### FOOD INSECURITY IN ETHIOPIA

A discussion paper for DFID

Stephen Devereux IDS Sussex

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#### **Executive Summary**

Food insecurity in Ethiopia derives directly from dependence on undiversified livelihoods based on low-input, low-output rainfed agriculture. Ethiopian farmers do not produce enough food even in good rainfall years to meet consumption requirements. Given the fragile natural resource base and climatic uncertainty, current policy emphases on agricultural intensification are misguided, while institutional constraints such as inflexible land tenure and ethnic federalism perpetuate this unviable livelihood system. Inappropriate food aid interventions by donors add another layer of dependence, at both household and national levels. This paper concludes by proposing a range of options for consideration by donors and government to redress chronic and transitory food insecurity. Recommendations for immediate action include improved food aid targeting and safety nets programming. Medium-term interventions focus on recapitalisation of assetless households, plus agricultural yield stabilisation. Long-term strategies must involve diversification away from rainfall-dependent livelihoods.

"Perhaps the greatest challenge that the country faces is that of ensuring food security. This is so because of the low technological base of agriculture, limited rural infrastructure and off-farm employment compounded by neglect and inappropriate policies over many years. The food security strategy, whose implementation has begun, is meant to break the complex problems to close the food gap and ensure food security."

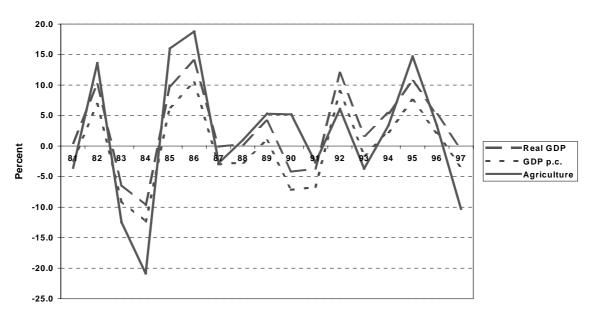
~ Mekonnen Manyazewai (2000:14), Vice-Minister, Ministry of Development and Cooperation (MEDAC), Government of Ethiopia

#### Introduction<sup>1</sup>

- 1. Food insecurity incorporates low food intake, variable access to food, and vulnerability a livelihood strategy that generates adequate food in good times but is not resilient against shocks. These outcomes correspond broadly to chronic, cyclical and transitory food insecurity, and all are endemic in Ethiopia. The main triggers of transitory food insecurity in Ethiopia are drought and war. Seasonality is a major cause of cyclical food insecurity. Structural factors contributing to chronic food insecurity include poverty (as both cause and consequence), the fragile natural resource base, weak institutions (notably markets and land tenure) and unhelpful or inconsistent government policies.
- 2. Ethiopia has been structurally food deficit since at least 1980. The food gap rose from 0.75 million tons in 1979/80 to 5 million tons in 1993/94, falling to 2.6 million tons in 1995/96 despite a record harvest (Befekadu and Berhanu 2000:176). Even in that year, 240,000 tons of food aid were delivered, suggesting that chronic food insecurity afflicts millions of Ethiopians in the absence of transitory production shocks.
- 3. The distinction between transitory and chronic food insecurity is increasingly blurred. A subgroup of virtually assetless rural Ethiopians is emerging who are subjected to all forms of food insecurity. They cannot meet their food needs even under ideal weather conditions, they suffer seasonal hunger and malnutrition, and they are acutely vulnerable to famine in years of low or erratic rainfall. Less well understood than the immediate impact of drought on rural livelihoods is the impact of repeated droughts on long term food insecurity. Two vicious cycles are at work: recovery (e.g. of herds) from food crises is cut short by the next drought, and the threat of drought which occurs frequently but is unpredictable in its timing and severity inhibits investment in productivity-enhancing agricultural inputs, because the downside risk for marginal farmers is too high.
- 4. Current conventional wisdom on food insecurity in Ethiopia asserts that the problem can be simply conceptualised, as follows:
  - Landholdings are too small although (or because) unusually evenly distributed to allow most farming households to achieve food production self-sufficiency;
  - Population increase reduces landholdings further and places intolerable stress on an already fragile natural resource base;
  - Soil fertility, already very low, is declining due to intensive cultivation and limited application of yield-enhancing inputs;
  - Recurrent droughts add food production shocks to abnormally low yields;
  - Limited off-farm employment opportunities restrict diversification and migration options, leaving people trapped in increasingly unviable agriculture.

<sup>&</sup>lt;sup>1</sup> I am grateful for useful discussions in the course of drafting this paper to the following: Kenny Dick and Bruce Kilby (DFID, London), Abi Masefield (DFID, Ethiopia), Dessalegn Rahmato (Forum for Social Studies, Addis Ababa), Yared Amare (Addis Ababa University), Feyera Abdi (SOS Sahel, Ethiopia), Stephen Blight and John Graham (SCF-UK, Ethiopia), Kay Sharp (formerly FEWS project, Ethiopia), Robert Chambers and Ian Scoones (IDS Sussex). All opinions and interpretations in this paper are my own and do not necessarily reflect the views of DFID nor any of the individuals consulted.

5. The poor performance of Ethiopian agriculture is certainly a large part of the explanation. Figure 1 illustrates the extreme variability of agricultural performance during the 1980s and 1990s, ranging from -20% to +20% growth, with no discernible average or 'normal' year. Figure 1 also reveals the close correlation between agriculture and GDP. The entire Ethiopian economy is dependent on low productivity rainfed agriculture, and rainfall is the single most important determinant of Ethiopia's economic success or failure from year to year. The implications for food security in the longer term are twofold. On the one hand, a structural transformation of agriculture is urgently needed - for instance, through the promotion of technological inputs, or land tenure reform, to raise yields. On the other hand, given the inherent vulnerability of agriculture, the role of agriculture in the economy must eventually be reduced by significantly increasing growth in other sectors (Befekadu and Berhanu 2000:29).





6. Yet agricultural failure is only part of the story. Following Chambers (1983), analysts of food insecurity in Ethiopia can be divided into two groups: the 'physical ecology cluster', who focus on population growth, declining soil fertility and drought, and the 'political economy cluster', who blame government policies, weak markets and institutional failure.<sup>2</sup> Both the 'malthusian' and 'governance' approaches have some merit as partial explanations, but neither is sufficient in itself. A holistic 'livelihoods' analysis is needed.

#### **Incidence of food insecurity**

7. Since food production and population statistics in Ethiopia are notoriously unreliable, all estimates of national food availability and consumption requirements are 'guesstimates' at best. During the late 1980s, 52% of Ethiopia's population consumed less than the recommended daily allowance of 2,100 kcal, but in the record harvest year of 1995/96

<sup>&</sup>lt;sup>2</sup> An example of the 'physical ecology' discourse: according to Holt and Dessalegn (1999:i), poverty in rural Ethiopia is "a result not simply of drought but of an increasing shortage of the barest assets needed for agricultural survival. ... The root factor is common to much of the rest of Ethiopia: ever greater density of the rural population through natural increase". An example of the 'political economy' discourse comes from the World Bank (2000:170): "Centuries of poor policies and institutional failures are the primary cause of Africa's under-capitalised and uncompetitive agriculture. Adverse resource endowments have also had some direct effects".

this proportion fell only to 43% (Clay *et al.* 1999:407). This figure approximates the 40% of rural households who farm less than 0.5 hectares ('starvation plots', in Dessalegn Rahmato's phrase), which is inadequate to meet subsistence food needs even in good rainfall years. Ethiopia suffers from structural as well as transitory food deficits, requiring substantial commercial and concessional imports in non-drought years, and extremely high levels of food aid in drought years. Table 1 shows that the population estimated as needing assistance in the past five years alone has risen from 2.7 million in 1996 (a bumper harvest) to 7.7 million in 2000 (a drought year).

Year	Estimated Crop Production (MT)	Estimate of Needy Population	Estimated Food Aid Requirement (MT)
1995	-	4.0 million	492,000
1996	11,800,000	2.7 million	262,000
1997	8,800,000	3.4 million	329,000
1998	11,300,000	5.3 million	602,000
1999	10,700,000	6.6 million	460,000
2000	-	7.7 million	896,936

# Table 1. Estimated crop production, food aid requirements and needy population in Ethiopia, 1995-2000

Source: Masefield 2000:3

- 8. Although food insecurity and poverty are conceptually and empirically distinct, in Ethiopia the overlap between the two is greater than in most countries.<sup>3</sup> Real GDP grew at just 1.9% during the 1980s, which, given population growth of 3.1% produced a negative per capita growth rate of -1.2%. Agricultural growth, at 2% per annum negative in four years of drought during the decade was insufficient to maintain per capita food consumption. Ethiopia's economic performance has improved since the EPRDF took power from the Derg in 1991. GDP growth rates averaged 4.4% between 1991/2 and 1997/8, or 1.3% per capita (Befekadu and Berhanu 2000:18). Agricultural performance was weaker and more variable, however, averaging only 1.6% per annum. Ethiopia's growth in the 1990s was driven by industry (7.9% p.a.) and services (7.6% p.a.) both starting from a very low base not by agriculture. The impact of this impressive growth performance on poverty has been limited, and on food security negligible.
- 9. Another indicator of the interconnectedness of food insecurity and poverty is that the government calculates poverty lines based on a food consumption norm of 2,200 kcal per adult per day. Using a 'national minimum consumption basket', the Welfare Monitoring Unit finds that 50% of the population is living in 'food poverty': 52% of rural and 36% of urban Ethiopians (Government of Ethiopia 1999:15). Food insecurity is also differentiated by wealth. A survey of food consumption in rural Ethiopian households found that transfers food aid from government, donors or NGOs, plus gifts from other households plus were the second most important source of food, after production and ahead of purchases, for all but the wealthiest 25% of the sample (Tekabe 1998:8).<sup>4</sup>

<sup>&</sup>lt;sup>3</sup> A basic distinction between poverty and food insecurity is the latter's focus on instability. While poverty indices measure headcounts, depth and severity at a point in time, food insecurity incorporates vulnerability as a determinant of illbeing. People are food insecure not only because their food consumption level is low, but also because their access to food is variable and unpredictable over time (from one year or season to the next).

<sup>&</sup>lt;sup>4</sup> In the poorest quartile, 42% of food consumption derived from production, 38% from transfers and 20% from purchases. Even the richest quartile was far from food secure or self--sufficient, deriving 54% of its food from the farm, 26% from the market and 20% from transfers.

#### Livelihood strategies and food insecurity

10. Rural livelihood strategies include agricultural extensification (increasing farm size) and intensification (raising farm yields), income diversification (off-farm economic activities), and migration (Scoones 1998). This section examines three dominant livelihood activities in Ethiopia: agriculture, income diversification, and pastoralism.

#### Agriculture

"The agricultural sector remains our Achilles heel and source of vulnerability. ... Nonetheless, we remain convinced that agricultural based development remains the only source of hope for Ethiopia."

~ Meles Zenawi, Prime Minister of Ethiopia, April 2000

- 11. Even by African standards, Ethiopia's economy is dominated by smallholder agriculture, which employed 89% of the labour force and contributed 56% of GDP and 67% of export earnings in 1997. Rural Ethiopia is also unusually undifferentiated: small farmers account for over 90% of total crop area and agricultural output (Bollinger et al. 1999:3). Food production in Ethiopia is highly variable and unpredictable, due mainly to erratic weather, which has triggered famines for centuries. A 10% decline in rainfall below its long-term average reduces national food production by 4.4% (von Braun 1991). Since the last major famine in 1984/5 - when excess mortality may have reached one million - droughts have affected northern Ethiopia in 1987/8, 1990/2 and 1993/4, and southern Ethiopia since 1998. Some droughts were exacerbated by civil conflict, which undermined food production and inhibited government, trader and donor responses to harvest failure. Militarisation also diverts resources away from support to agriculture and development programmes - as recently as 1991, spending on 'defence' amounted to 37% of GNP (Tekabe 1998:14). This factor has dissipated since the overthrow of the Derg and the secession of Eritrea in the early 1990s, but the recent conflict between Ethiopia and Eritrea eroded government response capacity and was directly responsible for the sluggish reaction of donors to the ongoing drought in southern Ethiopia (Mesfin 1999).
- 12. Ethiopian agriculture appears to be locked into a downward spiral of low and declining productivity, caused by an adverse combination of agroclimatic, demographic, economic and institutional constraints, trends and shocks. Some observers argue that a 'Malthusian crisis' is developing as rapid population growth (almost 3% per annum) is associated with steadily falling landholdings and per capita food production. Between 1960 and 1990 the population doubled from 23 to 48 million, while per capita landholding shrunk from 0.28 to 0.10 hectare, and per capita food output collapsed by 41% from 240 to 142 kg (Table 2,). As landholdings have declined, farmers allocate smaller proportions of their fields to non-cereal crops, which provide essential dietary diversity and cash incomes. Cereal yields have virtually stagnated, rising by only 0.5% per annum between 1980 and 1996 from 1.19 to 1.26 tons per hectare not fast enough to compensate for falling farm sizes (Befekadu and Berhanu 2000:160). Pressures on the physical environment increase inexorably, with forest cover, grazing land, livestock ownership, soil fertility and even rainfall all decreasing in many areas. A survey in Hararghe Region documented a 72% decline in barley yields over a 15-year period, due to soil erosion (ICRA 1996:35).

Year	Population	Landholding per capita	Food output per capita
1960/61	23,550,000	0.28 ha	240.2 kg
1969/70	28,784,400	0.25 ha	242.7 kg
1979/80	36,663,300	0.13 ha	204.4 kg
1989/90	48,648,800	0.10 ha	141.7 kg

 Table 2. Population, food production and landholding in Ethiopia, 1960-1990

Source: Befekadu and Berhanu 2000: 85

- 13. Future prospects for food production in Ethiopia are not encouraging. The Horn of Africa has been identified as one of the world's most vulnerable regions to climate change. Alternative models of global warming predict a rise in mean temperature for the Horn of 1-3°C by 2030, with consequent reductions in staple cereals yields of up to 30%, though precise impacts on agriculture are impossible to predict (Parry 1990:85).
- 14. So is focusing policy attention on agriculture the solution to food insecurity or part of the problem? There is a persistent belief in Ethiopia that national self-sufficiency is both necessary and sufficient to achieve household food security. This logic was shown to be misguided in 1996. Despite record harvests and food prices 20-40% lower than their inflation-adjusted average since the 1984 famine, many households remained unable to access adequate food. A government report concluded: "The current situation is therefore one of food abundance co-existing with widespread food insecurity" (MEDAC 1996:1). Nonetheless, this bumper harvest prompted the government to declare that Ethiopia had "crossed the great divide" (Masefield 1997) from chronic food insecurity and aid dependence to national self-sufficiency. This premature optimism (given the subsequent three years of poor rainfall that resulted in the drought emergency of early 2000) failed to take into account the strong correlation between rainfall and agricultural yields: good rainfall equals good harvests, but the converse is equally inevitable.
- 15. Dependence on unreliable and low-productivity rainfed agriculture may well be the primary determinant of household food insecurity in Ethiopia. Arguments that centre on enhancing access to agricultural inputs fertilisers, draught oxen implicitly assume that household food security can be achieved by increasing food production on individual farms. <sup>5</sup> The productivity of Ethiopian agriculture is among the lowest in the world around 1.2 tons per hectare (World Bank 1999:viii). Although higher yields are possible through agricultural intensification, the evidence suggests that "average land holdings would be insufficient to feed a family of 5 even if production could be successfully increased three times with the use of improved technology" (Masefield 2000:4).
- 16. The government's strategy of Agriculture Development Led Industrialisation (ADLI), as formulated in 1994, views agriculture as the driving force of the economy, and argues for investment in agriculture as both a motor for economic growth and a means of ensuring household and national food security. ADLI aims to promote the adoption of improved technological inputs and practices, in order to raise agricultural productivity and generate savings for investment in other sectors. The major components of ADLI include: input provision to peasants, promotion of small-scale irrigation, improved livestock herds, environmental protection and natural resource management, grain marketing efficiency, promotion of farmers' organisations and women's participation in agriculture, expanding rural roads (Holt and Dessalegn 1999:2). Like most strategy documents, the ADLI is strong on rhetoric but low on detail, and it has been only partially implemented to date.
- 17. Nonetheless, a number of agricultural development programmes have been put in place in recent years. These include the Participatory Demonstration and Training Extension System (PADETES), which disseminates information on crops and inputs packages on credit, and the Sustainable Agriculture and Environmental Rehabilitation Program (SAERP), which aims to expand small-scale irrigation and watershed management schemes, thereby reversing environmental degradation and stabilising crop yields (Mekonnen 1999:10). By 1999 the extension programme was reaching 37% of rural households (2.8 million out of an estimated 7.5 million farmers), and maize yields among

<sup>&</sup>lt;sup>5</sup> An example of this questionable thinking comes from a draft UN strategy document on 'The Elimination of Food Insecurity in the Horn of Africa' (September 2000): "The fact that 80% of the population of the region live in rural areas means that increasing agricultural productivity and production in various ways, will be the principal approach to solving the problem of long term food insecurity." Of course, the inherent vulnerability of agriculture suggests that the case for solving food insecurity by diversifying out of agriculture could be argued with equal force.

participating farmers had apparently quadrupled, from 1,200kg/ha to 4,700kg/ha (Tekabe 1998:22).

- 18. Farmers' access to fertilisers was undermined by sharp increases in prices during the 1990s, firstly following the devaluation of the Birr in 1993, then by the elimination of fertiliser subsidies and and pan-territorial pricing in 1996, and the decontrol of input prices and marketing in 1997 (Carswell et al. 1999:9). The Commercial Bank of Ethiopia, the Development Bank and the Bureau of Agriculture all extend input credit to farmers. including in-kind loans through Sasakawa Global 2000. There are reports that agricultural extension workers with quotas to fulfil are coercing farmers into taking inputs packages ('models') which many resist, knowing that the seed varieties and fertilisers delivered require high levels of moisture and are not well adapted to Ethiopia's variable rainfall regime (Ayelegn and Shirega 2000:26). No grace periods or debt write-offs are given in drought years, and poor farmers are often forced into selling their food production at low post-harvest prices to repay their loans. Defaults occur for several reasons: inability to repay following drought-triggered crop failure, loan diversion to non-agricultural uses, high fertiliser prices and lack of markets for produce. A study in Oromiya Region found that repayment was positively correlated with livestock ownership - a proxy for wealth and negatively correlated with spending on social ceremonies (Belay and Belay 1998:61). Farmers who fail to repay agricultural loans have been imprisoned. Because of chronic poverty, access to informal credit is also limited. Only 29% of 300 households in a survey in Wollo had taken a loan during the previous year, though many had tried and failed. Half these loans came from relatives and half from credit associations (FSCO 1999:23).
- 19. Clearly, agricultural performance must improve if the food security of the majority of Ethiopians who depend on farming is to be enhanced. But more attention must be given to stabilising yields disseminating drought-resistant varieties to farmers in marginal areas, rather than high-yielding but riskier varieties, for example and access to inputs must be provided on more reasonable terms. More attention also needs to be given to the needs of the landless and effectively landless farmers on tiny 'starvation plots' for whom agricultural-based livelihoods are less sustainable from year to year. These people are chronically food insecure and will require recurrent relief until viable alternative livelihood options open up for them. Unpalatable though this may be to policymakers, the long-term solution to food insecurity for the effectively landless may lie in providing an enabling environment for rural differentiation allowing successful farmers to accumulate land and raise their agricultural productivity, *inter alia* by hiring labour provided by a class of landless labourers.

#### • Income diversification

20. Most Ethiopians are 'sub-subsistence farmers' who have been forced to diversify into off-farm incomes to bridge their annual consumption gap, while some are effectively landless and depend entirely on non-agricultural sources of food and income, including food aid.<sup>6</sup> The typical rural livelihood strategy combines crop and livestock agriculture, off-farm income-generating activities (daily labour, petty trading, seasonal migration) and dependence on food aid (mostly delivered with a work requirement). The main problem with available off-farm economic activities, apart from their low returns, is that most are directly or indirectly affected by rainfall, which limits their risk-spreading potential.<sup>7</sup> In areas where farming is unable to generate viable livelihoods, and this can not be solved

<sup>&</sup>lt;sup>6</sup> Following Ellis (2000:12), 'off-farm' means off-*own*-farm activities, while 'non-farm' refers to non-*agricultural* livelihood activities.

<sup>&</sup>lt;sup>7</sup> Household food security can also be undermined by other threats to off-farm incomes apart from rain failure. For example, thousands of Tigrayans used to travel to Eritrea for several months each year to labour in rural areas or in Asmara town. When the border was closed in 1997 because of political tension and commodity flows were restricted or taxed, these families lost a vital component of their regular livelihoods (Boudreau 1998).

through land redistribution or intensification, the solution is not to focus policy attention on agriculture, but to promote non-covariate non-agricultural livelihood options.

- 21. Off-farm employment opportunities in rural Ethiopia are limited in both availability and income-generating potential. Only 44% of rural households surveyed by the Ministry of Labour in 1996 reported any non-agricultural sources of income, and these contributed only 10% to household income (Befekadu and Berhanu 2000:179). Another survey in Hararghe Region confirmed that off-farm activities generated only petty incomes: women collect and sell firewood and forage, men and women seek irregular, low-paid work as farm labourers, and some men migrate seasonally (ICRA *et al.* 1996:28). In an Amhara Region survey, 25% of households had one or more members migrate during the dry season in search of work, mostly to nearby rural areas. One in three migrants had difficulty securing employment, while half brought back no food or income for their families (FSCO 1999:24).
- 22. Human capital is extremely low in Ethiopia, which is both a cause and a consequence of food insecurity, due to adverse synergies between poor education, health and nutrition status, and labour productivity. Illiteracy constrains access to skilled and semi-skilled off-farm employment literacy rates in Ethiopia are just 36% for males and 17% for females (CSA 1999:91) perpetuating dependence on low-input, low-output agriculture. Ethiopian children display some of the highest malnutrition levels in the world 55% being stunted and 45% underweight in 1998 (CSA 1999:135) which undoubtedly affects their cognitive development. 'Food economy baseline assessments' conducted by Save the Children UK in rural Ethiopia have consistently identified three critical determinants of relative wealth and household food security status: farm size, availability of family labour, and access to draught power (Boudreau 1998; Chapman and Haile Kiros 1999; Haile Kiros *et al.* 2000). As landholdings and livestock ownership fall, the most food insecure households are the labour constrained female- and elderly-headed households, people with disabilities, households affected by HIV/AIDS.<sup>8</sup>
- 23. One possible solution to unviable livelihoods in rural areas is to move, either to urban areas or to farm in parts of the country where arable land is available. In Ethiopia, both these options are problematic. Employment opportunities in towns are very limited, and there is little investment in job creation by government or by local or foreign investors. Excessive bureaucratic red tape discourages local businesspeople and deters inward investment, which is exacerbated by persistent uncertainty in the policy environment.
- 24. There is little spare arable land in rural Ethiopia, and the extent of landlessness or near landlessness is increasing. Land pressure is worse in some areas than others, and many farming households would certainly move if they could. People should be free to settle where they choose, but rigid institutional and administrative barriers including ethnically based regionalisation ('ethnic federalism'), state administered land redistribution and tenure insecurity all impose severe constraints on mobility. Anyone who leaves their community for a farming season risks losing their land. Farmers in severely degraded highland areas of Amhara Region have started to request resettlement, <sup>9</sup> and the Amhara Regional State Food Security Coordination Office recently completed a "reconnaissance"

<sup>&</sup>lt;sup>8</sup> Not only does HIV/AIDS selectively remove economically active adults from the labour force, the direct costs of the disease often exceed a poor household's annual income. A small survey of 25 AIDS-afflicted rural Ethiopian households in 1993 found that average treatment costs plus funeral expenses totalled 2,494 birr, at a time when net farm income varied between 270 and 620 birr per annum (Bollinger *et al.* 1999:4). The death of adult males is associated with an increase in female-headed households and a fall in farm yields.

<sup>&</sup>lt;sup>9</sup> This call for voluntary resettlement should be distinguished from the National Resettlement Campaign implemented by the Derg regime during the 1980s famine, when hundreds of thousands of people were forcibly resettled from northern Ethiopia to the south. This measure was widely perceived as driven more by political motivations than the interests of the resettled, and it certainly resulted in elevated mortality rates (Clay and Holcomb 1985).

survey of potential resettlement sites" (FSCO 2000), which identified some possible sites but cautioned that basic infrastructure needs to be in place before people are assisted to move. "In principle, voluntary resettlement from areas of land scarcity to areas of abundance may be the short and long term solution to the problem of landlessness. However, unless it is absolutely clear that an individual or a group of people has the right and the means to settle and make a living anywhere in the country, this may be nothing more than wishful thinking" (Aklilu and Tadesse 1994:19).

#### ♦ Pastoralism

- 25. Ethiopia's ±3.4 million pastoralists constitute roughly 7% of the population. Most live in the lowland areas of Afar (29%) and Somali (53%) regions, with smaller numbers in Oromiya and SNNPR (Sandford and Johannes 2000). Many pastoralist communities have become partially sedentarised in response to recurrent droughts, livestock disease, encroachment by cultivators, rangeland devegetation and degradation, and rangeland enclosure for dam construction, state farms or national parks. "[M]any people no longer have the livestock holdings to sustain a purely pastoral existence" (Holt and Lawrence 1991). Livestock income is supplemented with vegetable and cereals production, mainly around springs that provide small-scale irrigation. But adding crop farming to livestock rearing has limited risk diversification advantages, and should therefore be interpreted as distress diversification in the face of an increasingly unviable livelihood strategy.
- 26. The shift from nomadic pastoralism to sedentarised agropastoralism accelerated after the succession of droughts and famine that have decimated livestock herds since the 1970s. Including mortality, sales and slaughter, cattle herds were reduced by an estimated 72% in Afar region during the 1972/4 drought famine, by 60% in Borena during the 1984/5 famine, and by 78% in Somali and Borena areas during the 1995/7 drought (Sandford and Yohannes 2000:6). The cumulative effect of these shocks was to reduce herd sizes below levels that pastoralists consider viable to meet their food and cash needs and to reconstitute the herd. When the present drought started in southern Ethiopia in early 1998, herds had had no time to recover following the 1995/7 drought. Southern Somali and northern Oromiya Borena suffered catastrophic losses of cattle (possibly exceeding 70%) between May 1999 and May 2000. Pastoralism as a livelihood system has been further undermined by adverse terms of trade movements between livestock and cereals, especially in drought years (Ali 1996:204). During the 1984 drought, for instance, cattle prices fell by 70% while grain prices rose by 250% (Sandford and Yohannes 2000:37).
- 27. Livelihood diversification also includes salt mining and trading "What agriculture is for highlanders, salt is for us" (Afar trader, quoted in Assefa 1996:161) - and migration to the Middle East, both activities having the risk-spreading advantage of being independent of rainfall variability. Remittances are an important source of food security, especially in drought years. On the other hand, women and children left behind are economically and socially vulnerable, since remittances are uncertain and migration became more difficult during the 1990s, as Saudi Arabia expelled illegal immigrants, and pastoralists became increasingly dependent on agriculture and on irregular deliveries of food aid (Assefa 1996:158). During the 1990s, the proportion of Ethiopia's pastoralist population defined as being in need of assistance ranged from 10-22% until 1997/9, when it jumped to 40% (Sandford and Yohannes 2000:32). However, government institutions such as extension services are weakest in arid areas, where actual food aid deliveries are much lower than needs. In 1999, 76% of food aid needs in Afar and Somali regions were met, but in 1998 the figure was only 41% (Sandford and Yohannes 2000:35), an indicator of the slow response of donors to the drought emergency, and of the limited capacity of the Somali Region DPPB to distribute relief rations.

#### Responses to food insecurity

This section reviews Ethiopia's experience with food aid, and considers three topical policy issues: market development, access to land, and the role of government policy.

#### • Food aid

## *"It doesn't matter if it is raining here if it is raining in Canada."* ~ a popular saying in Ethiopia

- 28. Ethiopia is the world's most food aid dependent country. Although food aid is a standard response to transitory food insecurity (e.g. drought emergencies), in Ethiopia it has become an institutionalised response to chronic food insecurity as well. Annual food aid deliveries to Ethiopia since 1980 have varied from 200,000 to 1,200,000 metric tons. The number of 'needy' Ethiopians between 1980 and 1995 ranged from 2.5 million (1987) to 7.85 million (1992), and in the current drought emergency it stands at 7.7 million. Food aid deliveries to Ethiopia averaged 11% of national cereals production or 12kg per capita between 1985 and 1995, peaking at 26% in famine years (Clay *et al.* 1998:393).
- 29. Paradoxically, food aid may be the most important guarantee of household food security in rural Ethiopia. Transfers that are not correlated to rainfall or are introduced in the dry season and drought years (e.g. food-for-work) act as safety nets that mitigate agricultural risk and stabilise food consumption over time. One impact assessment found that food aid reduced the food deficit of recipients by 60% in 1995/6, from 753 kcal to 313 kcal/day (Tekabe 1998:2). Most food aid is delivered through food-for-work programmes such as the Employment Generation Scheme. Although the EGS has been positively evaluated, it does not provide a guaranteed access to food in the Maharashtra sense of 'Employment *Guarantee* Scheme'. Food deliveries are often late, rations are sometimes cut, and coverage of food insecure communities and households is limited (DPPC 2000:10).
- 30. Given the importance of food aid in poor households' livelihoods, poor targeting becomes a significant determinant of food insecurity (Sharp 1997). A recent study found that 78% of needy Ethiopian households received no food aid at all. Correlates of poor targeting include inaccurate proxy indicators of need, such as female-headed and elderly-headed households, and institutional rigidity which orients the food aid pipeline toward historically deficit areas a powerful determinant of food aid receipts is whether the recipient received food aid the previous year (Clay *et al.* 1999). This geographical bias can be interpreted in two ways. On the one hand, generous allocations of food aid to historically drought-prone regions has been held responsible for the neglect of the south during the current drought. On the other hand, rectification of historical neglect means that northern Ethiopia is arguably less famine-prone today than at any time in its history.
- 31. Ethiopia has not achieved effective 'drought-proofing', despite a recognition for decades that this is urgently needed. The National Disaster Prevention and Management Policy includes a National Emergency Food Reserve that aims to maintain a food stock capable of feeding 4.5 million people (Befekadu and Berhanu 2000:177), but this reserve was not replenished for several months after being drawn down during 1999. Also, despite three years of low rainfall and predictions of imminent famine by early warning systems, donor and government response to the drought emergency in southern Ethiopia was sluggish until the international media brought the situation to world attention. Contributory factors include: the lack of a food aid pipeline to the south, the sociopolitical marginalisation of Ogaden Somalis within Ethiopia, the logistical difficulties of reaching dispersed and mobile pastoralist populations, and strained relations between the donor community and the Ethiopian government because of the border war with Eritrea.
- 32. Food aid is no solution to chronic food insecurity, as evidenced by declining per capita food production since at least 1970. Nonetheless, Ethiopia remains ready to receive food aid every year, and the donors seem willing to continue providing food indefinitely. WFP's

food-for-work programme in Ethiopia is the largest and longest-running in the world. These reflex responses are allowing the government and donors to ignore the underlying causes of food insecurity. Even worse, a recent analysis found evidence of a disincentive effect on agricultural production, exacerbated by food aid's "continuance during good harvest years and its distribution in non-emergency regions of the country" (Teressa and Heidhues 1998:132). Part of the problem is the high volume of non-emergency food aid and food-for-work, which increases food supplies and depresses prices in local markets. To reduce dependency and create incentives for farmers and traders, at least where nascent markets exist, relief programming should shift from food to cash transfers - cash-for-work rather than food-for-work, possibly financed by monetisation of food aid.

- 33. The restructuring of the Relief and Rehabilitation Commission (RRC) to the Disaster Preparedness and Prevention Commission (DPPC) was associated with a shift towards reducing vulnerability and linking relief and development. For example, food-for-work programmes select community projects (such as soil and water conservation activities) that will enhance food production and reduce vulnerability to drought, thereby steadily reducing the numbers of people who are dependent on food aid. Food-for-work has also contributed to developing feeder roads and other physical infrastructure. Ethiopia has one of the world's lowest ratios of road per person - just 90cm (Webb and von Braun 1994). Rural Ethiopia suffers from a demographic paradox - too many people in parts of the country in relation to arable land; but too few people to provide economies of scale in public infrastructure. Almost 90% of the population live in the highlands (1,500+ metres above sea level), which has the advantage of being a relatively disease-free environment but all the disadvantages of inaccessibility. In this context, carefully designed food-forwork activities have great potential to improve opportunities for trade, market integration and drought resilience. To date the ultimate goal of phasing out non-emergency food aid altogether has not been realised, but the intention is correct and should be supported.
- 34. Food aid dependency undermines food security in Ethiopia at every level, from the household to the national government. The government produces policy documents such as the National Food Security Strategy and ADLI guidelines, but has little incentive to expend its scarce resources on food security programmes as long as the international community remains willing to sink its food surpluses into Ethiopia. For their part, the primary concern of the donors is to prevent famine, which reduces their food security strategy for Ethiopia to a food aid strategy, and explains why responding to annual food needs assessments dominates over multi-year planning and programming. More creative thinking is needed, together with an operationalised commitment by all stakeholders to achieve sustainable food security with dignity for all Ethiopians.

#### • Access to land

- 35. Land tenure insecurity is a severe constraint to peasant production. Redistribution of land by the state has achieved socially equitable outcomes, but at the cost of household food security. "Radical egalitarian measures, as practised in Ethiopia and Tanzania in the 1970s and 1980s, probably undermined overall farm production and food security, leading to increased poverty. This was due to the high level of insecurity generated by fears of further redistribution and a consequent unwillingness to invest effort in measures to improve soil conservation and enhance fertility" (Quan 2000:39).
- 36. The drive towards market liberalisation in Ethiopia has been accompanied by a renewed but unresolved debate around an appropriate land tenure policy. One side argues that private ownership will provide tenure security and improve land use efficiency, by encouraging investment, improved land maintenance and higher yields. The opposing argument is that state ownership combined with state allocation of usufruct rights (through regular equitable redistribution) is the only way of guaranteeing access to land

for all Ethiopians.<sup>10</sup> Some writers have proposed intermediate forms of tenure based on community-level land ownership and management. Rahmato (1994:12) introduced the idea of 'associative ownership': "land belongs to the community and the individual land users in it; it does not belong to the state".

- 37. The National Food Security Strategy of 1996 stated that: "to promote commercialisation of agriculture the government will strengthen security of access to land by developing regulations to frame a market-based leasehold system of transferable property rights throughout the country" (Republic of Ethiopia 1996). Subsequently the government has backtracked on this commitment. Land rights can now be transferred by inheritance within families, though the government retains ultimate disposal rights.<sup>11</sup> The government now argues that commoditisation would result in land concentration in the hands of rural elites, who would buy up land at distress prices when the poor face livelihood crises such as drought. This raises the twin spectres of mass displacement of rural people with no employment prospects the urbanisation of mass poverty and a reversion to quasifeudal social relations in rural communities, with an emerging class of landless labourers who would be deeply vulnerable to exploitation by wealthy landowners.<sup>12</sup>
- 38. Since land was redistributed proportional to household size, ownership of land (farm size) is less useful as an indicator of household food security status than access to land, which can be rented from other households. A recent analysis of sustainable livelihoods in southern Ethiopia (Carswell *et al.* 1999) found that, since the limits to extensification have been reached in many areas no 'new' land is available access to cultivable land is negotiated through various rental, borrowing and sharecropping arrangements between peasant households. A typical arrangement is to rent in land and pay the owner half the production from this plot. The reasons given for renting out land in a recent survey in Wollo centred on lack of labour strength elderly or female household heads and lack of draught power no ownership of or access to oxen (FSCO 1999:9).

#### Market development

- 39. Access to productive assets can derive from individualised ownership, but households that do not own key productive assets can also access them through informal sharing arrangements (e.g. *yerbee* for livestock), and markets (leasing land, hiring agricultural labour). Conversely, institutions and social relations can also impose barriers to resource access: for instance, inflexible land tenure systems prevent people from settling and farming where they choose, and patriarchal norms exclude women from lucrative income earning opportunities (gendered labour market segmentation). These institutional rigidities need to be addressed, and input and output markets must be promoted.
- 40. Access to food is mediated by market access and price fluctuations. Food price volatility undermines food security for the poor, who by definition are net food purchasers. Since 80% of food produced in Ethiopia is consumed on farm, market supplies are limited and prices are highly volatile. The solution lies in more efficient food marketing and trade, both between regions within Ethiopia and between countries in the IGAD region (Ayelegn

<sup>&</sup>lt;sup>10</sup> The 'privatisation' argument has been associated most strongly with the World Bank, though its attitude towards land policy in Africa has softened in recent years (cf. World Bank 2000:197). The 'state control' argument has been made most forcefully by the Ethiopian government. The debate is typically characterised as a trade-off between economic efficiency and social equity.

<sup>&</sup>lt;sup>11</sup> "We agree that peasants need to know that their access to land is secure in the long term. We feel that we have achieved the necessary levels of security by making it clear that access is a permanent right passed on through inheritance. How more secure can you get? This is security in perpetuity! However, we reserve the right to redistribute if necessary" (Meles Zenawi 2000).

<sup>&</sup>lt;sup>12</sup> "We do not see the commoditisation of land as economically rational at this point. ... We do not have the necessary levels of economic growth to allow for productive peasant displacement. Major social disruption would undoubtedly occur as a result of land sales. A significant unemployed and unemployable sector would result" (Prime Minister Meles Zenawi, April 2000).

and Shirega 2000:26). Inter-regional trade was banned by the Derg for many years, though agricultural marketing was liberalised during the 1990s. The Government of Ethiopia with USAID has established a grain market stabilisation programme "designed to stabilise grain prices, stimulate domestic production incentives and increase food security" (Tekabe 1998:2). Some improvements have been observed: for instance, grain price volatility fell during the 1990s, and food prices are gradually falling in deficit regions.

- 41. Inter-annual variability in food production is exacerbated by sluggish movement of produce between surplus and deficit regions within Ethiopia. This is due to both logistical constraints (which inhibits trader responses) and rural poverty (limited effective demand). Agricultural reforms during the 1990s have reduced the monopoly power of parastatals such as the AMC, but "the expected level of competition and private sector participation has not developed" (World Bank 1999:ix). Private traders have been discouraged by limited access to capital and storage facilities, and high transactions costs due to poorly developed road networks and the inaccessibility of food deficit communities.
- 42. During the record harvest year of 1996 the European Union implemented a local grain purchase program in Ethiopia, buying wheat, maize and sorghum in surplus regions in order to provide food aid to food insecure households, without undermining farmers and traders by importing food and depressing prices (MEDAC 1996). Similar interventions should be implemented even in years when Ethiopia is not nationally self-sufficient, to facilitate inter-regional trade and promote the private sector in agricultural marketing. Future interventions must provide both *opportunities* to traders (e.g. improving roads and marketing infrastructure) and *incentives* to traders (by raising rural incomes, and by generating confidence that traders will not be adversely affected by policy reversals).

#### • Government policy

- 43. A crucial factor for food security is policy stability and continuity. Uncertainty over the nature and extent of future state interventionism in the economy inhibits investment and contributes to risk-averse behaviour by farmers. Quite apart from the recurrent droughts and conflicts that have devastated rural Ethiopia for centuries and continue to do so in the year 2000 agriculture in Ethiopia has undergone three radical transformations in the past three decades alone. The overthrow of Haile Selassie following the 1974 famine was followed by the replacement of a landowner-dominated semi-feudal agrarian system with a "socialist transformation of agriculture" by the Derg. The Land Reform proclamation of 1975 nationalised all land, abolished landlordism and tenancy, and redistributed land to farmers on the basis of household size. This was followed by the formation of Peasant Associations and service cooperatives, state and cooperative farms, and a marketing parastatal. Villagisation and forced resettlement programmes were initiated that were intended to support the establishment of large-scale Soviet-style mechanised farms, but succeeded only in creating social and economic upheaval in the Ethiopian countryside.
- 44. In 1990 the Derg government took Ethiopia's first steps towards agricultural liberalisation, reversing its policies of the 1980s.<sup>13</sup> The twin goals of the Transitional Government of Ethiopia which followed the overthrow of the Derg in 1991, were improved food security and market-led economic growth. The transition from a "command economy [to] an economic system driven by market forces" (TGE 1993) was continued by the EPRDF-led government after its election in 1995. Implementing these objectives has included market liberalisation, decentralisation to a federation of 9 autonomous regions, and measures to raise agricultural production through yield-enhancing technologies. These policy shifts can be seen positively, as removing the constraints on peasant farming that heavy state

<sup>&</sup>lt;sup>13</sup> A speech by the then President Mengistu in March 1990 inaugurated the shift from a centrally planned to a mixed economy. Peasants were declared the legal owners of the crops they produced - quota deliveries were abolished - and hereditary usufruct rights over farmland were established. Grain market restrictions were relaxed and the Agricultural Marketing Corporation was exposed to competition on open markets for the first time (Pausewang *et al.* 1990:1).

interventionism brought with it, or negatively, as dismantling the state institutions that had provided vital inputs and services to farmers. The removal of constraints and impositions on peasants has been associated with the phasing out of fertiliser subsidies (under World Bank pressure) and restricted access to agricultural credit except on unfavourable terms.

- 45. One current initiative that has great potential if sufficiently supported by government and donors is the establishment of a regional state Food Security Coordination Office (FSCO) in each region. Activities implemented or planned by the FSCOs in support of their overall objective enhanced food security at the regional level include small-scale irrigation, microfinance, employment generating food- and cash-for-work projects, environmental rehabilitation, and improved rural infrastructure and marketing.
- 46. This brief historical digression is intended to illustrate two points. The first is that various alternative models of agricultural policy crudely, semi-feudalism, state socialism, and market liberalisation have failed to bring food security to rural Ethiopians or even to halt the steady decline of agricultural production per capita in recent decades. The second point is that rural Ethiopians have confronted an extraordinary amount of radical change in the policy environment within a single generation, all of which has contributed to a climate of uncertainty that is arguably as severe in terms of undermining incentives to invest in agriculture as the climatic uncertainty that farmers face each year. Excessive state interference in rural lives and livelihoods has bred a deep and lasting distrust of government institutions in many parts of the country.<sup>14</sup>
- 47. Various governance-related initiatives notably regionalisation and decentralisation are continuing to mediate the degree of state interventionism in the rural economy and to transform state-farmer relations. Though these are important steps in the right direction, policy-making in Ethiopia both by government and donors or NGOs remains induced and top-down. Current debates around land reform options, for instance, are largely confined to workshops in Addis Ababa, with little attempt to involvet farmers themselves. There has been too little consultation with communities, too little building on indigenous knowledge and practices (e.g. small-scale water management and irrigation techniques). "Subsistence peasants know best for themselves what they need, and will be motivated most thoroughly to productive effort if they participate actively in decisions regarding their own development" (Pausewang *et al.* 1990:11).

#### A role for donors

- 48. Vulnerability to food insecurity in Ethiopia is a complex product of shocks (drought, war) plus low resilience (due to poverty, weak infrastructure and institutions, a constraining rather than enabling policy environment). Donors and federal and regional governments should adopt locally differentiated strategies, reflecting the differentiated nature and distribution of chronic and transitory food insecurity in Ethiopia. The government persists in seeing agricultural intensification as "the only source of hope", while donors in Addis Ababa are beginning to argue for an institutionalised safety net programme for the millions of Ethiopians who depend on food aid every year. However, intensification has limited potential on "starvation plots" and provides no immunity against drought, while safety nets risk perpetuating dependency on two levels: beneficiaries will remain trapped in unviable livelihoods and dependent on relief indefinitely, and governments and donors will have little incentive to invest in agriculture and other sectors.
- 49. The following recommendations recognise the need for a strategy that is differentiated over time. In the immediate future, continued shipments of food aid are unavoidable, but in the medium- and long-term more creative solutions to food insecurity must be found.

<sup>&</sup>lt;sup>14</sup> A speech by the President of the Addis Ababa Chamber of Commerce in 1999, titled: 'More economic freedom and less government interference can reverse the present growing poverty level' (Kibour 1999), addressed state interventionism as both an economic and political issue.

#### Short term:

- 1. *Donors should make a multi-year commitment of food assistance* to Ethiopia, rather than reacting belatedly to annual needs assessment exercises.
- 2. For the growing numbers of chronically food insecure Ethiopians, who are unable to meet their subsistence needs even in good rainfall years, *an institutionalised safety net, linked to a realistic exit strategy,* is urgently needed.
- 3. The preoccupation with national food *availability* risks neglecting household *access* to food. *Targeting of food aid must be sharpened* to improve allocative efficiency and minimise dependency and disincentives.
- 4. To stimulate market development and provide choice to recipients, *local purchases* must be preferred to food imports, where surpluses are available, and *food-for-work* should be phased out in favour of cash-for-work, where market conditions permit.

#### Medium-term:

- 5. Especially in drought-affected areas, *recapitalisation* is essential. This might include support to *livestock restocking* in the pastoralist regions, and *restoring access to productive assets* notably land and draught power to assetless households in crop farming regions. (Note that *access* does not necessarily imply individual *ownership*.)
- 6. Given Ethiopia's extreme climatic variability, stabilising agricultural production is as important as raising yields. Policy focus should shift away from yield-enhancing technological inputs packages, towards interventions such as investing in *indigenous, small-scale irrigation technologies* to stabilise crop yields in drought years.

#### Long-term:

- 7. Food insecurity in Ethiopia is exacerbated by disincentives and barriers that prevent people from pursuing sustainable livelihoods. A *policy dialogue* should be initiated around policies and practices that (1) constrain agricultural productivity (e.g. rigid land tenure systems and insecurity caused by repeated land redistribution); (2) undermine alternative economic activities (e.g. regulations that inhibit investment).
- 8. Support to *diversification away from precarious livelihood systems* (agriculture and pastoralism) towards sustainable alternatives whose returns are not correlated with rainfall possibly agro-industry, or services such as community-based tourism.
- 50. To conclude, a switch from annual 'emergency' response to multi-year planning and programming by donors is strongly recommended, together with enhanced coordination of government, donor and NGO activities and strategies around the priority objective of achieving sustainable food security for all Ethiopians. An exit strategy is equally essential, to reverse the present institutionalisation of food aid dependency. Safety nets for the 'working poor' represent a failure of the economy and of policy; the only sustainable solution lies with economic growth and policy corrections that will ultimately make safety nets redundant. The key to long-run food security in Ethiopia is to identify and invest in alternative employment opportunities to rainfed agriculture.

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