

HIGH FOOD SELECTIVITY: AN OVERLOOKED CAUSE OF FOOD INSECURITY IN ETHIOPIA

Getachew Olana¹

Abstract

Poverty, rooted in some chronic and transitory factors, has been frequently mentioned as the root cause of the perpetual food insecurity status that prevails in Ethiopia. The very fact of highly selective food habit prevailing in the country has not been reported together with these factors. Some worst coping responses to famine that have seriously bad consequences for future environmental development and socio-economic well-being and stability are practised. Though they are practised to lesser extent, and in spite of their potential, consumption of foods labelled as 'abnormal' or 'famine food', which on the other hand constitute normal foods of the other world, have not been encouraged and promoted in Ethiopia. This country is a land of numerous nations, nationalities and groups that have their own food materials and food habits which they share with the other world.

Unfortunately, these heritages, especially that are practised by the 'minorities', are in the verge of abandonment due to religious, cultural, institutional, socio-economic, etc. reasons. Consumption of some foods that are efficient and popular for the rest of the world are taboo/abnormal in Ethiopia, while on the other hand some of these consumables are among factors that cause food insecurity of this country. Optimum exploitation of the available fish potential alone can cover annual calorie requirement of more than half a million people in Ethiopia. Therefore, it is reasonable to say that we are hungry in the middle of plenty and at availability of immense potential. This conceptual paper, after forwarding some conceptual frameworks, forwards some opinions as recommendation for consideration of the concerned.

1. INTRODUCTION

Ethiopia is one of the poorest economies in the world. Values of socio-economic development indicators available for the country are unfavourably lower than the average of the Sub-Saharan Africa. Each year, on the average, about five million people have problems securing enough food for themselves and need assistance.

Ethiopian agriculture is characterised by low performance. For instance, agricultural production grew by 3.8% per annum during the period 1990/91 to 1997/98. This level, however, is still inadequate when compared to the about 3% annual population growth, and it has continued to fluctuate with the rainfall patterns, and the growth rates are believed to have declined further in 1998/99 and 1999/2000 (Tekie 1999; Mulat 2000). The scope for increasing food production through expanding the size of cropland, as was the case before, becomes drastically narrowed. This underlines the need for employing means to increase land and labour productivity. An important question, however, is the possibility and effectiveness of the usually recommended means, technological and biological changes, in Ethiopian agriculture.

On the other hand, in Ethiopia, a highly selective and restricted food habit is practised. Not to contribute to bridging the chronic food gap of the country, some important foods of the world are not consumed in Ethiopia due to reasons that are not exhaustively investigated so far. This situation is one of the important factors that threaten the food security status of the people and the country at large.

In order to improve the national food production and food availability, a number of policies, strategies and guidelines (discussed in detail in Getachew (2001)) have been issued. However, the highly selective food habit practised in the country has been overlooked or has not been addressed by policymakers, governmental and non-governmental development workers and scholars.

The objective of this conceptual paper is, therefore, to provoke discussion on this issue among scholars and the public at large. It is also triggered to catch the attention of policymakers, implementers and non-governmental and other agencies. The paper could also indicate areas of future research and could contribute to the wealth of information existing on the subject in the country. Since it has been said time and time again, discussion of the other root causes of food insecurity of the country, principally those emanating from economic reasons, is not the objective of this paper. Next, the paper raises some points related to food security status of the country and some strategies employed to cope with it. The ensuing parts provide an overview of some food habits of the other world and that of Ethiopia, and discuss some factors that are perceived to have caused the highly selective food habit of the country. Eventually, some concluding remarks are forwarded for consideration by concerned and interested bodies.

2. FOOD INSECURITY AND COPING MECHANISMS IN ETHIOPIA

2.1. Food Security in Ethiopia

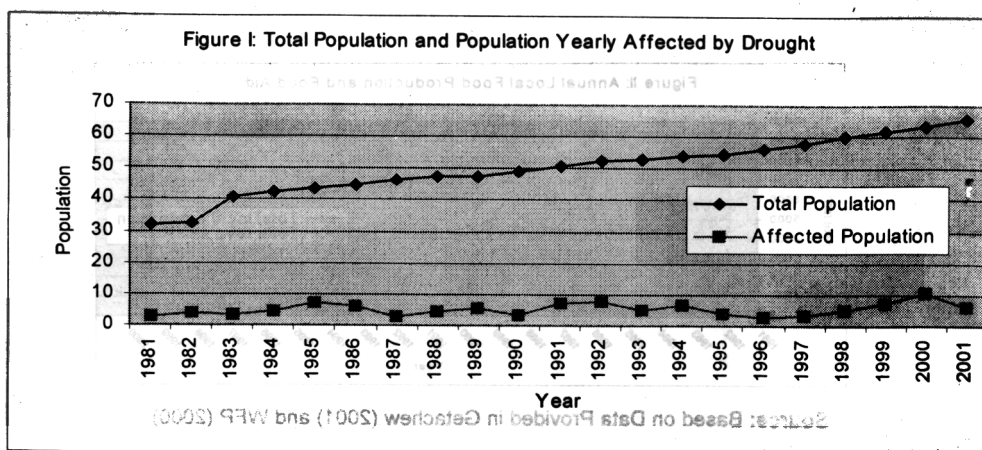
Ethiopia's continued status as one of the most famine-prone countries in the Horn of Africa, coupled with its history of drought, war, and political turmoil makes it peculiar

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and exemplary. Available poverty assessments indicate that the level of poverty is very high in the country.

There are many degrees of food insecurity, depending on the access to food by households. The Government set the minimum acceptable weighted average daily per person calorie requirement at 2,100 kcal. On the other hand, in the late 1980s², it was estimated that domestic food production provided only about 1,620 kcal, while total availability, including imports, was about 1,770 kcal per person per day, or 16% below the minimum level accepted by the government. Considering this level, about half of the population of the country is food insecure, or survives below the poverty line (FDRE 1996; Middlebrook 2001).

Both chronic and transitory forms of food insecurity are severe in Ethiopia. Chronic food insecurity exists due to, among others, the high ratio of urban unemployment, limitation of rural landholdings and natural resources degradation. On the other hand, there is transitory food insecurity arising from drought, displacement of people and refugee inflows. Drought in the case of Ethiopia, with its relatively high frequency, is semi-structural and quasi-chronic. Moreover, in many areas of the country, there is an overlap of both elements of food insecurity, which expands the size of the vulnerable population. As a result of these, in Ethiopia, there was no time when rural population has not been affected by drought, then by food shortage. Figure 1 shows that the number of population principally affected by drought since the mid-1980s has been increasing together with the total population. Thus now, the probability of a drought shock occurring in Ethiopia is as high as one out of three years. Moreover, with growing population, the magnitude of food insecurity is likely to increase for each event of drought.



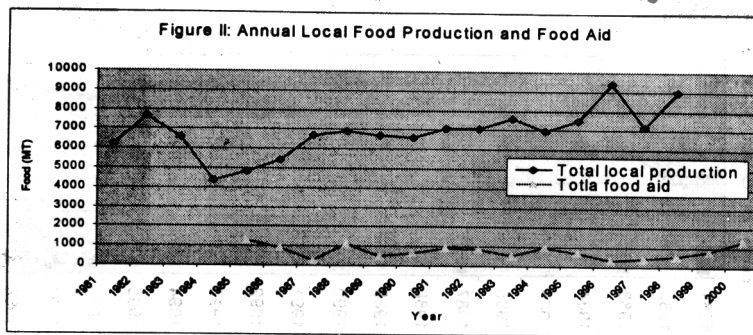
Source: Based on Data Provided in Getachew (2001) and WFP (2000).

Even during non-famine years, food consumption levels in Ethiopia are said to be extremely low: 1500 to 1750 kcal per person per day (Webb et al., 1994). These authors comment that their findings in Ethiopia compare unfavourably with outcome of a survey conducted in The Gambia and Rwanda, which found only 18% and 41%, respectively, of households as calorie-deficient.

2.2. Coping Mechanisms

Based on their experience in Ethiopia, Webb et al. (1994) discuss three stages and actions taken to limit damages caused by food crisis: risk minimisation, risk absorption, and risk-taking. The first stage involves insuring against risk in an environment of limited credit and insurance market, i.e., savings, investments, accumulation and diversification. The next stage of coping involves a draw-down of investments, calling in loans, and searching for new credit. The last stage of coping involves the collapse of normal systems of survival and the adoption of abnormal ones. At this point, the diet is dominated by unusual “famine foods” (roots, leaves, rodents), and households sell their last assets. If they are still able to do so, some households break up and leave in search of assistance among distant relatives or at centres where relief foods are distributed. The national shortfall in domestic food production over the last two decades or so has been partly met by food aid assistance from the donor community. Figure II indicates that between 1985 and 2000, annual food aid imports to Ethiopia averaged over 800,000MT.

In the drought prone parts of Ethiopia, since famine is more frequent, measures adopted by households to minimise risk are effective for only limited periods of time. Besides, not all of these measures are beneficial either to the households or to their environment.



Source: Based on Data Provided in Getachew (2001) and WFP (2000).

In line with daily observations, Webb et al. (1994) report existence of three main consumption responses to absolute food shortage in Ethiopia: the diet can be diversified to incorporate food items not normally consumed³, the quantity (and quality) of food consumed per meal can be reduced, and the number of meals per day can be reduced. All of the sample households in their study have adopted all of these measures.

As to Guinand et al. (2000) consumption of wild plants seems more common and widespread during food shortage periods in food insecure areas. For instance, in parts of southern Ethiopia (like in Konso) such consumption seems to be one of the important local survival strategies and appears to be intensified due to the repeated climatic shocks that cause food shortage. Other authors like Bush and Alemayehu (2000) and Getachew (2000) have also intensively discussed coping mechanisms pursued by different communities in Ethiopia.

There are also some experiences of coping mechanisms of the pastoral areas as well. In Borana, a decline by 40% in contribution of milk to total calories to the diet of Borana households was compensated for by an increased consumption of blood and meat and cereals.

3. SOME EXEMPLARY FOOD HABITS OF THE OTHER WORLD

People around the world in general have a lot of interesting food habits that can be lessons for, and that could also be used as role model by Ethiopians. In Europe and America, people use 2,000 to 3,000 food materials, mainly meat-based ones. On the other hand, the food materials used by Asian people are far more diverse, and grains have an important position. The number of their food materials are estimated at more than 10,000 (Suzuki 1997). Even though research reports are not available for Ethiopia in this regard, and in spite of prevalence of huge resources, the potential food materials to be exploited yet do not seem to exceed few hundreds.

Some populous countries like China that once had severe food security problem have adopted food source diversification policy and designed a strategy for it and they were successful with it. Consequently, still many years after the Green Revolution, the number of non-edibles is small in China. Perhaps, the same holds true for Mongolia, Korea, India, etc.

Domestic animals, including equines and dogs, are food sources, especially in the Far East. Pigs, rabbits, rodents, birds, etc. are efficient and cheap food sources of the world. In France, some species of frog are endangered due to intensive human consumption, hence protected. In the equatorial Africa, wild animals like antelopes, crossbills, monkeys and rodents are sources of food. Most of the foods of animal origin still come from the forest, i.e., from wild animals, birds and fish (CTA 1995).

Different and numerous types of vegetables and fruits are cheap, efficient, important and healthy food sources of most parts of the world, especially Asia, Europe and North America. Some of Ethiopia's wild plants, like mushroom, are not affordable to the poor in the developed world. CTA (1995) discusses that wild fruits, vegetables and root crops are food sources in most parts of Africa as well.

It is reported that there are over 2000 recorded edible insect species in the world, and insect consumption is recorded from all continents. In some villages in the Democratic Republic of Congo, it is reported that insects are the sources of up to 81% of ingested animal protein, and termites are regarded as luxury food items afforded only by the chiefs. It is common knowledge that grub is one of the expensive food items in the developed world.

In Ethiopia, these foods of the world are either taboos or not traditionally consumed. On the other hand, they are not only abundantly available, but some of them are the principal threats to food production in the country. For instance, monkeys, pigs, porcupines, warthogs, almost all birds and insects (termites, locusts, army worm, etc.) are the main attackers of field crops causing significant yield loss and their scaring claims considerable amount of household labour. For instance, termites are reported to cause important damage on every plant and buildings and to have severely affected considerable number of households in some parts of the country like in West Wollega. Further, the amount of crop lost annually by army-worm outbreak is broadly known.

4. AN OVERVIEW OF FOOD HABIT PREVAILING IN ETHIOPIA

Notwithstanding absence of latest and comprehensive study on the food habit prevailing in the country, attempt is made here to review some fragmented works and to discuss experiences. Guinand et al., (2000) comment that Ethiopians generally are constrained to the consumption of the commonly cultivated crops, and neglect wild plants some of which have clearly demonstrated their production potential in pocket areas of the country, and this means that the range of food available to people during times of stress is narrowed down considerably despite Ethiopia's rich biodiversity.

A paper published by FAO has categorised former Ethiopia as a major consumer of wheat (FAO 1996) while some others (EFC 1991) put *teff* as the principal food of the country. Different from these two, Webb et al. (1994) report that the most common sources of calories consumed by their sample households in different parts of the country were maize and wheat, representing 51% and 10% of total calories, respectively. Sorghum and pulses were next in importance at 8% each. *Teff*, barley and more expensive calorie sources, such as meat, oil, and sugar, each contributing less than 5% to the total of calories consumed.

EFC (1991) reports that in the northern part of the country (Tigray), where food taboos include wild animals such as pig and birds, leavened bread (*injera*) made from *teff* and the sauce (*wot*) made from pulses are the main dishes in most parts of the communities. The same document reports that cereals are the major staples in the central parts of the country, Arsi. The food taboos of this region include fish and most of the wild animals such as pigs and birds. Other taboos include the front legs of animal, its heart, tongue and intestine. This document further indicates that in some parts of the country like the present Sidama, ceremonial consumption plays an important role, the most important being when a person dies. Food taboos are very strong; fish, the heart, and liver of an animal are forbidden (EFC 1991). Observations indicate that cereals like maize and *enset* constitute the major proportion of diet of this part of the country.

Webb et al. (1994) reported existence of difference between famine and good year consumption patterns in the country: for instance between the most expensive (*teff*) and the least expensive (maize) cereals. More households consume *teff* during good years than in famine years. It is common knowledge that consumption of some of the important foods like vegetables (for instance cabbages, potatoes), *enset*, roots, tubers, etc. is increased during famine and food shortage seasons, especially in the rural settings. During such times, foods reported as "famine foods" (abnormal foods), which, on the other hand, are important foods for some people in the country and elsewhere in the world, are consumed.

Even though cereals in general constitute the major proportion of diet of Ethiopians, there is difference in preference among the available ones. Though it is more expensive in all of its aspects⁴, only for the sake of prestige, and of course for its suitability to prepare, *teff*, from which *injera* is made, is the most preferred cereal. As its production is expanding and the fact that it is food aid commodity, consumption of wheat is also high. Due to increased poverty, reduced landholding size, its high productivity and ease of production and processing, production and consumption of maize seem to have been increasing slowly. On the other hand, production and consumption of sorghum and millet, the two drought tolerant and better performing (than *teff*) crops have been declining, though sorghum is still a preferred cereal in the eastern and north-eastern parts of the country. Pulses in general are still required and preferred principally to prepare *wot*. However, production of these crops has failed to cope up with the requirement. Guinand et al. (2000) reported that, in response to this, a grass pea also called chickling pea or vetch, initially introduced as fodder to the northern part of Ethiopia, is now under human consumption.

In spite of the immense natural potential existing for it, vegetable production and consumption is less practised in Ethiopia. Reports of EFC (1991) and Mulugeta (1992) are in conformity with this and the details are available in Getachew (2001). Even though they are reported by some authors like Webb et al. (1994) as famine foods (abnormal foods), some grasses constitute diets of some people in southern Ethiopia. For instance, *antara* and *donkey*, types of grass, are regularly consumed by

males (Mulugeta 1992). One important problem in this regard is that, in Ethiopia, production, processing and consumption of vegetables is less developed. In the central and northern parts of the country, consumption of vegetables is traditionally associated with famine and it is considered to be food of the lower class.

Similarly, the level of production and consumption of fruits varies from place to place. In general, however, the daily average intake is very low, providing only a small amount of the total calorie required. Some exceptions are areas where bananas, mangoes and oranges are grown in abundance (EFC 1991). Even though there is conducive potential to grow these crops in many parts of the country, the potential growers, the peasants, are not aware of them and wherever they are, they lack planting materials.

Starchy roots and tubers are next in importance to cereals in the diets of much of sub-Saharan Africa, particularly in the humid zone. They make up an important part of the food basket in the sub-region and they are the most competitive source of calories and protein (Abalu 1997). In Ethiopia, especially in the southern and south-western parts, there appears to exist under-utilised high potential in terms of production, consumption and knowledge of these crops. In some cases, they are emphatically used to cope with food shortage times rather than constituting the regular dishes. In the central and northern parts of the country, they are not/or less known and not or less consumed.

An estimated 10 to 12 million people in Ethiopia depend on *enset* as a staple and co-staple food. In the southern and south-western parts of the country, it meets the productive and security objectives of the farmers. However, in spite of its merits and potentials, no successful effort has been made to extend the crop to the more food insecure parts of the country. Shiferaw (1996) and Mulat (2000) discuss that even at its home area, cultural practices of production of this crop have not shown any improvement and its performance has been declining, among the others, due to diseases, wild life attack and declining soil fertility.

The other area of food selectivity is regarding coffee. It is common knowledge that Ethiopia is not only producer, but also homeland of coffee (*Coffee Arabica*, L). Mulat (2000) discusses that coffee bean production in the country, though complained to have grown by only 1.6% during 1990/91 and 1997/98, has reached about 230,000MT in 1997/98. On the other hand about half of the total coffee production is consumed domestically. This heavy consumption of the bean has been affecting hard currency earning capacity of the country which otherwise could have been used to enhance food security. However, if promoted, coffee consumption habits practised in some parts of the country (personal observation and Mulugeta (1992))⁵ could contribute to reduced domestic coffee bean consumption.

The other concern of this topic is the case of the animal protein sources. EFC (1991) discusses that in principle, the daily intake of proteins should provide 10% -15% of the

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total intake of calories or one gram per one kg of body weight. The average Ethiopian diets generally lack animal proteins which have the highest biological value and which are prerequisites for the maintenance of good health. The paper comments that, as a result, most Ethiopians suffer from lack of protein of animal origin, a fact that corroborates to the low nutritional status of the population and the high morbidity and mortality rates. On the other hand, consumption of some of the animals that are important, relatively cheap and efficient sources of protein, are either taboo, discouraged, or not encouraged in the country.

The immense livestock population of Ethiopia is well known though recent reports indicate declining population figures due to decline in grazing land and drought (Mulat 2000). The same further discusses that performance of livestock products such as milk, meat, and eggs is not encouraging: annual growth rates have rarely exceeded 1%. The per capita meat production, which stood at 9.4 kg per head per annum in 1980/81, decreased to 7.4 kg in 1996/97. Similarly, per capita milk production declined from 27.6 litres per head to about 22 litres over the same period.

It is common knowledge that due to economic reasons, among the rural Ethiopians and the poor urbanites, meat in general is consumed occasionally, related to major festivals such as important religious holydays, the end of fasting, or other celebrations such as the new year and wedding. In line with this, EFC (1991) reports that meat, including poultry and eggs, provides only 3.4% of the total calorie intake while milk and milk products provide about 2% of it. The same document reports that in the southern part of Ethiopia (Sidama), for instance, the intake of protein was far below the recommended standard by about 60%.

Some of the animals or animal products that are important and affordable sources of food, which otherwise could have contributed to improvement of protein intake and food security status in the country, are taboo or not consumed in Ethiopia. To start with milk, among the highlanders and the northern Ethiopians, only cow milk is consumed while that of the other animals is taboo. In some areas, however, diversified milk sources are used. For instance, both goat and cow milks are used by the Daseneches and the Males while in addition to these, sheep milk is used among the Hamer people and the Guji Oromos in south Ethiopia (Mulugeta 1992). This author also reports that the Borana Oromos consume cattle, goat, sheep and camel milks. Similarly, as to personal consumption, these milks are used in the eastern lowlands of the country by the Somalis and the Oromos. If such diversified milk sources are used in the highlands where the number of livestock (other than camel) is larger, the amount of consumable animal protein could be increased.

Similar to some other parts of Africa, blood constitutes food material of several people in Ethiopia. For instance Mulugeta (1992) reports that extraction (harvesting) of blood from healthy and strong live cattle for consumption purpose is a common practice among the Dasenech, Male, Konso, Gofas and Hamer people of southern Ethiopia. This author also reports that the Arsi, Konsos and Gamos consume blood that is

extracted from slaughtered cattle or shoats while the Borana and the Guji Oromos consume blood that is extracted both from live and slaughtered cattle. Blood is used by these people during both normal and severe food shortage years (Webb et al. 1994). Informal communications indicate that blood was common food material for all Oromos and the south people. If it is encouraged (not discouraged), the potential contribution of this food material is immense in the highlands of the country where the number of livestock is higher.

The other important animal protein source that is under-utilised in Ethiopia is fish. Notwithstanding absence of comprehensive data related to the size and composition of the present fish stock and the inconsistency of the available ones, fish production potential of the country is in the range of 33,000–82,900MT (an average of about 58,000MT) per year (Eshete 1996). Optimum utilisation of this potential alone can cover annual calorie requirement of about 522,000 people⁶. Unfortunately, the annual nominal domestic production is approximately in the range of 3,500–4,500MT. This makes the utilisation rate only 5–10% of the potential, and this, on the other hand, means per capita consumption of the country has never exceeded 75g per year. Compared to the case of the other African countries, (8.4 kg per person per year) and the western countries (13.4 kg), fish consumption in Ethiopia is far too small.

Eshete also comments that, of the others, the traditional food habit has adversely affected fish consumption in Ethiopia. In Alefa Takusa, a district that borders Lake Tana from the west, huge potential existing for fisheries development has been constrained principally by lack of awareness among the community and cultural taboos towards fish consumption (IDCoF 1999). Similarly, Webb et al. (1994) have documented that the Afars and Arsis in Ethiopia had refused to eat fish during the 1973/74 famine. In general, it is common knowledge that in Ethiopia, the consumption of fish is negligible or does not exist even in the lake and reservoir areas. Though in Ethiopia traditionally, consumption of fish increases during the long fasting period of the Orthodox Christians, this practice is being discouraged by leaders of the Church.

In terms of poultry as well, selective food habit prevails in Ethiopia. On the other hand, poultry constitute about 8.6% of the world's meat production (Holness 1991). Ethiopia is endowed with natural environment that is conducive for different types of birds. Though a number of them that constitute food of the other world are existing, only chicken and one or two wild birds are eaten in Ethiopia. Even chicken is not consumed in some parts of the country, for instance by the Dasenech, the Guji and the Borana Oromos, the Konsos, the Gofas and the Hamer people in the south (Mulugeta 1992).

Poultry in general is a divisible economic venture with relatively easy entry. From this point of view, this activity could be an affordable source of animal protein. However, absence of diversification and the most traditional, fixed and costly recipe of chicken (*doro wot*) preparation are limiting factors in this regard (Getachew 2001). Introduction and promotion of the production and consumption of the more efficient types of birds,

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and diversification and simplification of the recipe could increase contribution of poultry in food economy of the country.

Other important protein sources for both the developed and developing countries are equines. In the developed countries, it (usually horse) is an expensive source of food. In some Far East and Latin American countries, all equines are consumed. In Ethiopia, regardless of their abundance, these food sources are totally taboo and there is also restriction of religions. Exception to this, Mulugeta (1992) reports that donkey, the only equine known to the area, is edible among the Geleb people of the south Ethiopia. These indicate the existence of possibilities to promote consumption of these animals among some people in Ethiopia during both normal and food shortage times.

Pigs are the most efficient and affordable sources of animal protein in the world. They constitute about 48% of the global meat production (Holness 1991). In Ethiopia, very few individuals keep domestic pigs. Promotion of this activity, especially among the small holders has not been considered. Due to scarcity, pork is unaffordable in Ethiopia. For instance, in Addis Ababa, it is sold for about Birr 30 per kg, while the price of beef ranges from Birr 8 to Birr 20 per kg.

In some African countries, all wild animals constitute human diet. According to a recent edition of "African Journal" of the Ethiopian Television, monkeys and apes are important, marketed food sources in some African countries, and this action has threatened the existence of some of these wild animals like baboons. In addition to the few commonly consumed wild animals like antelope and pigs, in Ethiopia, warthogs, porcupines and hippopotamus are consumed in the south and south-western Ethiopia (Mulugeta 1992). Personal communications comply with this empirical finding. Addis et al. (1993) and IDCoF (1999) have documented that the minority group called Weito⁷, who settles around Lake Tana, used to eat some aquatic animals like crocodiles and hippopotami until some years ago.

As to personal observation in the middle of 1980's, in the present Gambela, at an area specifically called Gilo Abol, some items that include rodents and several wild animals were important food sources in both normal and food shortage times, though the present situation is not known. Similarly, before and at the time of expansion of state farms in Wollega, the people native to the lowlands had numerous food sources that included a number of wild animals, rodents, reptiles, wild roots and fruits. With the expansion of the state farms, these traditional food sources were replaced by cereals. According to informal information, the same situation holds true for some areas in Metekel, and in southern and south western parts of Ethiopia.

One general truth, however, is that these wild animals are serious threats to food production in Ethiopia and they cause considerable crop loss and their scaring requires considerable human labour. For instance, Shiferaw (1996) reports porcupines, pigs and moles to cause problem on *enset* production for about 92%,

80% and 41%, respectively, of his sample households in North Omo. These animals attacking the best quality *enset* plants, have limited *enset* farming to homestead.

It seems that there is a possibility to promote domestic production of some of these animals, like pig. Besides, if consumption of some others is encouraged or at least not discouraged, they can be important sources of animal protein and can contribute to mitigation of the prevailing food shortage and crop production constraints. However, due care should be given to the endangered wild animals.

5. SOME FACTORS CAUSING HIGH FOOD SELECTIVITY IN ETHIOPIA

In spite of the absence of comprehensive empirical work on factors that are behind the highly selective food consumption habit prevailing in Ethiopia, based on the available literature, personal communications and some general truth and information, an attempt is made to discuss some of the possible ones.

Guinand et al. (2000), based on the study they have conducted in southern Ethiopia on wild food plants, comment that in this region, strong traditions, beliefs and religious taboos still obstruct people's psychological and mental willingness to domesticate and cultivate wild food plants. They further advise that this is the reality that cannot be denied, and has to be confronted if the full potential of the indigenous Ethiopian flora as a source of food is to be effectively exploited. In line with this, religion, lack of awareness and access, absence of encouraging efforts, food habit of the "north", lack of confidence by the "south", culture and tradition, personal behaviour and economic growth are raised in this paper.

5.1. Religion

According to the 1994 census result, 50.6% of residents of Ethiopia are Orthodox Christians, 32.8% are Muslims, 10.2% are Protestants⁸, 4.6% are followers of traditional religions, 0.9% are Catholic Christians while other 0.9% are followers of some other religions. In general, majorities of the minority nations and nationalities are followers of traditional religions⁹. In this country, among the others, religious belief plays a dominant role in influencing when and what is normally fit for eating, and it is one of the factors that cause significant variation in the normal food habits and dietary patterns of the different regions of the country. Religions determine not only the types of food that could and could not be eaten, but also determine when they could and could not be eaten. Among the Orthodox Christians, due to regulations of the Church, a number of foods of the world are not edible. These, among the others, include pigs and warthogs. Besides, every animal food is forbidden on Wednesdays and Fridays and during the whole times of the long and several short fasting periods. Eventhough it had not been the case, the number of these fasting periods has increased even for the ordinary members of the church. Similarly, even though it had not been the case, lately, fish consumption is discouraged on the two fasting days and during the several

fasting periods. These restrictions are very mild for the Catholics, and do not exist among the other Christians. Related to this, Guinand et al., (2000) comment that the Orthodox Church of Ethiopia represents a major non-negligible constraint to the use and consumption of wild plants and animals.

Leaving aside the discussion regarding whether the restriction or the permission is biblical or not, obviously, the restriction has contributed to the worsening of food security status of the country. This contribution has increased with the increase in the number of the fasting periods. In case of famine, however, these restrictions are hardly obeyed. For instance Webb et al. (1994) pointed out that all of the households in Debre Berhan, Dinki, and Gara Godo (who are followers of the Ethiopian Orthodox Church) had suspended the Orthodox fasting rules during the 1973/74 food crisis.

Similarly, the Islam religion forbids consumption of some food materials including pig, blood, some wild animals and some others. For one month per year, it restricts food consumption to only a night, a time when people get limited physical access to food. Obviously, this affects nutritional status of the people and it also limits the coping capacity of individuals in case of food shortage. The case of Borana (neither Christians nor Moslems) and Gabra (Moslems) households discussed by Webb et al., (1994) could provide good example.

On the other hand, Guinand et al., (2000) discuss that in the southern parts of Ethiopia, where there are many nations and nationalities and tribes still living with their indigenous beliefs and traditions, there are fewer religious and external constraints than in the other parts of the country. In these areas, the daily diet of most people still comprises an element of wild-food, both animals and plants, during certain periods of the year.

5.2. Lack of Awareness and Access

The other factor that is believed to have contributed to the limited food habit of the people is their lack of awareness about, and access to, the existing and usable food materials. Sometimes people lack information regarding the existence of some acceptable food materials, and when they get exposed to it, they positively institutionalise its consumption. Other times, they lack access to food materials which they have approved to be acceptable. The case of temperate zone fruits, and peasants in North Shewa could be an example for this (Getachew 2000).¹⁰ In many cases, people have accepted fruits and some vegetables to which they are exposed. Nevertheless, use of these materials is often constrained by absence or scarcity of the materials. In general, unavailability, inadequacy or high prices of foods and planting materials have been problems in this regard.

5.3. Absence of Promotion and Advocacy Efforts

Absence of effort to study the potentially usable food materials available in the country and to promote consumption of the usable ones both by the governmental and non-governmental organisations are among factors that contributed to the problem under discussion. Such efforts have not been addressed by the policy, program or strategy of any government institution. The extension has not made meaningful effort to introduce new food materials that are efficient and compatible to the producers. Domestication and consumption of the 'wild' food materials, which, on the other hand, have been used to cope with food shortage, has not been advocated and encouraged. Food habits of some people which at present are not acceptable to the dominant ones have not been encouraged and advocated. Preparation and consumption of some of the available foods like fish have not been promoted and facilitated adequately. Undoubtedly, such activities could diversify the source of food in the country and reduce vulnerability.

5.4. Culture and Tradition

Cultures and traditions determine what people will or will not eat, and dietary patterns remain strongly influenced by the history of peoples and their culture. In Ethiopia, it seems that next to religion, the culture and tradition of the people have narrowed down their food habits. For instance, there is no religious limitation on consumption of roots, tubers, vegetables, some wild animals, rodents, fish (for the non-Orthodox and off the fasting), insects, reptiles and birds. These have not been edible in Ethiopia principally due to the culture and tradition of the people, which is more of pride and prejudice. These food items are traditionally perceived to be of inferior quality and as taboos. In general our food habit lacks openness to new food materials that are consumed by other people and we consider that ours is the best. This situation has been observed to have damaging effect on the people. For instance, during the tragic droughts, attempts made by famine relief workers to substitute some foreign cereals like rice for *teff*, have failed partly because the people were suspicious of an unfamiliar food (EFC 1991). Related to this, Guinand et al. (2000) comment that in Ethiopia, wild foods are considered to be a low-status food and their consumption is regarded as shameful.

Personal characteristics like age and sex also determine the food habits of the different members of certain communities. Often traditionally, children are forbidden to eat certain food materials. Similarly, people drop eating some food materials which they were used to when they were children or young. As to personal experiences, in the rural areas children eat a number of wild fruits, roots, leaves, twigs or other plant parts, but they avoid all or most of these when they grow up. Further, as to personal communications, in the urban settings, children reproduce and eat domesticated pigeons, but they totally avoid it at mature ages. This, on the other hand, means that, at their older age, the people become exposed to, and influenced by culture and tradition of their society and avoid foods that are otherwise naturally palatable. This

also indicates that children and adults have got different coping mechanisms to famine. For instance, in Girawa (East Hararghe), to overcome hunger, children were observed feeding upon esculent twigs of a perennial plant locally called *dhangago*, but this was not the case for the adults who also once had consumed this plant during their childhood. In line with this, Guinand et al. (2000) discuss that in rural areas of Ethiopia, children consume wild-food¹¹ more commonly than the adults. Even during famine times, first children and next women collect wild food plants while only the latter are responsible for its preparation. As the able (usually male) members of the victimised household migrate for wage work, famine food collection and consumption is left to children and women.

As a personal characteristic, sex also determines the type of food that is consumed by members of certain communities. In certain societies, for instance in some parts of Oromia, girls are not expected to drink milk. Obviously, these situations affect food security status and the coping capacity of these particular members of the community.

5.5. Exposure to the Outside World and Economic Growth

Actually, economic growth brings changes in food habits. Modifying diets depends on economic changes and societies' levels of exposure to foreign ideas, goods and peoples. Accordingly, some changes in dietary patterns, as countries developed, were observed. On the other hand, certain stability of diets in developing countries is also observed (FAO 1996).

Likewise, in Ethiopia, change of food habit has been observed together with economic growth and exposure to the outside world. Mostly, cereal, beef and mutton consumption style that is practised in the developed world has influenced that of the better-off urbanites in Ethiopia. However, food habits of the developed world like consumption of pig (regardless of religion), frog, rabbit, birds, etc. have not been adapted and brought home by the foreign-exposed Ethiopians.

6. CONCLUDING REMARKS

The chronic food insecurity status of Ethiopia is a long standing phenomenon. In response to this disaster, different coping mechanisms have been employed. It seems that the increase in the level of food shortage, the fast growth of the population, and, on the contrary, the decline in performance of the utilised food resources have necessitated domestication and adoption of new food materials. The diversified natural endowment of the country, on one hand, and the different food habits and food materials used by the numerous nations and nationalities and ethnic groups of the country, on the other, are indications for existence of potential and possibility for this measure. Some of the potential materials are already used to cope with the food shortage situations in some areas. Still, there is a possibility to introduce foods of the other world that are not known or utilised in Ethiopia in large scale. Obviously, such

measure would make immense contribution to improvement in food security status and growth and development of the Ethiopian economy.

However, this has been constrained by factors that include religion, lack of awareness about and access to the usable food materials, absence of promotion and advocacy effort. Reversing this situation in order that it contributes to the effort made to enhance the food security status of the country requires joint and synchronised intervention of the concerned governmental, non-governmental and other agencies, and the elite and the public at large. Areas of the intervention could include the following:

- Promotion and advocacy of use of the present 'abnormal foods' or 'famine foods' during the normal times so that they could increase the stock of food that could be available for the household during abnormal times;
- Study the dropped and the contemporary food materials and food habits of the peoples of the country, especially the minorities, and encourage them to upkeep their food tradition;
- Consideration of food source diversification and adoption of new food sources in policies, strategies and programs;
- Introduction of foods and recipes of the other world to the country and promotion and support of their use;
- Systematic study of the present 'wild-foods'/'famine foods (fauna and flora) in terms of nutritive values, palatability, adaptability, etc.; and
- Discussions regarding the issue of religion, food sources, famine and death.

¹ Getachew Olana, P.O. Box 28841, Tel, 09-20 39 71, Addis Ababa.

² There are no indications for favourably and significantly improved status in the 1990's and 2000.

³ More than 95% of their sample households have supplemented their diets with "famine foods" such as roots, leaves, grasses and rats. This was mostly a case for high income groups.

⁴ Its production and processing demands higher labor input while it is the least productive. Its contribution to soil erosion is also often complained.

⁵ These habits include use of non-productive coffee leaves to prepare *tuke* (by Gofas and Males), *Chemo* (around Sheko), *Quti* (in Hararghe) and use of coffee husk (by Somalis).

⁶ Fish contains about 189kcal/100gm (Sirvativa 1996). An annual per capita calorie requirement of 2100 is considered for this exercise.

⁷ Eshete (1996) reports that in Ethiopia, lake fisheries using hand-made nets and traditional reed boats (tanquas) was started on Lake Tana by the Weitos in the early 18th century.

⁸ Includes the Seven Day Adventist, Pentecost, Lutheran, Baptist, Anglican, Meserete Kiristos, Mulu Wengel, Kale Hiywot, etc.

⁹ For instance, about 74%, 71%, 85%, 65%, 96%, 63%, 74.4% and 98% of the Bench, Dasenech, Hamer, Konso, Mursi, Sheko, Male and Suri, respectively, are followers of religions labeled as "traditional."

¹⁰ As a component of its diversification and intensification effort of the local mixed farming, a project (GTZ/LUPO) has introduced such crops to the high altitude parts of the zone. Even though the fruits were new to every one, they have been accepted by all and it has been difficult for the project to satisfy the need for its planting materials.

¹¹ Such foods include fruits from *Ficus* spp, *Carissa edulis* and *Rosa abyssinica*.

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