

Food Strategy Formulation and Development Planning in Ethiopia

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1. Introduction

This paper has the following objectives:

- (1) To describe the major features of the National Food and Nutrition Strategy for Ethiopia (NFNS);
- (2) To identify major policy areas and investment activities within the NFNS where policy analysis or pilot project experience appears to be required as a matter of priority;
- (3) To discuss some of the food strategy implications of the economic policy reforms announced in March 1990².

Food strategy, as an issue of central importance in Ethiopia, not surprisingly has a vigorous intellectual history, a complex configuration of institutions and multiple decision components. Inevitably, what follows is a rather simplified account from the perspective of one of the many professionals who have been involved in it. In its broadest sense, food strategy involves famine relief activities, post-famine rehabilitation and longer-term measures to prevent or ameliorate the recurrence of hunger. In Ethiopia, the first two areas have been addressed under a separate, if related, planning initiative termed the National Disaster Prevention and Preparedness Strategy (NDPPS). The NFNS, the focus of this paper, has concentrated on actions to be determined within the formulation of medium-term development plans, commencing in 1990.

The high priority given to designing an effective food strategy by Government and international aid agencies alike arises primarily from the sequence of severe droughts and resulting crop failures and fodder deficits which have occurred across the 1980s. The human population is estimated to have reached 50 million by 1990, having grown at an average rate of 2.9 per cent per annum in the 1980s. Drought-initiated production failures in 1984/85, 1987/88 and 1989/90 resulted in some seven, eight and four million people respectively being classified as in need of famine relief.

Government concern reflects not only humanitarian motives but, as Clapham [1988: 189-192 and 238-9] has stressed, the internal pressures generated in a strongly nationalistic polity by persistent international food dependency. A further substantial factor is the collective memory that the fall of the preceding regime of the Emperor Haile-Selassie was, in part, due to its failure to deal sympathetically and effectively with the 1973/74 famine.

Apart from its intrinsic significance, food strategy planning in Ethiopia is important because it faces several challenges which are of increasing concern in other high population pressure areas of sub-Saharan Africa. These include:

- (1) How rapidly to exploit technical potential for raising land and labour productivity in farming systems which are close to the subsistence margins in average climatic conditions;
- (2) How to reverse environmental degradation under rapid population growth in these same farming systems;
- (3) How to use external resources most cost effectively to achieve productivity, food security and environmental objectives;
- (4) How to achieve voluntary rural population growth restraint under conditions of low income and urbanisation growth;
- (5) How to maintain (or provide) food security for the urban poor without restraining food output growth or increasing inflationary pressure on the economy;
- (6) How to provide a multi-level integrated food security system functioning at national, regional and household levels.

The structure of the paper is as follows: Section 2 outlines the macroeconomic and sectoral contexts within which the food strategy has had to be designed. Section 3 describes the main stages in the formulation of the NFNS and the key analytical concepts employed. In Section 4 the focus is directed upon the prepared policy and project interventions, especially those where alternative schools of thought are in contention. Finally, the possible implications for the NFNS of the 'new economic policy' of March 1990 are discussed in Section 5.

¹ The views expressed in this paper are those of the author; they should not be assumed to reflect those of any United Nations agency or the Government of Ethiopia.

² Text of President Mengistu's Central Report to the 11th Regular Plenum of the CC of the WPE (Central Committee of the Worker's Party of Ethiopia). *Ethiopia Herald*, 8 March 1990.

II. The Macroeconomic and Sectoral Contexts

In the *World Development Report, 1989* [World Bank 1989] Ethiopia is the poorest country, with a per capita GDP of \$110. It is at severe risk of becoming even poorer. An assessment made by Soviet economic advisers attached to the ONCCP stated 'one is compelled to [conclude] that the dynamics of development of major economic indicators is characterised by negative tendencies' [ONCCP 1988a]. This view is supported by an examination of the key macroeconomic indicators for the past decade (Table 1 below).

After a brief period of fairly rapid economic growth between 1979 and 1983 (due to a revival of activity after a period of political crisis and the war with Somalia, and during a sequence of years with adequate rainfall), the 1984 to 1988 period saw the GDP trend growth rate lagging behind growth in population. Given the very low base-line income and recorded saving levels, much of the strain of the consequent decline in per capita income has fallen directly on private consumption.

Although the recent investment in physical capital is estimated to have a cash equivalent value of only US\$10 per capita per year, even this is only partially covered by Ethiopian saving. The bulk of recorded investment is financed externally, primarily out of annual aid receipts of some US\$14 per capita. This level of aid receipts is only about half the average figure for aid receiving sub-Saharan African countries.

On the wider question of the overall capacity to import, growth in export revenues has been low. With domestic public and private consumption under pressure, release of resources to produce exports has

had a high opportunity cost and international price movements in the 1980s have generally not been encouraging for primary commodity exports. On the other hand, the annual import bill has grown steadily in the 1980s and is running at approximately double the revenues from exports. The inevitable outcomes of these two tendencies have been a fall in foreign currency reserves of more than 50 per cent between 1978 and 1988 and increasing international indebtedness (the debt service ratio was believed to have risen to above 40 per cent during 1989).

The available evidence indicates that in the early 1990s, in a year with average rainfall, the 85 per cent of the population in agriculture produce only 70 per cent of national food requirements (using conventional standards of minimum calorific needs) [Belshaw and Cameron 1989]. In addition, no sector of the economy can be relied upon to generate sufficient foreign exchange to guarantee the ability to import food to make up the national food security deficit. This food insecurity, combining inability to produce with inability to import, is tending to increase, albeit in a widely fluctuating pattern.

The data in Table 1 clearly suggest the major impacts which rainfall fluctuation-induced changes in agricultural activity have had upon macroeconomic performance. In addition to their direct effects on food insecurity and other dimensions of rural welfare, and on the general level of prices (see below), such fluctuations are disruptive to medium-term national production and investment plans. They produce irresistible pressures on government and external funding agencies to divert resources from planned development expenditure to emergency relief. Damping such fluctuations by tackling them at their source in unstable agricultural production systems can bring substantial benefits to the overall economy. An

Table 1

Key Macroeconomic Indicators: Ethiopia 1979/80-1988/89

	(percentages)									
	79/80	80/81	81/82	82/83	83/84	84/85	85/86	86/87	87/88 ¹	88/89 ¹
Real GDP Growth (% pa)	5.5	3.0	1.1	5.3	-3.7	-6.5	6.7	8.1	-2.7	2.8
Agricultural Sector Growth (% pa)	4.8	2.4	-1.3	4.7	-9.9	-16.0	9.2	12.9	-8.7	1.7
Investment as % GDP	10.0	10.4	11.8	11.2	12.8	10.5	11.2	11.9	13.9	14.3
Domestic Savings as % GDP	4.8	3.1	2.2	2.7	2.8	-0.6	n/a	n/a	3.5	4.0
Current Government Budget Surplus as % GDP	-4.5	-4.1	-5.0	-9.7	-8.3	-8.1	1.6	-1.0	n/a	n/a
Trade Surplus as % GDP	-4.5	-5.2	-7.2	-6.9	-8.9	-8.8	-7.2	-7.6	-12.8	-16.1

Source: Abstracted from Table 3.1 in Belshaw and Cameron 1989: 1, 56

Note: ¹Data are estimates made in a macro-planning projection exercise [ONCCP 1988b] assuming reductions in military expenditure. They are likely to be more favourable, therefore, than was the actual case.

effective food strategy should be designed to deliver such benefits, and any economic appraisal of the case for investing in that strategy should take them into account.

It should also be noted that the Ethiopian economy was unusual in sub-Saharan Africa in the 1980s in its low domestic rate of inflation and the subordinate scale of its parallel or second economy. Inflation has been restrained, despite the increasing burden of military expenditure, by tight fiscal, monetary and foreign exchange controls. Also, since food accounts for around half the weight of the urban low-income consumer price index, relatively good harvests and market supply situations — as in 1989/90 — have an off-setting and masking effect on the trend in the general level of prices. The main manifestation of the parallel economy is the export trade in *chat* (with some coffee and livestock) from the eastern region of Hararge and the reverse flow of contraband consumer goods from Djibouti 'with the result that Hararge forms a kind of free trade zone within a socialist state' [Clapham 1988:186].

Overall, the case for standard structural adjustment treatment is less compelling than some international aid agencies have advised. Some devaluation of the Ethiopian birr (maintained at the pre-Revolution fixed rate to the US dollar) would raise export incentives and fiscal revenues. But there are grounds for the view that harmonisation of the tax incidence on coffee and chat (via the use of tree inventories) would achieve more. The maintenance and improvement of price stability has been, and should continue to be, a major macroeconomic policy goal. The key question of how far food production, urban food security and price stability objectives can be attained simultaneously is addressed in the final section of this paper.

The directly productive role of the public sector has been greatly increased since 1974. In the agricultural sector, however, small-scale agriculture and pastoralism (organised under 'peasant associations') predominates, despite official encouragement of state farms and collectives ('producer co-operatives').

'In the national economy the share of the state and co-operative sectors is 35 per cent while that of the private sectors (sic) is 65 per cent. In the agricultural sector which occupies the leading place in the national economy, the combined share of the state and co-operatives is 10 per cent while that of the private sector is 90 per cent'

[*Ethiopian Herald*, art. cit].

A full examination of agricultural development policy in Ethiopia, including evidence of the superior performance of the peasant association sub-sector, is readily accessible in published literature [see especially Clapham 1988: Chapter 7 and Cohen and Isaksson 1989]. There are three main features of food

production policy in recent years. First, attempts to transform *cereal* production through large capital-intensive state farms were generally acknowledged to have failed. Secondly, by 1987, the stated goal of the Ten-Year Perspective Plan, that 53 per cent of peasant households should voluntarily join producer co-operatives by the end of the plan period (1994), compared with the 1.2 per cent baseline in 1983/84, was seen to be far from capable of fulfilment. This reflected lack of domestic and aid resources, the poor performance of established producer co-operatives and, from 1988/89 onwards, increasing problems with management efficiency and the commitment of existing members. Finally, with advice from both Western and Eastern bloc experts, as well as the World Bank and the EC, in 1987 the Government committed substantial domestic resources, ahead of the finalisation of aid project agreements, to an extensive 'green revolution' type of programme³ designed to raise cereal productivity in peasant agriculture in selected high potential areas [Clapham 1988:166-7].

2. Food Strategy Formulation: Chronology, Concepts and Causal Analysis

2.1 Stages in the strategy's evolution

A food strategy, it is suggested, may be conceived as a purposely selected, mutually reinforcing set of policies, projects, programmes and implementing institutions designed to achieve national food security. The latter has been defined as the situation where 'all people at all times have physical and financial access to the basic food they need', to be achieved through ensuring adequacy of food supplies, maintenance of supply stability and enabling access to food supplies by all consumers [FAO 1989:3]. The definition provides three central appraisal and evaluative criteria for food strategy planning: adequacy, stability and access.⁴

The current role and content of the NFNS is the outcome of an evolutionary process rather than one single-phase exercise. This was probably inevitable because pragmatic analyses and proposals have had to edge their way into decision areas which were previously dominated by notions of ideological correctness. Some important elements of a food strategy were already operating when the formulation process began. In particular, the urban con-

³ Designated the Peasant Agricultural Development Programme or PADEP (Ministry of Agriculture, 1987).

⁴ A fourth criterion should be explicitly added in the writer's opinion — economic efficiency, measured in both cost-effectiveness and social cost benefit terms. This highlights the need to address both micro-level design options and ways of minimising trade-offs with other development objectives. These dimensions, however, have not yet received systematic attention in Ethiopia. To do so requires the accumulation of sufficient efficiency indicator data through economic surveys and ongoing evaluation procedures.

cessionally-priced food distribution system had been operating effectively since 1980 [Clapham 1988:145-7] and the famine early warning system operated by the Relief and Rehabilitation Commission had given ample warning of the onset of the 1984/85 famine [see Holt and Cutler 1984]. Efforts were greatly accelerated, however, in the aftermath of the latter tragedy.

Seven stages in formulating the NFNS may be distinguished to date:

(1) With the support of several UN agencies and the EC, a national workshop on food strategies was held at Alemaya University of Agriculture at the end of 1986 [see ONCCP 1989b for the majority of the workshop papers]. Available statistics were often not fully utilised and some key topics failed either to find presenters (e.g. the incidence of urban poverty, the effects of land tenure uncertainty in the peasant associations, analyses of the performance of the state farm sector and producer co-operatives and the effects of the villagisation programme) or to generate a clear consensus for further action (e.g. food producer prices, marketing policy and women's programmes);

(2) The recommendations of the three working groups at the national workshop were used by a multi-sectoral task force to make a first draft comprehensive food strategy in early 1987. The task force was then augmented with technical assistance from FAO and UNICEF to produce a two-volume revised draft [Food Strategy Task Force 1987]. The opportunity was taken to integrate into the revised draft issues which, until then, had been decided — or shelved — by individual sectoral ministries or parastatal corporations. In particular, findings and proposals were incorporated which were concerned with:

(a) the need to ensure that future environmental protection and reclamation measures led to improved on-farm productivity and vice-versa [FAO 1986];

(b) the implications of demographic projections for population policy as well as food production targets [World Bank 1986];

(c) aspects of agricultural input delivery and extension organisation [World Bank 1987];

(d) the set of small-holder development programmes and area-based projects clustered under the Peasant Agriculture Development Programme [Ministry of Agriculture 1987];

(e) strengthening measures for predicting famine, establishing strategic food reserves and the management of relief operations [Relief and Rehabilitation Commission 1985];

(f) lessons learned from the implementation of food-for-work programmes [ONCCP 1986]; and

(g) experience gained from nutritional intervention

and monitoring programmes [Pinstrup-Andersen 1987];

(3) The revised draft volumes were discussed at two national workshops organised by ONCCP⁵ and held at Debre Zeit in August 1987. The resulting 'final draft' strategy document, in the form of one main report [ONCCP 1987a] and an executive summary [ONCCP 1987b], were widely distributed around Government ministries and donor agencies towards the end of 1987. A major change from the revised draft was the excision of most of a proposed multi-faceted population strategy. This issue was taken up again by ONCCP at a later date, but its content and its interface with the NFNS have yet to be determined;

(4) Three of the recommendations in the final draft were rapidly implemented. A small Food and Nutrition Unit (FNU), with responsibility for further planning work on the NFNS and its monitoring and evaluation, was established within ONCCP. Also, in conjunction with a parallel analysis of statutory pricing and marketing structures for cereals, the recommendations for increases in producer prices (indexed to fertiliser prices) and liberalisation of grain marketing in the major producing regions were announced in early 1988. These reforms were sufficient for the EC to release the funds for its three PADEP projects in Shoa Region and for the World Bank to follow suit later with its PADEP project in Gojam and Gondar Regions (see section 4 below).

(5) An Amharic version of the strategy was then prepared by a high-level committee as part of a set of guidelines for sectoral ministries' planning contributions to the Five-Year Plan 1989-94 (in the event the finalisation of this plan was postponed for one year). This version of the NFNS added descriptions of the state farm and collective agricultural sub-sectors and strengthened the emphasis on the 'green revolution' components of PADEP, i.e. the expansion of the marketed surplus, compared with the components improving household food security in the food deficit areas. An English-language translation of this final strategy document was released to international donor agencies on a selective basis from mid-1989 onwards [ONCCP 1989c];

(6) To assist the FNU to operationalise the strategy, a team of consultants was provided by FAO and UNICEF in 1988/89. The main focus was on identifying 'project concepts' for possible incorporation in the sectoral components of the Five-Year Plan. New projects were identified in the areas of food production, food processing and marketing, agro-forestry, small-scale rural industrialisation, rural transport and human nutrition [Belshaw and Cameron 1989];⁶

⁵ ONCCP is the Office of the National Committee for Central Planning.

⁶ See also Muhlhoff, 1988; Mitik Beyene, 1989.

(7) Finally, more detailed consideration is being given currently to two important component areas of the NFNS. In the first of these, a national strategy conference on Natural Resource Conservation has been convened by the Natural Resources Department of ONCCP. This should serve to strengthen the emphasis within the NFNS on on-farm productivity raising measures such as alley cropping and intercropping which simultaneously achieve soil conservation objectives.⁷ In the second area, the same ONCCP Department is responsible for food-for-work policy, since its major use, to date, has been to implement land reclamation programmes. These have been based upon generally ineffective physical conservation works and communally-owned forest mono-culture [see SIDA 1986; Yeraswork Admassie 1988]. The NFNS had recommended the greatly diversified use of food-for-work to support technical innovation — including root crops and agro-forestry — in peasant farms and pastoral systems. This approach has been endorsed by a World Food Programme mission examining the uses of Food for Development, which has recommended that the labour inputs required be generated through a self-targeting guaranteed employment scheme capable of alleviating the less easily detectable chronic forms of food insecurity [Maxwell and Belshaw 1990].

2.2 Concepts and Causal Analysis

As the work proceeded, a number of key concepts and casual hypotheses were used to identify or confirm different kinds of food insecurity problems, their causes and appropriate or promising solutions. At the most aggregate level of analysis, the type of food insecurity experienced by the majority of Ethiopians is triggered by drought which causes a general 'food availability decline' [Mesfin Wolde-Mariam 1984]. The stimulation and 'disaster-proofing' of food production, therefore, appears to be the necessary and sufficient condition for resolving the food insecurity problem. At the individual and household levels of analysis, however, some people in the same rural areas suffer sooner or more severely than others, reflecting differences in food reserve levels, realisable assets and the terms of exchange, and social support networks. At the intermediate level of analysis of social groups and classes, pastoralists are vulnerable to a decline (usually drought-induced) in the terms of exchange of their animals for grain, while movements of retail food prices relative to wages and informal sector earnings dominate the food security situation of low income urban consumers. Explanations of food insecurity in terms of 'food entitlement decline' [A. K. Sen 1981] were considered useful at these two levels of analysis, distinguishing between subsistence (self-provisioning entitlement), exchange entitlement via the cash/credit nexus and welfare entitlement or provision.

⁷See the findings of the Ethiopian Highlands Reclamation Study [FAO 1986].

In addition, the concepts of 'chronic' and 'transitory' food insecurity were found to be useful in characterising the types of food security problems and identifying the major target groups for whom the strategy should provide effective assistance [Reutlinger and Van Holst Pellekaan 1986:1].

These concepts helped identify target groups and problem situations and locate them broadly in the framework shown in Figure 1:

Available time-series data on the incidence of famine relief was analysed in an attempt to identify the relative magnitudes of chronically and transitorily food insecure people in the rural areas (Table 2 below). As was to be expected, this showed that the major problems arose in the Group A regions — the northern and parts of the central and eastern highlands, where peasant farming systems have been subject to increasing pressure from human and livestock populations and accelerating environmental degradation. Table 2 also suggests the need for differential sub-strategies according to the local pattern of causation and the importance of the type of food insecurity. For example, several Group B regions can be affected by massive transitory food insecurity, due to a combination of a poor harvest followed by a late one, causing a long 'hungry gap' prior to the next harvest — the so-called 'green famine' situation. In this case, food production and environmental protection measures would be appropriate. But, with the large chronically food insecure numbers in the Group A regions, a multi-faceted attack on rural poverty is indicated. Of additional relevance would be NFNS components concerned with increased local employment — both through public works schemes and regional diversification, especially small-scale industrialisation — rural transport improvement, assisted rural-to-rural migration and improved access to employment in other regions by the removal of constraints on rural labour force mobility.⁸

The NFNS is based on extensive analysis of the causation of low food productivity in different rural areas in Ethiopia [Belshaw and Cameron 1989: I Chaps. 1, 2 and 5]. It takes a cautiously optimistic view of the feasibility and social profitability of achieving quantum improvements in food production per capita — enough to buy time to design and implement an effective rural population policy. This view is not primarily based on the absence to date of a widespread 'green revolution' in the high potential cereal producing areas (the serious risks which face this approach in the present Ethiopian situation are outlined in section 3 below). Rather, it follows from the combination of an unusual (by African standards) degree of technical stagnation in the subsistence sector combined with the identified means to remedy this, the

⁸See Wood (1983) for a case-study of the effects of prevention of rural labour movement.

Figure 1

Classification of Food Insecurity

	<i>Rural Areas</i>	<i>Urban Areas</i>
Transitory food insecurity	Lower productivity communities and households at times of major crop failures and livestock deaths	Poorer households with regular employment at times of high food prices due to temporary scarcity
Chronic food insecurity	Poorer and poorest communities in food deficit areas and poorest households elsewhere, especially <ul style="list-style-type: none"> — oxenless — female headed h/hs — resettlement in initial stages 	Poorest households <ul style="list-style-type: none"> — informal sector — unemployed — handicapped — widows — single parent families

Table 2

Approximate Nature, Location and Scale of Food Insecurity on the Basis of the Number of People 'In Need of Food Relief': Ethiopia by Pre-1987 Region, 1981-87 (000s)

<i>Sub-jective Rank Order</i>	<i>Region</i>	<i>Chronic Food Insecurity</i>		<i>Transitory Additional</i>		<i>Dominant AEZ¹ in Highlands</i>
		<i>Lowest No./% of popln.</i>		<i>No./% of popln.</i>		
GROUP A:						
1.	WELO	334	8	2253	57	LPC
2.	TIGRAI	358	14	1042	39	LPC
3.	HARARGE	285	6	626	14	LPC/HPC
4.	ERITREA	399	14	401	14	LPC
5.	SHOA	195	2	656	8	HPC
GROUP B:						
6.	GONDAR	67	2	358	11	HPC
7.	BALE	30	3	245	22	HPC/LPC
8.	SIDAMO	0	0(1) ²	533	13	HPP/LPC
9.	GAMO GOFA	0	0(2)	232	17	HPP
10.	ARSI	15	1	185	11	HPC
11.	ILUBABOR	0	0(4)	208	20	HPC
GROUP C:						
12.	WELEGA	0	0(5)	117	4	HPP/HPC
13.	GOJAM	0	0(3)	84	2	HPC
14.	KEFA	0	0(3)	70	3	HPP
TOTALS		1683		7010		

Source: Belshaw and Cameron (1989); calculated from RRC estimates.

Notes:

¹ AEZ = Agro-ecological zones as defined by the GOE/FAO Ethiopian Highlands Reclamation Study (1986).

HPC = High potential cereal zone; HPP = High potential perennial zone; LPC = Low potential cereal zone.

² Figures in brackets indicate the number of years in the period 1981-87 when no people in need of food relief were recorded.

financial and social superiority of the provision of household food security compared with a national food security system and the savings to both central government and international donor agencies alike of reductions in the scale of famine relief operations over decades to come [FAO 1986; Harrison 1987; Belshaw 1988].

The final area of analysis requiring discussion here concerns urban food security. The NFNS was based on the conviction that urban food insecurity problems are best handled by the system put in place by 1980, consisting of grain delivery quotas to the Agricultural Marketing Corporation (AMC) combined with distribution through 'fair price shops' administered by the urban associations (kebeles). A wide range of arguments from different traditions of economic analysis have been assembled [Saith 1985; Belshaw and Mishra 1989] in support of the view that a system of reasonably assessed quotas achieves urban food security without jeopardising general price stability or price incentives to peasant grain producers. At the same time, incomes are transferred from the richer producers in the core high potential areas to poorer urban workers,⁹ who have key roles to play both in the maintenance of political stability and in the long-run structural transformation of the national economy. The policy implications of the abolition of the grain quota announced in March 1990 are discussed in section 4 below.

3. Issues in the National Food and Nutrition Strategy

The largest component of the NFNS is concerned with food production, marketing and processing. This in turn has been disaggregated into seven areas or domains, as follows [Belshaw and Cameron 1989: I, Chap. 5]:

- (1) Marketed surpluses of food grains for national food security, derived from the high potential areas (HPAs);
- (2) Cropping systems diversification for household food security, especially in the food deficit areas (FDAs);
- (3) Livestock development for household food security;
- (4) Conservation of natural resources for protection and improved productivity integrated into (1) and (2) above;
- (5) Improved rural settlement patterns;
- (6) Enhanced incentives for staple food production;
- (7) Supporting activities in the agricultural sector

⁹ Richer urban consumers use their entitlements rarely due to the lower quality and the less preferred types of food available via the ration system [Clapham 1988: 146-7].

(especially food-for-innovation and agricultural research).

The first two of these domains are crucial to the attainment of NFNS food production objectives; both are heavily dependent on donor project support and face severe risks of failure in the present circumstances. The projects supporting the green revolution approach to cereal production in the high potential areas are shown in Table 3.

The approach builds on earlier experience in Ethiopia gained with Swedish (SIDA) support, starting with the pilot Chilalo Agricultural Development Unit [CADU; see Nekby 1971 and Cohen *et al* 1975], the larger area-based multi-sectoral approach of the Arsi Rural Development Unit and the more extensive agriculturally-focussed Minimum Package Programme, which provides the closest model for the present approach [Cohen 1987]. Multi-lateral agencies have provided authoritative support to Ethiopian professionals who believed in the possibilities of the green revolution approach; the ILO Mission of 1982 was influential, despite the rejection of its report by Government [see ILO 1982 and Griffin and Hay 1985], while the World Bank, in particular, and the EC were involved in lengthy policy dialogue prior to the commencement of project implementation in 1989. The approach comprises the delivery of improved cereal varieties, fertiliser and some agro-chemicals via service cooperative (SC) credit arrangements, coupled with strengthened 'Training and Visit' extension services and logistical support to the Agricultural Input Supply and Agricultural Marketing Corporations [AISCO and AMC].

Areas of risk with the Green Revolution Approach include the timely delivery of inputs and payments to farmers, the effects of grain price instability and the non-creditworthiness of many SCs. Scarcity of foreign exchange is both reducing the baseline amounts of fertiliser delivered (donors are responsible only for the annual increments) and contributing to the scarcity of incentive goods in the SCs, so reducing the inter-sectoral terms of trade facing producers.

Rapid population growth threatens to outstrip productivity growth even in the high potential areas. Table 4 projects forward to 1997 and 2012 the effects of population growth in three 'planning zones' (based on agro-ecological characteristics) in part of Gojam Region designated as 'high potential'. Three levels of technology are assumed. Comparing the lowest (present) technology level in 1987 with the highest level (assumed to have been adopted by all farmers in all zones in 2012), in one planning zone (3B) the proportion of PAs exhibiting 'shortage of cropland relative to requirements' remains constant at 25 per cent, but in the other two zones the proportion of over-stressed PAs rises from 55 to 88 per cent (zone 2) and from 60 to 70 per cent (zone 5). In this situation,

Table 3

**The Peasant Agricultural Development Programme (PADEP):
High Potential Areas, as at April 1989**

PADEP No.	Pre 9/87 region	Table 2 rank order	External donor	Funding period	Status	FUNDING (US\$m) Govt. Donor Total			Beneficiaries (m people)
I	GOJAM GONDAR	13 6	IBRD (IDA)	1989-93	O	34	85	119	n/a
II	WELEGA ILUBABOR KEFA	12 11 14	IBRD (IDA)	1990-94	P	c.30	c.80	c.110	n/a
IV	ARSI BALE	10 7	Italy	1989-92	P	15	46	61	n/a
VIB	SHOA (CENTRAL)	5	EEC	1989-93	O	5	73	78	2.5
						84	284	368	

Source: Belshaw and Cameron (1989: I, Table 5.1).

Notes:

IBRD: World Bank

IDA: International Development Association

EEC: European Economic Community

c: World Bank estimates

O: Operational

P: Planning in progress

n/a: not available

more farmers may default on credit repayments as higher proportions of grain production are used for subsistence requirements. The restoration of macro-economic normality would reduce some of these risks, but it is clear that the present definition of high potential areas includes food deficit areas where farmers should not be encouraged to go into debt to adopt a high-cash outlay technology.

Alternative technologies which are appropriate for low-income subsistence farmers use inter-crop, manurial and agro-forestry treatments to restore fertility and raise yields, while increased legume, enset, banana and root crop proportions in the cultivated area can increase calorific yields [Harrison 1987; Belshaw 1988]. Cash crops may have a food entitlement-raising role for poor farmers, as does chat and coffee in Hararge Region. Micro-irrigation is also relevant. Table 5 below summarises the mix of official aid-supported projects of this type located in the food deficit areas. Projects VB, VIA and VIC arose out of the Ethiopian Highlands Reclamation Study [FAO 1986] and are intended to apply the farming systems intensification approach to soil and water conservation which it recommended. Government has transferred the majority of its extension agents out of the food

deficit areas into the 'green revolution' areas. Non-governmental organisations (NGOs) have filled the gap to some extent. Twenty-two NGOs were identified in 1989 working on one or more aspects of peasant agricultural development in some 50 small projects, nearly all of them in food deficit areas or in areas of resettlement [Belshaw and Cameron 1989: I 103-106].¹⁰

To achieve the quantum increases in food production which are feasible, external technical transfers are required via farmer-managed trials and demonstrations. This puts a premium on tropical farm systems expertise and specialist knowledge such as agro-forestry and horticulture. In general, donors and NGOs suffer from lack of relevant expertise, few innovations, poor implementation and evaluation procedures and an absence of support and sense of urgency from Government agencies. Rapid learning and exchange of experience between projects is vital in this innovative area. Unfortunately, a conference on rural development scheduled for 1988 did not take place.

Four other dimensions of the food strategy warrant further planning attention at this stage. The first

¹⁰The work of NGOs in Ethiopia is coordinated via the Christian Relief and Development Association [CRDA 1989].

concerns women's and family-centred programmes. The plight of many rural women and children is particularly severe in Ethiopia. This reflects both the prevalence of extreme poverty and cultural dimensions particular to Ethiopia [ILO 1982: II; Whalen 1984; NCC 1988]. The responsible body — the Revolutionary Ethiopian Women's Association (REWA) — has had little policy impact and has provided a means of control rather than development and welfare [Clapham 1988: 138-141]. Solutions may depend on effecting changes in the basic attitudes of rural males. One approach would be to reorient primary education and functional literacy around factors essential to the well-being of the family; food security and nutrition approached through the farm/household system, and the mother's central position in it, would be a major element in the curricula.

Secondly, the roles of regional planning and rural development planning at the sub-regional level in generating more realistic food security interventions justifies careful examination. The NFNS itself is highly aggregated at present, but recommends that decentralised planning at regional level and below be instituted rapidly. Agricultural and environmental factors play a central role in the planning for rural regions; the under-utilised capacities of the Land Use Planning and Regulatory Department, currently located in the Ministry of Agriculture, would ensure a

relevant technical input to regional planning if it were transferred to the ONCCP. Integrated rural development procedures encourage popular participation and self-determination at the grassroots level. Learning from pilot projects is likely to prove important in the expected more open policy-making and planning environment.

Thirdly, advances in food security will be problematical — and likely to be nullified — if population growth continues unabated. The World Bank [1989: Table 26] estimates the future 'zero-growth' population of Ethiopia at 220 million. In the 1980s, with three major famine relief crises, total population was in the 40 millions. The likelihood of an adequate national population policy emerging is low. An alternative approach would be for a donor consortium to offer a region-based pilot population project to be carefully monitored over a ten-year period. Financial inducements for family size reduction should be considered for inclusion, possibly using a regional pension-cum-development fund to underwrite future pension rights of the type recommended in the Revised Draft of the National Food Strategy [ONCCP 1987a]. Awarding pension rights to women would combine appropriate targeting with improved social equity.

Finally, because of the inevitable continuation of rural population growth, settlements will continue to expand in the more fragile and drought-prone

Table 4

Proportion of Peasant Associations with Insufficient Cropland Under Projected Population Growth: Three High-Potential Agro-Ecological Zones in Gojam Region: 1987, 1997 and 2012 (%)

Cropping Technology Zone		1987	1997	2012
A	5	60	70	97
	2	55	65	95
	3B	25	38	91
B	5	48	59	81
	2	32	48	89
	3B	13	25	41
C	5	33	38	70
	2	19	32	88
	3B	4	10	25

Source: D. J. Ratcliffe and J. P. Sutcliffe (1989). Unpublished paper.

Notes:

1. Cropping technology levels:

A: Low input (traditional)

B: Intermediate input (fertilisers and improved cereal seeds)

C: Intermediate input with improved crop mix.

2. Percentages have been estimated from the graphical display of the original paper and the reproduction in Belshaw and Cameron (1989: I:111).

Table 5

**Peasant Agriculture Development Programme (PADEP): Conservation and Food Deficit Areas,
as at April 1989**

PADEP No.	Pre 9/87 region	Table 2 rank order	External donor	Funding period	Status	Funding Govt.	(US\$m) Donor	Total	Beneficiaries (m people)
III	SIDAMO	8	ADF	1988-92	O	3.4	19	22.4	0.6
	GAMO GOFA	9							
VA (Small-scale Irrigation)	HARARGE	3	IFAD/ IDA/ OPEC/ WFP	1988-93	O	6.5	16	22.5	0.1
	ARSI	10							
	BALE	7							
	SIDAMO	8							
VB (CDS)	HARARGE	3			O	3.5	8	11.5	1.5
VIA (CDS)	NORTH SHOA	5	EEC	1989-93	O	6.1	33	38.1	0.5
VIC (CDS)	SOUTH SHOA	5	EEC	1989-93	O	5.8	36	42.0	1.0
VII	SOUTH WELO	1	SIDA	1989-91	P ¹	3.0	16	19.0	n/a
						29.3	128	157.5	3.7+

Source: Belshaw and Cameron (1989: I, Table 5.3)

Notes:

ADF: African Development Fund

IFAD: International Fund for Agricultural Development

IDA: International Development Association

OPEC: Organization of Petroleum Exporting Countries

WFP: World Food Programme

EEC: European Economic Community

SIDA: Swedish International Development Authority

CDS: Conservation-based Development Strategy as defined by FAO (1986)

O: Operational

P: Planning

n/a: Not available

1: SIDA did not renew its support in 1989

environments. High technology may prove appropriate in this situation. In the project identification phase of the NFNS, two bio-technology projects were suggested [Belshaw and Cameron 1989: II]. The first would examine the case for using gene-splicing techniques to produce more drought-resistant crops and fodder plants. The second would explore the role of enzyme technology to improve aspects of staple food quality — storeability, digestibility, palatability, etc. Recent recommendations concerning the use of bio-technology by the international agricultural research institutions have favoured utilising commercial applications developed by multi-national corporations. The needs of marginal rural populations in Ethiopia, however, generate no effective demand in

the market place and no prospect of financial profitability. Rather, public sector money, official development assistance, will be required to secure the global social benefits which would ensue from the improvement in food security attained.

4. The 1990 Policy Reforms and their Implications for the Food Strategy

The policy reforms announced at the 11th plenum session of the Central Committee of the Workers' Party of Ethiopia in March 1990¹¹ are termed a 'new economic policy' but are unlikely to be merely a Bukharin-style reform within a continuing Marxist-

Leninist framework. They signal the beginning of a transition from a form of socialism — but to what specifically is less clear. All the economic measures affect food production, marketing, trade or planning. Some will facilitate the implementation of the NFNS as it stands, the reforms having been recommended in it, others will require assessment and accommodation. Five fall into the first of these categories:

1. Legal protection is to be given to peasants' use of their cultivated land in perpetuity, including the right to bequeath that land to their heirs. This confers de facto ownership of their cultivated land on peasant families, replacing their former status as tenants-at-will of the state's agencies — the peasant associations.
2. Individual ownership rights to trees are to be conferred on peasants who have planted them on their cultivated land. This removes a key constraint on the adoption of alley, strip and multi-storey cropping systems of agro-forestry as part of the integration of resource conservation measures through vegetative cover with productivity-raising farm systems. Since grazing land and forests are still to be allocated or controlled by the peasant associations (PA), responsibility for the trial introduction and management of *silvo-pastoral* agro-forestry systems will rest with them rather than with motivated individuals.
3. Peasant farmers are to be allowed to employ hired workers. This encourages the return of a rural labour market and provides additional sources of food entitlement for poorer, chronically food insecure, households.
4. Control stations regulating the movement of marketed agricultural surplus are to cease operating. This confirms the 1988 decision to allow private traders in grain to operate freely.
5. Private trade is to be allowed in manufactured goods. This may fulfil the NFNS intention that retail trade penetrates to PA and village level, removing the monopoly over most incentive goods held by the service cooperatives and improving the domestic terms of trade in favour of rural producers.

Five other measures go beyond the policy reforms sought in the NFNS. The first two exceed the hopes of Western aid agencies negotiating the Peasant Agricultural Development Programme in the 1980s for liberalisation of the grain marketing system. Ironically, however, the new measures seem unlikely to meet the donors, intentions that adequate production incentives are guaranteed for peasant

grain producers [Clapham 1988: 167] unless a further measure of market control is introduced.¹² Also, the abandonment of grain producer taxation seems likely to fuel general price inflation by adding to present budget deficits, since the maintenance of food security for the urban poor is a precondition for continued political stability. These two reforms are:

6. The abolition of quotas for sale of grain at fixed prices to the AMC. Despite the quota's extreme unpopularity in the central grain surplus-producing areas, an improved, less inequitable version of some alternative agricultural tax (such as a land tax or graduated poll tax) seems likely to have to be introduced in order to assist the achievement of internal balance and to reduce the discriminatory degree of taxation of certain export crops, especially coffee. Periods of very low free market grain prices followed by marked post famine price increases may make fixed AMC prices attractive in hindsight, while extreme price instability will raise farmers' risk awareness and reduce their incentive to innovate. Applied research on alternative agricultural taxation and food subsidy systems is an area requiring urgent attention, drawing upon a wide range of experience and analytical frameworks [see e.g. Mateus 1983; Pinstrup-Anderson 1988].
7. The AMC must compete on equal terms with private traders in the open market. The NFNS recommended that the AMC operate a price stabilising grain buffer stock. This would be compatible with private trader operations in the range between the floor and ceiling prices set by the buffer stock management. At present the RRC is responsible for a separate food security reserve. This arrangement is required by Western food donors to ensure the direct movement of donated grain into famine relief operations. The ultimate goal, however, would be for an integrated operation, utilising an Ethiopian grain surplus, for famine relief, food-for-work and price stabilisation purposes along the lines of the Indian grain marketing system. The feasibility of this solution depends on the prior success of other elements of the NFNS discussed in section (4) above.

The last three policy reforms also have implications for agricultural production and thus, indirectly, for food security objectives:

8. The members of a producer cooperative (PC) have the right to vote for its dissolution. This regularises the previous irregular breakup of PCs, such as had been occurring in parts of Arsi

¹¹The proposals contained in the Presidential speech are not expressed in formal legal or economic language, so that the precise nature of the intended reform has to be inferred in some cases [see *Ethiopia Herald*, ant. cit.].

¹²Food crops in Ethiopia are typified by wide price ranges as they shift between surplus (export parity prices) and deficit (import parity prices), exacerbated by the relatively land-locked location of the major producing and consuming regions.

Region in 1989. The possible beneficial effects are, first, increases in farm resource productivity due to improved farmer motivation, as occurred following the introduction of the household responsibility system in China after 1978; and, secondly, the diversion of public sector resources previously concentrated on inefficient PCs to higher return activities, whether assisting ex-PC members or elsewhere.

9. Purely private investment, i.e. without the participation of state capital in joint ventures, is encouraged in all sectors of the economy, except where profitable public sector activity has been established. This may exclude private investment from banking, insurance, electric power, telecommunications, air transport, sugar factories, 'most of our industries', 'communication infrastructures' (presumably railways, road construction and postal services) and 'other state-owned enterprises'. On the other hand, 'the management of state enterprise will henceforth be based on competition . . .'. But it is state enterprises 'which fail to show improvement' which are earmarked for denationalisation (or closure). Private investment in large private farms is encouraged; from the NFNS perspective this may result in trade-offs with assisted rural immigration to less densely populated areas unless at least equivalent employment is generated. This suggests the value of encouraging private investment in labour-intensive irrigated agriculture and horticulture — possibly emulating Kenya's airfreighted exports.
10. Future economic planning will prepare two plan documents, one for public investment in (a) state production activities and (b) support services for the rest of the economy, and the second an indicative plan for the private and cooperative sectors. This will allow considerably greater realism to enter the planning of the food strategy; for example, meaningless food output 'targets' can be replaced by output estimates generated from prediction models using several sets of policy variables and technical coefficients.

The 1990 policy reforms can be viewed as a counter-revolution from above encouraged by advisers from both Western and Eastern power blocs. Whilst they have been greeted sceptically by some Western observers [see e.g. *The Times* 2 April 1990 p.11], most proposals have a lengthy background of Ethiopian reformist support, suggesting a genuine commitment to a new development strategy based on a mixed economy. The impact of the reforms depends in large measure on the response of Western official aid agencies and private investors. Most Western donors have indicated that peace treaties in Eritrea and Tigray are preconditions before substantial aid will be given.

The 1990 Presidential Report, however, stressed that national unity is non-negotiable; indeed, the name proposed for the new ruling party — the Democratic Unity Party — emphasises this point. In the immediate future, therefore, the fighting is likely to continue. One important aid option for Western Governments to consider, however, is to institute targeted aid programmes (as was recommended to the UK Government by the House of Commons Foreign Affairs Committee; ODA 1988) with the humanitarian objective of strengthening the level of activity which the non-governmental organisations are only partially able to support at present. The benefits would be retained within the subsistence sectors of the food deficit areas, leaving the macroeconomic situation unaffected. This work can only utilise grant aid which, unlike the development banks, bilateral donors can provide. The urgency of the need which this option can help meet is beyond question.

References

- Belshaw, D. G. R., 1988, A Solution for the Food Deficit Areas of Ethiopia: Accelerated farm/household systems development. Draft report, Addis Ababa
- and J. Cameron, 1989, Assistance to the National Food and Nutrition Strategy, Ethiopia. Final Report, 2 vols, Addis Ababa and Rome, FAO
- and S. Mishra, 1989, Food in the Ethiopian Economy: Implications for macro-economic policy, in ONCCP (1989) *op. cit.*
- CRDA, 1989, Directory of the Member Churches and Agencies in Ethiopia. Addis Ababa
- Clapham, C., 1988, *Transformation and Continuity in Revolutionary Ethiopia*, Cambridge, Cambridge University Press
- Cohen, J. M., 1987, *Integrated Rural Development: The Ethiopian experience and the debate*, Uppsala. Scandinavian Institute of African Studies
- *et al.*, 1975, Effects of Green Revolution Strategies on Tenants and Small-scale Landowners in the Chilalo Region of Ethiopia, *Journal of Developing Areas* 9 (3)
- and N. I. Isaksson, 1989, Food Production Strategy Debates in Revolutionary Europe, *World Development*, 17
- FAO, 1986, *Highlands Reclamation Study: Ethiopia. Final Report*, Executive Summary and 2 vols. Rome
- 1989, Methodology for Preparing Comprehensive National Food Security Programmes, Draft, Rome
- Food Strategy Task Force, 1987, National Food Strategy for Ethiopia, Revised Draft. 2 vols, Addis Ababa, ONCCP

- Griffin, K. B. and R. Hay, 1985, Problems of Agricultural Development in Socialist Ethiopia: An overview and a suggested strategy, *Journal of Peasant Studies*, 13 (1)
- Harrison, P., 1987, *The Greening of Africa*, International Institute for Environment and Development, London, Earthscan
- Holt, Julius, and Peter Cutler, 1984, *Review of the early warning system of the Relief and Rehabilitation Commission*, Addis Ababa: Relief and Rehabilitation Commission/ UNICEF
- ILO, 1982, *Socialism from the Grass Roots: Accumulation, employment and equity in Ethiopia*, 2 vols, Addis Ababa
- Mateus, A., 1983, *Targeting Food Subsidies for the Needy: The use of cost-benefit analysis and institutional design*, World Bank staff working paper 617, Washington DC, IBRD
- Maxwell, S., and D. Belshaw, 1990, 'Food for Development: New roles for food aid in Ethiopia', *Report*, of the WFP Food for Development Mission, mimeo, Addis Ababa and Rome
- Mesfin Wolde-Mariam, 1984, *Rural Vulnerability to Famine in Ethiopia, 1958-77*, Addis Ababa, Vikas Publishing House and Addis Ababa University Press
- Ministry of Agriculture, 1987, *Peasant Agriculture Development Programme: Status report*, Addis Ababa, Ministry of Agriculture, Project Evaluation Department
- Mitik Beyene, 1989, Information System for Planning and Evaluation of National Disaster Prevention and Preparedness, in ONCCP 1989a, *op. cit.*
- Muhlhoff, E., 1988, *Collection of Food and Nutrition Data and its use in Ethiopia, 1979-1988: A review*, Report to FAO, Addis Ababa, FAO
- National Children's Commission, 1988, *Analysis of the Situation of Children and Women in Ethiopia*, Addis Ababa, NCC/UNICEF
- Nekby, B., 1971, *CADU: An Ethiopian experiment in developing peasant farming*, Stockholm, Pisma
- ODA, 1988, *Famine in the Horn of Africa: Minutes of evidence to the Foreign Affairs Committee. House of Commons, Sessions 1987-88*, London, Her Majesty's Stationery Office
- ONCCP, 1984, *Ten Year Perspective Plan 1984/85-1993/94*, Addis Ababa
- 1986, Workshop on Food-for-work in Ethiopia: Proceedings of the workshop on food-for-work in Ethiopia, Addis Ababa
- 1987a, The National Food and Nutrition Strategy for Ethiopia, Final Draft, Technical Document, Addis Ababa
- 1987b, The National Food and Nutrition Strategy for Ethiopia: Final Draft, Executive Summary, Addis Ababa
- 1988a, Report of the Soviet Economic Consulting Advisers, Addis Ababa
- 1988b, Growth Scenarios of the Ethiopian Economy EFY 1980 to EFY 1986, Addis Ababa
- 1989a, National Conference on Disaster Prevention and Preparedness Strategy for Ethiopia, Conference Proceedings, First Draft, Addis Ababa
- 1989b, *Towards a Food and Nutrition Strategy for Ethiopia: The Proceedings of the Workshop on Food Strategies in Ethiopia*, (ed. D. G. R. Belshaw), Addis Ababa
- 1989c, National Food and Nutrition Strategy Addis Ababa
- Pinstrup-Andersen, P. 1987, Nutrition Issues for Consideration in Preparing the Ethiopian Food Strategy, Addis Ababa, UNICEF
- (ed.), 1988, *Food Subsidies in Developing Countries: Costs, benefits, and policy options*, Baltimore. Johns Hopkins University Press
- Relief and Rehabilitation Commission, 1985, *The Challenges of Drought: Ethiopia's Decade of Struggle in Relief and Rehabilitation*, Addis Ababa
- Saith, A., 1985, The Distributional Dimensions of Revolutionary Transitions. Ethiopia, *Journal of Development Studies*, 22 (1)
- Sen, A. K., 1981, *Poverty and Famines: An essay on entitlement and deprivation*, Oxford: Oxford University Press
- Swedish International Development Authority (SIDA), 1986, The Predicament of Peasants in Conservation-Based Development, Stockholm
- Whalen, Irene, 1984, ILCA's Ethiopian Highland Programme: Problems and Perspectives in expanding the participation of women, ILCA Report, Addis Ababa
- Wood, A. P., 1982, Spontaneous Agricultural Resettlement in Ethiopia, in *Redistribution of Population in Africa*, pp. 157-164, (Edited by J. P. Clarke and L. A. Kosinski), London. Heinemann
- 1983, The Declining of Seasonal Labour Migration to the Coffee Forests of Southwest Ethiopia, *Geography* 68 (1)
- World Bank, 1986, Population, Health and Nutrition Sector Memorandum. Ethiopia, Washington DC
- 1987, Agricultural Sector Review Mission Report. Ethiopia, Washington DC
- 1989, *World Development Report, 1989*, New York, Oxford University Press
- Yeraswork Admassie, 1988, Impact and Sustainability Study of WFP-Assisted Project ETH 2488/II. Rehabilitation of Forest Grazing and Agricultural Lands, Addis Ababa. World Food Programme