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RESEARCH PAPER

Stakeholders Training to Enhance Farmers Participation Focusing on Wheat Value Chain: the case of Ambo District, Oromia, Ethiopia

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Abstract

The study was carried out to assess the involvement of stakeholders' training to enhance farmers' participation focusing on the wheat value chain. The study has been conducted based on the information collected from 35 development agents, 35 smallholders, 2 Farmers' Cooperative Union experts, and 1 Cooperative focal person. The study employed a mixed research method. Accordingly, the following results were found. Development agents provided different kinds of training for progressive and leader farmers. Cooperative delivered market-related information, agricultural inputs, and purchased agricultural outputs from smallholders. The wheat value chain was at the initial stage and the involvement of farmers was not satisfactory.

Keywords: Community, development, cooperatives, stakeholders, training

Introduction

In Ethiopia, agriculture is the main form of livelihood for more than 80% of the population. There are more than 12 million smallholders which accounts for approximately 95 percent of agricultural GDP and 85 percent of employment (FAO, 2014 in Tafa, 2015). The agricultural sector greatly influences the economic performance of the country and accounts for about 35.8% of the national GDP, and over 90% of export commodities (CSA, 2018). Most of these export goods are low value-added agricultural products (Tigist and Samuel 2023). That affects the country's effort for development. On the other hand, the country is undergoing a rapid expansion of cities and towns mainly because of fast population growth and economic development. It is inevitable to expect a growing middle-class population with more money to spend on who wants to have processed food items, ready-to-eat meals, and one-stop shopping.

Engagement in the development of food value chain requires improvement of smallholders' productivity and accumulation of capital. Improvement of smallholders' productivity and accumulation of capital requires involvement of different actors known as stakeholders. Agricultural office and Farmers' Cooperative Union (FCU) are the two important institutions worth mentioning in this regard. The agricultural office is a public institution working with farmers through development agents and cooperative focal persons. Development agents provide training and extension services for farmers by organizing exhibits, on-farm demonstrations, and field days and facilitate farmers – to – farmers' extension. FCU is a union created by a number of Farmers' Primary Cooperatives (FPC) working on the ground to improve members' livelihood by enhancing their productivity, regulate and engage in value addition of agricultural products (IFPRI, 2010).

Cooperative focal persons are experts who are assigned by agricultural office to strengthen FPC.

FCU focuses on provision of market-related information for its members, discuss on benefits of improving the quality of farm products and mobilization of resources for wheat value addition. Value chain development aims to facilitate mutually beneficial linkage between smallholders and other chain actors, such as processors, exporters and retailers that involve in marketing agricultural products (Donovan, *et al*., 2015). The assumption behind Smallholders' participation in the value chain is, that it gives farmers the opportunity to sell their products and purchase agricultural inputs at reasonable prices, enhances their income security, and helps them to get high returns (Sevill *et al*., 2011). Smallholders' participation in value chain could also contribute to mitigate the problem of transportation in that they will get the opportunity to capture more of the marketing margin (Neven *et al*., 2009 in Sevill *et al*., 2011).

Even though food value chain has invaluable contribution to improve the livelihood of smallholders, it is not yet effective in Ethiopia generally and in Oromia particularly because of unclear institutional arrangements, poor alignment and integration with other programs and activities, insufficient financial resources, problem of infrastructure and poor market linkages. As Maijers (2011) says smallholders are suffering from a fragmented supply base leading to long and inefficient value chains, lack of access to technology and knowledge, poor logistic infrastructure and lack of access to proper value chain financing channels.

Objectives of the research

The main objective of the study was to investigate the extent of stakeholders' involvement in provision of training for smallholders focusing on the wheat value chain in Ambo District of Oromia. Review of related literature

Food value chain

Food value chain is defined as the full range of farms and firms coordinated value-adding activities that produce particular raw agricultural materials and transform them into particular food products that are sold to final consumers and disposed of after use in a manner that is profitable without permanent depletion of natural resources (Neven, 2014). Food value chain encompasses activities that take place at the farm as well as in rural settlements and urban areas. Farmers require input supplies (seeds, fertilizers, pesticides, etc.), agricultural machinery, irrigation equipment and manufacturing facilities, and continue with handling, storage, processing, packaging and distribution activities (UNIDO, 2009).

Food value chain analysis helps to break the chain into its constituent parts in order to understand its structure and functioning (Kaplinsky and Morris, 2001 in Haq, 2012). The analysis consists of identifying chain actors at each stage and discerning their functions and relationships; determining the chain governance, or leadership, to facilitate chain formation and strengthening; and identifying value adding activities in the chain and assigning costs and added value to each of those activities. Value chain analysis is a useful tool for it helps to understand the overall trends of stakeholders' participation and identify change agents and indicate areas of interventions (UNIDO, 2009). Value chain analysis reveals dynamic flow of economic, organizational and coercive activities involving actors among different sectors. It shows that power relations to understanding how entry barriers are created, and how gain and risks are distributed. By revealing strengths and weaknesses, value chain analysis helps participating actors to develop a shared vision of how the chain should perform and to identify collaborative relationships which could allow them to keep improving chain performance (UNIDO, 2009).

Efficiency of food value chain by and large depends on the competency of actors at all levels. To improve the product produced and increase profitability of processors different kinds of value chain development work have to

be done. Value chain development aims to facilitate mutually beneficial links between smallholders and other chain actors, such as processors, exporters and retailers that interact for the production and marketing of a given product (Donovan, *et al*., 2015). According to Henriksen *et al*. (2010), value chain development has become a key approach in both research and policy fields, with an increasing number of bilateral and multilateral organizations adopting it to guide their development interventions. Creating and utilizing knowledge are important sources of sustainable competitive advantage as knowledge sharing, integration and transfer helps in innovating new products/services or bring efficiency and effectiveness in the existing ones (Prahalad and Hamel, 1990; Corso *et al*., 2001 and Nonaka *et al*., 2000 in Sultan, and Saurabh, 2013). At the heart of value chain concept lays the idea of actors connected along a chain producing and bringing goods and services to consumers through a complex and sequenced set of activities. Poor agricultural producers often struggle to gain market access.

Altenburg (2007 in Henriksen *et al*., 2010) identified three different approaches of value chain development known as expert-driven, participatory and partnership approaches.

Expert-driven approaches employ diagnostic tools, manuals and guidebooks that are supposed to guide experts and practitioners conducting value chain analysis to inform projects in the pre-design phase. These include not only detailed step-wise planning procedures that situate experts at the centre of analysis, design and implementation but also detailed quasi-academic methodologies to map flows of knowledge and economic resources, measure output values at different parts of the chain, ways of covering export market potentials through development of performance benchmarks, regional transmission of value chains, inter-firm linkages and cooperation. While they vary in the level of detail and what scale and scope of analysis is required, they all require rigorous analytical work by experts who have sufficient time, resources and education to carry it out.

Participatory approaches mainly focus on interaction with and knowledge of value chain actors and partners. Some of these approaches do not limit themselves to employing participatory methods, but are also concerned with engaging stakeholders in the design and implementation phases. Experts also may play important roles in these approaches, but not the main drivers of analysis and design.

Partnership approaches take the form of supplier development and technology transfer projects that also seek to improve sourcing conditions for such large companies. This approach rests on the idea that companies know best what 'markets want' and what potential suppliers need to change in order to meet such conditions. Moreover, they are often the actors who define entry barriers and set product standards. The approach, however, is subject to the existence of lead firms in the chain.

Strategy to participate smallholder farmers in the value chain

Smallholders will benefit from participation in the value chain for it gives them access to the market, enhances income security, and has high returns (Sevill *et al*., 2011). Fair trade results in greater stability for it guarantees minimum prices and longer-term trade relationships which improve wellbeing of farmers and protect them against highly volatile price fluctuations. Smallholders' participation in the value chain can also contribute to mitigating the problem of transportation for they get the opportunity to capture more marketing margin (Neven *et al*. 2009 in Sevill *et al.*, 2011).

Smallholders can participate in value chain in either of two ways. The producer organization might want to use labor in the chain or farmers can supply their product to the chain. Access to assets by smallholders and their ability to accumulate and use those assets effectively are critical to their participation in value chains and their ability to benefit from participation (McKay 2009 in Sevill *et al.*, 2011).

Farmers' cooperative union

A Cooperative is an autonomous association of women and men, who unite voluntarily to meet their common economic, social and cultural needs and aspirations through a jointly owned and democratically controlled enterprise (International year of cooperatives, 2012). While cooperatives are also businesses, the main objective for people to set up or join a cooperative is to improve their economic and social conditions through joint action for the good of all members rather than through individual concerns (FAO, 1998).

Cooperatives are involved in agricultural activities and develop rich experience in farming and leadership training (Innocent and Adefila, 2014). Agricultural cooperatives contribute for the economic and social empowerment of smallholders and create sustainable rural employment through business models that are resilient to economic and environmental shocks (International year of Cooperatives, 2012). They provide a wide range of services such as access to markets, natural resources, information, communications, technologies, credits, training and warehouses. Cooperatives also facilitate smallholders' participation in decision-making at all levels, support them to negotiate better terms for engagement in contract farming and to get agricultural inputs such as seeds, fertilizer and equipment in a lower price (International year of Cooperatives, 2012).

Since 1994, the Government of Ethiopia made relentless efforts for establishment and functionality of cooperatives in the country (Bernard, Abate, and Lemma, 2013). Cooperatives are planned to be created in accordance with members' free will; their commitment and willingness to participate in free market; and free of government intervention in their internal affairs (Proclamation 85/1994). They are designed to play a significant role in agricultural sectors by supplying agricultural inputs, stabilizing markets, providing information and the like. Cooperatives are also expected to render vital services other than those related to agricultural marketing, including: (i) expanding financial services in rural areas; (ii) purchasing agricultural machinery, equipment and implements, and leasing them to farmers; (iii) setting up of small agro-processing industries where processed agricultural products with greater value added could be produced; and (iv) establishing various social institutions to provide different kinds of social services (FDRE 2002, 59 in Bernard *et al*., 2013).

Farmers' cooperatives contributed a lot to the provision of social protection for their members in a number of ways. Cooperatives buy products from farmers at fair prices so that they should not have to sell products at cheaper prices and sell them when the price recovers. This reduces the vulnerability of the producers not to be exploited by traders and thus provides implicit insurance for cooperative members. That means value of members' produce will not fall below the acceptable limit (Bernard et al., 2013). The services rendered to cooperative members include input supply, marketing, processing and exporting of agricultural commodities (Emana, 2009).

Research Design and Methodology

The study employed both quantitative and qualitative methodology. The objective was to provide an in-depth exploration and description of stakeholders' training on sustainable community development, focusing on the wheat value chain in Ambo district. The study has been conducted based on the information collected from 73 respondents. Of these, 35 respondents were from agricultural development agents, 35 respondents from smallholders, 2 from Ambo district FCU coordinators and 1 from Zone Cooperative focal person from Zonal agricultural office. So long as sampling strategy is concerned; the researcher employed simple random sampling, purposive sampling, quota sampling techniques and availability sampling technique. A simple random sampling technique was employed to determine rural villages known as kebeles and smallholders to be considered as the sample. Ambo district has 32 rural kebeles. Of the total number of rural kebeles, 12 of them were taken as the sample to get information from development agents and 6 kebeles to get information from smallholders. A purposive sampling technique was employed to get

information from Ambo FCU and West Showa Zone cooperative focal person. A quota sampling technique was used to determine the number of farmers selected from each Kebeles. Availability sampling techniques was used to get information from agricultural development agents from sample kebeles.

Methods of data collection

The data has been collected using a questionnaire, semi-structured interview and observation. Questionnaire was used to collect data from 70 participants (from35 agricultural development agents and 35 smallholder farmers). Semi-structured interview has been used to collect data from 2 Ambo FCU experts and 1 Zone Cooperative focal person. As far as observation is concerned,

the researcher visited the wheat mill established by Ambo FCU to get better picture about what was taking place on the ground.

Data analysis

Analysis of the study was guided by conceptualization of mixed data analysis. The process of data analysis followed data reduction, data display, data transformation, data correlation, data consideration, data comparison and data integration (Combs and Onwuegbuzie, 2010). The quantitative data were analyzed using descriptive inferential statics such as percentage, graph and pie-charts. Interview and observation were transcribed, analyzed and discussed using narration.

Results

The result of the study has been discussed under to major sub-topics known as quantitative and qualitative analysis and interpretation

Quantitative Analysis and Interpretation

Quantitative Analysis and Interpretation were carried out based on the information obtained from smallholders and development agents. The data has been tabulated, organized under different themes and converted into percentage as has been displayed in bar-graphs as follows.

Provision of training by different stakeholders

Table 1. Provision of training by different stakeholders as viewed by farmers

	Items	N	Min.	Max.	Mean	Std. D.
1	Development agents provide training to enhance smallholders productivity	35	1.00	5.00	3.29	1.47
2	FCU provides training on how farmers can add value on their production	35	1.00	5.00	2.71	1.51
3	Enterprises provide training to enhance farmers productivity	35	1.00	3.00	1.86	.85
4	Smallholders get necessary trainings to improve their productivity	35	1.00	5.00	2.43	1.46
	Valid N (listwise)	35				

Source: Survey data collected from farmers

As has been depicted in Table 1; farmers were asked if development agents provide training for smallholders and the mean score was 3.29. The response depicted that smallholder farmers somehow believe that development agents provide training on how to enhance their productivity. A standard deviation of 1.47 shows that there is variation in rating with some respondents rating the statement higher or lower than the mean. Item 2 of the table was meant to find out if farmers' cooperative unions have engaged in the provision of training on

how farmers can add value to their production. The mean score was 2.71, which shows farmers' reservations in farmers' cooperative training in the provision of training. The standard deviation has been 1.51 which shows a higher variation in respondents' rating. As far as enterprises' involvement was concerned the mean score was 1.86 and the standard deviation was 0.85 which confirms enterprises' non-involvement in provision of training to enhance farmers' productivity. Finally, the respondents were asked if they got the necessary training to enhance their productivity in either of the ways. The mean score and standard deviation were 2.43 and 1.46, respectively. The result depicted farmers' reluctance to adequacy of the training being provided for them to improve their productivity although there was variation in the respondents' response.

In summary, farmers believe that development agents provide training on how to enhance their productivity with some variation in their ratings. They are less confident in the cooperative union's involvement in providing training and affirmed that enterprises are not involved in the provision of training for farmers. As far as adequacy of the training is concerned, farmers are not satisfied with the training they received although there is some variation in their responses.

Table 2. Provision of training by different stakeholders as viewed by development agents

	Items	N	Min.	Max.	Mean	Std. D.
1	Smallholder farmers get training on how to improve their productivity	35	3.00	5.00	4.57	.61
2	Development agents provide training to enhance smallholder productivity	35	4.00	5.00	4.86	.36
3	Cooperatives provide training for smallholders on how to add value in production	35	1.00	5.00	3.43	1.58
4	Enterprises provide training to enhance smallholders' productivity	35	1.00	2.00	1.43	.50
	Valid N (listwise)	35				

Source: Survey data collected from development agents

As has been depicted in Table 2, development agents were asked if smallholders got training on how to improve their productivity. In that regard item 1 was designed to find out if stallholders get training and the mean score was 4.57, which demonstrated DAs conviction anonymously as the standard deviation was 0.61. Item 2 was designed to investigate if stallholders get training from development agents and the mean score was 4.86 which demonstrated DAs strong believe as the standard deviation was 0.36. Item 3 shows that DAs somehow believe cooperatives' involvement in value addition training for smallholders as the mean score was 3.43 although, there is significant variation in ratings as the standard deviation was 1.58. Table 2, item 4 focuses on finding out enterprises' participation in the provision of training as viewed by DAs, and the mean score was 1.43: the standard deviation was 0.50 which shows enterprises lack of involvement in provision of training.

Thus, in DAs perception smallholder farmers get training. DAs strongly believe that smallholders receive training from them on how to enhance their productivity. DAs also believe that cooperatives are involved in training, although there is some variation in their opinions. However, DAs do not believe that enterprises are involved in providing training to smallholders.

Stakeholders' participation in provision of training

The results in Table 1 and 2 show the involvement of stakeholders in the provision of training for smallholders. The finding shows that although all development agent respondents strongly believe that farmers are getting training, farmer respondents believe moderately with variation. The mismatch between the two parties might have something to do with the level of satisfaction and lack of confidence smallholders have. That is to say, the training being given to the smallholders by development agents is not up to the expectations of farmers. Farmers' cooperatives and private enterprises are other stakeholders that have a stake in the wellbeing of smallholders because the success of both the cooperatives and enterprises depends on the success of smallholders. But their effort in involving farmers in value chain development is different in that some attempts are being made by cooperatives as compared with private enterprises. Based on the reply obtained from sample farmers and development agents affirmed farmers' cooperatives' attempt to involve farmers in value chain development. An interview held with experts of Ambo Cooperative Union brought to light the level of involvement of cooperatives as it is limited to the provision of information and availing agricultural inputs so that the supply chain could be enhanced.

As far as private enterprises are concerned sample farmers, development agents and Zone cooperative agency focal person confirmed that private enterprises were not taking part in empowering smallholders. This might of course have an adverse effect not only on smallholders but also on enterprises as well because the efficiency of food processing industries among other factors is conditioned by the efficiency of farmers. If the productivity of smallholders increases both in quantity and quality all parties will enjoy the benefit and the vise-versa also holds true.

Types of training provided for smallholders

From the results presented so far, it is possible to say that two types of training known as general training and special training are given for smallholders. General training focuses on dealing with routine activities incorporated with close supervision. It consists of providing information concerning when to plough, sow and harvest based on expert information about the current fiscal year and weather conditions. Development agents visit the farm of each household that takes part in the package program to observe how farmers are doing and to discuss the problems with a view of finding possible solutions. Special training on the other hand is the type of training that focuses mainly on the introduction of new technology and methods of farming. It is offered relatively for a few farmers. The participants in the training are considered progressive farmers known as model farmers who are required to impart the new system of farming to follower farmers. The training is offered at a farmer training center.

Even if it is on small scale, limited in scope and provided only for members; primary cooperatives in collaboration with the District Cooperative Union provide relevant information mainly related quality of the product and market prices. In a way, this information is related to wheat value addition.

Access and utilization of supply

Table 3. Access and utilization of supply as viewed by farmers

	Items	N	Min.	Max.	Mean	Std. D.
1	Get supplies to improve productivity	35	1.00	5.00	3.94	1.24
2	Get training on how to use the supply	35	1.00	5.00	3.23	1.24
3	Use different strategies to increase the quality of agricultural output	35	1.00	5.00	2.74	1.20
	Valid N (listwise)	35				

Source: Survey data collected from farmers

In Table 3, item 1, farmers were asked if they get supply to improve their productivity. The mean score was 3.94. This shows that farmers get supplies to improve their productivity although there is variation among respondents as standard deviation was 1.24. In item 2 of the same table, farmer respondents have also been asked if they get training on how to use the supply. The mean score was 3.23 which shows that respondents moderately believe they obtained training on how to use the supply. The standard deviation was 1.24 which shows in rating with some ratings the statement is higher or lower than the mean score. Table 2 item 3 was designed to find out if the respondents used different strategies to increase the quality of agricultural output. The mean value was 2.73, which shows smallholders' lack of confidence in their utilization of different strategies to increase the quality of agricultural output. This of course is one of the determining factors of value chain development.

The above discussion revealed smallholder farmers generally supplies reception to improve their productivity, although there is some variation among respondents. While farmers believe they obtain training on how to use these supplies, their confidence in this training is moderate. They also lack confidence in their ability to utilize different strategies to increase the quality of their agricultural output, which is a critical factor for value chain development.

Table 4. Farmers' capability in utilization of resources as viewed by development agents

	Items	N	Min.	Max.	Mean	Std. D.
1	Smallholders get supplies to improve their productivity	35	3.00	5.00	4.26	.61
2	Smallholders are provided training on how to use the supply	35	3.00	5.00	4.11	.72
3	Farmers use different strategies to increase the quality of their output	35	1.00	5.00	3.83	1.10
	Valid N (listwise)	35				

Source: Survey data collected from development agents

Table 4 has been designed to view development agents' perceptions regarding farmers' access to agricultural inputs to improve their productivity, provision of training to use the supply if they use strategies to increase the quality of output and decrease costs of production. In this regard item, it was meant to find out if smallholders get supplies to improve their productivity. The mean score was 4.26 which implies DAs' confirmation: that farmers get supplies that contribute to enhance their productivity.

Item 2 was meant to see if smallholders get training on how to use agricultural inputs properly. The mean score was 4.11 and the standard deviation was 0.72. That clearly indicates DAs believed that farmers get training on proper utilization of agricultural inputs. As far as the issue of strategies employed to increase the quality of agricultural output was concerned, the respondents reacted positively as the mean score was 3.83.

In summary, development agents (DAs) believe that smallholder farmers get supplies to improve their productivity, receive training on how to use agricultural inputs properly and employ strategies to increase the quality of their agricultural output.

Institutional arrangement for value addition

Table 5. Institutional arrangement for value addition as viewed by farmers

	Items	N	Min.	Max.	Mean	Std. D.
1	There is institutional arrangements designed to enhance the wheat value chain	35	1.00	5.00	2.89	.93
2	Farmers believe in the possibility of processing wheat in their context	35	1.00	5.00	2.57	1.22
3	Have knowledge of the direct correlation between the price of the product and value addition	35	1.00	5.00	2.31	1.13
	Valid N (listwise)	35				

Source: Survey data collected from farmers

The development of institutional arrangements to enhance the food value chain is crucial for improving the livelihoods of smallholder farmers. In line with this table 5 has been formulated to look into the perception of farmers using the leading questions. In item 1, farmers' were asked if there was an institutional arrangement designed to enhance food value chain. The mean value was 2.89 and the standard deviation was 0.93 which showed respondents' reservation on the availability of institutional arrangements designed to enhance the wheat value chain. When farmers were asked on the possibility of processing wheat in their context and the mean score was 2.57 the standard deviation was 1.22. This shows that farmers are not confident in their capacity to enhance the wheat value chain by their own. The other point raised was to find out if the farmer respondents know value addition contributes to bringing significant changes in the price of their product. The mean score was 2.31 and the standard deviation was 1.13. This means farmers do not know the contribution of value addition to increasing the price of farm products.

Table 6. Institutional arrangement for value addition as viewed by development agents

	Items	N	Min.	Max.	Mean	Std. D.
1	Practice of stakeholders in value addition is good	35	1.00	5.00	3.86	1.12
2	There is an established organization that works to enhance the wheat value chain	35	1.00	5.00	2.89	1.35
3	Farmers know the direct correlation between value addition and price	35	1.00	5.00	2.17	1.10
4	The current context of farmers allows them to process food	35	1.00	4.00	2.43	1.01
	Valid N (listwise)	35				

Source: Survey data collected from development agents

Table 6 was designed to assess institutional arrangement for wheat value addition as viewed by development agents. In item 1, DAs were asked if the practice of stakeholders in value addition was good. the mean score was 3.86 and the standard deviation was 1.12. This implied that stakeholders' activity is good in value addition although there seems variation in DAs ratings. In item 2 of the same table, the respondents were asked if an established organization worked to enhance the food value chain. The mean value was 2.89 and the standard deviation was 1.35. This shows that in item 3 development agents were asked if farmers know there is a direct correlation between value addition and price. The mean

value was 2.17 and the standard deviation was 1.10. This shows that farmers have little or no knowledge about the correlation between value addition and price. The other point raised was meant to find out if farmers' current context allowed them to process food as viewed by development agents. The mean score was 2.43 and the standard deviation was 1.01. This implies that the situation of the farmers is not conducive to engaging in value addition to the farm product.

Key partners of smallholders

Table 7. Key partners of smallholders as viewed by farmers

	Items	N	Min.	Max.	Mean	Std. D.
1	Enterprises are the key partners of smallholders	35	1.00	5.00	2.69	1.30
2	Farmers' cooperative union are the key partners of smallholders	35	1.00	3.00	1.97	.82
3	Farmers primary cooperatives are the key partners of smallholders	35	1.00	5.00	3.17	1.47
4	Local government agricultural office is the key partner of smallholders	35	1.00	5.00	3.66	1.41
	Valid N (listwise)	35				

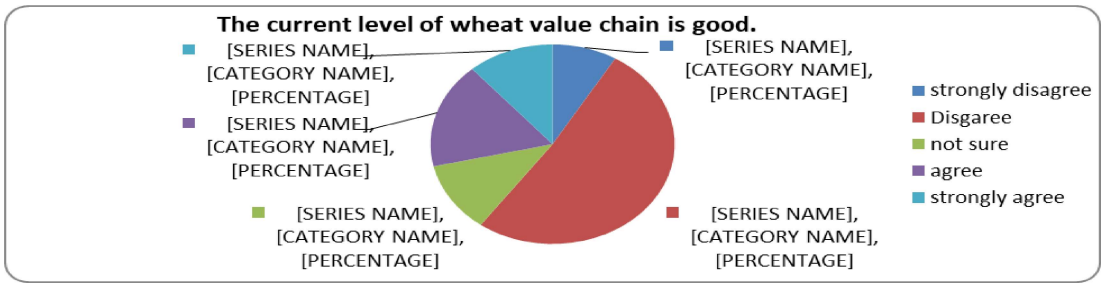
Source: Survey data collected from farmers

Table 7 was designed to identify key partners of smallholders as viewed by farmers. In item 1, respondents were asked to find out if enterprises are key partners of smallholders. The mean score was 2.69 and standard deviation was 1.30. This implied that farmers are reluctant in considering enterprises as key partners although there is significant variation in rating. Item 2 was meant to find out if cooperative union were key partners of smallholders. The mean score was 1.97 and standard deviation was 0.82 which implies that farmers and farmers cooperatives union were not working together in collaboration and farmers failed to consider them as key partners.

Item 3 has been designed to look at the relationship between farmers primary cooperatives and smallholders. The mean score was 3.17 and standard deviation was 1.47. This tells farmers recognition of farmers' primary cooperatives as the key partners. As far as considering government as key stakeholders is concerned, the mean score was 3.66 and standard deviation was 1.41. This revealed that farmers tend to consider government as key stakeholder even though, there is variation in ratings.

Assessment of wheat value chain

Figure 1: Farmers assessment of wheat value chain as viewed by farmers



Source: Survey data collected from farmers

Farmers were asked to express their view regarding the level of wheat value chain. As their response has been depicted in the above pie-chart: 61% (52% strongly disagree and 9% disagree) replied negatively, whereas 11% of the respondents were indifferent and 28% (17 agree and 11% disagree) responded negatively. This confirmed that majority of farmer respondents were not comfortable with status of wheat value chain.

Qualitative Analysis and Interpretation

Qualitative Analysis and Interpretation has been carried out based on the information obtained from interviewees of 2 Ambo district Farmers' Cooperative Union coordinators, 1 Zone Cooperative Agency focal person and observation.

Provision of training by different stakeholders as viewed by interviewees

According to the Zone Cooperative Agency focal person, development agents and cooperatives were the main actors that take part in training of smallholders. He said that development agents devote most of their time helping farmers on how to improve their productivity. Cooperatives on the other hand; limit themselves in providing market related information so that farmers could get fair price for their product. "Two types of training are provided for smallholders to enhance their productivity. The two types of training are known as special training and general training. Special training is the type of training which deals mainly with the introduction of new technology and methods of farming" (Zone Cooperative focal person, 2017). Special training is offered for better performing farmers known as model farmers. Special trainings are offered at farmers' training centers. The centers were organized like schools where series of teaching-learning process takes place (Cooperative Union coordinators, 2017). Development agents offered thorough training to the model farmers and work with them in the field to prove the effectiveness of the new methods of farming and to make sure that all agricultural inputs were utilized in accordance with the guidelines to achieve the desired results (Zone Cooperative focal person and Cooperative Union coordinators, 2017). Furthermore, Cooperative Union coordinators revealed that development agents tried to cascade knowledge and skills taught to follower farmers using model farmers' farm as the demonstration site. On the other hand, general training dealt with routine activities and is usually accompanied by close supervision and proper guidance. According to the interviewees, general training consisted of the provision of information concerning when to plough, sow and harvest based on the expert's information and weather forecast. Development agents visited the farm of each household took part in the package program to observe how farmers were doing and to discuss the problems farmers encountered to find possible solutions.

Access and utilization of supply

Based on the information obtained from the interviewees; farmers purchase fertilizers, pesticide, improved seeds and other necessary agricultural inputs from Ambo Farmers' Cooperative Union in collaboration with the Zone and District agencies. Development agents provided guidance and counseling service to smallholders to ensure proper utilization of all the necessary inputs in order to enhance smallholders' agricultural productivity (Zone Cooperative focal person, 2017).

Key partners of smallholders

As far as the issue of partnership with smallholders is concerned, participants of the interviewees said that district agricultural agents and farmers primary cooperatives were key stakeholders. Development agents worked to enhance farmers' productivity via providing training on how to enhance their productivity through development agents. Farmers' primary cooperatives and farmers union were also important stakeholders established by farmers and working with farmers to mitigate problems of smallholders' in different ways (Zone

Cooperative focal person and Cooperative Union coordinators, 2017). Farmers' unions avail agricultural inputs and market-related information. According to the interviewees, private enterprises have a minimal role in enhancing farmers' productivity and value chain development. They were limited to the purchase of agricultural products.

Key partners of smallholder farmers

Wheat value chain development is not something that can be performed by single body. Different actors have to participate in the activity deliberately or with a certain level of commitment. Hence farmers, consumers, enterprises, cooperatives, retailers and governments have vested interests, one might assume that they are partners who are working together for mutual benefit. But the results displayed both in table 7, 8 and the information obtained from the interviewee revealed different story. According to the findings, government is the main partner working with farmers to enhance their productivity through development agents. The second important partner rated by the respondent was farmers' cooperative union that provided different kinds of agricultural inputs and relevant information about market and related issues. Consumer cooperatives and private enterprises were not considered as important partners by the respondents mainly because their contribution in empowering farmers is very minimal.

Institutional arrangement for value addition

Interviewees from Cooperative Union said that one of the objectives of Ambo Farmers Union Cooperative is to add value on the produce of smallholders. The organization is working towards that and it started to produce flour and animal fodders as the byproduct very recently. As the researcher captured the picture displayed here under, Ambo Farmers Union have planted its own medium milling factory and started to produce flour with distinguished trade mark.

Figure 2: Ambo Cooperative Uniion Meal Factory

Thus, Ambo Cooperative Union managed to establish its own mill and started to process wheat and produce flour as the final product and animal fodder as the byproduct.

Discussion

Farmers' capability in utilization of resources

Based on the information obtained from the respondents about the accessibility of necessary supplies like fertilizers, improved seeds, pesticides and other staff majority of sample farmers, development agents and interviewees have said that they are accessible. Accessibility of agricultural inputs by itself might not be enough. Smallholders want to be capacitated in the utilization of agricultural inputs to enhance their productivity. The result obtained from sample farmers depicted that the mean score

was 2.43. This shows that farmers believe that they did not get training; although, there is greater variation in ratings. On the other hand, DAs strongly believe that smallholders get the training required to enhance their productivity as the mean score was 4.86. The mismatch between the two groups of respondents might be related to the expectations and quality of service. This means either the support they got from stakeholders is not satisfactory or not accessible to all.

The other factor that determent augment of productivity is the strategy employed by farmers: the more they diversify their strategy the more productive they will be. The respondents expressed their reservations as the mean score was 2.74. Employment of different strategies might be inhibited by factors like lack of resources, necessary skill and necessary supply. Most of the smallholders in the context of the research area have had very small plots of land and cannot afford to employ even crop rotation as the strategy. Farming practice in the area so far was being practiced traditionally and most of the farm communities were not educated. This implies that farmers and development agents are not on the same page and farmers need more support than development agents think.

Institutional arrangement for value addition

As has been seen in Figure 2, Ambo Farmers' Cooperative Union has got wheat mill. Farmers are one of the key players in value chain development. Their understanding and contribution to the value chain could affect the whole system in many ways. In contrast to the environmental analysis viewed by development agents and interviewees regarding the food value chain; the findings revealed that only 20% of the respondents believe that there is an institutional arrangement designed to enhance food value chain. This shows that even if the Ambo Farmers' Cooperative Union has been established by primary farmers' cooperatives and has owned mill; farmers in the district have very limited knowledge about it. This implies that smallholders' connection to the organization as is loose. That intern affects farmers' feeling in that they are alone by themselves and think that there is little they can do to change the situation. As a matter of fact; only 25.7% of the respondents see the possibility of food value chain development in their context. 51.4% of farmer respondents did not see the possibility of how the value addition could help to enhance their livelihood.

Wheat value chain mapping

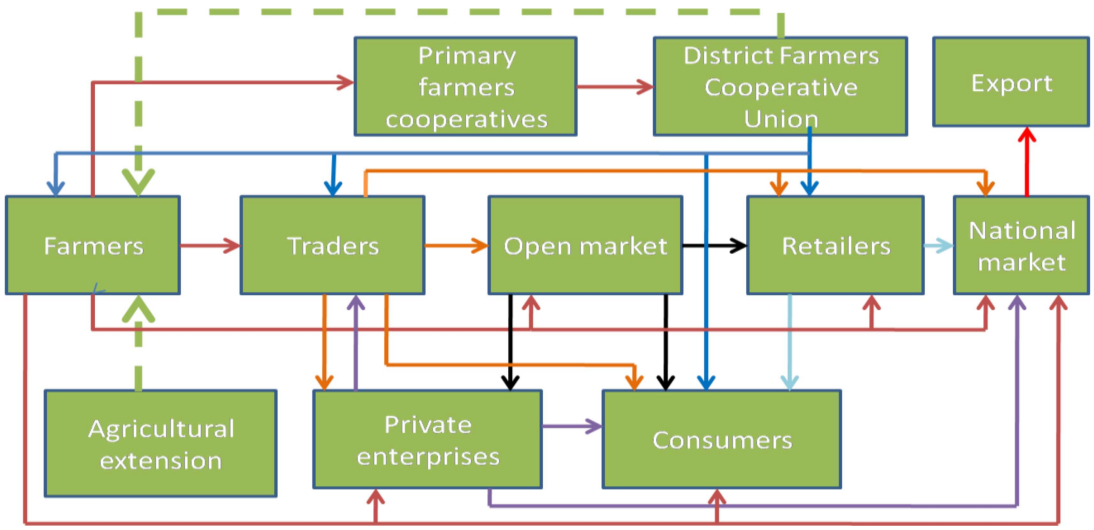


Figure 2: Wheat value chain mapping based on the observation and reflection (by author)

Figure 2 shows a simplified value chain and actors involved in producing wheat and transforming it into consumable products. It shows that number of actors are taking part along the chain. In the above discussion, it has been seen that the chain is not yet developed. Till now both private enterprises and the Cooperative Union in the district have managed to process wheat and produce flour and animal fodder as by-products. Farmers sell their products to cooperatives, private enterprises, traders, consumers and retailers at open markets. It is possible to deduce that a significant portion of the product is sold without value addition and passes through a series of transactions without value addition.

Even though the food value chain has an invaluable contribution to improving the livelihood of smallholders, it is not yet effective because of unclear institutional arrangements, poor alignment and integration with other programs.

Conclusion

The study reveals that development agents provide training to augment productivity of smallholders although significant numbers of farmers were not satisfied with the service rendered by development agents. Development agents provide two types of training, known as special training and general training. Special training is provided for progressive farmers and the general one is for follower farmers. Ambo Farmers' Cooperative Union provides market-related information, agricultural inputs and purchases of their product at fair prices. The Farmers' Cooperative Union tried to create institutional arrangements to foster wheat value chain development. Private enterprises are also active in wheat value chain development. Both private enterprises in the area and Farmers' Union Cooperatives are at the initial stage so far as the wheat value chain is concerned. So far, they only able to produce flour and animal fodder as their byproducts. Farmers however, have very limited knowledge about the food value chain and how it contributes to improving their livelihood. Smallholders were denied the opportunity to involve in food value chain development although primary cooperatives were founded by smallholders.

Recommendations

Hence better livelihood of smallholders contributes to value chain development all stakeholders should work together to enhance farmers' productivity and work out how to involve farmers in the process.

One of the limitations of training rendered by development agents is the failure to link productivity with value chain development. The findings of the research showed that farmers know very little about the correlation between the price of the product and value addition. Thus, they have to design strategies on how to connect productivity enhancement and value chain development that involve smallholders.

Farmers' cooperative union is one of the few institutions working in the community by availing agricultural inputs, purchasing their products and providing market information. Actually, it has huge potential to create meaningful links with farmers and mobilize the resources so that smallholders could be empowered. Thus, the union needs to design a plan on how to provide impact making training for smallholders and extend the value chain to a higher level.

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