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RESEARCH ARTICLE

Role of Socio Economic Factors and Perception towards Agriculture, for Food in-security: A study of KelafoWoreda of Somali State of Ethiopia.

Mr. Abraha Girmay¹, *R.Uttama Reddy¹ and Dharmendrakumar Dube²

1. School of Geography & Environmental Studies, Haramaya University, Dire Dawa, Ethiopia.
2. School of Natural Resource Management & Environmental Sciences, Haramaya University, Dire Dawa, Ethiopia.

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*Corresponding Author

R.Uttama Reddy

Abstract

Present study deals with the role of socio-economic factors for the problem of food in security in KelafoWoreda of Somali State of Ethiopia; it also underlines the significance of peoples' perception for crop cultivation and its impact on food insecurity in the study area. Living in the same environment, why the kebele (kebele: Lowest level of Administrative division) inhabited by different sub tribe of Somali, falls distinctly under food secured and food in secured category. The descriptive research design with survey method was used for the study. Information was collected from both primary and secondary sources. World Food Program (2012-13) classification map for identification of Food Secured and Food insecure kebeles was used as a base map. Purposively one kebele each from Food Secured and Food insecure kebele was selected and further census survey was employed for household survey. Schedules, interview, FGD and field observations were the tools used for collection of primary information. Data of family profile shows high female headed households particularly in FinSkebele of Ogaden tribe (33.9%), due to the high number of male youth causality during ongoing insurgency and conflicts among the tribal sub groups. The food in-secured kebele shows very less percent (1.6%) of HHHs at higher age category (65 and above) in FinSkebele due to the malnourishment clubbed with a strong culture of chewing *chat* (an stimulant vegetation) among Ogadens leads to the early deaths. Malnourishment among babies and mothers also responsible for the high infant and child mortality, and comparatively smaller family size in Fins kebeles. The poor situation of education which reflects in very high percentage devoid off with even any formal education in both kebeles (90.3% and 61.3% respectively). Having a high position in Somali social order and looking down to the agriculture activity is a bone of contention for achieving food security. This attitude is reflected in their extreme negligence for owning the land and participation in agriculture operations. In FS kebele almost 90% HHs owns land while FinSkebele it goes down to 71%. Again 22.2 % HHs of FS kebele acquire land for cultivation on rent mostly from FinSkebele HHs. This negative attitude and negligence is further reflected in use of modern inputs; in FS it is more than 4/5th of HHs goes for it while in case of FinSkebele it is applicable for only 1/5th of the HHs that too largely for insecticides only. There is a big difference in their major economic activity, which is an outcome of their past social legacy and ends up with a extremely poor perception for agriculture particularly the crop cultivation. Food secured kebeles are largely agro- pastoralist, while food in secured kebeles are largely pastoralist. It is not because of the variation in their natural resources or climatic conditions but their attitude towards crop cultivation, among

OgadenSomalies having the high number of animals particularly the camels is a matter of pride and high social status while crop cultivation is suppose to

be the act of people with lower social order. Study recommends that maintaining peace and security is the prime pre-requisite for any developmental activity in the area. Change in the negative perception for agriculture among FinSOGadenkebele is very much needed which could be achieved by massive awareness and training program run jointly by Federal-state and NGOs. Improving status of formal education supported by nourishment incentive like Mid-Day Meal program could be of dual benefit.

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Introduction:

Food security refers to availability, access, and utilization of sufficient food by all people at all time for an active and healthy life (World Bank, 1986) while Food insecurity is the absence of food security and applies to a wide range of phenomena, from famine to periodic hunger to uncertain food supply. According to FAO (2007), Food security is defined as ensuring that all people at all times have both physical and economic access to the food they need and it exists when all people, at all times, have physical and economic access to sufficient, safe, and nutritious food to meet their dietary needs and food preferences for an active and healthy life. Here ‘household food security’ is the application of this concept to the family level, with individuals within households as the focus of concern. Food insecurity, on the contrary, is known to be the absence of any of the conditions stated in the definition of food security at any level i.e. household, regional and national level. It is considered as severe food insecurity when individuals continuously take insufficient amounts of food to meet their daily dietary energy requirements. This may lead to hunger, the most severe stage of food insecurity (FAO, 2010).

In general, the recent concept of food security has given more attention to households and individuals than its availability at international, national and regional levels. This is why, as reported by the WFP (2009), In 2000, world leaders committed themselves to the Millennium Development Goals (MDGs). The first is to eradicate poverty and hunger, including “to reduce by half the proportion of people who suffer from hunger”. According to Degefa (2005), the sub-Saharan Africa is inhabited by the 23 percent of hunger and food insecure population of the globe. Another bothering aspect of this fact is that Sub-Saharan Africa is the only region where the food insecure population has shown up-ward spiral. The failure of Sub-Saharan African countries to feed their population has been attributed to climate shocks, mainly drought and the subsequent water scarcity, resource degradation, bad governance and inefficient policies, widespread epidemic, technological stagnation, and conflict (UNEP, 2002).

In spite of the fact that, Ethiopia has abundant natural resources, most of its socioeconomic indicators are extremely low and discouraging (Fasil, 2005). The country is generally characterized by extreme poverty, high population growth rate, severe environmental degradation and recurrent drought (World Bank 1992; Getachew 1995; Markos, 1997). This has resulted in a problem of persistent food insecurity and vulnerability to livelihood in security. This severe food insecurity problem of the country manifests itself in the lowest calorie intake in Africa (IFAD, 2006). According to the FAO (2015) 31.6 Million Ethiopians, about a third of the nation suffer from hunger or chronic undernourishment. Now a day, one of the most important challenges to sustainable development in Ethiopia is food insecurity. The food insecurity situation in the rural part of the country is appalling where about 52% of the entire rural population does not have access to adequate food (Yared, 2001). The ground reality and the numbers of problems on hunger and poverty in Ethiopia across time are basically a human construct, a policy problem (Keffyalew-2015)

Statement of the Problem:

Somali National Regional State is one of the most marginalized and neglected regions of Ethiopia. The region’s infrastructure is poorly developed and the population is ill served with the basic health and social infrastructure

(Devereux, 2006). The situation is almost similar for the entire Somali state but particularly serious in the eastern zone, adjoining to the Somali land, known as Ogaden, well known for its tough climatic conditions, extreme remoteness and backwardness combining with a long history of bloody civil unrest. The study area lies here only.

In the study area, the Kelafo Woreda, the major economic activities are both pastoral and agro pastoral. However, a number of people are suffered by food insecurity and depend on food aid on a regular base, with the exception of certain clans of Somali tribe like the “Eribare”. People of Eribare clans are the hardest workers and highly engaged in agricultural crop production and animal rearing and most of these clans come under food secured groups (Hailu, 2008). Here lies the main question, while living in the same environmental conditions why people of one broad ethnic group are food secured while the other is persistently food insecure? Here it’s obvious that instead of natural factors, the human factors like socio structure, economic activities and particularly their perception towards agriculture may be the decisive factors for prevailing food security; which is in fact the prime quest of this study.

Research methodology:

Description of the study area:

Location:

The Kelafo Woreda is located South East of Gode zone of the Somali national regional state. Jigjiga, its capital city is found at 820 km. The absolute location of the head quarter of Kelafoworeda is 5°40' 00" N and 44°10' 00" E.

Research Design:

The research design of the study was descriptive survey research design. Both quantitative and qualitative data were collected for the study. To make effective survey, the researcher was adopted non probability sampling technique (purposive sampling) to select the study kebeles and to take the sample size, due to, several constraints such as, acute security problem, lack of transportation and temporal settlement and extreme temperature etc. For present study, both primary and secondary information were collected from Optimum possible sources.

Sampling Size and Sampling Procedure:

The World Food Program (2012-13) division of food secured and in-secured kebeles were used as base for the division. According to woreda agricultural office the food secured or in secured kebeles are largely based on their economic activities. Out of the total eleven kebeles the researcher selected two kebeles purposely for the study; one each from food secured (Bargun) and food in-secured kebele (Deriqo). Further for household survey to optimize the accuracy of results census survey method was deployed (Table-1). Besides household survey ten key resource persons from varied background (Government officers, NGO workers, political representatives etc.) were interviewed using structured questions; and two focus group discussion was organized –one in each kebele. The data was analyzed following the descriptive statistical analysis.

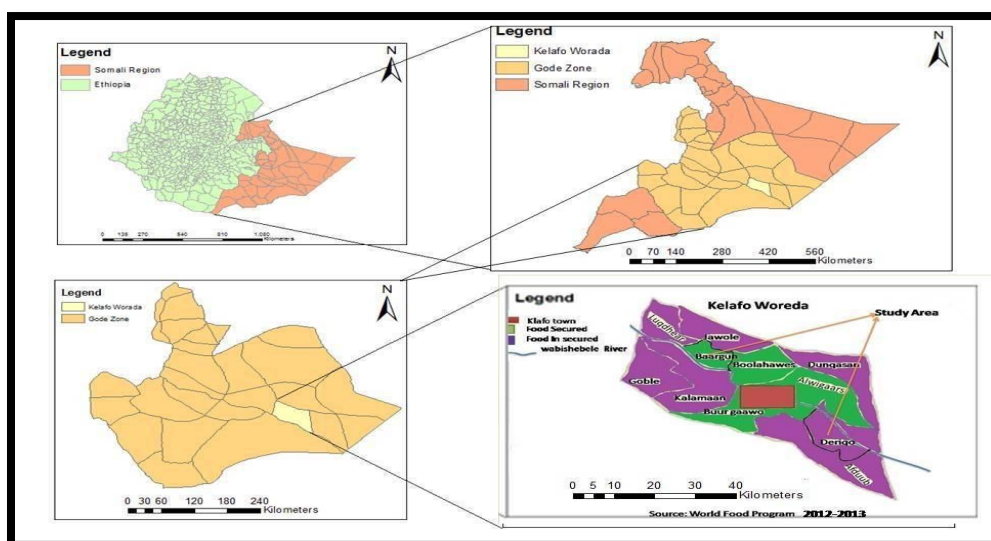


Figure 1: Location map of study area. The division of food secured and food in-secured kebeles (Source: World Food Program, 2012-2013)

Table 1. Sample size determination in two kebeles for household survey

SN	Kebeles	No. of Kebeles	No. of the selected kebeles	Name of selected kebeles	Sampling Technique	No. of House Holds	Sampling Size	Sampling Technique
1.	Food secured	4	1	Bargun	Purposive sampling	72	72	Census sampling
2.	Food in secured	7	1	Derigo		62	62	
	Total	11	2			134	134	

Source: Census Data- KelafoWoreda administrative Office 2013

Results and discussion:

To know the factors responsible for the food insecurity in the study area it is must to know the demographic characteristics of the sample households /heads. As study follows the census sampling at kebele level so it will give us a complete picture of the households.

Demographic Characteristics of Sample Household Heads:

Sex: Head of the households:

Though the society is strictly male dominated and the oldest male of the family is the head of family yet table-2 depicts a overall female headed families as 20.9%. There is as tricking variation among the food secured and food in secured kebeles- in case of food secured kebeles female headed households are only 9.7% while in case of food in-secured kebeles, it is comparatively very high of 33.0%. The reason given by the survey is the demise of their husbands. The in secured kebeles are inhabited by the Somali-Ogaden tribe people, having the

Table 2. Sex of the respondents (Head of the Households)

Kebeles	Sex	Frequency	Percent
food secured	male	65	90.3
	female	7	9.7
Total		72	100.00
Food in secured	male	41	66.1
	female	21	33.9
Total		62	100.00

highest social status among all tribal sects of Somali tribe and they had a long war with the state which had been continuing for last few decades, causing a high number of casualty of young males. On the other hand the food secured kebeles are inhabited by the people of 'Eri Bare Tribe' having lower social status, fully dedicated to agriculture and least interested in the geo-politics in that area. However, small number of female headed households were found (9.7%), due to, the tribal conflict between the Ogaden and Eri bare tribe in the last decade. These statements were also supported by the key respondents. These data are itself enough to proof that the study area is a hot crucible of geopolitical instability and no doubt it has a strong potential to affect the economic activity of the area leading to food insecurity especially among the Ogaden tribe kebeles which are unfortunately food insecure.

Age of Respondents:

To identify the age of respondents the researcher tried to categorize in to five age groups. Based on this finding (Fig 2) significant numbers of age respondents of food secured kebeles were found between the range of 35-45, 45-55 and 25-35 or 29.2%, 22.2% and 18.1% respectively. Similarly, the food in secured kebeles was also found between the range of 35-45, 45-55 and 25-35 or 40.3%, 24.2% and 22.6% respectively. However, on the side of food secured kebeles, there are significant numbers of households found between the range of 55-65 and 65 and above or 15.3% and 12.5% respectively, due to, good nutrition system or availability of enough food. Whereas, in the poor kebeles there are small percentage of households found between the range

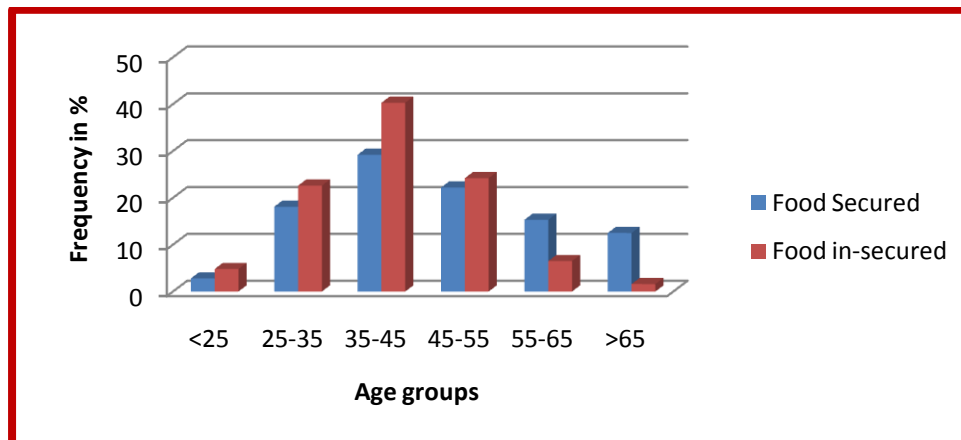


Figure 2. The age of the HHHs under different age category in both kebele

of 55-65 and 65 and above or 6.5% and 1.6% respectively, due to, lack of proper nutrition or malnutrition problem as a result, many households are died at early age. Key respondents also pointed out that the strong culture of chewing *chat* (stimulant vegetation) also enhance the poor nutrition problem.

Marital Status of the Respondents:

Marital status of household head is one aspect of determining demographic characteristics of sample households. Fig 3. Gives interesting situation of the marital status of the respondents.

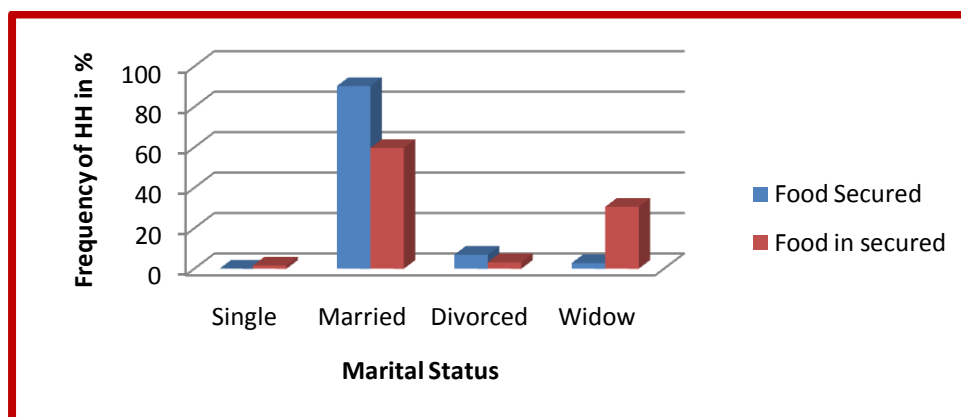


Figure 3. The marital status of the HHHs in both kebele

Regarding the food security kebeles, the marital status of the householdhead, was 90.3%,6.9% and2.8% was married, divorced and widow respectively. However, 2.8% of women's were widow due to, losing their husband by the tribe conflict between the Ogaden and Eribare tribe in the last decade. And, on the side of food in secured kebeles,59.7%, 30.6% and 3.1% was married, widow and divorced respectively. According to the key informants and FGD participants stated that, there are significant number of women's who lose their husband due to, political conflict between the OLF and the state in the last few decades.This instability in the area and particularly with the people of Somali tribes are not only hampering their own progress but also nullifying the extensive state efforts for development and solving the problem of food in-security. At the stage of high insecurity especially for any outsider the efforts for development of in fracture- basic or for agriculture is a quite tedious.

Educational level of respondents:

Education was found to have a significant and positive relationship with household food security. However, the education level of this woreda was very low and *Islamic Kuranic* schools are the

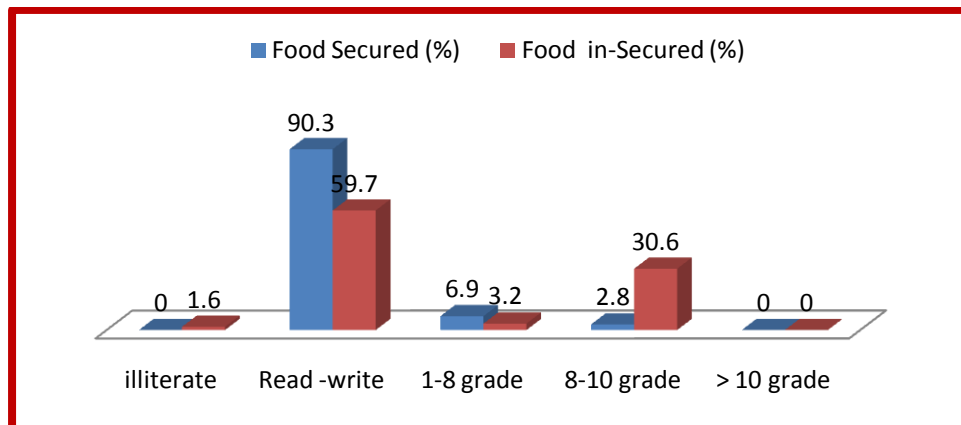


Figure 4. The educational status of the HHHs under in both kebeles

more prevalent than formal secular school. As Fig 4 depicted, most of the food secured kebeles can read and write (in-formally educated)(37.5%), formally educated (27.8%) and illiterate (25%),9.7% were formally educated (from 8-10 grade level).Contrary, on the side of food in secured kebeles, most of the respondents were read and write (50%), illiterate (37.1%) formally educated between the range of (1-8) grade level(11.3%). According to, the key informants and filed observation every child must join first to learn the holly 'kuran' and next to join the private school to learn English language, rather than the formal government school. The reason behind was in order to join NGO job opportunities and to go other countries; specially, the food in secured kebeles they are highly participated in private school than formal school,. Most respondents can read and write as well as can communicate English language next to Somali language. The higher percentage of above eight grade is among the older generation before the insurgency.

House hold size:

House hold size was one of the major impacts on food security situation at house hold level in the study area, it has a negative impact and significant relationship with food security. There was large family size in every house hold in the study areas. Fig 5 shows that there is a difference in family size in the two kebeles. The food secured kebeles have high number of children than the food in secured. The response was interesting for high number of children, food secured kebele strongly asserted that besides the much needed labour force for agriculture operations, they are small in number surrounded by others, and they want to increase their tribes since there is always

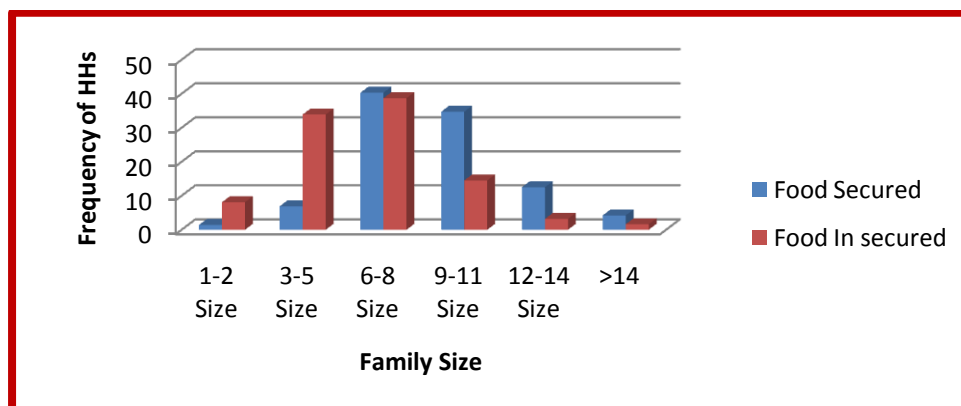


Figure 5. The family size of the Households under both kebeles

conflict among different tribes in the district, to defend themselves more hands are needed. Every house hold in the rich kebeles wants to have high number of children by getting married four or even five women at early age. Being food secured and comparatively rich they can afford health facilities and so the child mortality rate is also low.

Land Resources in the Study Area:

Land resource as arable land, its access to the households, and cultivation practices in the study area give a strong indication of the people's attachment towards agriculture as the prime economic activity. And here we get the root

cause for the variation in the food security situation among the adjoining kebeles while located in the same environmental conditions.

Access to Land Resource:

One of the key factors of production and means of ensuring household entitlement to food is access to land. Land is considered as a major resource in Ethiopian agriculture. The majority of rural households by and large depends on access to and command over land resources. (Hussein, 2006). But in the study area, land was underutilized; As Fig 6 depicts that, most of the rich kebeles have accessed the land (88.9%), while (11.1%) were not accessed the land. Contrary, most of the poor kebeles have not accessed the land (71%), but (29%) have accessed the land. According to the key informants interview specified, most of the food in secured kebeles was not accessed the land since they dislike to engage in agricultural activities or to own land but it easy

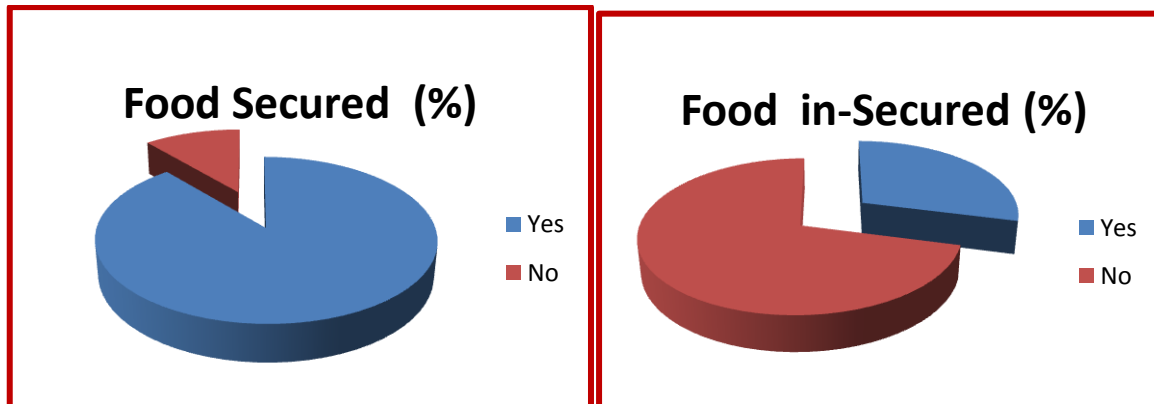


Figure 6. Access to land in food secured and food in secured kebeles to access the land in the study area either by inherited from their relatives or by rent

Ways of getting land in the study area:

Figure 7 depicts, the food secured kebeles was accessed the land mostly by inherited with parents, share with relatives and by rent are 47.2%, 26.4% and 22.2% respectively. But land was

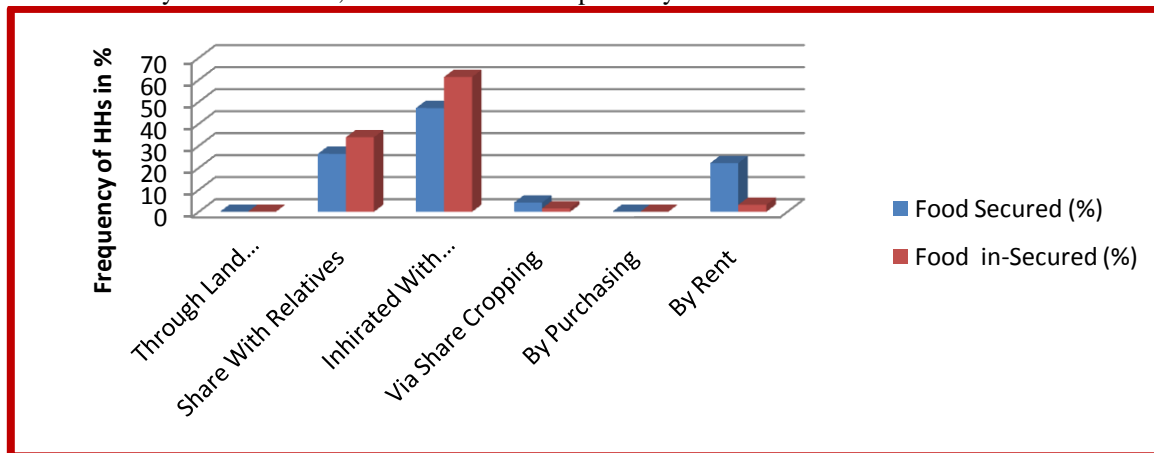


Figure 7. Ways of getting land in food secured and food in secured kebeles

not accessed still by purchasing and formally through land distribution. Similarly, in the food in secured kebeles land was accessed by inherited with parents; share with relatives and by rent or 61.3%, 33.9% and 3.2% respectively. In the study area, it is quite difficult to get farmlands formally through land distribution especially for the newly established households and new comers from outside. Therefore, in the study area households can access farmlands through informal ways such as through sharecropping, inheritance, shared with relatives and purchased on rental basis. In the food in secured kebeles, there are significant female headed households, who cannot operate their farmland can rent their farmland. In addition, lack of labor force and unable to purchase agricultural inputs causes to rent their farm land. But the food secured kebeles have enough labor force as well as able to purchase agricultural

inputs, able to purchase farmland by rent from these farmers so as to increase their farm holding and enhance household food security. Getting excess land through share cropping and rent bring another difference in both kebeles which gives benefit to the food secured kebeles; but here lies one major point which clearly depicts that food secured kebeles are keen to get land by any means for cultivation which shows their deep interest for crop cultivation while in contrary, food in-secured kebeles shows their least willingness for cultivation.

Change in land holding size over the last twenty years:

Land holding size in rural households has a significant role to ensured food security situation. Many studies revealed that, landholding size in many rural parts of the country are too small or inadequate to meet the minimum household consumption requirements. For instance, Dessalegn (1997), Mesefield (2001), Degefa (2002) indicate that, more than 60 % of the rural households cultivate less than one hectare. But, in the study area land was not the problem. The problem is how to utilize the land. According to the key informants and FGD participants, still there are households they crop their land by sticks in the sesean of 'gu' and 'dayer' rains. Specially, the food insecure kebeles. But, the food secure kebeles can crop their land by using different agricultural inputs such as, labour force, generator, chemical fertilizer, improved seeds, insecticides etc.

Level of using modern inputs in the study area:

The fertility level of farm land can be decreased from time to time, due to many factors. According to the key informants and FGD participants stated that, there is always series soil erosion. Specially, wind erosion (due to the existence of drought for long period of time, the soils are dry and easily eroded by wind), deforestation for charcoal production and for fencing their homes, over flow of Wabishebele River throughout the year were a means to decrease the productivity of the land from time to time. So, to sustain the productivity of the land, some of the respondents specially, the rich food secured kebeles highly used different modern inputs in the study area. According to, Fig 8 (a), 80.6% uses different inputs or 39.7%, 29.3%, 27.6% and 3.4% were used insecticide, improved seeds, chemical fertilizer and herbicides respectively. And 19.4% were not used any input, according to, the key informants, explained there are households lives in remote area not accessed to the input sources As compared to the households in food secured (rich) kebele, the food in secured (poor) kebele the households those were not using modern inputs were around 77.4%. And only small number of households (22.5%) used certain inputs such as, insecticide, improved seeds and chemical fertilizer. Out of the total users of the inputs majority (60%) are using insecticides which is necessary for the cultivation of normal crop in insect rich area (Fig 8 (b)).

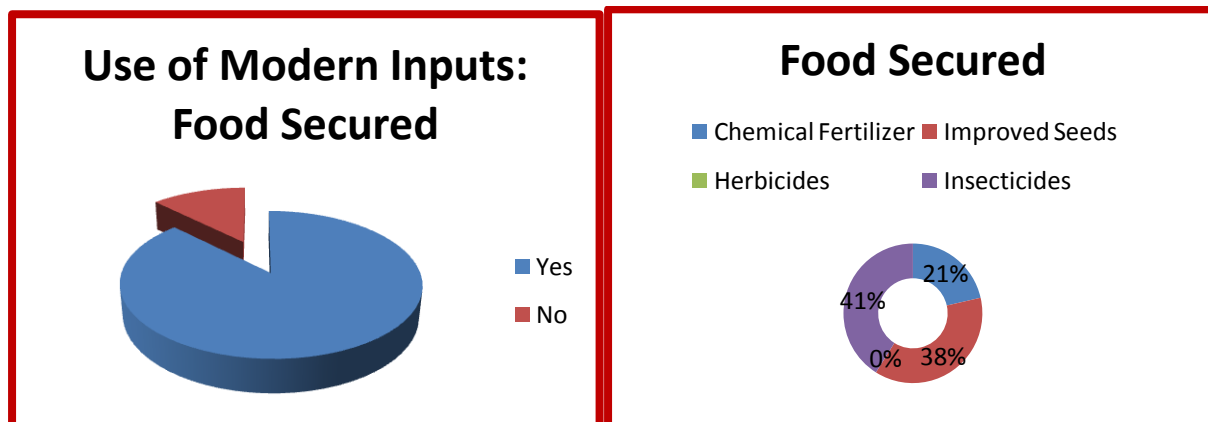


Figure 8 (a) Use of modern input in food secured kebeles

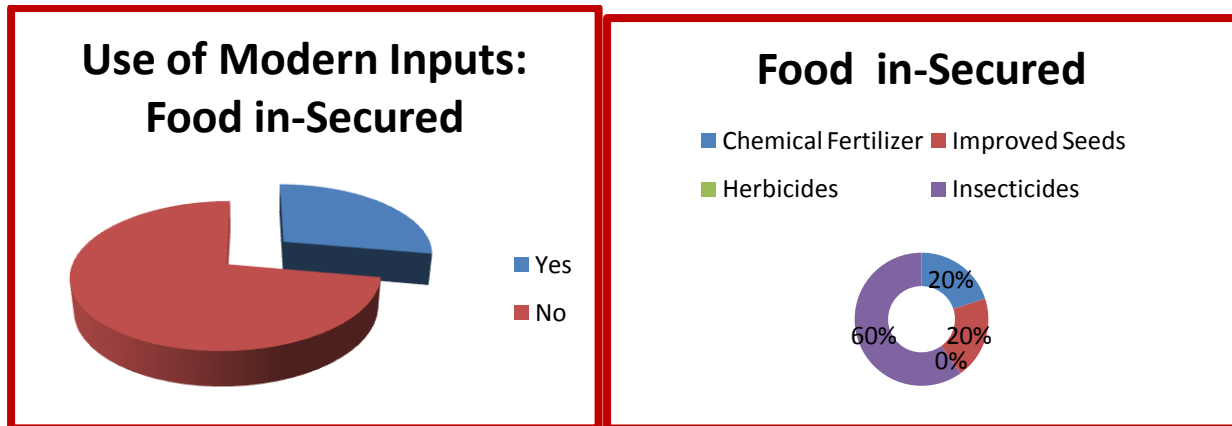


Figure 8 (b) Use of modern input in food in secured kebeles

Major economic activities in the study area:

The major economic activity shows a contrast picture and projects the basic difference between the attitude among the two sub tribe for agriculture and pastoral and their clear cut priority. The major economic activities in the food secured kebeles are agro pastoralist (88.9%) and pastoralist (11.1%) (fig 9) But, in the food in secured kebeles, the major economic activities are pastoralists (71%) and agro pastoralists (29.1%). It is clear that there is a variation in economic activities in the two kebele the reason behind is as woreda agriculture office specified, the food secured kebeles have a good culture towards work, especially in agricultural crop production, they produce variety of crops and fruits and vegetables Some of the staple crops that grow by the rich kebeles are maize, sorghum, sesame respectively. And fruits and vegetables such as, lomune, onion, banana, papaya, mango, tomato etc. but the food in secured kebeles have bad culture towards work specially, in crop production they dislike to engage in agricultural crop production, fruits and vegetables rather production of animal husbandry, trade, expecting of relief aid

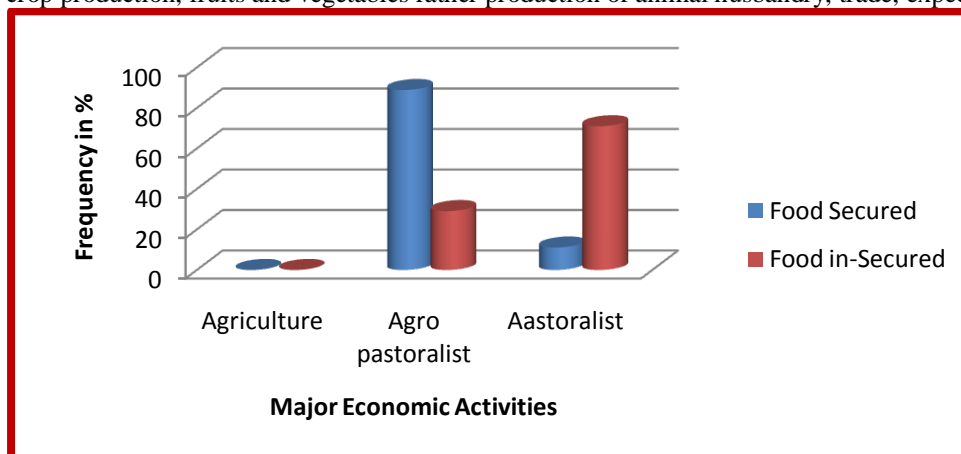


Figure 9. The major economic activity in food secured and food in secured kebele

Conclusion and Recommendations:

The KelafoWoreda is located South East of Gode zone of the Somali national regional state. Jijiga of Ethiopia. An extremely remote area with almost flat, low lying, dry-semi arid climatic conditions, high degradation of natural resources, very poor network of transportation and a very high problem of security due to ongoing insurgency. Based on the World Food Program (2013) division of food secured and food in-secured kebeles of KeafoWoreda, one kebele each from food secured (Bargun) and food in-secured (Deriqo) was selected. Census survey was employed.

The data of the family profile showed a high percent of female headed households particularly among the food in secured kebeles of Ogaden tribe; the reason sought was the high number of male youth causality during ongoing insurgency and conflicts among the tribal sub groups.

It was also observed that the food in-secured kebele shows very less percent of HHHs at higher age category (55-65 and 65 and above) in comparison to the food secured kebele. This is due to the malnourishment in food in secured

kebele, which leads to the early deaths. The strong culture of chewing *chat* (an stimulant vegetation) among Ogadens is also enhance the poor nutrition problem.

It was observed that each sub tribe want to increase the family size even for going more than one marriage, as it is not only the matter of household labours but also a strategy of defense during tribal conflicts and tool for the social superiority. Here again food in secured kebeles leg behind because of malnourishment and high infant mortality. On the other hand being food secured and comparatively rich they can afford health facilities and so the child mortality rate is also low. Among food in secured kebele, interest for formal education is quite poor; primary education starts with religious education. English language for further job is of prim interest in order to join NGO job opportunities and to go other countries. The higher percentage of above eight grades is among the older generation before the insurgency.

Though it is easy to access the land from family yet people from food in secured kebele were not interested in access the land rather were ignorant, since they dislike to engage in agricultural activities or to own land. This situation was nicely used by the cultivation loving food secured kebele people by taking lands in rent or sharing and using for cultivation. In case of use of modern inputs the food in secured kebeles are far behind than the food secured kebeles. Besides that the food secured kebeles are using modern input in varies forms like fertilizer, seeds herbicides and insecticides while food in secured kebeles are confined largely up to the insecticides only, which is their basic need to survive the crop in this area with highly infected with insects. This again shows their low capacity to purchase the inputs and their negligence for the crop cultivation.

There is a big difference in their major economic activity. Food secured kebeles are largely agro- pastoralist, while food in secured kebeles are largely pastoralist. It is not because of the variation in their natural resources or climatic conditions but their attitude towards crop cultivation, among OgadenSomalies having the high number of animals particularly the camels is a matter of pride and high social status while crop cultivation is supposed to be the act of people with lower social order.

The study forward following recommendations to combating the serious problem of food insecurity-

- The state, central government and NGOs has to work seriously for maintaining peace and stability in the study area particularly among the tribal groups.
- Extensive awareness program is needed for food in secure kebele to modify their negative mindset for crop cultivation. They have to be motivated for shifting their household economy from pastorals to agro pastoral.
- Necessary majors are required to reduce the family size.
- Parents to be motivated through incentive like 'mid-day meal for children' to send their children to formal government school.
- For food in secured kebeles majors for irrigations should be taken and farmers should be initially motivated through subsidy for use of agricultural inputs.
- Technology should be developed to mitigate the emerging problem of climate change.
- Access to market for their agro produce should be developed.

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