

1. EXECUTIVE SUMMARY

Onion (*Allium cepa*) is among the most popular vegetables in the world. Onion is a crop that is classified as a cool season crop. However, it can be grown in a wide range of climatic conditions. It is grown mainly for its bulb, which is used in every home in different ways, almost daily, across Ethiopia. Both production and consumption of vegetables in general and specifically onion has significantly increased annually in Ethiopia. The government's commitment to support farmers by investing large amount of money to expand irrigation schemes create conducive ground for onion production and thereby for improvement of farmers' income. According to Central Statistics Agency (CSA) data, the Meher season onion production reached its peak in 2015/16 with production level of 3,274,753 and 1,431,956 quintals in the country and in Amhara National Regional State (ANRS), respectively.

The Amhara region is one of the major onions producing areas in Ethiopia, and has seen an increase in onion production in recent years. Although there are indications that there is a good positive impact in the value chain, further promotion is needed on the gaps identified in this study and presented below in the report.

According to market survey results onion is widely consumed in Ethiopia in different traditional and modern dishes/foods. Very small volume of onion is exported to neighboring countries to earn foreign currency. According to the 2015 report of Ethiopian Revenue and Customs Authority (ERCA), about 443.8 tons of onion (0.14% of total production) was exported and 63,123 USD was obtained. On the other hand, because of the quality problem, short shelf life of local onion and supply shortage during off season period, the country imports onion from Sudan. Sudan's onion is well dried, of high quality and has long shelf life. Many literatures depict that well dried and properly stored onions can be stored for several months.

AgroBIG has been promoting onion value chain to benefit farmers as well as other actors. However, due to involvement of large numbers of brokers and poor market linkage facilitation, farmers are unable to sell onion directly to big buyers. The involvement of large number of brokers has reduced farmers' margin.

The study conducted in July 2018 revealed the following opportunities, constraints and solutions for onion value chain specifically for program woreda's and generally in the region.

Opportunities:

- The high population growth, improved purchasing power of the community, and increasing demand from neighboring countries can be noted as opportunities for onion producers.
- The prevalence of irrigation schemes in Fogera and Mecha, access to infrastructures such as roads and electricity, proximity to the regional capital, and the presence of onion seed supply system built by AgroBIG are among the opportunities that the farmers are enjoying.
- The presence of huge ground water potential at relatively shallow depth in Fogera and Dera woreda.

- Availability of organized primary cooperative in all program woredas that can be promoted to union level

Constraints:

- Difficulty to get quality and certified seed. Even if AgroBIG supported seed multiplication cooperatives to multiply improved seed and disseminate to farmers in the last few years, they haven't had continuous production of seeds. These include Kudmi, Barad gafara and Niku Lesira seed multiplication and marketing cooperatives. On the other hand, Fogera seed multiplication and marketing cooperative, even if the seed is available, it seems that it is not affordable for low income farmers due to high cost. Moreover, the available varieties do not meet the minimum quality requirements of seed. Many illegal agro-dealers are supplying low quality seeds. AgroBIG, in its pilot phase, had initiated an improved seed system that is benefiting the seed multipliers and the overall onion producers in the region.
- Lack of market information and linkages
- Lack of strong farmers' organizations and consequently farmers' limited negotiation skills and power are pulling back farmers from getting good margin
- Entry barrier to Bahir Dar city's vegetable market and absence of open market for individual farmers, cooperatives and unions hinder them from using an opportunity to the produce directly to consumers.
- Labor shortage during peak periods especially at the time of critical agronomic practice like weeding. This results both in yield reduction and loss of quality, which in turn reduce competitiveness in the market.
- Lack of proper pre-harvest treatment and post-harvest handling technology. Farmers do not stop watering onion field three weeks before harvesting. This result in poor and inferior quality of onion with short shelf life and poor preference by traders. Moreover, absence of onion processing technology in the country except dehydration and solar drying. Some storage techniques are available at Melkasa Agricultural Research Center, which can be adopted to the project woredas.
- Low price during peak season due to high supply at the same time
- On the other hand, most of the farmers are still subsistence farmers and are not geared towards commercial production. Hence, there are constraints which make it difficult to respond well for the existing opportunities. Lack of good farm management and good agronomic practices that include improper soils management; absence of post-harvest technologies (drying facilities); little or no storage facilities; absence of processing options; quality input supplies (seeds, fertilizer, chemicals); influence of brokers in transactions; limited capacity of cooperatives to conduct collective marketing; insufficient working capital and difficulty to access credit; poor coordination of market actors; and lack of trust amongst actors are the some of the constraints.

Solutions which are presented as recommendations include:

- In order to tackle low price problem due to uniform cropping schedule, there is a need to plan staggered production so that the supply to the market will spread over extended time and the market will not be over saturated. Production of major vegetable crops in clusters and rotation of clustered fields should be implemented to extend the duration of the supply to the market at good price and to avoid or reduce pest damage.
- Establishing certified agro-dealers that can source quality and certified seed and other inputs from reliable source.
- Farmers should focus on market-oriented production with utmost quality.
- Farmers should be advised on pre-harvest water application in order to improve the quality of the onion at harvest. The right physiological stage when to stop watering should be understood by growers. This will enable farmers to obtain well-dried bulb and supply

good quality onion with long shelf life. Farmers say they apply water even when the crop is about to be harvested because otherwise the soil will be hard for harvesting. This problem can be solved by using small machinery that can be used for potato and onion. The machine is originally developed for potato harvesting but it can be applied and demonstrated for onion too, according to the manufacturers.

- Though there have been efforts to provide market information service to farmers, the implementation scale varies from woreda to woreda. Therefore, strengthening the existing market information system and sharing experience is necessary. For instance, Fogera woredas has a better market information system than others, and hence they can share their experiences to other woredas.
- Creating market linkage service mainly by Woreda office of Trade (WoT) in collaboration with Woreda Cooperative Promotion Office (WCPO).
- The existing irrigation water users and marketing primary cooperatives in Dera and Fogera woredas should be organized into a strong marketing union. Similarly, primary cooperative in Bahir Dar Zuria should be organized to form a union, so that the unions can engage in collective marketing at large scale or do processing activities.
- Vegetable grower primary cooperatives and unions should get access to plot of land in cities and market place to build stores and shops or rented store and shops in big markets (Merawi, Woreta, Bahir Dar and Gondar) so that they can use them as wholesale and retail centers in order to maximize their profit margin.
- One or more free open market places, just like other towns of other Regional states, should be built by Bahir Dar city administration in different directions so that individual farmers and cooperatives from surrounding woredas can be able to sell their produce to consumers or assemblers directly. This enables farmers to get good price as they can get final customers' price in a profitable manner without involvement of middlemen.
- Roadside retail market having shelter made from local material should be encouraged so that farmers and women can benefit out it.

AgroBIG's strategic intervention can be in creating a Multi Stakeholders Platform (MSP) to bring different actors of the value chain and governmental and non-governmental stakeholders to come together in every quarter and discuss on achievements of the plan, share best experiences, discuss on constraints encountered, devise solutions to the problems and finally develop action plans for the next three or six months and share responsibilities. Then AgroBIG team should make close supervision and follow-up from time to time. Each implementing partner.