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The impact of socio-political forces

Balcha, Berhanu

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Berhanu Gutema Balcha
Food Insecurity in Ethiopia: the Impact of Socio-political Forces*

Berhanu Gutema Balcha**

1. Introduktion.
Drought and famine have become an everyday reality in Ethiopia. The country has faced three major famines and numerous famine-like situations in the past three decades. The recurrent of famine in 1970s, 80s and 90s has affected significantly the country’s food production. During the period between 1958 and 1977 over 25 million people were directly affected by famine and drought. The number of death was estimated between three and five million people. The 1984/85 famine alone had taken the lives of 300,000 people. It was estimated that close to 58 million were affected by famine between 1973 and 1986.

Patterns of food consumption and dietary level in Ethiopia vary from place to place. Cereals such as maize, teff (only grown in Ethiopia), barley, sorghum, wheat and millet are the main food source in most part of the country. Nevertheless, the per capita consumption of cereals has shown a downward trend since 1960s, for instance in 1966 the per capita consumption was estimated to be 138.4 kg., whereas in 1984 the figure had fallen to 94.5 kg. This figure is 50 percent less than the normal consumption ratio. The consumption level of a large segment of the population is less than the average estimates and this depicts the prevalence of hunger among many millions of people.

Land degradation has been explained as the major cause for the deterioration of food production. The fertility of the land has decreased from time to time for different reasons, such as lack of improved arming practices, land fragmentation and improper land use. Population explosion has also been identified as a factor in accelerating land degradation and adding the burden on limited food production capacity. However, it is misleading to relate the problem with such factors alone. It is important to examine other factors such as the role of socio-political and economic forces that have been at work for decades. It is also essential to ask what factors contributed to the aggravation of the problem? Why was it not possible to

** Berhanu Gutema Balcha is Ph.D. Student, DIR, at Aalborg University.
control land degradation? What measures have been taken to control the problem? Why did they fail?

In order to address these questions this research work studied a case in a rural area where ecological disaster has been manifested in persistent food shortage and famine situation. It is not assumed that the case of a particular rural area will represent or describe adequately the situation in all of the country. However, the case study could illustrate the impacts of different factors in aggravating food insecurity in the country.

The case study area is affected repeatedly by drought, flooding, famine and ethnic conflict.

2. Methodology

The information in the case study was collected through direct discussion with the concerned community. Group of peasants, elders, women, individual peasants, handicraftsmen and disadvantaged groups have been participated in the discussion in different occasions. The discussion process was not conducted in an interview style, but in dialogue and discussion method. It is believed that such method would help to build confidence and to give a good chance for the target community to voice their views and ideas. The community was able to express their view without limitation and interruption. An effort has also been done in consulting concerned individuals from the local administration, agricultural offices and civil servants in the area in order to reach different part of the society. It was very crucial to understand the views and attitudes of the local administration, since these people has played a great role in influencing the overall socio-political and economic context of the area. By consulting them it became possible to understand the gap that has existed between the administrative system and the peasantry. This issue is discussed more in the case study part.

The case study has brought necessary information that has been rooted in the local area and gives practical illustration of the challenges faced by the people at the grass root level. It is understood that the experience from such a small case study might not be adequate to use for the general framework that is applicable elsewhere. However, it can provide some experience that may have been existed in other areas. So it can give valuable lesson and information on the challenges of the rural poor.

3. Theoretical Consideration

In this part I try to discuss about theoretical issues in relation to food insecurity by defining different concepts of food insecurity and describing theoretical assumptions for the cause of
food insecurity in the developing countries. To begin with the definition, food insecurity is defined as lack of access by people to enough food for an active and healthy life. It describes the phenomenon of food deficit in the household and the community level. Food insecurity can result from the deterioration of food production capacity or lack of income to purchase adequate food. The term food insecurity can be described clearly by concepts such as hunger, undernutrition and famine.

Hunger is defined as the condition resulting from an individual’s inability to eat sufficient food to lead a healthy and active life.¹ Whereas undernutrition is defined as the measurable nutrient deficiency in a diet that can lead to illness (lack of energy, retardation, blindness) or even deaths. Undernutrition can be classified into acute and chronic undernutrition. Acute undernutrition is a short-term inadequacy of food intake, in cases such as famine or war. In such case the person under acute undernutrition can be recovered from it when the causes are improved or ended. Nevertheless, the term chronic undernutrition refers to long-term inadequacies. Chronic undernutrition may have physical effect in height, weight and intellect.

Studies have revealed the negative impact of chronic undernutrition on intellectual development and achievement, especially among children. According to the study it is shown that if a mother suffers from undernutrition during pregnancy, her baby can suffer from reduced intellectual capacity and cognitive functions.² Chronic malnutrition for children especially during the first two or three years of life can impair mental development.

The term famine describes a widespread and extreme hunger that results for individuals in a drastic loss of body weight and an increase in morbidity. At the community level it describes the rise in the death rate and massive social dysfunction and dislocation.

3.1 Causes of food insecurity

Different factors can be cited as the main cause of food insecurity in the developing world. In this part I try to discuss the major causes that have been widely explained as the contributing factors for food insecurity and famine situation.

3.1.1 Deterioration of Food production capacity

Food production capacity can be weaken because of drought or land degradation. Drought is the major cause for the loss of food production in areas where agricultural activity has been overwhelmingly depended on rainfall. In such case even the once-in-a century drought can devastate the whole capacity and availability of food production. In cases like Ethiopia, the contribution of irrigated land in agriculture is very minimal and therefore, the whole food production activity has depended on rain-fed agriculture. Hence the disruption of rain for a season has brought a massive food shortage and consequently hunger and famine.

In order to improve this situation, it is suggested to expand irrigated agricultural practice, however, irrigation itself depends in the availability of permanent water sources or construction of reservoirs or dams. The construction of reservoirs and dams requires a huge amount of capital, which is scarcely available in the developing countries.

Land degradation is also another major factor for the deterioration of food production. Land degradation can be explained as the situation when land has become unsuitable for agricultural production, this may be because of soil erosion, loss of soil nutrient or soil compaction. Soil erosion is intense in the situation where vegetation cover of the land is reduced for different reasons such as providing fuel wood, grazing area and arable land. Soil erosion can harm agricultural production in the following four ways: one, the eroded soil may contain nutrients needed for plant development; two, the remaining soil may be so dense that it is difficult for plant development; three, erosion may reduce the capacity of the soil to retain water needed for plant growth; four, finally erosion may result in uneven terrain that makes cultivation more difficult. In related effect when agricultural yield fails, more frequent cultivation of the land becomes necessary. This may lead to a breakdown in the crumb structure of the soil, reducing infiltration and resistance to erosion.

3.1.2 Population pressure.

Population growth is often considered a prime cause of food shortage in the globe. This is in line with Malthus’ concept that a population growth is unilaterally dependent on its potential to produce food, which is a direct and inelastic function of the given natural resource.

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2 Foster, Phillips and Howard D. Leathers (1999), *The world Food Problem*. Lynne Rienner Publisher Inc. Colorado, p.52
3 Foster, op cit., p.212
endowment.\(^5\) Since population would ordinarily increase geometrically, Malthus viewed famine as phenomenon to keep the population/food supply ratio balanced. The assumption of this argument was based on that the rate of population growth would exceed the food production and beyond the carrying capacity of the earth. Thus, would result in famine and hunger because no corresponding increase would be possible in food production.

The Malthusian thesis postulated that human numbers could increase by geometric progression: \(2,4,6,8,16,32,64,128,256\), and food production could increase by arithmetic progression: \(1,2,3,4,5,6,7,8\) Unlike people, land does not breed, and the potential for human numbers to increase exponentially must therefore put continuous pressure on our food supply.\(^6\) Malthus enumerated a long list of checks to population growth, including war, sickly seasons, epidemics, pestilence, and plague. Famine, therefore, stalks in the rear, and with one mighty blow levels the population with the food of the world.\(^7\)

Nevertheless, others (Braun and Tesfaye) argue that although they accept the negative impact of population explosion in low-income countries, they explain other associated factors that could influence the relationship of population and food. According to them the impact of population pressure on the development of famine may be expected due to the following three reasons. One, where rural population growth is particularly rapid, and technology is inaccessible. Two, population movements are constrained, or are headed toward mass urban poverty. Three, the purchasing power is poor because of low income and poverty.\(^8\)

Different argument is also forwarded (Colin Clark) by claiming that population growth will create a condition for expanding labour force in agriculture and food production. According to this thinking\(^9\) population growth in and of itself is a stimulant to productivity. Society is better off with a large population than with a small as a result of their being more knowledge creators in a large population. Ester Boserup also argues that population growth can create a kind of crisis situation that stimulates the invention of new technology. Shrinking supplies of land and other natural resources would provide motivation to invent better means of utilising

\(^5\) Braun, op cit., p.5
\(^6\) Foster, op cit., p.101
\(^7\) Ibid., p.102
\(^8\) Braun, op cit, p.55
\(^9\) Foster, op cit, p.195
scare resources or to discover substitute for them.\textsuperscript{10} This assumption bases its argument on the principle of “necessity is the mother of invention”. According to Boserup primitive communities with sustained population growth have a better chance to get into a process of genuine economic development than primitive communities with stagnant or declining population, providing of course, that the necessary agricultural investment are undertaken.\textsuperscript{11}

Generally, there is a wide acceptance about the impact of population pressure on food production. Although Malthus did not foresee the introduction of improved technology in agriculture, the world has not escaped his prediction of perpetual famine and hunger. Population pressure has become a factor in accelerating food insecurity in situations where: one, all accessible land is fully under cultivation, two, failure to improve upon the old methods of cultivation and, three, opportunity for alternatives employment are absent.\textsuperscript{12}

In such situations, therefore, population pressure can lead to ecological problems such as: deforestation, inappropriate land cultivation, over grazing and subsequent erosion. This may lead to land degradation and subsequent production failure. Population explosion to the point where its demand begin to exceed the sustainable yields of local forests, grasslands or crop land it begin directly or indirectly to consume the resource base itself. This reduces food production and incomes, triggering a downward spiral in a process of demographic trap.\textsuperscript{13}

3.1.3 Instability and armed conflict.

Food insecurity and famine are evident in the area where war and armed conflicts are prevalent. The impact of war, especially on the rural economy and the rural environment is very destructive. Some of the negative impacts include: disruption of production, loss of local genetic resource stocks, and erosion of natural resources. It also affects by distracting infrastructures such as roads, bridges and houses. Forced conscription of young men into the army disrupts the productive capacities of rural households. It has been also observed that soldiers tend to loot and plunder the resource of the rural population in order to maintain themselves.

\textsuperscript{10} Ibid, p.196
\textsuperscript{12} Kiros, Fassil G. 1993 \textit{The subsistence Crisis in Africa: The case of Ethiopia}, OSSREA, Nairobi, p.158
\textsuperscript{13} Foster, op cit., p.109
As it is evident that more than 90 percent of all violent conflict between 1945 and 1992 took place in developing countries, with Africa accounts for one-quarter of all wars. Internal conflicts in Africa have brought the disruption of agricultural activity in many rural areas. Conflict in Ethiopia, Mozambique, Somalia, Sudan and Rwanda can be cited as examples where millions of people have been exposed to famine mainly because of armed conflict.

In addition to its direct impact, armed conflict can divert scarce resources into military spending. The 1980s witnessed a dramatic militarisation of large parts of Africa. Weapons moved into villages far from actual war zones, paid with meagre resources by communities in need of self-defence against looters, cattle thieves, and other aggressors. For example, large ruminant herds in Somalia, western Sudan and northern Uganda were sharply reduced in recent years, first by drought and famine, second by looting, and third by sales, forced by the need to buy guns for self-defence.14

Generally, it can be concluded that armed conflict can result in disruption of production activity, displacement of people, destruction of infrastructure and environment, forced conscription of productive man power into the army and the looting and loss of production, livestock, and other assets.

In this part I have tried to discuss conceptual and theoretical assumptions in explaining food insecurity and famine. In the next part I will present a case study in a rural Ethiopia where recurrent famine and persistent food insecurity are the gloomy reality.

4. Case Study: A Rural Area in Ethiopia

4.1 Country background

Ethiopia is an 'ancient' country located in east Africa, or as it is generally known, the Horn of Africa. It is bounded by Sudan in the west and north-west, and Kenya in the south, Somalia in the south-east, Djibouti in the east and Eritrea in the north and north-east. It is located between longitudes 33’ and 48°E, and latitude 3’ and 18°N, and covering a total area of 1130000 sq. km.15

It is a country of great geographical diversity with high, rugged mountains, flat-topped plateau, deep gorges, river valleys and rolling plains. Its proximity to the equator and

14 Braun, op cit., p.20
altitudinal ranges create climates varying from continental cold to temperate, sub-tropical and tropical. Except in the far north, the rugged highlands of the central plateau are surrounded by lowland pastoral areas.

The mean annual rainfall ranges from 200mm to 2000mm. Annual temperature is varying from 16°C in highland to 26°C in the lowland areas. Temperature is highly influenced by altitude as is also rainfall. Drought is more frequent in low-lying pastoral areas and eastern escarpments of the highland. Study suggested that serious rainfall shortage could be expected in three out of every ten years. Forest cover of the highland area was almost disappeared, and only small patches found inaccessible part of south west of the country.

According to the 1994 population census, the population was estimated to be 62 million in 2000, growing at three percent annually. It is reported that only 11.3 percent of the population were living in urban areas. The most outstanding fact is that the overwhelming majority, 88 percent of the population lives on the highlands. This high concentration of population on 44 percent of the land area of the country reflects the close relationship between physiography, climate, economy and population distribution. The average population density in the highland is about 61 percent per square km. This figure is almost double the national average and eight times more than that of the lowland.

The age distribution of the population also showed that 48.2 percent were under 15 years of age and only 4.2 percent were above 65 years. This is a typical shape for a population with a high dependency ratio, and also suggesting a high productive potential for some time to come.

Official estimates put the total landmass of the country at 122 million hectares. Of this 79 million ha (64 %) classified as agricultural land (cultivated, forest and grazing land). Of the 79 million ha, only 9.3 million ha are undercultivation, 3.1 million were fallow and the rest is given over to pasture. Taken at the face value, these figures are implying that the country has a good agricultural potential.

18 UNICEF, op cit, p.6
19 Pausewang, op cit, p. 158
20 Ibid, p.160
Agriculture is the dominant economic activity that has employed about 90 percent of the work force and contributed about 55 percent of Gross Domestic Product. It is dominated by smallholders who produce most of the country’s food, largely for their consumption and for seeds. Agriculture is the main source of the Ethiopia’s export items such as coffee, oilseeds, hides and skin. Coffee export accounts for some 60 to 80% of the country’s foreign exchange earnings. Raising livestock is also important in providing drought power as well as dairy products. It accounts for about a third of the output value of the agricultural sector.

The agricultural sector is not able to fulfil the provision of food for a large and fast expanding population. It has been in decline for nearly a quarter of a century, and no improvement has been achieved so far. As a result Ethiopia’s dependence on food aid and commercial grain import has increased considerably over the last years. The sector suffers from lack of technological know-how, soil degradation, recurrent drought and famine; and unfavourable external terms of trade. This agricultural crisis has resulted in the overall deterioration of the country’s socio-economic situation.

The country has also faced a long war internally and with Eritrea secessionist movement which has lasted for three decades. The estimates of war damage in Ethiopia are very substantial; the drain on its economic resource has been enormous. It is reported in 1988 that the country had spent over US700 million per year for the conflict, which was representing 50 to 70% of total government revenue. As for the drain on human resources, national conscription drives dating from 1976 brought government forces up to almost half a million men by the end of the 1980s. In loss of food production also, it has been estimated that the conflict had cost between 65000 and 95000 tones of lost food production per year within Eritrea alone. During the period of about a third of a century since the early 1960s the nation probably wasted no less resource and physical capital as a result of these war that were devoted to development purposes.

Nevertheless, the above situation should not imply that Ethiopia’s development prospects are in gloomy. Despite all these difficulties the country still has many development potentials, given the prevalence of peace and stability and; the right types of policies and strategies. The

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21. Pusewang, op cit, p.17
22. Ibid
23. Braun, op cit, p.24
24. Kiros, Fassil G. 1993 The subsistence crisis in Africa: The case of Ethiopia, OSSREA, Nairobi, p. 35
potential arable land is estimated to be considerably larger than the area presently under
cultivation, especially if much of the marginal lands can be brought to use by the application
of improved agricultural practices.

The potential for irrigated agriculture (and hydroelectric power development) can be
appreciated from the country’s water resources. Less than 5% of the irrigation potential and
1.5% of the hydroelectric generation potential have been realised so far. The country has been
described as the water tower of Northeastern Africa. The surface water potential has been
estimated as being 111million cubic meters per year.\textsuperscript{25}

Only about 10% of the potential yield of over 34000 tones per annum of inland lake fishery is
being currently exploited\textsuperscript{26}. Of all the rural resource of Ethiopia, the vast livestock population
is probably the most commonly cited. The great potential of development in this vital sub-
sector is also promising.

It is in the face of such potential that Ethiopia, especially the rural population has been
immersed in persistent poverty and chronic food shortage and famine throughout the modern
period of the country’s history.

\textit{4.2 A Rural area in Ethiopia

\textit{4.2.1 Area Description}

This case study is conducted in Borkena area, which is located in northern part of Ethiopia,
about 300km from the capital city, Addis Ababa. The area is situated in flat low lying plains
surrounded by steep hills and rugged topographic landforms. The altitude ranges from 1200-
3000 meter above sea level (m.a.s.l.). The area is consisted of three major agro-ecological
zones, these are 45 percent lowland (less that 1500 m.a.s.l.), 44 percent medium highland
(1500-2500m.a.s.l.), and 11 percent highland (2501-3000m.a.s.l.).\textsuperscript{27}

The temperature of the area shows a strong correlation with the altitude, the mean annual
temperature of the lowland, the medium highland and the highland are 22, 18, and 12
respectively.\textsuperscript{28} The area was highly drought prone in the past years, and there was very low

\textsuperscript{25} Ibid, p.187
\textsuperscript{26} Ibid
\textsuperscript{27} Ministry of Agriculture 1987 \textit{Land Evaluation and Recommendation}, Addis Ababa, p.
\textsuperscript{28} Ibid, p.
reliability of the rainfall pattern. The amount of the mean annual rainfall varies from around 800mm in the lowlands to around 1200-1300mm in the highland area in the rainy seasons.

Physically, the area is characterised by chains of abrupt hilly escarpment, plain and gently sloping areas within the valley. Gorges and deep gullies cut by the intensive erosion and runoff from the degraded hilly slope are also prevailing all over the wide watershed within the area. Mountains consist of 26 percent, plain 53 percent, gorges and gullies 17.3 percent of the area.29

Agriculture and pastoralism are the main economic activity in the area. The agriculture activity is characterised by subsistent, less productive and traditional farming practices. The land holding system is highly fragmented. The area, especially the lowland was well known for its vast livestock resources. Numerous flocks of cattle were normally kept for prestige, subsistent and for economic security. However due to lower productivity, hostile climatic condition and shortage of feed and grazing land, productivity is at very minimal stage. Off-farm activities such as petty trading, local handicrafts and others are very insignificant, therefore, the community have no other income source except the agricultural activity.

Amharas and Oromos are the dominant ethnic group in the area, the Amharas dominating mainly the highlands and the Oromos the lowlands. Amharas and Oromos are the two major ethnic groups in Ethiopia, which account together about 60 percent of Ethiopian population. Previously the lowland was used mainly for grazing purposes, and the highland for agricultural activity, but because of population pressure most of the lowland area has been changed to agricultural land, which was one of the reasons for conflict between the highlanders and the lowlanders.

The major environmental problems are deforestation and serious erosion in the highland; flooding and swamps in the lowland. Because of high erosion in the highlands the soil has become much less fertile. As a side effect of erosion in the highlands, the lowland is exposed to flood-storm, especially in the rainy season.

In 1984/85 severe drought occurred in the area. The people survived from massive food aid by governmental and non-governmental agencies. According to the people the situation has
become even worse during a period of three years after the drought. Food distribution had all but ceased, but productivity was reduced to lack of working force and draught oxen, seeds and not least, social coherence and cooperation. Many peasants mentioned that people were forced to migrate to towns due to shortage and lack of employment in the farms. More recently, erratic rain has repeatedly destroyed crops in the field. Food aid has been distributed to selected households, both by government authorities and NGOs.

Moreover, there had been frequent fighting between the Christian highlanders and the Muslim lowlanders. The elders explained that the starting cause of the conflict might have been religious origin, having started at the time of the expansion of the Muslim chief (known as Ahmed Gragn) in the 16th century. The enmity has been inherited from generation to generation. There is a strong indication that land right issues also contributed and exacerbated the conflict.

4.2.2 Environment

“The experts told us that it was our action that had destroyed the environment, but we did not cut the trees to destroy the area. We know that the trees can protect the area, but faced with critical food shortage we had no other option except selling woods to buy food and to survive.”

A farmer from the case study area

The vegetation cover of the area was severely reduced. The communities indicated population pressure and failure of agricultural income as the main factors. Much of the forestland has been changed to farmland. Collecting or cutting wood from the state owned forests to sell for a supplementary income has become also a survival mechanism for the community.

Long time residents of the area explained that four decades ago, much of the area in the plain was covered by forest. Plantations were started by an European who cleared some of the forests, he leased the land from the Crown prince, because the area was considered as the property of the Crown Prince30. As one elder explained: " the forest was full of devils, no one went into the forest, but the Whitman who had the ability to kill the devils had cleared the

29 World Vision Ethiopia, ADP document
30 The information was given by the peasants.
area and started plantation." At that time there were fewer farmers in the highland area, and the lowland areas were left for grazing.

The plantation cleared by two Italian investors is also mentioned in Pausewang (1983). According to this source, the then Crown Prince, Asfa Wossen Haile Selassie, went around 1960 into a "joint venture" with the Italians, bringing in as his share 80 gasha land (ca. 32 square km) belonging to his "gult" (that is, he had an inherited right to collect part of the produce of this land, but not the primary user rights). The Italians brought in the necessary machinery, cleared the land and started commercial grain production. The lowland people using the land for grazing, fuelwood collecting, and partly as agricultural land, were evicted and had to find their livelihood somewhere else. Once the farm started making profits, the Crown Prince demanded his share. When the Italians disagreed because of demanding needs for further investments, he used his authority as governor of Wollo (an administrative region) had the barns closed, sealed by police. The case lingered on until the revolution of 1974 forced Asfa Wossen into exile and the farm was nationalised and became a state farm.

The case shows in a nutshell how not only population growth can reduce the land resources available for peasants, but also the development of the productive potential and the establishment of commercial farms. No doubt the land was put into far more productive use by growing grains, instead of grazing and wood collecting. However, all the people who had previously depended on this land for their livelihood, had to find a new place, mostly with relatives living on the already overcrowded land outside the farm development area. The new farm did employ agricultural workers, but they were mostly not from the local people.

The case shows further that deforestation is not only a result of peasants' interference with nature. Also the productive development of land demands forest areas. When such a project does not employ those people who depend on the area for their livelihood, it increases pressure on the remaining forest land, even disproportional to the land cleared for farm development: people may feel compelled to exploit the communal or state owned forests even more to compensate for the loss of agricultural opportunities.

The deprived land ownership right of the peasants was also another factor in accelerating deforestation in the area. Especially around the downfall of the Durg (the military regime in Ethiopia) in 1991, there was heavy deforestation. The forests were considered government
property, so everybody took part in cutting trees for sale, household firewood, and for construction. Farmers took the wood to the nearby towns like and also brought them to the main Addis-Dessie road for sale.

Before 1998 the hills were considered government land without proper protection. Since then the hills have been divided up between individual farmers for tree planting purposes. Tree plantation in the hand of the government has failed miserably earlier, and even plantations in collective ownership of the rural communities were not spared from immediate devastation in the last two years periods before the fall of Derg. Peasants just simply wanted their land, confiscated from them, back. In line with present pseudo-liberal philosophy, private reforestation appeared the solution. Farmers got 25 by 50metres each (1/8 of a ha.) of land on the nearest hill\(^\text{31}\). The farmers were granted certificates - which they consider as ownership - by specifying the use of the plots (in the hill) for tree planting and not grazing or agriculture. To do so would mean loss of ownership of the land. Without approval from the local office of the Ministry of Agriculture trees could not be cut, but the land would not be taxed for seven years. The hills are slowly covering up with little vegetation in some areas, but on a small scale. The paradox is that these farmers - as they see it - have ownership certificates for the land in the hills but not for their farmland nor even their residential areas.

Actually, the Constitution clearly states in Article 40 that rural and urban land is the property of the State. Consequently, farmers can not own the land - but they can be given secure and inheritable user rights. If they conceive of a written contract to that end as ownership, they are legally wrong but socially justified. In the context of the constitutional provisions, they have ownership rights over the trees they plant on that land, and have a long-term user right to the land itself, as long as they stick to the terms of the contract.

Higher income farmers have shown some effort to develop the hills, whereas the poorer farmers show less effort, because they have more pressing needs to support their families in times of food shortage. Frustration is evident, because tree planting has not solved the immediate problem of feeding the families. The only benefit farmers get from the protected hills is grass that they are allowed to cut for “their” livestock.

\(^\text{31}\) The information was collected from the peasants and confirmed by the local office of Ministry of Agriculture in the area.
What type of trees to plant is another point of disagreement. People prefer the eucalyptus tree which matures in three years and has a great market demand. But the Ministry advises them to plant indigenous trees instead. These take twenty years to mature. The people want quick economic benefits that will solve immediate problems. Therefore the distribution of the hills for private reforestation has created new conflicts and frustrations. Given the peasants' experience with reforestation and state interference, it is understandable that peasants fear they might once again be deprived of the fruit of their work. There is no evidence of trust between the peasants and the state, thus without such trust it is futile to expect great improvement in the area. The peasants had/has numerous cases of non-trustworthiness of the state.

4.2.3 Erosion and Flooding
The plain has been flooded frequently. Flooding has intensified in the past three years, especially in the rainy months of June, July and August. According to the community the main reason for the flooding is the deforestation and altering of watercourses due to improper land use practices in the highland areas. The forest cover of the hills was cleared in the demand for more agricultural land and need for income supplementation by selling wood.

The communities propose drainage constructions to solve the flooding problem. Manpower is readily at hand, but people request technical support and know how. To go with this they request experts to consult them. They want the experts to listen to them – since they know the problem from experience and are able to give valuable information from life long knowledge of the area. One example mentioned is an effort made in the mid-1990s by the local agricultural office to construct small-scale drainage works in the Borkena River. A committee of elders was established to advise the construction. But the elders were never given a chance to get involved in decision making. The experts presented their plan and the work was done according to it, without any deviation. The committee was established for the sake of formality. It was not given any authority to challenge or change any decision of the experts. The elders complained that they did not want nominal roles for formalities, but real decision making power and negotiating roles. The construction was carried out but brought no solution.

The people tried on their own to stop the floods by constructing check-dams and small drainage constructions. But the magnitude of the problem is beyond their control. They have
requested government support and repeatedly reported on the situation. But they got no response. They said tree planting had to be supplemented by drainage construction in the lowland areas. They know that, at best, it would take long time to control the situation.

In some parts the Plain, a large area of farm land has been littered with boulders and stones coming down from the hills after erosion damages and storm flooding. Many farmers lost their farmland, and the problem also expanded to nearby areas. As the river changes its course, partly because of these boulders, new areas are exposed to deposits. Besides, farmers have to over-exploit their remaining fields if parts are lost due to the stones.

Landslides are another major problem. Especially in one village in the highland area, hazardous landslides occur frequently, affecting a large number of households. This problem has halted agricultural production for three years.

5. Land Tenure

5.1 The land distribution of 1997

According to estimates of the community and the agricultural office, the majority of the farmers in the area have only in average 0.5 to 1 ha. of land, and many families have no land at all. Landlessness is estimated at 30 to 50 percent in different parts of the area. In 1997, land redistribution was carried out. Efforts were made to give land to families without land. Land being the most scarce resource, it had to be taken from someone. The redistribution hinged on the assumption that some people had benefited illegally and unduly from their co-operation with the Derg regime. It thus decided to take the land to be redistributed from farmers who were considered to have benefited illegally or due to their political position and to have received more land than their due share during the past governments. These people were identified as bureaucrats and feudal remnants.

The term bureaucrat was used to describe those serving under the Derg regime as members of local administrations and party members. Those who had served as chairmen or secretaries of the erstwhile peasant associations (gebere mahber) had indeed sometimes been able to get more land or more fertile plots than other farmers. But nobody bothered to find out how much land each individual family had actually acquired through misuse of their positions. As a rule these people were restricted to get only 1 ha. of land. The remaining parts of their land was confiscated and redistributed to peasants without land.
The term *feudal remnant* described peasants with access to more than 3ha. land, as well as relatives of the former feudal class that had lost most of their land in the 1975 rural land reform. This group was allowed to keep up to 3 ha. land. According to the rules every farmer could get up to 3 ha., but land shortage did not make it possible to grant this much except to very few farmers.

Many rich farmers complained that the land they lost in the redistribution had been acquired with hard work and it was unjust to take it from them. Some farmers said they had in good will bought the land from farmers leaving the area. Consequently they feel the redistribution is an irrational measure and is destructive to initiative and punishes hard work. The group of people classed as "bureaucrats" also complained, saying that not all of them had benefited from their past positions. In the actual redistribution, the bureaucrats were allowed to retain only 1 ha. However, the authorities claim that there are no policy decisions restricting the land holdings for "bureaucrats" to 1 ha. They claim that local level administrations made such decisions by taking into consideration the fertility of the land these people possessed.

### 5.2 Conflict on land in the lowlands

In the lowlands there has been conflict between lowland pastoralists and highland farmers about the use of the land. The pastoralists used the land seasonally. The farmers in the hills needed new land due to land shortage in the highlands. Population pressure made fertile land in the highlands scarce. Also much land was taken by new residential compounds for newly married couples establishing families. According to tradition, when a young man marries he is allowed to construct a house on the land of the parents.

The productivity in the highland has also decreased due to erosion. These problems created an expansion into the lowland areas, traditionally used for grazing. The pastoralists used the land seasonally, moving to adjacent areas when the present area was unable to support their herds, and returning again after the grassland had regenerated. This is a system used through generations. However, every time they returned, more land had been converted to farmland. This led to frequent fighting that had more than once to be stopped by police and troops intervention.
The central government always favoured settled agriculture. The pastoralists had little decisive leverage to protect themselves from losing more land. Commonly pastoralism was seen as backward and unproductive and the pastoralists were advised to go into settled agriculture. The pastoralists were not convinced, having survived this way for generations, and continued their way of life by moving eastwards on the Afar plain. This move brought them into conflict with the Afar people, also pastoralists struggling to survive in a limited grassland area.

6. Agricultural Supports and Projects

6.1 Advise to farmers

The local office of the Ministry of Agriculture gives advice and training on agriculture, forestry, soil conservation and other related subjects. It uses lectures, discussions and extension services. The agricultural extension agents or development agents give their assistance to groups of farmers and individual peasants.

The office felt that peasants are very reluctant to adopt new methods and techniques. But peasants respond that some of the advice is not helpful for them. The main controversial issue is the use of fertilisers. Peasants claim they found no difference in yield with or without fertiliser. In some cases, they claim that farmers not using fertilisers got better yield. Agricultural experts also indicated that it is not advisable to use fertiliser in areas where frequent moisture stress is typical but sadly they are continuing implementing the “not advisable” advises. No detailed studies were carried out to identify the appropriate types of fertilisers for the area. Instead, the same fertilisers have been used in all areas.

6.2 Indebtedness

The farmers who use fertilisers claim it indebted them periodically. They got fertilisers on credit. In most cases they have been forced to accept fertilisers on loan and to apply them on their land. So when crops fail or are damaged (as happens frequently) the loss is double. They are required to pay back the loans regardless of their yield, and sometimes farmers who lack the money are imprisoned until they repay their loans. The community mentioned that some farmers have had to sell their farm oxen to pay off debts for fertilisers.

32 Pausewang (1983) also mentioned the same situation in his study
33 The information was collected from the local office of Ministry of Agriculture.
The agricultural authorities make a strong point that farmers should pay their debts. They insist that the motive is not to punish them, but to change the farmers' perception to the credit system. There has been a widespread conception that government credits would not have to be paid back. The authorities believe that annulling the credit loans would weaken the efficiency of the credit system the next time.

During the last few years, food shortage has become critical, and food aid had been distributed to selected families. Priority has been given to farmers without cattle. This approach was resented by other farmers, because they feel they are tacitly encouraged to sell off their farm oxen in order to buy food. Farm oxen are the most valuable assets for the peasants for starting farming activities when the rain comes. The authorities on the other hand defend their position by referring to limited food stocks. When there is not enough to feed all, they give priority to those who are the most vulnerable.

6.3 Training
The agricultural office also faced problems related to training activities. They believe it was a mistake to introduce money payments to attending farmers. The extension officers expressed that most farmers were more attracted to the programmes by the payment rather than the courses. They feared that without cash payment, future programmes would be hard to organise.

In most cases the chairman of the peasant association selected trainees. Corrupt practices have been observed in selecting trainees. Some farmers have complained that only those with close relations to the administrative group have access to training because of the economic benefit attached to the training. Such practice, and indeed a conception of agricultural training as a financial benefit, is going to harm the reputation of the Ministry as well as the practical application of training results.

7. Conclusion
In this final part I will conclude the study first, by presenting the major factors for food insecurity in the study area, and second, by attempting to answer the main questions of this project: What factors contribute to the aggravation of food insecurity in Ethiopia? What is the role of socio-political forces in relation to the problem? What shall be done to improve the situation?
According to the study findings that land degradation is one of the major factors for causing
food shortage in the study area. Since the natural vegetation cover was almost cleared in the
highland area, massive run-off from all over the area floods the farm plots all along the plain.
This reduced significant proportion of crop yield and size of cultivable land.

The forest cover of the highland area has been cleared mainly for a demand for new land and
to supplement agricultural income by wood selling. The number of new families demanding
for land has increased. Thus, encroachment of farmland in to hilly area has become the only
alternative. This expansion exposed the land to high erosion and resulted for land degradation
and consequently for the loss of crop yields.

Furthermore, the deterioration of real income from agriculture forced the peasants to find
another source of income by cutting wood for sale. This resulted in decrease of forest cover in
the mountains and exposed the land for high erosion and flooding. The peasants buy needed
consumer goods from the market, the prices of such consumer goods has been increased
geometrically and could not possible to afford them from their meagre income. In such
situation, the community did not have any other alternative except utilising whatever resource
available to meet their basic needs.

This condition clearly depicts a vicious circle phenomenon where people are forced to over-
exploit their land resource because they are too poor to protect them, and where they get
poorer because the environment is degrading. The situation also gives a better understanding
of why poor people accelerate environmental degradation, and environmental degradation
makes people poorer.

The peasants did not get the proper advice and support to control the problem. They tried to
find adjustment which allow them to make living as best they can in spite of growing signs of
land degradation. The measure started by experts is focused on afforestation alone without
integrating it with improvement in agricultural activity. The measure is not comprehensive; it
neglects the main reason for rural poverty.

The case study area, in much extent, is relevant in explaining the conditions of rural areas in
Ethiopia. The rural people are highly dependent on the exploitation of the natural
environment. The nature of mass poverty and the alarming rate of environmental degradation are closely related. Poverty in the rural area is resulted mainly from the stagnation of the agricultural sector. The rapid population growth, estimated to be close 3 percent annually, has created a burden in the land resource mainly because of the lack of a corresponding growth in the agricultural production and the lack of policy measures which encourage people to migrate willingly to other sparsely populated areas.

The agricultural sector is the backbone of the rural economy; it employed 90 percent of the rural population that is about 89 percent of Ethiopia’s population. The stagnation in this sector, therefore, has affected drastically the overall social, economic and environmental aspects of the rural economy. The sector has failed to meet the most basic objectives of feeding the population. Land degradation is explained as the major cause, but the main problem lies in structural and policy issues. While drought and wars are partly to blame, government policies are the major causes. The country has potentials to sustain drought periods, but not able to utilise them because of misguided and short-sighted policies.

The major structural problem exists in the ambiguity of the land tenure system. The 1975 Land Reform effectively destroyed the feudal land-holding system, but the land remained as the property of the government in power. It is a form of ownership in which the state acts as the real landlord with the right of allocating or disposing of land. This has created deep uncertainty among the peasantry, and will continue to have a discouraging effect on peasant production.

In the absence of a land owning class and a strong private sector government policies and interventions has become the reality. The government’s attempt to stimulate agricultural production by extending its own control over the rural economy has not paid off. Wrong policies such as hasty resettlement programmes, forced villagisation and frequent land redistribution measures damaged the agricultural sector and further aggravated the environmental problem.

The emergency resettlement programmes without careful planning had created a great deal of uncertainty and insecurity among the peasants. Peasants were not motivated to undertake conservation activities fearing that they would be forced to resettle any time. Besides, the resettlement schemes were hastily prepared by clearing a large amount of forestland in
sparsely populated areas. Since soil fertility is a major factor in improving agricultural productivity, the impact of large-scale settlement on the land had been devastating. The indiscriminate clearing of dense forests with bulldozers and other and other heavy equipment had removed the top soil, which is crucial in maintaining soil fertility. This resulted a decline in yield and land degradation.

The resettlement had also brought massive deforestation. There was an increase demand of wood for the construction of houses, fuel and farming equipment. This had intensified the destruction of the natural forests, and brought change in climate by creating desert like situations. The most disappointing fact of the resettlement process was that the settlement sites were often selected by politicians who had little understanding of agriculture. In general the resettlement programmes had resulted in a rapid destruction of land resource and created a condition for famine vulnerability.

Villagisation was also another wrong programme adopted by the government to “modernise” the rural life and agricultural production. In the programme about one-third of the country’s rural population had been villagised in 1980s. Instead of modernising the agricultural sector, villagisation contributed to production shortfalls and land degradation. Peasants had to travel further from the villages to their fields by caring their ploughing tools and with their plough oxen, and this impaired agricultural production.

In villagisation, the small plots allowed for peasant households was not enough for them to grow garden crop, raise small animals and perform other activities to supplement their income and satisfy consumption needs. This loss of income forced the peasants to look for other alternatives such as wood and wood products selling by exploiting the forests. Without adequate planning and land use plans, the concentration of people in the new villages contributed to overgrazing and soil degradation. The increased use of wood for new house construction accelerated deforestation.

The cumulative effects of these wrong policies have evidenced in the disappointing performance of the country’s agricultural sector and made the rural population vulnerable to food shortage and famine situations.
At present, the government’s approach in improving the situation is far from satisfactory. The land is still the property of the government. The recent land redistribution measure has further deepened peasant’s uncertainty about their land holdings. It penalised strong farmers by taking over their land which they had improved it by their individual initiation. A major problem of the land redistribution is that it gives rise to a process of diminution of peasants’ plots. It created insufficiency of holding and further fragmentation of the land.

No clear-cut policy is formulated to transform the agricultural sector. It is most urgent and important to adopt an appropriate policy aimed at improving the performance of the sector. The most important options to be suggested are, first, ensuring peasants’ land ownership. If the peasants have security in their land holding, it is very likely for them to take long-term land enhancement measures. Second, introducing environmental rehabilitation programmes in reconcilable with peasant’s interests and benefits by combining short and long-term objectives in mutually reinforcing ways.

Third, more emphasis upon farming systems development through the provision of training and credit for the peasantry. Private land enhancement activity will be facilitated by the availability of training and credit. The government must be prepared to allow more resources and attention to the rural poor. Fourth, encouraging national investment in agriculture by creating private ownership of wasteland and unused land. It is unreliable to depend completely on rain-fed agriculture; it is essential to develop irrigated agriculture, essentially small-scale and medium scale, by utilising private national capital.

To conclude, Ethiopia’s agriculture has the potentials to feed the population and to tackle rural poverty, given the right policies and commitments. Without tackling rural poverty, it is naive to attempt to solve environmental degradation and famine in the country.

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