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## Conceptualising Famine in Ethiopia

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## Abstract

This paper attempts to explain the nature of recurrent famine, not just as a result of a series of adventitious effects, but more importantly as the unintended outcome of an exclusionary growth model. This adventitious effects matter a great deal, but their impact can only be understood in the light of the inherent weakness of the growth model, which impoverished the peasantry and hence generated their vulnerability to famine.

## CONCEPTUALISING FAMINE IN ETHIOPIA

### 1. Introduction

The analysis of famine is, so far, largely tied in with the entitlement approach, which, as the name suggests, emphasises the entitlement issue, while downplaying the question of availability. Thus, in the entitlements approach, the emphasis is on adventitious effects, such as drought, war, and the like, as causes of entitlement failure and, hence, famine. However, famine can also be a matter of long-run effects such as structural changes in the economy and food-availability decline. The structural change and government policy that favoured industry and urban food supply through a specific development strategy have shaped the structure of entitlements. The development strategy that Ethiopia has been pursuing in the Imperial and socialist regime was of the classical import-substitution variety, which accorded primacy to industry to the neglect of agriculture. When agriculture becomes a policy concern peasant agriculture which constitutes more than 90 percent of agricultural production was discriminated against.<sup>1</sup> Thus, the growth model was exclusionary in its nature.

The aim of this paper, therefore, is to explain the nature of recurrent famine, not just as a result of a series of adventitious effects, but also, and more importantly as the unintended outcome of an exclusionary growth model. This adventitious effects matter a great deal, but their impact can only be understood in the light of the inherent weakness of the growth model, which impoverished the peasantry and hence generated their vulnerability to famine. The entitlement approach loses sight of historical processes, and how peasants' vulnerability to famine was created over a long period of time through a secular decline in food availability. This paper tries to conceptualise famine in Ethiopia within this historical and policy process.

### 2. Entitlement vs. Availability

The analysis of famine has so far largely been associated with the entitlement approach, which emphasises the issue of entitlement, while underplaying the issue of availability. Although the approach throws light on the possible misleading suggestions encompassed in the food-availability decline explanation (short-term effect), famine can also be a matter of available food supply per capita (long-term effect). “The entitlement approach,” as Sen (1981:45) puts it, “concentrates on each person’s entitlements to commodity bundles including food, and views starvation as resulting from a failure to be entitled to a bundle with enough food”. This approach is built upon three sets of conceptual categories: entitlement set, endowment set and exchange entitlement mapping. The endowment set consists of all resources owned by a person (the ownership bundle) while the entitlement set comprises all possible combination of goods and services that a person can obtain

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<sup>1</sup> For details see Getnet 2002 Chapter 3 and Tekie 2000 Chapter 2

using his ownership bundle. The exchange entitlement mapping is a function that relates both sets and it consists of three kinds of relations: production, exchange and transfer (Sen, 1981:45-46 and Osmani, 1993:3-4). Entitlement failure is thus the contraction of the entitlement set, which is entirely dependent on what happens to the other two sets. As Osmani (1993:5-6) pointed out, entitlement failure, therefore, is identified either with production failure (which is labelled direct entitlement failure by Sen), endowment loss, exchange failure, or transfer failure.

In a nutshell, the entitlement approach examines the causes of famine as a failure of exchange entitlement mapping and endowment loss. Although the entitlement set is endogenous to the other two sets, what affects these two sets are considered as exogenous. Thus, in the entitlements approach, the emphasis is on short-term effects, or as Tilly (1983:137-40) labelled them 'adventitious' effects, such as drought, war, and the like, as causes of entitlement failure and, hence, famine.

An important contribution of the approach is the light that it throws on some possible misleading suggestions of the food-availability decline explanation for famine. This relates to the fact that famine can occur when food is available, simply because people lack entitlements over that available food. However, famine can also be a matter of long-run effects such as structural changes in the economy and food-availability decline. For instance, Tilly (1983:137-40) argued that large-scale secular structural change and government policy that favoured urban food supply have also shaped the structure of food entitlement. She argued, "the development of capitalism, with its large market systems, division of labour, and proletarianisation of workers, and the rise of centralised nation states in Western Europe were accompanied by shifts in entitlement and, therefore, in some groups' increased vulnerability to high prices and shortage" (Tilly, 1983:137).

Indeed, history reveals this to be true in many instances. Failure of exchange entitlement mapping (production failure) can be caused by exclusionary and discriminatory development strategy and the loss in endowment set can be caused by institutional and policy constraints/failures. Thus, the entitlement approach loses sight of historical and policy processes and, hence, can tell us very little about historical trends in declining food availability.

This is specifically true in the Ethiopian context where peasants used to save from their current harvest for *kifu qen* (evil days). This capacity has now been significantly eroded and make peasants vulnerable to recurrent famine. It is in this context that a decline in rainfall played an overriding role in grain production and, hence, automatically followed by famine. Famine in Ethiopia is, therefore, a product of deteriorated peasants' production conditions over long periods of time.<sup>2</sup> Thus, famine in Ethiopia should not be seen as an outcome of a short-term effect and external shocks to the peasant production system, but, rather, as a slow, incremental, cumulative process and endogenous to product of a subsistence production system of peasant agriculture.<sup>3</sup>

### 3 The Policy and Historical Process

Although the factors related to decolonisation-driven industrialisation<sup>4</sup> are not directly relevant for non-colonised countries like Ethiopia, the concept of modernisation in the classical spirit (within an international context) and the ideological hang-ups of national pride and self-reliance (in the local

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<sup>2</sup> See also Mesfin 1986

<sup>3</sup> MEDaC (1999:198) has also reported that the major cause for food insecurity in Ethiopia is highly correlated with the decline in food production.

<sup>4</sup> For decolonisation-driven industrialisation, see Saith, 1985a and 1990.

context) led the Imperial Government to adopt an import-substituting industrialisation development strategy. The choice of industry as an engine of growth, and the associated discrimination against agriculture dates from 1945, when a ten-year industrial development programme was initiated. This was reinforced by the three successive five-year development plans (1958-74). With regard to agriculture, the first five-year plan (IEG, 1957:20) anticipated “no need to bring about fundamental changes in the present methods of production”. In the second five-year development plan it was emphasised that industry is the most 'propulsive' sector in the economy and that the precondition for faster industrialisation had to be created by trebling industrial output within five years.<sup>5</sup> This view was further strengthened in the third five-year plan. While it was planned that the share of industry in GDP should double within five years (IEG, 1968:136-7), it was acknowledged that there was 'no quick solution to the peasant problem' (IEG, 1968:190-1).<sup>6</sup>

The same development strategy was pursued in the socialist period. The justification articulated in this period, though falling under a classical spirit of development theories, was of a non-capitalist development path to socialism. This is under the classical spirit of development theories because the most important factor to socialist development was the development of the productive forces which mature by way of the rapid industrialisation process, and which are capable of transforming peasants into proletariat.<sup>7</sup> And it was a non-capitalist development path to socialism because of the revolution embarked upon within the context of a backward agrarian and feudal mode of production, with the state taking a leading role. Thus, peasants were viewed as short-term allies of the proletariat in the struggle, with agriculture viewed as a source of surplus to make industrialisation possible. The social transformation (from peasantry to wage labour) and economic structural transformation (from agriculture to industry) of the classical concept may be considered as analogous to the transformation of the peasantry into proletariat, through the industrialisation process. The central concept of economic growth is the same. The difference lies in the path or mechanism advocated, with socialist development adopting a 'twin transition' concept of industrialisation with a socialist principle.

To this end the socialist regime embarked upon the six annual plans on a campaign basis (between 1979 and 1984) as well as a Ten-Year Perspective Plan (from 1985 to 1994), which was geared to the same growth strategy. In the plan, it was clearly stated that agriculture would be the foundation of the economy, which had to finance the long-term industrialisation program, while industry continued to be the priority sector (PMAC, 1984:20).

The industry first doctrine was aimed at protecting industry, viewing agriculture as instrumental to the industrialisation effort, without due policy concern given to increasing agricultural output. On the other hand, it was expected that the sector would supply the industrial sector with industrial crops, wagegoods, export crops and capital. This, apparently contradictory, policy of neglect and, at the same time, expectation, as expressed in the plan documents, suggests that the development strategy, from the very beginning, emphasised only the instrumental role of agriculture in supporting the industrialisation process.<sup>8</sup>

It is clear that if you neglect agriculture it does not remain invariant. This consistent demand for resources from agriculture, without concomitant investment in it, has led to a situation characterised

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<sup>5</sup> See IEG, 1962:69 and 71

<sup>6</sup> In the third five-year plan there was a concern for peasant agriculture (eg CADU, WADU and others). It should be noted, however, that the focus was still on commercial farms.

<sup>7</sup> This phenomenon has been termed 'socialism in the womb of capitalism'.

<sup>8</sup> There exists a vast literature documenting the development strategy adopted, and its neglect of agriculture, in Ethiopia see Dessalegn, 1995; Dejene, 1990; Eshetu, 1990a; Shiferaw, 1995.

by a pronounced imbalance between agriculture and industry. During the first five-year plan period, while industrial output doubled, agricultural output increased by only 11 percent (IEG, 1962:40). This translates into an annual growth rate of 18.9 percent per annum, for industry and 2.6 percent for agriculture. Naturally, this created an imbalance between the demand for agricultural output and agricultural supply. Indeed, it was formally acknowledged that “cereal production could not meet the growing demand of the population” (IEG, 1962:45) and the government was forced to import grains. This imbalance quickly drew the attention of the government and planner in the sense that something had to be done, in relation to agriculture, before the industrialisation process was arrested. How exactly agriculture adjusted to the requirement made by the industrialisation process is reflected in the evolution of the policy pursued in the country.

The main objective of the second five-year plan was to speed up the industrialisation process and treble industrial output within five years. The government and planners had anticipated that there would be an urgent requirement for resources to be released from agriculture. On the other hand, further agriculture-industry imbalance was anticipated. Indeed, the Government explicitly acknowledged that “the production targets cannot be fulfilled by the subsistence sector,” and hence that “large-scale and mechanised agricultural undertakings have to be established” (IEG, 1962:70). The same thing was true in the preparation of the third-five year plan. A point of departure for the planners of the third five-year plan was:

Because there is no quick solution to the peasant problem, and because only a modest growth of output from peasant agriculture can be expected in the five years ahead, there is a simultaneous need to develop modern commercial agriculture. This activity provides considerable opportunity for a rapid production increase, and immediate impact on the entire economy, if given the required allocation of capital and expertise. The rapid development of commercial agriculture is the only way to get the relatively quick increase needed in agricultural exports. It is from this sector that the rapid gains are expected in output and availability of surpluses, both for consumption domestically, particularly in the cities and towns as well as for export. (IEG, 1968:190-1)

Therefore, one might reasonably argue that the important variable in the plan was the marketed surplus, and not total agricultural output per se. The traditional and technologically un-advanced nature of peasant agriculture was used as an excuse for its continued neglect from the mainstream development process, notwithstanding the fact that this type of farming accounted for 93 percent of agricultural production.<sup>9</sup>

In the Socialist regime, the ten-year perspective plan adopted similar strategies implemented in previous development programmes. According to the plan, peasant agriculture was not considered a viable undertaking. Rather, viable strategies included the expansion of state farms and producer co-operatives. The assumption was that, as with the three five-year plans during the Imperial regime, surplus generation would only be possible if there was a shift from the dominant small holder peasant agriculture to limited large-scale production and from private to state ownership. When state farms were formally launched in May 1977, the main objectives were to alleviate the country’s food problems, to produce raw material for the industrial sector, and to produce export crops in order to generate foreign exchange (MoSFD, 1989:9). The policy instruments adopted to achieve this objective gave preferential treatment to state farms and producer co-operatives against smallholding peasant agriculture, particularly in relation to the distribution of agricultural inputs, skilled manpower,

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<sup>9</sup> Commercial farms, accounted for not more than 7 percent of total agricultural production (Dessalegn, 1985:12-13).

credit allocation, interest rates, foreign exchange and the like.<sup>10</sup> Later, however, it was realised that the produce of state farms was not sufficient to cope with the demands placed upon agriculture by the urban population and industrialisation drive. Had the exclusionary process not been sufficient, 'surplus' also had to be extracted from the peasantry through marketing and pricing policies.<sup>11</sup>

The main reason behind the neglect of peasant agriculture and prioritisation of resources to large-scale commercial farms was the perceived need to emphasise the marketable surplus to supply food to the urban population, as well as the production of industrial and export crops in support of industrialisation.<sup>12</sup> Thus, one can again argue that the agricultural investment strategy adopted was the unintended outcome of the overall development strategy. Both regimes pursued basically the same development strategy of putting agriculture to the service of industry and the urban population, with associated systemic discrimination against peasant agriculture in resource allocation. Both regimes failed to emancipate the peasantry from poverty and hence hatched the vulnerability of peasants to famine.

Unlike its predecessors, the EPRDF regime has adopted an Agricultural Development Led Industrialisation (ADLI) development strategy. The agricultural sector is considered as the leading economic sector and the development of the other economic sectors hinges upon the achievements in the agricultural sector. Increasing food production is the core of the agricultural policy. Again, unlike the previous policies the focus is on smallholders to increase food production via modern inputs like fertilizers, improved seeds and pesticides. The food security policy, which was issued in 1996, also targets agricultural growth and non-farm activities as additional entitlement. Given the fact that agriculture accounts about half of GDP, generates about 90 percent of the country's export earnings, and source of livelihood for about 85 percent of the population; ADLI seems a proper way out from the present economic malaise the country is facing.

However, the practice is quite different. The change/shift in the development strategy in favour of agriculture is not followed by a change in land policy. Land, the main source of livelihood for the overwhelming majority of Ethiopian population, is still owned by the government. Since the second half of 1980s there was no land redistribution except a one-time redistribution in Amhara region. Since then, newly formed households are sharing lands from their parents and use marginal lands. This makes plots more fragmented and diminishes individual size. It is also true that the existing small size of holding made also hardly possible for new households to acquire land by sharing from their parents and absence of government intervention in terms of redistribution denied many young peasants to acquire land.

Although there seems to be no more redistribution, given a significant number of land claimants, redistribution seems a realistic possibility. This brings further reduction in the size of holding with adverse consequence on food production. Security problems may also deter long-term investment in the land. Given the small size of holding, less than one hectare per household, which makes peasants unable to produce enough food even with good rainfall, further reduction in size of land holding has a potentially disastrous consequence on food production.

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<sup>10</sup> For details see Hansson, 1995.

<sup>11</sup> Hence, it is plausible to argue that pricing policies are the outcome of the agrarian malaise rather than, as some have argued, the prime cause of the poor performance of agriculture. Of course this exacerbated the poor performance of agriculture. For the same argument see also Ghose, 1985:27.

<sup>12</sup> For the same argument see also Befekadu and Berhanu, 1999/2000:152.

The institutional arrangement of credit for input and input delivery is highly controlled by the regional government while fertiliser retail price is liberalised and subsidy on fertiliser removed. Regional governments own firms in charge of delivery of fertiliser and credit. Credit for fertiliser and delivery of fertiliser are usually dealt with in one transaction. The credit and fertiliser market is neither competitive nor transparent. There is no insurance mechanism for the credit when the crop fails. Local government uses any force to make sure the loan is settled immediately after the harvest, including by sale of assets (see Mulat et al, 1998). A peasant in South Gondar, Amhara region, has an interesting story about fertiliser debt. He draws a parallel between HIV AIDs and fertiliser debt. He said, “When God gets angry he subscribes HIV AIDs for us and fertiliser for our grains”. When asked what parallel is this, the peasant responds, “We pay our fertiliser debt by selling of our assets”.

Regardless of the size of the harvest (crop failure) the credit has to be paid and there is not even provision for postponement.<sup>13</sup> This highly controlled market, along with liberalisation, devaluation and removal of subsidy exposed smallholders to significant increased price of fertiliser relative to their crop price, and increased the risk involved in using fertiliser. The policy envisages Ethiopian peasants to be market oriented and competitive with out any subsidy notwithstanding most farmers in the world particularly in the North are highly protected and subsidized.

The existing extension package adds very little to agricultural production. The inherent weakness of the extension package, in addition to the input delivery policy discussed above, is that its success is measured against the number of peasants and the size of farmlands it involves. Productivity or the improvement of the livelihoods of peasants has always been a subsidiary issue to assess the success of the extension package.

There are still the same structural problems which the economy inherited from the previous regimes. Agriculture is still predominantly traditional, backward and smallholding peasant agriculture.

#### **4. The Outcomes**

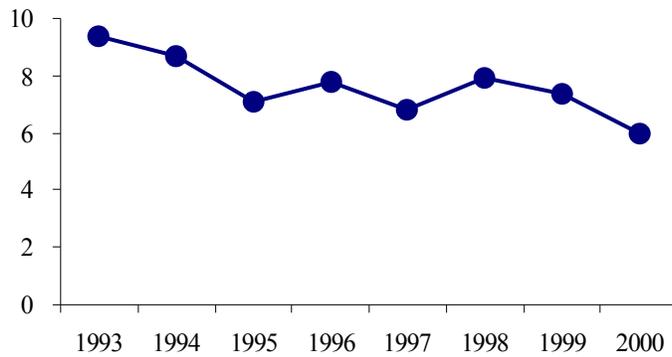
As mentioned in the preceding section, the fiscal, foreign exchange and trade policy of the current regime has a serious effect on agriculture. As part of fiscal adjustment, agricultural subsidies on fertilizer were removed and overall decline in share of agriculture in public expenditure observed. The following figure reveals this.

Figure 4.1 Trend in the share of agriculture from total public expenditure (in %)<sup>14</sup>

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<sup>13</sup> A source interviewed in Keeley and Scoones (1998) reported that ‘at the moment SG-2000 farmers are put in prison for being unable to repay credit when the rains fail’ [in parts of southern region], (Dercon 1999:52, footnote 17).

<sup>14</sup> This represents only the Federal government budget.



Source: Ministry of Finance and Economic Development

As may be observed, despite the declared intent of focusing on agriculture through the ADLI development strategy, the budgetary figures are extremely small and declining as compared to the pre reform period. When compared with general services, which account for 55 percent in the pre reform period and 47 in the post reform period and social services, which accounted for 20 percent and 23 percent before the reform and after the reform, respectively, the share of agriculture is very small both in absolute and in relative terms. Removal of fertiliser subsidies and general policy of cutting government expenditure relative to the national income has adversely affected the relative share of public expenditure in agriculture.<sup>15</sup> A critical factor for Ethiopian peasants' to be a bread winner is the removal of subsidies since 1997. As indicated in Table 4.1, the price of fertiliser has increased sharply since 1997. The rate of increment of the price of fertiliser was much higher than that of the price of agricultural produce.

Table 4.1 Fertiliser and main food crops prices (Birr per quintal)

	Average price of DAP	Average price of teff	Maize	Wheat	Ratio of DAP/teff	Ratio of DAP/maize	Ratio of DAP/wheat
1987	79.5	80	32	80	0.99	2.48	0.99
1990	88.8	126.5	45.25	71	0.70	1.96	1.25
1992	107.1	196.33	87.25	133.5	0.55	1.23	0.80
1995	178	201	105.33	137	0.89	1.69	1.30
1996	200	150.33	61	119.33	1.33	3.28	1.68
1997	248.84	154.67	82.75	128.5	1.61	3.01	1.94
1998	238.13	184.33	92.25	144.67	1.29	2.58	1.65
1999	249.82	213.67	120.5	179.33	1.17	2.07	1.39
2000	282.06	206	103.5	159	1.37	2.73	1.77
2001	287.06	148.33	33.75	74	1.94	8.51	3.88

Source: Getnet and Assefa, 2004

As can be observed from the Table, the terms of trade were aggressively moving against crop prices. For instance, in 1992 only about half a quintal of teff was enough to buy a quintal of DAP. In ten years time this has increased almost four fold. Two quintals are required to buy the same quality and size DAP in 2001. With regard to maize, in 1992 only 1.2 quintal of maize was enough to buy a quintal of DAP. In ten years time this has increased seven fold and 8.5 quintals of maize are required to buy the same DAP. This is believed to expose smallholder farmers to adverse terms of trade and is believed to adversely affect agricultural production.

<sup>15</sup> Total public expenditure has declined from 27.6 percent of GDP in 1981-1992 to 25.7 percent for the period 1993-2000.

Thus, agriculture is still under funded and despite the current regime claims on agriculture-favoured policy, the situation is getting worse. Agriculture is not still accorded the importance it deserves.

With regard to land policy, it remained the same notwithstanding the change in economic regime; from command economy to market economy. This brought about adverse consequences in relation to the endowments of peasants, and particularly land, which is the most important means of production. This could be measured in terms of the size of land each peasant possessed.

Different estimates of land size have been made at different times since the second half of 1960s. The estimates we have, relating to the end of 1960s, suggests that that 90 percent of the peasant farmers had less than five hectares of land (IEG, 1968). Since then, the size of privately owned holdings has deteriorated considerably, with this deterioration continuing unabated. This is illustrated in Table 4.2 below.

Table 4.2 Distribution of size of holdings (percentage share).

	1967	1974/75	1995/96	2001/02*	2001/02**
0.0-0.5	-	31.1	37.5	55.7	36.7
0.0-1.0	-	57.6	62.9	80.2	62.5
0.0-2.0	-	81.0	86.7	95.9	87.0
2+	-	19.0	13.3	4.1	13.0
0.0-5.0	90.0	96.2	99.2	99.8	99.0

Source: IEG 1968, Ministry of Agriculture 1975:59, CSA 1996 and 2003.

\* Refers crops only and \*\* refers all holdings

As may be observed, while the percentage of households whose holdings were one hectare or less has increased overtime, the share of households whose holdings exceeded 2 hectares has decreased. During the 1995/96 cropping season, about 63 percent of farm households had holdings measuring less than one hectare, with 60 percent owning less than half a hectare. The number of holdings exceeding 5 hectares in size declined from 10 percent, in 1967, to 0.8 percent in 1995/96. The recent figure is worrisome. 80 percent of farm households have holdings less than one hectare to produce crops of which 69.5 percent has less than half a hectare. The average size of holding for Ethiopian rural household including all other plots for non-farm purposes is only 0.85 hectare.<sup>16</sup>

This may not be surprising if we consider the institutional constraint on access to land, on the one hand, and the population increase, on the other. The country is endowed with sufficient cultivable land. Indeed, according to estimates made in 1954, of the total arable land, only 13.6 percent was cultivated (IEG, 1957:14).<sup>17</sup> In 1982 this increased to an estimated 15.8 percent (MoA, 1982 as quoted in Berhane, 1984:34), while a recent estimate, which excludes Eritrea, suggests that about 22 percent is under cultivation.<sup>18 19</sup> It follows, from the above, that the deterioration in size of holdings is neither an exogenous root cause of Ethiopian agrarian malaise nor that it was generated by population pressure alone. Rather, it would appear to be the immediate cause and/or the outcome of

<sup>16</sup> See CSA, 2004:102

<sup>17</sup> There are a number of different estimates, which are close to this one. World Bank (1984:25) claimed that about 15 to 20 percent of arable land is currently under cultivation. Robinson and Yamazaki (1986:329) also reported that, while 70 percent of total land area is considered agricultural, only about ten percent of this is cultivated on a regular basis.

<sup>18</sup> Computed from MEDaC, 1999:146

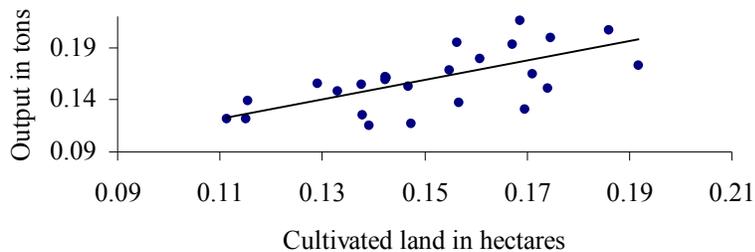
<sup>19</sup> It should be remembered, however, that additional land that can be brought under peasant cultivation is subjected to considerable government support, in creating the necessary condition in terms of different infrastructure since most of the areas are in low lands, where peasants and animal husbandry may be affected by different diseases. Also One could also envisage an expansion into non-arable lowland areas through developments in irrigation, since these areas are drained by major rivers, which have a high potential for irrigation

policy failure. It should also be remembered that the small size of holdings only becomes problematic when traditional techniques of peasant agriculture are applied. The land policy, as it manifests itself as policy/institutional constraint to increase size of holding, is the main cause for declining farm size. Thus, this policy actually aggravated the poor performance of peasant agriculture.

The institutional barrier and lack of government support in peasant agriculture to expand cultivated land, in addition to dwindling the size of holdings, also generates intensive cultivation and compromised traditional techniques of maintaining soil fertility. Crop rotation and bare fallowing, one of the traditional techniques of maintaining soil fertility, are now very difficult to practice. Fallow land, for instance, was estimated to comprise more than 2 million hectares in the late 1960s, (IEG, 1968: 183). In the early 1980s this declined to 20800 hectares (MoA, 1982:1-2 as quoted in Berhane, 1984:34), a reduction of 27.8 percent per annum, on average.<sup>20</sup> The decline in fallow land, which is also used to provide pasturage for livestock, combined with the deterioration of grazing land, compromises the other traditional ways of regenerating soil fertility. Crop residues, which were kept for regenerating soil fertility through compost, are now used as animal feed. According to Mulat et al (1997:3) the usage of crop residues as animal feed actually aggravates soil degradation and erosion, and hence worsens the overall fertility of the soil.

The overall pattern seems that there was no improvement in the quality of land, which might compensate for the decline in size of holdings. The deterioration in size of farm holdings have, therefore, weakened the productive capacity of land and, hence, resulted in low and stagnating yields and sharply declining output per head. In the context of traditional peasant agriculture, therefore, it is very likely that there would be a positive behavioural relationship between the patterns in size of holdings per capita and output per capita. The scatterplot in Figure 4.2 suggests that this contention does, in fact, hold.

Figure 4.2 Output and cultivated land per head (private peasant holdings):1974-99



Source: Befekadu, Berhanu and Getahun 2000/2001 and CSA, Statistical Abstract, various issues

It follows, from the above, that peasants are no longer able to produce enough food to meet the needs of their family members, without either increasing the size of holdings or adopting improved techniques and modern inputs. Indeed, with this small size of holdings, even if there is reliable rainfall, peasants cannot produce enough. This would appear to be supported by a peasant response to B.B.C. World service, television interview. At the end of their discussion, the interviewer commented, 'next year there will be good rain and you will have enough produce'. The peasant informant replied, 'no, even if there is good rain, I will not be able to produce enough food for my family as the size of land I have is very small'.<sup>21</sup> Since land is the major factor and determinant of food production, its deterioration has an adverse consequence on food security.

<sup>20</sup> The period considered is from 1968 to 1982.

<sup>21</sup> BBC World TV channel, Earth Report Part I, Jan. 29, 2001, 23:30hrs in The Netherlands time.

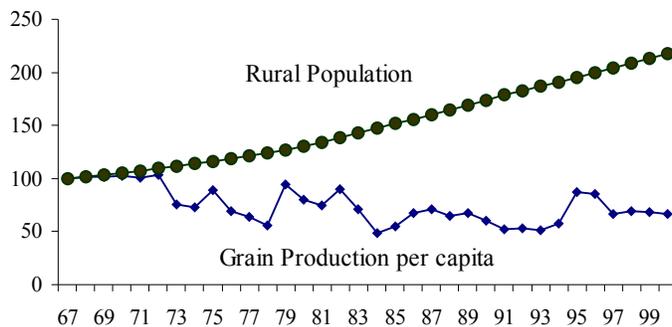
The adverse consequence on food production can be gauged by looking at the trend of cereal production per capita. Cereal production, per capita, has declined since the 1960s. In the following table we present the average growth rate per annum and the average increase in kgs per year/person.<sup>22</sup>

Table 4.3 Growth in food production per capita

	Growth rate (%)	Annual increase in kgs from the base value
1960-80 Pickett (1991:63)	-2.1	-3.1
1961-89 Webb and Braun (1994:32)	-	-4
1975/76-85/86 Brune (1990:17)	-5.5	-5
1979/80-86/87 Befekadu (1990:63)	-6.1	-10

My own computation appears to tell the same story. Domestic grain production, per capita, declined from 170 kgs, in 1967, to 105 kgs in 1999, a decline of 2.03 kgs/year/person from the base value. Considering rural population alone, grain production declined from 182 kgs in 1967 to 124 kgs in 1999. Figure 3.4 graphs the decline in food availability relative to rural population.

Figure 4.3 Rural population and food production per capita (indices, 1967=100)



Source: Same as Figure 4.2

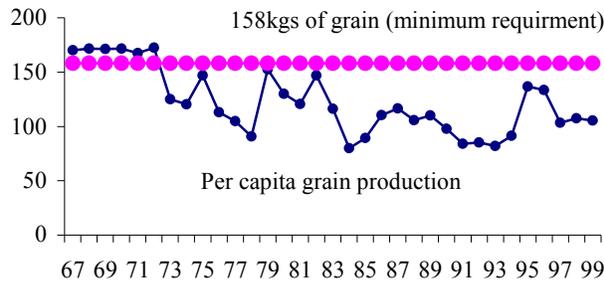
As may be observed, the gap between the population and what they produced to eat was not only wide but actually increasing, over time.

Figure 4.4 compares the per capita grain production in Ethiopia with the minimum amount of grain required to meet the basic minimum calorie requirement per person.

Figure 4.4 Food availability/head/year and basic minimum requirement of grain/head/year (in kgs)<sup>23</sup>

<sup>22</sup> Except Webb and Braun, figures are computed from the mentioned source. While Befekadu has estimated a decline from 194.7 kgs to 125.3 kgs, Pickett and Brune have suggested a decline from 175 kgs to 114 kgs and 154 kgs to 104 kgs, respectively.

<sup>23</sup> Considering the fact that about 70 percent of the Ethiopian diet is in the form of cereals (Mulat et al, 1997:5) and a level of grain consumption of 225 kgs per person/year is recommended by the Ethiopian Medical Association (as quoted in *Ibid*:5) to meet the basic minimum caloric requirements, 158 kgs of cereals per person/year (70% of 225 kgs) is needed as a minimum requirement. To calculate per capita grain production we took in to account 7 percent of seed



Source: Same as Figure 4.2

As may be observed, since 1973 there is a consistent national deficit in food production. The country has terribly failed to produce the minimum grain production level to meet the minimum requirement of 158 kgs per person per year. Although there is no decline in recent times in terms of per capita food production, the absolute numbers of smallholders that are forced to live below subsistence and starve through out the year have increased significantly (see Table 4.4 below). Currently, nearly 50 percent of the rural household are below subsistence/poverty line which implies that they have to spread/smooth the consumption of what they produce for the whole year through daily starvation. It is, therefore, plausible to argue that the number of people who are vulnerable to famine has increased tremendously.

Further empirical support can be provided in the following context. Suppose we distribute all the food produced to all people to meet the basic minimum requirement, 158 kgs of cereal, we will end up with 15.5 million people with no grain for 1981-1992 period and 19.2 million people for 1993-2000 period. This means the ADLI strategy had very little to improve the vulnerability of Ethiopian peasants to recurrent famine.

Table 4.4 Per capita grain production and number of people with no food in the form of grains (period average)

	Per capita grain production (Kgs)	Deviation from minimum requirement per capita (Kgs)	Population (million)	Number of people (million) with zero Kg of grain <sup>24</sup>
1981-92	105.3	52.7	45.6	15.5
1993-00	107.7	50.3	60.5	19.2

Source: Same as Figure 4.2

It is now very clear that it is this macro factor that, through time, creates the poverty of the peasantry and hence generates their vulnerability to the havoc of periodic famine.<sup>25</sup>

## 5 Concluding Remarks

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requirement and 5 percent of production loss (MoA, 1978 as quoted in Ghose 1985:141). This does not include the part of the harvest sold to meet other needs (such as religious and social commitments, clothing, health care, education, taxation and other obligations).

<sup>24</sup> This is based on the assumption that suppose the total grain production is distributed to satisfy the basic minimum calorie requirement to all population of Ethiopia (158kgs of grain per head), on average, there would be around 15.5 million people with no grain to eat in every year for the period 1981-1991 and 19.2 million people with no grain to eat for the period 1993-2000.

<sup>25</sup> In Eshetu (1990b), it is argued that the pre-independence urban-biased policies and strategies still tend to dominate and agriculture is not accorded the importance it deserves. The result of this was/is food crisis.

The most important insight emerging from the discussion is that famine in Ethiopia can only be properly understood if the historical and policy process is considered. An important contribution of this discussion, in this regard, is that a clear distinction is made between famine caused by events or short-term effects, such as drought, war, and the like (as in most cases presented under the entitlements approach) and famine caused by a long-run change in the entitlement structure. Based on the Ethiopian data, it is suggested that famine is best understood not as a one-off short-term entitlement loss on food but rather in terms of food availability or absolute food shortfall caused by the long-run adverse effects of the development process. This kind of conceptualisation helps in the struggle to come out with a specific course of action to be taken to bring an end to the recurrent famine.

The course of action should involve a major development scheme in agriculture production including land policy. The most important item in the policy agenda is thus to transform the agricultural sector, in the sense of making it less sensitive to adverse weather conditions and less inelastic vis-à-vis the demand generated by the industrialisation drive. It is clear that to bring a fundamental change in peasant agriculture the amount of resources needed is quite large which is beyond the capacity of the economy. In the context of Ethiopian peasant agriculture, which is characterised by both institutional constraints (curbing extensive cultivation) and technical constraints (curbing intensive cultivation) a simultaneous action must be considered. The key issue, in this regard, relates to land policy and resource allocation. Land policy is clearly important, since farm sizes are not only small but also actually declining and becoming even more fragmented. Maintaining the current land policy (of state ownership) would only lead to the exacerbation of the current agrarian malaise. Output increases with farm size, improved techniques of production and advances in biological technology.

Thus, the existing land tenure must be changed where in the short run land can be consolidated and its size can be increased and in the long run it can be totally liberalised. The problem, however, is on the one hand; the capacity of non-agricultural sector to provide peasants with alternative means of livelihood is limited and in fact declining in recent times. On the other hand, to increase the employment generating capacity of the non-agricultural sector we need to increase the marketed surplus of food supply and this could best be achieved by way of large-scale farms, in which consumption per head is low for a given level of investment. This is a real challenge for policy, with the relevant issue being to strike an appropriate balance between strategies of increasing total output for a given level of investment and increasing marketed surplus for a given level of investment.

This might need a two phases and simultaneous action. Given the existing reality complete liberalisation of land may have adverse consequences. Potential buyers are very few in numbers. Land could be concentrated in few wealthy individuals and there could be a possibility that a lot many peasants could be marginalised from the land itself with no other alternative means of livelihood for the reason discussed above. Thus, land has to increase in its size and consolidated. This can be possibly achieved within the current land policy first by consider land as a factor of production instead of a constitutional one. Second by facilitating land transaction with clear and transparent institutional legal framework. It is also possible to have different tenure system based on each local context.

It is also possible to introduce a semi-liberalisation of land market within rural area, as a transition, until the time comes for complete liberalisation. Peasants can be provided with right to sell their lands. In order to prevent the immediate influx of peasants to cities and towns beyond the absorbing capacity of the non-agricultural sector, limitation on the amount of land that one can buy (for instance 10 to 20 hectares) is necessary. This will help for increasing size of holdings and land

consolidation in the short-run and facilitate for complete liberalisation of land market in the long-run. It also supports the transformation of agriculture from subsistence production to production for exchange.

Other means could also be exploited, in parallel, to maximise marketed surplus. Private commercial farms can be encouraged with appropriate government intervention in terms of the provision of social and economic infrastructure.

The provision of agricultural inputs at a subsidized rate for smallholders should also be considered as an important strategy in order to improve food production. There is also a need to shift the incentive mechanism for extension programmes from merely increase the number of peasants it involves to productivity increment.

Given the nature of structural problems and limited resources for bringing about the required changes in food production, it would be mistaken to rely exclusively on the market mechanism, as the current government intends.

## **Bibliography**

Befekadu Degefe (1990) 'Profile of the Ethiopian Economy', in World Bank 1990a.

\_\_\_\_\_ and Berhanu Nega (1999/2000) (eds) Annual Report on the Ethiopian Economy. Addis Ababa: EEA

\_\_\_\_\_, Berhanu Nega and Getahun Tafesse (2000/2001) (eds) Second Annual Report on the Ethiopian Economy. Addis Ababa: EEA

Berhane Belay (1984) Problems of Agricultural Development Strategies in Ethiopia during the Period of Transition to Socialism: 1974-82, A Master's Thesis, ISS, The Hague, The Netherlands.

Brune, S (1990) 'The Agricultural Sector: Structure, Performance, and Issues (1974-88)', In Pausewang et al 1990.

Central Statistical Authority (1996), Agricultural Sample Survey 1995/96, Vol. IV, Report on Crop Land Utilisation. Bulletin No. 152, Addis Ababa.

\_\_\_\_\_ (2003) Ethiopian Agricultural Sample Enumeration: Results at country level, Part I, CSA, Addis Ababa.

\_\_\_\_\_ (2004) Statistical Abstract, CSA, Addis Ababa.

Dejene Aredo. (1990) "The Evolution of Rural Development Policies' in Pausewang et al (1990).

Dessalegn Rahmato (1991) Famine and Survival Strategies: a case study from Northeast Ethiopia. Uppsala: Scandinavian Institute of African Studies.

\_\_\_\_\_ (1995) Peasant Agriculture under the Old Regime in Shiferaw Bekele 1995b.

- Eshetu Chole (1990a) 'Agriculture and Surplus Extraction: The Ethiopian Experience' in Pausewang et al (1990).
- \_\_\_\_\_ (edr) (1990b) Food Crisis in Africa: Policy and Management Issues, AAPAM.
- Getnet and Assefa (2004) The Impacts of Macro policy reform on Child Well being: A Micro-macro linkage, SCUK, Addis Ababa.
- Ghose, A. K. (1985) 'Transforming Feudal Agriculture: Agrarian Change in Ethiopia since 1974' in Saith, A. 1985c.
- Hansson, G. (1995) The Ethiopian economy, 1974-94: Ethiopia Tikdem and after. London: Routledge.
- IEG (Imperial Ethiopian Government) (1957) First Five Year Plan (1958-62). Addis Ababa: IEG.
- \_\_\_\_\_ (1962) Second Five Year Plan (1963-67). Addis Ababa: IEG.
- \_\_\_\_\_ (1968) Third Five Year Plan (1969-73). Addis Ababa: IEG
- Mesfin Wold Mariam (1986) Rural Vulnerability to Famine in Ethiopia - 1957-77. London: Intermediate Technology Publication.
- \_\_\_\_\_ (1991) Suffering under God's Environment: A Vertical Study of the Predicament of Peasants in North Central Ethiopia. Switzerland: University of Berne, Institute of Geography, The African Mountains Association and Geographica Bernensia.
- MEDaC (Ministry of Economic Development and Co-operation) (1999) Survey of the Ethiopian Economy: Review of Post Reform Developments: Final Draft. Addis Ababa.
- MoSFD (Ministry of State Farm Development) (1989) State Farm in Ten-Year period, prepared in Amharic, Addis Ababa.
- Mulat Demeke, Ali Said and T.S. Jayne (1997), 'Promoting Fertiliser use in Ethiopia: The Implication of Improving Grain Market Performance, Input Market Efficiency and Farm Management.' Working Paper No. 5. Addis Ababa: Grain Market Research Project, Ministry of Economic Development and Co-operation.
- National Bank of Ethiopia (various years) Annual Report.
- Osmani, S.R. (1993) The entitlement approach to famine: an assessment. Helsinki: World Institute for Development Economics Research of the United Nations University (WIDER).
- Pausewang, S et al (eds) (1990) Ethiopia: Options for Rural Development. London: Zed Books Ltd.
- Pickett, J. (1991) Economic Development in Ethiopia: Agriculture, the Market and the State. Paris: OECD.
- PMAC (Provisional Military Administrative Council) (1984) Ten-Year Perspective Plan: 1985-94, prepared in Amharic. Addis Ababa: PMAC.

Robinson, W.C. and F, Yamazaki (1986) 'Agriculture, Population, and Economic Planning in Ethiopia, 1953-1980' *The Journal of Developing Areas*. 20(3): 327-37.

Saith, A (1985a) 'Primitive Accumulation, Agrarian Reform and Socialist Transitions: An Argument' in Saith, 1985b.

\_\_\_\_\_ (ed) (1985b) *The Agrarian Question in Socialist Transitions*, London: Frank Cass & Co. Ltd.

Sen, A. K (1981) *Poverty and Famines*. Oxford: Clarendon.

Shiferaw Bekele (1995a) *The Evolution of Land Tenure in Shiferaw Bekele 1995b*.

Shiferaw Bekele (ed.) (1995b) *An Economic History of Ethiopia: The Imperial Era: 1941-74*, Vol. 1, CODESRIA.(??)

Tekie Alemu (1999) *Land Tenure and Soil Conservation: Evidence from Ethiopia*, Kompendiet-Goteborg, Sweden.

Webb, P. Braun, J. von and Yisehac Y. (1992) *Famine in Ethiopia: policy implications of coping with failure at national and household levels*. Washington, DC : International Food Policy Research Institute (IFPRI).

Webb, P. and Braun, J. von (1994) *Famine and food security in Ethiopia: lessons for Africa*. Chichester: Wiley for the International Food Policy Research Institute (IFPRI).

World Bank (1984), *Ethiopia: Recent Economic Developments and Future Prospects*, Vol. 1, eReport No. 4683a-ET.