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Constraints and Opportunities of Maize, Teff and wheat production: The case of Ambo s and Toke Kuttaye Districts, West Showa Zone, Oromia Regional State, Ethiopia

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ABSTRACT

In Ethiopia, agriculture accounts for about 85% of the working forces, 90% of exports and 50% of the total gross domestic product (GDP). Agriculture is the main stay of the country. The study was initiated with the objective of Assessments of constraints and Opportunities of Maize,Teff and wheat production. The study used multi stage random sampling techniques. At first stage, from the existing districts in West Shawa Zone, two districts were selected based on their relative importance with respect to staple food crop production potential and their accessibility purposively. At the second stage, Six PAs, was selected randomly by random sampling method. At the third stage, probability proportional's to size (PPS) were used to select respondents for interview. Accordingly a sample of 180 house hold heads was selected for interview. The major constraints of the study area were found to be: Crop worm and disease, Price problem, lack of inputs (chemicals, Fertilizers, Seed, etc.,). Lack of appropriate threshing facilities and storage facilities, high post harvest losses, lack of farming oxen, lack of rural credits, lack of education and lack of rural feeder roads. Major opportunities of the study area were found to be, availability of irrigable land, availability of fertile land, availability of motivated and hard working farmers, location of the districts for agricultural marketing's and good weather condition. Policies, plans and programs should target this rural community. The construction of rural feeder roads, either, mechanization of the farming sector or provision of sufficient farming oxen is indispensible, provision of rural education programs are required, policy makers should focus in provisions of rural credit facilities with reasonable interest rates, crop worms and diseases should be controlled, price for inputs and outputs should be intervened.

Keywords: Constraints, Opportunities, Rural households, Rural Credits, Modern Technologies

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1. Background of the study

In Ethiopia, agriculture accounts for about 85% of the working forces, 90% of exports and 50% of the total gross domestic product (GDP). In the 1980s, the sector grew at only 0.1% per annum which is 2.9 percent below the rate of population growth (USAID, 1995; cited in Mohamed, 1996) while rural unemployment increased, nutrition level declined, and food aid imports increased, significantly.

The series of African food crises in the seventies and eighties have led to sustained interest in the various factors that influence peasant food security. This in turn is due to some critical production and productivity problems. The roles of crop conditions, government policy and peasant access to economic resources have received particular attention (Yared, 1999).

Deepening food crises in several developing countries specially those in Sub-Saharan Africa (SSA), has increasingly become the concern of many researchers, planners, donors and international development agencies, who have given high priority to the study of food system and the critical problem of production, productivity and food security (Gezahegn, 1995). Per capita food production in SSA including Ethiopia has been declining over the last three decades. Despite the available resources and the efforts made by governments in SSA, Agricultural production and productivity problems and food insecurity remained one of the most crucial issues.

The gap between food production and consumption in most SSA countries is induced by the slowdown of the agricultural production growth rates. The major causes for the slow growth rates of agriculture include various factors such as unfavorable climatic conditions, undeveloped infrastructures, inappropriate agricultural policies and predominantly traditional production systems (Mohamed, 1995).

Ethiopia turned from a food exporter into a food importer during the period 1955-1959 (Mesfin, 1999). And it was not uncommon in 1960s and 1970s to speak of Ethiopia as having the potential to be the bread basket of the Middle East. It took two devastating famines for the “bread basket” argument to beat a reluctant retreat, and social analysts are now awakening to the fact that the periodic disasters that engulf rural Ethiopia are not aberrations but rather dramatic manifestations of a disease that have been afflicting the country for centuries, and continue to do so at present (Desalegn, 1988).

Ethiopia lies within one of the most food insecure regions in the world, with a large number of its population living at subsistence levels and dependent on farm production highly vulnerable to severe draughts. The smallholder peasant sector is the most important agricultural sub sector in the country. Its emphasis is on food grain crops where considerable improvements of cultivation practices, management and marketing need to be realized. The production volume of food grain crops as well as the per capita food production has shown tremendous fluctuations throughout the 1980s thus resulting in sever food shortage in the country. The main reasons for these are stochastic shocks such as recurrent draught, lack of incentives for the small-scale food producers and poor extension services for the small peasant households (Gezahegn, 1995).

The agricultural production, productivity and food insecurity problems of Ethiopia, the poorest country in the world, should be well known. Famines have occurred throughout the country’s history. Moreover, the same source further explained that harvest failure often leads to losses of assets and a fall into poverty. When weather conditions affect food production, the country’s food situation deteriorates quite rapidly entailing emergency external food aid imports. In the last two decades, this has happened several times. Over the last fifteen

years, Ethiopia has imported food aid on average 700,000 metric tons per annum to cope with the food insecurity in the vulnerable region of the country (FDRE, 2001). This shows an increase in vulnerability and food insecurity as well as an increase in the number of people who are failing to enough food from domestic sources.

Related to critical problems of production, productivity and food insecurity is the level of nutritional deprivation, stunting and wasting of children less than 5 years of age, which is quite wide-spread in Ethiopia. According to the 2000 Demographic and Health Survey, 52% of children under age 5 are under weight (FDRE, 2001).

Although food self-sufficiency has remained the stated goal of the Government of Ethiopia, the problem of food insecurity has continued to persist in the country. Many rural households have already lost their means of livelihood due to recurrent drought and crop failures (Ayalneh, 2002).

Therefore, what is needed now is to comprehensively address determine the critical problem of agricultural production, agricultural productivity and food insecurity and opportunities of staple food production in the country. Hence, a study of this sort in addressing the critical problem has an important role at least in clearly identifying specific factors and the severity of the critical problems that pertain to the area. Physical access to sufficient food to lead a healthy and productive life, an arduous goal. Rural households are vulnerable to food insecurity not simply because they do not produce enough, but either they hold little in reserve or they usually have scant saving and few other possible sources of income to obtain adequate food to meet their daily subsistence food energy requirements (Ayalneh, 2002).

In addition to the general identification of critical problems in agricultural production, agricultural productivity and food insecurity of the World, regional and country level, disaggregated information on the incidence of agricultural production, agricultural productivity and food insecurity is required both for proper policy design and adequately targeted interventions. This entails identification of different categories of the agricultural production, agricultural productivity and food insecure at the local and household level by sector of economic activity, Occupational characteristics and social status by age and gender (Kostas et al., 2001).

Despite some improvements in agricultural production in recent years, overall agricultural growth falls far short of the rapid population growth and food imports (in the form of aid and to some extent commercial imports) has become an important component of food supply in the country contributing on average about 6.4% of national food production between 1996 and 2010 (Yesuf, et al, 2012). Ethiopian agriculture is characterized by low productivity which is associated with low input usage (such as improved seed varieties and fertilizer), significant post-harvest loss, population pressure, poor farming practices, and land degradation, among others.

The potential solutions, beside measures that would take population pressure off agriculture, lie in the promotion of agricultural innovations that would improve- productivity sustainably and efficiency of smallholder agriculture. Studies conducted in the country identify risk aversion behaviour (Yesuf and Bluffstone, 2009; Yu and Nin-pratt, 2014), perception about new technology access to extension and advisory services; and access to credit (Bekele and Drake, 2003) as the major determinants of technology adoption, agricultural production and productivity. Other socio-economic factors also identified include human capital, livestock holdings, land size and tenure security, among others.

Hence, the researchers has taken the initiative to study these critical problems and opportunities in this regard and to analyze with

the socio-economic factors that are associated with household agricultural production, agricultural productivity and technology adoption problems in the rural areas of Tokke Kutaye and Ambo Districts.

In the study area even though there were a number constraints and opportunities of production and productivity, there were no such a survey undertaken. Production and productivity of the study area are not well known in the two districts (unpublished report in Bureau of agriculture and Rural Development of Toke kutaye and Ambo Districts, 2015).

It is often told to conduct problem solving researches and communities services; but what are these problems in these regards? Especially in production systems of staple food crops?

In order to increase production and productivity the constraints and opportunities of the study area has to be studied, identified, praiotized, recorded and appropriate solution should be searched. There by based up on these recordings and solutions appropriate policy recommendation should be given. The study was initiated with objective of Assessments of constraints and Opportunities of staple food production (Maize, Teff and wheat) in the case of Toke Kutaye and Ambo districts, Oromia, Ethiopia.

Research Rationale

Over the long term, a process by which increasing proportions of employment and output of the economy are accounted for by non-farming sectors. The economy becomes less agriculturally oriented in a relative sense, although farming and, more broadly, the commodity system continue to grow absolutely and generate important growth linkages to the rest of the economy. Structural transformation thus involves a net resource transfer from agriculture to the other sectors of the economy.

Movement of the economy away from subsistence-oriented household-level production towards an integrated economy based on greater specialization, exchange, and the capturing of economies of scale. Many functions formerly conducted on the farm, such as input production and output processing, are shifted to off-farm elements of the economy.

One implication of this process is that driving down the real cost of food to consumers requires increased attention to fostering technical and institutional changes in the off-farm elements of the food system. Increasing productivity at the farm level is absolutely necessary but is alone insufficient to assure decreases in the real price of food to consumers.

Another implication is that for this process of structural transformation to go forward, the economy must develop low-cost means of exchange. High transaction costs in the economy can choke off structural transformation by making it too costly for people to rely on the specialization and exchange necessary to take advantage of the new technologies in the food system. The key to low-cost exchange is coordination, that is, the matching of supplies and demands at prices consistent with sustainable costs of production.

The study area has great potential for food crop production. However the production and productivity of the study area is too low. In this case it is very important to conduct research on the constraints and opportunity of food crop production in the study area. Moreover, there was no such research work undertaken in the study area, hence conduction of such a research work is very necessary and indispensable. The research result will lay a foundation for further research work for GOs, NGOs, agricultural researchers, policy makers and any interested groups or individuals.

2. MATERIALS AND METHODS

2.1. Description of the study areas

This study was carried out in Ambo and Toke Kutaye districts of West Shewa

zone of Oromia Regional State, Ethiopia during 2016 and 2017.

Ambo district is situated at 8°56'30" - 8°59'30" N latitude and 37° 47'30" - 37°55'15" E longitude in central Oromia, Ethiopia, 114 km west of Addis Ababa. The district has 34 kebeles and 1 town. It is bordered in the South West by Tikur Inchini, in West by Cheliya, in the North by Ginde Beret, in the North West by Jeldu, in the East by Dendi and in the South East by South West Shewa Zone. The administrative center of this district is Ambo. The 2007 national census reported total populations for this woreda was 108,406, of whom 54,186 were men and 54,220 were women; 865 or 0.8% of its population were urban dwellers (CSA, 2007).

The altitude of the area ranges from 1380-3030 m.a.s.l, characterized by warm temperate weather which is locally called Bada-dare (mid altitude). The temperature ranges from 15°C-29°C with average temperature of 22°C. It receives a mean annual rain fall ranging from 800mm-1000mm with an average of 900 mm. The highest rainfall concentration occurs from June to September and the mean monthly relative humidity varies from 64.6% in August to 35.8% in December, the soil type of the district is; Red soil (36.25%), Black soil (34.37%) and Brown soil (29.38%). Livestock are major agricultural resource in this area.

Toke Kuatye is one of the woredas' in the Oromia Region of Ethiopia and located between latitude of 08° 59' 01.1' N. and longitude of 37° 46' 27.6' E. It is bordered in the East by the Ambo, on the North by Midakegn, on the West by Cheliya and Guder town is the administrative capital of the district.

According to the 2007 national census, it has a total population of 119,999, of which 59,798 were men and 60,201 were women; 15,952 or 13.29% of its population were urban dwellers. The majority of the inhabitants said they practiced Ethiopian Orthodox Christianity, with 49.48% of the population reporting they observed this belief, while 32.8% of the populations were Protestant, and 16.25% practiced traditional beliefs. Its altitude is 1990 meter above sea level, and the average annual rainfall is 1028.7 mm and maximum and minimum temperatures of the area was 29.6°C and 11.8°C, respectively.

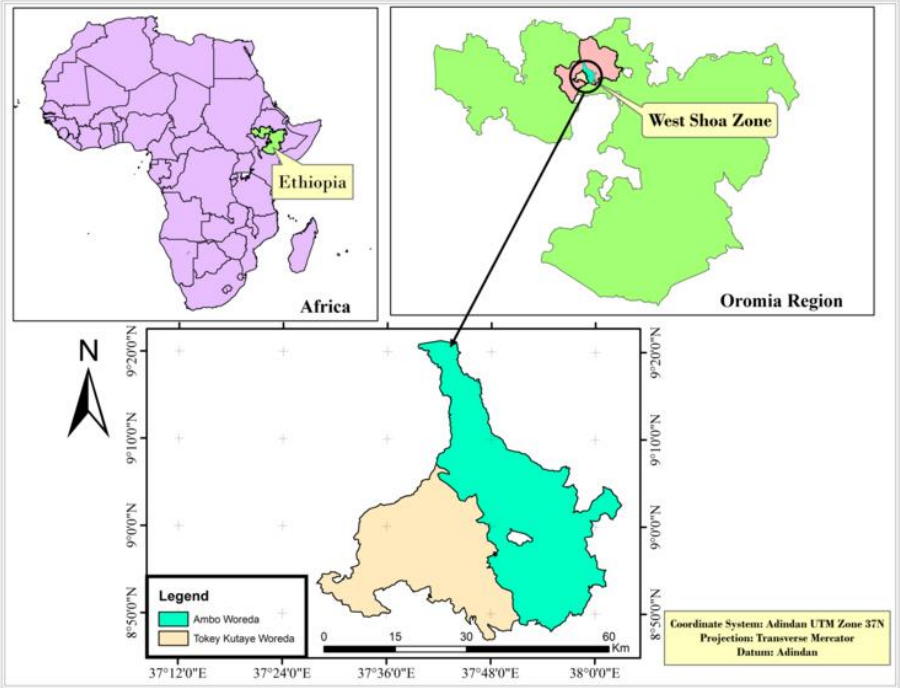

Fig1. Map of Ambo and Tokke Kutaye districts

Source survey result 2016

2.2. Sampling Techniques

The study used multi stage random sampling techniques. At first stage, from the existing districts in West Shawa Zone, two districts (Ambo and Tokekutaye) were selected based on their relative importance with respect to staple crop production potential and their accessibility purposively. At the second stage, Six PAs, Three from each district was selected randomly by random sampling method. At the third stage, probability proportional's to size (PPS) were used to select respondents for interview.

Table 1: Population of Household Heads and sampling

No	Name of PA	Male	Female	Total	Sample	Remark
1	Kolba/Anchabi	502	53	555	30	
2	A/Doyo	338	76	459	24	
3	Boji/ Gebisa	352	69	421	22	
4	Birbirsa	794	38	832	44	
5	Toke/Mexi	55	487	542	28	
6	Amarro	509	19	609	32	
	Total	**2212**	**666**	**3418**	**180**	

Source, survey output, 2016/2017

2.3. Sources of Data and Method of Data Collection

Basically there were two types of data sources used. Primary and secondary data. Primary data was collected from the respondents by face to face interviewing, observations and questionnaires. The secondary data were collected from official document and records related to the case under the study as well as unpublished documents such as journals and internet sources found in the District Agricultural office of the study area. Moreover the survey work was undertaken in Tokke Kutaye and Ambo districts. Primary data was collected from 180 randomly selected smallholder farmers who are proportionally distributed among the six different study kebeles. Survey and Focus Group Discussions (FGDs) and Key Informant Interviews (KIIs) were held with growers and staff of the Ministry of Agriculture during 2016. The data on area, production and yield was obtained from Tokke Kutaye and Ambo districts of Agriculture and Rural development office. Other information was collected from Ambo Agricultural Research Center. Eighteen enumerators who has at least diploma in agriculture (three from each PA) were assigned from the districts agriculture and rural development office for data collection. These enumerators were trained on how to conduct a survey and gather relevant data from sample respondents.

Different types of data collection methods were used in the study. Primary data was collected through personal face-to face interviews with the farmers; offices and group discussion was made with the farmers and household's interview use the questioners prepared for the purposes of information gathering of the study area. Data sheets were prepared and collected by enumerators during the study period. And secondary data were collected from Agricultural and rural development office of the study area. Qualitative and quantitative data were gathered by employing a structured questionnaire. Before launching the survey, questionnaire was

translated into oromo language and pre tested and were improved accordingly. FGDs and KIIs were used to the checklists prepared for the study purpose.

2.4. Methods of Data analysis and Interpretation

After the relevant data to the study area has been collected; the subsequent task was data processing that involves; editing, recording, analyzing and interpretation. The collected data were edited and examined. By using questionnaires data were processed and analyzed. Descriptive statistics techniques were used to describe the collected data which includes percentages, averages, means, modes, frequency distributions, etc., since descriptive statistics help one to have clear picture of socio-economic and socio-demographic situations of the respondents, it were used wherever it is appropriate.

Table 2:- Distance from district capital, farm land owned, Oxen owned and family size

Variable	Obs	Mean	Std. Dev.	Min	Max
Distance from district capital	180	11.73	7.63	0	29.5
Farm land owned	180	3.90	2.13	o.5	16
Family size	180	7	2.43	1	14
Oxen owned	180	2.80	1.44	0	8

Source, survey output, 2016

As it can be seen from the table above the maximum distance from the district capital was 29.5 kms, the minimum distance of the farmer from the district capital were less than a kilometer or zero km., on the average the farmers were 11.7 kms far from the district capital.

The maximum sizes of farm land owned were found to be 16 heks, the minimum 0.5hek and on the average the farmers owned 2.15 heks each.

The maximum family size of the farmers were found to be 14, minimum family size 1 and on average the family size were found to be seven.

Farming oxen owned the maximum number of farming oxen owned were 8, minimum 0 and on the average they own 3 oxen each (rounded off).

Table 3:- Gender of the sample Households

Variable	Obs	%age
Sex		
Male	153	85
Female	27	15
Total	**180**	**100**

Source, survey output, 2016/2017

As it can be seen from the above table 3, about 153 (85%) of the respondents were found to be male households, the rest about 27(15%) were found to be female households. This implies that the majority of the respondents were male households.

Table4:- Education level of the Respondents

No	Education Level	Quantity	%age
1	No Education	65	36.14
2	Elementary school complete	77	42.77
3	Junior Secondary School Complete	23	12.77
4	Secondary School Complete	10	5.55
5	College Diploma	4	2.22
6	University Degree and Above	1	0.55
	Total	**180**	**100**

Source, survey output, 2016

As it can be seen from the above table 4 respondents with no education were found to be 65 (36.1%), elementary school complete 77(42.8%), junior secondary school complete 23(12.8%), secondary school complete 10(5.55%), college diploma 4(2.22%) and university degree and above was found to be 1(0.55%). This shows that the majority of the respondents were illiterate and elementary school complete.

Being the owner of TV, Cell phone and radio facilitates the information communication of the respondents. Accordingly as it can be seen from table 5 above 25(14%) and 155(86%) were found to be television owners and non owners respectively. About 118(65.55%) and 62(34.44%) were radio owners and non owners respectively. About 37(20.55%) and 143(79.4%) were found to be cell phone owners and non owners respectably. This shows that very small numbers of the respondents are users of information communication technologies.

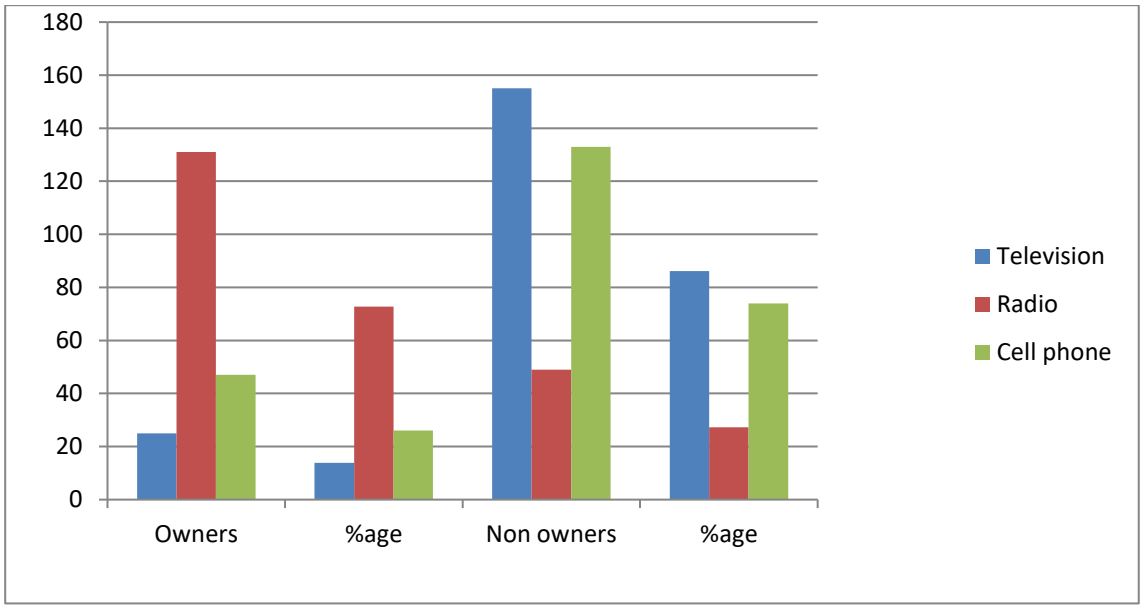

Figure 2: Television, Radio and Cell phone owners and non owners

Source, survey output, 2016

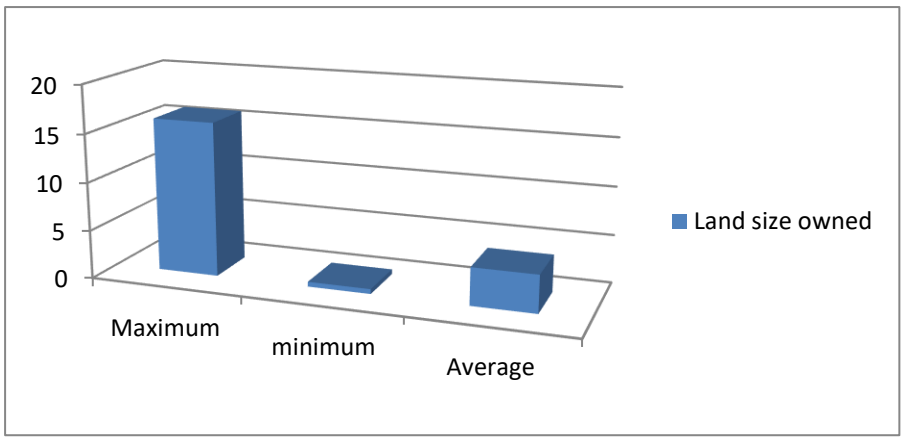

Figure 3: Farming land size owned (Hek.) Source, survey output, 2016

As it can be seen from fig 4 above the respondents have 16, 0.5 and 3.89 hectares of land as maximum, minimum and average land holding respectively. This implies that there is a great difference between maximum land holding and minimum land holdings

Table 5: Amount of land plowed, production and productivity for Maize, Wheat and Teff

No	Description	Land plowed	Production	Productivity
1	Maize	95	2672	28
2	Wheat	151	2866	19
3	Teff	267	2937	11
	Total	**519**	**8584**	

Source, survey output, 2016

When land plowed for maize were 95 heks, 2672 quintals were produced, the productivity were 28 quintals per hectare. Land plowed for wheat was 151 heks, 2866 quintals of wheat were produced and 19 quintals per hectare were the productivity of wheat. 267 hectares of land were plowed for Teff, 2937 quintals of teff were produced and the productivity of teff found to be 11 quintals preceding the survey. These were considering the general farming practices of the area. The productivity of the three staple food crops was found to be minimum and the productivity was also small.

Table 6: Use of Fertilizer, Compost, Manure and others

No	Description	users	%age	Non users	%age
1	Fertilizer	176	97.7	4	3.3
2	Composite	52	29	128	71
3	Manure	49	27.2	131	72.8
4	Other	157	87.2	23	13.8

Source, survey output, 2016 *Other= chemicals, herbicides, pesticides, technologies, knapsacks, etc,

Table 7: Farming Experience of the respondents

No	Description	Minimum years	Maximum years	Mean	Standard dev
1	Farming Experience	3	55	18.5	9.57

Source, survey output, 2016

As it can be seen from the above table 9 the maximum farming experience, minimum farming experience and mean farming experience of the respondents found to be 55, 3 and 18.5 respectively.

Table 8: Planting method used

No	Types of crop	Row planting	% age	Broad casting	%age
1	Maize	174	96.6	6	3.4
2	Wheat	23	12.7	157	87.3
3	Teff	0	0	180	100

Source, survey output, 2016

Maize found to be the most row planted crop in the study area. 174 (96.6%) of the respondents used row planting method, only 6(3.4%) of the respondents used broad casting method of planting. Wheat is the second row planted crop, accordingly 23(13%) the respondents used row planting method, the rest 157(87%) used broadcasting method of planting. All of the respondents planted Teff by broadcasting method of planting.

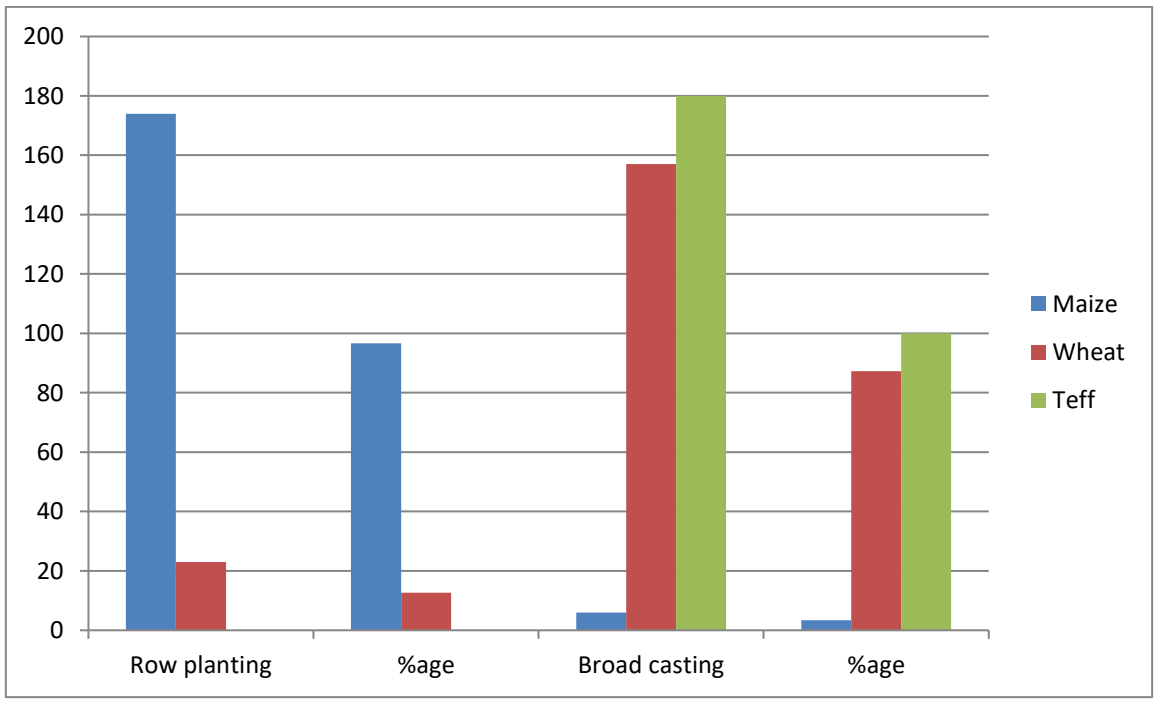

Figure 4: Method of planting used Source, survey output, 2016

Table 9: Crop Rotation

No	Description	Practicing Crop Rotation	%age	Not Practicing Crop Rotation	% age
1	Crop Rotation Practices	173	96	7	4

Source, survey output, 2016

It is easy to notice (as it is shown in the table 9 above) that the majority of the respondents 173(96%) are practicing crop rotation, only 7(4%) of the respondents are not practicing crop rotation.

Table 10: TLU Owned

No	Description	Unit	Maximum	Minimum	mean	Standard dev
1	TLU Owned	TLU	55	3	18	9

Source, survey output, 2016

The respondents own 55, 3 and 18 maximum, minimum and mean of tropical live stock unites. This may indicate that there is a great potential of live stock in the study area.

Table 11: Production and Productivity under row and Broad casting Methods of Planting

No	Method of Planting	Land Plowed	production	productivity
1	Row	101	2828	28
2	Broad casting	418	5756	13.77
	Total	**519**	**8584**	**Aver.= 20.88**

Source, survey output, 2016 * unit is in Quintals and Heks.

Some 101 hecs of land was planted in rows, they were able to produce 2828 quintals, the productivity was about 28quits per hecs.418 hecs was planted in broad casting preceding the survey, about 5756 quintals was produced and the productivity was13.7 quts per hectare. This implies that in both cases of planting methods the production and productivity of the area was minimum. Although row planting method seems better than broad casting method of planting.

Table 12: Income of the respondents

no	Variable	Maximum	minimum	mean	Standard dev.
1	Income from crop	80,900	0	12,449.5	11,205.32

2	Income from livestock	10,600	0	735.65	2315.77
3	Income from off farm activities	24,000	0	24000	2434.62
	Total	**115,500**	**0**	**37,185.15**	

Source, survey output, 2016/17

Maximum income collected from crop, live stock and off farm activities was 115,500. - (Table 13) above preceding the survey. The maximum expense of the respondents was 64,050. - (Table 14) below. This indicates that the respondents can earn 51,450. - Gross profit per year.

Table 13: Expense of the respondents

no	Variable	Maximum	minimum	mean	Standard dev.
1	Input expense	29050	202	6081.70	4762.46
2	Consumption expense	28000	1200	11388.	4780.75
3	Other expense	7000	0	81.63	580.42
	Total	**64,050**	**1,402**	**17,551. 33**	

Source, survey output, 2016

As it can be seen from table 15 and fig 8 below the major problems of the respondents were: - different crop worms, low product price and high input price, lack of different chemicals, crop rusts, lack of improved seeds, weather fluctuation, lack of knowledge, shortage of land, different crop insects problem, termite and other different minor problems found to be the important problems of the respondents.

Table 14: Major Constraints of the study area

no	Description	Number of respondents	%age	Remark
1	Crop worm problem	38	21	Stock borer, cut, etc.,
2	Price problem (Fall, prodt., Rise, Inputs)	36	19	
3	Lack of d/t chemicals	29	16	Fert., herb & pesticides
4	Crop Rust problem	28	15	
5	Lack of improved Seed	16	9	

6	Weather fluctuation problem	11	Drought 6
7	Lack of knowledge	6	3.2
8	Lack of Land	5	3.24
9	Insect problem	2	1.51
10	Termite problem	1	1
11	Minor and other different problems	8	5.05
	Total	**180**	**100**

Source, survey output, 2016

Table 15: Kind of Stores Used In the Production Systems

S.N	Type of store Used	No of Farmers	%age
1	sack	83	46
2	mud bricks (Gumbii)	39	21.7
3	Mud bricks and sack	30	16.7
4	Wooden local store	20	11.1
5	Sack and wooden local store	6	3.4
6	Mud bricks, local store	2	1.1
	Total	**180**	**100**

Source, survey output, 2016

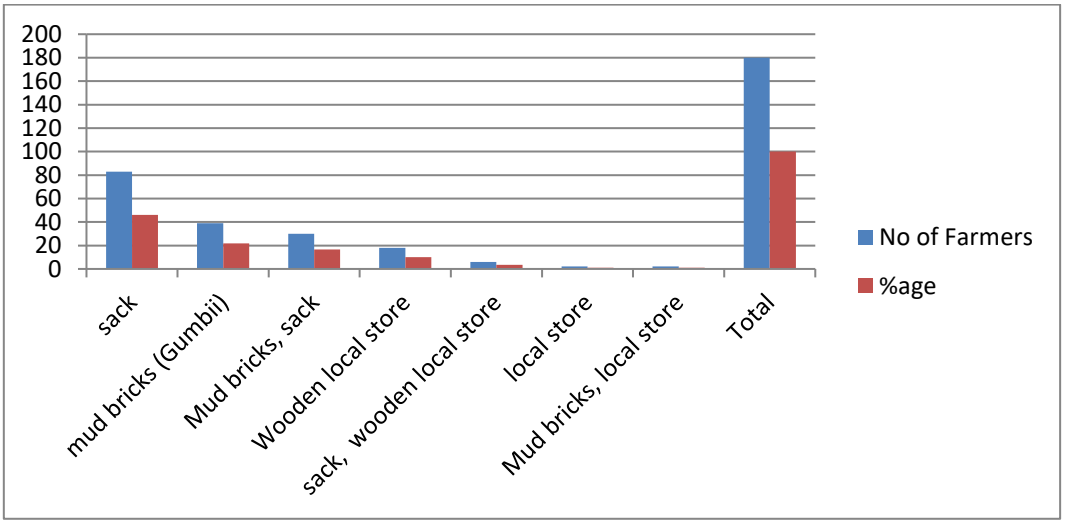

Fig.5: Kind of Stores Used In the Production Systems

Source, survey output, 2016

As it can be seen from table 16 and fig.9 above types of store used were sack (46%), mud bricks (gumbi) (21.7%), mud bricks and sack (16.7%), local wooden stores (11.1%), wooden local store and sack (3.4%), local wooden store and mud bricks (1.1%) in their order of importance. This indicates that as there was no modern store used post harvest loss is high in the study area.

Table 16: Threshing Methods Used In the Pron. System

sn	Threshing Methods Used	No of Farmers	%age
1	Oxen and human	84	46.7
2	oxen	78	43.3
3	Stick and oxen	18	10.0
	Total	**180**	**100**

Source, survey output, 2016

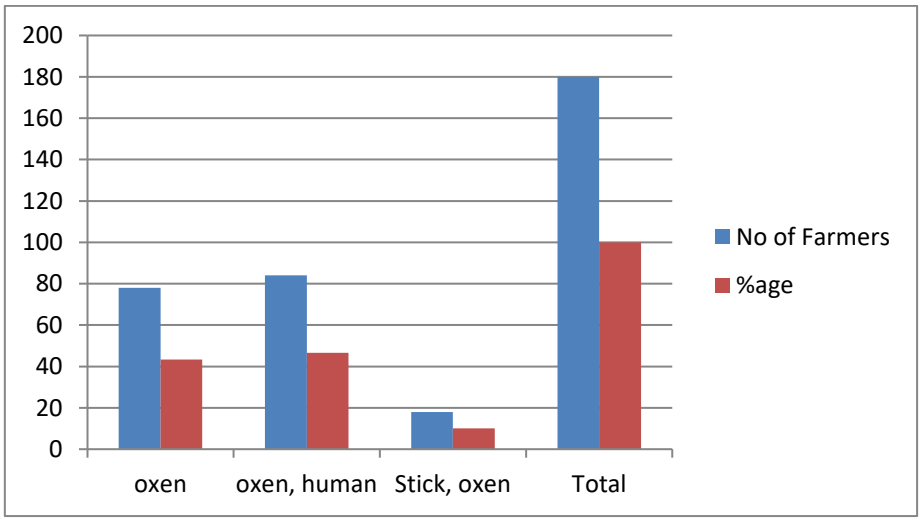

Fig.6: Threshing Methods Used In the Pron. System Source, survey output, 2016

Threshing Methods Used in the study area was found to be by oxen and by human 46.7%, by oxen 43.3% and by stick and oxen 10%. This indicates that threshing methods and threshing materials used was of primitive and local type which cases losses during threshing. Table 16 and fig. 6 above.

Table 17: Mode of Transportation Used

no	Mode of Transportation Used	No of Farmers	%age
1	Donkey, human, car	44	24.44
2	Human, Animal Back	39	21.67

3	donkey, human	38	21.11
4	Donkey	24	13.33
5	car, donkey (animal)	15	8.33
6	Animal Back	10	5.56
7	car, human	5	2.78
8	car, Animal, man	4	2.22
9	Human	1	0.56
	Total	**180**	**100**

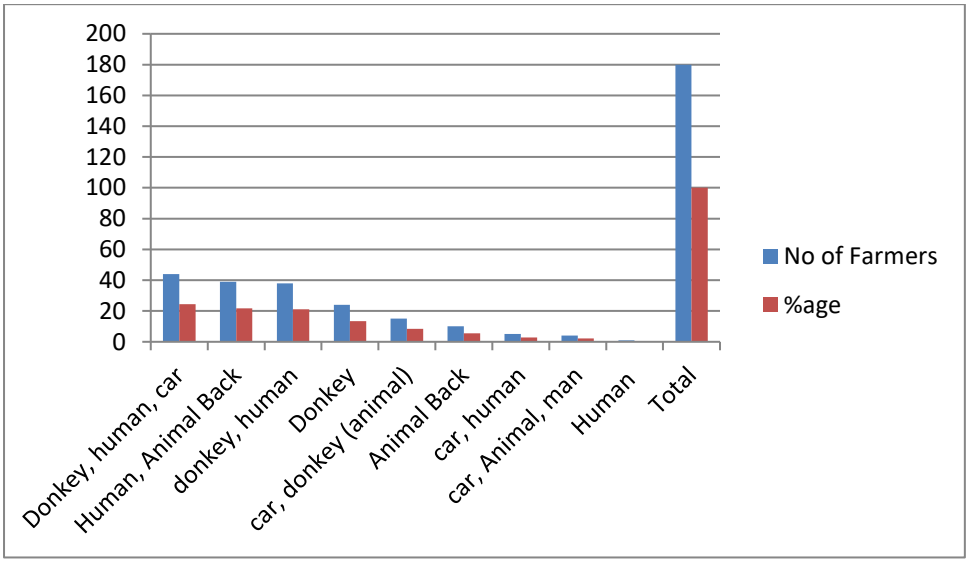

Fig 7: Mode of Transportation Used Source, survey output, 2016

Mode of Transportation Used: As it is depicted in table 17 and fig. 7 above, the mode of transportation used from home to farm, from farm to home, from home to market and from market to home was, by donkey, car and human (24.44), by human and animals back (21.67%), by human and donkey (21.11%), by donkey (13.33%), by car and donkey (8.33%), by animal back (5.56%), by car and human (2.78%),by car, animal and human (2.22%) and by human (0.56%).

Table 18: Working Days per month

No	Description	Minimum	Maximum	Mean	Std. Dev.
1	Working days per month	10	30	21	3

Source, survey output, 2016/2017

Working Days per month:-As it can be seen from table 20 above maximum 30, minimum 10, and on average 21 was observed as their working days per month. This may indicate as the respondents have good working habits.

3. RESULTS AND DISCUSSIONS

- Majority of the study area dwellers are rural household farmers, rural feeder roads are not well developed in the study area,
- Majority of the farming households are owning less number of farming oxen,
- Majority of the farming households in the study area are with no education and elementary school education level,
- It was found that 66% of the hh own radio.
- Rural credit facilities are not well developed in the study area, the available credit providers are with high interest rate. This was in line with (ATA 2012).[12]
- It is observed that the production and productivity of staple food crops (Maize, Wheat and Teff) is low this is mainly b/s of lack of modern technology practices among others. This was in line with (ATA 2012).
- Majority of the farmers are the users of Chemical Fertilizers.
- The major problems of the study area were: Crop worm and disease, Price problem (high for inputs and low for products) and lack of inputs (chemicals, Fert., Seed, etc.).
- Lack of appropriate threshing facilities and storage facilities which causes high post harvest losses.
- Major opportunities of the study area found to be, availability of irrigation facilities, availability of fertile land, availability of motivated and hard working farmers, location of the districts for agricultural marketing's (very near to central market), good weather condition, etc.,

4. CONCLUSIONS AND POLICY IMPLICATIONS

- Hence majority of the study area dwellers are rural household farmers, policies, plans and programs should target these rural community.
- Rural feeder roads play vital role in growth and development of the study area, GOs and NGOs should give due attention to the construction of rural feeder roads. Majority of the farming households are owning less number of farming oxen, without which growth and development in the sector is difficult, in this case either, mechanization of the sector or provision of sufficient farming oxen is indispensible,
- Majority of the farming households in the study area are either with no education or with elementary school education level, provision of rural education programs are required,
- It is found that 66% of the farming households are owning radio, in this case communicating with the rural community should be via radio programs,
- Rural credit facilities are not well developed in the study area, the available credit providers are with high interest rate. It is recommended that, policy makers should focus in provisions of rural credit facilities with reasonable interest rates,
- Modern technologies that help to increase the production and productivity of staple food crops and reduces post harvest loses should be introduced to the study area,
- Crop worms and diseases, Price for products and inputs (high for inputs and low for products) and lack of inputs (chemicals, Fert., Seed, etc.) are the major problems of the study area. Hence policy makers should target to solve these problems in developing policies and programs. This was in line with (ATA 2012).

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