents or 'animators'. Training in business development skills and adult literacy is also provided to selected VSLA members. Physical inputs include the savings boxes, padlocks, and a registration/savings book.

- In the absence of other financial services, one of the key objectives of the VSLA activities is to provide saving and loan services for participating households. The project also aims to use these groups as a vehicle to link VSLA members to formal microfinance initiatives. By demonstrating that group members' financial literacy and savings knowledge increases over time, the project aims to convince MFIs to accept groups and individuals as clients. The VSLA groups are used as a catalyst to encourage linkages between informal and formal microfinance initiatives (MDTCS, 2010).

2.2.4 Market Linkage Component

Under the market linkage component the Doba project is supporting three commodity value chains, namely honey, white pea beans, and cereals. Among other criteria, the value chains were selected by CARE and partners based on the anticipated production potential of these commodities in the project area, income earning potential, and market potential in terms of demand and growth.

The project aims to assist PSNP Plus participants in the production and marketing of these commodities. On the supply side the objective of these interventions is not only to increase production, but also to improve the quality of these products with a view to adding to their market value. On the production side the project will provide technical support including training, as well as specific inputs such as honey production accessories. The training components and transfer of inputs will be facilitated through producer or marketing associations to be established by the project. The production side will also be complemented by the microfinance component, with production inputs such as seeds and beehives supplied to project participants on a credit basis. This will take place through OCSCCO using a project credit guarantee fund.

The project will also establish facilities such as storage and collection centers to prevent spoilage and facilitate marketing, as well as to link farmers to government extension services and the private sector. Market information systems and platforms will also be provided by the project. The project aims to link white pea bean and honey producers to international markets where the demand and price for these

commodities is encouraging. Table 2.1 gives a summary of the objectives and expected outputs of the value chain activities.

Table 2.1 Value chain outputs under PSNP Plus

Objectives	Expected Outputs
Critical bottlenecks for each value chain inhibiting PSNP households' entry to value chain identified.	• Existing value chain assessments updated and new value chains validated.
Targeted PSNP households start production or improve productivity and quality of selected products.	• Targeted PSNP households have formed producer or marketing associations. • Newly formed producer or marketing associations have access to production inputs. • Targeted PSNP households received training or technical assistance on productivity and quality of production. • Government, private sector, research institutions and others are providing targeted PSNP households with market extension services, post-harvest storage, assistance with handling and marketing. • Women have the skills necessary to be successful entrepreneurs. • Private sector engaged in value chain activities and linkages based on market demand created. • Private sector and producer/marketing associations engaged in contracts, trader credit, warehouse receipt schemes and other contract farming.
Stakeholder forums and coordination groups help value chain actors and stakeholders resolve problems and meet shared goals.	• Coordination group and stakeholder forums established for value chain development.
Market information platforms provide targeted producers with the information necessary to negotiate fair prices, access to technical assistance and productive inputs.	• Market information platforms created.

Source: PSNP Plus Project Proposal (2008)

The project ultimately aims to support 500 households under the honey value chain component, 1,800 households under the white pea bean value chain, and 1,600 under the cereal value chain.

2.3 Research Questions

The overall objective of the study was to test the following causal model:

"Improved linkages between poor households and commodity markets, plus enhanced use of microfinance leads to asset accumulation at household level with associated improvements in PSNP graduation".

Based on this the key research question for the study was:

1. Do combinations of Microfinance and Value Chain Activities lead to household asset accumulation?

Under this key question the following sub-set of questions were investigated:

- What changes in livelihoods assets have occurred since the project started?
- What factors contributed to any assessed change in these assets?
- What was the relative contribution of project factors to any assessed change?
- How can the project interventions be improved to assist participants to protect or accumulate assets?

Additional research questions focused on identifying strategies and interventions that can lead to asset accumulation and household food security. More generally there was a consideration of how these can support PSNP graduation and poverty reduction. Specific research questions included but were not limited to:

- How do communities and PSNP participants define relative wealth status, and what indicators do they associate with the poverty and food insecurity. Conversely what indicators do they associate with food security and relative wealth?
- What strategies or interventions are required to assist poor, food insecure households achieve long-term food security?

3. ASSESSMENT METHODOLOGY

3.1 LIS Approach

Most definitions of impact in the humanitarian and development literature involve the concepts of change and attribution. A project-level impact assessment essentially tries to answer the following three questions (Watson, 2008):

1. What changes have occurred in the project area since the start of the project?
2. Which of these changes can be attributed to the project?
3. What difference have these changes made to the lives of the project participants?

With these three questions in mind, the overall goal of the Longitudinal Impact Assessment (LIS) is to measure changes in the physical and financial assets that are currently being used by the Government of Ethiopia as proxy benchmarks for PSNP graduation, such as land, livestock and tool holdings. The study also aims to assess changes in income and expenditure. For example, changes in income sources will capture livelihoods diversification, or an increase in

the relative contribution of income from specific sources such as those being promoted by the project, namely honey, cereals, and white pea beans. Changes in certain key expenditures will be used as a proxy for real income. These will also capture investments in livelihoods assets, such as land, livestock, education etc. facilitated through project-derived loans or indirect project income transfers. Positive changes in productive and financial assets will also capture household resiliency, these being proxy indicators for resiliency particularly in the event that no major shocks occur during the project timeframe.

The study aims to use a before and after panel survey approach across three points in time (baseline, midterm and final assessment). This approach will be used to assess changes in the asset indicators against a baseline. The same respondents or representatives from the same households will be used during all three assessments.

Due to a number of practical and technical delays outside the control of the assessment team however, the baseline assessments had to be rescheduled until after the start of the project. A retrospective baseline approach was adopted to assess pre-project asset levels in households participating in the project's micro-finance and value chain activities. Given the timing of the baseline assessments, it was therefore proposed that a baseline and first impact assessment be conducted concurrently. This was carried out by measuring changes in assets against a retrospective baseline using methods described by Catley et al (2008). Attribution indicators (factors contributing to impact) were also collected during this exercise for use in future assessments.

Originally the LIS had proposed using a case control study approach to assess attribution. Due to a number of technical and practical issues however, this was rejected in favor of a less conventional approach for the study in Doba. The revised approach involves controlling for both project and non-project factors contributing to any assessed change. This takes place through the systematic application of participatory ranking and scoring exercises (see Abebe *et al,* 2008 for an example of this).

The second set of impact assessments will be carried out roughly six months after the first study and a third set of impact assessments will be carried out roughly one year after the baseline. This report focuses on the baseline and first round of panel data collection in Doba woreda.

The study in Doba focused on two of the project value chains; honey and white pea beans. The decision to exclude the cereal value chain for this part of the study was based on information collected during earlier visits. Farmers had indicated that cereals were mostly grown for their own consumption, as land holdings are small and people rarely produce a sufficient surplus of cereals to sell.

The white pea bean value chain was selected for two reasons. Firstly, a large enough household sample could be identified to capture the combination of the project's value chain and microfinance (specifically VSLA) activities. As the scale and status of VSLA implementation in Doba is more advanced than in the other LIS study areas, the opportunity presented itself to assess this particular project component, and this factor was considered in selecting this value chain. Secondly, some production benefits could be expected at the time the assessment took place.

The honey value chain was selected as an afterthought and was only included during the first week of the assessment. Initially the LIS had planned to assess this value chain in Doba, but no production benefits could be expected at the time of the assessment. The list of selected

households was small furthermore and only partially available. A statistically representative sub-sample of VSLA participants was therefore not expected.

At the time of the assessment however an updated list of honey value chain participants (both actual and planned) was made available. Although the LIS had been considering assessing the honey value chain in one of the other study areas, visits to that project area indicated that it was not well-suited to honey production and delays in implementation suggested that any potential impact would occur after the project ended. Given these developments and the potential of honey in certain parts of Doba, the research team decided that the potential learning benefits warranted the inclusion of this value chain. Although changes in assets were assessed for the honey sample using the same retrospective baseline approach discussed above, the study focus for this value chain was mostly collection of baseline data rather than impact assessment.

3.2 Overview of Methods and Indicators

The assessment had two main components; household interviews and focus group discussions. The household component used individual households as the unit of analysis. This component was designed to collect mostly quantitative data using a conventional questionnaire format, including a number of standardized participatory assessment methods. The focus group component was designed to collect mostly qualitative contextual data on the project activities, communities, and areas. The focus group discussions were structured around a set of standardized participatory assessment tools providing some numerical data. A number of key informant interviews were also carried out with both project and non-project participants. These interviews were used to collect secondary data on the project and study area.

3.3 Indicator Selection

The choice of indicators was largely based on PSNP graduation benchmarks (tools/livestock). While it should be noted that household items are not used as PSNP graduation benchmarks, these were included as they may represent important wealth indicators and over time may be useful in capturing project impact.

The selected asset indicators were validated and refined during scoping visits to the project area. Indicators on sources of income and common household expenditures were also collected and refined during these earlier visits. Some indicators, such as certain types of livestock (e.g. camels and horses), and items such as mobile phones were also included although they are uncommon amongst PSNP households. It can be expected that people may begin investing in these assets as income and assets increase, and these assets may become useful baseline indicators for longer-term poverty research. These indicators have not been presented in the results.

3.4 Sampling

3.4.1 Method and Size

For the household component of the study a random stratified sampling approach was used. The sampling frame was derived from the list of project participants involved in the honey and white pea bean value chains. The VSLA participant lists were not used as a basis for the sampling frame as they may include non-PSNP household members. Earlier visits to the project area had confirmed that a considerable proportion of the VSLA members interviewed were not actually involved in the PSNP. The sampling frame for the white pea bean categories was

limited to households already identified in the project participant lists, which had already received asset transfers under the PSNP Plus project. The sampling frame for the honey value chain category consisted of participants who had either already received asset transfers, or who had been identified to receive asset transfers either during or shortly after the assessment.

The sample from the white pea bean value chain was stratified into two categories; one including value chain members involved in existing VSLAs and one including value chain members involved in recently formed VSLAs established under PSNP Plus. This took place on the basis of subjective information collected during earlier visits, which suggested that older members would have accumulated more assets and financial literacy than newer members, thus creating a separate project category.

The overall sampling frame for the honey component was fairly small and so the decision was made to consider the entire sampling frame for the sample regardless of VSLA participation. An unspecified number of households across all three categories are also participating in the project's cereal value chain. The sampling frame was not reduced to either include or exclude these households. Given that no production benefits were expected at the time of the assessment, the honey component focused on collecting baseline data.

A total of 431 households were selected using simple random sampling across all three sampling frames. Cross-registered households (double registration within households or non-PSNP participants) were systematically rejected from the sample. As a result of this and other attrition factors just over 13% of the households originally selected were dropped from the sample. Table 3.1 shows the final sample assessed.

Table 3.1 Sampling frame and actual sample

Household (HH) Category	**Sampling Frame HHs,**	**Actual Sample HHs,**	**Respondent Gender**	
			F	**M**
White Pea Bean Value Chain + Existing VSLA members	569	127	73	54
White Pea Bean Value Chain + New VSLA members	393	120	99	21
Honey Value Chain	190	126	20	106
Total	**1152**	**373**	**192**	**181**

The three categories are hereafter summarized in this report as "old" (white pea bean + existing VSLA), "new" (white pea bean + newly established VSLA), and "honey" (honey value chain).

A total of 67 focus group discussions were carried out across the study area. Participants were selected based on VSLA membership and availability, with the exclusion of participants involved in the household component. Participation in the focus groups was voluntary, and although no attempt was made to systematically quantify the actual number of participants, this ranged from a minimum of six people per discussion, to over 30. Based on VSLA participation the focus group participants included an unspecified number of participants from all three of the project's value chains (honey, white pea beans, and cereals).

3.4.2 Study Locations

Although geographical sampling was not applied, the assessment team visited 23 out of the 33 Peasant Associations (PAs) in Doba where the PSNP Plus is being implemented, covering all

23 PAs within the sampling frame. In two of the PAs visited however the selected households turned out to be living in other PAs, in one PA the selected households were non-PSNP, and in another PA none of the selected households actually belonged to the Value Chain to which they had been registered. Table 3.2 provides a summary of the geographical coverage of the assessment.

Table 3.2: Summary of respondents across PSNP Plus PAs in Doba woreda

No	Name of PA	Category (in No of HHs)				Assessment Methods		Remark
		OLD VSLA	NEW VSLA	Honey VC	Total HHs,	Household Interview	Focus Groups	
1	Mede Bilisuma	5	0	0	5	✓	✓	
2	Ifa Jayna	0	5	0	5	✓	✓	
3	Ibsa Bate	0	0	0	0	-	-	Absence of WPB value chain
4	Bekelcha Biftu	5	9	17	31	✓	✓	
5	Ifa Haka	8	16	7	31	✓	✓	
6	Biyo Jeneta	0	0	0	0	-	-	Mostly Non-PSNP HHs
7	Ifa Janeta	0	0	0	0	-	-	Wrong sample HHs provided
8	Bilisuma	0	5	0	5	✓	✓	
9	Urji	4	0	8	12	✓	✓	
10	Ifa Aman	10	17	9	36	✓	✓	
11	Terkanfata	3	2	14	19	✓	✓	
12	Bedhasa	5	4	12	21	✓	✓	
13	Dekeba	8	2	8	18	✓	✓	
14	Beha Adu	3	2	0	5	✓	✓	
15	Lege Lencha	31	4	12	47	✓	✓	
16	Kufa Kas	9	4	0	13	✓	-	
17	Welkituma Wajjin	6	8	7	21	✓	✓	
18	Weltane	7	8	11	26	✓	✓	
19	Lencha Wedesa	14	14	10	38	✓	✓	
20	Tokkuma Meta Lencha	0	10	11	21	✓	✓	
21	Biftu Oromia	0	0	0	0	-	✓	Wrong sample HHs provided
22	Lubu Dekeb	0	9	0	9	✓	✓	
23	Oda Nagaya	9	1	0	10	✓	✓	
	Total respondents	**127**	**120**	**126**	**373**			

3.5 Data Collection Methods

3.5.1 Household Interviews

The interviews for the household component were carried out by a team of four data collectors under the supervision of an assessment coordinator. The interviews were carried out on an individual basis using a standardized questionnaire that included a number of participatory exercises and some qualitative data. Each interview took between 30-40 minutes to complete and each data collector would typically complete 4-5 interviews per day. The household questionnaire was structured around the following themes/sections:

Table 3.3 Summary of household questionnaire themes and methods used

	Section/Theme	Types of Information Collected (method)	Sample
1	Household and Project Background Information	• PSNP and PSNP Plus activities and participation • Household age, labor capacity and education levels • Occurrence, type and impact of recent shocks/events, and household response to these	N=373
2	Savings and Loan Information	• Household (HH) VSLA participation and history • Recent HH savings history • Recent HH borrowing history and source of loans • Utilization of HH savings and loans	N=373
3	Asset Inventory	• Pre-project and current land holdings • Pre-project and current livestock holdings • Reasons (positive or negative) for changes in livestock holdings; • Livestock sales 2008-2009: type, number, derived income and utilization • Pre-project and current productive assets (tools) and HH items • Reasons for changes in productive assets and HH items	N=373
4	Reasons for an overall increase in Assets	• Identification of reasons/factors contributing to an overall increase in assets • Scoring of contributing factors (proportional piling using 100 counters) n=67	N=65*
5	Income Sources	• Relative contribution of different income sources (proportional piling using 100 counters) • Crop sales for 2008 and 2009	N=373
6	Expenditure	• Actual expenditure on key items • Relative expenditure on food and investments in incomegenerating activities (proportional piling using 30 counters)	N=373
7	Income Changes	• Perceived changes in actual income since 2008 (proportional piling using a nominal baseline of 10 counters) • Reasons for changes in actual income • Ranking of reasons for positive changes in income (simple ranking)	N=373

*Only 65 households experienced an increase in assets

The household questionnaire is included in Annex I of this report

3.5.2 Focus Group Methods

A mixture of qualitative, quantitative, and participatory data collection methods were used for the focus group component of the study. These discussions were primarily used to collect descriptive contextual information on the PSNP, the PSNP plus and more general information on the project area. The focus groups were structured around a checklist, which included a set of standardized participatory exercises. Given that the focus group participants were selected based on their participation in VSLA groups, the checklist was designed to collect specific group-level information on the VSLA groups. It should be noted that an unspecified number of participants from each discussion might have belonged to any one of the three project value chains. Members from several different VSLA groups would also typically be involved in a focus group discussion.

Table 3.4: Summary of focus group methods

	Theme	Type of Information Collected (method)	Sample
1	Community Wealth Ranking	• An estimation of the relative proportion of the community belonging to different wealth groups (proportional piling using 100 counters)	N=26
2	VSLA Group Data	• Group name/number of members/year established • Savings and social fund Contributions (amount and frequency) • Original interest rates and repayment periods • Changes in contributions/ interest rates and reasons • Sources of cash for last contribution (proportional piling using one counter to represent each participant)	N=67
3	VSLA Wealth Ranking	• To assess changes in the wealth status of VSLA members since joining the group (before and after proportional piling using one counter to represent each member of the VSLA group) • Reasons for changes (positive or negative) in wealth status (proportional piling using 100 counters)	N=67
4	Community Wealth Indicators	• Identification of community wealth (asset) indicators and assigning these to different wealth categories	N=26
5	Project and Key Events Timeline	• A timeline of recent events in the project area • A timeline of recent and ongoing projects in the study area	N=26
6	Intervention Preference Scoring	• To assess participants preferences regarding different project interventions in the area (Proportional piling using 100 counters)	N=67

The focus group checklist is included in Annex II of this report

3.6 Pre-Testing

Although the assessment tools had been field-tested during previous visits, a second round of field-testing took place immediately before the assessment. During the pre-testing it became apparent that some of the tools and indicators developed during the earlier visits had been subject to various types of sampling bias. The indicators and tools were adjusted accordingly. It also became clear that a 'normal' reference year could not be established due to recall bias, and so 2008-2009 (agricultural season) was used as the reference year for the retrospective baseline. The time taken for the household questionnaire to be applied was also found to be

unacceptably long. Given the longitudinal approach it was decided to omit some of the modules out of consideration for people's time. A few other minor adjustments were also made and the households and villages involved in the pre-testing were systematically excluded from the sampling frame.

3.7 Triangulation

Various types of secondary data were used to triangulate the assessment results. Project reports and available M&E data were used to establish which project activities had been implemented in order to establish causality. Where relevant the results of other assessments commissioned by the project were also compared with the findings of the study. External reports such as the baseline livelihoods profiles generated by the DPPA Livelihoods Information Unit (LIU) were also used for comparison with the results. Given that the study area includes three livelihoods zones however, and that study participants belong to the lowest socioeconomic group, it is unclear how useful the LIU comparisons were.

External reports on similar interventions, albeit some from different contexts, were also used in the interpretation of the results.

Another objective of the focus group discussions was to validate and assess the consistency of the quantitative data collected during the household component. The household component also included some built in consistency checks, which were used for triangulation. If there had been a reduction in livestock assets for example, participants were asked why, and were given several options (such as that they sold the asset to pay for food). Under a separate section on livestock sales participants were asked how they utilized any income from livestock sales. One would therefore expect agreement between the two responses.

3.8 Data Analysis

The household results from each of the sample categories were analyzed separately using SPSS (PASW) version 18. All household data was tested for normal distribution using the P-P plot function in SPSS. Mean income, expenditure, loan utilization, livestock and crop sales were calculated at ninety five percent confidence interval, as was the data derived from scoring project and non-project factors contributing to change. For changes in assets a comparison of mean scores was calculated at ninety five percent confidence interval using SPSS. Some comparisons in expenditure and assets between the different categories sampled were also analyzed using the same application.

3.9.1 Analysis of VSLA and Non-VSLA Comparison Groups

Initial analysis indicated that there was no significant difference in 2008 asset levels, or 2009 expenditures between the old and new VSLA samples (figures 4.4-4.7), even though respondents in the old sample had been participating in VSLA groups for up to five years. It would have been expected for them to be better-off than the older groups.

The assessment also revealed that some of the new VSLA sample had previously belonged to other groups, or had household members belonging to older groups. Conversely, the assessment revealed that some of the old VSLA members had only recently joined these groups. The spatial distribution of the two samples also may have accounted for differences in wealth status and financial assets. In order to minimize these biases the data was filtered

across all three samples to isolate households that had belonged to VSLA groups for over three years. This included the respondent and/or any other household member. The same filtering method was then applied to households that had either never been involved in VSLA groups, or had only been members for less than a year at the time of the assessment. Again this included the respondent and/or any other household members.

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4 RESULTS

4.1 PSNP Plus in the Context of Other Programs in Doba

Table 4.1 Project intervention timeline

Year	Project/ key component	Remark
2002	REVIVE - Implemented by CARE • PSNP (food for work) • Free food for elders and disabled people • Training on child food preparation methods • Introduction and establishment of VSLA groups (Old VSLA Groups)	7 year project
2004	HIBRET # 1 (Household Income Bearing for Transformation) - Implemented by CARE • PSNP (food for work) • Free food service for elders and disabled people • Training on child food preparation method • VSLA groups (Old VSLA Groups)	1 year project
2005	HIBRET # 2 - Implemented by CARE • Household asset building • PSNP (food for work) • Free food service for elders and disabled people • Vegetables promotion via irrigation with water pump • Training on child food preparation method • VSLA groups (Old VSLA Groups)	5 year project Food converted into cash since September 2009.
2006	World Bank Purchased cattle for the poorest PSNP beneficiaries, provided on credit to be repaid within 2 years	Implemented by the government
2007	HIWOT (Health Initiative Women Owned for Transformation) • Training	3 year project
2007	Cooperative office distributed improved haricot and white pea beans (WPB) in Doba and Tulo woredas	Kenya variety (WPB)
2009	PSNP Plus started – Implemented by CARE World Bank livestock credit fund • 2000 ETB cash credit was provided per household for farming ox purchase • 1000 ETB and 900 ETB cash credit was provided per household for the purchase of heifers and goats	The credit was given to the poorest PSNP beneficiaries to be repaid with 87 ETB interest in 2 years
2009	PSNP-Plus: the food or cash for work labor activity is being implemented under HIBRET # 2 • Provision of improved white pea beans, sorghum and maize seeds variety for PSNP beneficiaries on credit to be repaid in kind • The local government distributed wheat seeds on credit to be repaid in kind • Provision of modern beehives for PSNP beneficiaries with traditional hives on credit • Skill trainings for VSLAs members as trainers of trainers and establishment of new VSLA groups (Old groups reformed, New groups established) • Market access	The seed credit bears a 30% (3/10 kg) in kind interest Recipients paid 130 ETB per hive
2009	RI (Result Initiative): • Family planning education including promoting the use of Norplant contraceptive • Implemented in collaboration with EGLDAM (a local NGO)	

4.2 Project Status at the time of the Assessment

The baseline assessment and first round of panel data collection was conducted from 12th November to 21st December 2009. At the time of the assessment project staff indicated that 158 new VSLA groups had been established under the PSNP Plus and 135 old VSLA groups had been re-formed. Project inputs included training (or re-training) participants in the VSLA methodology, record keeping and the provision of VSLA kits. The establishment of these groups was ongoing and the most recent Monitoring and Evaluation (M&E) data indicates that 2,524 households have been supported under this component (CARE, 2010), although this includes the re-establishment of groups created before PSNP Plus. Based on the project's conceptual framework these older groups would be expected to graduate to formal microfinance earlier than the newly established groups (PSNP, Plus, 2008).

At the time of the assessment a value chain assessment had been completed for both the honey and white pea bean value chains.

Under the cereal value chain project staff indicated that 2,305 households were provided with high yielding and striga-tolerant maize seeds. According to project staff each household received 6.25kg of seeds on credit. These were planted in May-June 2009. An additional 719 households each received between 3-5kg of sorghum seeds on credit. Although according to these figures more households have been assisted than under the original plan, as a result of rain failure very little was harvested in 2009. There is a slight discrepancy between these figures and the latest M&E data, which indicates that 3,065 households have been supported under the cereal value chain to date (CARE, 2010). This may be accounted for by the fact that community facilitators indicated that originally each household was to receive 10kg seeds, with the expectation that they would repay 12kg after the harvest. Given that the study did not focus on this value chain this matter was not investigated.

For the white pea bean value chain, according to one source 1,257 households were provided with 12.5kg improved variety (Awash 01) of white pea bean seeds, and participants were expected to repay 15.5kg seeds after the harvest. According to another source each household received 10kg seeds with an expected repayment of 13kg seeds. Again, only a small harvest was realized in 2009 due to erratic rainfall. According to informants the PSNP Plus white pea bean seed distribution coincided with the distribution of four other varieties of haricot beans (including white pea beans) under the PSNP/OFSP program. In the project area participants collectively refer to a wide range of bean varieties as haricot beans. This includes white pea beans, which as the name indicates can be distinguished from the other varieties by their color (white).

At the time of the assessment other value chain activities included the construction of a community warehouse in one Peasant Association (PA). The purpose of this warehouse was to provide safe storage for seeds as well as post harvest produce, which can then be sold when prices are favorable (CARE, 2009).

In addition 33 marketing animators were selected to provide farmers with current information on crop prices in local and regional markets (CARE, 2009). Three market nodes were established in Hirna, Doba Center, and Debeso, and weighing scales were provided to enable farmers to "accurately determine weights at the time of sale" (CARE, 2009: 33).

Under the honey value chain 190 households had been registered under PSNP Plus at the time of the assessment. Almost all of these households were already involved in traditional honey production. Given that this is limited to areas with suitable vegetation, this component only covers 14

of the PAs in the woreda. Honey production is typically carried out by men and most of the selected participants are male (approximately 80%). The selected households were organized into 16 producer groups, averaging some 10 members per group.

At the time of the assessment these groups had received training in modern beekeeping techniques and management. An intensive training of trainers course in queen bee rearing and construction of transitional beehives was also carried out, and a number of queen bee rearing sites established. Each group was also provided with beekeeping accessories including 'queen excluders, extractors, smokers, sprayers, veil, chisel, brush, gloves and wax' (CARE, 2009). Although the study team did not encounter groups who had yet received the accessories, they would not be needed until they started to produce honey in any case.

A number of the selected households had also received modern beehives through OCSSCO. Due to delays in procuring modern beehives however these asset transfers were still taking place at the time of the assessment. Honey production is dependent on rainfall and the timing of the flowering season (September in Doba) indicated that no production benefits were expected from this component at the time of the assessment. Informants also indicated that it could take at least one year before production benefits are realized, given the time it takes to transition to modern beehives. This component of the study was limited therefore to collecting baseline data. The delays in implementation will provide a useful comparison of production benefits between traditional and modern beehives.

Recent M&E data suggest that 50 households have received modern beehives in Doba (CARE, 2010). Project staff suggested however that over 73 households had received these assets at the time of the assessment.

4.3 Community Characteristics

Table 4.2 Community wealth indicators (n=26 Focus Groups)

Wealth Indicator	**Better-Off**	**Medium**	**Poor**
Percentage of the Population	**14%**	**24%**	**62%**
Number of Oxen	**2**	**1**	**0**
Number of Cows	**1**	**1**	**0**
Number of Calves	**1**	**1**	**0**
Number of Small Ruminants	**5**	**2**	**1**
Number of Donkeys	**1**	**1**	**0**
Number of Poultry Holdings	**6**	**3**	**2**
Number of Traditional Beehives	**2**	**0**	**0**
Number of Modern Beehives	**0**	**0**	**0**
Amount of Land (in Koti, 4 Koti=1Ha)	**6**	**4**	**2**
Number of Rows of Chat	**13**	**7**	**2**
Number of Coffee Trees	**61**	**19**	**0**
Number of Water pumps	**0**	**0**	**0**
Number of Beds	**0**	**0**	**0**
Number of Mattresses	**1**	**1**	**0**
Number of Mats	**2**	**1**	**1**
Number of Lanterns/Fanos	**1**	**0**	**0**
Number of Radio/Cassette Players	**1**	**0**	**0**
Corrugated Iron Roof	**1**	**0**	**0**
Food Security from purchases (months)	**1**	**6**	**9**
Food Security from own produce (month)	**11**	**6**	**3**
Separate room for children	**YES**	**NO**	**NO**
Separate shelter for livestock	**YES**	**NO**	**NO**
Tends other's animals	**NO**	**NO**	**YES**
Engaged in labor	**NO**	**NO**	**YES**

4.3 Characteristics and Background Data on sampled PSNP Plus Households

Table 4.3 Background data on sampled households

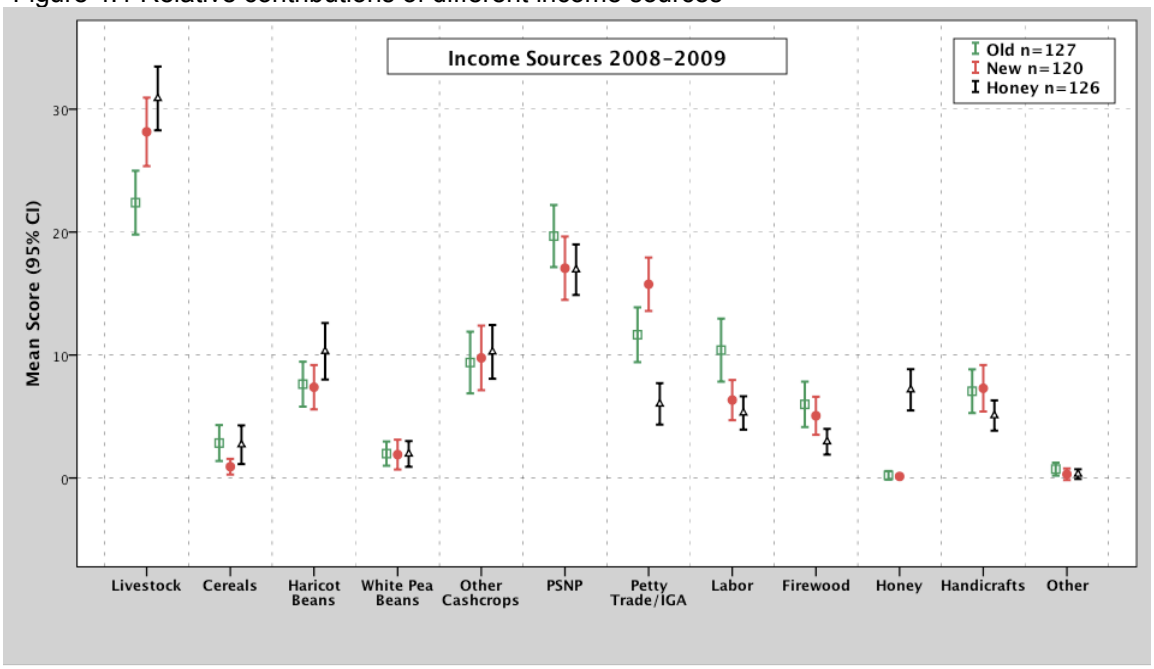
Household (HH) Background and Project Participation Stats			
	Old (n=127)	**New (n=120)**	**Honey (n=126)**
Total number currently involved in VSLA (percentage)*	126 (99%)	119 (99%)	94 (75%)
Total number involved in Honey Value Chain (percentage)**	3 (2%)	2 (2%)	97 (77%)
Total number involved in Cereal Value Chain (percentage)	91 (72%)	74 (62%)	90 (71%)
Total number involved in White Pea Bean Value Chain (%)*	109 (86%)	95 (80%)	53 (42%)
Number of HHs with iron sheet roofing (percentage)	46 (36%)	51 (42%)	68 (54%)
Highest level of education HH head (mean grade)	2.3	1.8	3
Highest level of education other HH member (mean)	6	5.3	6.9
Number of household members (mean)	6.4	6.6	6.8
Number of working adults (mean)	3	3.3	3.2
Number of HH members working on PSNP labor activities***	4	3.6	4.4
Number of years involved in PSNP (mean)	4.6	4.4	4.4
Total number HHs, graduated from the PSNP	0	0	0
Types of shocks experienced in the past year - total # HHs (percentage)			
Rain failure "drought"	126 (99%)	119 (99%)	124 (98%)
Hail or flood	0	1	1
Crop pests or disease	43 (34%)	44 (37%)	55 (44%)
Livestock disease/death	49 (36%)	32 (27%)	48 (38%)
Illness or death of family member (reported)	52 (41%)	41 (34%)	52 (41%)
Other	1	0	0

- *According to the respondent
- **Some registered but not yet received or not wanting asset transfer (modern beehive)
- ***Apparently PSNP labor activities are not limited to adults

4.4 Income

4.4.1 Sources of Income

Figure 4.1 Relative contributions of different income sources



Notes on figure 4.1: Data derived from proportional piling using 100 counters (IGA=Income Generating Activity)

4.4.2 Livestock Sales

Table 4.4 Average household livestock sales and income 2009 – Ethiopian Birr (ETB)

Type	Old n=127		New n=120		Honey n=126	
	Quantity Sold	Income ETB	Quantity Sold	Income ETB	Quantity Sold	Income ETB
Cattle	0.8	1,215	0.9	1,433	1.3	2,276
Small Ruminants	1.4	291.7	1.3	257.2	1.8	304.1
Equines	0.2	53	0.1	31.2	0.1	42.8
Poultry	1.1	16.3*	1.1	20.4*	1.6	29.7

*Discrepancies in income for the same amount of livestock sold explained by variations in livestock prices

4.4.3 Crop Sales

Table 4.5 Average household crop sales 2008 and 2009

Type	Old n=127		New n=120		Honey n=126	
	2008	2009	2008	2009	2008	2009
Haricot Beans Kg	31.9	4	28.6	1.4	52	4.1
White Pea Beans Kg	4.9	0.1	6.6	1.2	14.2	0.1
Honey Kg	0	0	0	0	3.5	1.0
Maize Kg	1.2	0	1.0	0	3.3	0.1
Sorghum Kg	8.1	1.6	4.8	0	8.4	0.1

Table 4.6 Spending method - income from livestock sales

Reasons	Number and Percentage of Responses							
	Old n=127		New n=120		Honey n=126		All n=375	
Food Purchases	83	36%	80	40%	99	38%	262	38%
Pay for Education/Schooling	50	22%	33	17%	55	21%	138	20%
Pay for Healthcare	20	9%	17	9%	32	12%	69	10%
Purchase Clothes	22	10%	20	10%	27	10%	69	10%
Reinvest in Livestock	25	11%	18	9%	25	10%	68	10%
Home Improvements/construction	6	3%	4	2%	8	3%	18	3%
Social Obligations (wedding/funeral etc.)	6	3%	8	4%	3	1%	17	2%
Other Reason	8	3%	3	2%	4	2%	15	2%
Purchase Agricultural Inputs (fertilizer, animal feed etc.)	4	2%	5	3%	4	2%	13	2%
Purchase Perishables (fuel, cooking oil etc.)	4	2%	6	3%	4	2%	14	2%
To Invest in Trade or Income Generating Activity	2	1%	3	2%	1	0%	6	1%
To Pay for Rent	1	0%	2	1%	1	0%	4	1%
Total responses	**231**		**199**		**263**		**693**	

Notes on table 4.6:

The number of responses exceeds the sample size because a reason was given for each type of animal sold and some households sold more than one animal

Perceived changes in annual household income for 2008-2009[5]:

- Old (n=127) a mean decrease of 61% (95% CI 54%, 67%)
- New (n=120) a mean decrease of 60 % (95% CI 54%, 66%)
- Honey (n=126) a mean decrease of 56% (95% CI 50%, 61%)

4.5 Expenditure

Total mean expenditure on key items for 2008-2009:

- For the old (n=127) Ethiopian Birr 1,628.1 (95% CI 1370.6, 1885.7)
- For the new (n=120) Ethiopian Birr 1,584.9 (95% CI 1306.8, 1863.0)
- For the honey (n=126) Ethiopian Birr 2,202.1 (95% CI 1864.8, 2539.5)

[5] Data derived by scoring a total of 20 counters against a nominal baseline of 10 counters

Figure 4.2: Relative expenditure 2008-2009

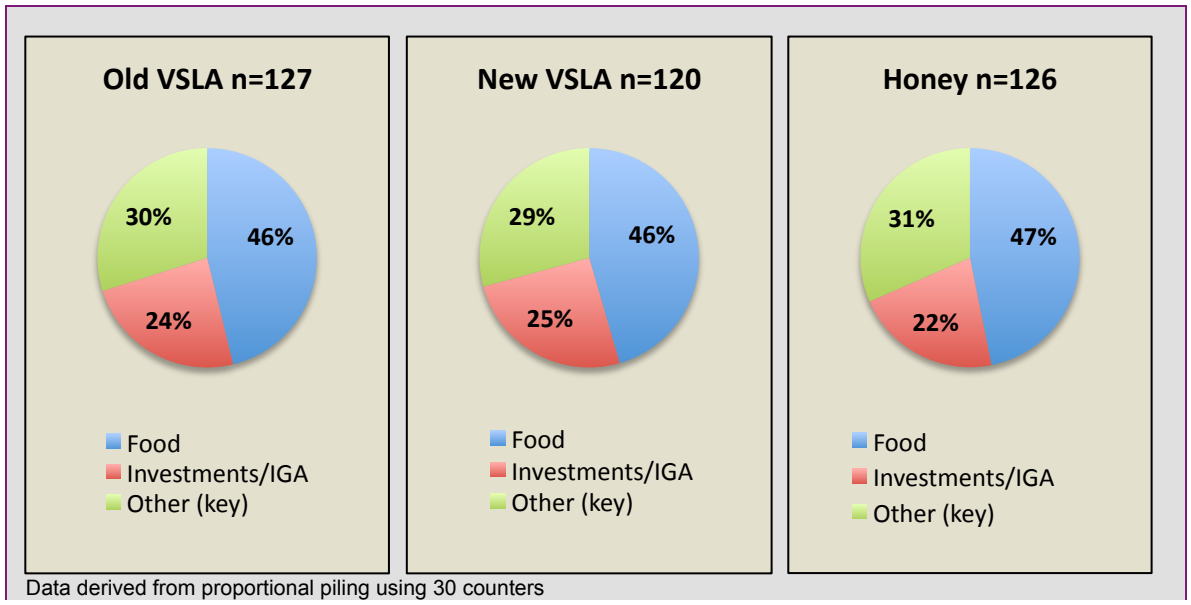
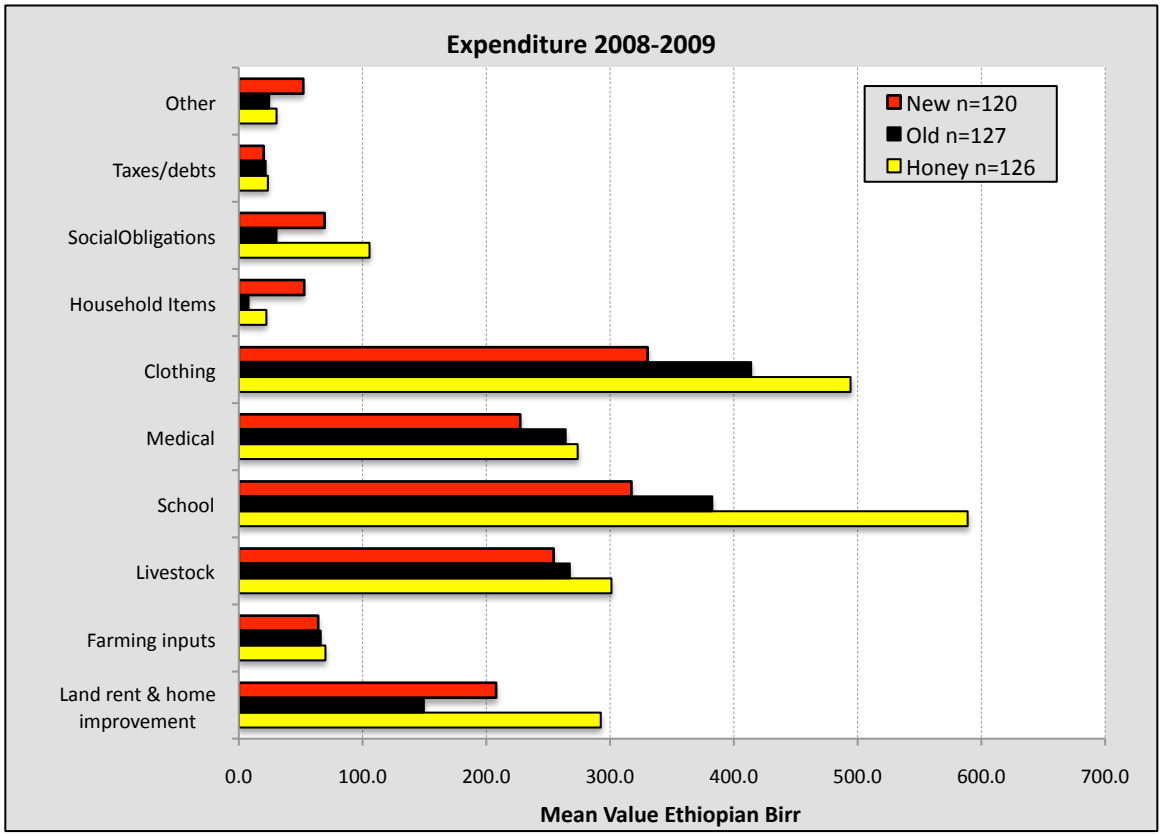


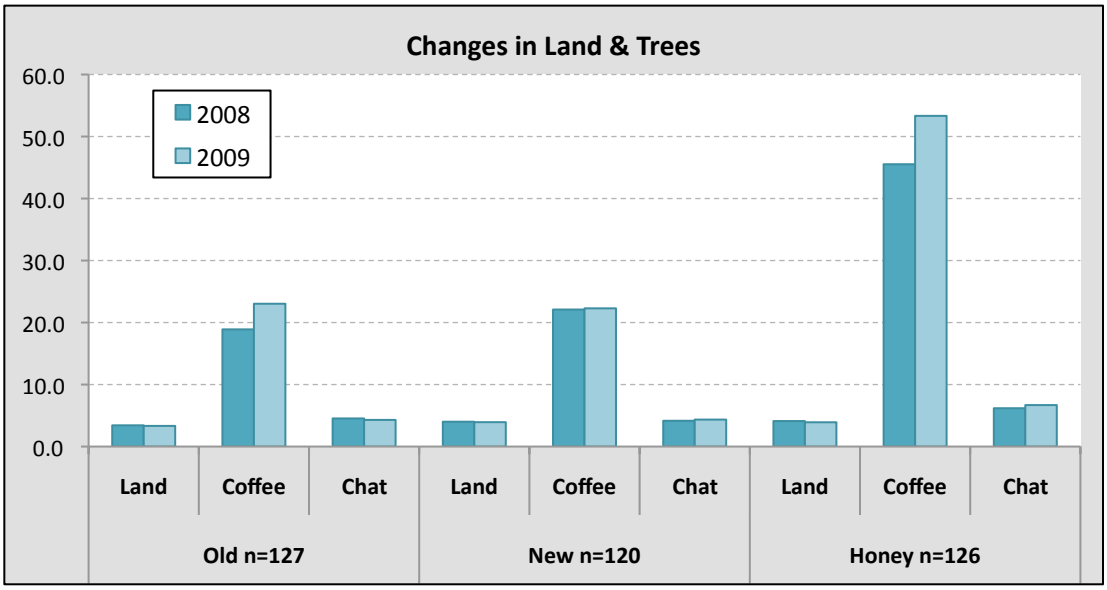
Figure 4.3 Actual expenditure on key items 2008-2009



4.6 Asset Levels and Changes

4.6.1 Land

Figure 4.4 Changes in land holdings 2008-2008

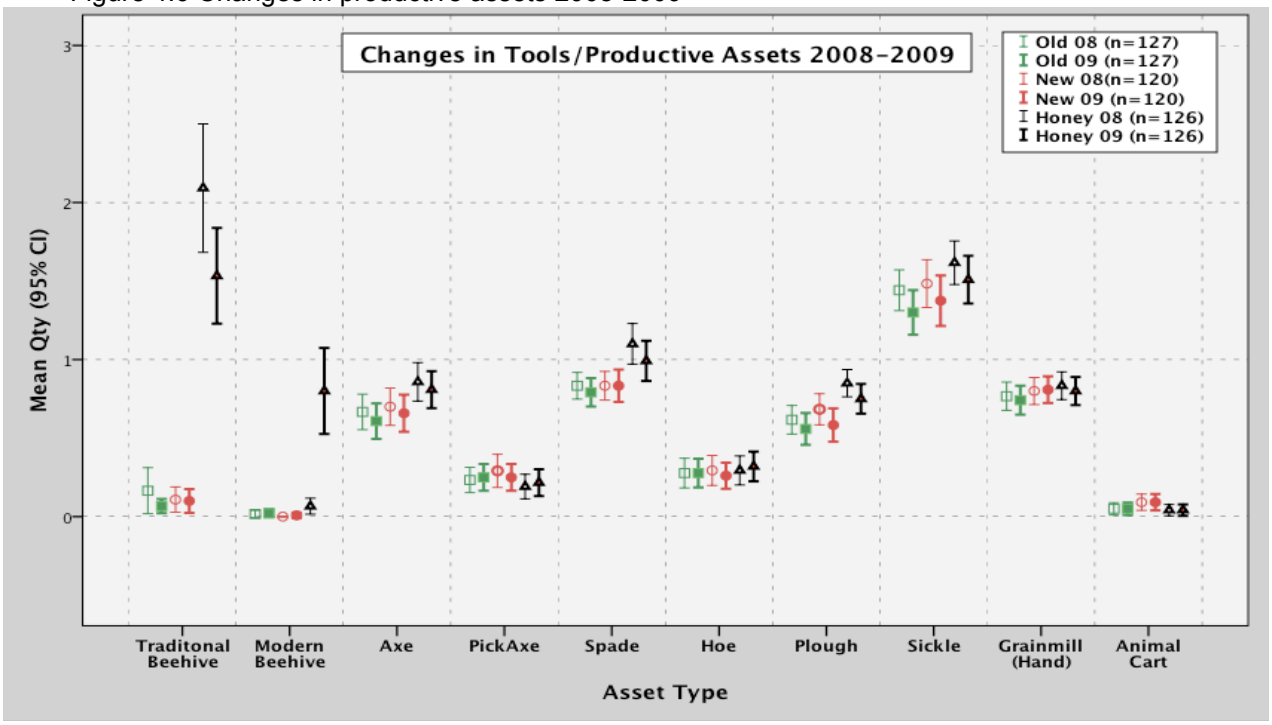


4.6.2 Livestock

Figure 4.5 Changes in livestock holdings 2008-2009 (old n=127, new n=120, honey n=126)

4.6.3 Productive Assets (Tools)

Figure 4.6 Changes in productive assets 2008-2009



4.6.4 Household Items

Figure 4.7 Changes in household items 2008-2009

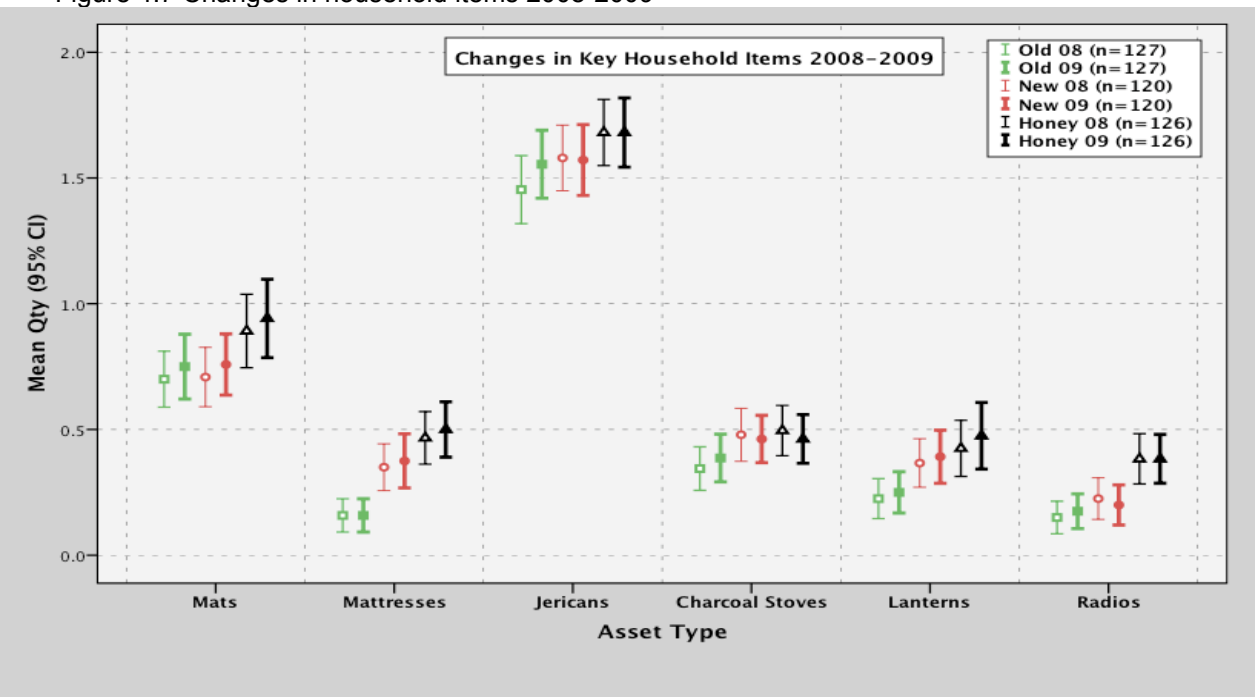


Table: 4.7 Factors contributing to negative changes in livestock assets

Reason (decrease)	Number and Percentage of Responses							
	Old n=127		New n=120		Honey n=126		All n=373	
Sold/Exchanged/Slaughtered for food	147	37%	130	37%	198	43%	475	39%
Livestock died	105	27%	74	21%	75	16%	254	21%
Sold to pay for education/schooling	57	14%	50	14%	66	14%	173	14%
Sold for another reason	37	9%	36	10%	44	10%	117	10%
Sold to pay for healthcare	24	6%	25	7%	34	7%	83	7%
Livestock matured (steer became a bull)	10	3%	19	5%	26	6%	55	5%
Sold/Slaughtered for social obligations	10	3%	16	5%	9	2%	35	3%
Sold to repay loans or debts	4	1%	2	1%	9	2%	15	1%
Total responses	**394**		**352**		**461**		**1207**	

Notes on figure 4.7: Number of responses exceeds the sample size as more than one asset was being assessed

Table 4.8 Factors contributing to positive changes in livestock assets

Reason (increase)	Number and Percentage of Responses							
	Old n=127		New n=120		Honey n=126		All n=373	
Livestock reproduced/matured	56	44%	69	44%	93	54%	218	48%
Purchased with income from livestock sales	17	13%	18	11%	20	12%	55	12%
Other reason *	16	13%	15	10%	22	13%	53	12%
Purchased with VSLA savings or loan	17	13%	13	8%	11	6%	41	9%
Purchased with PSNP/OFSP income or loan	10	8%	11	7%	10	6%	31	7%
Purchased with profit from Petty Trade/IGA	4	3%	21	13%	4	2%	29	6%
Given this asset	3	2%	9	6%	8	5%	20	4%
Purchased with income from WPB sales	3	2%	1	1%	1	1%	5	1%
Purchased with income from honey sales	1	1%	0	0%	2	1%	3	1%
Purchased with MFI loan	1	1%	0	0%	0	0%	1	0%
Total responses	**128**		**157**		**171**		**456**	

* Notes on figure 4.8: Number of responses exceeds the sample size because more than one asset was being assessed. 'Other' includes purchased with income from other sources (coffee and chat sales, labor etc.)

Table 4.9 Factors contributing to negative changes in productive and household assets

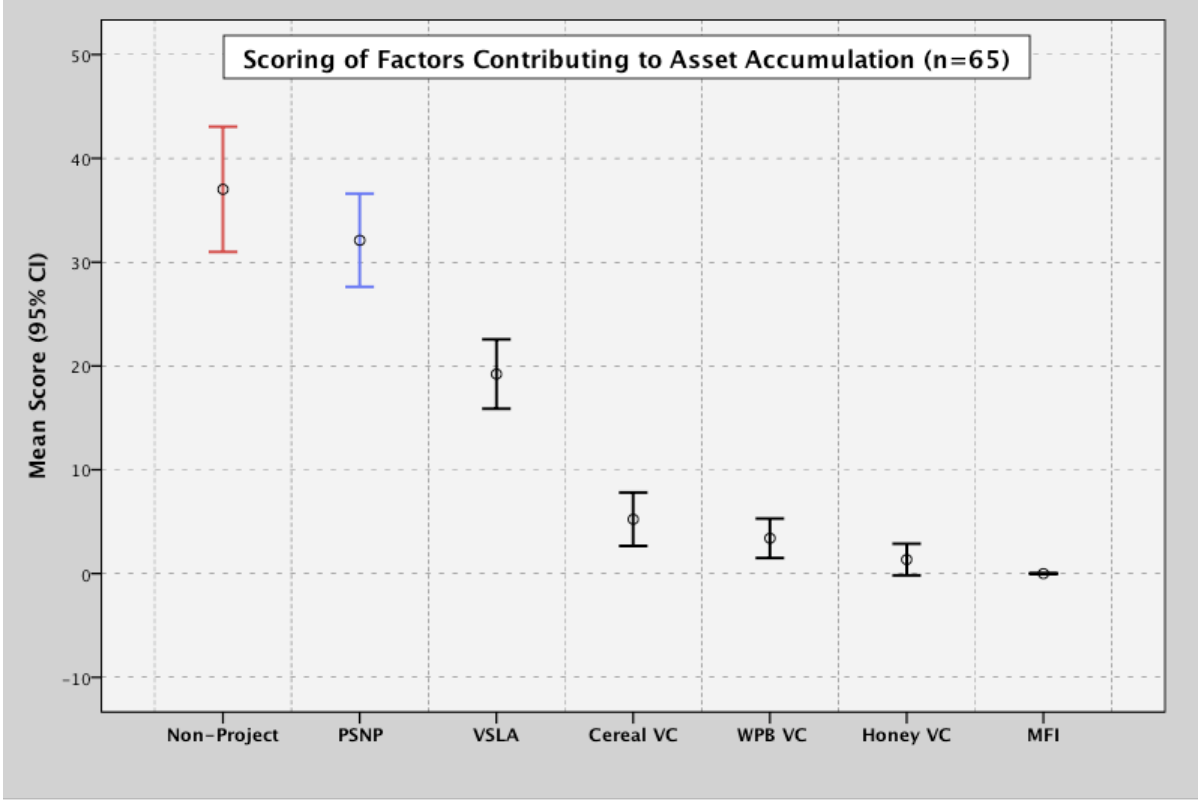
Reason (decrease)	Number and Percentage of Responses (Old n=127, New n=120, Honey n=126)					
	Productive Assets			Household Items		
	Old	New	Honey	Old	New	Honey
Asset stolen/broken	34 (87%)	35 (81%)	44 (54%)	26 (100%)	29 (91%)	27 (100%)
Sold for another reason	1 (3%)	6 (14%)	36 (44%)	0	0	0
Sold/given away for social obligations	4 (10%)	0	0	0	0	0
Sold to pay for education/schooling	0	0	0	0	3 (9%)	0
Sold to repay loans or debts	0	2 (5%)	0	0	0	0
Sold/Exchanged for food	0	0	2 (2%)	0	0	0
Sold to pay for healthcare	0	0	0	0	0	0
Total	**39**	**43**	**82**	**26**	**32**	**27**

Table 4.10 Factors contributing to positive changes in productive and household assets

Reason (increase)	Number and Percentage of Responses (Old n=127, New n=120, Honey n=126)					
	Productive Assets			Household Items		
	Old	New	Honey	Old	New	Honey
Given this asset	2 (22%)	1 (9%)	50 (56%)	2 (5%)	2 (7%)	0
Purchased with profit from Petty Trade/IGA	4 (44%)	3 (27%)	1 (1%)	18 (44%)	13 (43%)	3 (12%)
Other reason	2 (22%)	5 (45%)	7 (8%)	7 (17%)	6 (20%)	12 (48%)
Purchased with income from livestock sales	1 (11%)	1 (9%)	6 (7%)	6 (15%)	3 (10%)	7 (28%)
Purchased with income from WPB sales	0	1 (9%)	10 (11%)	1 (2%)	4 (13%)	1 (4%)
Purchased with MFI loan	0	0	14 (16%)	0	0	0
Purchased with PSNP/OFSP income or loan	0	0	1 (1%)	4 (10%)	1 (3%)	2 (8%)
Purchased with VSLA savings or loan	0	0	0	3 (7%)	1 (3%)	0
Purchased with income from honey sales	0	0	1 (1%)	0	0	0
Total	**9**	**11**	**90**	**41**	**30**	**25**

Notes on tables 4.9 and 4.10: Number of responses less than the sample size because very little change in these assets was assessed.
Changes for the honey sample mostly capture the transition from traditional beehives (decrease) to modern ones (increase).

Figure 4.8 Factors contributing to an assessed increase in assets



Notes on figure 4.8:

- Sample of 65 as opposed to 367, becuase only this number of households experienced an increase in assets in 2009
- Data derived from proportional scoring using 100 counters

4.7 Savings and Loans

Figure 4.9 Value of savings and loans by source

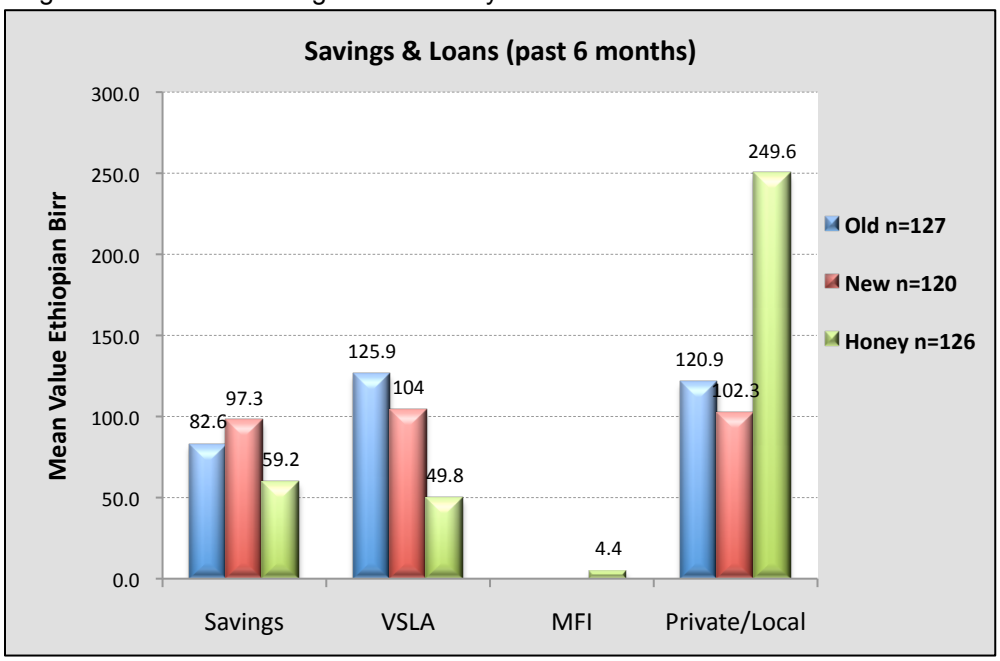
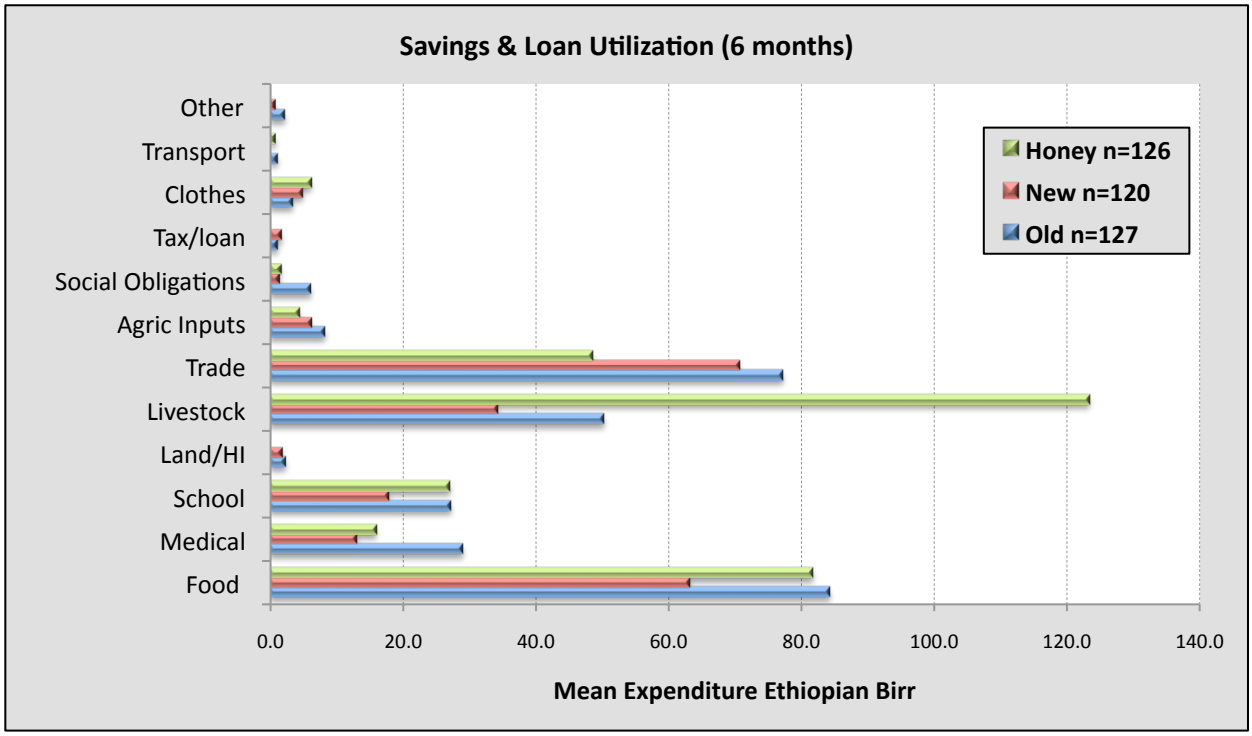


Figure 4.10 Saving and loan utilization

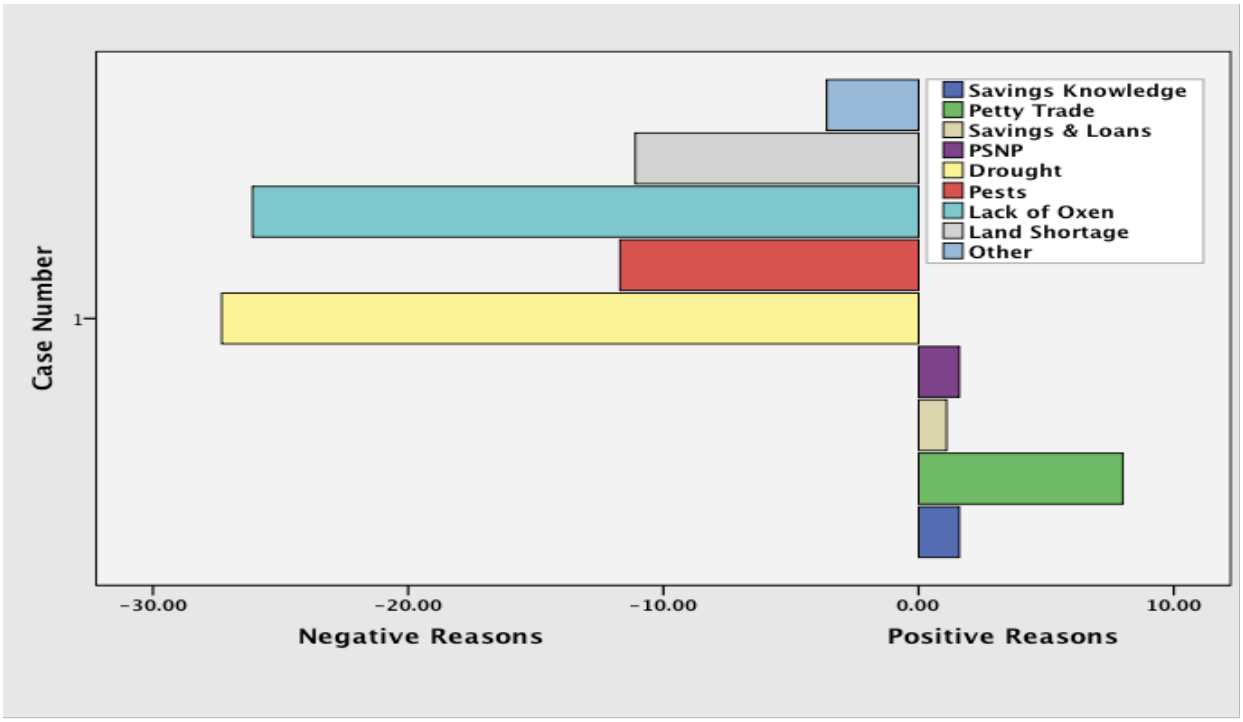


Notes on figure 4.10 Land/HI = Land rent and or home improvements (construction)

Figure 4.11 Changes in VSLA members' wealth status

Data derived from counting exercise with group members

Figure 4.12 Reasons for changes in VSLA members' wealth status (Mean score n=67 groups)



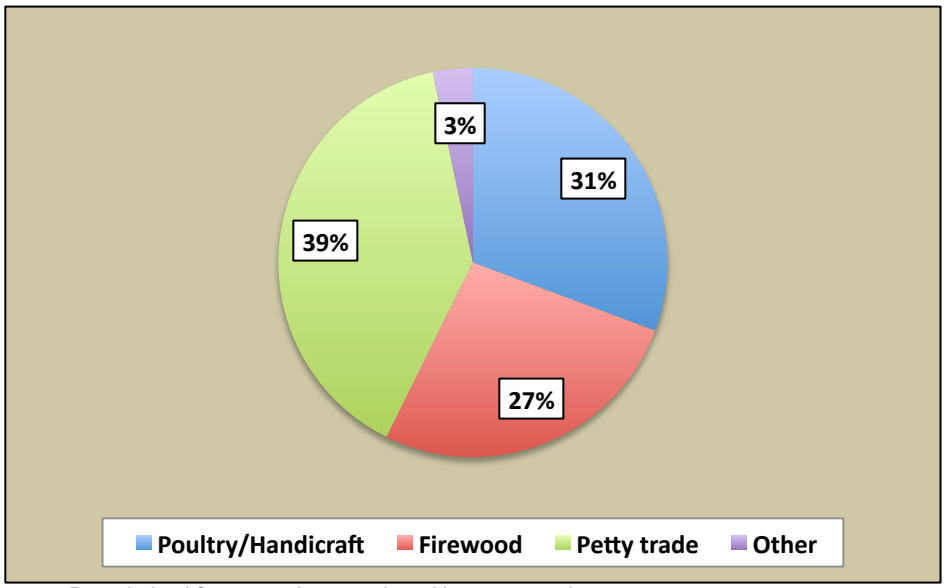
Data derived from proportional piling using 50 counters (one exercise per focus group discussion)

Table 4.11 Intervention preference scoring (n=67 groups)

Intervention Type	Mean Score 95% CI	Assigned Preference Rank
PSNP	44.3 (41.5, 47.1)	1st
Cattle Credit	28.7 (26.8, 30.7)	2nd
Improved Seed Varieties	15.9 (14.9, 17.0)	3rd
Modern Beehives	11.0 (9.4, 12.7)	4th

Data derived from proportional piling using 100 counters (one exercise per focus group discussion)

Figure 4.13 Sources of income for VSLA contributions (n=67 groups)



Data derived from counting exercise with group members

4.8 Comparison Between VSLA and Non-VSLA Households

Figure 4.8.1 Livestock asset comparison 2008

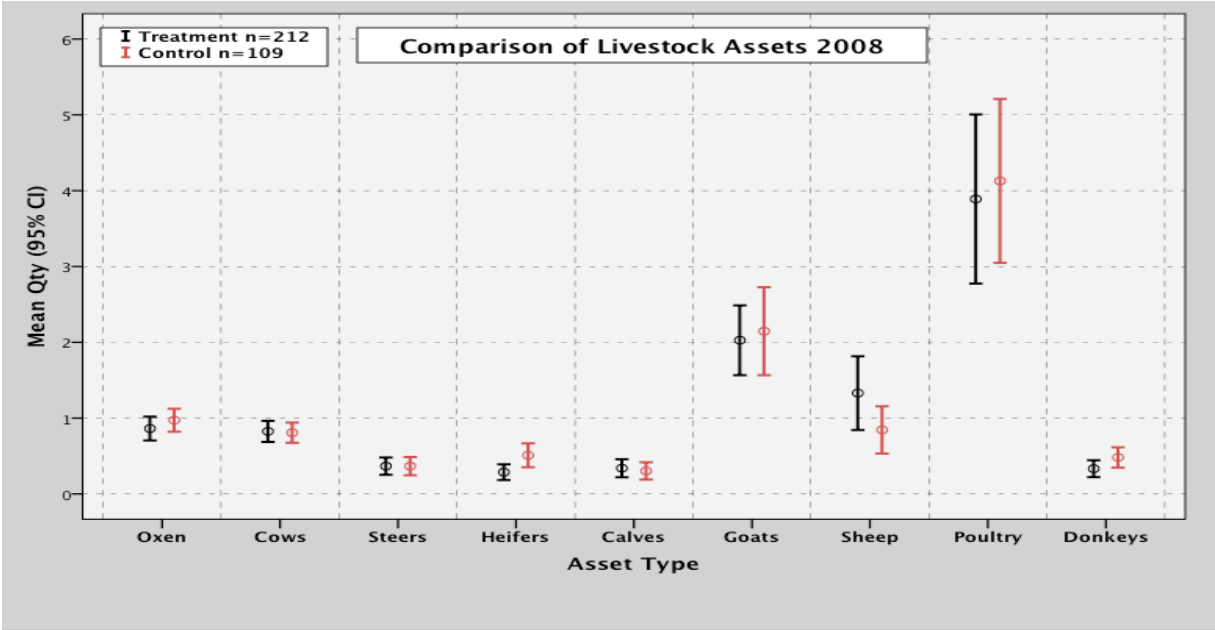


Figure 4.8.2 Land and productive assets comparison 2008 intervention (n=212) control (n=109)

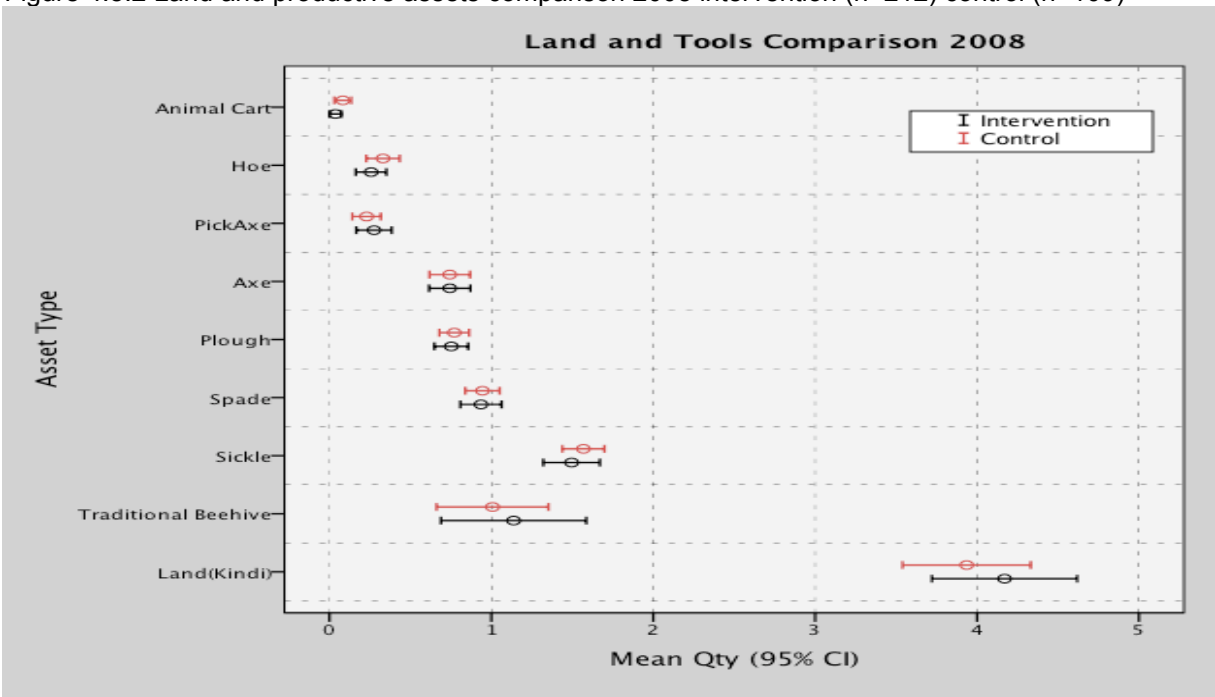
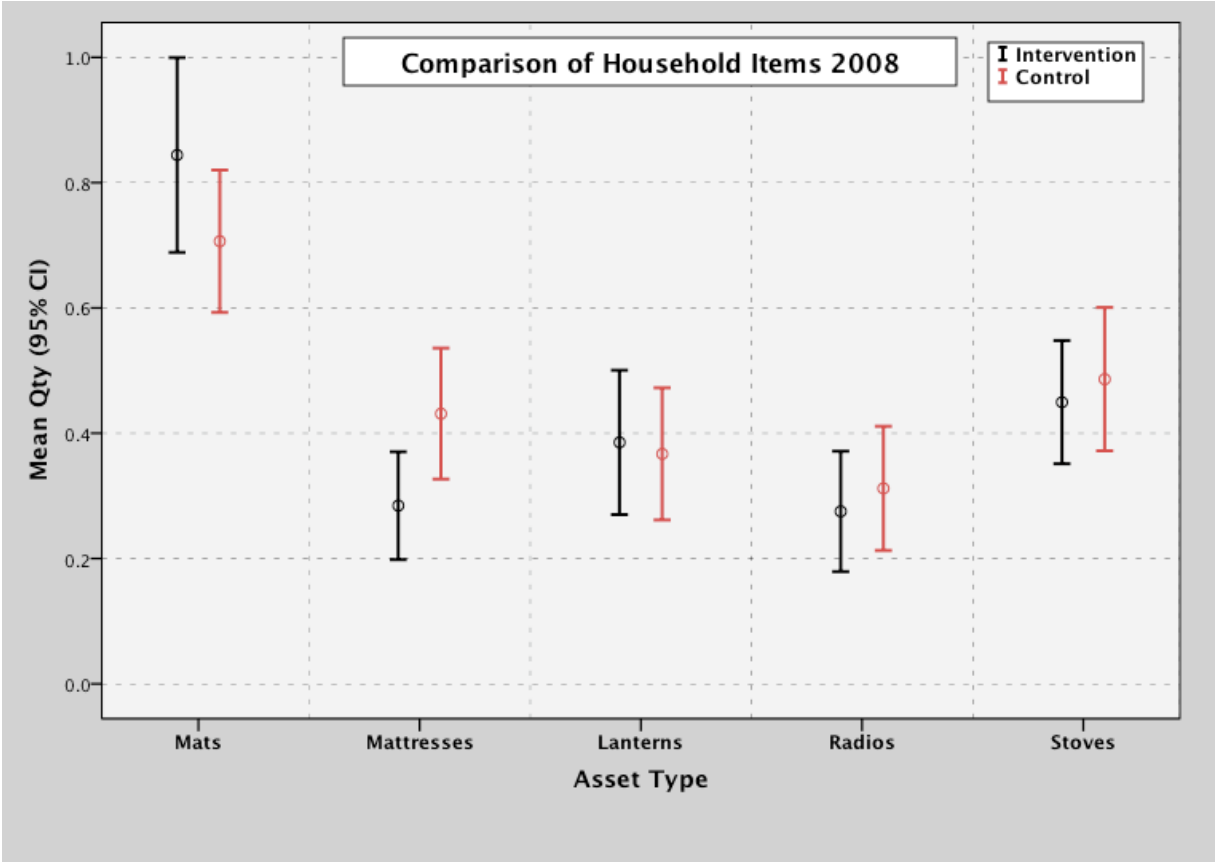


Figure 4.8.3 Household items comparison 2008 interventions (n=212) control n=(109)



Notes on figures 4.8.1- 4.8.3: Samples derived by filtering data to either include or exclude households with access to VSLA groups – for more details see section 3.9

Table 4.8.1 Savings and loan comparison

	Mean Value (ETB) 95% CI		
	Savings 2009	**Loans 2009**	**Expenditure 2009**
Intervention	93.1 (78.8, 107.4)	274.6 (214.1, 335.1)	1681.1 (1476.3, 1885.7)
Control	59.5 (39.7, 79.4)	198.4 (148.8, 248.1)	1831.9 (1515.6, 2148.2)
P Value	0.005	0.067	0.669

Notes: Partially contaminated control – see section 3.9

5. DISCUSSION

5.1 Assessment Constraints and Methodological Limitations

The assessment faced a number of constraints and methodological biases, and the results should be viewed in light of these. This section discusses these constraints and limitations under different general themes, although some of the issues listed under different themes are interlinked.

5.1.1 Timing

Due to various technical and practical delays the assessment took place roughly ten months after the project activities had started in Doba. A retrospective baseline was used and such an approach might be subject to a certain amount of recall bias, therefore the timing of the baseline component was less than ideal. Although this did present an opportunity to assess impact, the way in which the results are presented is somewhat convoluted in that the baseline and impact results are combined.

The timing of the impact component was also somewhat premature. Given the complexity and scale of the PSNP Plus project, the full impact of the project is unlikely to be realized for some time and possibly even after the project has ended. For some of the activities being assessed, such as the value chains, a full production season is required before production benefits can be realized, even before they can be translated into household impact on income, assets, or livelihoods benefits.

Unfortunately the assessment also coincided with a particularly bad year in terms of agricultural production and people were forced to sell their assets in order to cope. The assessment consequently measured the impact of rain failure on assets, as opposed to the impact of the project on assets. Given these considerations, the results do not tell us much about the impact of the project value chains, the formal microfinance linkage, or the impact of the VSLA component if more favorable conditions had prevailed.

Although the retrospective baseline approach may have reasonably established pre-project asset levels prior to the rain-failure shock, the baseline data on income sources and expenditures is likely to be biased. Although the study attempted to establish a baseline using a reference or 'normal year', participants were unable to recall the proportion of household income or actual expenditures beyond one year. The concept of a 'normal' year also proved elusive and difficult to convey. The study was forced to use 2008-2009 as the reference year for the baseline. During this timeframe income from production-based sources was diminished and relative income from other sources, such as the PSNP or economic coping activities, increased. Similarly the data on household expenditures would have been influenced by the loss of income from production-based activities. Although these biases may be partly offset by the fact that income derived from the 2008 harvest *(a relatively normal year)* would be captured, it can be assumed that the baseline results do not represent a normal year.

Although this is somewhat problematic in terms of analysis, assuming that production in 2010 is better than in 2009, people can be expected to recover. The project would be expected to contribute to this process and the final impact assessment should capture this trend.

5.1.2 Attribution

The use of a comparison/control group of non-project participants may have been able to overcome some of these limitations; unfortunately the option to use a comparison group was rejected for a number of reasons. Most importantly, the identification of a reliable comparison group with similar characteristics to the intervention (treatment) group was considered to be unrealistic for a number of reasons. For example, the sampling frame for the intervention group was only identified shortly before the assessment and this included an unspecified number of households participating in different types of project activities. Furthermore, future PSNP Plus participants had not been identified at the time of the assessment, increasing the probability of control group contamination.

Secondly, given the longitudinal approach, without incentives it would be unreasonable to expect control group respondents to participate in the study (and such incentives would also contaminate the control). Furthermore, given that some of the project activities have been implemented in the project area for several years the probability of identifying a true control group seemed unlikely. For example, the VSLA groups have been promoted in the area since 2002 and anyone can belong to these groups regardless of PSNP Plus participation. Therefore not only is the risk of contamination high, but VSLA records do not identify whether a household is involved in the PSNP or not, and the LIS specifically focuses on PSNP graduation.

To some extent the stratification of the sample does offer proxy comparison groups, for example old and new VSLA groups, and the honey sample (with fewer VSLA participants). Partial contamination, the spatial distribution of samples, and assessed socio-economic differences suggest furthermore that even these do not represent reliable comparisons. Again project records prior to the assessment could not accurately identify which households were involved in different project activities, although the assessment has gone some way towards filling in this information gap for the sampled households (table 4.3). A more reliable comparison group for the VSLA component has been constructed through data filtering, though this was not initially planned.

In the absence of a planned comparison group two alternative attribution methods were applied. The first was to simply ask participants to give the reasons contributing towards any assessed impact. Each reason mentioned was then assigned a score of one and the total number of responses were added to give a corresponding frequency score to each factor.
The limitation with this approach is that if two reasons are given, they each receive the same score even though one of the reasons may have been far more important than the other.

Hence a second attribution method was applied, which involved participants scoring the relative contribution of each factor using a participatory scoring technique. Across the entire sample (n= 373) however only 65 respondents claimed to have experienced an increase in assets. Reasons for this increase included a number of project and non-project factors, although mostly the project factors were only given after prompting and therefore have to be considered with caution, as the non-project factors are likely to be under-represented. Similarly a statistically significant sample could not be achieved for each household category (old, new, honey) and so the results were combined for analysis. The results are expected to over represent VSLA-related factors, and under-represent the value chain activities. The results from these exercises must be considered with caution.

5.1.3 Indicators

In terms of indicators, assets are easily measured, and the empirical evidence suggests that they provide a useful poverty measurement (Carter and Barrett, 2006; Carter *et al,* 2008). The recall bias for assets also appears to be minimal, as people can easily recall asset levels over fairly extended periods. The study focused however on physical and financial assets that are easily measured, and did not try to systematically measure less tangible assets such as social capital or capabilities. Any evidence on the impact of the project on these types of assets can only be extrapolated from the qualitative data.

Another concern with these types of assets is their use as benchmarks for PSNP graduation. Arguably there are incentives to stay in the program, in which case it is possible that households will underreport on these assets. Not all assets are fixed furthermore, for example livestock, which appear to be the most important financial asset in Doba, are continuously being purchased and sold. Although the assessment captures livestock sales, the dynamics associated with livestock assets makes temporal comparisons against a baseline somewhat suspect. Although the longitudinal approach may partially mitigate this, the problem persists.

Some of the asset indicators used, such as camels, mules, and mobile phones also proved not to be all that useful for this study, as very few households own them. Although not presented in the results they were deliberately included, as they may prove useful for measuring impact over time if the project helps to increase income and people start purchasing these items.

Identifying an indicator for the white pea bean value chain also proved to be challenging, because participants don't distinguish between the white pea bean seeds provided by the project (Awash 01) and a similar white pea bean (Awash Melka) grown in the project area and distributed under the PSNP/OFSP. The same indicator was used for both varieties; *'Ashengori Adi'* (white beans). The analysis will not therefore be able to effectively isolate and attribute some of the anticipated impacts of the white pea bean seed varieties promoted by the project. For example any increase in income derived from white pea bean sales will have to be partly attributed to the non-project variety. Having said this, during the final assessment additional attribution exercises can be included to accommodate this. This is based however on the assumption that over time participants begin to distinguish between the two varieties as a result of their exposure to the value chain activities.

During the assessment it also became evident that some participants considered the PSNP and OFSP as the same thing. The OFSP also included a World Bank Livestock Credit program implemented in the area. Given that the PSNP was used as an impact indicator contributing to change, the results do not distinguish between the PSNP and OFSP, and the same indicator was used for both.

In order to keep the number of indicators manageable, other composite indicators were used. For example, under income sources, livestock, poultry production and livestock trade were consolidated. In hindsight it may have been useful to use a separate indicator for livestock trade. Similarly, petty trade and other income generating activities were put into one category. Under expenditures, land renting and home improvements were consolidated, as were taxes, debts, and loan repayments. Clearly these represent different sources of income and expenditures, and although the reasons for combining these have been stated, this limitation needs to be considered when interpreting the results.

5.1.4 Sampling Challenges

There were a number of challenges involved in identifying the sampling frame for the assessment. As discussed, the list of project participants used for the sampling frame was only made available shortly before and (in the case of honey) during the assessment. Furthermore the lists did not accurately identify which households were involved in other project activities. The lists were also unable to identify if a household that was registered under the newly formed VSLA groups (or another household member) already belonged to an existing VSLA group. The lists also did not identify projected PSNP Plus participants.

As mentioned this factored into the decision to reject the idea of a control. However, it also made it difficult to control within the sampling frame, as a household might be involved in any number of project activities. For example a household in the honey or white pea bean sample might also belong to a VSLA group and the cereal value chain. One selected household may benefit from one activity only while another may benefit from three activities. Over time the first household might furthermore come to be included in an additional project activity. Although the assessment managed to identify which of the sampled households are currently involved in the different types of activities, this makes any analysis of impact challenging in that the impact of any one specific activity cannot be isolated from the impact of other activities. Any assessed impact can only be generally attributed to any number of project factors.

As discussed in the sampling section furthermore, there were a number of cases where households had been cross-registered across the different samples, double registered within the same sample, not included in the project at all, or non-PSNP participants.

5.1.5 Selection and Respondent Bias

A number of non-sampling errors can also be expected. As mentioned, recall bias can be anticipated from using a retrospective approach. Respondent bias might also be expected, as participants were clearly aware that the study was assessing PSNP Plus activities. This became evident during the field-testing when a number of respondents suggested that they had benefited from the project. However, on further questioning it transpired that they had either not yet received any project inputs, or that they had not realized any benefits from these as a result of the rain failure.

Again similar issues had emerged during earlier field visits, which might be explained by selection bias. During the scoping visits and the first few days of field-testing for example, respondents indicated that the project had yielded considerable impacts. As the study progressed however and respondents were randomly (as opposed to purposively) selected, a less positive picture of impact emerged as participants related the effects of the rain failure. Although the random sampling approach may have minimized selection or geographical bias, respondent bias (rain-failure bias and project bias) would have to be considered.

5.1.6 Secondary data limitations

In terms of triangulation, at the time of the assessment no M&E reports specific to Doba were available. The available M&E data was mostly consolidated by combining Doba with Kurfachelle, which is another project area not included in the LIS study. The M&E data on project implementation was largely extrapolated from the consolidated reports. Although some less detailed data was

provided specific to Doba, there were inconsistencies in the M&E information provided from different sources and the figures provided in this report may not be accurate.

The results were also compared with livelihoods data generated by the DPPA Livelihoods Information Unit (LIU). Although useful, comparisons were difficult as Doba includes three different livelihoods zones each with different socioeconomic and livelihoods characteristics. Comparisons with the LIS results could therefore not be made with any level of confidence. Similarly the LIU data distinguishes between four wealth categories, while assessment participants were only comfortable in distinguishing between three categories based on their own indicators. This may partly be explained by the fact that PSNP Plus participants would be expected to fall into the poorest category, and so this sampling bias may not be representative of the community as whole. Again, this made comparisons with the LIU data somewhat challenging.

5.1.7 Other Challenges

The research team also experienced a number of practical and logistical challenges. As mentioned, the availability of information pertaining to sampling and M&E implied some delays in starting the assessment and in triangulating the results. The random sampling approach also meant that the research team had to visit some of the more remote and inaccessible villages in the study area. During the assessment unseasonal but fairly light rainfall made some of the roads impassable and the team had to access these villages on foot. Although this did not prove to be an obstacle, it does raise concerns about accessibility during the next round of assessments, which are scheduled during the Meher rains.

5.2 Community Wealth Indicators

During the assessment focus group participants identified three wealth categories in Doba; better-off, middle and poor. They assigned wealth indicators (see table 4.2) to each category and identified additional indicators. Land and livestock ownership were considered the primary indicators of wealth, with the better-off and middle groups typically owning more land and cattle (specifically draft animals and small ruminants). This corresponds with data generated by the LIU, which identifies the same wealth indicators across the three livelihoods zones in Doba (DPPA, 2008).

5.2.1 Livestock

Although even the poorest households may own small ruminants, participants suggested that these households were typically given one sheep or goat by wealthier relatives, or as a form of payment for tending to other people's livestock. This practice *(Ribbii)* usually involves a person being given some of the offspring for animals they are tending. Tending other people's livestock was also identified as an activity that only the poorest households engaged in. Although the results indicate that wealthier households own more poultry than the poor, participants maintained that in some cases the poor will have large poultry holdings as they are more dependent on poultry production in the absence of cattle and small ruminants. Similarly donkeys are typically associated with wealthier households (see table 4.2). In the absence of alternative income sources poor households will often invest in a donkey, which can be rented out for transportation, thus providing a steady source of income.

5.2.2 Land

In terms of land holdings, although the wealthier households typically have larger plots, participants suggested that the quality of the land was more important than the actual size. For example, those living at higher elevations characterized by denser vegetation might expect better production from their land than their lowland neighbors as a result of improved soil moisture in these areas.

Participants also suggested that the quality of land and associated crop yields was directly linked to the ownership of draft animals. For this reason Oxen may represent the key wealth indicator in Doba. For example, when scoring the reasons for a decline in the wealth status of VSLA members, drought or lack of rainfall scored first, closely followed by 'a lack of oxen' for land preparation. Pests and land shortage scored considerably lower (figure 4.12). Participants also maintained that livestock are an important source of fertilizer and that households with more cattle and small ruminants would typically expect better yields than those with few or no livestock.

Focus group participants indicated that the quality of land was also partly determined by a household's labor capacity. For example, they maintained that in some cases poorer households actually have larger plots than their better-off neighbors, but that this land could not be fully utilized due to the lack of able-bodied household members. Although this implies that poorer households are labor poor, participants suggested that they are also time poor, often being fully-engaged in a variety of economic and production activities that prevent them from working on their land. For example, poorer households will often engage in informal employment to ensure a steady source of income (see table 4.2). Typically this involves agricultural work for better-off households during the periods when they might be investing in their own farms. Participants suggested that such households could not fully prepare their land and often planted late with obvious implications on production. Again they pointed out that in the absence of draft animals, land preparation is a considerably more laborious and time-consuming process. In effect this represents a poverty trap, as the poorest households do not have the time, capacity or resources to fully utilize or benefit from their land. Consistent with this, delayed planting was also associated with lack of draft animals.

For the poorest households the priority is to ensure that they have enough food or income to get by for a few days or weeks at a time. This can only be guaranteed by engaging in activities such as firewood collection and sales, informal labor, as well as the PSNP and other government and NGO projects. Unfortunately this leaves them little time to work on their farms and the incentives to do so are minimized by the risks associated with rain and crop failure.

5.2.3 Cash Crops and Honey Production

Cash crops such as coffee and chat were also identified as wealth indicators, although production of these is more suited to certain areas within the woreda. Similarly ownership of traditional beehives was associated with wealthier families. Honey production is also limited to higher elevations with denser natural vegetation, so these areas might expect better production than the non-honey producing areas.

5.2.4 Dwellings and Household Items

Certain types of household items such as mats, lanterns and radios are also associated with wealthier households, as well as the type of materials used to construct their homes and the size of the house or the number of rooms they have (see table 4.2). For example, corrugated iron roofing

was consistently mentioned as an indicator of wealth. Having said this, in some areas where grass for roof construction is expensive or not available, poorer households have little choice but to invest in corrugated roofing.

5.2.5 Food Security Duration

Although more difficult to accurately measure than physical assets, the ability to meet household food needs from crop and livestock production was also identified as a useful benchmark of wealth status. For example, the better-off might be expected to meet their food needs from their own production for 11 months of the year, whereas the middle and poorest categories would only be able to do this for 6 and 3 months respectively (see table 4.2).

Based on these wealth indicators, focus group participants estimated that some 63% of the population falls into the poor category, 14% into the middle category, with the remainder being better-off (see table 4.2). PSNP and project participants would typically be expected to belong to the poor and middle categories. Based on these indicators the results from the household component largely support this assumption (figures 4.4-4.7)[6].

5.3 Factors Affecting Food Security and Asset Accumulation

Since the PSNP program was launched in Doba in 2002 a number of factors have had a negative impact on household food security and household asset accumulation.

5.3.1 Rain Failure and Pests

A number of weather-related factors have had a negative impact on production and food security. Partial rain failure *(chamsa)* in 2007 and 2009 resulted in crop failure, particularly cereals, haricot beans and white pea beans. At the household level this resulted in a loss of food from own production, a loss of income from crop sales, and increased expenditure on food. Rain failure also resulted in a shortage of livestock feed and water for livestock, which also translated into production and income losses. In both years people resorted to ‘coping strategies’ in order to meet their food needs and cover key expenses, including selling livestock, borrowing money from VSLA groups and other sources, expanding on petty trade, collection and sale of firewood, and planting drought tolerant crops such as onions, chickpeas and sweet potato.

Participants also repeatedly stated that the PSNP food for work program enabled them to cope with these weather-related shocks. Out of 373 households interviewed over 98% mentioned that they had experienced rain-related shocks in 2009 (see table 4.3). Although participants referred to this as drought, they indicated that total rainfall for 2008-2009 was not atypical of a normal year. In fact participants could not clearly say if it was the failure of either the Belg or Meher rains, rather it was a combination of late, erratic or unseasonal rainfall distribution that had an impact on crop production. If this is the case it is the predictability in terms of timing and distribution of rainfall in relationship to planting that matters more than the overall amount of rainfall.

[6] With the exception of traditional beehives from the honey sample

In addition to the partial rain failure, in both 2007 and 2009 crop production was further affected by a number of pests including armyworm *(geyri)* and crop worm *(ramo)*. Participants associated the armyworm with erratic rainfall and suggested that the resulting soil moisture conditions appear to promote infestation.

5.3.2 Livestock Disease

In 2009 a number of livestock disease outbreaks were reported in some of the PAs in Doba. These included Black quarter and Mudhikut/Botulism (cattle), Hemorrhagic septicemia (sheep), Anthrax (all livestock) and Ossa/Lestriosis (goats). This corresponds with the results from the household component showing livestock mortality as the second most frequently mentioned reason for a decrease in livestock assets in 2009 (see table 4.7).

Although there was little evidence of any livestock vaccination interventions or animal health outreach in the area, drugs and vaccines are available from an animal health provider in Doba center and the Government provides free livestock vaccines. Participants suggested that they are willing to pay for animal health services, although they would either have to bring their livestock to Doba center or convince a trained animal health worker to administer the vaccines in the field. The major challenge has more to do with coordination issues around supply and demand. For example, once a vial of anthrax vaccination has been constituted (100 milligrams), it is enough to treat 100 cattle or 200 small ruminants. Animal health professionals are typically unwilling to provide treatment without some guarantee that vaccines will be fully-utilized. For this to happen might require as many as one hundred households to collectively agree to have their livestock treated. If livestock mortality is as high as the results suggest this represents a major constraint to asset accumulation, particularly in view of the fact that livestock appear to be the principle financial asset and determinant of wealth.

5.3.3 Food Prices

The combination of rain failure, and crop and livestock disease in 2009 was further compounded by a shift in PSNP programming in Doba from food for work to cash for work. Although participants appreciated the income provided by the PSNP, unfavorable terms of trade between cash and cereals has implied a net loss when the cash is converted into a cereal value equivalent. For example, in the past a household of six members would receive 90kg of wheat, 7kg of lentils and 3 liters of oil for a specified amount of work. Presently the same household receives 300 Birr for the same amount of work. Based on market prices at the time of the assessment, 90kg of wheat alone would cost between 360-450 Birr. Unfortunately the timing of this shift from food to cash has coincided with the loss of food from own production and higher food prices as a result of less food being available in the market. Participants suggested that local grain traders deliberately raised the price of cereals when this shift in PSNP programming occurred and started selling poor quality grain at inflated prices. Households were forced to sell more of their livestock at a reduced price in order to purchase food. The results indicate that the main reason people sold their livestock in 2009 was in order to purchase food (see table 4.6).

5.3.4 Education Expenses

For many households in Doba the costs and labor losses associated with high school education may well represent one of the biggest constraints to food security and asset accumulation. In Keraru Zone (covering five PAs) the closest high school is in Hirna *(Tullo woreda)*. According to study

participants the school in Hirna stopped enrolling students in 2008 who had graduated from the primary school in these PAs. People subsequently had to send their children to school in Doba center (which is a considerable distance from Keraru Zone), passing through Tullo woreda in order to reach the center. While this implied increased transport costs for some students, those who live further away had little choice but to stay in Doba Center and rent accommodation during the school periods.

At the time of the assessment the school in Hirna had started accepting high school students from Keraru Zone again and two new schools were being constructed in Debeso and Hadas. Nonetheless, aside from expenditures on food and investments in income generating activities, schooling costs represent the first or second highest expenditures for households across the three samples (see figure 4.3). Similarly after food purchases the next most frequently mentioned reason people sold livestock between 2008-2009 was to cover educational expenses (see table 4.6). Furthermore, focus group participants from Keraru Zone suggested that high school students are an important labor source for households and while they were attending school in Doba they could not help on the farms, with production activities and with household chores.

5.3.5 Lack of Employment Opportunities and Land Division

Unfortunately there appears to be little return on investments in education due to the lack of employment opportunities in the area. Participants maintained that once students have graduated from high school they are unable to find work and continue to rely on their parents for support. Apparently this sometimes causes resentment, as the parents feel they have already invested so much in their children's schooling. Participants also mentioned that due to the lack of jobs, high school graduates often start farming, in which case the family is obliged to sub-divide their land and give them some of their tools. Across the entire sample (n=373) land sub-division was only mentioned four times as a reason for a decrease in land holdings, though this data only represents a one-year time frame. Unless alternative employment and other livelihood options for school graduates become available, the issue of land sub-division may have far-reaching implications for food security and asset accumulation.

5.3.6 Medical Expenses

Mean expenditures on healthcare for sampled households who reported a major illness or death of a family member (n=141) in 2009 were calculated at 395.3 (245, 225.6) Birr, in contrast to 170.6 (115.7, 225.5) for households that did not report a major illness or death (n=232). This would suggest that medical expenses might represent a major constraint to household food security and asset accumulation. Furthermore, income and production losses can be expected from the labor costs associated with illness, which includes both the person who is sick and/or the family member who accompanies that person to receive medical attention.

5.3.7 Household Responses to Food Insecurity

During times of drought or food insecurity people engage in a variety of economic strategies in order to compensate for the resulting loss of food and income. These strategies are sometimes referred to as 'coping mechanisms'.

In response to the rain-failure in 2009 households in Doba either engaged in or expanded on a number of these strategies. These included selling livestock, borrowing money from VSLA groups and other sources, expanding on petty trade, planting drought tolerant crops such as chickpeas, onions and sweet potatoes, and collecting and selling firewood. Some households also engaged in informal employment and there were a few reports of people leaving the area in search of work. A considerable number of participants mentioned the importance of PSNP support in helping them to cope with the impact of rain-failure.

5.4 Income Sources

Although crop and livestock production represent the most important sources of income for project participants, the results indicate that households are involved in a variety of production and employment activities to meet their cash needs (see figure 4.1).

5.4.1 Cash Crops

Cash crops include coffee, chat, cereals, haricot beans, white pea beans, sweet potato, chickpeas onions and other vegetables. Intercropping is practiced to spread the risk of crop failure. Although crop sales for 2009 were diminished as a result of rain-failure (see table 4.5), it is estimated that sales from these crops collectively represent between 20-24% of household income for project participants during the past year (see figure 4.1).

5.4.2 Livestock Production and Trade

Livestock production in Doba mostly involves the sale of livestock and (to a lesser extent) livestock products. Farmers in the area have developed a sophisticated cattle-rearing and fattening system, and many households with mature cattle participate in fattening. This primarily involves stall or tether feeding using crops (maize) and crop residue (because little communal grazing land exists and land holdings are small). Due to erratic rainfall, farmers will plant maize whenever there is rain, on the assumption that if no grains are produced they can at least utilize the crop for livestock feed. There was little evidence of dairy production and households appear to utilize dairy products only for their own consumption. There is however a fairly well-developed market linkage for animal hides, which are sold to *"Selale"* traders and local tanners.

Small ruminants also play an important role in livestock production in the area, and sheep and goat sales provide income for many households. Small ruminant production involves a combination of rearing, fattening, and trading, although the distinction between fattening and trading is somewhat blurred. For example, people will purchase a lean animal and keep it anywhere from a few days to a few months, then sell it for a profit. Although the body condition improves over this period, it cannot really be considered fattening in a scientific sense. Although some people are involved in 'true' sheep fattening, it is far less common than the method described. This partly has to do with the investment return ratio, but probably of more importance is the fact that people depend on a steady cash flow and the time investment for sheep fattening does not accommodate this need.

Less speculative livestock trading is also widely practiced in the area. This typically involves the purchase of cattle (for those who can afford it) or small ruminants from a local market. These would then be sold for a profit at another market, perhaps on the same day or a few days later. Some people also purchase livestock from cattle drivers taking their herds to the market, to save them the

trip. They will then take these livestock the rest of the way to the market and try to sell them for a profit. Livestock trading is arguably the most important trading activity practiced in the area.

Poultry production also provides an important and regular source of income for many households, with the sale of poultry and eggs typically being associated with the poorest households. Some households also earn income from renting out oxen for plowing and donkeys for transportation. Although the results indicate that income from livestock and poultry in 2008-2009 represents between 22-33% of total household income (see figure 4.1), this can partly be attributed to stress sales as opposed to normal income derived from livestock production and trade. Therefore, although these estimates may be somewhat skewed, this would be partly offset by high livestock mortality in 2009 (see table 4.7) and reduced production and livestock prices as a result of rain-failure related factors. Interestingly, income from livestock production and trade was significantly higher for households belonging to the new VSLA and honey categories than for the old VSLA group (see figure 4.1).

5.4.3 PSNP Employment

Although the PSNP labor component only shifted from food for work to cash for work in late 2009, this income source represents between 17-19% of household income across all three groups (see figure 4.1). This suggests that the PSNP is essential in helping households cope with crop failure and the loss of income from both crop and livestock sales. As the third most important source of cash for project participants, the PSNP is essential in helping households cope with food and income shortages and arguably for protecting assets through the prevention of stress sales of livestock.

5.4.4 Petty Trade and Other Income Generating Activities

Petty trade is another important income source for many poor households in the area and participants indicated that they expand on this activity during times of food shortage. Typically this involves buying and selling food items and perishables such as vegetables, cooking fuel, oil, soap, soft drinks, cigarettes etc. A number of households are also specifically involved in speculative cereal trading. This involves purchasing cereals after the harvest when prices are low, storing them, and then selling them for a profit when cereal prices increase. Income from petty trade was significantly more important for the two VSLA samples than the honey group, representing between 12-16% of their income (see figure 4.1). This can partly be explained by the fact that a lower percentage of the honey sample are involved in VSLAs and participants in these groups are encouraged to take out loans to invest in petty trade and other income generating activities. Probably of more importance however is the fact that the honey sample appears to be better-off than the other groups. For example, they own significantly more cattle (see figure 4.5) and have access to other sources of income such as honey sales, which represent some 7% of their total income (see figure 4.1). Petty trade is also less important in some of the more remote lowland PAs such as Bedhasa and Dhekeba, as they are located a considerable distance from supply markets and the costs and efforts involved in petty trading cannot be justified. These areas are also relatively more food insecure and there is little demand for petty trade commodities due to the relative poverty in these areas.

5.4.5 Informal Employment and Firewood Sales

Similarly the results suggest that income from informal labor activities and firewood sales are less important for households in the honey sample, these being activities that households typically

expand upon during times of food and cash shortage. For example, an estimated 10% of household income came from labor and firewood sales for the old VSLA group, whereas for the honey sample only 3-5% of household income came from these sources (see figure 4.1). Informal labor usually involves agricultural work for better-off households, but also includes domestic work, collecting water, house construction, and daily labor in nearby towns. Another form of informal employment *(lolo)* involves someone working for nine days on the farm of a person with a draft animal. The laborer is then entitled to use the draft animal on his or her own farm for three days as a form of payment.

Self-employment activities include various types of cottage industry and handicraft sales. These represent an important supplementary source of income (between 5-8%) for all three groups (see figure 4.1). These activities are mostly carried out by women and include making clothes, knitting textiles and weaving baskets. Although less common, pottery is practiced in some areas where suitable soil is available.

Since 2008 participants from all three categories maintain that they have experienced a significant decrease in household income (see table 4.7). This was attributed to the loss of income from crops and livestock as a result of rain-failure.

5.5 Expenditure

During 2008-2009 the majority of household income (29-31%) for all three categories was spent on food (see figure 4.2). Although this can largely be attributed to the loss of food from own production,increasing food prices associated with rain-failure and other external factors, LIU data from 2008 suggests that across the three livelihood zones in Doba, between 20-50% of household income is typically spent on food for the two poorest wealth categories (DPPA, 2008). A considerable portion of household income (22-25%) is also spent on petty trade, livestock trade and other income generating activities (see table 4.2). Approximately 30% of household income is spent on a variety of other key expenditures, the most important being education, clothing, reinvestment in livestock assets, healthcare, land renting and home construction or improvements (see figure 4.3). It should be expected that certain expenditures, such as investments in livestock and clothes, would have decreased in 2008-2009 as a result of declining income.

5.6 Assets and Asset Changes

5.6.1 Land Holdings

Farmers in Doba measure their land holdings in terms of the amount of land under cultivation. The most common unit used is kindi, which is a somewhat subjective measurement based on the number of days a pair of oxen can prepare the land. For example, it is estimated that a pair of oxen can plow one kindi in a day, or one hectare in eight days.

The actual amount of land a household has access to may be more than reported therefore, because the balance has not been utilized. Based on these measurements mean land holdings in 2008 ranged from 3.4 to 4.1 kindi *(8 kindi =1 ha).* There was no significant difference between the groups (see figure 4.4). In terms of actual land holdings therefore PSNP Plus households would fall into the poorest land category defined by focus group participants (see table 4.2).

Because of the topography and terrain there is limited arable land in the woreda and people do not have the right to sell their land. Even better-off households are unlikely to increase their land holdings. The amount of land cultivated is determined primarily by the household's labor capacity and the number of draft animals they own. Although a few households will rent out their land to better-off farmers, this practice is uncommon in Doba because land holdings are typically small.

In view of these constraints to land ownership and utilization, the results understandably indicate that there was no significant change in land holdings in 2009 (see figure 4.4). Where participants suggested a decrease in land holdings, this was mostly attributed to production constraints. Although the PSNP public works component includes land reclamation and land rehabilitation (such as terracing), participants suggested that these are mostly implemented at higher elevations. Typically areas at higher elevations are more productive and there is a general feeling that these activities 'only benefit the rich'.

Similarly there was no significant change in the amount of coffee trees or rows of chat owned between 2008-2009 (see figure 4.4). Households in the honey sample however had considerably more coffee trees than households in the other two groups. Again this may be explained by the fact that the honey sample is concentrated in areas better-suited to coffee production. Interestingly, based on the wealth categories and indicators identified by focus group participants, in terms of coffee tree holdings even the two VSLA samples would more or less fall into the middle as opposed to the poor category (see figure 4.4 and table 4.2). For chat holdings however all groups would fall into the poorest category (see figure 4.4 and table 4.2).

5.6.2 Livestock Holdings

Based on the livestock wealth indicators identified by focus group participants (see table 4.2), for 2008 the assessed households would fall into the medium and poor categories, with the exception of small ruminants and poultry for the honey sample, which might would put this sample in between the medium to better-off category (see figure 4.5). The results show however that since 2008 there has been a significant decrease in cattle and small ruminants for all categories, as well as a significant decrease in poultry for the honey sample (see figure 4.5). Based on the mean livestock holdings at the time of the assessment all households would fall into the medium to poor wealth groups defined. This can mainly be attributed to stress sales of livestock; the most frequently given explanation for this decrease was that people sold livestock in order to purchase food (see table 4.7). Most of the income earned from livestock sales was spent on food (see tables 4.6). Similarly the second most frequently mentioned reason for the decrease in livestock was livestock mortality (see table 4.7). Again participants reported that animal health had declined as a result of feed and water shortages resulting from rain-failure. This was compounded by a number of animal disease outbreaks across the woreda. Although less significant than these two aforementioned factors, people also sold livestock to pay for healthcare and education (see tables 4.6 and 4.7), which are expenditures that might normally be covered through income from crop sales.

Although far fewer responses were given for an increase in livestock, for specific types of animals some households did see an increase. For example, although a household may have lost all of its cattle, the same household may have increased its sheep and poultry holdings. A number of household respondents indicated that they sold one type of livestock asset (such as a cow) to purchase food, but reinvested part of that income in a less costly animal (such as a calf). The results indicate that one of the most frequently mentioned uses of income from livestock sales was for this type of reinvestment (see table 4.6). The most frequently mentioned reason by far for an increase in specific livestock assets was that they had reproduced (see table 4.8). Although less frequently

mentioned, some households purchased livestock (or poultry) with income from other sources including petty trade, sale of cash crops, PSNP income, and VSLA loans (see table 4.8)

Using the 2008 baseline the results indicate that households from the honey sample also had significantly more oxen than the other two categories (see figure 4.5). The honey sample also had significantly more cows than the old VSLA group. There was no significant difference in livestock assets between the two VSLA groups.

5.6.3 Productive Assets and Household Items

Unlike livestock, the results show that people do not sell their productive assets or household items in order to cope with shocks (see figures 4.6 and 4.7). For assets such as farming implements this is understandable, as these are required for productive activities. There is also little or no demand (low resale value) for used items, so although productive assets are used as PSNP graduation benchmarks and assigned a monetary value, it is questionable whether these can be considered as useful financial asset indicators. On the other hand certain types of productive assets such as ploughs and beehives might indicate wealth status.

Focus group participants identified certain types of household items including mats, mattresses, lanterns and radios as wealth indicators (see table 4.2). It might be expected that better-off households accumulate such items. This may be partly supported by the results, which show that the honey sample have significantly more of these items than the old VSLA sample (see figure 4.7). It should be noted however that this sub-set appear better-off when measured against most of the wealth indicators identified[7].

The results show that there was no significant change in productive assets or household items across all three groups since 2008, with the exception of beehives for the honey sample (see figures 4.6 and 4.7). This change was largely attributed to the fact that households are in the process of transitioning from traditional beehives (reduction) to modern beehives (increase) due to their participation in the PSNP Plus honey value chain (see tables 4.9 and 4.10). Where there was a decrease in individual productive assets and household items, the main reason given was that they broke (see table 4.9). Where an increase was observed, particularly for household items, these items were mostly purchased with profits from petty trade and other income-generating activities (see table 4.10). Although household items are not used as PSNP graduation benchmarks, the lack of basic durables owned by the assessment households illustrates the level of extreme poverty in the project area.

6 PSNP PLUS PROJECT IMPACTS

The results indicate that there has been no significant change in productive assets or household items. There has also been a significant decrease in livestock assets since the PSNP project started in Doba. Although this appears to imply that the project has had no impact on these assets, this can mostly be attributed to the loss of income, increased expenditure, and sale of assets associated with unreliable rainfall and production failure. Secondly, it is still too early in the project to expect any

[7] For example, more Oxen and Cows, less dependent on coping mechanisms such as informal labor, a higher proportion of the honey sample also had corrugated iron roofs.

significant impact on household assets. For example, the linkage to formal microfinance has been limited to the value chain asset transfers.

6.1 Value Chains

The value chains are still in the early stages of implementation and so far most of the emphasis has been on the production side as opposed to the marketing side. For impact to be realized from the value chains, equilibrium needs to be established between supply and demand, and this will take some time. Again, the production activities for all the value chains were severely compromised by rain-failure minimizing any impact that might have been realized through income from the sale of these commodities. This holds true for honey production as well, which is rain dependent. Given the timing of the asset transfers (modern bee hives) for the honey value chain however, the very earliest any production benefits could be realized from this activity will be towards the end of 2010.

Similarly informants indicated that delays in procuring and distributing the white pea bean seeds in 2009 meant that people planted late and many reported that the plants died before germination. Although some farmers suspected that this was partly due to the quality of the seeds, this could not be confirmed and a more likely reason for this was the soil moisture content at the time of planting.

There were also reports that some poorer households, primarily those without land or the capacity to utilize their land, received cereal and white pea bean seeds and sold them to better-off households. Although project staff indicated that they were now screening recipient households based on land ownership, they indicated that they still could not guarantee that people would plant the seeds. Other constraints such as the lack of labor and draft animals might still encourage people to sell the seeds.

Although the study did not focus on the cereal value chain, participants indicated that the improved varieties had been less affected by rain-failure than the cereal varieties commonly planted in the area. This value chain has more than likely had an impact on household food security.

6.2 VSLA Impacts

In contrast to the value chains, the establishment of VSLA groups has gone smoothly and these groups appear to be functioning remarkably well. Although household assets have been declining, the results suggest that these groups have helped people cope with the impact of rain and production failure. For example, households are using their VSLA savings and loans to cover key expenses such as food, healthcare and education (see figure 4.10). The results indicate that the most important reason people sold their livestock assets in 2008-2009 was to cover these same expenses (see tables 4.6 and 4.7). This would imply that the VSLA groups go some way towards helping people protect their assets by preventing stress sales of livestock, particularly small ruminants. The results also indicate that households spent a considerable portion of their savings and loans on petty trade (see figure 4.10). The findings suggest that people typically expand petty trade activities to compensate for the loss of food and income associated with production shocks such as rain-failure. This suggests that the VSLA groups may minimize the impact of crop losses and economic shocks by providing members with the means to engage in other income generating activities.

The VSLA groups provide people with the option to borrow at fairly low interest rates in comparison to other local sources such as wealthier neighbors and traders. Although there is a time and cost benefit to belonging to these groups, participants indicated that it could take up to three days to

secure a loan from other sources, and often unreasonable interest rates or conditions (such as working for the moneylender) are applied. In times of urgent need people may have little choice but to accept these conditions and the VSLA groups now provide members with a preferable alternative.

Given that there has been a decline in household assets (specifically livestock), the study could not assess whether the VSLAs directly assist the majority of members with accumulating assets. The evidence suggests that these groups do contribute towards asset accumulation for some households, either indirectly or in concert with other factors (see figure 4.8). The focus group results indicate however that there has been no change in the wealth status of members since joining the groups (see figure 4.11). Although the assessed decline in assets and income has to do with external factors, the evidence suggests that without other interventions it is unlikely that VSLAs alone would have a significant impact on financial asset accumulation. The next sections will explain this finding and reasons why this is the case.

6.2.1 Asset Comparison Between Old and New VSLA Members

The results show no significant difference in 2008 asset levels between households that had been participating in VSLA groups and those that had joined in 2009 (see figures 4.8.1 to 4.8.3). These results suggest that VSLAs alone are unlikely to have a significant impact on these types of assets. Similarly there was no significant difference in 2009 expenditure or loans for the two groups. In 2009 however the control group would have been involved in VSLA groups for at least part of the year and so these results are partly contaminated (see table 4.8.1). It should be noted however that the savings amount for the intervention group in 2009 was significantly greater than that of the control (see table 4.8.1). This could be attributed to the fact that this category had greater exposure to VSLAs.

6.2.2 Loan Amounts

One of the main reasons why VSLA participants felt there had been no change in their wealth status, is that the amount people can save and borrow is quite small (see figure 4.9). Loans furthermore need to be repaid with interest within a short period of time. For example, mean investments in livestock for the VSLA samples over a six-month period ranged from roughly 34-50 birr. Based on estimates from livestock traders in Doba a goat can be purchased for between 300-1250 birr, or a sheep for between 500-600 birr, depending on the age and quality of the animal and the time of the year. Although a kid, a lamb or another younger animal might be purchased for as little as 100-200 birr, the time it would take to improve its resale value would be far longer than the loan repayment period. This suggests that most of the livestock investments from savings and loans were limited to poultry purchases or supplemented by other income for small ruminant purchases.

Although investments in livestock from savings and loans were much higher (123 birr) for the honey sample (see figure 4.10), this group borrowed over twice as much from other sources than the VSLA groups did (see figure 4.9). It is interesting to note that loans from private sources are typically much higher than VSLA loans, which may explain how the honey sample were able to invest in more livestock from these sources.

Although most VSLA members indicated that they hoped to borrow money from the groups to invest in sheep and goat ‘fattening’ or trading, they repeatedly mentioned that the loan amount was too small to purchase these livestock. Some participants suggested however that they could supplement income from other sources with a VSLA loan in order to purchase small ruminants. Another group

chose to pool their savings and purchase a goat which was then sold shortly afterwards for a small profit. Given the small loan amounts however it is unlikely that VSLA loans alone will have a quick or direct impact in terms of livestock accumulation, at least for poor households participating in the PSNP.

It might be expected that VSLA savings and loans contribute towards indirect downstream asset accumulation for some members. For example, during scoping visits to the study area participants who had belonged to VSLA groups for several years suggested that loans from VSLAs had enabled them to engage in petty trade. Over time income derived from this activity was invested in small ruminants. In some cases these reproduced and in other cases they were 'fattened' and sold. Income from the sale of these offspring and fattened animals was then re-invested in more livestock assets. Although most of the VSLA participants interviewed wanted to invest in petty trade with a view to expanding into small ruminant "fattening" and trade, during the course of the assessment the team rarely encountered examples of this.

Most participants did indicate a desire to use VSLA loans to participate in livestock trading. Assuming that one person might at best be able to access a loan every three months however the returns on this type of investment are fairly small. For example, if someone were to invest in a small ruminant they might be able to turn a profit of between 10-30 birr after accounting for the loan and interest repayment. This suggests that while some people will realize significant financial asset accumulation from VSLA participation, for the majority of households these benefits are likely to be less evident.

6.2.3 VSLA Impact on other Assets

Although the focus of this study is on measuring impact in terms of financial assets, the results indicate that VSLAs are having an impact on other types of livelihoods assets. For example, investments in education and healthcare represent investments in human capital (see figure 4.10). Investments in petty trade and other income generating activities provide livelihoods options in times of crisis, and during better times these investments can translate into increased income and financial assets. As discussed, the VSLA groups also provide members with some insurance against idiosyncratic and covariate shocks. Amartya Sen's 'Development as Freedom' argument views poverty in terms of capability deprivation, or the lack of opportunities and choices that prevent a person from leading the "kind of life he or she has reason to value" (Sen, 1999: 87). From this perspective it can be argued that VSLAs provide participants with a number of opportunities and choices. For example, they provide members with the opportunity to save and borrow money or to invest in petty trade. They also provide people with choices such as the option not to sell assets to purchase food or pay for healthcare or the option not to take their children out of school. Although the results cannot say whether these opportunities and choices are statistically significant, few would argue that they are not important.

6.3 Reasons Contributing to Asset Accumulation

Where positive changes in assets were assessed in the study, participants were asked to score the reasons contributing to this change. These reasons included a number of project and non-project-related factors.

The results indicate that combined non-project-related factors and the PSNP program were the two most important reasons why some households accumulated assets in 2009. The results show that

project factors such as the VSLA groups and the value chains also contributed, but to a lesser extent (see figure 4.8). There were some methodological issues that may have overrepresented the project and PSNP factors in comparison to the non-project factors and similarly the results may overrepresent the PSNP and VSLA in comparison to the value chains (see section 5.1.2). They appear to be fairly consistent with the other study findings even so. For example, the PSNP represents one of the most important sources of income for project participants (see figure 4.1). It would be expected that the PSNP would contribute to any assessed asset accumulation. Similarly the single most important reason given for an increase in an individual livestock type was that they had reproduced (see table 4.8). Again, if this represents a single non-project factor, it would be expected that non-project factors would score highest. It also makes sense that the value chains scored significantly lower, as there has been either little (or nothing) in the way of production benefits so far.

This exercise was only carried out with 65 participants who had experienced an asset increase and so the results cannot be considered representative. Caution should also be applied when interpreting the results from this exercise (see figure 4.8) given the methodological limitations described.

7. PROJECT CHALLENGES

The major challenges to the project (and to asset accumulation in general) are chronic poverty and food insecurity. Covariate shocks such as rain-failure, crop and animal disease are likely to continue to undermine any expected project impact measured against these indicators. Similarly, high expenditures on food, health, and schooling are likely to prevent households from investing in and accumulating assets. If the situation improves in 2010 and people begin to recover it can be expected that they will begin re-investing in assets, though this will take some time. Given the prevalence of rain-failure in the area however, there is a high possibility that people will experience further asset losses, possibly even within the project timeframe. Other factors such as land quality and the lack of draft animals will also directly and indirectly limit people's capacity to fully benefit from the project and accumulate assets.

7.1 Value Chain Challenges

For all of the value chains the risk of rain-failure presents a major challenge to production. For the cereal and white pea bean value chains, land division, the lack of draft animals, and labor capacity also present a major challenge, particularly for risk averse poorer households. For example, the principle assertion behind the World Bank's Social Risk Management (SRM) framework is that individuals, households and communities are exposed to a variety of natural and manmade shocks. Poorer people are more exposed to risks and have fewer and less effective instruments to manage risks and cope with shocks than people with greater assets (World Bank, 2001). These households are therefore more risk averse and less willing to engage in riskier productive activities with potentially high returns (World Bank, 2001). Proponents of the SRM framework argue that providing the poor with better risk management instruments would allow poor households to take on greater risk with higher potential rewards, thus providing them with the opportunity to graduate out of poverty (Dercon, 2005, Holzmann and Kozel, 2007, Dercon et al, 2008).

Although the value chain activities might arguably help poor households diversify their income sources, thus spreading the risk of production and income shocks, people may also be less likely to fully engage in these value chains due to the additional risks involved.

If, as the findings suggest, poorer households are selling seeds to better-off households, this might suggest that greater impact from these value chains may be expected if they target better-off households. Unfortunately this would go against the objectives of the project and the PSNP. Without interventions that can improve people's capacity to better utilize their land holdings for production, the probability of significant impact from these value chains will likely be limited to better-off households. As one participant asked, "How can I be expected to produce cash crops when I can't even feed myself?" Another stated, "I'm sitting down and you're asking me to jump!".

7.2 White Pea Bean Challenges

Although white beans can be distinguished from other bean varieties by their color, white pea beans also come in a number of different varieties. In the project area farmers collectively refer to white pea beans as '*Ashengore Adi', 'Boloke Adi' or 'Kenya'.* The two main types of white pea beans grown in the project area are Awash 01 and Awash Melka. Although they look similar the Melka variety are not quite as shiny as the Awash 01, which also has a slightly higher local market value. Several key informants indicated that exporters prefer this variety. (Some of the farmers interviewed distinguished between the two varieties, referring to Awash 01 as *'Kenya'* and Awash Melka as *'boloke adi'.* These farmers were participating in a white pea bean demonstration farm and most people in the area do not make the same distinction.)

Although the export demand for Awash 01 exists, farmers typically plant the two varieties together (intercropped with cereals) and sell them as one product. The problem is that local traders are reluctant to purchase unsorted white pea beans or will only pay a lower price. A recent baseline report on dried bean value chains in West Hararghe, Arsi and Shewa sheds some light on this issue. During this baseline a number of dried bean traders were interviewed, including one in the neighboring district to Doba *(Chiro)*. These traders purchase beans (and other crops) directly from farmers and sell them to cooperatives in larger market centers (Hamda, 2008). One of the traders indicated that he only received an extra 5 birr/quintal for sorted beans and that this additional incentive did not justify the additional labor involved with sorting (Hamda, 2008). All of the traders interviewed indicated that they did not have the working capital to cover the extra storage and labor costs involved in sorting beans (Hamda, 2008). While the report indicated that in some areas farmers are beginning to sort beans before selling them to traders (Hamda, 2008), this is not currently being practiced in Doba. Some informants did indicate however that women sometimes sort small quantities of the two varieties and sell the Awash 01 variety as seed stock. A kilo of the mixed seeds locally sells for 4.50 birr, whereas a kilo of the Awash 01 seeds can fetch between 5-6 birr. In large quantities the mixed white pea beans look the same and can only be distinguished on close examination. Sorting the two varieties would be an extremely laborious and time-consuming process. The quantities produced by an individual farmer however would make this far more manageable than sorting the quantities handled by a trader.

Unlike other varieties of 'haricot beans', in Doba white pea beans are almost exclusively grown as a cash crop and not consumed. According to key informants the woreda Cooperative distributed Awash 01 seeds in 2007. Some farmers had however already purchased the variety prior to this, suggesting that this is not an entirely new seed variety introduced by PSNP Plus. Caution should in any case be applied given the similarities between the two varieties. For example, although Awash 01 was distributed under PSNP Plus, this coincided with a distribution of Awash Melka and other bean seeds. Project participants were unable to distinguish between seeds provided under PSNP Plus and those provided by PSNP/OFSP. Most households do not consider the distinction important in any case.

A challenge for the white pea bean value chain will therefore be to encourage people either to plant the improved varieties separately, or to sort the two varieties after harvesting. If indeed traders and exporters prefer the Awash 01 variety, farmers are unlikely to maximize their returns on white pea beans unless they are distinguished from the Awash Melka variety. Farmers typically intercrop white pea beans with cereals however, not only as a risk management strategy, but also to improve the fertility of their land. It may be difficult and even counterproductive to encourage farmers to plant the Awash 01 separately.

7.3 Cereal Value Chain Challenges

For the cereal value chain the size of people's land holdings is likely to limit their capacity to produce a surplus for markets. Nonetheless the improved seed varieties appear to have provided a food security benefit, thus partly addressing this constraint to production as well as people's willingness to engage in riskier productive activities.

7.4 Honey Value Chain Challenges

Although it is too early to assess what impact might be expected from the honey value chain, this value chain appears to have greater potential than the other two. This has to do with a number of factors. Firstly, if production and quality can be improved then demand for this product (both locally and internationally) exists and prices are favorable. Secondly, being a partly nocturnal activity, honey production does not interfere excessively with other agricultural activities. Thirdly, the results suggest that the geographical targeting of this value chain appears to have selected better-off households. Arguably these households have greater overall productive capacity and would be less risk averse. The study also revealed that honey producers in Doba do not sell the by-products from honey production. With the right training and exposure the sale of wax products may provide an additional source of income for these households.

Challenges still exist for this value chain. Firstly, honey production is rain dependent and the seasonality of the flowering season is critical. The delay in procuring and distributing modern beehives meant that participants missed the 2009 production season. Some beekeepers also indicated that they might not expect any production benefits for up to two years. In the meantime they will experience a loss of income from traditional beekeeping honey sales as they transition to modern hives, for which they will still need to repay loans. The study encountered a number of participants who were reluctant to purchase these assets despite having been registered in this value chain. There were also cases where bee colonies had absconded from the modern hives, again potentially representing production and income losses. This was attributed to the timing of the transfer of the hives, which did not correspond with the flowering season.

Although this value chain may yield significant income benefits over time, it appears by default to exclude the poorest households in the area. A gender targeting bias can also be expected. Although women are participating in honey production in many parts of the country (such as Tigray and Bale) and represent roughly 19% of the honey sample in Doba, beekeeping is traditionally considered men's work. Linked to this issue is the reported case of a registered female who received a modern beehive without her husband's consent. The husband was upset that she had accepted the hive and returned it. Although this is an isolated anecdotal example, it does raise concerns over the selection and consultation process. According to key informants traditional beekeeping knowledge is typically transferred from father to son or from male elders to younger men. In some cases this knowledge will be transferred from father to daughter or from husband to wife. If accurate this would imply that

the main constraint to gender exclusion involves the transfer of traditional beekeeping knowledge, which could be addressed through targeted training or group knowledge sharing. For certain nocturnal activities there may also be a safety concern for women. For example, in some cases the "apiary" (queen-rearing) site may be located some distance from the homestead and this may present a safety or security risk for women, which would discourage their participation.

7.5 VSLA Challenges

Although the VSLA component is largely well-implemented and appears to be providing participants with important benefits, there are several interlinked challenges.

7.5.1 Contributions

According to participants from the old VSLA groups, members could previously contribute whatever amount they felt they could afford. The amount they could borrow was then dependent on that member's total savings. Participants indicated that the training provided by the PSNP Plus project encouraged a uniform contribution policy. Although this has streamlined the record keeping, many participants are now struggling to make the periodic contributions.

Due to a recent decline in income and wealth status, a number of the groups have agreed to reduce the contribution amount. For a number of groups however participants indicated that some members were unable to make the contributions and were "begging" to stay in the groups, even borrowing from other members so that they could make their contributions and remain in the group. While on the one hand this illustrates the importance attached to group membership, over time it could potentially mean that the poorest members are excluded. If this were to occur then PSNP Plus participants would likely be worst-affected, given that anyone can belong to these groups regardless of wealth status.

Although contextually different, a study on similar lending groups in South Africa highlights the risk of the poor being excluded from the groups. The study found that the people joining and remaining in these groups were actually the better-off (Roper, 2003). The same study revealed not only that the microcredit program was not reaching the very poor, but that better-off group members were unwilling to risk guaranteeing loans to poorer members and even acted to prevent the participation of those poor they considered to be problematic (Roper, 2003).

Fortunately the results show that there has been no overall change in the number of group members since they were established (see Annex IV). This would suggest that people are managing to make their contributions and not dropping out of the groups. There were reports however that some people had dropped out of the groups and had been replaced by new members.

Focus group participants suggested that poultry production, specifically egg sales, is an important source of income for VSLA loan contributions (see figure 4.13). They also mentioned income from petty trade and income from the sale of firewood and handicrafts as important sources of cash for VSLA contributions (see figure 4.13).

7.5.2 Saving Capacity and Loan Limitations

One of the key limitations of the VSLA groups mentioned by participants was that the amount they could borrow was too small to invest in high-return activities like livestock trading and cattle fattening. Participants repeatedly mentioned that the loans were not sufficient to allow them to engage effectively in income generating activities. This is supported by the findings from a recent study of the PSNP Plus project, which states that:

"They want to access loan size that is enough to run the business they want to engage in. Most of the PSNP beneficiaries are complaining about the size of the loan they accessed VSLA, which is in most of the cases Birr 50-100. The farmers need financial services (loan) to undertake activities like animal fattening, petty trade, vegetable production, animal or grain trading or to involve in rearing animals" (MDTCS, 2010: 126).

Unfortunately loan amounts are linked to a group's total savings, which are dependent on contributions. Although lowering contributions might help the poorest members to remain in the group, it also limits the amount that can be borrowed, thereby reducing the impact that might be derived from these loans. At the time of the assessment the contribution amounts for the sampled groups ranged from 1-8 birr (see Annex IV).

7.5.3 Lack of Business Opportunities

Linked to this, participants repeatedly mentioned their reluctance to take out loans due to the lack of business opportunities available to them given the size of the loans. For example, a number of participants mentioned that only a limited number of members could successfully engage in petty trade and they found it difficult to compete with others involved in this activity. Conversely they mentioned also that there was stiff competition within the group for the limited funds available from group savings. For people living in the more remote PAs even petty trade is not a viable income generating option. The distance to supply markets and the demand for petty trade goods in these areas means that the costs in terms of time, effort and expense outweigh the potential returns from the sale of commodities.

7.5.4 Interest Rates and Group Sustainability

Given these reasons several participants suggested that they only used the VSLA groups as a kind of savings account and had no intention of borrowing from the groups. The incentive to save and the disincentive to borrow is partly driven by high interest rates in some of the groups. For some groups the interest rates are as high as 10% (see Annex IV), which is comparable with local bank rates in nearby towns (8.5-11.5%). The loans also need to be repaid within a much shorter period than those required by banks (typically one to three months as opposed to one year in the case of the banks). In some groups this has created conflict between members who wish to borrow and members who wish to save, with the former wanting lower interest rates and the latter wanting higher rates so as to maximize the return on their savings. This has reportedly lowered group morale in some groups. A further concern is the sustainability of these groups if people were to stop borrowing. In this case it is unlikely that the interest generated through loans would allow the group's savings to keep pace with inflation. It is unclear how prevalent this trend really is and the data suggests that the majority of participants have in fact taken VSLA loans. This could however potentially become an issue for some of the groups.

For one of the groups sampled the opposite problem exists. In response to declining income and wealth status the group has lowered the interest rate to 2.5% (see Annex IV). Although this provides an incentive for members to borrow, in this case it is unlikely that the group's savings will keep pace with inflation. For most of the sampled groups the interest rate is approximately 5% (see Annex IV). Not only is this competitive with the bank rates, but should hopefully keep pace with inflation as long as groups don't continue to reduce the interest rates on loans.

7.5.5 Sources of Savings Contributions

Participants indicated that one of the main sources of income for VSLA contributions came from firewood sales. This activity is considered a 'coping' mechanism in the project area and involves an extremely time-consuming process involving wood collection, transportation to the market, finding a potential buyer, and negotiating a price. While this illustrates the effort members will go to remain in the groups, the concern is that this activity comes at the expense of other productive activities. This activity also appears to have created tension between some of the project communities. Reports from two of the PAs visited indicate that VSLA members had come into conflict with communities from neighboring PAs for collect firewood from their areas. The project would hope to avoid this kind of social conflict as well as the potential negative environmental impact.

8 LESSONS LEARNED AND PROGRAMMING IMPLICATIONS

Although the project faces some major challenges, there are also a number of opportunities for the current project and for future PSNP support interventions in the area. While many of the challenges discussed are external and beyond the scope of the PSNP Plus project to address, there are a number of possible areas of intervention that might contribute to the overall impact of the project. There are also a number of internal project challenges that could be addressed more or less immediately that would enhance the quality of implementation and increase the possibility of the project having a significant impact on people's livelihoods.

The project's causal model implies that the combination of the different project activities (microfinance and value chains) will result in asset accumulation for participating PSNP households. Although it may be too early to tell, the study findings suggest that the individual project components are unlikely to have a significant impact on financial assets in isolation from the other components and the project's conceptual framework acknowledges this. One of the main internal challenges therefore is to speed up the implementation process so that the different project components may better complement each other.

For the project value chains the main challenge will be to link the production and marketing components. On the production side the clear risk is supply failure. Timely asset transfers that enable participants to take advantage of the 2010 production season can however minimize this risk.

For the white pea bean value chain there is also the issue of product definition. There is a need to raise participants' awareness of the market specifications for white pea beans and particularly the distinction between Awash 01 and Awash Melka varieties. Greater effort should be made to encourage farmers either to plant Awash 01 separately (if this is not counterproductive) or to sort the different varieties after harvesting.

The study findings indicate that lack of draft animals, household labor capacity, and the quality of land are major constraints to production. These factors therefore represent a major risk, particularly for the cereal value chain, but also to some extent for the white pea bean value chain. These constraints, combined with the high probability of rain failure, underscore the need for additional complementary interventions aimed at improving the productivity of the land. Although such interventions may be beyond the scope of PSNP Plus, in their absence there is a risk that the value chains will not have the desired impact on project participants. Without improving people's agricultural productive capacity and ensuring household food security it is unlikely furthermore that these value chain activities can be scaled up in the future.

The following section outlines a number of possible areas of intervention that have the potential to improve the quality of land holdings, improve production, and protect people's livestock assets.

8.1 Interventions to Improve Land Quality and Crop Production

Option 1: A pilot intervention that might be considered would be to provide each PSNP Plus producer/marketing association with oxen credit. This could be carried out using the model for honey value chain accessories, whereby each group is provided with an ox in the form of a project asset transfer. Each group member would then be entitled to use the ox for a specified number of days and each member would contribute toward the cost of feed and healthcare. Each member would also contribute to a communal fund, which would go towards paying back the loan for the animal. If for some reason the members decide to sell the oxen (or fatten it and then sell it) the income generated could cover the loan repayment and any profit could be shared between the members. Although the demand for this kind of asset transfer would need to be assessed, the study findings suggest that this option could be well-received by project participants.

Option 2: Group members might alternatively choose to contribute towards a fund that would allow those without draft animals to rent another member's ox. Pending a comprehensive assessment of the demand for this kind of intervention, a similar approach might be considered for VSLA group members.

Option 3: Although beyond the scope of the PSNP Plus program, similar pilot concepts might also be applied to the PSNP food for work activities. Participants indicated that PSNP land rehabilitation activities mostly benefit the wealthier households. There is also a growing body of evidence to suggest that participation in public works programs comes at the expense of income or production losses elsewhere (for example see McCord, 2004; Van de Waal, 1998; and World Bank, 2001: cited by McCord, 2008). Given the labor and draft animal constraints of the poor in Doba, and the associated costs in terms of land preparation and planting delays, consideration might be given to paying PSNP participants to work on their own and each other's land. Under this approach PSNP participants who own draft animals might be paid to plough the farms of households without draft animals as part of their PSNP work activities. In terms of remuneration a draft animal might be considered as a substitute of one or possibly two household members working on the PSNP.

8.1 Interventions to Improve Livestock Production and Ownership

Although the PSNP Plus project does not focus on livestock in Doba, the importance of livestock as an asset, a source of income, and as an integral part of the farming system implies that a number of livestock related interventions should be considered.

8.1.1 Cattle Fattening

Future value chain interventions in the area should certainly consider livestock. Although fattening and trading in small ruminants might be more fiscally expedient and provide greater coverage, cattle fattening is what people really want. A sophisticated cattle fattening system already exists in Doba, as does the demand for cattle from this area. Households will typically use a steer or young oxen for plowing, but given that land holdings are small the energy exerted in this activity does not adversely affect the fattening process and agricultural production benefits can be expected as a by-product. Once the animal is retired, farmers will then rest and fatten the animal using crops and crop residue. The return on this investment when sold is expected to be considerable. For example, a mature oxen can fetch between 3500-5000 birr in Debeso market. With this kind of investment and return it would not be unreasonable for people to be willing to pay for ox insurance and veterinary services.

8.1.2 Animal Health and Veterinary Services

Although there a number of challenges involved in providing animal health services, it is well documented that veterinary vaccines and medicines are inexpensive relative to the economic value of livestock (MoARD, 2008). The importance of livestock as a financial and productive asset in Doba would justify the investment in animal health services. The Ministry of Agriculture and Rural Development (MoARD) recently published a set of guidelines for livestock interventions in pastoralist areas. Although contextually different, many of the options for the provision of animal health services presented in the MoARD document could be tailored and adapted to highland areas. This kind of intervention would require a comprehensive needs and planning assessment. It should be noted that this activity is considered best practice for animal health interventions and would be automatically applied (MoARD, 2008).

A major challenge regarding livestock vaccinations in the highland areas is that individual livestock holdings are relatively small, while community livestock holdings are widely dispersed. This represents a coordination issue in that an individual farmer or animal health professional cannot justify the time or effort involved in treating a relatively small number of animals. Nonetheless, this represents an opportunity for PSNP Plus VSLA groups or producer marketing associations to serve a coordination role in animal health service delivery. This would involve group members identifying and prioritizing the kind of animal health services they need, advocating for the provision of these services and collectively mobilizing their livestock assets for interventions that demand a certain number of livestock. In order to reach a critical mass of livestock to justify the investment, two or more groups may have to collaborate. In many respects provision of animal health services in highland areas is relatively simple considering the contrasting mobility of pastoralists and the challenges involved.

8.2 Microfinance Interventions

The project's formal microfinance component presents a number of opportunities that could lead to greater project impact. Granted that provision of microfinance for the poor involves considerable challenges, the success of the Dedebit Credit and Saving Institution (DECSI) in reaching the poor provides a promising example of what can be achieved in the Ethiopian context (see Borchgrevink et al, 2003 and Borchgrevink et al, 2005).

8.2.1 MFI Loans

The results from this baseline assessment suggest that basic loan products that are large enough to enable people to effectively engage in activities such as grain and livestock trading, and livestock production and fattening, would meet the demands of project clients. Although the risks faced by poor households pose a threat to any kind of business activity, arguably these types of investments are less risky than crop based production, and could potentially translate into a significant impact on income and other financial assets.

8.2.2 Cattle Credit

Participants repeatedly mentioned the success of the World Bank/OFSP cattle credit program in the area and this particular financial product should be considered under the formal microfinance component of PSNP Plus. There are certainly risks involved; livestock mortality in 2009 was high (see table 4.8) and some participants sold their 'World Bank cattle' in order to cope with 'rain-failure'. Nonetheless, the experience of the World Bank/OFSP livestock credit program indicates that this specific microfinance product be considered in Doba, particularly given the demand and potential returns that could be derived from cattle fattening. Cattle credit should however be complemented with the provision of animal health services, with such loans contingent on the availability and utilization of a set of basic minimum standards in animal health care.

8.2.3 Micro-Insurance

A recent report commissioned by the PSNP Plus project defines a number of different financial products for the project's formal microfinance component. Aside from savings and loan services, the report recommends a number of micro-insurance products. These include human health insurance and drought insurance (MDTCS, 2010). When analyzed through the SRM framework it logically follows that micro-insurance products would help the poor engage in riskier and more productive activities, which could potentially translate into financial asset accumulation within a relatively short period of time. Certain types of micro-insurance products, such as life and health insurance, would also provide considerable psychological benefits. Even though the potential benefits of micro-insurance might be considerable however, the challenges of providing micro-insurance for the poor have been well-documented.

One of the main challenges with micro-insurance for the poor is the cost. For the insurance provider the initial costs of providing these products demands high premiums at a time when demand is low as potential clients are unfamiliar with and even suspicious of the concept (Mosely, 2003). An initial subsidy may be required to bring the insurers' costs down to a point where it becomes viable (Mosely, 2003, Yunus, 2007). Similar challenges exist when MFIs diversify into new financial products and the evidence suggests that the cost of insurance increases exponentially as the number of risks covered by different products increases (Mosely, 2003).

Another challenge is the type of insurance products that MFIs are willing and able to provide. For example, although both micro and macro level drought insurance have received much attention in recent years (and it would be difficult to argue against the need for this product), in reality it is unlikely that insurance markets will provide this kind of coverage. Micro-insurance typically covers

insurable risks that can be predicted with a certain degree of reliability (Mosley, 2003). As other commentators point out:

"Insurance contracts are most easily offered if risks within the relevant population are not covariate – that is risks do not affect a large proportion of the population at the same time. Insurance for rare and infrequent events is also typically more difficult to offer. Taken together, insurance contracts are less likely to be on offer for rare and covariate shocks." (Dercon et al, 2008:70)

Although drought (or at least rain-failure) is not rare in Doba and can be predicted with some degree of reliability, it is covariant in the sense that it affects a large number of people at the same time. Even in high-income countries insurance against covariate shocks is rarely provided. In low-income countries MFIs often have to rely on external support or subsidies to cover the costs of providing certain types of financial products. Financial sustainability therefore remains one of the biggest challenges facing micro-insurance and microfinance providers in general, particularly when they try to balance this with their social mission of helping the poor (Greeley, 2003).

Daunting as these challenges are, the potential for certain types of micro-finance products in Doba (and possibly some of the other study areas) warrants consideration.

8.2.4 Agricultural Insurance

Although MFIs may be reluctant to provide drought insurance, the Indian MFI BASIX has provided agricultural insurance that guarantees clients a minimum return (Mosely, 2003). There may be a greater willingness for MFIs to provide this kind of insurance to farmers and there is a strong ethical argument to propose a similar type of insurance for PSNP Plus value chain participants. It is important to note that that the value chains are rain dependent in an area where rain-failure is prevalent. To expect poor farmers to invest in these value chains without any guarantee of success or insurance against failure is expecting them to take on an unacceptable level of risk. In the event of rain-failure, as has happened in Doba, not only do these farmers have to write-off the time and energy invested in production, but they are also expected to pay back the loan for the value chain asset transfers. Ethical considerations aside, this could potentially derail the project as farmers will be less willing to participate in these value chains during the next production cycle. Some form of agricultural insurance for value chain participants would certainly be desirable. Insurance could provide an effective risk management instrument for poor households, allowing them to invest in potentially high return activities such as the project value chains.

When viewed through the SRM framework, without some kind of insurance for value chain participants, there is a risk that project participation could actually make people more vulnerable. Given this concern, and in the absence of this type of insurance, consideration should be given to using the PSNP Plus loan guarantee fund to write-off production losses from the white pea bean value chain in 2009. This should not be considered not as a project loss, but as an investment in the future success of the project and insurance against failure.

8.2.5 Health Insurance

Insurance against idiosyncratic shocks that only affect a sub-set of the population (for example, an accident or the illness of a family member) are more likely to be covered by insurance markets (Dercon et al, 2008). Grameen and BRAC have successfully provided life and health insurance to poor clients in Bangladesh (Mosely, 2003). The MDTCS (2010) report recommends health insurance

for PSNP Plus participants and has developed a tentative concept of what this product would look like. Project participants currently use VSLA loans and the social fund to cover healthcare expenses (see figure 4.10), which suggests that the demand for this product exists. Given the negative impact that unexpected illness has on income and expenditure, health insurance could prove to be a valuable product for project participants.

8.2.6 Cattle Insurance

Although livestock are subject to covariate shocks such as drought and disease, there is a possibility that microfinance providers might consider specific types of cattle insurance and BASIX has provided this type of insurance in India (Mosely, 2003). For example, farmers may be willing to pay premiums on an individual ox they are fattening or using as a draft animal. The production and income losses from the death of such an animal are considerable and farmers would be keen to protect their investment against such an eventuality. For this kind of insurance to work it would need to be contingent on the provision of some level of animal health care and certain good animal husbandry practices.

8.2.7 Savings Products

Savings products also provide a form of self-insurance for the poor and there is room for the project to improve access to savings products through formal microfinance. Some analysts argue that savings instruments have been largely undervalued as a risk management tool for the poor (Dercon et al, 2008). The results from this study support this argument in the sense that VSLA members use their savings (and loans) to cope with unexpected shocks such as medical expenses and food shortages (see figure 4.10). While the VSLA groups currently provide participants with a valuable savings instrument, there may also be a demand for other types of savings products. Although this demand would need to be assessed, examples might include long-term savings options. There may even be the potential for clients to use MFI savings as collateral against MFI loans.

8.2.8 Informal Financial Products

For the VSLA groups a number of immediate actions may be undertaken to address some of the challenges identified. The notion of uniform contributions may need to be re-visited, as there is a possibility that over time the poorest members will drop out as they can't make the required contributions. Although some groups have lowered the interest rates, groups with excessively high interest rates should be encouraged to lower rates to the point where members are willing to borrow. Groups with very low interest rates should be sensitized to the risk of inflation and encouraged to increase the interest rate reasonably. Project staff and community facilitators could address these issues with group members through participatory dialogue.

Another idea that might be explored with group members is the possibility of pooling savings to purchase an asset or invest in an activity that would benefit the group as a whole. Given that the loan amounts are too small to invest in high return activities, this option might allow groups to quickly increase their overall savings. For example, a group loan could be used to invest in livestock trading, with the profits either being shared or put back into the savings box.

There is also a need to carry out the planned business skills training activities as soon as possible. Many participants were reluctant to take loans due to the limited business opportunities that can be

carried out with small loans, but also due to having to deal with the stiff competition for the limited business opportunities that exist. Training will need to be well planned, as not everyone can be a petty trader. Although there seems to be room for more people to expand into cereal and livestock trading, the current loan amounts would seem to exclude this possibility. One option might be to discourage groups from sharing their savings at the end of the cycle, but to keep contributing with a view to increasing their overall savings and borrowing capacity. For example, if groups could double the current loan amounts to 200 birr, this would open up a number of new investment opportunities such as grain and livestock trading.

For the honey producers there may be opportunities to develop cottage industries for beeswax products. Small-scale poultry production might also be considered. This is an activity that members are already actively engaged in and participants indicated a desire to invest in improved poultry species. Egg sales already provide one of the major sources of income for VSLA contributions and the expansion of poultry production could reduce people's dependency on firewood sales (thus minimizing unintended negative impacts from this activity).

9 CONCLUSIONS

Although there are aspects of the project in Doba that have been successful and show great promise, there is also room for improvement and opportunities to refine (or possibly redefine) the project. Although it is still too early to assess whether the project will have a significant impact on people's assets over time, there is much that can be done in the interim.

For the project value chains there is a serious risk of supply failure unless production is improved, which could derail the marketing component. For production to be improved the timely delivery of the value chain asset transfers is essential, in order to enable participants to capitalize on the 2010 production season.

Adequate and predictable rainfall in 2010 is also needed. While reliable rainfall cannot be guaranteed, it is reasonable to suppose that rain-failure can be predicted to a greater or lesser extent in Doba during the next three to five years. This has implications for the long-term impact of the value chains and raises questions about their sustainability. While the PSNP Plus pilot project aims to test these value chains with a view to scaling-up, the impact of rain-failure in 2009 and the future risk of rain-failure do raise concerns about the scaling-up of the white pea bean and cereal value chains in Doba.

These concerns are compounded by the fact that PSNP Plus households are poor, chronically food insecure, and either unwilling or unable to risk participation in activities that are unlikely to guarantee that they meet their food needs. For these households food security is a priority and they will continue to employ and prioritize livelihood strategies that will achieve this objective. These strategies come at the expense of riskier, yet potentially more profitable activities, such as white pea bean production. Even though people will continue to produce such crops, if chronic food insecurity persists this will take place as a risk coping mechanism and production is unlikely to satisfy market demand or have a significant impact on income.

Given these concerns there is a need to complement the value chains with interventions aimed at improving food security, helping PSNP households manage risk, and improving their productive capacity by addressing land quality and labor constraints. The study findings suggest that if people can engage in livestock trading (which is less risky than crop production) this income source can

compensate for rain-failure related income and production losses in a bad year. In a good year this income can complement income from crop sales and possibly help people accumulate assets.

The study findings also suggest that people with access to draft animals can improve crop production and compensate for household time and labor constraints. Not only do draft animals provide the incentive and the capacity for people to invest in and utilize their farms, but they also provide a potentially lucrative source of future income from cattle fattening. Interventions that provide people with access to draft animals could potentially mitigate or address some of the production constraints facing the PSNP Plus value chains. Such interventions could by themselves provide food security and income benefits to households, but they could also potentially add value to the value chains.

This is not to suggest that the project in Doba should accommodate a mid-term shift to livestock interventions. Realistically this is beyond the scope of the project and would be impossible to implement. It would involve additional assessment and planning in the context of limited remaining time and budget. It could similarly be argued that education and healthcare interventions might be a more cost effective way of addressing food insecurity in Doba, but again these are well beyond the scope of the project. Nonetheless, if the project value chains are to be continued or scaled up in the future, serious consideration should be given to including these types of complementary interventions.

Even within the PSNP Plus framework there may be room to include activities that provide people with the means to engage in small ruminant trading and access to draft animals. Once participants have been linked to formal microfinance they may have access to sufficiently large loans to engage in livestock trading. Alternatively, if VSLA groups can be encouraged to keep saving beyond the one-year cycle, this would increase the amount of money members can borrow. The formal microfinance component might also include oxen credit for participants. Although this may be beyond the reach of individual households, less ambitious options may be considered (such as providing one ox to each marketing/producer association or VSLA group). Although these and other intervention ideas discussed in this report are untested, the evidence encourages consideration to be given to assessing and exploring opportunities to assess and pilot some of these ideas on a small scale. Although no single intervention is likely to provide a pathway to graduation, they may contribute. The more we can test and learn about what works, the better equipped we will be to identify what combination of interventions will have the greatest impact.

If the flexibility to innovate and pilot can be accommodated within the PSNP Plus it could have far-reaching implications for future policy and programming on the PSNP and OFSP. This learning opportunity should not be missed. At the time of the assessment the PSNP Plus was under budget by a considerable margin, so the reallocation of resources to small-scale pilot interventions could be possible within the existing budget. Alternatively, the project could be scaled back with the objective of consolidating impact at the expense of greater coverage with limited impact.

The study findings suggest that the intervention concepts discussed in this report would help to increase and consolidate the overall impact of the PSNP Plus project in Doba. If piloted furthermore they will provide an evidence base and foundation for the continuation and scaling up of the microfinance and value chain activities being implemented under the current project.

RECOMMENDATIONS

The following set of recommendations should not be viewed as prescriptive, but as a menu of options to be considered:

For the White Pea Bean Value Chain

- There is a need to raise participants' awareness of the distinction between the different varieties of white pea beans and their relationship to market demand and value. Farmers should subsequently be encouraged either to plant the Awash 01 variety separately (as long as this does not negatively affect cereal production) or sort the white pea bean varieties after harvesting. Discussions on these matters should include participants from the producer marketing association and white pea bean traders.

- The improved white pea bean seeds need to be procured and transferred in a timely manner to allow farmers to plant on time. Efforts should be made to distribute these seeds separately from other seed varieties, and the source and quality of these seeds should be validated.

- Consideration should be given to using project funds (for example the loan guarantee fund) to write-off at least part of the debt incurred through seed loans in 2009.

- Consideration should be given to providing participants with crop insurance through project funds for future value chain activities that involve high levels of risk. If not feasible for the current project, this kind of insurance should certainly be factored into the planning of future value chain interventions or during scaling-up of the existing project.

For the Cereal Value Chain

- Although land holdings and food security constraints may prevent many participants from producing cereals as cash crops, the improved seed varieties appear to provide valuable food security benefits. This represents an important complementary intervention even though it may not be a real value chain product in the strict sense. In view of this, and given the relative cost of this intervention in comparison to the other value chains, the continuation of this project activity is justified.

For the Honey Value Chain

- The timely delivery of asset transfers is needed to enable participants to take advantage of the 2010 production season.

- The targeting of the honey value chain participants needs to be re-assessed through a gendered lens. If the main constraint to women's participation is knowledge transfer, then targeted training on beekeeping and honey production could address this issue. Alternatively, sharing of existing knowledge within groups could be facilitated.

- In terms of the potential safety issues regarding women's involvement, informal discussions with female honey value chain participants should be carried out to determine possible security risks involved with nocturnal beekeeping activities and means of addressing them. These discussions should also investigate any potential domestic issues associated with female household members being selected for this value chain. These discussions should preferably be conducted by a female gender professional, with a report prepared on the findings (including recommendations on possible security issues). The number of female honey participants is relatively small, so this exercise is not over-ambitious.

- Given the general exclusion of women from the honey value chain production activities, opportunities should be explored to include women in the marketing or value addition activities. For example, cottage industries on honey processing and packaging might be developed, as well as wax products, beehive accessories etc.

For the VSLA Groups

There is a need to sensitize VSLA groups to a number of issues. This will require participatory discussions, community facilitation, and possibly some additional training. A business skills training is planned for these groups. Many of the issues raised here are relevant to this training and could be addressed simultaneously.

- VSLA groups should be encouraged to allow members to contribute as little or as much as they can afford. Without this provision there is a risk that these groups will ultimately exclude the poorest members.

- VSLA groups need to be made aware of the implications of charging high interest rates, which discourage borrowing and threaten the sustainability of the group. Members also need to be aware that inflation needs to be factored into interest rate determinations. Group members need to agree on an interest rate that is competitive, encourages people to borrow, and keeps pace with inflation.

- Given that current loan amounts do not allow members to effectively invest in income generating activities such as livestock and grain trading, groups might be encouraged not to disband at the end of one cycle, but to keep contributing until their savings accumulate to a point where larger loans can be accessed. This would need to be discussed with groups because the income benefit from the annual sharing process may be preferred over the opportunity to access larger loans.

- Groups might be encouraged to invest their savings collectively in a high-return income generating activity such as sheep and goat trading. The profits could then be shared or put back into the savings box. This option might potentially enable groups to quickly increase their overall savings and the amount members can borrow.

- A business skills training is much needed and is planned. One of the main challenges that this training is likely to encounter is that limited business opportunities exist given the limited loan amounts that can be accessed. This training should consider the options for increasing group savings discussed above.

For the Formal Microfinance Component

Formal microfinance offers unique opportunities to improve the livelihoods of the poor. The number and type of products MFIs are willing or able to provide limit these opportunities however. Under the PSNP Plus program decisions will have to be made based on this reality, prioritizing those products that best serve project participants. The MDTCS report (2010) recommends certain microfinance products for the project as a whole and some of these might be considered. In Doba's case the study findings suggest that there is a strong demand for larger loans and cattle credit. Although there is a potential demand (and even need) for other types of products, given that MFIs will likely only offer limited products in the short term, the PSNP Plus should prioritize cattle credit and the provision of larger loans. In view of this the following recommendations consider other microfinance products. These will need to be assessed and possibly included at a later stage or considered for future microfinance interventions.

- Formal Credit: There is a need to graduate VSLA groups to formal credit to enable them to take out larger loans with longer repayment periods (and lower temporal interest rates). This would allow participants to engage in income generating activities such as livestock fattening, livestock and grain trading, and other production activities. One of the key limitations of the VSLA groups is that the loan amounts are too small to allow people to invest in these high-return activities. This basic product could potentially provide people with the means to quickly improve their income earning and productive capacity. The MDTCS (2010) report defines what this product should look like (see pages 126-128).

- Cattle Credit: The popularity of the World Bank cattle credit program in Doba suggests that there is a strong demand for cattle (specifically oxen) credit. The lack of oxen is also considered one of the key constraints to production and asset accumulation. Additionally, the provision of draft animals is likely to add value to the value chain production activities. In terms of cost this kind of credit may be out of reach for some of the poorest households. The World Bank program however allowed people two years to repay the loan and with reasonable interest rates this product could be tailored to even the poorest households. Alternatively, producer marketing associations and VSLA groups might consider collectively purchasing an ox, with arrangements made for the equitable utilization of this animal within the group. For this kind of credit farmers insisted that they should be given the money and allowed to purchase the animal of their choice. (A great deal of consideration goes into selecting animals and farmers felt they are the best judges of what animal suits their needs. Farmers suggested also that they are in a better position to negotiate the price of an animal than an independent representative.) This kind of credit would have to be complemented with some guarantee of animal health care provision. The PSNP Plus VSLA and producer groups could however play an important function in facilitating and coordinating animal health services; coordination is one of the main constraints to animal health delivery in Doba.

- Basic Savings Products: The VSLA experience shows that the demand for savings instruments is high and they could potentially provide people with a form of self-insurance. Although the transaction costs might exclude poor people from formal savings, in principle this service would not be difficult to provide. Again the MDTCS report (2010) recommends such a product (pages 124-126) and this recommendation should be considered in Doba. There may also be options for clients to use these savings as collateral against loans from the same MFI. Although this option may be more feasible than cattle credit it has not been given the same emphasis in this report because the VSLA groups are currently providing people with a convenient and effective savings facility. The demand for this product has as such already been met by the project. Although there may be other advantages to formal

savings, this product should not be promoted at the expense of other products which are not currently available.

Various types of micro-insurance products might also be considered, either under the project or in the future.

- Crop Insurance: Some form of crop insurance for value chain participants can be justified on ethical grounds and as an incentive for people to invest in these products. In order for an MFI to provide this kind of insurance they would need to be convinced that these value chains would translate into significant financial returns. While this may be difficult given that the demand for this kind of insurance is driven by the risk of crop failure, MFI should acknowledge the potential given that they are providing asset transfer loans for these value chains. There may be scope therefore for the PSNP Plus project to advocate for and negotiate some kind of value chain crop insurance. This option should be explored for future value chain interventions or in plans to scale-up the existing interventions.

- Cattle Insurance: The importance attached to draft animals and the potential production and income benefits that can be derived suggests that cattle insurance would be a valuable product. Although the demand for this product has not been assessed, the value of draft animals would imply that people would be willing to pay premiums in order to protect this investment. Again, the provision of cattle insurance would have to come with some assurance of animal health care and good husbandry practices.

- Health Insurance: The MDTCS report (2010) recommends and defines a product concept for human health insurance (pages 131-132). Given the high costs associated with healthcare, there may well be a demand for this kind of product. If such a product can be made affordable for the poor without being subsidized it could be extremely valuable. It should be considered as a potential PSNP Plus product.

Complementary Interventions

A number of complementary interventions have been discussed in this report (see section 8). These include interventions aimed at improving the quality of land and crop production, animal health interventions aimed at improving livestock production and protecting these assets, and a cattle fattening value chain. Although they may be more relevant for the planning of future projects, or considered under the PSNP and OFSP, these interventions have the potential to greatly enhance the impact of the PSNP Plus project. They could also address some of the major obstacles to PSNP Plus impact. Many of the concepts proposed build on the PSNP Plus, and the VSLA and producer/marketing groups formed under the project could provide the means through which the proposed activities could be implemented. It is recommended that some of these intervention concepts be further assessed and piloted even on a very small scale under the PSNP Plus. If the project interventions are to be continued or scaled-up in the future, it is essential that we learn what works and what combination of activities are likely to effect positive change. The proposed concept interventions certainly deserve to be assessed and tested based on the evidence generated from this study.

End Report

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ANEXES

ANNEX I HOUSEHOLD COMPONENT CHECKLIST

Ques No._____

Household Component Checklist
BASELINE FIRST IMPACT ASSESSMENT PSNP PLUS LONGITUDINAL STUDY/Doba

NAME OF INTERVIEWER_____DAY: _____MONTH: _____

WOREDA	
PEASANT ASSOCIATION/KEBELE #	
VILLAGE/CLUSTER	

1. Household and Project Background Information

Household Code #	***Circle the appropriate boxes***			
Registered name of Household (PSNP +)				
Name of respondent				
Household roofing material	**Grass**		**Corrugated Sheeting**	
Project Activities that household members are involved in	**VS&L**	**Honey**	**Cereals**	**WP. Beans**
Religion	**Christian**	**Muslim**	**Other**	
Education/grade of Household Head				
Maximum education/grade of any household member				
Number of household members				
Number of working adults in the household				
Is your household participating in the PSNP? *(safety net - food or cash for work)*	**YES**	**NO**		
Number of household members working on the PSNP *(safety net)*				
How many years has your household been participating in the PSNP?				
Has your household graduated from the PSNP in the past year?	**YES**	**NO**		
Have you experienced any of the following shocks in the past year?				
Weather related *(specify - drought, flood, etc)*				
Crop loss *(specify - pest, disease, etc)*				
Livestock related *(specify – disease etc)*				
Other unexpected shocks *(specify - illness, death)*				
What impact did these shocks have on your livelihood?				
What actions did you take to cope with these shocks?				

2. Savings and Loan Information

		Circle the appropriate boxes		
A	Do you belong to a VSLA?	**YES**	**NO**	
B	How long have you been a member of a VSLA?	**Less than 1 year**	**1-2 years**	**Over 2 years**
C	Does any other member of your household belong to a VSLA?	**YES**	**NO**	
D	**(If YES)** – For how long have they been a member?	**Less than 1 year**	**1-2 years**	**Over 2 years**
E	How much money has your household managed to save in the past 6 months?			**ETB**
F	Has your household taken out a loan in the past six months?	**YES**	**NO**	
G	**(If Yes)** - How much money did you borrow? *(total)*			**ETB**
H	Who did you borrow the money from? *(breakdown)*	**VSLA**	**MFI**	**Other**

3a. How did your household spend your savings/sharing and loans? *(in the past six months only)*

Check each of the items that apply and ask the respondent to specify the amount

	Savings & Loan Utilization	**Check √**	**Amount ETB**
1	Food		
2	Medical costs		
3	Education/schooling *(fees/uniforms/rent/transport)*		
4	Land renting/ purchase property or home improvements *(corrugated roofing etc)*		
5	Purchase livestock or poultry		
6	Invested in petty trade/ other trade retail, business or IGA		
7	Farming inputs *(animal vaccines/seeds/fertilizers/pesticides/tools)*		
8	Social obligations/ceremonies *(weddings/funerals other contributions)*		
9	Pay taxes/debts/loans		
10	Clothes		
11	Transport		
12	Other (specify)		

3b	Have you managed to pay back the loan and interest? *(circle)*	**YES**	**NO**

4. Asset Inventory

For the all the asset inventory tables (4.1 to 4.4) you will ask the three following questions

a) How many of the following assets belonged to your household one year ago? *(if none write '0')*
b) How many do you own now? *(if none write '0')*
c) What are the reasons for any changes in assets since last year?
Include any land that you do not own but are renting from someone else, or
Include any land you own and are renting out to someone else.

4.1 a)Land and trees

Asset	What quantity of the following assets did you own or rent one year ago	What quantity do you own/rent today
Land/Lefa	Kindi	
Trees Coffee/ buna	Trees	
Trees Chat/Jima	Katari/rows	

4.1 b) If there has been any change in the amount of land they own/rent or changes in the number of trees/rows they own or rent (either positive or negative), what are the reasons for these changes?

_____

_____

_____
_____
_____
_____

4.2 a) Livestock assets - *do not include any animals that you are looking after but belong to someone else.*

Livestock	1 Year Ago	Now	DECREASE	INCREASE
Oxen/bulls - Dibota			1 2 3 4 5 6 7 8	1 2 3 4 5 6 7 8 9 10
Cows - Saa			1 2 3 4 5 6 7 8	1 2 3 4 5 6 7 8 9 10
Steers - Kurkura			1 2 3 4 5 6 7 8	1 2 3 4 5 6 7 8 9 10
Heifers - Goromsa			1 2 3 4 5 6 7 8	1 2 3 4 5 6 7 8 9 10
Calves - Jebi			1 2 3 4 5 6 7 8	1 2 3 4 5 6 7 8 9 10
Sheep - Hola			1 2 3 4 5 6 7 8	1 2 3 4 5 6 7 8 9 10
Goats - Rae			1 2 3 4 5 6 7 8	1 2 3 4 5 6 7 8 9 10
Donkeys - Hare			1 2 3 4 5 6 7 8	1 2 3 4 5 6 7 8 9 10
Poultry -Luku			1 2 3 4 5 6 7 8	1 2 3 4 5 6 7 8 9 10
Mules - Gange			1 2 3 4 5 6 7 8	1 2 3 4 5 6 7 8 9 10
Horses - Farda			1 2 3 4 5 6 7 8	1 2 3 4 5 6 7 8 9 10
Camels - Gala			1 2 3 4 5 6 7 8	1 2 3 4 5 6 7 8 9 10
TOTAL				

Codes: for negative changes in assets	**Codes for positive changes in assets**
1 = We sold/exchanged/slaughtered for food 2 = We sold this asset to pay for health care 3 = We sold this asset to pay for education/schooling 4 = We sold/slaughtered for social obligations (wedding gift/funeral) 5 = asset stolen or (livestock) died 6 = We sold this asset to repay loans or debts 7 = Livestock matured (e.g. steer became a bull) 8 = We sold the asset for another reason (specify)	1 = We bought this asset with saving or credit from VSL 2 = We bought this asset with PSNP/OFSP income or credit 3 = We were given this asset (specify) 4 = We bought this asset with profits from WP bean sales 5 = We bought this asset with profits from petty trade/retail 6 = We bought this asset with profits from livestock sales 7 = We bought this asset with profits from honey sales 8 = Livestock reproduced/matured 9 = We bought this asset with credit from MFI 10 = Other reason (specify)

Other reasons decrease *Other reasons increase*

1. _____ *1.* _____
2. _____ *2.* _____
3. _____ *3.* _____
4. _____ *4.* _____
5. _____ *5.* _____

4.2 b) During the past year, have you sold any of your own livestock?

Do not include livestock that are sold as part of a livestock trading business activity

Livestock type *(goat/oxen etc)*	**Quantity sold**	**Total amount in ETB**

4.2 c) What did you spend the money from selling livestock on?

_____
_____

4.3 Productive assets

Productive Assets	1 Year Ago	Now	DECREASE	INCREASE
Plough - Maresha			1 2 3 4 5 6 7	1 2 3 4 5 6 7 8 9
Sickle - Hamtu/mencha			1 2 3 4 5 6 7	1 2 3 4 5 6 7 8 9
Pick Axe - Doma			1 2 3 4 5 6 7	1 2 3 4 5 6 7 8 9
Axe - Koto			1 2 3 4 5 6 7	1 2 3 4 5 6 7 8 9
Hoe - Geso			1 2 3 4 5 6 7	1 2 3 4 5 6 7 8 9
Spade - Akava			1 2 3 4 5 6 7	1 2 3 4 5 6 7 8 9
Traditional beehive			1 2 3 4 5 6 7	1 2 3 4 5 6 7 8 9
Modern beehive			1 2 3 4 5 6 7	1 2 3 4 5 6 7 8 9
Wheelbarrow - Gari			1 2 3 4 5 6 7	1 2 3 4 5 6 7 8 9
Animal Cart - Gurobota			1 2 3 4 5 6 7	1 2 3 4 5 6 7 8 9
Water pump - Motara			1 2 3 4 5 6 7	1 2 3 4 5 6 7 8 9
Grainmill (hand) - Dhakadaku			1 2 3 4 5 6 7	1 2 3 4 5 6 7 8 9
Grain Mill (diesel) - Wofcho			1 2 3 4 5 6 7	1 2 3 4 5 6 7 8 9
TOTAL				

Codes: for negative changes in assets	**Codes for positive changes in assets**
1 = We sold/exchanged for food 2 = We sold this asset to pay for healthcare 3 = We sold this asset to pay for education schooling 4 = We sold this asset for social obligations (wedding gift/funeral) 5 = asset lost/stolen or broken 6 = We sold this asset to pay of loans or debts 7 = We sold the asset for another reason (specify)	1 = We bought this asset with savings and credit from VSL 2 = We bought this asset with credit from MFI 3 = We were given this asset (specify) 4 = We bought this asset with profits from WP bean sales 5 = We bought this asset with profits from petty trade/retail 6 = We bought this asset with profits from livestock sales 7 = We bought this asset with profits from honey sales 8 = We bought this asset with PSNP income 9 = Other reason (specify)

Other reasons decrease

1. _____
2. _____
3. _____
4. _____
5. _____

Other reasons increase

1. _____
2. _____
3. _____
4. _____
5. _____

4.4 Household Items/Durables

Asset	How many did you own one year ago	How many do you own today	If the amount owned today is different from one year ago explain why *(circle all the reasons mentioned)*	
			DECREASE	INCREASE
Tables - Kursi			1 2 3 4 5 6 7	1 2 3 4 5 6 7 8 9
Mattresses - Frasha			1 2 3 4 5 6 7	1 2 3 4 5 6 7 8 9
Mats - Mushama			1 2 3 4 5 6 7	1 2 3 4 5 6 7 8 9
Chairs - Berchuma			1 2 3 4 5 6 7	1 2 3 4 5 6 7 8 9
Cupboards -Sanduka			1 2 3 4 5 6 7	1 2 3 4 5 6 7 8 9
Jericans - Baldi			1 2 3 4 5 6 7	1 2 3 4 5 6 7 8 9
Pots/Pans - Disti			1 2 3 4 5 6 7	1 2 3 4 5 6 7 8 9
Cups - Kubaya/birchiko			1 2 3 4 5 6 7	1 2 3 4 5 6 7 8 9
Lanterns - Fanusa			1 2 3 4 5 6 7	1 2 3 4 5 6 7 8 9
Radio or cassette player			1 2 3 4 5 6 7	1 2 3 4 5 6 7 8 9
Bicycles			1 2 3 4 5 6 7	1 2 3 4 5 6 7 8 9
Mobile phones			1 2 3 4 5 6 7	1 2 3 4 5 6 7 8 9
Charcoal stove -Girgira			1 2 3 4 5 6 7	1 2 3 4 5 6 7 8 9
Kerosene stove - Butagaz			1 2 3 4 5 6 7	1 2 3 4 5 6 7 8 9
TOTAL				

Codes: for negative changes in assets	**Codes for positive changes in assets**
1 = We were forced to sell/exchange/ for food 2 = We were forced to sell to pay for health 3 = We were forced to sell to pay for education/training 4 = We had to sell for social obligations (wedding gift/funeral) 5 = asset lost/stolen or broken 6 = We were forced to sell to pay of loans or debts 7 = We sold the asset for another reason (specify)	1 = We bought this asset with savings & credit from VSL 2 = We bought this asset with PSNP income 3 = We were given this asset (specify) 4 = We bought this asset with profit from WP bean sales 5 = We bought this asset with profits from petty trade/retail 6 = We bought this asset with profits from livestock sales 7 = We bought this asset with profits from honey sales 8 = We bought this asset with credit from MFI 9 = Other reason (specify)

Other reasons decrease

1. _____
2. _____
3. _____
4. _____
5. _____

Other reasons increase

1. _____
2. _____
3. _____
4. _____
5. _____

4.5) Reasons for changes in assets

Step 1: Now take a couple of minutes to add up the '*before*' and '*after'* asset scores. If there has been an overall increase in assets or the participants feel there has been an increase in the overall value of household assets (livestock/tools etc) ask the participant to list the 5 most important reasons for this.

Table 4.5.1 If there are less than 5 reasons just list the ones mentioned. *List project factors mentioned*

	Reasons
1	
2	
3	
4	
5	

Step 2: If the participants did not specifically mention any project or PSNP related factors, ask the participants if the increase in assets has been as a result of increased cash, income or savings derived from the following sources: Make sure that the participants understand the difference between the project and non-project contributions, for example income from cereal sales, and any increased income from cereal sales as a result of the projects value chain.

Table 4.5.2 Check (√) YES or NO and check project factors already mentioned in table 4.5.1

		YES	NO
1	VSLA savings and loan		
2	MFI loan		
3	White pea bean value chain (CARE Project)		
4	Honey value chain (CARE Project)		
5	Cereal value chain (CARE Project)		
6	PSNP income (Safety Net) and OFSP		

Step 3: Now ask the participants to score all the reasons mentioned in tables 4.5.1 and 4.5.2 in order of importance. If one of the reasons listed has not been mentioned put zero (0).

Table 4.5.3 Method: Scoring with 100 counters – *(list all the reasons mentioned)*

	Reasons for positive changes in assets	**Score**
1		
2		
3		
4		
5		
6	VSLA savings and loans	
7	MFI loan	
8	White pea bean value chain (CARE Project)	
9	Honey value chain (CARE Project)	
10	Cereal value chain (CARE Project)	
11	PSNP income (Safety Net and OFSP)	
	TOTAL	**100**

5. Income Sources

a) Last year *(October 2008-October 2009-* what proportion of your households' annual cash income came from the following sources? This should include income from sale of crops from last seasons harvest (Sept-Dec 2008).

Method: Proportional Piling with 100 counters - *(if nothing put zero)*

	Income source	Score
1	Other crop sales from **own farm** production (buna/jima/onions etc)	
2	Income from haricot bean sales from **own farm** production	
3	Income from white pea bean sales **own farm** production *(ashangore adi)*	
4	Honey & wax sales from own production	
5	Cereal crop sales from **own farm** production	
6	Sale of livestock & livestock products (own production and trading/fattening etc)	
7	Petty Trade/retail and other IGA (include trade in cereal/vegetables etc not produced by them)	
8	PSNP work	
9	Other labor/employment	
10	Firewood or fodder Sales	
11	Handicrafts (knitting/basket weaving etc)	
12	Other (specify)	
	TOTAL	100

5 b) What quantity of the following products from your own (farm) production did you sell?

Commodity	Last Season	This Season (so far)
Haricot beans	Kg	Kg
White pea beans *(ashangore adi)*	Kg	Kg
Honey	Kg	Kg
Maize	Kg	Kg
Sorghum	Kg	Kg

6. Expenditure

a) Last year *(October 2008-October 2009)* – how much did your household spend on the following items?

	Expenditures	**ETB**
2	Land rent or (home improvements)	
3	Farming inputs (tools/water/fertilizer/seeds, animal health)	
4	Livestock or poultry	
6	Education/schooling (transport/uniforms/fees/rent/supplies)	
7	Medical expenses *(transport/medicine/health fees)*	
8	Clothing	
9	Household items (furniture/bedding/utensils etc)	
10	Social obligations (weddings/funerals/other contributions)	
11	Taxes/debts or loan repayment	
12	Transport	
13	Other key expenditures (specify)	
	TOTAL	

6 b) In comparison to all the expenditures mentioned - last year, what proportion of your total household expenditure was spent on the following?

Method: proportional piling with 30 counters

Item	**Score**	*For this exercise, take 30 counters to represent the households' total expenditure last year. Then ask the respondent to sort the counters into three different piles to represent the proportion spent on food and income generating activities (IGA)*
Food and household consumables		
Business, retail, trade, other IGA		
Other		
	30	

7. Income Changes

Using 10 counters to represent the participants' total household cash income from (October 2007-September 2008). Now ask the respondent to compare this with (October 2008 – September 2009) by either adding or taking away counters to show an increase or decrease in total household cash income.

a) Has your overall household 'cash' income increased or decreased in comparison to Oct 07-Sept 08?

Method: Scoring against a nominal baseline of 10 counters

Before (counters) *October 2008-September 2008*	Now (counters) *October 2008 – September 2009*
10	

What are the main reasons (positive or negative) for any changes in 'cash' income?

1. _____
2. _____
3. _____
4. _____

5. _____

b) If there has been an increase in 'cash' income – ask the participant to rank the 5 main reasons in order of importance

Method: Simple Ranking

Reason for changes in household cash income	**Rank**
	1st
	2nd
	3rd
	4th
	5th

Do you have any questions that you would like to ask us, or is there anything else you would like to tell us about the project, and how it might be improved?

(Once you have finished remember to thank the participant for their time and their willingness to prove information).

ANNEX II FOCUS GROUP COMPONENT CHECKLIST

Focus Group Checklist for Doba LIS Baseline Study

Kebele/PA_____
Name of Community/Village_____

1. Community Wealth Ranking

Proportional pilling with 100 counters

Better- off Quantity	Middle Group Quantity	Poorest Group Quantity

2. Group (VSLA)
Name of Group _____
Number of members _____
Year established _____

Contribution frequency_____ savings amount: _____ETB.
Social fund: _____ETB
Interest rate ____ % and repayment period _____

Changes in contributions

Contribution frequency_____ savings amount: _____ETB.
Social fund: _____ETB
Interest rate ____ % and repayment period _____

Reasons:
_____
_____

Source of Income for VSLA contribution

Source	# Members contributing
Firewood Sales	
Poultry Sales (eggs)	
Trade	
Other	

VSLA group Wealth Ranking: Proportional Piling 40 counters

Better- off Quantity		Middle Group Quantity		Poorest Group Quantity	
Before	Now	Before	Now	Before	Now

3. Reasons for any change and score (proportional piling with 50 counters)

	Reasons	Score
1		
2		
3		
4		
5		
TOTAL		50

4. Wealth Indicators

Asset type	Better- off Quantity	Middle Group Quantity	Poorest Group Quantity
Oxen			
Cows			
Calfes			
Small ruminants			
Donkeys			
Chickens			
Tends other people's livestock			
Beehives (traditional)			
Beehives modern			
Land (kindi)			
Chat (katari)			
Buna (trees/hunde)			
Water pump			
Beds			
Matresess			
Mats (mintaf/mushama)			
Fanos			
Radio/cassette player			
Type of roofing material (main house)			
Separate house/shelter for livestock			
Separate house/room for children			
Number of (months) food security/year			
Can meet all food needs from own production			
Engaged in labor activities			
Other specify			
Other specify			
Other specify			

5. Key Events/Timeline

Event	Time

Remarks:

Intervention Preference Scoring

Intervention Type	Score
PSNP - labor	
PSNP Cattle Credit (WB)	
PSNP Seed Loans	
PSNP Modern Honey Bee Hive	
Other	

ANNEX III MARKET INFORMATION CHECKLIST

Market and Secondary Data – Doba Baseline November 2009

NAME OF INTERVIEWER_____DAY: _____MONTH: _____
INFORMATION SOURCE (Woreda Officials/Food Security Bureau/Traders etc) _____

VILLAGE/Town/Market	

1. Livestock

Livestock	**Highest Price 2009 ETB**	**Lowest Price 2009 ETB**	**Highest**	**Lowest**	**Highest**	**Lowest**
Oxen/bulls - Dibota						
Cows - Saa						
Steers - Kurkura						
Heifers - Goromsa						
Calves - Jebi						
Sheep - Hola						
Goats - Rae						
Donkeys - Hare						
Poultry -Luku						
Mules - Gange						
Horses - Farda						
Camels - Gala						

2. Food Items

Item	Highest Price 2009 ETB	Lowest Price 2009 ETB	Highest	Lowest	Highest	Lowest
1 Kg Sorghum						
1 Kg Wheat						
1 Kg Teff						
1Kg Haricot beans						
1 Kg White Pea Beans						
1 Kg Onions						
1 Kg Sweet Potato						
1 kg Coffee beans/buna						
1 kg Chat						
1 Kg Honey						
1 kg salt						
1 kg Sugar						
1 liter Cooking oil						
1 liter Kerosene						
1 liter benzyle						
1 liter diesel						

Current exchange rate USD/ETB _____

ANNEX IV: PROFILE OF VSLA GROUPS ASSESSED

Name of Group	Established	Number of Members		Contribution Amount (ETB)		Interest Rate (%)
		Beginning	Now	Beginning	Now	Now
Abdiboru	2004	20	20	1	5	10
Ibsitu	2005	31	31	1	2	10
Megarsitu # 1	2007	31	31	5	2	5
Megarsitu # 2	2007	28	28	5	2	5
Damaksa	2006	34	34	3	5	5
Waltane	2008	32	32	8	2	5
Falmatu	2005	25	25	1	2	5
Burqitu jalala	2004	15	16	2	1	5
Hujin garsis #3	2007	20	11	1	0.5	5
Dameksitu gudina	2007	18	10	2	1	10
Leliftu megra	2007	12	15	1	0.5	5
Gamachiftu chunqurfama	2007	12	12	1	0.5	5
Galma jalala	2009	10	10	1	1	5
Injifana gamta	2009	20	20	1	1	5
Oda Jalala	2008	32	32	1	2	10
Hunde Misoma	2004	24	20	5	2	5
Reketa fura	2007	30	35	1	5	5
Hunde hawigudina	2007	32	35	5	2	2.5
Kufakas # 2	2007	16	27	5	2	5
Jalala	2009	16	21	2	2	10
Hunde Jalala	2006	21	21	1.5	1.5	5
Leliftu meyra	2009	25	25	1	1	5
Leliftu Negeya	2009	25	25	1	1	5
Dursitu	2006	16	16	1	1	5
Hujin garsis	2006	24	19	1	1	7
Waltane	2006	18	18	1	1	5
Abdi Boru/Ifa Haqa	2006	21	25	1	2	5
Biftu Ganama/Bilisuma	2009	25	25	2	2	10
Caaltu/Waltane	2005	20	25	2	5	5
Oda Jalala/IA	2009	32	32	2	2	5
Gudisa/IA	2007	27	22	2	2	5
Biftu Gudina/WW	2006	22	29	2	2	5
Baha Adu/WW	2006	18	28	2	2	5
Kufa Kas/WW	2009	30	30	2	2	5
Ibsitu/TML	Apr-09	29	31	2	2	10
Falmatu/TML	Apr-09	20	21	2	2	10
Caaltu/TML	Apr-09	21	21	2	2	10
Dagagdu/TML	Apr-09	19	20	2	2	10
Dursitu#1/TML	2006	24	29	1	2	10
TarkanfataTML	Jun-05	22	18	1	2	10
Shashatu/TML	2006	30	19	2	2	10
Hojin Garsis/LW	2007	20	11	2	1	5
Fedhina Gamta/LW	Apr-09	20	20	2	2	5
Mada Talila/LW	2007	30	26	5	2	5
Hordoftu Gamachu/LW	Apr-09	20	20	4	2	5
Gamta Jalala/LW	Oct-09	12	20	1	1	5
Bareda Gamachu/LW	2007	20	16	5	2	5
Burqitu Jalala/LW	2007	13	21	5	2	5
Waltane/LW	2007	24	20	5	2	5