Executive Summary/Agro-BIG Baseline survey

Agro-BIG is an agricultural value chain programme implemented in the Amhara region in Ethiopia. It aims at poverty reduction through agriculture based economic growth. In its pilot phase continuing until the end of 2015, the programme is focusing on two *Woredas*; in Fogera, which is known for a long tradition of irrigated onion farming, and in Mecha, where potato production is more dominant and where many farmers are beneficiaries of the Koga irrigation command area.

The programme is working with farmers and other actors along the value chains of onion and potato during this pilot phase. There are plans for a 4-year extension of the programme after the pilot phase which would most likely mean the introduction of new value chains. During May 5-20 2014, a baseline survey was conducted. The work, including the design, testing, training, implementation and analysis of results, was completed by a team comprising AgroBIG M&E consultant Dr. Roy Thompson and Agro-BIG Monitoring & Evaluation officers Laura Kihlström and Asnakew Assefa throughout a time period from March 2014 to June 2014.

The primary purpose of the survey is to provide baseline values for the key performance indicators of the programme's Logical Framework Matrix (LFM). The results of the survey provide a means to evaluate the programme's success by establishing the pre-implementation status of programme participants. These baseline values enable the programme management to formulate realistic targets to be achieved over the life of the programme. In addition, the survey is of value in highlighting the challenges faced by programme participants and allows a follow-up of selected households for further and more in-depth investigation.

This baseline report begins by introducing the survey objective. The methodology and limitations and mitigating measures are then discussed. The reader will find maps of the two programme woredas showing targeted kebeles and those sampled for the survey. Then the findings and interpretation of results are discussed for each applicable indicator in the Logical Framework Matrix. In the annexes the reader will find other information found out in the survey but not directly linked to Logical Framework Matrix indicators. Below we have the summarized results from the most important indicators.

Nutritional status
The baseline survey findings indicate that the programme participants face nutritional challenges among the under-5s despite being located in areas of high agricultural potential. Roughly half of the under-5s are stunted and one fifth is underweight. About 6 % of the sampled under-5s population are wasted.

Income
Participants form a cross-section of households across the range of wealth categories with the majority categorised as poor or middle income. The distribution of income for the surveyed households follows a typical pattern for income distributions with a positive skew and a few households with relatively higher incomes.

Volume and value of agricultural production

Households have on average 1.3 hectares of land and onions and potatoes are grown in the first round of the dry season, under irrigation. Land sizes do vary considerably with between 10-15% of households farming half a hectare or less. For onion, farmers in the programme area are producing on average 28 quintals of onion per harvest per household. There are fundamental differences between the two woredas, with Fogera producing more significant amounts of onion per household. For potato, the average volume of production per harvest per household is 11.25 quintals. The average value of onion production per harvest per household in Fogera is 14,358 ETB. For Mecha, we did not receive a reliable figure and therefore data verification on field will be done by the M&E unit as a follow-up exercise. For potato, the average value is 2,676 ETB per harvest per household.

Yields of value chain products

The overall agricultural productivity for onions and potato in the programme area is promising. The average onion yield in the programme area is 112 quintals per hectare which is about 11% higher than the national average (100.24 quintals per hectare). However, there are differences between the two woredas with Fogera being more productive (129 quintals per hectare) than Mecha (75 quintals per hectare). For potato the average yield in the programme area is about 107 quintals per hectare in irrigated areas and 74 quintals per hectare in rainfed areas. The average yield in irrigated areas is 2% higher than the national average in irrigated areas (104 quintals per hectare).

Agricultural practices and improved technologies

According to our data, farmers in the programme area are familiar with many new technologies. The majority of the farmers apply chemical fertilizers; use improved varieties, pesticides and biological plant protection. However more detailed and verified data is needed on this matter. The least used technologies are water harvesting and water recycling. When it comes to good agricultural practices, most farmers rotate their crops, include legumes in their crop rotations, use organic fertilizer and maintain a history of input use. However there are differences between the two programme woredas. The least known or used practices are agforestry and the maintenance of wetlands. As for recommended post-harvest practices, one quarter of farmers store their onions and potatos. No farmers in the sampled kebeles are packaging their produce. Some farmers sort (73 % for onion, 60 % for potato) their crops and one fifth of potato farmers wash their potatoes after harvest.

Access to financial services

Farmers are accessing both formal and informal credit, but a minority are accessing formal credit in both woredas. One quarter of the farmers are customers of a bank, 13 % are members in a Rural Saving and Credit Cooperative, 22 % are customers of ACSI or other MFI and 4 % are members in any other type of savings and credit group.