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STUDY CARRIED OUT FOR CRDA *ON* FOOD SECURITY, SUSTAINABLE AGRICULTURE AND TRADE: *ISSUES OF CONCERN FOR LOBBYING AND ADVOCACY*

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A Report Prepared for the Christian Relief and Development Association (CRDA) By the International Development Consulting Firm (IDCoF)

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EXECUTIVE SUMMARY

1. Background, Objectives and Methodology of the Study

1.1 Ethiopia is predominantly an agrarian country; with crop and livestock production being the major source of livelihood of the population, foreign exchange earnings and GDP. The agricultural sector, therefore, forms the basis for the overall socio-economic development of the country. However, large subsistence farming, backward agricultural practices, and abysmally low productivity characterizes the sector. As a result, the performance of the country's economy still lags far behind the subsistence needs of its population. Not surprisingly, therefore, issues and concerns about food security, sustainable agriculture, and trade are given high priority in the development agenda of the Government, NGOs and the international community. The role of the NGO sector in development has been growing over the last thirty years; and currently, NGOs are becoming important Government partners in the on-going economic and social development efforts in the country.

1.2 Despite past and present efforts and the potential for development, the poor performance of the Ethiopian economy has become a cause for serious concern among the public, donor agencies and NGOs operating in the country. The present CRDA-sponsored study was undertaken to assess the causes and consequences of the disappointing gap between intended and actual achievements of development efforts in the country. More specifically, the objective of the study is to assess and document past and present development policies and practices in the areas of food security, sustainable agriculture and trade; and thereby provide a basis for designing advocacy and lobbying strategy to enhance the future development of these sectors.

1.3 For the purpose of the present study, a dynamic relationship is assumed between the more circumscribed status of food security, sustainable agriculture and trade, and the more comprehensive macro-level and sectoral policies, programmes and strategies. Taking such a framework of analysis, secondary and primary information was obtained from an extensive review of the literature; and through interview-based discussions with representatives from Federal and regional government organisations; donor agencies including bilateral and multilateral organizations; and international and local NGOs. A multidisciplinary team of consultants undertook the study between September and December 2001.

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2. Developments in Macroeconomic Performance, Policies, Programs and Strategies

Issues and concerns relating to food security, sustainable agriculture and trade in Ethiopia are examined in the broader context of developments in the overall economic environment. Macro-level/national and donor policies and strategies are reviewed and analysed as they contributed to and constrained progress in promoting food security, sustainable agriculture and trade in the country.

2.1 Looking at the performance of the Ethiopian economy in retrospect, the period between 1960 and 1974 is often cited as the golden years of better and stable economic growth in terms of growth in real GDP, gross domestic saving and investment. Stagnation of the country's economic situation during the 17 years of the 'Derg' regime followed the Imperial era of steady economic growth. Declining per capita income, serious internal and external macroeconomic imbalances, and widening budget deficit characterize the period between 1974 and 1991.

Macroeconomic development since 1992/93 generally depicts two important positive out-turns: economic stability and recovery. During the eight years since 1992/93, growth in real GDP rebounded to an average level of about 5.6% per annum. Inflation rate was successfully contained at a low level. Some progress at re-orienting public expenditure from non-productive activities to infrastructure and social sector development was also registered. Some researchers, however, attributed such registered achievements to huge injection of external resources with high opportunity cost, suggesting the possibility of achieving a greater economic performance had better alternative policy measures and strategies were implemented.

Although the performance of the Ethiopian economy since 1992/93 has been generally encouraging, the challenges ahead are numerous. Present day Ethiopia is among the poorest countries in the world. Pervasive poverty and food insecurity are manifested, inter-alia, in the high incidences of chronic malnutrition; inadequate access to clean water and health facilities; and low life expectancy at birth.

Agriculture represents the overwhelming source of the country's GDP, employment and export earnings; with the industrial sector contributing only 12% of the GDP and 15% of the export earnings. As such, the performance of agriculture has its print almost on every aspect of the economic system. However, agricultural production still remains to be predominantly a traditional occupation of millions of smallholder farmers for subsistence, and is dependent on the vagaries of nature, particularly rainfall. Thus, the country's agricultural sector is still far from playing its strategic role in the overall economic development of the country

The structure of the country's exports also reflects heavy reliance on a small number of primary commodities; making the national economy susceptible to weather and price related shocks. This has resulted in missed opportunities of broadening the export base

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through increased production and export of value added goods and services. In this respect, the major challenges lay in enhancing productive capacity through institutional and human resource development; market access for Ethiopian exports; and management capacity of commodity market instability.

The country's physical infrastructure is considered to be far from adequate even by sub-Saharan Africa standards. Vast expanse of the country's potentially productive areas is far distant from all-weather roads; and three-forth of farmers live more than half a day's walk from all-weather roads. Similar constraints with respect to telecommunication and the power sector have put on hold development endeavors.

The Ethiopian economy is also influenced by weak public service capacity in the design and implementation of social and economic policies and strategies; a private sector that is constrained by limited finance, entrepreneurial capability and managerial skills; and inadequacy of markets for factors of production.

2.2 In the context of the general economic environment, overall policies and strategies have been designed in response to, inter alia, opportunities and challenges in the areas of food security, sustainable agriculture and trade. These policies and strategies are based on the underlying principle of the furtherance of a market-based economy and agricultural development-led industrialization. With respect to agricultural development, ADLI primarily focuses on improving the productivity of small farmers and pastoralists. By doing so, the strategy intends to combat the growing food insecurity affecting the majority of the country's population.

In the area of fiscal policy, tax reforms in favor of the lower income group is likely to have relieved, though only marginally, the tax burden of those who are the most food insecure group, or at greater risk to be one. Similarly, the cancellation of export taxes and reduction in tariffs might have contributed to increased income and employment opportunities of which the poor and food insecure partly benefit. The low sales tax imposed on basic food items and no sales tax on social services is also commendable in light of food security goals. Outstanding issues in this regard include further pushing up the lower taxable income at least to the income level that provides for the minimum food requirement of an average family size of adult members; and making basic food items that are commonly consumed by the poor free of sales tax. The expenditure side of the fiscal policy has provided for a restructuring of public expenditure toward increased emphasis on social and infrastructure development, particularly of roads, thus reinforcing efforts to reduce poverty and food insecurity.

The monetary policy's stance on maintaining low inflation and on ensuring the supply of and access to credit particularly to the poor and food insecure has served as a relatively effective instrument to promote food production and food security. Since the issuance of the micro-finance law in 1996, MFIs have expanded as pro poor financial service institutions and have demonstrated good repayment rates suggesting that the poor are indeed bankable. However, in view of MFIs' current ownership structure and poor practices of internal control and external audit, the single most worrisome problem

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appears to be their financial sustainability and its potential implications for the long-term development of the country's agriculture.

With regard to exchange rate, the current policy stance is to avoid excessive and abrupt depreciation or appreciation of the Ethiopian Birr through a weekly wholesale foreign exchange auction system that has been recently replaced by the inter-bank money and foreign exchange markets. The effect of devaluation on food security depends on several considerations and is not readily predictable. If, for example, a farmer produces both tradable and non-tradable products, the net effect depends on the relative production mix of the farmer or the flexibility that the farmer has to shift to the production of more tradable products

Recognizing the potential linkage effects of the agricultural sector on other sectors of the economy, its development figures out prominently as a strategy for the alleviation of food insecurity and poverty. A comprehensive draft agricultural policy has been formulated incorporating a number of inter-related aspects of the sector including land use and management, crop and livestock development, soil and water conservation, marketing, and research and extension. Some of the apparent inadequacies of the draft policy relate to land tenure, identification and prioritization of the development needs of pastoral areas

Education and health policies have been developed and programs are under implementation through increased Government allocation and external assistance. Increased public resources are being directed at counteracting the effects of HIV/AIDS on depletion of assets, straining the capacity of public and private social service organizations, and reducing productivity and income.

Trade is one of the sectors that is closely linked to food security; since it has a major bearing on access to food through its positive effect on economic growth, income and employment. Based on the past experience with regard to the undesirable consequence of misguided policies on import substitution, export taxation, over valuation of exchange rates and reliance state marketing monopolies, Ethiopia has embarked on liberalizing its trade and exchange rate regimes. In order for such trade liberalization to have meaningful impact on alleviation of food insecurity, however, further action is necessary in the areas of, among others, rural infrastructure development; promotion of broad-based growth in production within and outside agriculture; and addressing the needs and priorities of small farmers, especially women.

The absence of appropriate national food security policy and/or strategy has posed a major constraint for effective and coordinated interventions by the Government and donors. The on-going food security interventions in Amhara, Oromia, SNNP, and Tigray regional states are based on the draft food security strategy designed in 1996. In its present form, the draft strategy does not clearly stipulate the institutional arrangements; and makes co-ordination regarding the access, use and control of food security assistance difficult. It is envisaged that the experience gained from the implementation of the draft strategy will serve as an important input to the formulation of a more comprehensive national food security.

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External development assistance to Ethiopia is substantial and donor policies have a major influence both in contributing to and constraining the design and implementation of food security interventions. The major constraint is that reliability, nature, and extent of international support often depend on changing motives and priorities of individual donors. With respect to food security efforts in Ethiopia, for example, some donors are not responsive to the growing needs for assistance in terms of locally purchased food aid in view of the widely expressed concern that food aid in kind has adverse effects (dis-incentives) on domestic production and prices of agricultural products.

3. Status and Prospects of Food Security, Sustainable Agriculture and Trade

Development trends in the overall economic environment, policies and strategies are reflected in the achievements and constraints in the areas of food security, sustainable agriculture and trade.

3.1 Food Security

Based on the sustainable livelihoods framework of analysis, a picture of the country's food security situation is provided. The assumptions, achievements and future prospects of the Food Security Strategy and Programme are discussed at length; and particular reference is made to the impact of NGO and donor support on the implementation of the same strategy/program.

3.1.1 Food Security Situation in Ethiopia

Food security has been defined as access by all people at all times to enough food for an active healthy life. Its essential dimensions are availability/supply of and access to food both at the national and household levels.

The alleviation of food insecurity in Ethiopia has remained the focal point of both Government and NGOs engagement. However, decades of food aid has not improved the food security status of the country. On the contrary, the size of the food insecure population and dependency on food aid has continued to increase.

It is believed that more than 50 percent of the country's rural and urban population does not have access to the minimum nutritional requirement of 2,100 kcal/person/day. Moreover, there are significant regional differences in the incidence and magnitude of food insecurity; with the calorie intake being below the national average in Tigray, Amhara, Benshangul-gumuz and SNNPR regional states.

It is also asserted that without proper economic transformation, mainly through increased performance of the agricultural sector, the gap between food needs and availability will continue to widen, requiring additional food aid.

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3.1.2 The Food Security Strategy/Program

Institutionalized action to address the food security situation in the country started in the latter part of the 1990s, when the Government, developed the Food Security Strategy and subsequent Food Security Program in 1996 and 1998 respectively. Based on these strategy and program documents, food security related action programs are being undertaken in 156 drought prone woredas of Tigray, Amhara, Oromiya and SNNPR regional states. The strategy was designed with the aim of building the resource base of poor rural households, to expand employment and income opportunities, and to provide targeted transfers to households with special needs.

Several functional units at Federal and regional levels are responsible for the implementation of food security programmes, including food aid supported employment generating schemes. The NGO community is a major partner in the implementation of community-based integrated agricultural and rural development programs that directly or indirectly contribute to food security enhancement.

A formal evaluation has not been taken to assess the achievements made and constraints encountered in the implementation of food security programmes in the four regions. However, it was observed in the course of this study that progress in implementation is far below expectations. The major constraints are: non-materialization of expected donor support and Government funds, loose coordination both at Federal and regional levels, inadequate capacity at operational levels, and low awareness among NGOs about the assumptions and operational modalities of the food security strategy.

Overall, the need has become apparent for a fresh look into the design and practice of food security programs in the country. More particularly, an effective food security strategy should be envisaged as a major aspect of an investment strategy with demonstrable commitment to increase both food supply through improving market efficiency, land and labor productivity, and effective demand for food through promoting non-agricultural employment and income.

3.2 Sustainable Agriculture

Opportunities and constraints of sustainable agricultural development in Ethiopia is examined along eight major components - crop and livestock production; agricultural research and extension; irrigation development; conservation and utilisation of natural resources; agricultural and food marketing; rural credit; and alternative sources of livelihood.

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3.2.1 Agro-ecological Features and Production Systems

Ethiopia is a country of diverse physical features and agro-ecological conditions. Agriculture is characterized by mixed farming system of predominantly crop and livestock production.

Four broad types of crop production practices have been identified; ranging from entirely seed farming on one end and agro-pastoralism on the other. In between these two extremes, there are other categories of farming complexes that combine both annual and perennial crop production practices.

Cereal crops, produced mainly for subsistence, occupy by far the largest proportion of cultivated land; while the remaining land is occupied by cash crops, including oil seeds, coffee and cotton. Cultivation of cereal crops is essentially a low-input and low-output production system; and this poses a serious threat to food security in the country.

Opportunities for increasing crop production and productivity lie in: promoting sustainable land management practices; the use of improved production technologies; efficient use of water resources; crop diversification; and expanding land area under cultivation. However, crop production potential has not yet been realised due to several constraints, such as insecurity of land tenure and absence of proper land use rights; increased land fragmentation; recurring droughts; high prevalence of crop pests and diseases; and lack of appropriate technologies.

Intensive and extensive livestock production systems are prominent features of the agricultural sector in Ethiopia. In the mid and high altitude areas, livestock production is an integral part of crop production and together, they form interdependent economic activities of farm households; while livestock production is the mainstay of the lowland population.

The Country's livestock wealth provides a considerable potential for enhancing sustainable agricultural development and overall economic growth. The large number of livestock, both in terms type and breed, could be used as a resource base toward increasing domestic food supply and export earnings.

By and large, however, the livestock sub-sector in Ethiopia is still underdeveloped and its productivity is constrained by several factors that are typical of traditional agriculture elsewhere. Shortage of pasture resulting from shrinking grazing lands; wide prevalence of diseases, and poor water supply and marketing infrastructure are often mentioned as the major bottlenecks of livestock development. These constraints are particularly conspicuous in pastoral and agro-pastoral areas where public support services are relatively minimal/poor.

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3.2.2 Agricultural Research and Extension Services

Agricultural research and extension system in Ethiopia is barely 50 years old. Public research and extension services started as part of higher agricultural education curricula and evolved into national systems in support of agricultural development. Agricultural research has undergone several organisational changes before it assumed its present structure as Ethiopian Agricultural Research Organisation; while public extension service has remained and still is the organisational domain of the Ministry of Agriculture.

Agricultural research programmes undertaken over the last three decades have achieved successful results particularly in the development of improved crop varieties; soil fertility management; crop protection; and animal nutrition. Similarly, agricultural extension service has significantly contributed to promote the use of improved technologies among farming communities. Currently, there is an increasing trend to integrate the functions of agricultural research and extension services in order to effectively address the pressing needs for alleviation of food insecurity and enhancing sustainable agriculture.

There appears, however, the need for broadening the technology base for use by farmers. The current extension package programme does not sufficiently address local-specific needs and priorities. Moreover, coverage of agricultural research and advisory services for pastoralists and agro-pastoralists leaves much to be desired.

3.2.3 Irrigated Agriculture

In view of increasing unreliabilty of the amount and distribution of rainfall in the country, it is imperative that emphasis be put on the promotion of small and large-scale irrigated schemes for productive agriculture. The country has considerable amount of untapped water resources the utilisation of which could contribute to increased agricultural productivity through the intensification of production. Furthermore, rain water and surface runoff could be collected and/or stored and productively used through various water harvesting techniques.

There are a number of institutional and operational challenges to the promotion of irrigated agriculture in the country. Among others, these are: lack of enabling policy and strategy environment, financial and human resource constraints; and limited foreign capital investment on irrigated agriculture.

3.2.4 Sustainable Management of Natural Resources

A proper balance between conservation and utlisation of natural resources is closely linked to the concept and practice of sustainable agricultural development. Cognizant that the continued welfare of the Country's population depends on the sound management of its natural resource base, past and current Governments have initiated

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policies and strategies for the proper exploitation of natural resources, mainly forestry. However, increasing depeletion of natural resources due to social and economic forces, including population pressure and traditional farming practices, still remain to be major threats to sustainable livelihoods.

A promissing avenue counterveil the forces that work against sustainable management of natural resources is the provision of alternative options for people to meet their basic needs, such as alternative sources of fuel energy.

3.2.5 Agricultural Marketing

The importance of agricultural and food marketing lies in its function not only as a mechanism of regulating the supply and demand of agricultural commodities through transmitting price signals, but also as a means of physical transition of such products from production to consumption.

Agricultural marketing in Ethiopia has been a major focus of public intervention, depending on their ideological oreintation, successive governments have introduced a range of marketing reforms that provided for excersising control over the marketing system of agricultural inputs and outputs.

Currently, the agricultural marketing system in Ethiopia is relatively decentralised. However, marketing of available surplus agricultural produce is made difficult by poor infrastructure, such as road transportation. With regard to input marketing, limited access to rural credit on favourable terms to farmers remains a bottleneck for increased agricultural production and productivity

3.2.6 Micro and Small Enterprise Development

A progressive move toward sustainable agriculture requires, among others, the promotion of economic activities that lie beyond the traditional crop and livestock production activities. Such economic activities, generally known as micro and small scale enterprises, not only supplement farm income of the rural poor, but they also provide the opportunity to ease the population pressure on land for cultivation.

In Ethiopia, micro and small-scale activities contribute a significant proportion to the country's GDP; and the Government has formulated a strategy in support of the promotion and growth of such income generating activities. In practice, however, micro and small scale activities are still confronted with enormous difficulties and their future remains uncertain.

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3.3 Trade

Trade is one of the sectors that are closely linked to food security as it has a major bearing on access to food through its positive effect on economic growth, income and employment. Based on the past experience with regard to the undesirable consequence of misguided policies on trade, over the last decade, Ethiopia has embarked on institutionalizing liberalization measures to promote domestic and international trade

However, there are still a number of outstanding challenges that work against trade promotion. Vast expanse of the country's potentially productive areas is far distant from all-weather roads; and three-forth of farmers live more than half a day's walk from all-weather roads. The private sector is constrained by limited finance, entrepreneurial capability and managerial skills; and inadequacy of markets for factors of production. The structure of the country's exports reflects heavy reliance on a small number of primary commodities; making the national economy susceptible to weather and price related shocks.

Further action thus needs to be taken in such areas as rural infrastructure development; promotion of broad-based growth in production within and outside agriculture; broadening the export base through increased production and export of value added goods and services; and enhancing productive capacity through institutional and human resource development, market access for Ethiopian exports; and improving the management capacity of commodity marketing to regulate/manage the market instability problem.

4. Conclusions

Putting the results of the study in a thematic framework, some general conclusions may be drawn.

For a long time since the 1970s, the prevalence of transitory and chronic food insecurity in Ethiopia has been growing; and recently, the country's food insecure population has reached an alarming proportion. Currently, the country is a major recipient of food aid from the international community.

Since the 1990s, there has been increased recognition that the underlying cause of food insecurity in the country is structural in nature; and accordingly, increased attention has been given to the formulation and implementation of policies, programs and strategies for a more reliable and lasting solution to the problem. The ADLI and subsequent policy and strategy reforms in the areas of agricultural development, investment, and banking and finance are some of the major steps in this direction; with donors and NGOs playing a significant role.

Nevertheless, the slow progress in promoting sustainable agriculture and trade, and ultimately, in reducing the rampant rural and urban food insecurity in the country is

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still an area of critical concern for the Government and its development partners. The present assessment study on past and current policies, programs and strategies in the fields of food security, sustainable agriculture and trade has shed some light into the causes of pervasive poverty and food insecurity in the country.

The agricultural sector provides the most promising potential for the attainment of sustainable food security and overall economic growth. However, the productivity of the sector lags far behind the population growth rate due to several inter-related factors. At a more general level, the constraints relate to the supply driven nature of ADLI, and its offshoot – the extension package program. Both are supply driven in nature in that their primary focus is on high yielding crop varieties and high potential areas with little regard to the needs and priorities of chronically food insecure areas (including pastoral , agro-pastoral, and the urban poor) and resource poor farmers in different parts of the country. Agricultural productivity is also constrained by several other factors including the ideologically-driven land policy, which has stifled farmers' initiative to adopt productivity enhancing land improvement practices, further inducing increased fragmentation of land holdings, and marketing problems.

Adequate food supply through increased agricultural production is a necessary but not a sufficient condition for the attainment of food security. Equally important is the enhancement of effective demand for and physical access to food through the promotion of domestic trade that provides a source of income for the large contingent of unemployed population. Further to expanding opportunities for alternative sources of employment and income, trade could significantly contribute to food security easing the population pressure on land, and thereby raising the level of farm income.

Ethiopia could gain both in terms of food security attainment and overall economic growth, from increased international trade, mainly through diversification of agricultural production for export market. Export earnings could be used to stimulate increased productivity in agriculture, and to provide for targeted transfers to the needy.

At operational levels, conflicting views and practices among development partners appear to have posed a profound challenge to effective implementation of integrated rural development projects and programs. In particular, the flow of funds from donors to implementing agencies and their conditionalities have also become issues of serious concern.

5. Issues of Concern for Lobbying and Advocacy

Some of the major/important issues and concerns that need to be considered for the design of advocacy and lobbying strategy in the fields of food security, sustainable agriculture and trade are outlined below.

A strategy is needed that clearly differentiates between chronic and acute food insecurity in the country, and to put in place the corresponding institutional arrangements and for effective management. Chronic food insecurity should be

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addressed within a broader development framework; while DPPC should be strengthened to carry out emergency functions.

Land issue has become a subject of continued debate. Concern is expressed over the causes and consequences of restrictive 'land tenure policy' and 'land use right' and increased 'land fragmentation'.

Government should also focus on developing agricultural output marketing services, and the private sector needs to be encouraged to participate not only in the delivery of inputs to the producers but also to play part in output marketing. Furthermore, efficient system of integrating markets of food surplus and food deficit areas should be developed.

High turnover of professional workers and their preoccupation with political engagements, institutional instability of Government development partners, and low community participation have put into question the sustainability of externally funded projects and other development programs.

Local conflicts associated with the use of scarce resources mainly grazing land and water have constrained the successful implementation of development projects and programmes. Institutionalization of traditional conflict resolution mechanisms appears a promising way forward to overcome this development challenge

A culture of dialogue among partners should be promoted to achieve consensus on issues related to food security, sustainable agriculture and trade. Government agencies need to consider NGOs as development partners, and NGOs also have to revisit their commitments to long-term development. Donors' expectation of credible impact within a short period of time, and their fund disbursement procedure have proved counterproductive in the implementation of planned activities.

Concern is widely expressed about the inadequacy of institutional support that is given to the growth and development of the informal economic sector. Restrictive legal practices preclude access to land and credit facilities for resource poor people to engage in micro and small-scale income generating activities.

Food security and export promotion may be in conflict. The contradiction between production promotion for consumption and for export market merits rethinking, and the balance between encouraging food crops versus cash crops production needs to be worked out.

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ABBREVIATIONS

ACP	African, Caribbean and Pacific
ADAA	African Development Aid Association
ADB	African Development Bank
ADDP	Ada District Development Project
ADF	African Development Fund
ADLI	Agricultural Development-Led Industrialization
AFSI	Africa Food Security Initiative
AMC	Agricultural Marketing Corporations
ANRS	Amahra national regional State
ARS	Agricultural Research System
BIC	Bank Information Center
BOA	Bureau of Agriculture
BoPED	Bureau of Planning and Economic development
CADU	Chillalo Agricultural Development Unit
CDPP	Commission for Disaster Prevention and Preparedness
CFW	Cash for Work
CIDA	Canadian International Development Agency
COMESA	Common Market for Eastern and Southern Africa
CPAR	Canadian Physicians for Aid and Relief
CRDA	Christian Relief and Development Association
CRS	Catholic Relief Service
CSA	Central Statistics Authority
CSE	Conservation Strategy of Ethiopia
CSO	Civil society Organization
DAC	Development Assistance Countries
DAP	Di Ammonium Phosphate
DFID	Department of Finance for International Development
DPPB	Disaster Prevention and Preparedness Bureau.
DPPC	Disaster Preparedness and Prevention Commission.
EAC	East African Community
EARO	Ethiopian Agricultural Research Organization
EBSN	Employment based Safety Net
EC	European Commission
EDF	European Development Fund
EFSR	Emergency Food Security Reserve

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EFSRA	Emergency Food Security Reserve Administration
EGS	Employment Generation Schemes
EGS	Employment Generation Schemes
EGTE	Ethiopian Grain Trade Enterprise
EHRS	Ethiopian Highland Reclamation Study
EIC	Ethiopian Insurance Corporation
EMTP	Extension Management Training Plots
EPA	Environmental Protection Authority
EPID	Extension and Project Implementation Department
EPRDF	Ethiopian People's Revolutionary Democratic Front
ESPD	Education Sector Development Program
ETB	Ethiopian Birr
EU	European Union
EU	European Union
EWS	Early Warning System
ETS	Extension Training System
FAO	Food and Agriculture Organization
FAO	Food and Agriculture Organization of the UN
FDI	Foreign Direct Investment
FDRE	Federal Democratic Republic of Ethiopia
FeMSEDA	Federal Micro and Small Enterprise Development Agency
FEWS NET	Famine Early Warning Systems Network
FFHC	Freedom From Hunger Campaign
FFP	Food For Peace
FFW	Food for Work
FFW/CFW	Food for work /Cash for work
FSP	Food Security Program
FSR	Food Security Reserve
FSS	Food Security Strategy
FSU	Food Security Unit
GDP	Gross Domestic Product
GDP	Gross Domestic Product
GO	Government Organization
GOE	Government of Ethiopia
Ha (ha)	Hectare
IAR	Institute of Agricultural Research
IDCoF	International Development Consulting Firm
IDS	Institute of Development Studies
IFPRI	International Food Policy Research Institute
IGAD	Inter Governmental Authority for Development

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IIRR	International Institute for Rural Reconstruction
IMF	International Monetary Fund
INGOs	International Non-Governmental Organizations
IOC	Indian Ocean Commission
IPM	Integrated Pest Management
I-PRSP	Interim Poverty Reduction Strategy Paper
ITCZ	Inter-Tropical Convergence Zone
IUCN	Union for the Conservation of Nature
LDCs	Least Developed Countries
KHCDP	Kale Hiwot Church Development Program
MEDaC	Ministry of Economic Development and Co-operation
MEDaC	Ministry of Economic Development and Cooperation
MFI	Micro Financing Institution
MOA	Ministry Of Agriculture
MOA	Ministry of Agriculture
MoA	Ministry of Agriculture
MOWR	Ministry of Water Resources
MPP	Minimum Package Program
MT	Metric Tones
NBE	National Bank of Ethiopia
NCSE	National Conservation Strategy of Ethiopia
NDPPF	National Disaster Prevention and Preparedness Fund
NEIP	National Extension Intervention and Training
NEWS	National Early Warning system
NFNS	National Food and Nutrition Strategy
NGOs	Non–Governmental organizations
NHSDP	National Health Sector Development Program
NORAD	Norwegian Agency for Development Cooperation
NPDPM	National Policy on disaster prevention and Management.
NPDPM	National Policy on disaster Prevention and Management
ODA	Official Development Assistance
OECD	Organization for Economic Cooperation and Development
ONCCP	Office of the National Committee for Central Planning
PA	Peasant Association
PADEP	Peasant Agricultural Development Project
PADETES	Participatory Agricultural Demonstration and Training Extension System
PEM	Protein energy malnutrition
PFP	Policy Framework Paper

CORDA

PMO	Prime Minister's Office.
PRGF	Poverty Reduction and Growth Facility
PRSP	Poverty Reduction Strategy Paper
PTA	Preferential Trade Area
RELC	Regional Extension Linkage Committees
RMCs	Regional Member Countries
RRC	Relief and Rehabilitation Commission
RSDP	Road Sector Development program
SADC	Southern African Development Community
SCRP	Soil Conservation Research Project
SERP	Southeast Range-land project
SG-2000	Sasakawa-Global 2000
SNNPR	Southern Nations and Nationalities People's Region
SORDU	Southern Range-land Development Unit
SPFS	Special Program for Food Security System
T&V	Training and Visit
TBT	Technical Barriers to Trade
TGE	Transitional Government of Ethiopia
TLU	Tropical Livestock Unit
TOR	Terms Of Reference
UN	United Nations
UNCTAD	United Nations Conference on Trade and Development
UNDAF	United Nations Development Assistance Framework
UNDP	United Nations Development Program
UNFPA	United Nations Fund for Population Activities
UNHCR	United Nations Higher Commission for Refuges
UNICEF	United Nations Children's Fund
URA	Uruguay Round Agreement
US	United States
USAID	Untied States Agency for International Development
WADU	Wolaita Agricultural Development Unit
WB	World Bank
WFP	World Food Program
WHO	World Health Organization
WTO	World Trade Organization
WVE	World Vision Ethiopia

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WADU	Wolaita Agricultural Development Unit
WB	World Bank
WFP	World Food Program
WHO	World Health Organization
WTO	World Trade Organization
WVE	World Vision Ethiopia

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Chapter I

BACKGROUND, SCOPE AND METHODOLGY OF THE STUDY

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1.1 INTRODUCTION

This report is about a study made on the issues of "Food Security, Sustainable Agriculture and Trade" in Ethiopia; the general objective of which is to assess the experiences gained from the past and present development policies, strategies and programs, and their impacts particularly on NGOs food security programs/projects. It is also expected that the results of the study will eventually provide a basis for designing of advocacy and lobbying strategies; and to create opportunities for CRDA members to strengthen their lobbying capacity.

This study is sponsored by the Christian Relief and Development Association (CRDA) with external financial support from ICCO, donor agency. The study was commissioned to the International Development Consulting Firm (IDCoF), which was able to undertake it between September and January 2002 with some technical support from BBO, an international consultant.

1.2 BACKGROUND TO THE STUDY

Ethiopia is predominantly an agrarian country in which agricultural production is a source of livelihood for an estimated 85 percent of its total population; and 85% and 45% of its foreign exchange earnings and GDP respectively. The agricultural sector, therefore, forms the basis for the overall socio-economic development of the country. However, in contrast to its size and contribution, the state of development of the agricultural sector has been abysmally low. A large subsistence peasant farming which is based on backward agricultural practices, and extremely low productivity characterizes it. It follows, therefore, that low agricultural production and productivity provides the major explanation for the current alarming state of food insecurity and rampant poverty in the country.

Economic development trends in Ethiopia over the last half a century may be differentiated into three distinct periods: pre 1974, 1974–1990, and 1991 to the present (Mohammed, 1997). The general development pattern is that, the pre 1974 period, particularly the 1960s, is often characterized by industrialization-based overall economic growth; the 1974–1990 by economic stagnation; and the period since 1991 by agricultural development-led economic recovery, despite the current generally low levels of socio-economic and human development according to various development indicators.

Considering the period between 1991 and the present, the performance of the country's economy has evidently lagged far behind expectations. Recent indications are that, more than half of the populations live below the poverty line; and there is a growing and widespread rural and urban food insecurity. The prevailing dismal economic situation is believed to be the result of a combination of several factors, among which the major ones are: agricultural production and productivity has not generally kept pace with the high rate of population growth; and development efforts to offset the undesirable consequences of the economic reform program on the poor have not performed well in

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reducing the ever-deepening poverty in Ethiopia. Thus, it is not surprising that issues and concerns about food security, sustainable agriculture, and trade are still given high priority in the development agenda of the Government, NGOs and the donors/ international communities.

The NGO community has been emerging in Ethiopia over a period of more than thirty years (since the 1970s) and has assumed its current prominent role in contributing to the attainment of food security and long-term development in the country. This is clearly evident in the progressive reorientation of NGOs program operations from relief during the heightened famine of the 1980s to the recent emphasis on rehabilitation and development activities in support of sustainable development (Code of Conduct for NGOs in Ethiopia, 1999), with a heavy concentration on integrated rural development program activities). Apart from such a gradual move along the relief-development continuum, NGOs have also shown increasing interest in providing assistance towards the alleviation of urban unemployment and poverty (Wassie, 2000). Clearly, therefore, the NGO sector in Ethiopia has established itself as a major Government partner in the efforts to bring about economic and social development in the country.

Despite the efforts, however, the prevailing economic situation in the country is such that significant progress has yet to be made in checking and reversing the daunting trends in agricultural production and productivity, alternative sources of employment and income, and food security. Over the last decade, the average annual increase in the production of cereals, the most important food crops, stands at 1.2% against a corresponding population growth rate of 3.0 per cent. About 50% of the population does not consume the minimum calorie requirement (MEDaC, 1999), and more than three in five children under the age of five suffer from chronic malnutrition (CSA, 1993). Such a formidable challenge has made it imperative that past and present practices in food security, sustainable agriculture and trade are reviewed; and based on the outcome, a strategy is to be designed for advocacy and lobbying to show the general direction in which development partners should move to bring about meaningful impact on the livelihood of the country's population. This study, sponsored by CRDA, is a step in that direction.

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1.3 OBJECTIVE AND SCOPE OF THE STUDY

This study generally aims to assess the experience gained from the past and present development policies, strategies and programs, and their impacts particularly on NGOs food security programs/projects. ***The main objective of the study is to provide CRDA members with the necessary tools and information to lobby and advocate on food security, sustainable agriculture and trade issues*** (TOR, 2001). That is, it envisages that the results of the study will provide a basis for the design of advocacy and lobbying strategy to address outstanding issues and concerns about food security, sustainable agriculture and trade in Ethiopia.

The scope of the study is determined by its specific objectives, as detailed in the TOR (see Annex 1). In a more condensed form, the study involves review, analysis and documentation covering six major areas of inquiry:

- National, regional and donor policies, programmes and strategies relating to food security, sustainable agriculture and trade in Ethiopia;
- The impact of past and current Government and donor policies, programs and strategies on NGO food security and sustainable agriculture development programs;
- The extent to which CRDA members have the knowledge and understanding of policies and strategies on food security, sustainable agriculture and trade in the country;
- The links between food security, sustainable agriculture and trade, and whether and to what extent Ethiopia is affected by global trade issues;
- Specific areas of regional and national concern about food security issues for workshop deliberations; and
- The availability and ways of utilizing untapped potential resources, and the possible linkage between such potentials and food security programs in Ethiopia.

1.4 APPROACH/METHODOLOGY

In the present context, it is assumed that there is a dynamic relationship between the status of food security, sustainable agriculture and trade on the one hand, and the larger policy environment on the other. More specifically, macro-level policies and strategies provide a general framework that guides the functioning of sectoral agencies. At the same time, the experience gained from micro-level operations provides a basis for reshaping the larger macro policy environment. Taking this assumption as a point of departure, the study methodology was designed to gather qualitative and quantitative information on the experience, views and perceptions of both policy makers and practitioner groups (Government and NGOs development staff, heads and representatives at different levels) with regard to food security, sustainable agriculture and trade. The broad nature and scope of the study necessitated the deployment of a team of five member consultants with a wide range of expertise and work experience in the fields of food security, macroeconomics/policy analysis, sustainable agriculture (including research, extension and environmental economics and protection), trade, and gender and development.

The study was undertaken between September and December 2001 and started with an extensive review of the literature from which a general understanding was gained regarding the nature of and interrelationships among actors in food security, sustainable agriculture and trade. This phase of the study also provided the basis for delineating variables and determining the type and sources of primary information required.

In the second phase of the study, primary information was collected mainly through applying non-structured survey (group and individual) questionnaire interviews with senior development staff and representatives from relevant Government and donor

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agencies and from samples of NGOs selected by CRDA. The survey samples coverage included:

a) 10 Government agencies both at Federal and regional levels;
b) 13 donor agencies (including multilateral, bilateral and 2 international non-government organizations); and
c) 34 sample NGOs operating in eight regions (including Addis Ababa) were contacted for the interview-based discussions (see Annex 2).

The third phase of the study involved information processing, analyses and interpretation, and compilation of the study report. To ensure a holistic and coherent situation assessment of food security, sustainable agriculture and trade, high spirit of interaction was maintained among the consultants in the entire course of the study.

In sum, the study approach adopted generally unstructured with greater participatory and facilitative processes in order to meet the study objectives. Effective data collection from target participating agencies/representatives or key informants (including individuals and groups) was possible/achieved through adopting or applying a combination of different study approaches (survey methods and procedures).

1.5 ORGANIZATION OF THE REPORT

This study report contains seven chapters. Chapter I provides/discusses the introduction and background to the study, objective and scope of the study, and the methodology followed to conduct the study. Chapters II and III review the Government and donors policies, strategies and programs, and their impacts on food security program/project activities in Ethiopia. Chapters IV, V and VI discuss the food security/insecurity situation, sustainable agriculture and trade issues in Ethiopia (including existing potentials, problems/challenges and policy implications) respectively. Chapter VII of the report concludes the findings of the study (providing overall conclusions), and presents the major issues of concern for lobbying and advocacy (as key policy suggestions/recommendations).

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Chapter II

REVIEW OF GOVERNMENT MACROECONOMIC AND SECTORAL POLICIES AND THEIR IMPLICATIONS ON FOOD SECURITY

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2.1 OVERVIEW OF MACRO-ECONOMIC SITUATION

2.1.1 General background

The Ethiopian economy is a typical developing country economy with agriculture as a dominant sector and its performance having its print on every aspect of the economic system. The agricultural sector accounts for 45% of the country's GDP and contributes 85% of export earnings (coffee, the major export item representing about 60% of the total export earnings). An estimated 85% of the population gains its livelihood directly or indirectly from agricultural production. This sector is also a major supplier of raw materials for and buyer of outputs of the industrial sector. In contrast to its size and contribution, the state of development of the agricultural sector was abysmally low. A large subsistence peasant farming who is based on backward agricultural practices and extremely low productivity characterizes it.

The industrial sector contributes 12% of the GDP and 15% of export earnings. It is predominantly engaged in the production of agro-processed goods, textiles and garments, and leather products and depends on imported inputs and technology at large. The service sector represents about 43 percent of the GDP and is to some extent dominated by Government expenditures. The structure of the economy by major sectors over the last four decades is depicted in the following table. It testifies that the Ethiopian economy had undergone very little structural transformation over the last forty years.

Table 2.1: Period Average Growth of GDP by Economic Activity (1960-1998)

	Growth in Percentage			Percentage Distribution of GDP			
	1960-74	1974-91	1992-98	1960	1974	1991	1998
GDP	3.6	2.0	4.4				
Agriculture GDP	1.7	1.2	3.4	69.2	52.5	56.5	45.7
Industry GDP	6.2	1.0	7.3	10.8	14.9	9.0	11.2
Manufacturing GDP	10.4	1.4	7.4	2.0	4.7	2.9	4.3

Source: Based on National Accounts Statistics from MEDaC

The levels of socio-economic and human development in the country are very low as reflected in various development indicators. With a per capita income of about US $ 100[1], Ethiopia is among the poorest countries in the world. Poverty and food insecurity is widespread and deep. Pervasive poverty is manifested, inter alia, in the highest incidence of malnutrition, low health, and education and infrastructure coverage. About 50% of the population in the country cannot afford to spend enough to consume the minimum food requirement, and 45% of the population lives in absolute poverty (MEDaC, 1999). Life expectancy at birth averaged only 43 years (World Bank, 2000). The health, sanitation and safe water coverage stood at about 52.4%, 26% and 32%, respectively. A National Nutrition Survey (Central Statistical

[1] The recent World Bank estimate of per capita income for Ethiopia.

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Authority, 1993) found that 64% of children under the age of 5 suffer from chronic malnutrition (stunting), and about 47% are underweight. These indicators are far behind even from the average for African countries.

2.1.2 Developments in the Macro-economy of Ethiopia

Macro-economic performance indicators showed distinct phases in the last four decades. The period spanning the years 1960-1974 was frequently cited as the golden years of better and stable economic growth. During this period real GDP was growing at an average rate of 4 % per annum (in fact with slight variations between years). With an average growth rate of 2.5% per annum in population, GDP per capita was also showed an annual growth of about 1.5% per annum. Both gross capital formation (investment) and domestic savings were in good shape too, remaining stable at about 12% and 13% of GDP, respectively. The resource gap during these years was, thus; remarkably low, being domestic savings financing about 85-90% of the gross capital formation. Fiscal and external payment balances were also sustainable as the budget deficit and the current account deficit were contained at a relatively low level, being at most 3.7% and 3% of the GDP, respectively.

After a swift transformation in economic management system in 1974 and the accompanied drastic reforms towards achieving economic growth through the mobilization and allocation of resources by the central planning, the steady real GDP growth gave way almost to stagnation. The average annual growth rate of GDP for the period (1974-1991) was put at about 1.5%. This seen against the overall population growth rate of 3% per annum entails that per capita income was declining at 1.4% per annum, leading to a serious deterioration in the standard of living in the country. The performance of domestic savings and investment were also dismal. Both domestic savings and investment had drastically plummeted in the first five years of the regime, reaching to 1.9% and 7.5% of GDP in 1979 whereby domestic savings were only enough to support 25% of the investment. Although investment has later on recovered (even increased higher than the previous level as a percentage of GDP), domestic savings remained low which in most of the time falls of financing even 50% of the investment. This shows the expanding resource gap and the consequent adverse implication on the current account of the balance of payments and external debt of the country.

On the fiscal side, in the period 1975-1991, the government budget deficit had increased to an alarming level. The deficit was serious particularly beginning 1983 on-wards where its level reached double-digit figures as a percentage of GDP. The driving force behind the deficit was the fast expanding government expenditure which was unmatched by a corresponding generation of government revenue. With the expansion of public ownership and management almost in all of socio-economic activities after the 1974 revolution, government expenditure had expanded tremendously. From the level of 12.7% in 1974, government expenditure has continued to increase over the years until it reached a climax of 40% of GDP in 1989. Its composition was still concentrated on recurrent outlays, of which defense expenditures account about 25% in most of the period and about 50% in the last years of the regime. Although capital expenditure was low as compared to recurrent expenditure, it faired well during the 1980s, accounting around 30% of the total government expenditure. Unfortunately, the returns from capital expenditures were low due to the concentration of government

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investment on large green field projects and inefficient enterprises where returns on capital were poor.

The overall balance of payments outlook during this period was not good. Despite strict controls on imports of non-essential consumer goods, the value of imports had been running more than double that of merchandise exports since 1981/82. The external current account deficit in most cases more than 6% of GDP while the total external debt service ratio to export of goods and services had risen to more than 65% in 1990/91. The bleak situation in the external trade is primarily rooted on the structure of exports. Being dominated by agricultural products, which are demand inelastic, vulnerable to natural calamities and terms of trade deterioration, Ethiopian export earnings have remained small with a slow growth and considerable fluctuations over years. Worse still is the dependence of exports on a single commodity (coffee-sharing 55-65% over the past four decades) destined to few countries which rendered export earnings to depend on the changes on the world market price of coffee and the demand situation in the importer countries. Although the need for diversification of exports, both in their composition and destination, has long been recognized, the effort has not met with success up to now. The fixed exchange rate regime which led to overvalued domestic currency, government monopoly on export marketing, difficult licensing procedures and high export tax were some of the supplementary factors that restrained export growth.

Macro-economic development since 1992/93 depicts two important positive out-turns: **economic stability** and **recovery**. During the eight years since 1992/93, growth in real GDP rebounded to an average level of about 5.6% per annum. In this regard, Befekadu and Berhanu (1999/2000) noted that "although there might be differences in emphasis and even disagreement on the appropriate comparator to use to get a proper picture of the Ethiopian economy, most observers agree that the Ethiopian economy did reasonably well by most standard criteria between 1991 and 1998". The level of fiscal deficit, which averaged 6% of GDP, was in a better shape till it started to deteriorate after the emergence of the conflict between Ethiopia and Eritrea. The progress made to re-orient Government spending on defense to that of social and economic infrastructure were noticeable. Inflation was relatively contained at low level averaging below 4% per annum between 1992/93 and1999/2000.

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However, Befekadu and Berhanu argued the registered performance of the economy as marginal compared to what could have been achieved with better alternative policies on the one hand, and attributed the source of the success to enormous injection of external resources and a reasonably good weather on the other. What is more is that sustained economic growth in 1990s is still shadowed by frequent fluctuations. Although GDP has showed a recovery growth rate of 12% in 1992/1993, the growth has immediately set back to 1.7% in 1993/1994, revived in the subsequent three years and declined by 1.2% in 1997/98. Similarly, although a recommendable increase in investment (particularly made possible by the inflow of external loans and assistance) has been recorded, it was not supported by the corresponding increase in domestic savings. Still domestic savings finance much less than 50% of the investment.

Although recent growth performance is said to be relatively encouraging, the country is faced with a number of major challenges that critically determine the future fate of the country's economy. The overriding challenge over the long-term is surmounting the structural problems of the economy. First and foremost, the Ethiopian economy is highly dependent on the weak

agricultural sector as its source of output, employment and exports. The fact that more than 90% of the agricultural sector is dependent on rain, which most often falls short of, and that 95% of agricultural output is produced by traditional and subsistence oriented small private farmers, has created an in-built restraint to the development of the economy as a whole. This was very well reflected in the performance of agriculture over the last 30 years. In almost all of these years agriculture has barely been growing in congruent with the contemporary growth in population, which indicated that agricultural production per capita has at best been stagnant - mostly declining (see table 1). Thus, "**what can be said definitely is that for agriculture to play the lead role... its dependence on the vagaries of nature has to end which means there need to be a structural transformation in Ethiopia's agriculture**..." (Befekadu and Berhanu, 1999/2000). Among the major factors behind the poor performance of Ethiopian agriculture are diminishing farm size and subsistence farming, soil degradation, inadequate and variable rainfall, tenure insecurity, weak agricultural research base and extension system, lack of financial services, imperfect agricultural markets and poor infrastructure (Ibid.).

Secondly, the structure of exports reflects heavy reliance on a small number of primary commodities, which exposed the economy to shocks due to weather and price related shocks. Export development and its contribution in Ethiopia are far from satisfactory. **To exploit the static and dynamic comparative advantages of the various sectors, the country has to diversify its export base and increase the production and export of value added goods and services. On the domestic front, the major challenge will be enhancing productive capacity and productivity which has been constrained up to now by poor management capability, weak institutional development, low level of technology, inefficient transportation and communication networks, etc. On the external front, the challenges are improving market access for Ethiopian exports and managing commodity market instability**.

Associated with the structural problems is the limited physical infrastructure that the country has. The country's road network is considered to be far from adequate even by sub-Saharan Africa standards. According to the 1994 World Bank's estimate, the average for Africa was 0.61 km per 1000 population and 50 km per 1000 km^2 while it stood at 0.43 km and 0.21 km for Ethiopia, respectively (MEDaC, 1999). As a result, vast expanse of the country's potentially productive areas lay distant from all-weather roads. Some estimates indicate that about 75 percent of Ethiopian farmers live more than half a day's walk from an all-weather road. Similar constraints were observed with respect to telecommunication and the power sector. There was 3 telephone mainlines per 1000 people in 1998 and 21 kilowatt-hours of electric power consumption per capita in 1997. The comparable figures for low-income counties were 23 telephones mainline and 357 kilowatt-hours in the respective years (World Bank, 2001).

Another dimension of the structural problem is the weak institutional capacity seen both from the side of the Government in its effort to formulate social and economic policies and strategies and implement and manage development programs and projects and from the side of private sector in its limited finance, entrepreneurial capability and managerial skills. In this regard, the challenge of developing an efficient, transparent and accountable civil service and, a strong judicial, legal, and regulatory capacity as well as a strong private sector is an outstanding task for the country. The other aspect of the institutional problem is the no-

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existence and/or extreme weakness of markets particularly those for factors of production (i.e., labor, capital and land). The other challenges include the low level of social sector development (as reflected in inadequate availability and accessibility to education, health and clean water), rapid population growth, low domestic savings and poor financial sector, etc.

The formidable challenge that all others boil down is the challenge of tackling the widespread poverty and persistent food insecurity in the country. Recognizing this, the overall attention of Ethiopian government and international communities is being geared towards addressing the issues of poverty and food insecurity. The design of effective strategies necessitates a clear understanding of the root causes, be it constraints related to policy or availability of physical resource (in terms of quality and quantity), financial resource, human resource, and technology as well as their management, use and development that perpetuate poverty and food insecurity.

This study is destined to review and analyze Government's macroeconomic and major sectoral policies to flag the critical issues and gaps that need to be addressed.

2.2 CONCEPTUAL FRAMEWORK ON THE LINK BETWEEN MACRO POLICIES AND FOOD SECURITY

Macroeconomic policies are measures that are taken by a government to achieve desired results in the overall performance of an economy. These policies encompass fiscal, monetary, exchange rate, trade policies, etc. By their nature, macroeconomic policies affect almost all aspects of an economy. In effect, macroeconomic policies set directly or indirectly the playing field level at which the performances of other economic areas are determined. In a sense, macroeconomic policies institute broad incentive and disincentive structure for the economy as a whole. The basic role of macroeconomic policies is maintaining macroeconomic stability (internal and external imbalances). Macroeconomic stability certainly doesn't by itself lead to development but without it all other efforts are likely to be in vain. This indicates that, although it could be difficult to establish causal relationships, macroeconomic policies do affect economic activities at every level.

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An important starting point in sketching the linkages of macroeconomic policies and food security issues is to clearly picture the concept and the underlying determinants of food security. Food Security is defined as access by all people at all times to the food needed for a healthy life. The food security concept addresses people's risks of not having access to the required food. Access to food, availability of food, and risks related to either access or availability are the essential determinants of food security. How do then macroeconomic policies affect access to food and the availability of food? The answer to this question needs to clearly point out the main factors that determine food access and availability.

Studies that looked at the effect of macroeconomic policies on the welfare of households started to emerge in the 1980s when the standard stabilization and adjustment programs of the IMF and the World Bank have adversely affected the welfare of the vulnerable groups. As the food insecure is one of the vulnerable groups, these studies provide a good frame of analyzing the effects of macro policies on food security. In a study commenced by UNICEF, Stewart, F.

(1987) identified three major ways in which vulnerable groups may be affected by macro policies. These are:

- through the impact on incomes of low-income households: by affecting wage and employment trends in the formal sector and, more indirectly, opportunities for informal sector income-earning opportunities. Macro policies affect rural incomes primarily through their effects on the terms of trade of the agricultural sector.
- by affecting the availability and price of major items of consumption of low-income households, especially food; and
- through the impact of Government expenditure related to vulnerable groups, especially in the social sectors.

Stewart further noted that the effects of macro policies on the vulnerable could also be assessed from the perspective of the pattern of economic growth that they intended to generate. It is understandable that in countries where conditions of the most vulnerable are very deficient as in the case of most African developing countries where only a fraction of the population have access to health services, where sanitation and water facilities cover less than half of the population, and where incomes of poor households are grossly inadequate. To meet the minimum food needs, bringing the condition of the poor up to tolerable levels will only be possible if economic growth is restored. However, the ensued economic growth should end up benefiting a wider section of the population particularly of the vulnerable. Experiences of some countries proved that improvement in the welfare of the vulnerable does not necessarily or automatically follow from accelerated growth. Capital intensive patterns of growth in the industrial sector associated with slow employment growth and deteriorating urban income distribution, or agricultural growth which is based on inappropriate mechanization and is associated with increasing inequality of rural income distribution, lead to growth with minimum trickle-down, and little or no improvement in the condition of the poor. Furthermore, agricultural growth consisting of expanding non-food cash crops may mean that falling food supplies and rising food prices accompany growth, and expanded tax capacity through growth may be accompanied by little change in expenditure on the basic services of the poor. This entails that looking at the implication of macroeconomic policies could be approached in two ways:

- through investigating the implication of each macro policy on improving employment and wage levels, improving supplies and prices of food and strengthening Governments capacity to invest in social services, or
- consistent economic growth, which would benefit wider section of the population, particularly of the vulnerable groups is needed.

Eel, Hay and Hoddinot (1993) have tried to look at the impacts of macro policies embedded in structural adjustment programs on household food security and nutrition. In doing so, they first developed a conceptual framework that elucidates the links between macro policies and household level food security. National level food security is considered, as a matter of comparing some aggregation of theoretical food needs with total supply.[2] The effect of macro policies on national level food security is thus equated with the effect of these policies on food

[2] This definition of national food security overlooks the roles of prices and level of income in food security, which are the decisive components in household level food security.

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supply, particularly of food production. In the case of household level, the link is a bit complicated as it involves both the availability of and entitlement to food, since households may be both consumers and producers and due to the intricacy to trace out the net effects of different policies. Graham Eel et al noted, **"it is important to be aware of this feature (the fact that they might be both producers and consumers) when assessing the impact of structural adjustment on household food security. For example, raising food prices might worsen food security by increasing the cost of food. However, it also increases household income, which, other things being equal, should improve food security".**

The effect of macro policies on household food security was conceived as having dual channels: direct and indirect. The direct channel works in the cases of those macro-policies that involve a direct transfer of resources to households which other things remain constant will increase their purchasing power. In the case of the indirect channel, it involves two steps. Initially, macro policies affect directly the level of product and factor prices and economic infrastructure, which are the backdrop for household's social and economic decision making. In the second step, the changing market prices of factors of production on the one hand and goods and services on the other affect household's production, income, asset value and real consumption levels. The final effect could either improve or deteriorate their food security situation.

In what follows, an effort is made to elaborate how each macro policy is linked to household's food security situation.

2.2.1 Exchange Rate Policy

Experiences of most countries testify that a competitive real exchange rate is necessary to support the expansion of the export sector and to avoid the emergence of balance of payments difficulties. Many African countries that have allowed their real exchange rate to become grossly overvalued have experienced a slowing of the expansion of their export sector, a decline of the agricultural sector and the deterioration of their external position. The common policy measure in this regard is the devaluation of the domestic currency. Devaluation implies to an increase in the relative prices of traded goods (exports, imports and import substitutes) vis-à-vis non-traded goods. Determining the effect of devaluation on food security is quite difficult. Firstly, its theoretical foundation involves a number of assumptions[3], and secondly there is a need to identify the production structure, income sources and input use of those ***households that are at a risk of food insecurity*** and clearly picture its implications on the identified characteristics.

Considering the small farmers which represent the overwhelming proportion of most developing countries population, those farmers engaged in the production of tradable particularly of export products benefit from the devaluation, which contributes to improve their food security while those who are engaged neither in the production of tradable nor of inputs for tradable will lose consequently threatening their food security. The extent will be worse if those producing non-tradable do use imported intermediate

[3] These assumptions include: (1) the nominal devaluation will translate to real devaluation for reasonable period of time, meaning that fiscal and monetary policies are tight enough to insure low domestic inflation and the international price for exports will not fall significantly, and (2) there is flexibility of resources (labor and capital).

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inputs like fertilizers and insecticides which their price has increased congruent with the extent of the devaluation. If the farmer produces both tradable and non-tradable products, the net effect depends on the relative production mix of the farmer or the flexibility that the farmer has to shift to the production of more tradable.

In the case of other sections of the society, the effect of devaluation will depend on where they are engaged and how flexible their wages are. If they are engaged or employed in production, distribution or marketing of tradable, they tend to benefit from a possible increase in wages accompanying the profitability of tradable.

2.2.2 Fiscal Policy

Two channels of fiscal policy effect on food security are identified. The first, the extent of direct transfers to the poor and vulnerable, subsidies on important inputs used by the food insecure and on consumption items they consume, and the level of income taxes on those that are at risk. This is in other words a look at the effort of the government to increase the purchasing power of the food insecure. The other is the extent of government expenditure towards basic rural and social infrastructures.

In a country where the overwhelming food insecure resides in rural areas, Government expenditure that reasonably focus on expansion of rural infrastructures like roads, water supply, electricity supply, storage facilities, marketing infrastructure, extension services and most of all social services such as education and health positively correlates with food security. This is because these infrastructures increase product prices through removing market integration barrier and there by improve the incomes and living conditions of the food insecure on the one hand, and increase the human capital and there-by-there productivity on the other.

The indirect effect of fiscal policy on inflation can also be considered as a third channel. The wider and more monetized is a budget deficit, the higher it tends to cause inflation, with adverse impacts on the real income of poor households.

2.2.3 Monetary Policy

Monetary policy is linked with food security from two perspectives. First, the policy stance on maintaining low inflation, secondly, on availability of and access to credit particularly to the poor and food insecure population. A monetary policy that addresses the problems of credit access to the poor and that is anchored to maintain low inflation to some extent reinforces food security. Most studies indicate that one of the root causes of food insecurity is lack of productive resources at ones command (of which capital is one).

2.2.4 Land Policy

Land policy relates to food security through its effects on food production, through its impact on long-term land development and natural resource conservation. Various studies pointed out that a land policy that institutes a secured tenure encourages investment on land development and increased agricultural productivity.

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2.3 REVIEW OF MACROECONOMIC POLICIES AND THEIR IMPLICATIONS ON FOOD SECURITY

2.3.1 Overall Development Strategy

The overall development strategy of the Derg regime was characterized by inward looking alternatively called import substitution and socialist-oriented development strategy. As soon as it took power in 1974, the military regime had made a swift turn from a liberal to a command economic system by introducing a socialist system of economic management. Nationalizing rural land, privately owned industrial establishments, financial institutions, schools and urban land and houses, triggered the socialization of the economy. This was reinforced by establishing a strong central planning institution, which served as a vehicle to determine the magnitude of production of public enterprises, to allocate factor of production at predetermined rate favoring the socialized sectors, and to set prices for major agricultural and industrial inputs and outputs. Moreover, national plans ensured promulgated access to credit facilities, foreign exchange, land, raw materials, and skilled manpower to the public enterprises while legislation ensured that they enjoyed near monopoly status in their respective line of activities by prohibiting investment in most industrial sectors or beyond specified ceiling of value of asset. These discriminatory policies had suppressed the private sector and paved the way for the expansion of public enterprises to every sector of the economy.

In parallel, the trade regime did consist of high tariffs, numerous tariff bands and several exemptions, as well as quantitative restrictions serving as a wall for the expansion of inefficient public industrial establishments. The domestic currency was grossly over-valued which led to a large parallel market of foreign exchange, illegal exports, and a shift towards domestic market. The export sector was subjected to a number of restrictive and disincentive policies adversely affecting its competitiveness and hindering diversification. Thus, the growth of exports was marginal and at the time covered less than half of the country's imports during most of the 1980s (WB, 1987).

The pricing and marketing policies were at large working against small farmers. In addition the lion share of government investment in the agricultural sector went to state farms and collective associations virtually neglecting the small farmers. Peasant sector lending as a percentage of total agricultural lending was only 5% (WB, 1987b). As noted in WB (1989), what was disappointing was that in the socialized sector, which has received the bulk of investment expenditure, the return on investment had been low. These coupled with recurring droughts and war resulted to poor performance of the agriculture sector. In the period between 1980/81 and1988/89, agriculture was declining at annual average of 0.02 percent (WB, 1989).

In general, most policy instruments during the Derg regime were effectively used to siphon away resources from the traditional sector - agriculture. Apart from macroeconomic policies (mainly of the overvalued exchange rate), which favored the modern sector, the pricing policy and quota delivery system enforced upon crop producers had effectively turned the terms of trade against agriculture. This had led to a decline in agricultural productivity and food production, which in turn exacerbated the food insecurity situation.

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As underscored in Befekadu and Berhanu (1999), the overall strategy of the present Government are anchored in four central policy tenets. These are, the Agriculture Development Led Industrialization (ADLI) strategy, the envisaged complementary role of the state and the private sectors, the assumption that the urban economy benefits from ADLI and the intention to bring about balanced regional development.

The backdrop of the overall strategy is the furtherance of a market-based economy where by the private sector plays a dominant role and where agriculture is targeted to lead the growth in other sectors of the economy. To effect this, the government has launched two successive medium term adjustment programs. The first adjustment covering the years 1992/93 to 1994/95 was mainly targeted to ensure economic stability, initiate the introduction of a market-oriented system, and to foster economic recovery (Policy Framework Paper - PFP)[4], 1992/93-1994/95). The economic reform measures undertaken in this round were mainly concerned with the correction of price distortions, lifting restrictions on the private sector, instituting markets for factors of production, reducing macroeconomic imbalances, decentralization of economic management, liberalizing trade and reforming the civil service.

The second adjustment program which covers the period 1996/97 to 1998/99 and later extended to 2000/01 focused on maintaining macroeconomic stability, enhancing broad based economic growth and reducing the level of poverty (PFP, 1996/97-1998/99). Policy measures were geared towards maintaining financial stability and further deregulating the economy and fostering sustained economic growth through increased domestic saving and investment.

2.3.1.1 Agriculture Development-Led Industrialization (ADLI)

The present Government has put agriculture at the heart of its effort to generate economic growth and development, which is manifested in its Agriculture Development Led Industrialization Strategy (ADLI). The premise relies on the fact that development should be based on the use of abundant available resources, which in the Ethiopian case is agricultural land and a massive peasant population, and that improvement in agriculture has a dynamic linkage effects on other sectors of the economy especially the industrial sector.

Within the agricultural sector, the strategy focuses on the improvements in the productivity of peasant farms and pastoral activities, and the establishment of large-scale farms particularly in the lowlands. In the strategy, the development of agriculture is viewed in three sequential phases with improvement of traditional agricultural practices through the use of improved seeds at first; followed by expansion of small scale irrigation schemes, agricultural infrastructure and modern technological inputs (such as fertilizers, pesticides, etc.). At the second and third stage, envisaged creating non-agricultural employment generating schemes. Recognizing the fact that market forces alone can't insure the development of the agricultural sector as envisaged, the strategy underlines the need for state support in terms of policy intervention and resource allocation. The industrial development is envisaged to be closely intertwined with development of agriculture through focusing on those industries that utilize domestic raw materials and abundant labor resources and those that produce products, which

[4] PFP is a form of guideline that explicitly states the policy measures that the Government will have to take in the specified period. It is a document drawn by the Government with close consultation of the WB and IMF.

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are in need primarily in the domestic market. The positive intervention of the Government to motivate the private sector to choose labor-intensive technologies that make extensive use of domestic raw materials was visualized in the strategy.

Focusing on improving the productivity of small farmers is one of the strong facets of the strategy in tackling food security and poverty since the small farmers account the major portion of the country's population and even greater proportion of those who are food insecure and in a situation of abject poverty. The effects of raising the productivity and then incomes of small farmers are not confined on tackling poverty and food insecurity in rural areas. It has also spillover effects on urban areas. Where the urban poor still have ties with the rural areas, and may return if opportunities improve, raising rural incomes may also indirectly improve urban conditions. More often, improved rural condition will slow down the flow of rural-urban migration and in the extreme case can lead to a reverse migration, in effect reducing the extent of urban poverty. In addition, the success of small farmers has important linkage effects on the rest of the economy as pointed out in the strategy. These linkages arise from expenditures by farming families on local goods and services and agricultural inputs, and from local processing of farm produce.

Befekadu and Berhanu (1999) acknowledged that "the priority provided to agriculture in EPRDF's ADLI strategy is essentially correct simply because it is inconceivable to think of overall development in Ethiopia without fundamentally improving the sector that directly affect the life of the greater majority of the population. The long term strategy of industrialization can not be effectively implemented without surplus production in agriculture to provide raw materials for industry, cheap food for urban labor, and increased income for the rural population which forms the necessary demand for manufactured goods." Although the strategy in general is accredited to be on the right direction, there are a number of criticisms that are labeled against its different components and implementation manifestations.

Two key areas of concern are identified in Befekadu and Berhanu (1999). The first relates to the concentration of efforts on improving land productivity in changing the stagnant Ethiopian agriculture rather than labor productivity. They noted that although improving land productivity is a commendable endeavor, the effort should have rather concentrated more on increasing labor productivity. This is on the finding of the comparison of land and labor productivity of the country with other selected countries, which revealed that the sector's major weakness, and its future potential for improvement lies much more in labor productivity than land productivity. It is noted that Ethiopia's land productivity is much higher than most countries and reasonably close to such highly productive countries as Canada, but on the other side agricultural labor productivity is found as one of the lowest in the world and 288 times lower than Canada. It is clear from this simple comparison that any concerted effort at improving the Ethiopian agriculture needs to give due consideration in improving labor productivity as well.

The second area of concern is associated with the institutional framework set up by the Government to implement its strategy in general and the issue of land policy in particular. The instituted ideologically driven land policy is underlined to have adverse consequences, which could seriously threaten the success of the government's strategy in agriculture and with it, its overall development strategy. Among the identified consequences, are that the already severe

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land fragmentation will be further heightened and insecurity in tenure persisted. Demographic pressure in rural areas will be sustained, inefficient resources use, environmental degradation continued, and the emerging social tensions as the youth is predominantly become landless exacerbated. **The aforementioned writers recommended that, the Government to give proper attention to search for a suitable alternative to existing land policy through engaging the public in interactive dialogue/studies.**

The other criticism on ADLI is it's over concentration on small farmers, neglect of the output marketing aspect and the subordination of industrial strategy totally with agricultural development. Many critically questioned how small farmers with an average land holding of 0.5 hectares can feed themselves and then supply raw material to industries. Although Befekadu and Berhanu do acknowledge the need to support the small farmers to improve their productivity, they underlined the need to give due attention to the development of commercial agriculture too in the strategy of the Government.

The other facet, which was not considered in the strategy, was the issue of output marketing. Our country's current experiences indicated that supplying the farmer with packages of inputs could lead to an increase in production and then marketable surplus. However, without a corresponding increase in demand, the price of agricultural products tended to decline as has been observed in the year 2001/2002. This outcome has ended up badly hurting the small farmers to the extent that sales of production couldn't even cover the cost of production particularly those of fertilizers and improved seeds. Current experience shows that, absence of institutional marketing support services is eroding away farmers expected achievements. "While efforts to improve long-term productivity on small-scale farms, with an emphasis on staple food crops, must be accelerated, research and policies are also needed to help farmers, communities, and Government better cope with risks resulting from poor market integration, poorly functioning markets, climatic fluctuations, and other factors." (Cohen, IFPRI, 2000).

The notion of totally subordinating industrial development to agriculture was also not wholly taken. The need for a separate industrial development strategy was underlined as necessary. In addition, there is also similar comment towards the need for a separate urban development strategy, which encourages investment, employment and innovation.

ADLI is criticized as deficient in addressing food security issue and its uniform prescription to all agro-ecological zones. In addition, the input applied on small-holder farm plots is much costly as compared to the net gain, which would accrue to the farmer.

2.3.1.2 Poverty Reduction Strategy (PRS)

Ethiopia is among the bottom of the least developed countries and its per capita income is among the lowest of these countries, and its reliance on agriculture among the highest in the group. Poverty in Ethiopia is widespread and multi-faceted. Measured mainly in terms of food consumption requirements, set at a minimum nutrition requirement of 2100 calorie per adult per day, and also non-food consumption requirements, a 1995/96 survey shows that 45.5 percent of the population was below the poverty line. Poverty was prevalent both in rural and urban areas, with coverage of 47 and 33 percent of the respective population. Since the rural

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areas account for about 85 percent of the country's population, poverty is primarily a rural phenomenon.

The Interim Poverty Reduction Strategy Paper (IPRSP) prepared by the Ethiopian Government in January 2001 is grounded in the National Development Program (NDP), which formulates policies aimed at achieving International Development Goals by 2015. Over the next 12 months, with participation from local stakeholders and development partners, the Government expects to give specificity to the key elements of the strategy and to refine implementation and monitoring systems in a full PRSP, which will provide the basis for updating the policy content of the Poverty Reduction and Growth Facility (PRGF)-supported programs with IMF.

The formulation of PRSP in Ethiopia recognizes three important tasks. First, the poverty analysis which provides basic information on the incidence of poverty, characteristics of the various household and a vulnerable groups including women, and the causes of poverty-encompassing factors associated with opportunities, capabilities, and vulnerability. Second, studies made by the government and other development partners regarding the effectiveness of past policies and public expenditure programs shall be used to strengthen the choice of public action under PRSP.

Another important input for the PRSP is expected to come from consultation where the findings shall help supplement the quantitative poverty analysis, and contribute to understandings of the effectiveness of an ongoing public action including institutional arrangement and capacity for implementing, monitoring and evaluation of poverty focused programs.

Six broad groups of stakeholders are identified in the process of formulating PRSP, namely: the Government at different layers, public, civil society organizations, the private sector, the media, and donors. The PRSP framework entails the development of a system of monitoring outcomes and impacts of the poverty reduction strategy and programs. Policy and program intervention need to be evaluated using basic indicators selected in line with the development objectives and goals set for the country. In Ethiopia, most of the development goals and targets are already set in various sector development programs. These and additional basic welfare indicators that will be used to monitor progress made in poverty reduction in the country are indicated in the annex below, subject to review during the preparation of the final PRSP.

2.3.2 Fiscal Policy

Fiscal policy is one of the critical macroeconomic policies that government's use to affect the performance of the economy and the different actors in the economy. The three main instruments of fiscal policy are taxation measures, public expenditure allocation patterns, and modes of financing of the budget deficit. All the three instruments have some level of implication on food security and its underlying determinants. A taxation system which is progressive and encouraging to the marketing and production of basic food items, a pattern of government expenditure that focuses on social sectors and basic rural infrastructures, and a

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mode of deficit financing that abate inflation pressures tended to have positive implications on the food security situation of a country.

Ethiopia is known for its prudent fiscal discipline and low inflation except in the last years of the Derg Regime. Fiscal polices under the Derg regime were characterized by vigorous effort to generate revenue and expansionary government expenditure. The taxation system was targeted on reaping the maximum revenue from foreign trade activities and higher income groups. Direct taxes (taxes on personal income and business profits) were highly progressive. The tax rates ranged from 10% of the lower taxable income bracket to 85% in the upper income category, which entails that the tax rate at the higher income is too discouraging. Two implications on the one hand, it dampens the entrepreneurship and work effort of individuals and thus arrest the expansion of economic activities which could have been a source of income and employment to the poor and food insecure. Although the progressive nature of the tax reduces the burden of individuals at the lower level of income who is likely to be at risk of becoming food insecure, the excessive rate charged at higher categories of income and profits discourages productivity and thereby economic growth.

Fast expansion (as required due to the mode of economic system followed) and greater concentration on economic sectors and defense characterized Government expenditure in the Derg regime. In the year's 1985/86-1990/91, 91% of capital expenditure and 42% of recurrent expenditure were made on economic sectors[5] and defense, respectively. Only 7% of capital expenditure and 18% of recurrent expenditure were channeled to social sectors. It is to be recalled that one of the ways to assess the effect of macro policies on vulnerable groups and food security is through the extent of concentration of Government expenditure on social sectors. The more focused are Government expenditure on social sectors, the better impact it has on food security situation. This is in the sense that these sectors have a direct effect of improving the living condition of the poor and also enables them to acquire human capital, which increases their productivity. In this light, it seems that the Government had neglected the social sectors with subsequent adverse implication to food security.

A major departure was observed in the fiscal policies of the present Government. The general direction was to maintain macroeconomic stability (keeping sustainable deficit and low inflation) at the one hand, and to support and encourage private sector participation and competitiveness on the other. On the revenue side, the focus was on improving revenue generation while at the same time paying due consideration for equity and the incentive and disincentive effect of taxes on the level of economic activity.

- The maximum personal income and business profit taxes that were in their respective order at 85% and 59% were reduced to 40% and 35% and the tax exempted monthly income was raised from 50 Birr to 120 Birr. Further more, reduction of the number of taxable income brackets so as to improve tax administration and the introduction of taxes on mining income, capital gains and rental income were effected.
- a minor reform on sales taxes was introduced putting 5% sales tax on selected list of agricultural and essential goods (such as live animals and products, vegetables

[5] Economic sectors included here are agriculture, mining and energy, natural resources, industry, trade and tourism, transport, communication, construction, and financial agencies.

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and fruits, food, pharmaceuticals, books and printed materials, hides and skins, and cotton) and a uniform 12% sales tax on other goods. Electricity, health and education services are continued to be of free of sales tax.

- all taxes levied on export goods except coffee was cancelled and the maximum tariff rate was reduced from the maximum rate of 230% to 40%.

These reforms in the tax system have some implications to food security. The first implication is that the rationalization of income taxes in favor of the lower income group particularly of shifting the starting base of taxable income upwards relieves the tax burden of low-income earners, which are mostly food insecure, or at greater risk to be one. Although the adjustment might not entail an increase in the real purchasing power of that income group, it helps them to some extent to offset the increase in food prices that they face. This in a way might have a synergy to other efforts of increasing food security at the household level.

An important point in this regard is the issue of further pushing up the lower taxable income at least to a level of the food poverty line income and at most to the absolute poverty line income. According to MEDaC's report (1999) on the poverty situation in the country, the income that provides the minimum food requirement per adult per annum was put at 647.81 Birr. An average family in Ethiopia has 4.2 adult members (Ibid.). Thus, a typical family in Ethiopia needs an income of 2720.8 Birr per annum or 226.7 per month to guarantee its minimum food requirement. In the case of absolute poverty, a typical family needs an income of 4515 Birr per annum or 376 Birr per month to escape absolute poverty. The fact that Government is currently taxing income earners above 120 Birr per month implies that the Government is taking away resources from households that are not even capable of satisfying their basic food needs.[6]

The second implication is that the substantial tax rate cut on the high income and business profit tends to have a dynamic effect on galvanizing economic activities as the private sector is allowed to maintain a better part of their increased income or profit. In other words, investment and hard work is motivated which in turn generates economic growth and directly contributes to the expansion of income and employment opportunities of which the poor and food insecure partly benefit. The cancellation of export taxes (except on coffee) and reduction of tariffs further reinforces private sector engagement and economic growth, and is in line with the basic principle of the food security strategy of the government that opts to address food insecurity in an environment of international competitiveness.

The low sales tax imposed on basic food items and no sales tax on social services is also recommendable in light of food security goals. Even further, the Government can consider making basic food items that are commonly consumed by the poor free of sales tax.

On the expenditure side, a restructuring of expenditure (from defense and productive sectors) towards social sectors and basic economic infrastructure development was explicitly reflected in the fiscal policy. This is in line with the stand of the Government to gradually pull out from productive sectors in which the private sector is believed capable enough to effectively

[6] This is on the assumption that only one individual earns income in the family, which is quite a reasonable assumption in the Ethiopian situation.

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takeover. It was observed that Government capital expenditure on social sectors has increased from an average of 7% during the period 1985/86-1990/91 to 23.8% in 1997/98, while expenditure on economic sectors and defense have declined significantly. Furthermore, the existing expenditure on economic sectors has focused more on economic infrastructure development particularly of roads. Capital expenditure on road construction has increased from an average of 6% of total capital expenditure during 1985/86-1990/91 to 21% in 1997/98. Even within a given sector like agriculture, there is a tendency of a shift from investment concentration on state farms and co-operatives, which were inefficient to that of supporting the small farmer. In terms of the mode of deficit financing, the Government has used non-inflationary sources (mainly external sources and to some extent non-inflationary domestic sources), which helped to contain inflation at a low level. The reorientation of Government expenditure and non-inflationary financing of the deficit have significant positive implications for food security efforts.

The major issues raised by respondents of the survey for this study pertaining to tax exemptions are: food imports should be zero tariff; spare parts imports to community based infrastructure projects like water pumps and its accessories should be tax free. However, making food imports zero tariff could have a negative impact on domestic food production by depressing domestic prices.

2.3.3 Monetary Policy

The types and mix of monetary policy instruments employed vary from country to country, largely depending on the degree of sophistication and complexity of the national economy in question. But, generally, the major instruments include the rate of interest, the rate of exchange, legal reserve, cash and liquidity requirements, open market operations. Direct credit ceilings, discounting and rediscounting facilities, and ceilings on Government borrowing and direct monetary and inflation targeting are also the major monetary policy tasks.

Under the Derg regime, monetary policy, in so far as it was recognizable, was almost wholly subservient to the objectives of the central plan. Interest rates were administratively fixed and rather rigid, the main objective being the promotion of socialization. The Government and state enterprises obtained nearly all the credit they required to implement their respective plan targets. Budget deficit monetization was high and thought to be necessary to supplement resources required for plan implementation. Priority was given to attaining planned growth targets and inflation ranked behind growth objectives. The major consequences of the Derg's discernible monetary policy were: rising inflation, chronic balance of payments problems and, rather surprisingly, economic growth rates which on average were not even parallel with population growth, despite the fact that some impressive development projects such as hydropower projects (Melka Wakena and others) were established. A number of large-scale industrial and agricultural investments and road construction programs were implemented.

However, the current monetary policies in Ethiopia are generally based on the country's contemporary economic and financial realities and more specifically on current practice and the evolving liberalization process. In the Ethiopian monetary context, narrow money is composed of currency outside banks and demand deposits. Broad money is made up of narrow money plus savings and time deposits. Targets for monetary aggregates (broad money, narrow

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money, reserve money, etc.) most of the time set to be consistent with real GDP and export growth and inflation targets toward off financial instability in the national economy.

Although balance of payments sustainability is a function of several financial and non-financial domestic policies as well as uncontrollable external factors, the National Bank of Ethiopia (central bank) is striving to contribute to the attainment of this overall objective mainly through the formulation of sound credit and foreign exchange policies.

Table 2.2: Annual Growth of Money Supply, Inflation and GDP (in percent)

	Pre-reform			Post-reform					
E.F.Y.	1989/90	1990/91	1991/92	1992/93	1993/94	1994/95	1995/96	1996/97	1997/98
Broad Money	17.58	18.64	13.32	12.73	14.42	24.23	8.65	5.71	12.12
Inflation rate*	5.2	20.9	21.0	10.0	1.2	13.4	0.9	-7.0	2.3
GDP	4.1	-4.3	-3.7	12.0	1.7	5.4	10.6	5.6	-0.9

* Up to 1996/97 Addis Ababa Retail Price Index, thereafter country level retail price index.
** Ethiopian Fiscal Year, July - June.

The present Government's monetary policy can be summarized as follows:

- Interest rates are at least partially determined by market forces,
- The major objectives of interest rate policy seem to be savings mobilization, inflation control and possibly productive efficiency,
- Interest rates are neutral as between economic sectors differentiation being based only on maturity,
- Control over the growth of money supply is exercised via credit control (moral suasion) in order to achieve inflation targets;
- Budget deficit monetization has been minimized with a view to curtailing inflation,
- Inflation control appears to have priority over accelerated growth; and
- In line with the policy of minimizing budget deficit monetization, Government borrowing is now being increasingly accommodated by non-bank sources, mainly through the sale of treasury bills.

2.3.3.1 Banking and Micro-Credit

In Ethiopia, the number of financial institutions are very limited, i.e., two public commercial banks, seven private banks, one specialized (development) bank, and nineteen micro financing institutions. And, there are nine insurance companies and all of these financial institutions are licensed and supervised by National Bank of Ethiopia (NBE). In addition, there are about 700 formal savings and credit cooperatives, and numerous informal financial institutions. Nevertheless, the money and capital markets are still underdeveloped, and treasury bills were the only security available to investors until very recently.

The NBE currently has various monetary policy instruments to influence credit in the economy. These comprise: interest rate, credit ceiling, reserves and liquidity requirements

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and exchange rate policy. Open-market operations in its standard sense do not exist in Ethiopia at present. However, steps are being taken to lay down the foundations for their institution by building upon the existing Treasury bill auction market. We will look at each in more detail below.

Interest Rate Policy

For all banks in Ethiopia, the NBE sets interest rates charged both for deposits and credit. From 1976 up to mid 1986, the interest charged for different sectors varied ranging from 3 percent for Government borrowing to 10 percent to private and interest paid from 1 percent for time deposits to 7 percent for savings deposits. In July 1986, a new structure of interest rates was introduced which in terms of cost favored the socialized sectors reflecting in part the Government's ideological preference for group ventures.

Since 1992 following the comprehensive structural adjustment program the practice of administratively setting interest rates and differentiating them by sector and type of ownership has been virtually abolished. Both the minimum deposit and maximum lending rates were set by the NBE until the latter was left to the decision of commercial banks for its determination. Effective January 1, 1998, the minimum deposit rate has been set at 6% and the lending rate has been liberalized. The sector also opened up to private participation.

Notwithstanding the interest rate floor set by the NBE, banks may determine interest rates on inter-bank deposits and lending, Government deposits and borrowing and large institutional savings and demand deposits by negotiation with the concerned parties. Furthermore, the NBE fixes a different set of minimum and maximum interest rates for micro financing institutions. As the banking sector expands and becomes more diversified and as generally money and capital markets emerge and become established in the country, the NBE's main interest rate policy instrument is expected to be the discount rate and rediscounting facilities associated with that central rate. Other rates of interest are to be largely determined by market forces when these financial conditions are fulfilled.

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Table 2.3: Interest Rate Structure of the Banking System

	Jan 2 - Nov. 30, 19995	Dec. 1, 1995 - May 30, 1996	June 1-Sep 15, 1996	Sept. 16, 1996-Dec. 31, 1997	Jan 1, 1998 - July 14, 2001	July 15, 2001 To date
Minimum interest rates on Time and Savings deposit	10	11	10	7	6	6
Demand Deposits	Nil	Nil	Nil	Nil	Nil	Liberalized
Maximum Lending Rate by Commercial Banks & Other Financial Institutions, Except for Central Government Loan	15	16	15	10.5	Liberalized	Liberalized
Central Government Loan	12	12	12	12	6	6

Source: NBE

Credit Policy

Under the Derg regime lending policies in the formal financial sector were set by the National Bank of Ethiopia, and were geared towards supporting the planned economy, and hence, all major aspects of borrowing and lending were fully regulated. However, following the reform

program credit is recognized as a vital financial development input and made available to all sectors and classes of borrowers without centrally imposed discrimination either by sector or type of property ownership, provided certain criteria of credit worthiness are met by borrowers. Government also used to borrow from NBE. However, beginning January 1995 started financing its fiscal deficit from non-bank sources via treasury bills of 28, 91 and 182 days. This has reduced the crowding out effect of the private sector.

Rural Credit Policy

Until 1986, no rural credit policy existed and each bank operated according to its own lending policy and procedures. The 1986 Rural credit policy introduced by NBE was revised and re-introduced in August 1988. The revised policy formed a basis for all rural credit activity until today. The objectives and strategies of the revised rural credit policy included:

- Expanding credit operations in the rural sector through:
  - Short-term production, marketing and other credit;
  - Investment credit for agriculture and non-agricultural activities in the rural areas;
- Identifying and developing economic ventures in rural sector; and
- Popularizing the benefits of institutional borrowing.

In order to achieve the aforementioned objectives, expansion of credit outlets through branch expansion and other means such as mobile banks were selected as strategies. The policy specifically defined the roles of Development and Commercial Banks of Ethiopia and Ethiopian Insurance Corporation (EIC), designating them each area of responsibility within the rural credit sector. While the institutions are required to collaborate in co-financing projects whenever possible, EIC is charged with the design and operation of appropriate insurance schemes and other specified lending.

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2.3.3.2 Performance of the Financial Sector

The outstanding claim of the banking system on the economy as at June 2001 reached Birr 25 billion from its very low balance of Birr 6.6 billion at the eve of the reform period in 1990/91. The lion's share of the credit went to the Government sector, which in effect has demonstrated the crowding out of the private sector and key economic sectors. The agricultural sector that had the second place in early 1990s, now ranks among the least in its credit intake. Outstanding loans to the central Government have remained at almost same level since 1992 while agriculture fell from 29 percent to only 5.8 percent in 2001. This could be partly explained due to the dismantling of state farms, which had been the largest recipient of credit from the banking system particularly from Development Bank of Ethiopia (see Table 4) and the write-off of bad loans to these farms prior to privatization. In addition, the focus of ADLI being on small farmers whose credit needs are small and limited to input loans which are provided by suppliers made the extent of credit that goes to the agriculture sector to be small and declining.

Most loans since the mid 1990s appear to have financed activities in domestic and external trade and other services (housing construction, hotels & tourism, transport & communications,

etc.). The main objective of the Government is to maintain high levels of growth through expansion of the private sector and in particular, to foster the growth of agriculture and rural enterprises. Without a sound and efficient financial sector the full growth potential of the economy cannot be realized.

Table 2.4: Outstanding Credit by Economic Sector (in Millions of Birr)

	1990/91		1997/98		1998/99		1999/2000		2000/01	
	O/S	% Share	O/S	% Share	O/S	% Share	O/S	% Share	O/S	% Share
Economic Sectors										
Government Deficit Financing	2629.7	40.0	2203.1	14.	3269.8	18.	2865.8	14.6	7031.8	28.2
Agriculture	1936.7	29.5	1078.1	7.2	1315.5	7.	1431.6	7.3	1452.3	5.8
Industry	557.	8.5	1789.0	12.	2078.7	11.	2224.6	11.3	2673.5	10.7
Domestic Trade	136.	2.1	2224.1	14.	1901.8	10.	2326.3	11.8	2199.8	8.8
International Trade	395.	6.0	2905.3	19.	3221.8	18.	3157.8	16.0	3207.3	12.8
a) Export	211.	3.2	1006.9	6.7	1176.1	6.	1032.4	5.2	1079.6	4.3
b) Import	184.	2.8	1898.4	12.	2045.7	11.	2125.4	10.8	2127.7	8.5
Housing & Construction	679.	10.3	1479.8	9.9	1555.5	8.	1640.7	8.3	1756.7	7.0
Transport & Communication	8	1.3	922.4	6.2	662.7	3.	950.1	4.8	972.	3.9
Hotels & Tourism	34.6	0.5	424.1	2.8	425.8	2.	319.9	1.6	410.	1.6
Mines, Power & Water Res.	86.6	1.3	31.5	0.2	23.4	0.	24.5	0.1	25.6	0.1
Personal	13.1	0.2	20.3	0.1	18.7	0.	22.6	0.1	26.1	0.1
Others	14.8	0.2	1860.6	12.	3249.9	18.	4716.2	24.0	5220.5	20.9
Total	**6568.9**	**100.0**	**14938.3**	**100.**	**17723.6**	**100.**	**19680.1**	**100.0**	**24976.7**	**100.0**

N.B: 1. Inter-bank lending is excluded
2. O/S = Outstanding balance

Source: NBE

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2.3.3.3 Micro-Financing Institutions

In a country where poverty is pervasive, credit to the poor is believed to be an essential input to increase production and productivity. Indeed, contemporary development practitioners consider credit to small-scale farmers and urban entrepreneurs who badly need it to buy inputs and capital goods, as the best weapon in the battle against poverty. Experiences suggest that MFIs are best fit to the provision of credit and other financial services to the poor compared to any other financial institutions.

To date, 19 micro-financing institutions have been established under Proclamation No. 40/1996, which empower the NBE to license, supervise, and regulate micro financing business. Ownership in MFIs is limited to Ethiopian nationals (legal or physical persons). They are formed as share-companies with a minimum of five members with the intention of encouraging wide ownership base to avoid conflicts of interest. Nearly all of them are either NGO-supported or publicly supported (particularly at the regional administration levels). This means that an important component of their financial resources comes from grants. This dependency on grants raises several questions about their financial sustainability over the long term. Micro-financing institutions are free to set their lending rates of interest, although on

deposits they must observe a floor of 6 percent, which is also applicable to commercial banks. The fact that at present, there are no purely private micro-financing institutions operating on a profitability basis is an indication that perhaps the business is not particularly attractive to the private sector.

Table 2.5: Micro Financing Institutions Ownership Structure
As at December 31,2001

Major owner	No. of MFIs	Paid-up Capital (Million of Birr)	Share in total capital (Percent)
Regional governments	7	11.5	80.4
NGOs	7	1.8	12.6
Individuals	5	1.0	7.0
Total	19	14.3	100.0

Source: Birritu No.76

From the above brief account of the current status of micro-financing institutions in Ethiopia, the single most worrisome problem appears to be their weakness in terms of financial sustainability, with potential serious implications for the long-term development of the country's agriculture (most beneficiaries of micro-financing institutions are peasant farmers). It is quite conceivable that the grant assistance now given to MFIs, if continued too far in the future, may actually result in the emergence of an inefficient agricultural sector (at the expense of commercial farming) that may prove difficult to reform later.

Effective governance of MFIs is highly influenced by the ownership structure. Regional governments and International NGOs effectively own and/or control MFIs in Ethiopia through their board representation and grants. Different studies indicated that both internal control and external audit activities are very poor. Therefore, for MFIs to succeed they must at least fulfill the following:

- It is important that they remain independent from any political interference;
- They must appoint board members and management staff on the basis of merit and be autonomous;
- The MFIs should have adequate systems of checks and balances;
- They should operate on the basis of market and set a reasonable time frame within which MFIs should become financially sustainable;
- Raise the maximum loan amount that can be lent by MFIs provided that they also raise their capital; and
- Strengthen NBE's supervisory capacity to minimize failure of MFIs by augmenting the internal good and effective governance.

2.3.3.4 Monetary Policy Implications on Food Security

Banks in general are considered as engines of growth and fuel the economy with their money creation power through the vehicle of credit. Accelerated economic growth and development accompanied by a high degree of job creation is the country's all-important goal to bring purchasing power for the food insecure population and, therefore, to an extent it could be used as a catalytic instrument, monetary policy would be configured within this broader context.

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The inflationary impact of monetary expansion via the vehicle of bank credit could, particularly in the Ethiopian context, be dampened at least through the following three ways:

- Improving the productivity of investment;
- Shortening the gestation period of investment; and
- Augmenting the foreign exchange earning capacity of investment.

This is so because the danger of inflation created by credit expansion is badly exacerbated by unproductive investment which is incapable of bringing on a reasonable supply of tangible goods and services; by a long time lag between investment and actual production; and by investment which does not give rise to exports. These are at least enough to counterbalance the inevitable increase in imports consequent upon increased credit expansion. As it is, if inflation control is to be the principal objective of monetary policy, relatively very little credit expansion would be allowed to hold the rate of inflation within tolerable limits, seriously compromising the growth objective. And its spillover effect will again undermine the welfare of the food insecure segments of the society through diminishing income and purchasing power.

The obsession with inflation control should not jeopardize the need to accelerate economic growth and employment generation, which, in the Ethiopian context, should be the major policy pre-occupations. To this end, re-introducing limited interest rate discrimination by type and scale of activity and estimated profit margins would deserve serious attention. The activities and the credit type to be considered for lower interest rates are:

- Rural credit
- Small-scale and medium scale enterprises
- Home building (own housing construction)
- Export production

In addition, the study team learned that, the one-year loan duration given to MFIs' borrowers is not enough to bear fruit in areas like cattle rearing and trade ventures, and repay their commitment within the agreed period. It is worth noting that to mitigate problems of borrowers some women associations and offices intervene and reschedule their loan maturity period, which is against the micro-financing proclamation. Therefore, the proclamation either has to be revised or regulate the institutions properly to observe the rules.

In another development, rural credit for women has resulted good outcomes, however, in some parts of Oromia Region proceeds from their business are reported to be snatched by their husbands. This has impaired the smooth functioning of the credit scheme and in some places women have given up using the facility.

2.3.4 Investment Policy

The level and efficiency of investment is the main yardstick of economic growth. Referring to statistical evidence on investment and growth performance in developing countries over the past 40 years, Kirkpatrick (2001) argued that investment was the key driver of economic growth, with higher investment levels being correlated with higher economic growth and poverty reduction as well. Kirkpatrick further argued that the form of investment also affected

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the growth outcome, with private investment having a stronger impact than public investment in achieving sustained, long-term economic growth.

During the Derg regime, public investment, which is marshaled and channeled through central planning, was believed to be the main vehicle of economic growth. To this effect, private investment was deliberately suppressed through different administrative and regulatory measures. At first, all privately owned industrial establishments and financial institutions, rural land, schools and urban land and houses were nationalized and put under state ownership. Later on various private investment restrictions (limitation on capital and to a single license), bureaucratic impediments and discriminatory practices against the private sector in terms of access to credit, bank interest rate, foreign exchange and land allocation, pricing and market regulatory mechanisms, etc. were effectively used to cripple private entrepreneurship and investment. The ensued outcomes were low level of investment since it failed to harness private investment opportunities and inefficient utilization as the so called preferred public enterprises, state farms and cooperatives were found out to be inefficient in resource use and ineffective to instigate overall growth in the economy.

In the Derg regime, investment stood on average at 14% per annum and economic growth as measured by per capita real GDP average growth indicated that the economy was regressing at 1.4% per annum. The inefficient allocation and utilization of public investment, and the incapacitation of the private sector contribute to poor domestic food production performance and limited income and employment generating opportunities, which resulted in the worsening food insecurity situation. Considering the investment on agriculture, had the resources (credit, fertilizer, improved seeds, etc.) been allocated to support the small farmer, a better increase in agricultural production could have been realized.

After 1991, wide-ranging reforms have been introduced both to encourage private investment and re-orient public investment. Public investment was planned to gradually shift from productive sectors where private investment can effectively take up to economic infrastructure and social service sectors. Towards creating an economic environment that promotes private sector development, the investment code and labor code was revised, new policies on tax, foreign trade, and finance were issued; and macroeconomic policies targeted to restore and maintain economic stability were introduced. Business tax rates were revised downwards and the labor code relaxed. The frequently revised investment code has removed capital ceiling, allowed investors multiple business licenses, opened up most sectors for private investment, granted incentives, and relaxed investment licensing procedures. The trade regime was progressively liberalized through deregulating domestic price and market restrictions, abolishing government monopoly, instituting fast trade licensing procedures, eliminating quantitative restrictions, reducing and rationalizing import tariffs, removing export taxes (except coffee), and ensuring access to foreign exchange[7].

The private sector has showed a gradual comeback. According to the Ethiopian Investment Authority, between July 1992 and July 1999, a total of 5096 projects each with investment capital of 250,000 and above with a total capital of 46.6 billion Birr have received licenses. Of

[7] A detailed review of the policy measures introduced to encourage investment is found in Tadesse Haile (2000), Ethiopia's Investment Climate, Opportunities and Challenges.

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these projects, those that represented 49% of the capital is either under operation or under implementation phase which are estimated to have created an employment opportunity to105, 517 permanent employees and 325,000 temporary employees. The fact that, more than half of the licensed capital project was not actually implemented, reflects that some constraints stifled the development of private sector.

Some critics of the Government suggest that this low ratio of implementation is a result of bureaucratic red tape, which discourages investors in the process of implementing their projects. Particular mention is usually made about the slow process of land allocation and the monopoly price charged by the municipality Government in Addis Ababa as the key constraint to private investment in Ethiopia (Befekadu and Berhanu, 1999). Also such points as shortage of demand, inability to compete with cheap imports, unfair competition, and shortage of capital usually surface as critical problems as well. With regard to the existence of unfair competition, the participants of the workshop on "private sector investment in Ethiopia: constraints and opportunities" organized by the British Embassy and the British council in collaboration with the Ethiopian Chamber of Commerce noted that the conditions of competition between firms in Ethiopia were not yet unbiased. They remarked that public enterprises, parastatals and private companies owned by political parties had a comparative advantage with regard to access to working capital and to inside information about Government policy. These privileges in the market place would need to be removed if the private sector was to be allowed to compete on equal terms (Kirkpatrick, 2001).

A World Bank Mission that visited the country in October 1998, has noted the following six key findings in relation to private sector development:

- Virtually all Ethiopia's exports are subject to multiple Government bureaucratic controls impairing the private sector's ability to respond efficiently to opportunities offered by world markets;
- Multiple layers of regulations and red-tape slow down the pace of private investment and limit new entry into markets, thus working at cross-purposes with the Government's stated objectives of greatly accelerated private investment and increased competition;
- As a war-torn country with a devastated infrastructure, Ethiopia needs to attract as much private capital and operating know-how as possible for accelerated reconstruction alongside public resources;
- However, large segments of the modern economy remain under public sector control, while public sector resources and management capacity are highly constrained, limiting the scope for private investment and operation to improve output and efficiency;
- Government controls on private investment and operations, and on export trade, exercised in a highly discretionary fashion, substantially increase transaction costs and risks for private business. Mitigation of these factors would be needed to stimulate more efficient private investment on a large scale; and
- Institutional capabilities and human resources in a fundamental sense are highly constrained (low levels of education and training at every level; weak business-related professions; inadequate business law, etc.). Scarce public resources need to be allocated as a first priority to meeting these needs. (WB, 1998)

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Statistics from the Ethiopian Investment Authority revealed that investment projects (those with less than 250,000 Birr capital) worth 3.52 billion capital and mining projects worth 85.6 million Birr have been made operational in the same period. More over, in the same period, foreign investment projects with a total capital of 7.5 billion Birr were either in operation or under implementation. However, compared to Foreign Direct Investment (FDI) flow to such countries as Uganda and Ghana which registered 120 million US dollar in 1996, FDI flow to Ethiopia which was 6 million US dollar in the same year is very marginal (WB, Global development Finance, 1998 as cited in Befekadu and Berhanu, 1999). The previously mentioned World Bank Mission emphatically underscored that "a striking feature of the record since 1991 is that both exports and foreign direct investment have remained extremely small". Thus, the Ethiopian Government needs to give due attention to address the identified constraints so as to facilitating private sector development,

The other facet of private sector development is the process of privatization of public enterprises. Because of the legacy from 17 years of the Derg regime, the Ethiopian economy has an unusually large state enterprises presence. The 1995/96 survey of large and medium scale manufacturing indicates that although limited in number as compared to private firms state enterprises accounted for almost 90% of sector value added and 85% of sector employment. Particularly noticeable in this survey was the overwhelming dominance of state owned enterprises in the food products, textiles, tanning and leather, wood products, paper and paper products, rubber, mining and metal product sectors. These are all sectors usually dominated by the private sector in other Sub-Saharan Africa economies.

In line with the aim of the Government "to limit the role of the government to selected economic services, encourage private investment and promote significantly greater participation of the private sector in the economy", privatization of state owned enterprises was one of the priority policy measures to be introduced. Ethiopia's privatization program began in March 1995. Since then up to July 1999, the Agency's statistics indicated that about 181 enterprises or units out of the total 456 enterprises/units have been privatized. But, the majority of the privatized enterprises are engaged in trade sector mainly of small retail and wholesale outlets implying that the privatization process is still limited.

Many of the sample NGOs and donors interviewed for this study emphasized the essential prerequisite to any long-term investment to be land tenure and use situation. They went further and mentioned the temporary certification of land in Amhara and Tigray regions to have produced a good incentive in relative terms to forestry development in barren/marginal lands of South Wello and Tigray.

2.3.5 Exchange Rate Policy

The rate of exchange is classified as one of the monetary policy instruments available to the monetary authorities of a country. The Ethiopian Birr has been pegged to the US dollar since the 1940s. Under the Bretton Woods exchange rate system exchange rates were essentially fixed to gold parities and fluctuation was allowed only within narrow limits. After the breakdown of this system in 1971, the industrial world converted to a flexible exchange rate system. Since then, Ethiopia has been pursuing a passive exchange rate policy leaving the Birr to depreciate with the dollar. Only on two occasions, Birr appreciated against the dollar. In

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1971, the exchange rate was fixed at Birr 2.30 per dollar. Since February 1973 the exchange rate was set at Birr 2.07 = US$1. However, there are some indications, which point to the overvaluation of the Birr.

Although the official exchange rate of the Birr remains the same for a long time, the real effective exchange rate, i.e., the trade-weighted exchange rate adjusted for the differences in inflation between Ethiopia and its trading partners has been rising. It rose to a peak *168.6* in 1985, and has subsequently declined *to 116* in 1988, but remained nearly 50 percent above the level of the mid 1970s (*Gashaw D. 1992*). It is worth noting that in parallel with the official exchange arrangement, there is also an illicit market for foreign exchange where at times the spread between the two rates reached 230 percent.

The supply of foreign exchange in the Ethiopian economy is a function of the following determinants: exports of goods and services, official foreign grants, private inward remittances and foreign loans. On the other hand, the major demand for foreign exchange emanates from imports of goods and services and private outward remittances. With respect to the level of the rate of exchange of the Birr, NBE's essential policy stance is to avoid excessive and abrupt depreciation or appreciation of the Ethiopian Birr. Hence, exchange rate stability within reasonable limits of variation (managed floating) would be a major policy objective.

The NBE operated a weekly wholesale foreign exchange auction system for commercial banks and investors' (previously it was retail auction) until recently. Exchange rates set by negotiation between commercial banks or bureau and clients or independently set by the former on the basis of market trends are operating side by side. The inter-bank money and foreign exchange markets are introduced recently as part of liberalization measures and the auction system totally phased out since end of October 2001. The primary foreign currency in which the Ethiopian Birr quoted will continue to be the US dollar, with, however, the possibility of pegging the Birr to a specially tailored basket of currencies.

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2.3.5.1 Devaluation

Ethiopia, a founding member of the International Monetary Fund, has acceded to the requirement of defining a relationship between currencies and gold. The purpose was to create a link between currencies and thereby establish rates of exchange, which were maintained within a narrow band of the par value. Any substantial revision (i.e. devaluation or revaluation) was to be made if and only if the country experienced a "fundamental balance of payment disequilibria" and subject to the consent of the IMF [20, Article 4]. This arrangement and the stringent conditions for departure from the declared exchange rate were created in the interest of stability and to avoid the competitive devaluation (Befekadu, 1991).

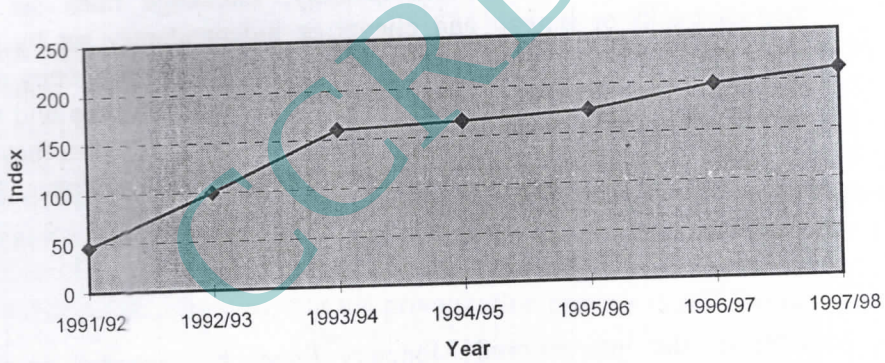
In compliance to this requirement when Ethiopia's postwar legal tender currency was issued in July 23, 1945 made to have a gold content of 5.52 grains of fine gold (equivalent to 0.357690 grams) corresponding to US$ 0.4025. However due to the devaluation of the US dollar in 1971 and again in 1973, the exchange rate of the Birr was revalued by 7 % and 11 % respectively (ibid).

The Ethiopian monetary authorities changed neither the vehicle currency nor the exchange rate until October 1992. The Ethiopian Birr had remained pegged to the US dollar at the selling rate of Birr 2.07 since February 1973. Since the US dollar is a floating currency, it means that the Birr is also floating against all currencies not pegged to the US dollar. Reflecting movements in the dollar, as well as in the relative prices between Ethiopia and its trading partners, the real effective exchange rate of the Birr appreciated by 86.9 percent between January 1976 and June 1985. The subsequent depreciation of 32.7 percent between June 1985 and June 1989 in the real effective exchange rate did not offset the initial appreciation (PFP, 1990). The scope of the illegal parallel markets widened, and the Birr was quoted against the US dollar at more than three times the official rate; consumer prices of a large proportion of imported goods reflect the parallel rate (PFP, 1992).

The devaluation of the Birr in October 1992 by nearly 59 percent (in terms of foreign currency), i.e., from Birr 2.07 to Birr 5 per US dollar, paved the way for a market-based determination of the price in foreign exchange of the national currency. It is obvious that nominal devaluation can have an effect on exports as long as it is translated to a real devaluation (in the sense that the nominal devaluation should not be wiped out by an accelerating price rise). In other words, the nominal devaluation should induce an increase in the real income of those involved in the export sector. As can be seen in the following figure the real exchange rate index has been depreciating since the introduction of devaluation.

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Figure 3.1: Trends in real exchange rate (1991/92-1997/98)



2.4 REVIEW OF SECTORAL POLICIES AS RELATED TO FOOD SECURITY

On highlighting the weakness of the food security strategy, Senait (2001) underscored the lack of recognition of the dynamic and multi-dimensional nature of food insecurity and the consequent little importance attached to food security by policy makers and development practitioners, and the failure to promote it as a cross cutting issue to be addressed in development program components. These include agriculture, health, nutrition, education, and water supply. Appraising the consistency and coherence of the various sectoral policies, and programs and the extent of their consideration of the different facets of food security issues is an important step towards effectively addressing the problem of food insecurity. The Ethiopian government has introduced a number of sectoral development policies and programs so as to indicate the overall direction and priorities with in the sector, to give

common targets that all efforts in the sector should be geared to achieve, to guide and coordinate program activities and picture the institutional arrangement for implementation. Among the sectoral policies and strategies designed are policies on health, education, population, disaster prevention and preparedness, women, and environmental protection and natural resource utilization. In the following sub-section, an effort was made to review these policies emphasizing on their implications on the food security of the country.

2.4.1 Agricultural Policy

It is widely acknowledged that poverty is the main cause of food insecurity, as poor people frequently cannot afford to buy all the food they need, and do not have access to land to produce it. What is more is that despite rapid urbanization in the developing world, poor people remain overwhelmingly rural. According to the World Bank, around 70 percent of poor and food insecure people reside in rural areas and depend directly or indirectly on agriculture for their livelihoods. The Bank forecasts that, poverty's center of gravity will remain rural in the early decades of the 21st century (cited in Sara J. Scherr, IFPRI, 1999).

Low productivity in agriculture is one of the major causes of poverty, food insecurity, and poor nutrition in low-income developing countries, resulting in low incomes for farmers and farm workers; little demand for goods and services produced by poor non-agricultural rural households, and urban unemployed and underemployed (Cited in Cohen, IFPRI, 2000). This situation has made these developing countries chronic food deficit economies, which depend year in and year out on food aid and imports. Continued low productivity in agriculture not only contributes to food gaps in poor countries, but also prevents attainment of the broad-based income growth and lower unit costs in food production needed to help fill the gap and improve food security. Moreover, agriculture's linkages to the non-farm economy are so strong that its low productivity and poor performance restrains employment, income and growth capacity in the rest of the economy. Because of this, development of the agriculture sector figures prominently in any food security and poverty alleviation strategy of these countries.

Being overwhelmingly a rural based economy, the Ethiopian Government has long recognized the critical role of agriculture in the development of the country's economy. The Government still promotes ADLI as its overall strategy. However, there is no any agricultural policy that concretely outlines the framework and direction of agricultural development. At present, there is a Draft Agricultural Policy formulated by the Government (formulated in April 2001).
The Draft Agricultural Policy at first outlines the rhetoric that the country is well endowed with natural resources that is conducive for agricultural development. It also iterates the various problems related with the use and management of these resources and natural problems that slides agriculture sector to the opposite direction. Among the problems stated are unbalanced population growth and resource development, misuse of natural resources and environmental degradation, over-dependence on rain-fed agriculture, use of backward and traditional technologies, inappropriate resource utilization, poor socio-economic infrastructure availability, and inappropriate agricultural policies of the past. In general, the agricultural policy is aimed at addressing these problems.

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The Draft Agricultural Policy incorporates a number of inter-related, but separately treated policies on:

- land use and management;
- soil and water conservation;
- forest use and conservation;
- conservation of wildlife;
- development of the crop sector;
- development of the livestock sector; and
- integrated programs within agriculture.

It is obvious that land is a public property under the constitution. The policy on land use and management considers inappropriate land use technology as a cause for mismanagement and misuse of natural resources. The policy focuses on ensuring land use right, reducing land fragmentation, determining minimum land holdings, and planning and implementing land use systems. The encouraging policy measures envisaged include enhancing the right of farmers and others to be able to transfer, inherit and lease their land and establishing a legal institution responsible for collecting information and managing land. However, **the policy has also contradicting elements such as ensuring use rights versus the possibility of land redistribution stated in the policy, and the plan to set the minimum land holding versus the increasing landlessness that may be resulting due to population growth.**

The policies on soil, water, forest and wildlife conservation were targeted at enhancing appropriate use and conservation of these resource through introducing better use and management systems, and close follow up by the Government.

The overall policy direction on the development of crop sector is on increasing productivity and diversification taking into consideration local resource endowments and ecological systems as well as addressing the critical constraints behind the development of the crop sector. In terms of diversification, the policy embraces the production of food, export and agro-industrial crops. With regard to the ecological systems, the policy envisaged different policy measures for rain abundant, drought-prone and pastoralist areas. As to tackling the critical constraints, the policy cites the need to overcome the consequence of cultivable land limitation through intensification, expanding off-farm activities, voluntary resettlement and expanding reproductive health services. It also promotes for the expansion of agriculture to new lands, improvement of soil fertility, increasing irrigated agriculture, improving agricultural implements and production technologies and addressing the problem of draught power.

It is widely cited that Ethiopia has a wide livestock resource, being the first in Africa and tenth in the world in terms of numbers. However, the low quality of the livestock and its products made its contribution to the economy much lower than expected. The policy on livestock development aims at increasing livestock production and productivity, strengthening the livestock marketing structure and improving the quality of livestock raw materials supplied to industries. By so doing, the policy envisaged to attain better food security, increased income for those engaged in the field and reliable foreign exchange earning capacity for the country. The policy is comprehensive in the sense that it encompasses the development of all categories of livestock resources found in the country. Among others, the policy elements

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involve the introduction of improved breeds and better fodder, and the expansion of animal health services.

The policy on integrated programs treats the issues on agricultural extension, input and output marketing structure, incentives, inputs, training and capacity building, research and development, and information and early warning systems. The basic objective of the policy on integrated issues is to introduce and familiarize the farmer to improved technologies and better agricultural farming systems and also support the farmer with research and technical advises so as to increase productivity. The focal policy measures include the expansion of extension services to all areas, encouraging/strengthening of participatory agricultural development, augmentation of human resource and material capacity of agricultural training and research institutions, strengthening agricultural inputs and credit supply and output markets, and strengthening the information base and early warning system. The frequently raised issue of lack of output market and marketing infrastructure services (particularly for food surplus areas) is well addressed in the draft policy. In this regard, the following policy elements are explicitly stated in the new draft policy:

- the Government envisages to create a dependable market structure that ensures a good market for the products of the crop dependent farmers and pastoralists,
- the Government is planning to introduce measures for stabilizing the price of agricultural products; and
- the Government will create favorable environment for the development of cooperatives (which are believed to strengthen output markets and help address other common problems of the farmers and pastoralists).

In general, the Draft Agricultural Policy is comprehensive, but there is a need to revisit some of the conflicting policy elements identified in relation to the land issue and also to clearly sketch the efficient institutional structure to implement policy provisions.

One of the areas of weakness/problems of the agriculture sector as noted from the responses of NGOs, donors and government bodies is the poor working relation of the Ethiopia Agricultural Research Organization and the ministry in charge, Ministry of Agriculture. For instance, agricultural research should provide adequate focus on indigenous breeds and species, on root crops like sweet potato, cassava, ginger, and dry land farming. On the other hand, many organizations noted the low attention given to the problems of women often observed during post harvest season, lack of equitable access to livestock, share crop, the need for provision of proper extension service to women and pastoralists.

Some NGOs have also raised the issue of improving access to animal health services and eradication of tsetse fly. Towards this end, the Government should consider provision of tax subsidy for the importation of veterinary medicine/drugs.

2.4.2 Policy Related to Pastoral Areas

Although not dominant like sedentary agriculture, pastoralism is a visible activity in Ethiopia. Pastoralists constitute about 12% of the total population and reside over an estimated 60% of the total area of the country. The major pastoral areas are Somali Region, Borena in Oromiya Region and Afar that are located in the southeast, southern and northeastern rangelands.

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Policy initiatives towards the development of pastoralism in Ethiopia are well reviewed in Taffese (2000). He noted that "Government policy towards pastoralists had never been spelt out in any concise pastoral or arid lands policy document or strategy. It was generally implicit in the kinds of project that were implemented in pastoral areas". A number of livestock projects were implemented with the support of international donors; namely, USAID, ADB and the World Bank.

The first planned project was a pilot project initiated by USAID in the early 1960s, which was targeted at developing the Borena rangeland through provision of water points and demarcation of grazing areas into paddocks with its own water ponds. The second livestock project was a World Bank funded project initiated in 1973 and aimed mainly at increasing off-takes by developing livestock route system and establishing slaughter facilities in major towns and cities. The third project was wider in its scope with an objective of developing and rehabilitating the southern, northeastern and Jijiga rangelands. It was initiated in 1976 and it involved activities of water development, veterinary service, irrigation and range management, marketing, and infrastructure development. In 1988, the fourth livestock development project was initiated as a pilot project within the Southern Rangeland Development Unit (SORDU) for organizing service cooperatives as an entry to introduce participatory approach. Another project, which started in 1990 as pilot project first, and has been operational until very recent years is South-east Rangeland Project (SERP).

All of the projects implemented and experienced with pastoral development in the past have all been failures (Taffese, 2000). The prime reason for the failure was the lack of consideration of the deep-rooted socio-cultural practices of pastoralists. For example, the first project was not compatible with the traditional Borena communal grazing land ownership system, and the second project didn't take into account the traditional stock routes (Ibid.).

With the coming in to power of the current Government in 1991, although not outlined in detail, the problems of pastoral areas have been frequently raised. Institutionally, a Nomadic Pastoral Extension Zones Team was established under the Ministry of Agriculture within the Extension Department. A draft extension system for pastoral areas has also developed. Some developments in opening up both mobile and sedentary extension training programs have been registered in this regard in Afar and Somali regions. The curriculum for the three-year program has already been finalized and expected to start recruiting trainees within the pastoral community in the near future. The present decentralized Government structure, which provides the authority for regions to develop and implement their socio-economic, if effectively implemented, could also be taken as a step ahead in the development of pastoral areas. Despite these activities, most researchers and NGOs do still point out the continued marginalization of pastoral areas. The major manifestation noted was the little consideration given to the development of pastoralism in the country's overall development strategy (ADLI).

In addition, the existing sectoral policies don't properly address the problems of pastoralists. Some scholars argue that sedentarizing of the pastoralists cannot be a solution because their mobility is not aimless. Furthermore, we cannot decertify the arid-lands occupied by pastoralists; rather we can retain the system through mobility and providing them mobile

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extension services. Agricultural research has low focus on pastoral activities; and there should be attitudinal change of professionals deployed to work in the pastoral areas. The Government can also support the pastoralists through providing water, animal health services and promotion of grazing lands and forage use.

Long-term sustainable livelihood improvement for pastoralists needs to be considered holistically and to gradually change them to agro-pastoral, which also requires proper political and resource commitment to implement and introduction of appropriate technologies.

De-stocking used to be taken as emergency solution in times of drought. This can reduce the number of livestock and then its pressure on rangelands; and this can also help to generate income and to develop cash reserves for restocking purposes.

In general, pastoral and urban residents food insecurity problems are not properly and adequately addressed. Strengthening the collective way of ensuring food security strategy of the pastoral communities is one area of intervention support. Traditional conflict resolution mechanisms like *'guma system'* should be encouraged rather than using Government force in addition to the preventive measures before the onset of conflicts as currently witnessed.

2.4.3 Land and Land Use Policy

The issue of land reform and tenure security is a crucial aspect of sustainable agricultural development and food security in Ethiopia. The relationship between a land tenure system and sustainable agricultural development and land use anchors on the premise that ***land tenure arrangements influence "peasant's land management practices, cropping strategies, investment plans, and even routine decisions having to do with labor, employment and household consumption". In the Ethiopian context, the lack of private ownership or secure rights over a specific plot is presumed to lead to insecurity of tenure because of the potential for the regular reallocation of land to accommodate newly emerging households. At the household level, this is presumed to lead to low investment, little diversification, bad land use practice, and ultimately low productivity, because farmers are reluctant to make investments on their land for the fear that they would lose it in the event of redistribution.*** By and large, the present land policy is presumed to lead to increased fragmentation of holdings, which in turn is assumed to prevent economies of scale in agriculture, increased levels of environmental degradation and poor agricultural performance.

The issue of land policy in Ethiopia is subjected to a lot of controversy. Two extreme sides could be identified with regard to the position in land policy. The government has a leftist extreme view that land should remain under public ownership and this stand is enshrined in its constitution. The reasons are not based on an empirical findings rather on a mere expectation that if land is privatized there will be mass sales, and consequent landlessness and increased impoverishment of the chronically vulnerable accompanied by high rural-urban migration, widespread poverty and social unrest.

Studies conducted on land tenure systems exercised in Ethiopia indicate that, the major problems that are common to all are the problems of tenure insecurity, land fragmentation and the ensued environmental degradation (such as soil erosion and deforestation). As stated in

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Befekadu and Berhanu (1999/2000), before 1975, tenants operating in the central and southern parts of the country under the *'gult'* system lived under the constant threat of eviction and were required to cede a large percentage of their production to the landlords. In the northern areas with communal or *'rist'* system, frequent redistribution of land within the lineage group encouraged cultivation practices which gave little or no concern to environmental protection. During the Derg regime frequent redistribution of land were carried out to accommodate the growing population. Peasants were also forced into collectivization and resettlement that further exacerbate the problem of tenure insecurity. Woube and Sjoberg (cited in Sisay, 1995) pointed out that the radical land reform adopted in Ethiopia following the 1974 revolution which nationalized land, did not solve one of the major problems of the pre-reform period, namely land fragmentation. They noted that the post land reform institution of undefined land rights takes center stage in inhibiting land tenure security and thereby posing a serious structural constraint and challenge on the long-term agricultural development and poverty alleviation in Ethiopia.

The main stand of researchers in the issue of land policy is the way in which land policy is approached. Their point is that land policy should move away from ideologically driven and top-down rigid approach. It should rather be focused to institute a secure and fair system of land tenure, which provides incentives for long-term investments in sustainable use systems and resource conservation, and prevent the fragmentation of land holdings into non-viable plots. **Apart from the non-existence of empirical evidence to support the linkage of large-scale land sales to individual tenure** (Rahmato, 1994 as cited in Sisay, 1995), **almost all historical and comparative evidences on land policy suggest that agricultural development is unlikely to occur when land is owned and controlled by the state** (Sisay, 1995). Thus, although some researchers believe that the adopted ADLI strategy and measures introduced to liberalize and deregulate agricultural marketing and trade and devaluing the currency, which were the main reasons behind the adverse terms of trade against agriculture during the Derg regime are in the right direction, they **fear that state ownership of land might remain a major structural impediment towards agricultural development and food security**.

All institutions interviewed for this study underlined the land tenure and use issue as a very important issue that should be resolved. It was suggested that apart from the polarized stands of private versus public ownership of land, there is a middle ground, which ensures the farmer for the use of a specific piece of land. Voluntary resettlement for drought-prone areas was also suggested.

2.4.4 Social Sector Policies

The creation of a healthy, literate, and active labor force is clearly critical for the empowerment of society to carry out its economic activities and to effectively shoulder its political and social responsibilities. The priority given to social development can be gauged by measures undertaken to formulate new policies and public budget to the social sectors. The present Government has reviewed the health and education sectors in particular; and with external assistance, has launched sector wide development programs in education and health.

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2.4.4.1 Education

In conformity with ADLI, the Ethiopian Government adopted a new education and training policy and strategy in 1994. It focuses on expanding access to educational opportunities in a form that is directly relevant to the present and future of the economy. Vocational and non-formal education that has a practical nature is particularly emphasized. If properly implemented, the new education system will have a positive contribution to the effort of improving traditional farming practices and productivity, which would enhance food security. The First Five-Year Education Sector Development Program (ESDP) envisaged expansion of primary school enrollment from 3.38 million pupils in 1995/96 to 7 million by 2001/02, which would raise the participation rate from 22.1 percent in 1995/96 to a national average of 50 percent by the end of the program period. However, after examining the participation rate in 1999, which had already reached 45.8 percent, the target has been moved further up to 60 percent. Girls' participation is expected to increase from 36 percent in 1995/96 to 45 percent by the end of the program period.

Several hundred new schools are constructed; the existing ones upgraded and rehabilitated. To increase access to basic education especially in rural areas, non-formal and distance education programs are planned to expand and strengthened. Opening new training programs are to expand tertiary education.

Low access and quality, an inequitable distribution of educational opportunities, inefficient administration, and lack of adequate financing summarize the issues surrounding the education system. Rural areas and girls are especially disadvantaged. Actions to make the education system perform more efficiently and respond to the needs of the economy, the following targets are set in ESDP:

- Improve quality by extending the new curriculum to all levels of the system, increasing the number of certified primary teachers from 85% to 95%, and lower the textbook ratio at the primary level from 5:1 to 1:1
- Increase efficiency by the more effective utilization of teachers with an average 50:1 student to teacher ratio, and raising from 60% to 80% the education system coefficient of efficiency reflecting a reduction of the number of dropouts and repeaters;
- Improve equity by achieving a gross enrollment ratio for primary education of at least 25% in under-served regions, raise the female participation share in primary schools from 38% to 45%, and increase the number of female teacher from 25% to 35%;
- Increase financing for education by raising public expenditure on education to 4.6% of GDP, achieve a target of 5% of new school construction owned by non-government institutions, and introduce cost sharing at the tertiary level.

The cost estimates of ESD program, with contingencies included are 12,251 million Birr (US$ 1.96 billion). Approximately 73% of capital expenditures will be for primary education, reflecting the high priority given to the long-term goal of achieving universal primary education. Secondary education will account for 6.5%, for technical and vocational education 4%, and for tertiary education 8.7%. The remaining balance will be spent for boarding

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schools, teacher training institutions, and capacity building. The financing of these expenditures will require a partnership of the public sector, private households and employers, communities, and international financial institutions.

One of the complaints raised by the Catholic Relief Secretariat as regards the education system is prohibiting them from incorporating moral subject in their curriculum. Others also raised their concern on the new adult education policy, which requires school attendance of eight months a year, six days a week and three hours a day posed difficulty for women in terms of time, far distance problem, and accessibility.

Access to education for the rural population could be facilitated through shelter provision (hostels) to students who come from far away areas. In this regard, the positive experience of African Development Aid Association (ADAA), which has constructed hostels in Sendafa and Arsi Negele under Oromia region, could be noted.

2.4.4.2 Health

Ethiopia has very poor health status relative to other low-income countries (largely attributable to the potentially preventable infectious diseases and nutritional deficiencies) and a high rate of population growth. Widespread poverty along with general low-income levels of the vast majority of the population, low education levels (especially among women), inadequate access to health services also contributed to the burden of ill health.

The Government, therefore, accords a prominent place in its priorities and drafted a health policy which is based on the following main principles:

- Democratization and decentralization of the health system;
- Development of the preventive and promotive components of heath care;
- Assurance of accessibility of health care for all segments of the population;
- Development of appropriate capacity based on assessed needs and promotion of the participation of the private sector and non-governmental organizations in health care; and
- Promote and strengthen of inter-sectoral activities through national self- reliance program. Mobilizing internal and external resources and their optimal utilization could do this.

A twenty-year (1997-2017) health sector strategy, which will be implemented through a series of five-year investment programs, has been formulated. The NHSDP, which covers the period 1997-2002, is the first of these programs. The activities covered by the five-year of the program will contribute to the improvement of the impact and outcome indicators included below.

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Table 2.6: Indicators of Impacts and Outcomes

Indicators	Baseline 1997	By 2002	By 2017
Impact			
Life expectancy at birth (years)	52	55-60	64
Population growth rate (%)	2.9	2.5-2.7	2.0
Maternal mortality rate/100000 live births	500-700	450-500	300
Infant mortality rate/1000 live births	110-128	90-95	50
Outcomes			
PHC service coverage (%)	45	55-60	90
Contraceptive coverage (%)	8	15-20	40
Immunization coverage (%)	67	70-80	90

Source: Ministry of Health

The goals of Health Sector Development Program include providing training to about 19,040 and 2,410 health workers and medical doctors respectively; and expanding of primary health care service coverage from the current 45 percent to 60 percent. In terms of budget provisions, the Government has taken steps not only to increase the overall share of health in the budget but also to reallocate resources away from urban hospital based curative services towards more preventive care, emphasizing the rural population. The overall focus has been on communicable diseases, common nutritional disorders, environmental health, and hygiene.

The cost of the first five-year proposed program has been tentatively estimated to be about 5.0 billion Birr. This figure includes both the capital cost of the program as well as the recurrent cost for the new facilities and programs during the life of the five-year period.

2.4.4.3 HIV/AIDS

The HIV/AIDS epidemic has become a serious health and development problem in many countries around the world. As of the end of 2000, 36.1 million people were living with HIV/AIDS, 90% of whom were in developing countries. In Sub-Saharan African countries, there are 25.6 million people living with the virus. Since the start of the epidemic adults and children deaths due to HIV/AIDS is estimated to be 16.3 million, out of which, 13.7 million are in Sub-Saharan African countries (Dagnachew et al, 2001).

The preponderance of HIV/AIDS in Ethiopia is among the highest in the world, estimated as high as 10.6 percent of the adult population by the end of 1999 (Interim PRSP, 2000). Given the country's relatively large population, the number of people living with the disease is third largest in the world. About 90 percent of the reported AIDS cases comprise adults between the ages of 20 and 49, the most important group in terms of labor force and reproduction of

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family. AIDS also has the effect of depleting assets, straining the capacity of public and private organizations.

The prevention cost which creates awareness among societies will also affect Ggovernment expenditure. "Treatment costs of HIV/AIDS and related infections are projected to require 35 percent of Ethiopia's health budget by 2014" (Shegal, Perriens, 2000 cited in Dagnachew, et al,). Today, as much as 42 percent, of all hospital beds in the country estimated to be occupied by AIDS patients.

The illness and the increasing death of adults in Ethiopia will have an enormous impact on national productivity and income. According to the study by Abdulhamid (1998), in terms of income loss due to premature death over the 10-years period (1997-2006) stood from USD 1496 to USD 2719 million. This is from 23 to 42 percent of the national income depending on the discount rate used (ibid). AIDS also undermining past gains in life expectancy, in Ethiopia it would decrease from 52 to 45 years by 2014 because of the presence of AIDS (ENARP, 2000). However, as regards the life expectancy for Ethiopians, some other recent study results (World Bank 2000) indicate a reduction to 43 years as a result of the current HIV/AIDS related crisis.

A five-year strategic plan for the period 2000-2004 was formulated by Ministry of Health covering both federal and regional levels to arrest the expansion of the epidemic. If HIV prevalence does increase to 9 percent by the year 2006, then the number of infected people in the population would increase to 3.2 million by 2000 and to 4.7 million by 2014. In this projection, by 2010 about 370000 people would become infected with HIV every year.

HIV/AIDS is a threat to sustainable agriculture and overall development through its systemic impact. The loss of workers at the crucial periods of planting and harvesting can significantly reduce the size of the harvest. In countries where food security has been a continuous issue because of drought, any declines in household production can have serious consequences. Additionally, a loss of agricultural labor is likely to cause farmers to switch to less-labor-intensive crops. Thus, AIDS could affect the production of cash crops as well as food crops. In the case of Ethiopia, the effect of AIDS on agricultural production and food security will be devastating, as Ethiopia is already a food insecure country.

The impact of HIV/AIDS at the household level is more immediate than that at the macroeconomic level. HIV infection is more prevalent among the productive age groups, who are income earners of the family. The death of such individuals results in a loss of income for the family. In addition, caring for the infected and orphans increases the demand for extra resources at the household level. A woman with a sick husband spends 60% less time on agricultural activities thereby contributing greatly to food insecurity. The death of a breadwinner forces families to sell assets as a coping strategy, making the poor more vulnerable and trapping them in a vicious cycle of poverty (USAID/Ethiopia, 2000).

2.4.4.4 Infrastructure

Physical infrastructure (e.g., road) has a key role in Ethiopia's economic growth and food security. Sector programs as well as individual projects have been adopted for the

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thus be one of the engagements of the Ethiopian Government as part and parcel of the intervention efforts for ensuring food security.

The Ethiopian Government had been working for a long time to develop a national and regional resource conservation strategy. The process has passed through three phases, which took close to a decade (from 1989 to 1998). The first phase was the period utilized for drafting of the conceptual framework for the strategy mainly focusing on the identification of key environmental and developmental issues. The second phase was the period for the development of the policy; the institutional framework and action plan to implement designed the strategy. The third phase was focused on finalizing the development of regional state action plans and development programs with emphasis on capacity building of the regions. In general, the Conservation Strategy of Ethiopia (CSE) takes a holistic view of the natural, human-made and cultural resources; and it documents their use and abuse, and seeks to integrate into coherent framework plans, policies and investment related to environmental sustainability. The overall environmental policy goal is to improve and enhance the health and quality of life of all Ethiopians, and to promote sustainable social and economic development through sound management and use of natural, human-made and cultural resources.

Besides, the environment as a whole is taken as conducive to meet the needs of the present generation without compromising the ability of the future generation. Being a cross sectoral issue, the environmental policy has outlined the sectoral environmental concerns. The institutional framework has been also outlined for implementing the policy, designating the responsibilities of concerned line ministries.

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2.4.6 Women Policy

Ethiopian women are actively involved in all aspects of their societies' life. The fact that women are both producers and procreators, as well as active participant in the social, political, and cultural activities of their communities has enabled them to play an all role. The discriminatory political, economic and social rules and regulations that has been prevailing in the country have barred women from enjoying the fruits of their labor. Thus, deprived of equal opportunities, they are made to lag behind men in all fields of self-advancement. The majority of Ethiopian women have been barred from owning the means of production, valuable products and property.

The present Government of Ethiopia developed and approved a National Policy on Ethiopian Women, guaranteeing women their human and democratic rights, in 1993. The policy is expected to serve as an instrument of ensuring the rights to women, especially rural women, the enjoyment of the fruit of their labor on equal terms with men and their right to own property. To look after the implementation of the policy, the National Women's Affairs Office under the Prime Minister Office and Regional Bureaus have been organized. All NGOs and donors engaged in development activities in Ethiopia too are expected to do their utmost toward the implementation of the policy.

Women are considered as the disadvantaged groups in the society. The federal constitution as regards property law doesn't treat women equally. Despite the penal and civil codes treat women and men alike, great challenges/constraints, i.e., the fight against child and women

abuse/crimes, remain to be solved. Gender should be used as one of development monitoring tool or indicator. A household as a point of entry to any study or survey has masked women's issue. This suggests that, information or data collection and compilation processes should be gender sensitive and dis-aggregated. Policies and strategies designed (being designed) like the PRSP should be gender sensitive; and patriarchal resistance to women issue should be abolished.

2.5 REVIEW OF GOVERNMENT POLICIES AND STRATEGIES ON FOOD SECURITY

2.5.1 The Context

Available information indicates that a large proportion of the world's population particularly of developing countries is poor and food insecure. According to the World Bank data for 1999, about 1.2 billion people, or one in every five humans, lives in a state of absolute poverty, on the equivalent of US$ 1 a day or less. About 2.8 billion people subsist on $ 2 per day or less. It is obvious that the predominant proportion of the poor resides in developing countries. According to FAO, about 790 million people in developing countries (representing 18 percent of their population) lacked adequate access to food in 1995-97 (FAO, 1999). The same source depicts that in relative terms the highest proportion of food insecure people live in Sub-Saharan Africa followed by South Asia. In the years 1995-97, 33 percent of Sub-Saharan Africa and 23 percent of South Asian population did not have adequate access to food.

Future projections on food security situation indicate that, although overall improvement for developing countries is expected, it will remain bleak for Sub-Saharan Africa and South Asia. FAO projects that the developing world's food insecure population will fall to 680 million by 2010, with the proportion declining to 12 percent. However, food insecurity is likely to increase in Sub-Saharan Africa and South Asia. By 2010, 70 percent of the food insecure people will live in Sub-Saharan Africa and South Asia, with one in every three Africans undernourished (FAO, 1996 cited in Cohen; IFPRI, 2000). Much worse for Sub-Saharan Africa is the outcome of IFPRI's projection on child malnutrition by 2020. According to the projection, child malnutrition is expected to decline in all regions except Sub-Saharan Africa, where it is projected to rise by up to 30 percent (IFPRI, 1995, cited in Cohen; IFPRI, 2000). Child malnutrition is damaging in that it results in a life-long reduction in physical and cognitive abilities.

Within Sub-Saharan Africa, the situation of food insecurity is relatively severe more seriously affecting the Horn of Africa. Out of a total population of almost 160 million in the seven countries[8] of the sub-region, which are members of the Intergovernmental Authority for Development (IGAD), some 70 million (or around 45%) live in areas, which have been subjected to extreme food shortages. In addition, over the past 30 years, the risk of famine was at least once every decade (ACC Inter-Agency Task Force, 2000). The same source stated that "today, it is estimated that over 50% of the people in the sub-region survive on less than US $ 1 per day."

[8] The countries are Djibouti, Ethiopia, Eritrea, Kenya, Somalia, Sudan and Uganda.

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The 1992 IGAD food security study indicated that, Ethiopia has the highest number of food-insecure people in sub-Saharan Africa (in Tesfaye and Debebe, 1995). Both chronic food insecurity, which originates mainly from high ratio of urban unemployment and limitations of rural holdings, and transitory food insecurity that emanate from recurring disasters (mainly drought), displacement of people and refugee inflows are serious in the country. An estimated 52% of the country's population is food insecure (FDRE, 1996). Largely, the recurring drought and the preponderant poverty goes to the root of food insecurity situation in the country. In the four and half decades since the 1950s, there have been 12 events of drought, many straddling two years, and currently the probability of a drought shock occurring in Ethiopia is as high as 3 out of 10 years (Ibid.). Between the years 1981 and 1995, on average 10.5% of the population were affected by drought every year. Dagnew (2000) has summarized the major factors that contributed to the current food insecurity as follows:

- Widening gap between food production and population growth,
- Dominance of crop farming which is exclusively dependent on rain-fed cultivation, together with erratic and unreliable rainfall, which resulted in poor agricultural production;
- Limited access to, and prohibitive/unaffordable cost of agricultural technologies and inputs, such as improved seeds, fertilizers, farm tools, etc.;
- Degradation of the natural resource base (productive resource decline), caused by high population pressure, increased demand for arable land (leading to farmland scarcity and cultivation of marginal lands in excessively steep slopes resulting to rapid soil erosions),
- Lack of appropriate development policy environment such as: problem/insecurity of land tenure, which discourages farmers to invest on their land, and absence of proper/defined land use policy,
- Natural disasters (e.g., recurring drought);
- other contributing factors include:
  - Women have not been provided with equal access to resources such as: credit, land, ownership of enterprises, etc.,
  - Relatively high percentage of pre and post harvest losses, and inadequate knowledge of food processing and preservation techniques as well as limited emphasis given to training programs that are aimed at reducing these losses;
  - Lack of access to formal credit and banking services, and often-prohibitive lending rates of the private moneylenders,
  - the negative impact of inappropriate use and untargeted free distribution of food aid which acts as a disincentive for farmers to produce,
  - Weak private sector investment in agriculture, agriculture input/output marketing, and related services such as transport, storage, etc.;
  - Displacement of people caused by civil war, ethnic conflicts, and insecurity in the neighboring countries; and
  - Poor transportation network and distribution facilities which impaired adequate and timely delivery of agriculture inputs, promotion of basic services, and free flow of food to the markets.

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To address this disquieting situation of food insecurity, the Ethiopian government, apart from the on-going macroeconomic policies that are targeted to re-orient the economy towards a free market system, has endorsed a number of policies. Among others, the draft Food Security Strategy, the National Policy for Disaster Prevention and Management, the Population policy and Environmental Policy are the major ones. These policies and strategies are reviewed and analyzed in the following sub-sections.

2.5.2 Food Security Strategy (FSS)

In 1996, the Ethiopian Government developed a draft food security strategy; and later in 1998 a regional food security program which was targeted to tackle the problem of food insecurity in the four major regions; namely: Tigray, Amhara, Oromia, and SNNPS was also developed. The FSS has three major components, and it is anchored on the principle of achieving food security based on international competitiveness and continued assistance (in the short and medium term till the country ultimately attain food self-sufficiency in the long term). The three components and the focus area within are briefly outlined in the strategy document as follows.

Components of the Food Security Strategy

1. **Economic Growth and Employment**:
   - a) maintain sound macro-economic policies and population policies
   - b) give priority to rural development, and focus on agriculture
   - c) hold or lower real food prices through:
     - increase production [short term: sustainable extension, inputs] [medium- term: research, credit, land policies]
   - d) encourage rapid growth of small business enterprises that create jobs
   - e) agricultural diversification and export in support of food trade
   - f) develop measures for regions with reliable rainfall and pastoral areas
2. **Additional Entitlement/Access and Targeted Programs (because growth is not enough)**:
   - I. **Supplementary Employment/Income Schemes**:
     - a) link with priorities for rural areas, agricultural production/marketing, natural resource management, and nutrition/health focuses (i.e. roads, irrigation, soil conservation, water supply, sanitation)
     - b) link with lower real food prices (which support labor-intensive public works and job creation generally)
     - c) decentralize the administration of EGS
     - d) build on critical assessment of experience already available in Ethiopia
     - e) develop sustainable financing plans (including donor assistance)
   - II. **Targeted Programs (for very poor and vulnerable groups):**
     - a) build o the successful Safety Net Program
     - b) establish strong monitoring arrangements
     - c) focus especially on women
     - d) plan graduation from targeted programs
   - III. **Nutrition and Health Interventions**:
     - a) children's immunization and diarrhea prevention
     - b) nutrition education and family planning
     - c) better weaning foods, micro-nutrients, school feeding programs
3. **Emergency Capabilities (to be maintained and strengthened):**
   - a) monitoring, surveillance, and early warning arrangements
   - b) food and relief distribution capabilities

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The strategy has tried to address the problem of food insecurity in all aspects through increasing availability of food, improving access and strengthening capabilities to deal with the risks. According to the strategy, availability of food is going to be increased by farming intensification and opening up new lands for cultivation. Diffusion of simple technology packages to small landholder farmers in areas where there is reliable rainfall. These include introduction of cost effective irrigation and water harvesting mechanisms and drought tolerant crops in areas with less reliable rainfall; and enhancement of livestock products through improved livestock breeds, better nutritious animal feeds, and better animal health services were the main ingredients to instigate increase in food production. In addition, to promote food production, the strategy anticipated to create a stable macroeconomic environment, encourage the private sector to invest in agricultural production, processing and marketing, intensify agricultural research and training programs, strengthen security of access to land, and improve small farmers access to better credit facilities. The private sector can participate in building rural roads to promote the expansion of rural enterprises that generate non-farm incomes. In addition, there is a need to create employment, increase and diversify agricultural exports, and address the specific problems of pastoral areas.

With regard to improving access/entitlement to food, the strategy opts to transfer resources to people in emergency situations (drought/disaster affected) and to most needy at first, and build the resource base and the purchasing power of the food insecure. The poor and vulnerable enhance self-provisioning and the development of infrastructures within the medium to long term period later. To this end, targeted transfer of resources, promotion of employment and income generating schemes that reinforce environment conservation, infrastructure and social service development, and targeted nutrition and health interventions are underscored. The strategy noted the need for continued external assistance and the attention to be given to ensure the consistency of the food entitlement component of the strategy with macroeconomic and social goals, and the implementation efficiency, cost effectiveness, sustainability and administrative feasibility of the various programs and schemes visualized within.

In addressing the risks of household food security, the strategy focused on strengthening emergency capabilities such as the monitoring, surveillance, and early warning arrangements, the capacity for food and relief distribution, strategic reserves of food grains, and its analysis of international food trade and aid situation. Strengthening such, capabilities are noted to be based on the successful experiences and focus on developing decentralized distributive arrangements. In general, being a strategy that addresses a cross cutting issue, it also tries to outline the adopted policies and strategies in food security related sectors and pinpoint how consistent they are and the anticipation that their implementation will reinforce food security efforts.

Although the development of food security strategy is considered as a positive step in addressing the deep rooted food insecurity, a number of weakness are identified with the overall conception of food security issues by policy makers and planners, the focus of the strategy and the institutional structure for its implementation. Senait (2001) placed the poor conceptual understanding of food security issues by policy makers and development practitioners not as a cross cutting and multi-dimensional issue that needs to be addressed in various macro and sectoral development programs as the major weakness. This retards the

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efforts of food security through stifling the synergetic effects that could have been derived from the integrated implementation of various developmental programs. This misconception is reflected in the absence of an institution that can coordinate the various food security efforts although some federal ministries and counter-part regional bureaus are responsible for the different aspects. At the federal level the Ministry of Economic Development and Cooperation mandated with the mobilization of development resources, and the Ministry of Agriculture and DPPC are responsible for the implementation of the actual programs. The same structures at regional level serve as regional counterparts with similar mandates. As noted by Raisin (2001), there is no focal body that coordinates and spearheads discussions on food security. Instituting a high level coordination, may be in the form of a senior-level food security steering committee as suggested in Raisin (2001), should be given attention so as to improve the effectiveness, development orientation and the cross sectoral consistency of food security efforts.

Senait (2001) also noted that as food insecurity occurs in a generalized context of poverty and vulnerability, there is a misconception that it does not warranty any explicit focus and can be resolved in the normal course of development. In effect, this view of generalized food insecurity, according to her, has: (i) diverted attention from the considerable variations that exist in food availability, stability and access (the three different aspects of food security), especially at household level, and (ii) encouraged a mistaken belief that any food security intervention whether geared at transitory or chronic reaches the most food insecure. This is partly true since tackling food insecurity in the normal course of development undermines the better result that could be achieved had we considered the different facets of food insecurity and the opportunity to sharpen programs to focus on these aspects at the same time. On the other hand, being predominantly chronic in nature, addressing the problem of food insecurity within the overall development framework helps to focus on tackling it at its root causes. It should be born in mind that food insecurity in Ethiopia is more of a development problem, which is engraved, in the persistent poverty than a transitory problem (although it is partly the case). In this light, the previous and present response mechanisms to food insecurity are flawed in a sense that it focused overwhelmingly on addressing acute needs. Future efforts have to focus to clearly identify the nature of the food insecurity (whether it is acute or chronic) and then designing the responses accordingly.

Recently, the donor community are voicing for the budgetary allocation from the side of the Government for food security and for the channeling of food aid through the government budget. It is believed that this will enhance the commitment of the government in the implementation of food security programs.

As part and parcel of ensuring long-term food security, the development of drought resistant food crops like Enset should be encouraged.

2.5.3 Disaster Prevention and Preparedness Policy

Being a country that has been affected with recurring disasters (mainly related with drought and war), the government of Ethiopia adopted a National Policy on Disaster Prevention and Management (NPDPM) in 1993 so as to exert an integrated effort to link relief assistance with development and increased capability of disaster prone areas to withstand future similar

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occurrences. The policy reflects a major departure from the previous relief and rehabilitation experiences. In previous experiences, relief used to be taken as an end by itself and was confined to the distribution of food and related items; where as in the new policy, relief is used as a means for enhancing development programs (through relief development linked approaches) that help reduce peoples' vulnerability (Dagnew, 1996). The policy underscored that "no free distribution of aid be allowed to able-bodied affected population" and that "relief assistance to able bodied persons shall be through their participation in Employment Generation Schemes" (NPDPM, 1993).

A decentralized and coordinated system of planning and implementing relief programs that puts the community at the center was envisaged under the policy. A directive that delineated the duties and responsibilities of various actors at different levels and sketched the basic operational modalities and management of disaster programs was issued. According to the policy and directive, the management of relief falls on the Disaster Prevention and Preparedness Committees to be established at each level of administration (National, Regional, Zonal and Woreda) composed of relevant government offices with the corresponding offices of the Commission for Disaster Prevention and Preparedness (CDPP, the previous RRC) as the focal point and secretariat. A National Disaster Prevention and Preparedness Fund (NDPPF) are also foreseen to provide cash resources for the implementation of relief measures in disaster-affected areas. NGOs are allowed to work on relief, rehabilitation and development programs in line with the general policy directions and the submission and approval of a proposal to DPPC.

According to Dagnew (1996), the issuance of the disaster prevention and preparedness policy as well as the directive, restructuring the DPPC and streamlining the labor force into more effective service giving force, changes in the style of relief management, decentralizing relief activities to the regions down to the Woreda levels, the efforts made to be transparent. The participation of NGOs appears to have facilitated for better emergency relief operation in the country. However, the linking of relief operations with development efforts seems to be still loose due to absence of clear responsibilities and mandates between different Government offices (Raisin, 2001). For example, whilst the DPPC has the overall authority to control and distribute relief resources (e.g., food aid), its capacity to fulfill its own mandate with regard to Food For Work (FFW) and Employment Generation Schemes (EGS) is limited. This manifests itself in a high percentage of gratuitous distribution (even for the chronically food deficit areas), and therefore, insufficient use of relief resources for asset creation (Ibid.). The suggestion to surmount the problem of linking relief with development in practice is to restrict the mandate of DPPC to focus only on emergency functions and assign other institution (for example, Regional Food Security Units) to mobilize and administer resources. Assistance to the chronically food insecure people is to be through development oriented approach via Food for Work or Cash for Work or through other employment generation schemes.

2.5.4 Emergency Food Security Reserve (EFSR)

Although not instituted formally, the idea of establishing an EFSR was initiated early in the aftermath of the 1972/73 famines to enable immediate relief interventions in times of the occurrence of widespread food emergencies until relief food supplies are mobilized. After a decade, EFSR was launched as a project in 1982 within the now DPPC. The performance of

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the reserve was not efficient due to the lack of transparency on its operation and use. This has led donors to shy away from strengthening the reserve scheme, which subsequently undermined its effectiveness of responding to food shortages (EFSRA, 2001).

EFSR was officially instituted in October 1992 with the objective of providing readily available source of food to be utilized in times of acute food emergencies resulting from unexpected droughts/disasters until food could be mobilized from other/outside sources. To manage the reserve, the Emergency Food Security Reserve Administration (EFSRA) has been established under the umbrella of the Disaster Prevention and Preparedness Commission with an internal administrative and operational autonomy. In addition, an executive policy decision making board and advisory Technical Committee composed of department heads of relevant Government line ministries and four representatives of donors, namely: the European Union, USAID, CIDA, and WFP, was established to strengthen the flexibility and efficiency of the food reserve management. The EFSRA was reconfirmed and strengthened in September 2000 under the Council of Ministers Regulation No. 67/2000. At this time, the Administration was given an additional mandate of maintaining and managing Non-Food Relief Items[9]. Like the emergency food, the non-food relief items need to be provided to organizations engaged in relief activities in times of fast-onset disasters on loan or returnable basis (EFSRA, 2001).
Experiences in the past years revealed that, the average yearly number of population that has been affected by drought-induced food shortage stood about 4.2 million; and that making relief food deliveries from external assistance to the affected population took an average of four months supply to reach the country after the pledge. To cover the food needs of the 4.2 million people for four months at 400-gram per day basis, the EFSRA adopted an interim target of 205,000 tones for the reserve (Hindmarsh, P. 1994). Following the Government's stand to channel food aid through EGS, EFSRA has later adopted a target of 307,000 tones scaling up the per day in-take to 600 grams considering an increased caloric needs of workers. This capacity was achieved in 1997. The EFSRA has also enabled to increase its storage capacity from almost zero to a capacity of 212,000 MT through new warehouse construction and ownership transfer of existing warehouses from DPPC and the Ethiopian Grain Trade Enterprise (EFSRA, 1997). The EFSRA has decentralized its food reserves locating them in pre-identified five strategic locations (particularly on locations that are within easy reach to famine affected areas), namely: Kombolcha, Mekelle, Nazareth, Dire Dawa, and Shashemene.

Although, EFSR played an important role of bridging the relief program until the arrival of donor food aid pledges, a number of serious problems mainly associated with failure of officially declaring an emergency, a conflict between the center and the regions over the estimates of relief needs, an alleged poor targeting of relief in many areas and difficulties with transport service in crisis years were noted to have hindered the smooth operation of the EFSR (Hindmarsh, P. 1994). The weakness identified from the Government side is related to low level of stock position, inadequate warehouse capacities, absence of laboratories for quality inspection, and having inadequate administrative and technical staff (EFSRA, 1997).

To address the identified constraints, the five-year (1997/98-2001/02) strategic plan of the EFSRA envisages raising the stock level of the reserve to 400,000 MT and decentralizing

[9] Non-food relief items include, among others, shelter materials, feeding kits, household utensils, water equipment, search and rescue equipment, team equipment and logistics equipment.

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stocks into two additional strategic sites. The plan also aimed at developing its staff, increasing its storage capacity through the construction of additional 17 warehouses, as well as strengthening the existing grain physical analysis laboratories. According to the report of EFSRA at June 2001, the food reserve stock has already surpassed the plan target, standing at 405, 000 MT. The report also noted that the reserve was already established in the additional two strategic sites, namely in Wolaita Sodo and Woreta of SNNPR and Amhara regions respectively. The storage capacity of EFSRA has also reached 277,200 MT with a possibility of rising in the near future to 315,500 MT after the completion of the 8 warehouses, which are under construction at Woreta.

In general, the EFSR has played a critical role in bridging the food gaps that could have been created if relief distribution was delayed until the arrival of external assistance. The ESFR had effectively mitigated the serious food shortages in 1994 when there was no sufficient grain stock in the hands of NGOs and DPPC. The same year, EFSR released 145, 839.23 MT of grain to DPPC and various NGOs (EFSRA, 2001). The reserve has also made available food grain in subsequent years, helping to mitigate the food shortages and prevent the disintegration of people's livelihoods.

2.5.5 Famine Early Warning Systems

Systems to warn of impending food crises are not new, although approaches to famine early warning have changed and developed considerably over the 1990s. Following the famines of the mid-1980s, a wide range of organizations became involved in famine early warning, in the hope that better information systems could help prevent future famines.

Early warning activities range from a global/international, regional and national focus on food availability to a more localized focus on issues of access to food and food security. Activities with a more localized focus include regular food security monitoring systems and/or emergency food assessments. Indicators monitored by such systems depend on the location but generally include market prices, a variety of coping strategies and migration, and some times anthropometrics status. These systems were developed in the late 1980s and continue to be applied in most other countries in the Horn/East Africa.

The Ethiopian Government has established one of the best National Early Warning Systems (NEWS) in Africa (USAID/Ethiopia, 2000), and this has almost been applied for the last decades. The system emphasizes community participation in the identification of needs and planning, decentralization of decision-making and multi-sectoral responsibility. For the NEWS to be more effective, a number of key indicators to the system must improve. Climatic and weather reporting need to be more efficiently transmitted, and made more available to end-users. The system must be better able to gauge the localized effect of disaster. Gathering of early warning information needs to be better coordinated and the approaches of different agencies undertaking similar activities like the NEWS managed by DPPC, donors, UN and NGOs need to integrate in order to influence decisions about the way relief and development assistance are to be planned and targeted.

The Disaster Prevention and Preparedness Commission (DPPC) is the primary counterpart for disaster response at the federal level. The DPPC's five year plan (1998-2002) aims to reduce

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the impact of humanitarian crisis through timely identification of needs, and intervention before the depletion of productive assets and breakdown of households coping strategies. The plan includes nine core programs: early warning and information management, emergency food and non-food reserves, policy planning and monitoring, food distribution, coordination of NGOs and donors activities, logistics, training and organizational development, fund raising and public relations, and women's affair. However, implementation has been slow and uneven primarily due to drought and war displacement in 1999-2000 that required DPPC to focus on emergency needs rather than engaging in longer-term capacity building. Improvement of targeting practices is a clear priority. Other important on-going initiatives include continued improvement of early warning systems, capacity building in emergency response, and meeting the needs of chronically vulnerable social groups.

In this regard, some donors work in collaboration with DPPC from information exchange to capacity building programs. Accordingly, one of the major policy goals of the USAID/ Ethiopia will be to work with the Ethiopian Government to gradually reduce and avoid the yearly food aid appeal for the chronically vulnerable, replacing emergency assistance with budgeted safety net and rehabilitation programs. The European Union has also made this a prominent goal. As the two largest donors to humanitarian aid in Ethiopia, the US Government and EU are uniquely placed to move this from dialogue to implementation (ibid). Carefully targeted humanitarian aid reduces the risk of negative market effects and dependency syndromes. A timely response to emergencies reduces the depletion of household asset, out-migration, severe acute child malnutrition, morbidity, and mortality. Appropriate response maximizes the impact of the intervention, through adequate amounts of nutritionally balanced food, emergency health, and water projects, distribution sites located near home village, etc. The recurrence of humanitarian emergencies has contributed to the growing level of destitution in the country, leaving the entire communities extremely vulnerable to socio-economic shocks. Increasing efforts must be made to create a synergy of appropriate responses among donors to maximize the impact of food and non-food interventions in emergencies.

The existing early warning system has a deficiency as what is forecasted and the actual needy population always varies. This problem can be tackled through strengthening the national EWS by integrating the donor, NGOs and government managed EWS.

The DPPC cannot discharge its responsibility of EWS effectively for the following reasons. Firstly, it has no coordinating office at the Woreda level. Secondly it has a budgetary constraint. Thirdly, the MoA, which is delegated to carry out EWS task at the Woreda level, is not effectively working, and DPPC is not in a good position (no mandate) to enforce.

2.6 CONCLUDING REMARKS

Ethiopia's chronically food insecure population which is estimated to be 4 to 5 million every year has continued to increase as annual population growth of 2.7% outstrips the average annual 2.4% increase in agricultural production. Furthermore, these national figures do not reflect the extent of food insecurity since agricultural growth is mainly taking place in surplus production areas, and not in food deficit regions. But since agricultural performance has never exceeded population growth, we can anticipate that the gap between food needs and

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availability will continue to widen, requiring additional food aid, unless some appropriate basic economic transformation/policy intervention measures are adopted.

Being a multi-dimensional issue, a number of intertwined and interrelated factors have been responsible to the continuing deterioration in the food security situation of the country in the past three decades. Among the basic factors are the policy environment, be it at the macro or sectoral levels, and the efficiency and appropriateness of the institutional structure put in place to implement policies, programs and strategies.

The on-going reform policies that are being introduced to transform the economy from state domination and the corresponding inappropriate economic system is generally on the right direction although much has been desired in its pace. ***The overall development strategy (ADLI) is in principle on the right direction as agriculture*** *is* the dominant sector of the economy. However, the strategy needs to consider increasing labour productivity hand in hand with improving land productivity (which is the major preoccupation of ADLI at present). The strategy also needs to accommodate the issues of output marketing, secured land tenure and commercial agriculture expansion.

By and large, the existing macro economic policies do not have adverse implications on food security activities. Some adjustment is believed to make the macroeconomic policies more responsive and geared to complement food security activities. In the area of fiscal policy, there is a need to push the initial taxable income level at least to a level equal to the food poverty ***income cut off income*** and at most to the absolute poverty cut off income level. The issue of reducing or making tax free of those items either consumed by the very poor or used to help the poor should be given due attention. In the area of investment and finance, a lot remains to be done. There is a dire need to improve the business environment and Government bureaucracy as well as strengthen financial institutions. Particularly, micro-credit institutions that provide capital to the people who are food insecure or at a risk of becoming food insecure need to be strengthened.

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Generally, the major sectoral policies are consistent with the goal of ensuring food security. Particularly, the due attention that the Government is giving to infrastructure development (particularly of roads) and social services greatly contributes to the effort of addressing food security in the country. The major issue that the Government should revisit is the case of land tenure and land use that has enshrined in the constitution to remain, as state owned. Different studies have documented the negative effects of the instituted land tenure and land use system, which, among others, include the growing land fragmentation and severe soil and forest degradation.

An official food security strategy is still non-existent, which has been a major constraint to effective and co-ordinated food security interventions by the Government and donors, including NGOs. There is a draft food security strategy that is still under revision. Interventions on food security have been based on the draft strategy. The absence of a clear institutional arrangement for implementing food security activities also stands the major problem in the country.

Several functional units at Federal and Regional levels have mandates for food security and the implementation of food aid programs. However, the present institutional arrangements and mandates make co-ordination regarding the access, use and control of food aid resources and

food security assistance difficult. In addition, food security, though, it is a cross cutting issue, there is no one responsible focal point at the Federal level.

Food security in Ethiopia is predominantly chronic in nature, that is, there are households that cannot meet their food needs in any given year, regardless of climatic variables or other external shocks. Decades of food aid distribution have not improved the nutritional or economic status of the food insecure (poor), suggesting that ideally be addressed under a development umbrella.

Moreover, food aid is presently provided to Ethiopia by the donor community in response to appeals, without any contribution by the Ethiopian Government, except in very exceptional circumstances (e.g., 2000). It would be desirable that the Government contributes a proportion of its own budgetary resources to DPPC appeals in acute crises.

The national food security strategy was initially envisaged as an investment strategy, although this is not yet evident in practice. This is most notable in relation to the supply driven nature of Agricultural Development Led Industrialization (ADLI), which focuses on productivity in higher yielding areas while lacking investment prioritisation in the chronically food insecure areas. The national fertiliser program and the extension system, neither of which have impacted positively in the chronically food deficit regions, are of particular concern.

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Chapter III

REVIEW OF MAJOR DONORS' POLICIES ON FOOD SECURITY AND SUSTAINABLE AGRICULTURE

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3.1 INTRODUCTION

This chapter is devoted for reviewing the policies, strategies and programs of selected sample donors on the area of food security, sustainable agriculture and trade. The selection of the donor samples for the study was made in close consultation with CRDA. The basic criteria are the extent of engagement of the donor in the area of food security in Ethiopia.

Although there is substantial variation in the estimated total external assistance Ethiopia receives, it has remained substantial and helped to finance various development efforts. The UNCTAD Least Developed Countries 2000 report provides an average figure of US$ 921.5 million for the period 1990-1998 from DAC members only. On the other side, the database on loan and grant commitment and disbursement in the Ministry of Economic Development and Cooperation provides an average disbursement figure of US$ 475 for roughly the same period. The differences can be explained by categories that have been included in international data bases (food aid, technical assistance, some overhead costs). The MEDaC database, on the contrary, is based on official development assistance agreements (EU, 2001).

Table 3.1: External Assistance to Ethiopia, 1994/95-1999/00 (Ethiopian Fiscal Years)

	1994/95	1995/96	1996/97	1997/98	1998/99	1999/00
Total committed by donors	513.10	617.23	525.60	1086.23	1021.34	296.17
Total received	517.32	621.46	361.62	451.67	529.85	366.50
(a) Gifts and grant	289.26	363.18	224.59	308.64	318.49	204.12
(b) Loans	228.06	258.28	137.03	143.03	211.36	162.38

Sources: Multilateral and Bilateral Cooperation Department within MEDaC

External assistance remains crucially important for the development of the country. ODA averaged 44% of the federal budget for the period 1996-1999 (though 31% was actually captured in the budget). The 2000-01 budget counts again on about US$ 700 million in external grants and loans (38% of the budget). This excludes foreign assistance in rehabilitation and demobilization, as well as support for food aid and projects implemented by NGOs.

The largest donors to Ethiopia in the last five years have been: The World Bank, the EU, USA, the African Development Bank, and Japan. These five donors have accounted for slightly over 50% of all development assistance to Ethiopia. In addition to the above organizations, a large number of bilateral and multilateral donors and channels exist, which makes the donors picture in Ethiopia rather complex. EU (2001) has put together the overall external assistance by sector and donor in a matrix form which is depicted in Table 3.2. Most donors are active in a range of sectors; and as a result, most sectors have large numbers of donors operating in them. Ensuring donor coordination and

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complementarity under each sector should be given due attention so as to improve resource use efficiency and achieve maximum outcomes.

3.2 THE WORLD BANK

3.2.1 General Objectives, Policies and Strategies

The mandate of the World Bank Group in broader perspective is to help its clients reduce poverty and improve living standards through sustainable, broad-based growth and investment in people. In a brief overview of the work of the World Bank, six main activities are identified:

- investing in people, particularly through basic health and education;
- protecting the environment;
- supporting and encouraging private business development;
- strengthening the ability of the governments to deliver quality services, efficiently and transparently;
- promoting reforms to create a stable macroeconomic environment, conducive to investment and long-term planning; and
- focusing on social development, inclusion, governance and institution-building as key elements of poverty reduction.

From these list of main activities identified, it can be noted that, no specific attention/emphasis is given to the importance of sustainable agriculture or food security as an issue by itself although implied (implicitly indicated).

The World Bank emphasises the need for more efficient agricultural marketing and the sustainable use of natural resources in Africa. In the area of policy reform, it urges the completion of marketing and pricing reforms. It also emphasises the development of national programmes, which seek to improve agricultural extension, marketing services, private sector development and rural financing. Land policy, intra-regional trade and access to OECD markets must also be areas of focus.

An important challenge is the building of capacity in Africa for environmental management. Much of the work done so far has been at the public level, but more effort is needed to involve the private sector and to alert Africans to ways in which successful management of the environment can enhance development progress. Globally, the Bank is preparing a new environment strategy aimed at integrating environmental concerns into its mainstream poverty alleviation and economic development efforts.

The World Bank was involved quite in a number of sectors and cross cutting issues. In its draft rural development strategy, the World Bank has underlined that being of the nearly one billion poor identified in 58 poverty profiles completed by them, 72 percent live in rural areas and also noted despite increasing urbanization the majority of the poor will continue to live in rural areas by 2020. Thus, it underscored the powerful contribution

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that sustainable rural development can make in terms of the critical goals of poverty reduction, widely shared growth, sustainable natural resource management, and food security at household, national and global levels.

The World Bank's work in rural development is wide-ranging, including sustainable land and crop management, livestock, agricultural research and extension, irrigation, river basin management, natural resource management, and rural finance, as well as cross-cutting areas of food security, gender in development, and community-based rural development. The Bank aims to support countries' rural development objectives through lending programs and sector work developed around and feeding into evolving strategies and policies.

The key recommendations of the World Bank's rural development strategy, as summarized in rural development and Agriculture section of the World Bank web site, are:

- The need for a broad rural focus on the agricultural sector;
- The need to involve the entire World Bank Group in promoting rural development;
- The need to work with its partner countries and the broader international community to integrate rural development in overall country development strategies;
- The need to address those neglected issues as land reform, gender and food consumption and nutrition issues;
- The need to address old issues in new ways, for example to:
  - Revitalize rural development at local and community levels;
  - Involve stakeholders in the development and execution of projects through all stages;
  - Deliver rural financial services to the poor using new approaches;
  - Involve the private sector in delivering infrastructure and other services; and
  - Promote sustainable resource use through community-based management.

The World Bank's food security strategy is summarised on its website in 7 main activities:

- supporting government policies and strategies that encourage investment and growth, and which do not discriminate against agriculture or small farmers;
- encouraging open international trade and stable access to international markets;
- promoting better technology and production techniques and getting better information to farmers;
- investing in infrastructure development (in roads, telecommunications, electricity, and irrigation);
- investing in people through education, health, and nutrition programmes;
- fully involving local communities, and especially the poor, in designing, implementing, and monitoring projects;

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- focusing on the interconnection between agriculture and the environment - an absolute necessity if food production is to be sustainable.

In practice the World Bank policy on food security leaves a lot to be desired. In spite of the World Bank's pledge to 'help solve the hunger problem in the world', the issue of food security is not that high on its agenda. Projects often don't yield the results that were originally intended[1]. Some World Bank projects (with undesirable results) that actually played a central role in exacerbating food insecurity, degrading agricultural lands and bio-diversity, and increasing the income gap between rich and poor in developing countries.[2], can be exemplified by the projects undertaken (experienced) in Philippines and Costa Rica,

3.2.2 The World Bank in Ethiopia

The World Bank is one of the major donors that have supported agricultural development in Ethiopia. In the 1980's, World Bank was supporting:

- The two Minimum Package Projects which were aimed at increasing agricultural production in the highlands;
- Coffee processing projects that were aimed at increasing value added to the traditionally sun-dried crop; and
- Projects related with drought rehabilitation and land settlement, irrigation, agricultural research, drought recovery, and livestock development (World Bank, 1987b).

The objectives of these projects were to increase domestic food production primarily in the peasant sector; improve the incentive framework, marketing conditions, and the general economic and institutional environment for agricultural development; and increase foreign exchange earnings and savings.

The interview made with agricultural department head at Ethiopia World Bank Office revealed that, the World Bank has continued to support Ethiopia in the 1990s and on-wards. The World Bank, however, temporarily suspended lending operations to Ethiopia in April 1999 due to the Ethio-Eritrean border war, despite selective project lending had resumed for urgent, high impact projects addressing basic human needs. The Bank's portfolio in Ethiopia consists of 12 projects worth US$1.3 billion, supporting initiatives across a number of sectors, including infrastructure, health, education, energy, agriculture and social protection. Within the agricultural sector, the focus areas of support are fertilizer, improved seed and agricultural research and training. The Bank has projects on these areas, which are still on going at present. The main components of these projects are availing foreign exchange for importing fertilizer, capacity building for national and

[1] Actually, this is the case with many World Bank projects in all possible sectors. The Bank's own Operation and Evaluation Department estimated in late 1998 that only 50% of its projects were likely to maintain their benefits in future.

[2] Aileen Kwa, "World Bank and Food Security" - Website

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regional offices in terms of material capacity (like developing soil testing laboratories), institutional capacity (like assisting the establishment of Seed Industry Agency and Seed Enterprise) and human resource development through training.

Towards maintaining the sustainability of the impacts of these projects, it was mentioned (during the discussion session) that, the small farmer and the private sector are involved in multiplication and marketing of improved seeds as well as in the marketing distribution of fertilizers. According to the response of the official interviewed, the performance of the projects was generally rated as good. The Bank has noted the emergence of some problems associated with the marketing of improved seeds and fertilizers particularly with the monopolization of these activities by few enterprises

At present, the Bank is undertaking research to see the possibilities of supporting the food security program of the country. The Bank's approach is to first undertake a piloted project in selected 8 Woredas in the country; and then broaden its intervention based on the outcomes. Apart from the Government, the new approach considers the participation of the community at the center of the program in identifying their priority areas and the NGOs as close partners in implementing the program. It has also a program that focuses on pastoral areas development. It aims to follow a holistic approach that integrates animal health, range-land management, and early warning system.

3.2.3 The World Bank and NGOs

The World Bank welcomes the opportunity to work with NGOs and to share and learn from each other's experiences. The main criticism of NGOs is that the World Bank perceives participation still as consultation and information sharing rather than a process of partnership and stakeholder involvement. Moreover, the Bank's operative guidelines on participation have not been mainstreamed in the Bank's work. It has been seen over and over again that ensuring participation of key stakeholders at the country level is mainly left to the individual preferences of the country directors.

NGOs also criticise the lack of transparency of the World Bank, in particular its reluctant information disclosure policy. A research by the Washington-based independent Bank Information Centre (BIC) concluded that the "lack of transparency has contributed to the "democratic deficit" within the Bank and will increasingly damage the credibility of the World Bank Group as a whole". Probably because of this and other criticisms, the Bank has recently announced the approval of a new information disclosure policy

3.3 EUROPEAN UNION (EU)

3.3.1 General Objectives, Policies and Strategies of EU

The EU is one of the largest food aid donors in the world, with annual budgets between $500 and 600 million. EU has been highly engaged in agricultural and rural development areas in general and food security in particular. It was noted that "over 50 percent of the

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European Development Fund (EDF) which finances development aid operations for the 70 African, Caribbean and Pacific (ACP) countries that are signatories to the Lome Convention, is allocated to agriculture and rural development projects. These actions, principally rural development projects such as rural roads, schools, small scale irrigation schemes, strengthening of extension services, often aim at improving the incomes and the living conditions of the rural population" (EC, 1996).

The overall strategy of the European commission in the area of food security is sustainable reinforcement of national and household food security in the long-term and improving the market of agricultural produce to provide incentives for production and increase rural income in the medium and short-term period. The main modalities to effect the aforementioned strategies are in-kind food aid deliveries, financial support, and technical assistance. In line with the change of food security issues from overwhelmingly availability factors to that of access as well, the EU has introduced greater flexibility into the food aid instrument; established a better equilibrium between traditional actions, which aimed simply at providing foodstuffs. The new supporting action aimed at production and marketing as well as strengthening of the most vulnerable peoples' purchasing power. In addition, ensure better integration of food aid and food security actions into a comprehensive development policy.

EU policy on food aid and food security is noted for its flexibility to the specific realities of each region and its dynamism to consider emerging issues. According to EU (1996), the food aid management policy of EU has three main angles:

- Use of food aid as a fundamental element of development policy, and in particular of the long-term food security policy;
- Better EU contribution for endogenous development of the food production of countries in a situation of food insecurity, and more particularly, in the field of agricultural rehabilitation; and
- Better access capacity for the poorest people to basic nutrition.

The comprehensive areas of EU's food security support includes the financing of:

- The supply of seeds, tools and essential inputs to the production of food crops;
- Support to rural credit;
- Storage operations at appropriate level;
- Operations concerning marketing, transport, distribution or processing of agricultural and food products;
- Measures in support of private sector for trade development at national, regional and international level;
- Applied research and field training activities;
- Projects to develop food production;
- Flanking awareness and technical assistance operations, mainly in field training;
- Support measures for women and producers organizations.

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The unique character of the food security and aid policy of the EU is its pioneering effort to introduce local purchases and triangular operations. Local purchases refer to buying of food products within the recipient country for distribution while triangular operations refer to purchase of food products from developing countries if possible in the same region where the country that will receive these products as food aid donations. This kind of interventions constitute a fundamental incentive to production and local marketing, adaptation of food habits of recipient countries, and a factor of support to the integration of regional exchanges among developing countries.

In practice, effective implementation of the EU food aid and food security policies is hindered by the lack of coherence of the EU development policies with EU agriculture and trade policies. The selling of cheap European food products on the world market has a negative impact on developing country food production, because governments are tempted to rely on cheap imports rather than to support their own producers. The EU's Common Agricultural Policy has driven down world farm prices.

Sustainable agriculture is high on the EU's development agenda. The Cotonou Agreement, which was signed in June 2000, and ratified by Ethiopia on the 31st of July 2001 states that: "The development of agriculture remains an essential component of economic development as agriculture stimulates growth in other sectors and contributes substantially to poverty reduction both in rural and urban areas. Agriculture shall remain the backbone of strategies aimed at improving rural well-being provided its long-term sustainability is addressed by adopting sustainable natural resource management practices".

The EU's policy and approach for rural development is based on six pillars:

- Progressing towards more peaceful, equitable, open and democratic rural societies;
- Establishing more effective and accountable rural institutions;
- Supporting economic policies which enable rural growth;
- Enhancing the individual assets of rural dwellers;
- Promoting more sustainable natural resources management; and
- Improving the coherence between EU's development policy and its other related policies such as agriculture, trade, fisheries, environment and immigration.

3.3.2 The European Union and Ethiopia

EU has been assisting Ethiopia for over 25 years particularly in the areas of agriculture and food security, roads, economic reform program, human resource development, democratisation and institution building. The overall objective of EU's co-operation with Ethiopia is to support the country in its efforts to achieve comprehensive, self-reliant and self-sustained socio-economic development, in a sustainable way to overcome poverty. Very substantial assistance has been coming in the form of food security/food aid, which has taken about 40 percent of the total value of EU's assistance to Ethiopia since 1975

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(9th EDF Country Support Strategy, 2001). The key strategic lines of intervention of the EU in food security in Ethiopia include: local purchase for food aid deliveries to encourage domestic production, supporting efforts towards market integration, improvement of storage capacity, rural roads, water supply and employment generation schemes. Capacity building in local administration, encouragement of the private sector and supporting vulnerable groups is also given due emphasis (Middle brook, 1997).

As stated in the 9th EDF Country Support Strategy for Ethiopia, food security areas will be one of the priorities of cooperation in the future. In this context, EU assistance will increasingly focus on long-term development programs tackling the root causes of chronic food insecurity. Food aid in kind will be considerably reduced and limited to real emergencies. The EU intervention to increase supply, effective demand and crisis prevention could include basic elements like: employment generation schemes providing cash/food for work, support for micro-finance activities with the aim of increasing access of the poor to productive credits, micro and small-enterprise development. Capacity building at regional/sub-regional levels, support for rural transport improvement of agricultural production methods and marketing. Also Improve the information systems, natural resource preservation and livestock developments (9th EDF Country Support Strategy, 2001).

A new development in the future EU assistance framework is the plan to involve non-state actors (civil society and private sector) in the programming, implementation and reviewing of its interventions. In programming guidelines to its Delegations, the EU recommends 'as a rule of thumb' 15 percent of the programmable resources should be destined for project execution by non-state actors (Ibid.).

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3.3.3 The European Union and Civil Society Participation

Civil society participation is one of the key characteristics of EU development policy. The new agreement between the EU and 71 ACP-countries (Ethiopia is one of them) will inter alia:

- promote participatory approaches;
- involve civil society in the reforms and policies to be supported by EU;
- refocus development policies on poverty reduction strategies; and
- enhance co-operation in all areas important to trade, including new issues such as labour standards and the linkages between environment and trade.

The Cotonou Agreement contains innovative participatory approaches to ensure the involvement of civil society/non-state actors:

- provision of information on the ACP-EC Partnership Agreement, in particular within the ACP countries;
- ensuring the consultation of civil society on the economic, social and institutional reforms and policies to be supported by the European Union;

- facilitating their involvement in the implementation of programmes and projects;
- providing them with adequate support for capacity building; and
- encouraging networking and links between ACP and EU actors.

A major uncertainty is how ACP-governments with problems in capacities and governance structures will actually be implementing the principles of participatory development and how they will respond to attempts to involve non-state actors in policy dialogue and increase civil society's access to funds. New operational guidelines for "decentralised co-operation" (participation of civil society in development projects) were established in January 2000, as a response to urge to seek more active involvement of all stakeholders and to seek consultation and complementarity between stakeholders.

3.4 THE UNITED NATIONS (UN)

The UN system is one of the core international institutions that has been actively supporting Ethiopia's efforts of Humanitarian response, economic reform and development. The UN system embraces quite a number of specialized agencies that are focusing their work in a specific area of engagement. The main agencies that work on the areas revolving around food security issues, and that are actively engaged to help the country meet its development and emergency challenges include UNICEF, UNDP, UNFPA, UNHCR, FAO and WHO[3]. The various agencies of the UN system in Ethiopia have engaged themselves to tackle the major developmental problems and challenges that the country has faced over years, the focus areas being humanitarian assistance, HIV/AIDS emergency, agricultural development, natural resource development and environmental protection, health and education, gender mainstreaming, capacity building and population tracking. Recently, the Ethiopia UN country team has developed a United Nations Development Assistance Framework (UNDAF) on which each agency's country programs and projects will be based for the years 2002-2004.

Food security and sustainable agricultural development was one of the major challenges that the UNDAF identified and planned to address in the future. In general, the direction of the UNDAF in the area of food security and agricultural development conforms to the strategy outlined by the Ethiopian Government. The agricultural sector and within it the small-holder farmer is emphasized in the framework. It is noted, "if the UN System is to contribute to poverty reduction, it must assist by tackling issues of agricultural development and strengthening its linkages to other sectors of the economy". Two outstanding objectives are laid out in the framework: to increase and diversify more agricultural production, and to achieve and improved food security at the household level and within the household. It aimed to achieve the first objective through increasing the productivity of the small-holder farmer and expansion of off-farm income generating activities, small scale processing and cottage industries, and livestock. Intensification of efforts to re-integrate displaced people into productive livelihoods, revive opportunities for off-farm employment, build up assets of rural households affected by recurrent shocks

[3] Specific development objectives, strategies and related details of selected UN agencies is annexed.

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and to improve the intra-household distribution of food are considered to achieve the second objective.

The framework has also accorded the promotion of accelerated and pro-poor growth, creation of productive employment opportunities, and increasing the access to basic social services top priority which all of them have synergies with improving food security. The bottom line is that the future deliberation of the UN system addresses both the food availability and food entitlement aspects of food security. The case of improving food entitlement was considered to the extent of changing for the better the intra-household distribution of food towards vulnerable members within a household (especially the elderly, sick, women and children).

3.5 AFRICAN DEVELOPMENT BANK (ADB)

3.5.1 General Objectives, Policies and Strategies of EU

The African Development Bank is a regional multilateral development bank, engaged in promoting the economic development and social progress of its Regional Member Countries (RMCs) in Africa which Ethiopia is one. Its sister institution, the African Development Fund (ADF) provides development finance on concessional terms to low-income RMCs which are unable to borrow on the non-concessional terms of the Bank. In accordance with its lending policy, poverty reduction is the main aim of Fund development activities in borrowing countries.

The Bank's principal functions are: (i) to make loans and equity investments for the economic and social advancement of the RMCs; (ii) to provide technical assistance for the preparation and execution of development projects and programs; (iii) to promote investment of public and private capital for development purposes; and (iv) to respond to requests for assistance in co-ordinating development policies and plans of RMCs. In its operations, the Bank is also required to give special attention to national and multinational projects and programmes which promote regional integration.

The Bank's operations cover the major sectors, with particular emphasis on agriculture, public utilities, transport, industry, health and education, and concerns cutting across sectors, such as poverty reduction, environmental management, gender mainstreaming, and population activities. Most Bank financing is designed to support specific projects. However, the Bank also provides programme, sector, and policy-based loans to enhance national economic management. The Bank also finances non-publicly guaranteed private sector operations. The Bank actively pursues co-financing activities with bilateral and multilateral institutions.

3.5.2 Poverty Reduction and Food Security Policy

The ADB sees as its primordial challenge, the reduction of poverty on the African continent. Moreover, given that the backbone of the African economies is agriculture, the

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Bank regards agriculture as the starting point for supporting overall production growth and improving living standards in the continent. The overall agricultural policy of the African Development Group was written down in the document "Agriculture and Rural Development Sector Bank Group Policy".

The African Development Bank states that participatory development, involving the poor and other stakeholders, is crucial to the sustainable alleviation of poverty in Africa, and would serve as the underlying principle the Bank would adopt to address poverty issues. To this end, the Bank will collaborate closely with multilateral development finance institutions like IFAD, FAO and the World Bank. Consistent and intensive policy dialogue with African governments is, according to the ADB, needed to sensitise the RMCs to continue to give top priority to poverty alleviation in their development policies and strategy frameworks.

Six basic principles form the framework for more effective action to reduce poverty, and underlie dialogue and agreements between the Bank, RMC governments, and the international donor community:

- Poverty reduction should be viewed as both good economics and good politics and must, therefore, be at the heart of any African economic and social development strategy;
- Government commitment is essential to reducing poverty on a sustainable basis;
- Economic growth is a necessary, but not sufficient, condition for eliminating poverty;
- Design and implementation of efforts to reduce poverty must be guided by the needs of the poor as identified by them;
- Poverty is a gender issue in Africa because women are particularly vulnerable to the social and economic effects of poverty; and
- Poverty is an environmental issue because the desperation that drives it leads directly to resource degradation and further impoverishment and vice versa.

In the domain of food security, the Bank will support RMC efforts to define national food security strategies that involve balancing domestic production, commercial imports of food, and as necessary, tightly-run systems to provide food aid on an emergency basis to needy people. The Bank sees comprehensive RMC food security strategies as encompassing the following elements:

- realistic assessments of trends and variability in domestic food and non-food production, RMCs comparative advantage in food crops, and status of necessary infrastructure and institutions to support food security programs;
- analysis of national food price and marketing policies to detect and remove barriers to competitive food trade, while improving incentives for domestic food producers;

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- establishment and maintenance of early warning systems for food crops and more broadly-based agricultural market information systems for effective decision-making;
- operational planning for the requirements and management of emergency food purchase funds or physical food stocks for distribution to needy populations, and accurate targeting of food assistance to the poorest groups to ensure minimum nutritional standards; and
- provisions for institutional capacity building to conduct necessary analyses and manage national food security programs.

The Bank will collaborate with other donors to support the preparation of RMC food security strategies and to strengthen the capacity of national institutions to update the necessary analyses on a regular basis. Moreover, the Bank will establish systematic collaboration with, and involve as much as possible, specialised and experienced executing agencies throughout the cycle of its operations aimed at improving food security. In this respect, collaboration will be particularly strengthened with the FAO, within the framework of its Special Program for Food Security (SPFS).

The Bank will also support RMCs' efforts to ground their food security strategies on investment in agricultural research, extension, market infrastructure and services, aiming at improving both the availability of, and access to food. The Bank will, thus, support long-term investment programmes to:

- increase productivity and reduce temporal and spatial variability in domestic food production;
- address intermittent shortages in food supply through the promotion of private/semi-privately managed buffer stocks;
- mitigate losses in post-harvest handling, storage, processing, and marketing of domestic food supplies;
- develop and transfer technologies for diversified production, marketing and trade of higher value crops;
- reduce product transfer costs through the development of improved transport infrastructure (including the construction and maintenance of good feeder road networks), means, and policies;
- reduce transactions costs in the food systems (especially in national and sub-regional markets) through adequate market information systems, improved legal and institutional systems and effective contract enforcement mechanisms; and
- create labour-intensive, non-farm rural employment opportunities, especially off-season income generating activities targeted at the rural poor.

3.5.3 Sustainable Agriculture Policy

Since 1995, agriculture has become one of the main sectors for the ADB, both financially and by the number of projects. The Bank's vision for the agriculture and rural development sector is to assume a leading catalytic role, in this decade, in supporting the

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technological, institutional and policy changes that would trigger a lasting transformation of the rural economies of RMCs by empowering their rural populations to improve their productivity and real incomes in an equitable and environmentally sustainable manner. The Bank's guiding principles for its agricultural lending are, among others:

- The institution of conducive policy, institutional and legal environment for private sector development;
- Putting in place appropriate macroeconomic policies;
- Creating a favorable environment for broader-based stakeholder participation down to the grass root level; and
- Centering project activities by in-depth sectoral studies and engendering a holistic approach to rural development

The transformation of African agriculture requires a shift from the highly diversified, subsistence-oriented farming activity towards a more commercially-oriented agriculture with improved access to markets and agro-industry. It involves a greater reliance on input and output markets and increased integration of agriculture with other sectors of the domestic and international economies. It also involves a more efficient and balanced use of indigenous knowledge and "modern" scientific knowledge.

In order to ensure a people-centred development, the Bank will support a transformation process that empowers rural people to:

- manage their own development;
- be fully engaged in productive agricultural and non-farm activities that are well articulated (through backward and forward linkages) in sub-sectors that are competitive domestically and internationally;
- improve their real incomes in an equitable manner;
- be food secure;
- manage the natural-resource base in a sustainable manner; and
- gain access to basic social goods and services such as primary education and healthcare.

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3.6 BILATERAL DONORS

3.6.1 United States Agency for International Development (USAID)

USAID is an independent federal government agency that supports long-term and equitable economic growth and advancing U.S. foreign policy objectives by promoting economic growth and agricultural development, health, and conflict prevention and developmental relief.

3.6.1.1 Food Security and Sustainable Agriculture Policy

According to USAID, broad-based economic growth is the most effective means of bringing the poor, disadvantaged, and marginalized groups into the mainstream of an economy. A sound and stable policy environment is key to achieving this. Policy reform activities are being undertaken in five functional areas: economic policy, privatisation, general business, trade and investment, legal and institutional reform, and the financial sector.

Since the majority of people in the poorest countries derive their livelihoods from agriculture, the transformation of agriculture and food systems is an essential aspect of broad-based economic growth. USAID aims to promote agricultural development and food security by expanding production, market efficiency, access to markets and trade and investment in agriculture. USAID supports agricultural development through Development Assistance Funds, Economic Support Funds, regional programs in the Greater Horn of Africa Initiative, the Initiative for Southern Africa, and other regional support programmes.

Africa Food Security Initiative: USAID's Africa Food Security Initiative (AFSI[4]) ($45,000,000) addresses the increasing threat to food security in the region. It invests in rural roads, agricultural technology, commodity networks, and girls' education.

Famine Early Warning System (FEWS): The Famine Early Warning System Network is a USAID-funded partnership in 17 drought-prone countries in Africa. Its objective is to establish more effective, sustainable, and African-led food security and response planning networks that reduce the vulnerability of at-risk groups. FEWS has a country centre in Ethiopia.

Food for Peace: A separate Office (Food for Peace, FFP) makes commodity donations to address the needs of food security in Sub-Saharan Africa and South Asia through 5-year development projects and emergency food assistance. FFP expects to donate more than $90 million in support of nutrition, health and food security programmes in Ethiopia in 2001.

Sustainable Agriculture: Within the framework of larger sustainable agriculture and food security programmes, activities are carried out to alleviate environmental pressures on land and other resources.

[4] As part of the 1998 budget, USAID has launched an initiative entitled "Promoting Food Security: Africa and Beyond". This 10- year activity will provide essential supplemental resources to address a growing food and poverty crisis in Africa.

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3.6.1.2 USAID and Civil Society Participation

The Office of Private and Voluntary Co-operation (PVC) provides direct support to the U.S. PVO community and its local partners (NGOs) for them to address critical needs in developing countries. USAID doesn't seem to give civil society organisations a voice in decision-making with regard to the overall development policy of the Agency!

USAID in Ethiopia

The USAID Mission to Ethiopia is working on a 10-year programme, which was developed in 1993 in partnership with the Ethiopian Government, the private sector and private voluntary organisations. The programme commits USAID to providing assistance to:

- increase domestic food production and availability;
- increase the use of primary and preventive health care services;
- improve the quality and equity of primary education; and
- increase access to and participation in a democratic system.

The USAID/Ethiopia paper "Back to the Future" (1993) outlines the current strategy. One of the three sub-goals is enhanced food security. While the broad issue of food security encompasses concerns of supply, access and use, USAID/Ethiopia emphasises supply, as food grain production remains the single biggest variable in the food security equation. It works in the areas of fertiliser supply; policies for agricultural marketing and transport; capability to support sustainable food production; and income generation and employment.

Recently, USAID has developed an integrated strategic plan for its intervention in the years 2001 to 2006. The overall goal of the plan is to reduce chronic food insecurity in Ethiopia. The strategic plan centers around six strategic objectives: (1) the enhancement of the quality of justice, (ii) the improvement of public finance management, (iii) an increase in rural production and productivity, (iv) an improvement in family health; (v) quality and equity enhancement in primary education, and (vi) mitigation of disaster costs. As a result, USAID will concentrate most of its resources in Food Security and Agriculture, Education, Health, HIV/AIDS, and Population/Gender. At the same time, it will have capacity building initiatives in a range of sectors, including the judiciary and civil service reform.

3.6.2 Dutch Government Assisstance

3.6.2.1 General Objectives, Policies and Strategies

The first key goal of Dutch foreign policy is to promote far-reaching improvements to the international order. The Dutch government attaches great importance to macroeconomic program aid, such as budget support, balance of payments support and structural adjustment programs, as a way of working towards sustainable economic development.

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The government wants to spend 0.1 % of GNP on international nature conservation and environmental policy. This is part of the 0.8% of GNP for pure development aid.

The introduction of the sectoral approach in developing countries in 2001 will be vital for the image of the new strategy. Aid will no longer be concentrated on individual projects but on entire sectors (such as education). In adopting this strategy, the Netherlands is taking account of internationally agreed priorities for development co-operation, notably good governance, poverty reduction, women and development, and the environment (referred to collectively by the Dutch acronym, GAVIM). The new strategy will concentrate on ownership, i.e. demand in and the leading role of the developing countries themselves. In order to optimise the co-ordination and deployment of donor funding, the Ministry of Foreign Affairs wants to make as much use as possible of multilateral organisations.

An important policy document of the Dutch government on food and nutrition security is the paper on the Dutch position in the World Food Summit drafted by the Ministries of Agriculture, Natural Resources Management and Fisheries and Development Co-operation (1996). The Dutch position can be summarised as follows:

- Improving food security in principle is the responsibility of the national government. A sound macro-economic policy and a stable democratic and social situation are prerequisites for furthering food security. A broad range of political decisions, policy measures, research, institutional infrastructure and legislation is necessary. Private investments in agriculture and space for individual farmers should be promoted.
- At international level, the Dutch government pleads for international support to national policies for the eradication of poverty and the improvement of food security at household level. For that purpose, the Netherlands puts into practice the 20/20 initiative of the Social Summit in Copenhagen and spends 20% of the Dutch development budget on basic social services.[5] Furthermore, the Netherlands pleads for building on the international action plan adopted by the International Conference on Nutrition in 1992.
- The Dutch bilateral aid concentrates on improvement of food security at household level, sustainable production, infrastructure, health, education, transformation and commercialisation. Women and children are important target groups. Programmes that enhance the access of the poorer groups to land, water and other productive resources are supported.
- The Netherlands considers agenda 21 as the international policy framework for sustainable development. It pleads for the conservation of agro-bio-diversity and optimal availability of genetic resources, with special attention for the rights of farmers in the food and agriculture in developing countries.
- In WTO, the Netherlands urges for a rapid implementation of the Marrakech agreements for the least developed and net food importing developing countries. It

[5] The Netherlands will also implement the action plan adopted at the international population conference of 1994 (Cairo) and spend 4% of the development budget on reproductive health.

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also pleads for more coherence between food aid, trade policies and financial and technical assistance of WTO and other relevant international organizations, among others, FAO and IMF. The Netherlands supports the special and differential treatment of developing countries in the dispute settlement body of WTO.

- In the EU, the Netherlands takes initiatives to improve coherence between the EU agricultural policy and development policy. It also supports the initiative to come to a new code of conduct for food aid.
- Emergency food aid will continue. Implementation has to be improved. Conflict prevention is of fundamental importance to prevent the escalation of conflicts. When basic conditions of safety and stability are met, more can be done than just emergency aid and humanitarian assistance.
- Effective co-operation for food security within the UN is necessary. The number of UN organizations involved in world food issues should go down. The role of the FAO as a source of information on the world food situation is important, as well as its normative role in the field of environmental management and trade in agricultural products.

3.6.2.1 Dutch in Ethiopia

The main focus of the Netherlands Development Cooperation in Developing Countries in general and in Ethiopia in particular is poverty alleviation and sustainable development. The Netherlands Development Cooperation with Ethiopia dates back to 1993, when the disconnected relations during the Derg era were resumed by signing a Memorandum of Understanding with Ethiopia. Based on MoU, the following areas were chosen to be priorities for Development cooperation with Ethiopia. These are: Food Security/Rural Development, Health with particular emphasis on Reproductive Health, Democratisation and Governance, Gender and Environment. In view of this, the NL has been supporting a number of projects in the areas of health and food security, with gender, environment and capacity development cutting across all interventions.

The Netherlands Government believes that, though the Government leads the sector development programs (SDPs), the role of civil society should be recognized adequately. Based on this, four (one general and three sector specific) consultations were made between September and November 2001 with civil society representatives in the process of sector choice.

In the Annual Plan 2001 for Ethiopia, attention is paid to the issue of food security. Actually, food security is one of three sectors[6] (the other ones being health and education) that have been selected for further screening and consultation with NGO's and Government. Until this year, a multi-donor food security programme had not got off to a

[6] Important to know is that it is one of the basic criteria for Netherlands Development Co-operation that sectors chosen need to be screened on positive and negative impact on environment and, if the latter is the case, mitigating measures should be developed and implemented. Regular monitoring also remains necessary and a local consultant will be commissioned for this purpose.

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good start. The Dutch Embassy sees as the main reasons for this, the lack of a clear interlocutor of the Ethiopian Government and the focus on food security at the household level, leaving insufficient attention on the national food security and production. Besides this, disagreement between the World Bank and donor governments about the implementation of the food security programme seems to have played a role in slowing down the process.

For the next years the Embassy is determined to get going a comprehensive and effective multi-donor Food Security Programme (FSP). In the paragraph about humanitarian assistance, it is stated that 'allocating food for these groups (i.e., 7 million Ethiopians who will need food aid during 2001) will be considered on condition that their needs have been identified and adequately targeted in a *comprehensive food security plan*, adequate monitoring agreements have been agreed upon between DPPC, WFP and bilateral donors; and that the costs for this food relief are integrated in the Government's budget (PER, 2001)'.

An issue that has to be mentioned in this context is that, the Dutch embassy gives emphasis on the mainstreaming of gender. The focus of the Dutch Embassy will be on the generation of gender dis-aggregated information in the field of agriculture and agricultural research, and the role of research to promote women's actual and potential role in attaining food security in Ethiopia. The support to the Centre for Education, Research and Training of Women in Development (CERTWID) will continue in a more comprehensive manner. Support to NGOs working in the area of civil education and women's rights will continue.

3.6.3 Development Fund for International Development (DFID)

3.6.3.1 General Objectives, Policies and Strategies

The policy of the British government was set out in the White Paper on International Development (1997). Its central focus is a commitment to an internationally agreed target to halve the proportion of people living in extreme poverty by 2015. In addition, associated targets include ensuring basic health care provision and universal access to primary education by the same date.

DFID's aim is the elimination of poverty in poorer countries. It tries to pursue this through the promotion of sustainable development and in particular by:

- building development partnerships with poorer countries;
- working more closely with the private and voluntary sectors, and the research community;
- working with and influencing multilateral development organisations;
- working with other Government Departments to promote consistent policies affecting poorer countries;
- using knowledge and resources effectively and efficiently.

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3.6.3.2 DFID and Civil Society Organization

DFID conducted a major consultation exercise in 1998 with a wide range of civil society organisations at home, in poorer countries and internationally. Important conclusions were the following:

- Consultation will only have lasting value if it is part of a longer-term process of engagement with civil society, to which all parts of DFID are equally committed.
- Programmes which link various development activities, such as capacity building, advocacy and service delivery, and which form alliances with other organisations, have most impact on poverty.
- Direct interaction with civil society groups in poorer countries is essential for DFID to understand poverty and to hear the voices of poor and marginalized people. In addition to direct support, DFID should encourage governments and international agencies to promote an enabling environment for civil society.
- Funding mechanisms need to be more accessible and flexible, if DFID is to broaden its links with civil society, particularly in poorer countries.

3.6.3.3 DFID in Ethiopia

Following the end of the war with Eritrea, the British government has been reviewing its development relationship with Ethiopia. The development of its relationship will be guided by determining how best it can support the Ethiopian Government's efforts to reduce poverty and achieve the International Development Targets. It currently works with multilateral organizations and non-governmental organization, as well as directly with the Federal Government of Ethiopia. The plans for its development support include supporting the Ethiopian Government through the development and implementation of its Poverty Reduction Strategy Paper (PRSP), promoting food security and other assistances, in addition to humanitarian support in case of need.

DFID is planning to deepen its involvement in addressing rural poverty, promoting sustainable improvement in the food security situation at household level, and reducing the vulnerability of the national economy to cyclical drought.

DFID believes that food aid is one of the least efficient ways of directly transferring resources to hungry people (as over half of the total cost goes on storage, transport and administration) and does nothing to address the root causes of food insecurity. By common consent, long-term improvements in food security cannot be achieved by the annual provision of massive amounts of food aid.

Food insecurity in Ethiopia results largely from chronic and severe rural poverty rather than drought and crop failure. Local government officials estimate that in these areas receiving the bulk of food aid, only 15 percent of farming households are able to fulfil their basic needs from agricultural activities alone - even in the most favourable climatic conditions. Other sources of income are therefore needed to meet their household food

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requirements. At the same time, wider aspects of poverty, such as lack of access to affordable health care and poor sanitation, also contribute to malnutrition.

DFID bilaterally begun a dialogue with some regional governments, relevant Ethiopian institutions, other donors and international NGOs on policy issues considered key to improving food security, such as land tenure, voluntary resettlement, labour mobility and access to micro-finance, and are already funding preparatory work in some of these areas.

It is exploring with federal and regional governments and with other development agencies how DFID could support rural road and transport development to reduce food insecurity, for instance in support of the Ethiopian Government's Rural Travel and Transport Program. Within a regional framework it is helping to shape the UN-instigated and now World Bank led "Horn of Africa Food Security Initiative" and ensure coherence between plans developed at the regional level and those emerging in Ethiopia.

3.6.4 Norwegian Agency for Development Cooperation

Norway has been active in assisting developing countries to tackle the widespread poverty which has stifled these countries from breaking out of the vicious circle of underdevelopment. The assistance is envisaged to be used in a way which gives the best possible effect for the poorest groups, create as little dependence as possible and enable developing countries to deal with their own problems of poverty in a sustainable way (NORAD, 1996). The practical implementation of the bilateral development cooperation of Norway is handled by The Norwegian Agency for Development Cooperation (NORAD). The priority areas of development cooperation for NORAD include support for productive activities and job creation, human resource development (particularly on health and education), human rights and democracy, gender issues, environment, population and institutional development. Although the above are the priority areas, NORAD gives a room for the selection of priority areas on the basis of the recipient of country's own plans and priorities. It is stated that for the sake of sustainability, "measures that are supported by Norway development assistance must be in accordance with the priorities of the partner country so that the country can be expected to take the responsibility for continuing the activity when assistance is phased out".

3.6.5 Canadian International Development Agency (CIDA)

3.6.5.1 General Objectives, Policies and Strategies

The objective of the CIDA program is to facilitate the efforts of the people of developing countries to achieve self-sustainable economic and social development in accordance with their needs and environment, by co-operating with them in developing activities; and to provide humanitarian assistance, thereby contributing to Canada's political and economic interests abroad.

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Canada's Official Development Assistance (ODA) program concentrates resources on the following six priorities:

- Basic human needs: to support efforts to provide primary health care, basic education, family planning, nutrition, water and sanitation, and shelter;
- Gender equality: to support the achievement of equality between women and men;
- Infrastructure services: to help developing countries to deliver environmentally sound infrastructure services, with an emphasis on poorer groups and on capacity building;
- Human rights, democracy and good governance: to increase respect for human rights, including children's rights; to promote democracy and better governance; and to strengthen both civil society and the security of the individual;
- Private sector development: to promote sustained and equitable economic growth by supporting private sector development in developing countries; and
- Environment: to help developing countries to protect their environment and to contribute to addressing global and regional environmental issues.

3.6.5.2 Poverty Reduction Policy, Food Security and Sustainable Agriculture Policy

Poverty reduction is a central focus of Canada's development co-operation program. Among the programming strategies that have been formulated is the commitment to achieve food security. CIDA will take steps to ensure that food aid is consistent with, and better integrated into, overall poverty reduction and food-security programming strategies. Project and programme food aid, which is used as a delivery channel for bilateral programming, must be explicitly integrated into overall programming strategies to increase effectiveness. Food aid must be recognised as only one aspect of food security and poverty reduction, and must be closely integrated with other development inputs and programmes. It is critical, according to CIDA, that Canada works with partners who will be present to work on the transitional and rehabilitative needs, beyond the immediate relief requirements.

CIDA's Policy on Sustainable Development, was outlined in the February 2001 document "CIDA's Sustainable Development Strategy 2001-2003: An Agenda for Change". The Strategy has, inter alia, the following major goal: to support sustainable development in developing countries in order to reduce poverty and to contribute to a more secure, equitable, and prosperous world.

Poor soil management practices, increasing soil erosion, and deforestation decrease the productive capacity of land that is already overused. In Africa CIDA supports holistic and integrated approaches to reverse the rapid trend of land and water degradation, and to combat desertification.

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3.6.5.3 CIDA and Participation of Civil Society

CIDA's Sustainable Development Strategy 2001-2003 explicitly recognises the strengthening of civil society as a condition for sustainable development. The Report states "CIDA's initiatives are more sustainable when we focus our development co-operation efforts on working with our partner countries to strengthen their own capabilities to (inter alia): *enhance the participation of civil society*, and notably women, in economic and political life, and work to reduce social inequalities".

3.6.5.4 CIDA in Ethiopia

CIDA has a long-term commitment to improving food security in Ethiopia. In 1995, CIDA began a set of long-term food-for-work projects with Canadian Lutheran World Relief, Canadian Physicians for Aid and Relief, OXFAM Canada, and World Vision Canada. These projects support work such as irrigation and transportation, aimed at increasing food production and availability. CIDA has contributed $40 million to this program.

Since 1995, CIDA has been supporting a project to fight malnutrition and infections in five countries in sub-Saharan Africa, including Ethiopia. World Vision Canada is implementing this project with local non-governmental organizations such as World Vision and CARE in Ethiopia. An amount of $10 million is being spent in Ethiopia. A $15 million CIDA project is also helping Ethiopian institutions design water collection systems in northern Ethiopia, which will improve agricultural production. The project is implemented by the Prairie Farm Rehabilitation Administration, a division of Agriculture and Agri-Food Canada. A food-for-work component of this project will allow for the construction of water catchments and irrigation works.

The pipeline project Sustainable Water Harvesting Institutional Strengthening in Amhara (SWHISA) proposes to support the Commission for sustainable Agriculture and Environmental Rehabilitation of the Amhara Region (CoSAERAR) and the Bureau of Agriculture (BOA) by upgrading their technical capacity related to water harvesting and groundwater exploitation through direct institutional strengthening and applied research support. The project may be linked with a food component to ensure that communities are adequately compensated for their contributions.

At present, Canada has a draft program intervention book that outlines the present engagement and future direction of Canadian assistance to Ethiopia. According to this draft book, the Canadian assistance focuses on food security, and democratization and governance in response to the discussion between the Ethiopian Government and the Canadian counterpart. To effectively use its limited resources and in response to the request of the Ethiopian government for donors to focus on disadvantaged regions, Canadian assistance on food security has focused on Amhara National Regional State and Benishangul-Gumuz State. The overall goal of the Canadian assistance program in the area of food security is to assist the government of Ethiopia and people of Ethiopia in improving medium to long-term food security.

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At the macro level, the food security intervention of Canada is concerned with creating a framework for effective policy dialogue within donors and with the Government. It targets to support the government in the design of national, regional food security strategies, and the implementation of the regional strategies.

At the micro level, the intervention aims at addressing transitional and chronic household food insecurity through targeted emergency assistance and targeted food security programming. The household food security programming will revolve around five priority areas, namely: the creation of community assisted infrastructure, introduction of irrigation and water harvesting schemes, support for applied agricultural research, promotion of soil and water conservation, and improving and strengthening the capacity for disaster mitigation.

3.6.6 Japan Government Assisstance

Being the second largest economy, Japan has been providing development assistance to developing countries to support different sectors. In Ethiopia, projects mainly on small-scale development, road maintenance, increasing food production, improvement to the health service and water supply were implemented with the support of Japan. Between 1994 and 1998, Japan's development assistance amounted to 375.3 million US dollars The priority issues of focus identified for future assistance include: poverty alleviation programs particularly social and human resource development; economic and social infrastructure development; democratization and good governance; prevention and management of conflict and disaster; and responding to critical global issues such as environment, food insecurity, population growth, AIDS, etc. With regard to improving the food security situation, the intervention areas are:

- Provision of materials and equipment support for food production;
- Support for infrastructure development and distribution management for improving access to markets;
- Support for parietal improvement of agricultural and fishery technologies and their distribution;
- Support for strengthening local organizations capabilities to disseminate efficient technologies and effective use of available resources; and
- Food assistance when cases of emergencies arise.

(Japan's Official Development Assistance, Annual report, 1999)

3.7 FOOD AID, FOOD IMPORTS AND FOOD SECURITY

Ethiopia has failed to meet the basic food requirements of the country over the last four decades. When looking back in the 1940s and 1950s, Ethiopia had not only been self-sufficient in staple food production but it was also a net exporter of food grains. In 1947/48, the country's export of food grains was estimated at 150,000 tons (Abebe, 1984, cited in Debebe, 2001; Dagnew, 2000). It was in 1959 that Ethiopia received the first food aid from the USA with the purpose of relieving the critical food shortage in the then drought affected provinces (Alemayehu, 1988, cited in Getinet, 1995). Per capita

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domestic food production has been registering a general trend of decline over the years (mainly since early 1960s) as the rate of population growth exceeds the rate of growth of domestic food production. The food deficit gap started sharply widening from the 1972/73 crisis on-wards. However, particularly since early 1980s, more seriously starting from the 1983/85 drought-related crisis, the food aid and imports were largely used to cover major proportion of the food deficit up until early 1990s.

The link between food imports (i.e., food aid and commercial imports) and food security is quite straightforward in the short and medium term. Food imports affect both sides of the food security underlying notions: food availability and food access (entitlement). It is obvious that food imports increase the availability of food in the country. Being the food aid that is freely handed or devoted to food for work purposes are primarily targeted at the poor and the food insecure, food imports do also improve food entitlements. However, the effect of food imports on food security in the long-term perspective *is* difficult to establish. This is because food imports some times tend to have negative impact on domestic production and product prices, agricultural policies, and changes in consumption patterns.

In the years 1980-83, domestic food production was able to cover close to 80% of the minimum food requirement. During this period, food imports (both of food aid and commercial imports) were at low level covering only 5.6% of the minimum food requirement. Following the countrywide devastating drought in the period 1984-85, domestic food production had declined significantly standing at a capacity of covering 57% of the minimum food requirement. To close the widening food deficit, food imports had picked to 11.9% of the food requirement. The situation has slightly improved in the following four years but slumped back in the period 1992-95 with food imports increasing back to the level of the drought years. Domestic production has substantially revived in the years 1996-99 with corresponding decline in food imports.

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Table 3.3: Food Production and Availability in Ethiopia ('000 MT)

Detail	1980-83	1984-87	1988-91	1992-95	1996-99
Domestic Production*	6828.6	5602.8	6673.8	6109.7	9037.2
Net Import**	478.9	1168.3	1585.8	1250.5	617.8
(Volume of Food Aid)	(252.8)	(752.2)	(912.1)	(598.9)	(421.1)
Total Food Supply	7307.4	6771.1	8259.6	7360.2	9743.1
Per capita Dom. Prod (kg)	178.8	128.7	135.1	116.5	153.4
Per capita Food Supply (KG)	191.4	155.5	167.1	140.6	165.3
Surplus (Deficit)	(433.1)	(2052.9)	(1749.0)	(3250.8)	(2224.6)

** includes net-grains (15% less for loses and seeds), livestock products, enset and root crops*
*** includes all commercial and food aid imports*
Source: Debebe, 2001

As can be seen from Table 3.3, the volume of food aid had been increasing in the 1980s as it jumped from a level of 0.25 million metric tons per annum to close a million tons. It tended to decline in the late 1990s to less than half a million tons. Cereals represent close to 95% of food aid on average and of which wheat accounts 83% (TGE, 1993, cited in Getinet, 1995, Debebe, 2001). In terms of the uses of cereal food aid in Ethiopia[7], over the six years up to 1984/85, emergency food aid accounted for 71% of all cereal food aid, with project food aid, mostly food for work, accounting for 24% and program food aid accounting for 5% (Maxwell, 1986). In recent years, however, with the aim of linking relief with development, the share of emergency food aid has gradually declined to a level of nearly 65% (Debebe, 2001). As to the source of food aid, western donors, namely: USA, EU, Canada, Germany and the UK are the predominant sources of food aid to Ethiopia.

Empirical and deductive studies that tried to assess the impact of food aid have come up with two contrasting findings (World Bank, 2001). There are those who underline that besides saving millions of lives in times of droughts/disasters, food aid does contribute to economic development positively through releasing scarce foreign exchange resources that would otherwise have been spent on commercial food imports; and through creating employment opportunities and as additional source of income to the rural poor. In addition, it helps to develop rural economic infrastructures through food for work programs. It is also argued that food aid if effectively targeted at poor people could improve nutritional status.

Some others argue that food aid has a number of disincentive effects on domestic agricultural production and local food habits (Teressa, 1998; Dagnew, 1994). The disincentive effect on domestic agricultural production was to be realized through discouraging the government to take active agricultural policies (as increased food availability due to food aid making the Government to neglect agriculture or continue with its inefficient agricultural policies), decreasing/depressing the price of agricultural products, inhibiting the incentive to produce by producers. It also competes with labor-intensive agriculture during peak cultivation seasons in the case of food/cash for work programs of aid. The disincentive effect on food habits was conceived in terms of changing the taste of the people towards imported items and, thus, resulting dependency on imported commodities.

The findings of the studies conducted on the effects of food aid in Ethiopia, however, are mixed. On the one end, the findings undermine the food aid disincentive effects as insignificant. A study made by Maxwell (1986) on the disincentive effects of food aid in Ethiopia concludes with no evidence of any disincentive working through prices, labour competition with agriculture or food habits. A recent study by Debebe (2001) that looked at the disincentive effects of food aid on farmers' production and marketing behavior

[7] Three major types of food aid are identified, namely emergency food aid which is provided to affected people by sudden natural or human-made problems, project food aid which is delivered for development related activities like food for work, and program food aid which is targeted for balance of payment support, price stabilization or for reserve purpose.

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found that, it does not have a significant impact, although, there is some reservation to consider the finding to be conclusive as it is based on a single year data. In the case of disincentive effects on agricultural policies, the comparison of trends of food aid and fund allocations to agriculture, showed that the massive flow of food aid during the 1970s and 1980s has not created any policy disincentive to government investment in agriculture (Alemayehu, 1988, cited in Getinet, 1995). The top priority bestowed to development of agriculture in the current Government further defies the policy disincentive effect of aid argument.

On the other end, some studies indicated that food aid has a negative effect on agricultural production. Teressa (1998) found food aid as one of the major factors that adversely influenced Ethiopia's agricultural production. He stated that "even though food aid has been essential in saving many lives during emergency situations, its continuance during good harvest years and its distribution in non-emergency regions of the country have made it one of the factors which adversely influenced the country's aggregate agricultural output". Dagnew (1994) has also documented the disincentive effects of food aid in terms of reducing labor supply to agriculture, creating dependency syndrome and depressing producers prices in times of good harvests. He, on the other hand, acknowledges not only its importance in life saving and reducing distress migration, but also its positive price and supply stabilizing effects of food aid in times of disaster-related food crisis.

In general, there seems to be a growing consensus that the increasing dominance of food imports on domestic grain market is affecting the price of grains and then the possibility of disincentive effects on domestic production.

As properly stated by Maxwell (1986), it is difficult to make general statements about remedial action that might be taken if hypothetical disincentives appear. It was stated in the Interim PRSP, making efforts to use food aid to development linked program/project activities (i.e, for activities having more a developmental nature) will continue to be important in covering the country's food deficit status until the country fully becomes food self-sufficient in a sustainable manner. If food aid is going to be important in the short and medium term, there is a need to neutralize the emerging price disincentive effect. Maxwell (1986) underlined that "the task is to find a way of supporting simultaneously both the food entitlements of poor families and local markets. If it appears that the provision of free food from abroad to poor families is associated with excess supply will undoubtedly affect the price of the local markets. This will tend to stabilize the local market prices in favor of the consumers, while depresses the domestic producers output price on the other (disincentive to producers). In such situation, internal food/cereal purchase from local markets and supply to deficit areas is to be recommended. This could be done either by giving poor people cash, rather than food, thus enabling them to buy local cereals; or by using aid resources to buy food locally for distribution following the Government policy or guideline (e.g, through EGS). In either case, the net effect would be an increase in demand for local food; and in principle, a rise in prices to acceptable levels. In addition, there is also a need to enhance proper targeting and implement food/cash for work schemes during off-peak agricultural seasons.

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3.8 CONCLUDING REMARKS

External assistance has helped developing countries to support their development efforts to some extent. The extent of achievement gained from the external assistance, however, has not been in proportion with the nominal assistance that entered these countries. Lack of coordination among donors, and their different objectives behind their assistance have depressed the effectiveness of the support to developing countries in general and Ethiopia in particular. This suggests the increased need to strengthen donor's coordination in each intervention areas. Donors also need to revise their objectives and priorities of interventions to fit to the existing conditions of the aid recipient countries.

The mode of external assistance is also found to have an effect on the development endeavours of the recipient countries. In the case of Ethiopia, some available research findings show that external assistance in terms of food aid (aid in kind) have had adverse effects on the domestic production and prices of agricultural products. The pioneering activities introduced by the EU with regard to local purchases and distribution of aid items is to be encouraged; and efforts need to be made to persuade other donors to follow EU's example in this regard.

The common stand observed among all donors to cooperate with NGOs and Other civil society organizations in the design, development, implementation and monitoring of their development programs and projects is to be appreciated; and should be realized in practice.

In addition to the above observations, issues raised on donor support and co-ordination by the respondents of the survey conducted for this study include the following:

- Donors expectation of a credible outcomes from projects within a short period of time often lead to undesirable pressure or tightening of the project activities of NGOs and the Government. For example, EU usually releases fund for only a year and expects visible project impacts in a short time; while it is clear that food security is a long-term outcome that cannot be attained within a short-term given the resource limitation.
- There is a long disbursement procedure from the side of donors that often hampers the timely release/utilization of funds and implementation of planned activities.
- Donors project selection bias on regions was also flagged. SNNPR food security unit noted that a limited number of projects are targeted to their region compared to other regions.
- Most donors follow a general policy in line with their interests that does not consider the specific objective situation of localities or regions within which they operate. This has created fragmentation of policy objectives, lack of co-ordination and poor project outcomes. A case in point is, the policy of USA, which focuses on providing aid only in kind (e.g., focusing on food aid), giving little/no importance to financial support.

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Chapter IV

FOOD SECURITY/INSECURITY ISSUES

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4.1 INTRODUCTION

This Chapter is a summary of a number of issues and processes related with the impact of Government and major donors policies on the food security programs/projects in Ethiopia. This is to give the readers a quick view about the country's food security situation, and the Food Security Strategy and Program (FSS/P) formulated both at national and regional levels. The paper also briefly discusses selected sample NGOs initiatives to address food insecurity in the country. Major donors' food security funding modalities/policy reform measures, and policy influence are also part of the discussion. The results of the literature reviewed and field findings of the study are presented in the discussion sections of this Chapter. Finally, the Chapter concludes by outlining key challenges that must be revisited in the sphere of food security in the country. In this case attention is made to point out, especially, about how the problem ought to be addressed and what the interest of those who might want to be part of the solution, be it at national, regional, local, household and individual levels.

4.2 BACKGROUND TO THE STUDY

As well explained/discussed in Chapter two, a basic feature of the Ethiopian economy is the dominance of the agricultural sector in terms of employment, output and export earnings. Hence, the performance of the economy as a whole is greatly influenced by the development and performance of the agricultural sector. Although agriculture is the dominant sector of the economy, growth in agricultural production has been low over the last 30 years, except for good harvests in 1976/77, 1981/82, 1986/87 and1995/96 years in some surplus producing areas. In most other areas, the low agricultural production has been associated with declining crop yields and lower per capita food availability.

According to the latest World Bank report (cited in Marc J., 1999), about 1.2 billion people or one in every five humans in the world live in the state of absolute poverty, on the equivalent of US $ 1 a day or less. Although food production has consistently kept pace with population growth globally, during the last two decades, nearly 800 million people in developing countries were lacking access to minimally adequate diet. More than a billion people suffer from vitamin and mineral deficiencies. As indicted in Food Security Strategy (1996), about 52 percent of the population in Ethiopia is estimated to be food insecure/below poverty line. The study commissioned by Food and Nutrition Unit of the Ministry of Planning in four major towns in Ethiopia also indicates that severe malnutrition was observed in those surveyed towns; and the basic cause of the problem is lack of purchasing power (ADE, 1996).

According to the 1994 survey results of the Central Statistics Authority - CSA (1994), the national average calorie intake per individual per day in Ethiopia was 1938.6 kcal. The rural average per capita daily calorie intake was found to be 1941.7 kcal despite significant variations exist between regions (even within each region). The average calorie intake per person per day for Tigray, Amahara, Benshangul-Gumuz and SNNPR is reported to be below the national average calorie intake (for rural areas); while at urban level, the per capita daily calorie intake is 1921.7 kcal (1994 Household Survey CSA, 1998).

In Ethiopia, the Food Security Program (FSP) was conceived under the Food Security Strategy that the Government presented to the international/donor community in December 1996. The FSP is designed to increase access of food to the population living in the 156

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identified chronic food deficit Woredas in four regions (Tigray, Oromiya, SNNPR and Amahara) of the country. However, there are many other Woredas in the other regions the food security situation of which is even worse. According to different information sources, similar FSPs were not designed for these areas as they did lack technical capacity to produce the required technical FSP documents in time (for 1998).

The Ethiopian Government believes that the key to a food entitlement strategy is to build the resource base of the poorer rural households; to increase employment and incomes in both rural and urban areas; and to provide targeted transfers to households that have special needs. The FSP aims at directing development towards reducing vulnerability and ensuring 'self provisioning 'in the long term (Multi- Donor Team, 1998).

From the planning point of view, both the national food security program and regional food security strategies can be cited as a good progress/move towards addressing the prevailing/growing food security problems in different parts of the country. Nonetheless, the implementation process has got several constraints; one of the major constraints being shortage of funding. In this regard, issues like sources and availability of funding, Governments share for funding, criteria for distribution of funds to different Woredas, capacity to implement and accountability, etc. are problems of great concern. Donors delay in channelling (disbursing) the pledged/agreed financial aid resources due to the Ethio-Eritrea conflict, is one good example which badly affected the progress and expected outputs of the FSP activities in the intervention areas. There has also been a great problem of co-ordination among the different bodies implementing the strategy documents at federal, regional and local levels.

So far, there has not been any attempt to undertake a comprehensive study on how major donors and Government policies are affecting the food security program activities in the country. This study sheds light on the impact of Government and major donor policies in attaining food security/reducing food insecurity in Ethiopia. This study also looks into the ways the NGO sector has been and can positively contribute to the success of country's food security objectives under the general framework of the Government Food Security Strategy/ Program.

4.3 METHODOLOGY OF THE STUDY

In order to attain the objective of this study, various data from both secondary and primary sources are used. Secondary sources included the reviewing of past and current Government policies, both federal and regional food security strategies/programs and other relevant research documents/literature. In addition, an in-depth interview-based discussions were conducted with relevant federal/regional level Government officials implementing food security projects, NGOs and major donors having concerns and funding the food security and related projects/programs in different localities of Ethiopia. In-depth discussions were also conducted with different concerned stakeholders at different levels on the following major issues during the interview-based discussions and field visits:

- Federal/regional food security program formulation – how it was formulated, the stakeholders participation (Government organizations, civil society organizations) in program formulation, its implementation process, etc.;
- How the co-ordination process of food security program has been going-on;
- The food security/insecurity status of the regions;

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- Participation of NGOs in food security related policy formulation and implementation processes;
- NGOs major food security related components/interventions and their achievement (impact - not necessarily in quantitative terms);
- NGOs awareness of the Food Security Strategy/Program documents and other related policy guidelines;
- NGOs working relation with Government partners in order to sustain their project/program activities and achievements;
- Donors concern for food security (i.e, donors approaches in addressing food security issues) in the country;
- Donors policy reform measures; and
- Impact of Government and donors policies on NGOs projects and program activities.

4.4 FOOD SECURITY AND SUSTAINABLE LIVELIHOODS

The concept of food security is often associated by many people with food self-sufficiency and the need to grow more food. Now, there is an emerging consensus that food insecurity has much stronger links with issues of poverty, unemployment and lack of income generation. Other changes in food security perspective include: from global and national to household and individual, from food perspective to livelihood perspective, from objective indicators to subjective indicators (IDS, 1996). To illustrate the overall situation, DFID's sustainable livelihoods framework is adopted to help in understanding the linkage between food security and sustainable livelihoods.

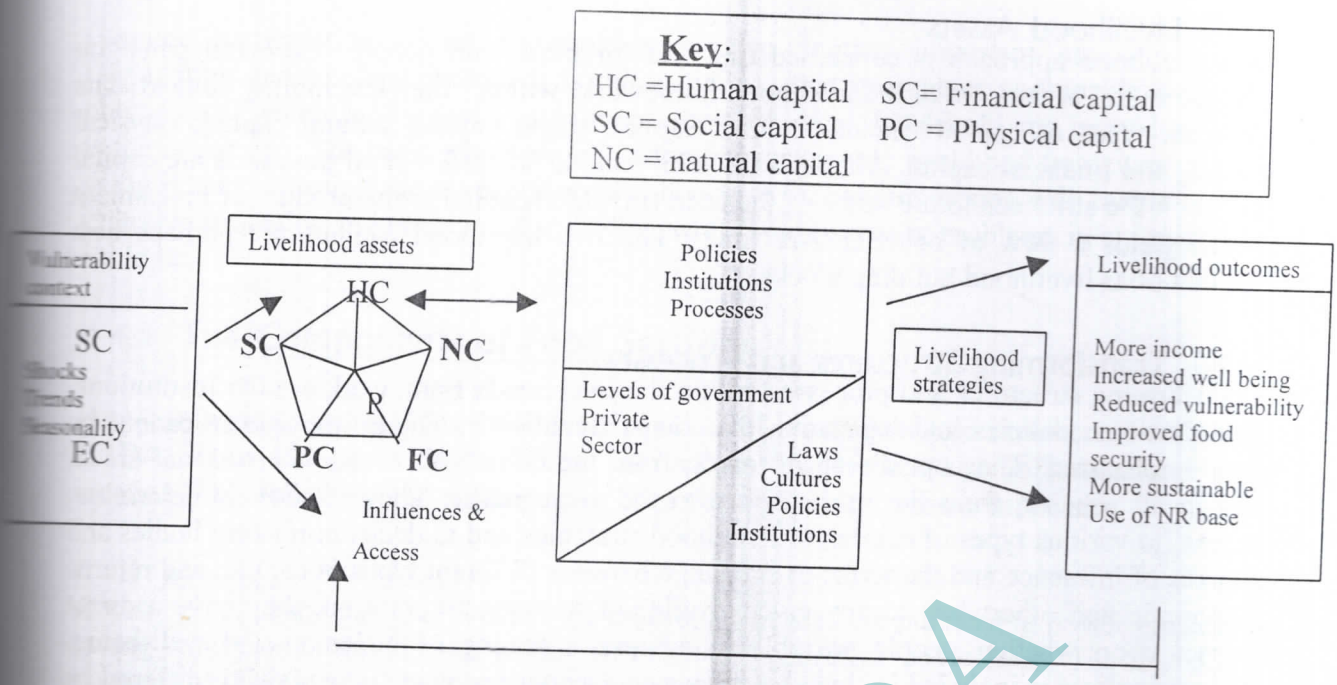
In the 1980s, the World Bank defined a state of food security as being " access by all people at all times to enough food for an active healthy life". The concept of food security has been developing since early 1970s. At the initial period, the concept of food security was related with adequate supply of food at global and national levels. It ignored the micro level food demand or access. Since the 1980s, the concept of food security started to focus on access to food at household and individual levels.

The concept of food security involves all aspects of production, acquisition and asset creation to utilization (Yared, 1999 cited in Filimon, 2001). Food security is, hence, a comprehensive subject that can be adapted to specific household circumstances and members of the household regardless of the type and degree of food shortages. To illustrate the livelihoods of the poor and food security, DFID's sustainable livelihood framework [1] is presented in Figure 4.1 below.

[1] Sustainable livelihoods comprise the capabilities, assets (including both material and social resources) and activities required for a means of living. A livelihood is sustainable when it can cope with and recover from stress and shocks, maintain or enhance its capabilities and assets, while not undermining the natural resource base. Chambers and Conway (1992) cited in Ian Scoons IDS working paper no. 72.

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Figure 4.1: Sustainable Livelihoods Framework



Source: *Adapted from DFID's Sustainable Livelihood Guidance Sheets (1999).*

The sustainable livelihoods framework presents the main factors that affect people's livelihoods. The framework is centred on people (livelihood assets). Secure and sustainable livelihoods are at the heart of an effective food security strategy (IDS Policy Briefing, Issue 8, 1996). In food emergencies, instead of waiting until a crisis gets developed, relief programs should start early and safeguard livelihoods, so as that vulnerable people are not forced to sell essential assets or migrate to search for job. Things emphasized on this framework are: **vulnerability context, livelihood asset, policies, institutions and processes, livelihood strategies and livelihood outcomes.**

i) Vulnerability Context

This frames the external environment in which people exist. People's livelihoods and the wider availability of assets are fundamentally affected by critical:

- **Trends:** which include population trends, resource trends, national/international economic trends, trends in governance (including politics), and technological trends;
- **Shocks:** such as human and health shocks, natural shocks, economic shocks, conflict, crop/livestock health shocks; and
- **Seasonality:** of prices, of production, of health, of employment opportunities.

Different components of the vulnerability context affect different people in different ways. Thus, natural shocks may have a more adverse effect on rural agricultural activity than on urban employment. Likewise, changes in international commodity prices will affect those

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who grow, process or export such commodities; but have little direct effect on those who produce for export, or trade in the local market. Understanding of the nature of vulnerability is a key step in sustainable livelihoods analysis.

ii) Livelihood Assets

The livelihood approach is concerned first and foremost with people. The asset pentagon (Figure 1) lies at the core of the livelihood framework 'within ' the vulnerability context. The different types of capital[2] include human capital, social capital, natural capital, physical capital, and financial capital. Although the term 'capital' is used, not all the assets are capital stocks in the strict economic sense of the term (in which capital is the product of investment which yields a flow of benefits over time). The five livelihood capitals are perhaps best thought of as livelihood building blocks.

iii) Transforming Structures and Processes

Transforming structures and processes within the livelihoods framework are the institutions, organizations, policies and legislation that shape livelihoods. There, importance cannot be over-emphasized. They operate at all levels, from the household to the international arena, and in all spheres, from the most private to the most public. They effectively determine: access (to various types of capital, to livelihood strategies and to decision-making bodies and sources of influence and the terms of exchange between different types of capital, and returns (economic and otherwise) to any given livelihood strategy. In addition, they have a direct impact upon whether people are able to achieve a feeling of inclusion and well-being. Because culture is included in this area, they also account for other 'unexplained 'differences in the way things are done in different societies.

iv) Livelihood Strategies

One of the many problems of development is that projects while favouring some can disadvantage others. When considering **livelihood strategies**, it is important to recognize that people compete (for jobs, for market to secure better prices, etc.). This makes it difficult for everyone to achieve simultaneous improvements in their livelihoods.

v) Livelihood Outcomes

These are the achievements or outputs of livelihood strategies. These include more income, increased well being, reduced vulnerability, improved food security, and more sustainable use of natural resources base. There is a close relationship between ***livelihood outcomes*** and ***livelihoods assets***; the two being linked through the ***livelihood strategies***.

Although there is a strong relationship between policy matters and food security at national, regional, local and household levels, until recently there has been limited attention given to the nature of such kind of relationship in Ethiopia. Putting the concept into practice at the national level is not also the same as practising it at the household level. At national level, food security entails adequate food supplies through local production and food imports. However, adequate availability of food at the national level does not necessarily translate into even distribution across the country, nor equal access among the households. Thus, as

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[2] Human capital = the skills, knowledge, ability to labour and good health. 2/Social capital = social resources like networks and connectedness, membership of more formalised groups, relationships of trust, reciprocity and exchanges that facilitate co-operation. 3/natural capital = natural resources stocks used directly for production (trees, land etc,). 4/ physical capital = comprises the basic infrastructures 5/ Financial capital = financial resources, e.g., cash savings, liquid assets such as livestock and jewellery, regular inflows of money wages remittances.

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indicated in Figure 4.1, stable access is highly influenced by a number of factors. In order to withstand the 'vulnerability context' like shocks, trends and seasonality, households have to build assets. This asset building in turn is largely determined by the availability of sound policies, institutions and processes.

Genuine participation of all stakeholders is also another important aspect in policy formulation and implementation. It is this condition that guarantees sustainable livelihood outcomes of which food security at national, regional, local, household and individual levels is the major one. The basic assumption in adopting sustainable livelihood framework for this study is that capturing the diversity of livelihoods of vulnerable groups will enable to draw effective strategies and programs for dealing with food insecurity problems in a country like Ethiopia.

4.4.1 The Components of Food Security

Four components indicate the food security status of rural household members (FAO 1998, CRDA 2000, Mengesha 2000). These are access, availability, use/utilization and asset creation. The following sub-sections give brief descriptions on these components.

i) Access

Access refers to the stock of food in the market as well as the purchasing power created by saving money or in the form of assets such as cattle and other possessions. The first one is asset ownership (in size and types of productive assets). The second one is income (sources of income earning activities and employment). Secure access to enough food at all times for an active and healthy life is a prime objective of all modern societies because of the central role food plays in economics, cultures and politics. In most cases employment generation schemes (EGS) and off-farm employment opportunities are considered as ways of improving access to food in Ethiopia. The capacity of local markets to deliver the food demand is as equally important as the degree of entitlements or capacity that individuals have to purchase the food they need at all times (Kifle, 1999). The major attempt so far made to create access to food in Ethiopia is through production and productivity increase. Creating access through product and income diversification has not yet become a tradition.

ii) Availability

This refers to availability of active family labour that is able to create incomes and assets. In addition availability also refers to own production and capacity to produce enough food. On the supply side cereals output is the key indicator, as cereals provide about 60% of dietary energy in developing countries and even the figure is highest in the poorest countries. To improve food availability, promotion of irrigation, adoption of low cost inputs and drought resistant crop varieties are among the key factors (Marc, 2000). In general, at micro-level, availability could be taken as households' capacity to produce the food they need. Although there is no national data on this issue, some studies (e.g., a study made by SOS/Sahel in Kindo Koisha) suggest that households cannot feed their family for more than six months from their own production even in 'normal' years (Jenden, 1994).

iii) Use/Utilization

This aspect of food security component relates to changes in households consumption pattern, which includes eating habits or creating strategic mix in feeding pattern to stabilize the availability of food, food stocks and income management (Desalegn, 1987). Utilization of

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food will be improved through the expansion of safe water supply and sanitation, and promotion of community health services and prevention. The dimension of food utilization underlines the importance of such processes, including: marketing, storage, processing, cooking practices, feeding practices and nutrition to the attainment of food security (UN, 2001). It is, however, found to be difficult to support this study by micro-level findings, relating to the actual food utilization and management at household level in the Ethiopian situation.

iv) Asset Creation

Asset creation at household level is a very important component of food security indicator. In times of shocks, households adopt specific kinds of 'coping strategies'. As indicated by Kifle (1999), these strategies involve behavioural changes in terms of food choice, frequency of eating, seeking other income sources, borrowing from kin, etc. In times of emergencies vulnerable households begin to sell their belongings or 'assets' such as livestock, tools, personal possessions or household goods. Thus, food security interventions should enable to create such assets at a household level.

4.4.2 Level of Food Security/Insecurity Situation in Ethiopia

In this section, food security/insecurity situation and its national and regional dimension in Ethiopia will be examined by giving more emphasise on the regional context/problems.

During the Rome Declaration on 'World Food Summit[3] in 1996, the leaders from different countries of the world agreed to cut the number of the world's hungry people in half by the year 2015. The challenge of feeding the world population tomorrow must be checked against the more immediate problem of reducing hunger today. Nonetheless, according to the recent UN data more than 800 million people are chronically undernourished and many more debilitated by deficiencies linked to poor nutrition, especially vitamin A, iron and iodine. Although, Asia contains the largest number of affected people - 512 million people in 1990-92 compared to 204 million people in sub-Sahara Africa, the prevalence of chronic malnourishment is highest in proportion to the total population in Africa, which is 41% (IDS Policy Briefings, Issue No. 8, 1996).

The history of Ethiopia is highly linked with severe recurring food shortage and famine. In much of the available literature, such problem is mainly associated with the recurring drought. Currently, there is a growing consensus that the food insecurity and poverty problems are closely related in the Ethiopian situation. Between 1983 and 1993, Ethiopia witnessed three major droughts, one nation wide famine that left up to a million people dead (Desalegn, 1990). During the 1980s both food production and per capita food availability have experienced a down ward trend. Total domestic production on average decreased by 0.4 percent per annum leaving uninterrupted dependency on food imports including food aid (Adera B., 1999).

In spite of significant political and economic reforms made during the 1990s, some years of record harvests and increasing levels of assistance from the international donor community,

[3] Five years later, FAO's evaluation at the end of 2000, it was recognized that it would be impossible to realize the summit's goal of reducing the number of hungry people by half. In the recent World Summit, world leaders proposed 2030 as the new date to fulfil their resolution (Global forum on food Sovereignty, Havana 2001).

Ethiopia still remains to be one of the most food insecure countries in the world. For the past twenty years, according to records of the DPPC, the number of beneficiaries in Ethiopia in need of annual food assistance has not fallen below 2 million people. During the 1990s, even after the subtraction of the population of Eritrea, beneficiary numbers have not dropped below 3 million despite bumper harvests in 1995 and 1996. In the year 2000, some 8 million people were identified as needing relief assistance. According to some available reports, domestic food production had increased favourably in the year 1995/96. This was because of good weather for agricultural production activities, improvements in agricultural inputs delivery and the implementation of the new extension program.

On the other hand, the years 1973/74, 1984/85, 1993/94 and 1999/2000 were drought years in the recent Ethiopian history. Especially, some pastoral areas like the Somali Region and Borana zone in Oromia Region were badly affected during 1999/2000 drought related crises. The origin of the crisis goes back to 1998, when the ***'meher'*** rains ended early, damaging some of the long maturing crops traditionally grown during the same season. In addition, the *'belg'* rains in 1999 also failed completely in the ***'belg'*** crop growing areas of Tigray, Eastern Amahra, and parts of SNNPR. In February 2000, FAO/WFP estimated the total food production for 1999 at 10.72 million tones, a reduction by 6 per cent on 1998 and inadequate to meet the country's needs (Christian Aid, 2000).

In spite of the bumper harvests in some years in mid-1990s, the country is still food insecure. The minimum average calorie requirement is estimated at 2100 kcal per person per day. However, the current average figure is not more than 1700 kcal for the country (Dagnew, 2000). The food insecure social groups in Ethiopia include: the urban unemployed, people in areas of conflict, destitute peasants, pastorialists who depend on markets for cereal supply and the refugees from neighbouring countries, mainly from Somalia and the Sudan.

Although agriculture dominates the Ethiopian economy, accounting for about 45% of the GDP and 85 % of employment, it is increasingly evident that access to off- farm sources of income is critical to the survival of rural poor (see Web et al 1991, Jenden 1994, Creaswell, 2000). Peasant agriculture accounts for over 90% of the agricultural output, and is rainfall dependent. Not only in terms of quantity, but also timing of rainfall is of critical importance. The right amount of rain at the right time is far more important than the use of fertiliser, improved seeds, agrochemicals or irrigation. Under the present condition, where farmers' incomes are so low and household assets, particularly livestock holdings have been so depleted, unfavourable seasonal rainfall can mean vulnerability or destitution for the rural households. It is often stated that, Ethiopia can expect a major drought in at least three years out of ten. This oversimplifies a much more complicated picture. The different farming systems in the country have different rainfall requirements.

Diversifying the household income base to include non-farm/off-farm sources is a critical strategy for the rural poor to compensate for inadequate and/or unpredictable agricultural production. Common rural household coping strategies are: petty trading, seasonal migration (primarily of the most able bodied household members) to find any kind of paid work and the cutting of wood and grass for sale. According to the World Bank estimates (1992) and Federal Food Security Program document (1996), over half the total population of Ethiopia live in absolute poverty. In Ethiopia, opportunities for diversification out of agriculture continue to be very limited.

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Table 4.1: Some Indicators of the Food Security Situation in Ethiopia

(Area, production and population are expressed in millions)

Year	Area in hectares	Production in quintal (qt.)	Population size	Production per person (qt.)
1991	5.29	65.93		
1992	5.31	53.05		
1993	5.02	58.89		
1994	7.20	57.42	53.48	1.07
1995	7.71	74.99	55.19	1.36
1996	9.07	103.28	56.93	1.81
1997	8.95	104.36	58.12	1.80
1998	7.69	81.04	59.88	1.35
1999	8.52	88.67	61.67	1.44

Source: MEDREK (March, 2001: 13)

As indicted in Table 4.1 above, production per person has declined from 1.81 qt. in 1996 to 1.44 qt. in 1999. This is an indication that unless and otherwise households have better access to additional food through purchase (market based activities), bringing food security only through access to production may not be practical.

4.4.2.1 Regional Dis-aggregation

Growing food insecurity situation/problem is a widespread phenomenon in Ethiopia. However, there are significant regional variation in their incidence and magnitude of the problem. Such differences will be discussed by taking the following four sample regions.

Amahra Region

Analysis of the past three years' regional production data of 48 drought-prone Woredas in the Amhara region shows that, the domestic/regional production on the average meets 62% of the households' annual food demand. Hence, the rest must be supplied through markets; food aid or people have to face absolute deterioration in their nutrition or under-nourishment. In the context of Amhara Region, the rural poor and landless farmers are very food insecure people. The number of population that is chronically affected is about 2,466,742. This accounts about 36 % of the total population of the drought-prone Woredas (ANRS, FSP 1998).

Tigray Region

Both chronic and transitory food insecurity problems are the characteristic features of the Region. Agricultural production in the region is highly dependent on rainfall, which is erratic both in terms of quantity and periodicity (Regional FSP, 1998). The legacy of recent war also left the region with poor agricultural production (ACC-Inter Agency Task Force Report, 2000). Although agriculture is still the main stay for the majority of the population, it is dominated by small peasant holder producers and high farmland fragmentation (0.5 hectare/household on average). The major annual agricultural output is 4-7 quintals per household in drought-prone areas and which can only feed a family for 5-8 months at best. There are also non-farm activities providing supplementary incomes for many, but the region still remained food insecure (Regional FSP, 1998). During the interview-based discussions

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made, it was also mentioned by sample informants that, 16 Woredas in Tigray are characterized as chronically food insecure.

Southern Nations, Nationalities and Peoples Region (SNNPR)

This is also one of the food deficit regions in Ethiopia. The main causes of food insecurity in this Region are rapid population growth and limited resources productivity. On the supply side the Region faces shortage both in food and other resources that enable farmers to produce food items. Many people in the region particularly in the drought prone areas are suffering from chronic food shortages, despite the satisfactory records during the last three years. By and large, in the Region's Food Security Program document (1998), it was indicated that the food insecurity problem was taken as agricultural/food shortage problem. As agriculture is the major source of food security and livelihood security at large for the population in the SNNPR.

Oromiya Region

There is lack of baseline data on the extent of the food insecurity at household level, the magnitude of the problem, the number of population affected, and the socio-economic dimension of the problem. However, as the case to other regions mentioned above, the food insecurity situation is rampant in the region.

In the 1990s food production per capita has either been stagnant or declining except for 1996. It was only in 1991 and 1996 that the region produced significant surplus above the food requirement of the population in the region (net of post harvest loss and seed). High population to land ratio, environmental degradation (soil erosion, desertification, soil fertility loss) erratic and unreliable rainfall, general poverty, unemployment etc. are the major factors exacerbating the problem. Some 44 Woredas are also identified as food insecure in the Region.

4.4.2.2 Economic Dimensions

Food insecurity problem is/was mainly perceived only as agricultural and rural issue in the past policies, and interventions in the country largely followed this perception. The issue of urban poor and other marginalized section of the society such as pastoralists has been given less attention.

As UNICEF (1994) points out, that the Government policies toward the urban poor are rarely explicit in most Third World Countries. But, poor living conditions characterised by lack of potable water, substandard housing, high incidence of child mortality, and malnutrition are among the major household food security problems facing the urban poor in Ethiopia. Although, women are often the main breadwinners in Ethiopia, they are poorly trained; work long hours away from home in low wage jobs, and having little opportunity to care properly for their children. Poverty also induces parents to abandon their children or to resort in some informal survival mechanisms to earn additional income.

In addition, the life of the urban poor is further exacerbated due to the high rate of rural urban migration which add burden on the existing limited services in squatter settlements and slum areas. Although the urban population represents not more than 15% of the overall population in Ethiopia, the situation is also not an exception to the above reality.

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The urban poor have different survival strategies - to cope with food insecurity. Ethnic and family ties are aspects that serve as important coping mechanisms in Ethiopia and in many African countries at large (Nelson, 1979). Such strategies are maintained through temporary migration to rural areas and are important for obtaining shelter and employment in the cities, particularly for new arrivals.

Different policies and regulation in the urban sector have their own impacts. For instance the existing land use and tenancy regulations cause major problems often regularly affecting the urban poor in terms of exacerbating/creating residence insecurity. Such regulations also impede urban food production as a survival strategy of the poor. In addition, entering into the informal sector is costly and cumbersome for such groups of people. Small business licence producers also impede entry into the informal economy/sector, and thus, negatively affect employment and income earning opportunities for the urban poor. Similarly, the regulation related to sanitation is often used by local officials in urban areas to suppress street vending of home-prepared foods (UNICEF, 1994).

Although, the pastoral production system represents about 60 percent of total land and 10 percent of population, it has not been getting adequate attention (not given equal importance) compared to sedentary producers/production system by Government policies and strategies (Yecob, 2000). In Ethiopia, most of the pastoralists have lost an estimated 50% of their cattle and 20% of their sheep due to the recent recurring drought (mainly during 1999/2000 drought). Food insecurity in pastoral areas is characterized more by problem of access than by problem of availability. In comparison, pastoralists activity takes longer time to recover than sedentary crop farming. Complete livelihood recovery may take up to ten years in pastoralist areas. Nevertheless, there is much debate going on that major Government policies and strategies (ADLI, FSS and PRSP etc) designed to address poverty issues are said to have, by and large, ignored the interests of pastoral communities.

4.4.2 Causes of Vulnerability and Copping Mechanisms in Ethiopia

4.4.2.1 Causes of Vulnerability

In the literature, three kinds of food insecurity so far have been identified (Thomson and Mafred, 1997). These include chronic food insecurity, seasonal or cyclical food insecurity, and transitory food insecurity. In this paper, however, chronic and transitory food insecurity, which are the common types of problems in Ethiopia will be discussed.

Although the causes and dimensions of food insecurity in the Ethiopian situations are many in nature on the basis of the available information/literature, the food insecurity problems experienced over the years can be summarized as chronic and transitory (Report of the Multi-Donor Team, 1998). The basic premises behind chronic and transitory food insecurity is the time dimension of food problems, i.e, whether or not it is persistent or short-term. This also includes the difference in the magnitude or seriousness of the food insecurity problem.

Chronic food insecurity is caused by lack of basic productive assets. Some of the major ones (which are also the basis of livelihood security) include: land, potable water, supplies, functional sewage disposal systems, good health, basic education, and access to transport services, which are all necessary requirements for a sustained capacity to gain access to food whether through barter or income generation, including making effective use of food. Lack of employment opportunities because of depressed economic activities (barriers to employment

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of various kinds) is also another problem. Furthermore, constraints on increasing the supply of food because of inadequate resources and technology (including financial problems), and/or inability to import food because of policy or balance of payments problem are other constraints worth mentioning.

On the other hand, factors that aggravate transitory food insecurity include: sharp reduction in the domestic or imported supply of food because of crop failure, civil war and interruptions in food trade. Sharp change/decline in purchasing capacity of consumers due to depression in economic activity, social unrest or civil war also contributes to transitory food insecurity.

The Horn of Africa is one of the most food insecure regions of the World. In the Intergovernmental Authority on Development (IGAD) regions, out of almost 160 million people in the 7 countries, some 70 million people live in areas of which have been subject to extreme food shortages and the risk of famine at least once every decade over the past 30 years (ACC- Inter Task Force Report, 2000). High frequencies of drought and cross border and ethnic conflict can be cited as the major causes leading to food insecurity in the Horn of Africa.

On the other hand, southern areas/parts of Uganda, and Kenya, the highlands of Ethiopia, and parts of equatorial Sudan, have low and unreliable rainfall. This problem is further exacerbated by other natural disaster such as floods, locusts or contagious human and livestock diseases, which threaten the livelihood security of pastorlists and agro-pastorialists (Ibid).

In this regard, the May 1998 to June 2000 armed conflict between Ethiopia and Eritrea can be cited as particular event. According to the UN Country Team Report (2001), some 350,000 people were displaced from their homes. The effects of the war are obviously felt beyond vulnerability to food crisis, but also has resulted to an additional labour burden for the women assuming the roles of husbands/brothers in addition to their common workload. Government resources were diverted away from normal development activities, private investment has declined, and donors significantly reduced their assistance and many of them totally stopped their development assistance in the period.

Furthermore, recurrent crop failures and acute food shortages related to drought situations have been frequently occurring in Ethiopia. The most drought-prone and affected areas of the country are its northern, eastern and southern parts of the country. Total failure/shortage of rainfall is often cited as the major cause for the recurring droughts and harvest failures. Such problem or situation is further exacerbated by the social, economic and ecological situations of these prone areas, make them more vulnerable to any sudden/unforeseen disasters.

As indicated in the Government Food Security Strategy document (1996), about 52 per cent of the country's population is estimated to be food insecure/below poverty line. Even though food insecurity has many/diverse causes, those population groups who face land shortage, lack of draught animals, lack income to buy inputs, the disabled, the elderly and female headed households, those living in the periphery and newly established households are suffering from food insecurity in the country.

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4.4.2.2 Coping Mechanisms

Some times the term coping strategies can be misleading as coping behaviour and practices vary from localities to localities, and form households to households; and certain strategies may not be sustainable. In most cases, the problem of transitory food insecurity turns into chronic food insecurity. For this reason, care has to be taken in using information on coping strategies (as important aspects of early warning information or indicators) for appropriate/timely policy and program planning decisions. It has been suggested that it is better to reinforce household coping strategies in famines rather than implementing top-down approaches, such as: emergency public work programs, feeding programs, etc. (FAO, 1997).

In developing approaches to famine prevention and mitigation of the effects of food shocks, it is important to recognise that these food shocks are not simply a function of production and market failures, but may also result from institutional and policy failures.

Vulnerable households in Ethiopia estimated to be up to 60% of the total population, even in an average year, engage themselves in a complex series of coping strategies related to production, asset holdings, searching and adjusting for other alternative income sources and changing consumption patterns (FSP, 1998). While there is some evidence to suggest that policy reforms since 1991 have had a successful impact on the national economy, still there is a growing awareness that the 'conventional' annual 'emergency' appeal to donors for relief food and the distribution of food aid on the basis of nutritional requirements has done little to assist vulnerable households to withstand shocks and to increase income flows and protect assets. Moreover, there is some evidence to indicate escalating poverty and increasing vulnerability in many areas of the country in spite of the massive flows of relief food over the last fifteen years.

4.4.3 Impact of Government Policies and Strategies on Food Security

As documented in the Ethiopian economic history, in the late 1950's the country was categorized as self-sufficient in staple food production. However, from 1960's on-wards the country's food production has shown a steady decline that resulted in worsening food security situation.

The declining nature in food production led the Ethiopian Governments, to devise and implement different intervention measures aimed at raising the country's agricultural production and productivity. However, the major concern of the past policy measures was on attaining national food security and self-sufficiency goals. This was intended to be realized with heavy Government interventions through marketing parastatals and state farms (Dagnew, 2000).

4.4.3.1 National Food and Nutrition Strategy - 1986

The first food security policy effort in the long history of the country worth mentioning is the inception of the National Food and Nutrition Strategy (NFNS). Issued in 1994 after a lengthy process, which started in 1986, its major goal was to contribute to the efforts of the Government in promoting development that will enhance the living conditions of the population. As summarised in ADE (Final Report, 1996), the major objectives of NFNS include the following:

- To improve severe protein-energy malnutrition (PEM);
- To improve food production, availability and access so as to meet an aggregate of at least 2100 kcals/day/person;

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- To achieve national food security by increasing rural and urban income levels and purchasing power through raising agricultural productivity, expanding non-agricultural employment, increasing the range of income generating activities, effective use of existing markets and maintaining effective food security reserve system; and
- To attain food self-sufficiency through sustainable agricultural production and productivity.

To attain these objectives, seven sub-sectors were developed:

i) Agricultural development (food crop production, livestock and fisheries development, and agricultural credit schemes);
ii) Sustainable use and management of the natural resource base;
iii) Marketing and distribution through, among others, stabilization of prices buffer stocks, regional prices monitoring, entrepreneurship development, and credit;
iv) Integrated rural development focusing on rural industrial development, rural transport, energy and food processing;
v) Food security through the development of emergency food security reserve, grain storage, and capacity building at household and regional levels;
vi) Health and sanitation; and
vii) Nutrition.

The NFNS is the first comprehensive food security related policy document that covered a much wider spectrum of problems than those strictly related to food production.

In fact, as Simon Maxwell (1992) point out, food security policy is largely implicit rather than explicit during the time. As documented in the most recent literature (Senayit, 2000), food security policy has informed a variety of policies designing with either single aspects of food security, e.g., disaster preparedness and market stabilization mainly focused on transitory food insecurity, or policies not directly concerned with food, e.g., macro-economic or sectoral policies or specific programs/project interventions, but having indirect effects on food production, consumption and trade. Since the late 1990s, however, there has been a growing understanding and focus on food security issue, taking it as a cross–cutting issue in the country.

In Ethiopia, since 1991/92, there has been a drive towards increased domestic production of export food commodities and restructuring of the relief system, aimed at the objectives of food self–sufficiency and reduced dependency on food aid. Among those policy documents, Agriculture Development Led Industrialization (ADLI) Strategy, NPDPP and other policy reforms can be briefly mentioned below[1].

4.4.3.2 Agricultural Development Led Industrialization (ADLI)

A smallholder led agricultural development strategy (ADLI) is among the first policy initiative since the 1991 change of Government (reform). One of its major focuses include investment on the provision of productivity enhancing or yield increasing 'SG 2000' type inputs and technology packages, expanded extension services and infrastructure (particularly

[1] For detailed review of GO policies, see Chapter 3 of this report.

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rural roads, water supply and sanitation) development with a view to increasing domestic production of food and export commodities.

4.4.3.3 National Policy on Disaster Prevention and Management (NPDPM) - 1993

Another important policy measure worth mentioning here is the NPDPP. It has been providing an institutional framework for disaster (mainly drought induced) mitigation and prevention, and setting forth the broad outlines of a move from relief to development that is characterised by the implementation of Employment Generation Schemes (EGS) targeted at the food insecure and able bodied households/social groups. The launching of the NPDPP was ratified in 1993. As part of this drive, several steps have been taken, including relief assistance to dislocated population groups such as disaster victims, refugees and displaced individuals, the establishment of strategic food security reserves, and improvements in national preparedness and early warning system. This has also further encouraged linking the relief efforts with development in marginal and disaster prone NGOs operational areas.

4.4.3.4 National Science and Technology Policy - 1993

Its priority sectors are natural resources development and environmental protection focusing on strengthening technologies/methods that would help to follow up changes in the environment and forecasting, prevention and minimising the effects of natural disasters. The sectors include mineral, water, energy and geo-information, policy, underline the need for information such as meteorology, hydro-geology and hydrology applicable for early warning and mitigation of natural disasters.

4.4.3.5 Social Policy – 1993

The major issues encompassed include how to mitigate and prevent and eliminate the causes of natural and human made disasters.

5.4.3.6 National Policy on Ethiopian Women – 1993

This was designed to provide special aid promptly and organize women on development programs; as women have particular problems as a result of natural and human-made disasters. Also it was perceived that women are the key actors in the development and relief activities.

5.4.3.7 National Population Policy – 1993

This policy aims at:

- maintaining/improving the carrying capacity of the environment by taking appropriate environmental measures; and
- significantly improving the social and economic status of vulnerable groups (women, youth, children and the elderly).

4.4.3.8 Health Policy - 1993

The core issue of the policy document include giving special attention to the health needs of victims of human-made and natural disasters.

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4.4.3.9 National Agricultural Research Policy - 1993

The intention is to give attention to those areas frequently threatened by the recurring drought, frost, water logging, pest infestation and epidemic diseases. Hence, research should be conducted to alleviate such problems and increase supply. More emphasis was for organizing the national research institute undertaking research to alleviate agricultural problems related with drought and soil erosion by agro-ecological zones among other priority areas of focus.

4.4.3.10 National Environment Policy - 1996

The Environmental policy of Ethiopia was approved in 1997 by the Government. The Conservation Strategy of Ethiopia (CSE), which treats 11 sectoral and cross-sectoral issues, was the basis for the policy. This strategy document covers the issue of rangelands with land husbandry to the issue of science and technology with environmental research.

In addition, there were also other market-oriented macro-economic reforms developed that involve a range of policies not directly concerned with agriculture, food production or food security, but having direct/indirect effects.

4.4.3.11 National Food Security Strategy and Programs (FSS/P) - 1996/98

In 1996, the Government developed a National Food Security Strategy (FSS) and programs, which focuses on identified vulnerable regions. Although it is too early to assess/comment the impacts of these initiatives, the focus of current Government on the food security strategy is especially in lower potential and environmentally fragile areas. Hence, the section that follows will pay much attention to both national and regional food security issues.

The National Food Security Strategy (FSS), was initially articulated at federal level in December 1996, and later followed up by the formulation of regional food security programs in Tigray, Amhara, SNPR and Oromiya (Food Security Program, 1998). The strategy identifies 156 vulnerable target Woredas in these four regions, characterized by severe environmental degradation, erratic rainfall, recurrent drought, low level of food production, poor infrastructure and limited access to clean water. The strategy envisages different program components in the areas of agricultural (crop and livestock) small scale irrigation, sustainable use and management of the natural resources base, infrastructure development, provision of market and credit services, clean water supply, off-farm activities, promotion of nutrition, health and non-formal basic education and capacity building.

Three aspects were central to the National Food Security Strategy (1996):

i) Increasing food and agricultural production – which includes diffusion of improved technology in areas where there is sufficient rainfall. Major emphasis will be on improving productivity in peasant agriculture. It supports small holders to score sustainable food and agricultural production.

ii) Food entitlement strategy - reducing vulnerability in drought-prone areas will be central; and poverty reduction through strengthening emergency capability.

iii) It involves maintaining emergency food security reserves, developing an effective early warning system, and holding strategic seed reserves. (MEDaC, 1999).

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Each of the components of FSS will contribute to availability and entitlement in its own way, and with its own target groups in view. Each will be driven from two sources, increasing domestic self-reliance on one hand, and maintaining aid assistance, on the other. Furthermore, the components, though separable, constitute a unified whole.

Some of the criticisms or questions revolving around the FSS/P, however, include the following:

- Should money be spent in high potential areas or low potential areas? The former will offer higher returns and can provide cheap food to feed the urban areas. But, the majority of people in Ethiopia live in low potential areas where low rainfall, steep slopes, poor soils and bad roads limit agricultural productivity.
- Most NGOs also argue that the food security strategy is a holistic approach that doesn't take into account/consideration the diversified local socio-economic and agro-ecological conditions; and
- It is also agreed by all concerned that, the strategy doesn't address/ignores the problems of pastoralists and agro-pastoralists.

4.4.3.12 Institutional Co-ordination and Constraints on Food Security Issues

In Ethiopia, at Federal and Regional levels, several functional units have mandates for food security and food aid programs. Program implantation is entrusted to the regional and sector bureaus and departments with close supervision by food security steering committees at both federal and regional levels. These committees (composed of relevant government and donors) facilitate the implementation of the program through the mobilization of resources and monitoring activities in line with food security objectives. However, the steering committee represented from the respective sector bureaus to follow-up closely the food security issues/program implementation and problems is found to be not as strong as it was intended. For example, in Tigray Region, the committee is not working as it was initially intended to work; nor is the same committee effectively functioning in the SNNPR. The absence of food security structure at zonal and Woreda levels further retarded the implementation of the food security programs in the respective regions.

Among the federal units, MEDaC, mobilizes development resources that are implemented by MOA, and DPPC (relief distribution). At regional levels, though, there are minor differences in the institutional arrangements in some regions, Bureaus of Planning and Economic Development (BoPED), Disaster Preparedness and Prevention Bureau (DPPB), Bureau of Agriculture (BoA), and Regional Food Security Units (FSU) serve as regional counterparts with similar mandates. Nevertheless, the present institutional arrangements and mandates make co-ordination regarding the access, use and control of food aid resources and food security assistance difficult (USAID Memo, 2001).

4.4.3.13 Food Security Strategies and Programs of Selected Regions

Based on the FSS document, four regions (Tigray, Amhara, Oromiya and SNNPR) have been implementing their respective food security programs (FSP) since they were drawn in 1998. Some 156 food insecure and vulnerable Woredas located in these four regions (Tigray, Amahra, SNNPR and Oromiya) are covered under the FSPs. Other regions which are not mentioned were unable to produce their FSPs due to capacity problems to design the documents as reported by officials from MEDaC and other sample organizations during the survey period. The focus of the regional food security programs is mainly on drought prone

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areas where rainfall variability and land degradation, small land holding in size and extreme poverty have resulted in wide spread food insecurity (both chronic and transitory forms) and vulnerability to exceptional disaster-related food shortages. The initiatives suggest a move towards more appropriate forms of organization (e.g., in agricultural research and extension, co-operatives) and more effective response mechanisms (e.g., simpler and more affordable technologies) as indicated by Senait (2000).

In the following sub-sections an attempt is made to discuss the FSS/P of Tigray, Amahra, SNNPR and Oromiya regions.

Tigray Region Food Security Program

The five years regional FSP designed to be implemented in between 2001 and 2005 has five main components. The major program components were designed to address: environmental degradation, low access to and command over external inputs, low household energy consumption, low off-farm income diversification opportunities, poor access to water supply, health and education services, low level of road network and a low capacity of the research and extension system.

To integrate all these components, which are virtually handled by different sectors departments, the regional Government has established food security steering committees and desks responsible at all administrative levels

However, there are problems encountered to implement the regional food security programs. The major felt problem is lack of co-ordination and the structural position of the food security desks (with the steering and technical committees), which don't give them chance to operate independently/influence the activities of different bureaus and development agents. Thus, as revealed by sample respondents/study results, due to capacity limitation, the regional food security desk could not be able to translate the general guidelines of the strategy into specific food security related actions.

The overall five years program budget is estimated to be Birr 1,657,018 and 1,778,767 quintal of food grain (food aid for implementing EGS activities). The Region did commence the program by collecting baseline information in a participatory fashion. Under the program, 184,604 vulnerable households found in the selected watershed areas (in the drought-prone Woredas) are to be the direct beneficiaries.

The strategy of food entitlement in the region is designed to focus on chronically drought prone areas. The basic idea is to direct development efforts, also by harnessing the latent potential of relief resources, towards reducing vulnerability and ensuring self-provisioning in the long term. Increasing food production and reducing marketing costs clearly will assist in contributing to reducing real food prices, which in turn contributes to improving food entitlements. However, the key elements of the poorer rural households, increasing employment and incomes in both rural and urban areas, and provisioning targeted transfers to selected households with special needs.

Amhara Region Food Security Program

The average land holding in the region is 1.7 ha and 94.4% of the households have insufficient land holding. Only 22% of the population has access to all weather roads. The density of all weather road network of the region is 10.7 kilometres per thousand kilometres. Access to potable water supply stands at 18% on average. Although the region is said to be

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food self-sufficient, the problem of food insecurity at household level is a common phenomena (ANRS FSP, 1998).

This is one of the regional states that did draw both FSS and FSP in 1996 and in 1998 respectively. The FSP was designed to be implemented in the years between 1998 and 2002. The following are the focus area of the program:

- Increase production and productivity at household level;
- Improve livestock's contribution to food security;
- Introduce sustainable land resources development and reforestation practices;
- Improved potable water supply;
- Human resource development and institutional capacity building; and
- Rural marketing.

A total of 2.02 billion Birr was budged to run the program. The region has a relatively better established food security unit in terms of its strength (capacity). Assisted by EC the FSU it has undertaken some useful policy analysis on land administration, migration and resettlement (Tom H. 2001).

SNNPR Food Security Program

The major components of food security program of the region are: integrated agricultural development, watershed development, small-scale irrigation scheme, water supply, micro-enterprise development, rural road construction and rural credits service. Under the program, it is planned to target 907,028 populations. From the total target population 834,071 people are found in 33 drought prone Woredas, while the remaining 72,957 people are believed to be found in 25 urban centres of the Region.

The areas with low potential for rain-fed agriculture were seen as target areas. A total amount of 1,227,135,522.8 ET Birr budget is projected to undertake the program, out of which 63.3 percent is allocated for agriculture and irrigation scheme development.

It was envisaged that, the food security program would be implemented with the existing institutions through sectoral approach. The major implementing agencies would be Bureaux of Agriculture, Water Mines and Energy Resource Development, Works and Urban Development, Trade, Industry and Tourism, Office of Sustainable Agriculture and Environmental Rehabilitation Commission, and the Omo Micro-Finance Institution and Zonal and woreda level departments. In order to co-ordinate and facilitate the overall food security program co-ordinating units will be set up at all levels. Above all, it was indicated in the program document that the active involvement of the community at large is required for goals attainment (SNNPR, FSP, 1998).

Oromiya Region Food Security Program

The general socio-economic infrastructural condition is also weak in the Region. Accordingly, the average road density in 1996 is estimated to be 25.8 km per thousand square km of the land mass. Health coverage for the region as a whole is only 42%. Enrolment in primary schools and senior high schools was also 32% and 6.0% in 1997 respectively. Only 22.2% of the population of the region got adequate potable water. The situation is even worse in the drought pone lowlands of the Region. About 6,927,070 people and 264219 food insecure households live in the drought prone Woredas of the Region (FSP, 1998).

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As the case for the rest of the regions, the Oromiya Region has drawn Integrated Food Security Program (IFSP) for drought-prone areas, which is sought to be implemented from 1998 to 2002 to improve the food security situation in the Region.

The regional food security program has seven major program components:

- Agricultural sub-programs (crop production, livestock development, agricultural marketing and credit, gender development, capacity building and research);
- Soil and water conservation;
- Forestry;
- Rural water supply sub program;
- Rural road development sub program;
- Basic health sub-program; and
- Basic education sub-program;

In fact, as indicated in the FSP (1998), the program and sub-programs are designed based on the socio-cultural, economic, farming system and the existing problems in the selected regions.

In general, both Federal and Regional (Tigray, Amahra, SNNPR and Omomiya) government food security strategy documents have the following major strength and weakness as indicated in Senayit (2000) on the minutes of the meeting organized by Tigray Food Security Unit (1998), and in the light of the conceptual framework of this study.

4.4.3.14 Some Observations on Food Security Strategy/Program Documents

Despite the fact that, there is a wide time gap between the planned and implementation stage of both federal and regional FSS/P, the following strengthens and weakness could be mentioned. The observations were based on the review of the food security strategy program documents and interviews made with the Federal Food Security Unit (Agricultural Department, MEDaC), regional food security units, different sample NGOs, and some donor communities/agencies.

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a) Strengths/Positive Impacts of Government Policies and Strategies

i) Among the strengths of the FSS/P, its nature of rural focus has been mentioned. Although the number of urban dwellers is increasing, still agriculture will play a critical role to food security, beyond meeting the food needs. This is because increasing the productivity of small- holder farms can boost their income and create demand for goods and services produced by poor non-agricultural rural households (handicrafts) and industrial sector. But, the structural problem existing in the agricultural sector such as backward techniques of production, which are accompanied by human-made and natural calamities serve as a major point for counter argument.

ii) The second aspect that has to be mentioned and stressed by sample respondents is strengthening emergency preparedness and response. From past experiences food insecurity problem in Ethiopia was seen as transitory in nature. The setting of the structures for disaster prevention and preparedness at regional, zonal, Woreda and local levels and the launching of Employment Generation Schemes (EGS) targeted at the food insecure and able-bodied are perhaps the two most encouraging developments in disaster management policy. In spite of several deficiencies in these structures and in EGS which require correction, their

establishment is a step in the right direction, and could offer opportunities for more streamlined and effective relief-food security interventions by the DPPC, line ministries/ departments and communities involved in disaster management.

iii) The restructuring of the agricultural research system at federal level and the formation of Ethiopian Agricultural Research Organization (EARO) is one important step forward. As indicated in (Marc J, 2001) during the last 10-15 years, both donors and the governments of low income poor countries have failed to place emphasis on agricultural research.

iv) The rehabilitation of agricultural service cooperatives and the formation of co-operatives unions is also another factor, as it offers potential for further policy refinement and adjustment with regard to food security. It will provide easy access for input and outputs marketing. Intensification of agriculture might be possible if rural poor have access to improved technologies, agricultural chemicals and the credit required to purchase them. However, the exclusion of the private sector and inefficient inputs supply by party affiliated business companies and absence of strong co-operative system are the major constraints for improved agricultural production as revealed from the interview-based discussions with sample respondents at different levels.

b) **Weaknesses/Negative Impacts of Government Policies and Strategies**

i) There has been lack of recognition of the dynamic and multi-dimensional nature of food insecurity. By and large, policy makers and development practitioners in Ethiopia have attached little importance to food security (except in its transitory form), and have not promoted it as a cross-cutting issue to be addressed in development program components (agriculture, health, nutrition, education, water supply, poverty alleviation through the promotion of urban and rural on-farm and off-farm activities, small enterprise development, credit provision, etc.). There has also been a big concern that, food security as an agricultural and non-agricultural issue has been co-ordinated purely by the agricultural departments.

ii) The country is confronted with the challenges of meeting the triple goals of intensifying agriculture (in different natural and socio-economic settings), maintaining (if not improving) an acceptable level of food security and preserving the natural resource base. No body denies that agricultural intensification is important to address the immediate concern of food security issue. However, there is a need to address critical issues related to the nature of agricultural intensification best suited to enhance food security (e.g., type of technology, investment patterns, role of local and government institutions) especially in low potential and drought prone areas. Generic yield increasing technologies are the core of policies designed to support agriculture. Such policy directions appeared to have mainly benefited better potential areas and/or relatively higher income and food secures producers who in many respects are easier to serve and better able to take advantage of services provided.

iii) There is also weak linkage between regions (food security desks) and federal level (food security desk in MEDaC and Prime Minister's Office - PMO). The SNNPR food security unit even did not know what support could be provided by MEDaC as mentioned/revealed at the meeting organized by the Tigray Food Security Unit in 2000. There had also been insufficient dialogue on food security programs between donors and Federal level co-ordination office at MEDaC.

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iv) There was also lack of stakeholders participation during the policy formulation process. Although donor agencies like CIDA are Steering Committee Members of the Federal Food Security Unit, it expressed by their senior staff members that, they have only participated for five minutes brain storming session on FSS/P documents in MEDaC as pointed out during the interview-based discussion.

v) The strategy document preparation was also not based on sufficient, disaggregated, representative and reliable data (particularly of socio-economic and ecological nature) that would have allowed assessments of existing forms of food insecurity, trends and cost effectiveness of interventions in different agro-ecological and socio-economic settings.

vi) Regions like Afar, Somali, Banishangul-Gumuz and Gambella have been unable to draw their food security programs so far due to the problems of capacity/technical inabilities as mentioned by the staff of MEDaC's Agricultural Department. It is, therefore, important that the food security strategies are redesigned to properly address the felt needs of pastoral areas, which have been adversely affected by the recurrent drought in the recent years, and have generally been neglected by the long-term development initiatives (USAID memo, 2001).

vi) The FSS/P documents do not show how the unemployed and the urban poor in major towns of the above mentioned regions will benefit in the light of the same strategy and programs designed. Nonetheless, as indicated in the report of Christian Aid (2001), in the second Draft of EPRDF's Second Five Year Program, food security issue in the pastoral areas is planned to be achieved by supporting herders to 'graduate themselves to a more settled life'. In addition, from the program budget side, issues like source and availability of funding, Government's share of funding, criteria for distribution of funds to the different Woredas, capacity to implement and accountability, etc. are not made clear.

viii) In both Federal Government Constitution and the ADLI Strategy, land is recognized as the property of the community and the state. Lack of tenure insecurity, however, is cited as the major cause of food insecurity in the country (Zemedu, 2001). The majority of small holder farmers (with size of holdings 0.5 to 2.0 ha) are unable/not motivated to engage themselves for long-term planning and investing to improve their land holdings. No mention has, however, been made on how the current land tenure insecurity will be solved/improved in the food security program documents. On top of this problem, the increasing demographic pressure is also another socio-economic constraint. The tenure insecurity, as a problem for discouraging investment on land and food security, however, may vary from one region to the other. A clear evidence is that the perennial crops and private wood lots are still the major land use parts in some southern parts of the country.

ix) The FSS/P has not considered the role of cash crops production; and other activities like quality and adequate service delivery in tourist attraction areas/centres for enhancing/generating sustainable income, which contributes to food security.

In general, as discussed above on both Federal and Regional FSS/Ps, most program objectives are consistent with the poverty reduction strategy. However, some policy objectives (e.g, land policy) seem to conflict with sustainable development principles. This is also clearly seen in the case of the current policy relating to the transfer of farm technology such as promotion of chemical fertilizer, which has a negative implication towards sustainable development. Above all, the Government's Food Security Strategy hasn't

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included drawing a clear output marketing strategy, on how surplus production could be accessed to markets. This means that, there is a need to facilitate/regulate the supplies and prices of basic food items throughout the country, to provide farmers with incentives to produce, and to ensure adequate food supplies at reasonable prices for urban areas and food deficit areas. For instance, in most parts of the country, except in few areas, there has been excess production in the year 2001; but, no alternative mechanism was created to reward those farmers/areas with 'surplus' production where producers prices were down at a record level (sold far below the cost of production) - eroding farmers incentive to produce.

The major component of FSP in all regions is watershed management. But, those food security program Weredas are disaster-prone areas the resource base of which to build better livelihoods is generally poor; and this suggests the need for critical review of both the FSS and FSPs. Nonetheless, where there are opportunities for improving agriculture the strategy can be operational.

In other cases, improving health and knowledge/skill strengthens the human resource base, and education in particular will be essential to increasing non-farm and off-farm employment opportunities which is vital for the majority of rural population either land-less or those with fragmented size of farmland. Improvement in health and access to knowledge will bring major changes in reducing reproduction, better maintain population and natural resources equilibrium. Furthermore, some cross-cutting issues like the special needs of women (access to land, technology, extension and other basic services including technical services) is not addressed in FSS/P documents.

4.4.3.15 Poverty Reduction Strategy Paper (PRSP)

The World Bank Group and the IMF determined (in Sept., 1999) that, nationally-owned participatory poverty reduction strategies should provide the basis of all their concessional lending and for debt relief under the enhanced Heavily Indebted Poor Countries (HIPC). Thus, at this moment, the Ethiopian Government is on the process of adopting poverty reduction strategy that has targeted to reduce the poverty level from the current 45.5% to 40% by the year 2003, based on average income. The target is to raise income from 137 USD to annual income of 150 USD. Under PRSP the food security components are based on indicators which cover the population as whole rather than the poor in particular such as the percentages of farmers covered by extensions, share of agriculture, clean water and roads (see PRSP, 2000) for full discussions. Addressing food insecurity problems in all urban and rural sectors, including pastoral areas, therefore, must be central to poverty reduction strategy paper.

4.5 NGOs AND FOOD SECURITY PROJECTS IN ETHIOPIA

4.5.1 An Over-view of NGOs Operation in Ethiopia

In Ethiopia, NGOs came to the picture in mid-1980s, when the country faced a serious drought-induced famine. In the 1990s the number of NGOs operating in Ethiopia significantly increased. In particular, the number of local NGOs has increased substantially since 1991. The CRS (2000) study puts the number of international and national NGOs 120 and 565 respectively. However, there is no reliable data on the actual number of NGOs promoting/implementing food security projects/programs in their intervention areas.

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Furthermore, mainly since the ratification of NPDPM in 1993, an attempt has been made by NGOs implementing community-based development projects to link relief-rehabilitation efforts to development, whereby community participation has also been widely practised in order to promote sustainable development.

In the realm of development, NGOs are also involved in a wide range of activities. Some NGOs mainly specialize in one particular sector, while others adopt a more integrated development approach, being involved in a number of sectors. In one way, or the other, NGOs implementing development projects are contributing towards improving household level food security by addressing at least one of the components of food security (i.e, food availability, accessibility, utilization and asset creation). In this respect, soil and water conservation measures, provision of agricultural inputs and appropriate technology, promotion of small-scale irrigation schemes, and the like have been practised to ensure food security through sustainable agriculture in food deficit/disaster-prone areas.

4.5.2 NGOs Food Security Project Components

According to Christian Aid's study (2001), the on-going NGOs projects (i.e., projects implemented by NGOs and operating in the country) are summarized as follows. These are integrated rural development (32.68%), agriculture (16.59%), health (8.68%), urban development (7.51%), environment (6.21%), water and sanitation (4.21%), and education (3.29%). As it is also stated in ADE (1996), NGOs are involved in a diversified sectors, addressing the causes of food insecurity and under development).

A good number of NGOs are also involved in facilitating the accessibility of food to the urban and rural poor through income/employment generation schemes. Such schemes are aimed at improving the purchasing power of the intended beneficiaries. NGOs have been financing the establishment of micro-enterprises, enhancement of informal sectors through credit and saving schemes. They have been supporting skill upgrading and vocational training programs in view of establishing self-supporting schemes. Furthermore, NGOs have been supporting community based self-financing schemes. By and large, the disabled, destitute women, school dropouts, youngsters, ex-soldiers and other segments of the urban and rural poor are target groups. Significant number of NGOs are also involved in improving the nutritional status of rural and urban communities through integrated health programs, health education, family and nutrition education, access to clean drinking water and sanitation, family planning and the like as revealed during survey/feedback of this study.

4.5.3 Knowledge and Understanding (Awareness) of CRDA Member NGOs on Government Policies and Strategies

Government (GO) policies are the general guiding principles behind any development interventions, and to link the sector development programs towards to integrated effort. NGOs operating in the country follow/abide by their code of conduct developed and approved in the late 1990s that regulate their intervention principle. Furthermore, they operate within the GO policy framework, and follow the guidelines set for new operation. However, the awareness of policy issues by the sample NGOs included in this study vary significantly based on their objectives and area of intervention.

As it was revealed by the respondents, during the survey, although most of the CRDA member NGOs at their head office levels have relatively better awareness of current GO

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policies and strategies. However, the staff of some local NGOs and technicians at field level have little/no knowledge for most GO policies and strategies. Most of NGOs staff have also reservation on the applicability of the existing policies and strategies. For instance, most NGOs that operate on watershed management like SOS Sahel and Norwegian Church Aid commented that ADLI strategy has limitation in that: (a) it doesn't address or consider the local variation, agro-ecology and socio-economic differences; and (b) it doesn't give much attention for pastoralist and agro-pastoralist communities. According different sample respondents, only few of NGOs participated in the process of the ADLI and FSS documents formulation. In general, the study findings show that, there has been very low involvement of NGOs in GO policy formulation, although currently, there is some sign of changes on the part of the Government to involve NGOs as being observed in the on-going PRSP discussion.

Concerning the food security strategy, again different NGOs like CPAR, AFD, and SOS Sahel feel that the country doesn't have appropriate food security policy specific to different regions. Others like, Ethiopian Orthodox Church Development Commission and Inter Aid France do have also reservation on the population policy. Sample NGOs (including some sample major donors approached) heavily stressed that the present high rate of population growth is "a time bomb for the country". They argue that, the existing policy by itself is not enough unless and otherwise there is strong and appropriate strategy to integrate population components to development interventions. In general, some NGOs appear to have good level of GO policy awareness, although all sample NGOs stressed that all policies and strategies were formulated without their participation. Thus, NGOs as part of the development actors should be given the chance to contribute, and be allowed to share their views and experiences of their respective food security projects in the country.

However, on the basis of the survey findings (concerning the knowledge and understanding of NGOs on GO Policies and Strategies), it can generally be concluded that, CRDA member NGOs are quite sufficiently aware of the some key development policies and strategies relating to food security, sustainable agriculture and trade in Ethiopia. From the discussions held with Government and NGO representatives in the course of the field work, it was learned that policy awareness among CRDA members is promoted both through regular joint meetings with their Government counterparts (e.g., quarterly GO-NGO partnership meetings are held between BOA and NGOs in Amhara Region), and more frequent steering committee meetings in which GO and NGO representatives are participants.

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4.5.4 Achievements of NGOs Food Security Projects

Although it is difficult to verify through quantitative measurement, many sample NGOs officials interviewed expressed that they have achieved clear positive impacts at household levels in their respective operational areas leading to household level food security, mainly in economic, natural and physical asset building. However, only a few quantitative information is documented about NGOs contribution to food security programs to justify their impacts (Dejene, 2000). Many NGOs have been supporting the efforts of the Government in the provision of relief and development assistance to disaster affected people (Dagnew, 2000).

In this regard, farmers interviewed at Koisha stressed the positive impact of the local road constructed through the support of SOS Sahel. The intervention is reported to have improved access to local markets and services, and brought about numerous socio-economic benefits. The public transport cost to the nearest town is said to have decreased significantly, and also increased the participation of big merchants in the local markets (Jenden 1994 cited in Liz

Humphery, IDS working paper, No. 81). In addition, in the WFP assisted projects farmers felt that on-farm activities had positive impacts on production; and tree planting is found to be beneficial for flood and erosion control. The project intervention of CARE International in Addis Ababa and SCF/UK in different regions can also be cited as good examples of positive impacts (Raisin, J, 2001). In urban areas like Addis Ababa, incomes from EGS enabled petty traders and other small entrepreneurs to accumulate assets and to improve their business earnings. But, the highest level of positive impact of project intervention is replicability. However, given the scarce nature of development resources invested by NGOs in their respective operation areas, the projects positive impacts lack sustainability. During the fieldwork of this study, however, several sample NGOs mentioned/stressed that they are institutionalising (creating linkages) of their field level achievements to sector programs for better sustainability;

In spite of he above mentioned intervention efforts, Christian Aid's study (2001) indicates that the sustainability of impacts achieved by NGOs is generally judged to be limited.

The kind of intervention approach followed by NGOs is also found to be one of the factors affecting the sustainability aspects of projects that came out from the discussion with different sample NGOs in different sample regions. Some NGOs are found to follow an integrated approach, while others follow sector-based approach to address the food security concerns of the target groups. Both approaches have their own advantages and disadvantages. The thinly spread resources do not enable NGOs, especially the local ones to deal with multi-dimensions of food security. Although sector approach enables NGOs not to loose certain focus areas, it doesn't enable to address related problems simultaneously. Although, it is difficult to put any particular conclusive remark on the most desirable approach, the integrated approach would be better to properly address the food security problems of target communities.

The presence of clear exit strategy is also another important factor to ensure the sustainability of development projects. During the fieldwork, in both the SNNPR and Oromiya Water Bureaus officials indicated that completed water supply schemes have sustainability problems suggesting the need for beneficiaries involvement at all stages of the projects development (from planning to implementation) and the need for providing proper trainings to beneficiaries. The Oromiya Water Bureau in particular, indicated that the communities are not in a position both technically and financially to run the completed water projects. In such cases, providing training for local communities on schemes and establishment of water user committees may be useful for projects sustainability as experienced by, EOC-DICAC in North Shoa.

4.6 IMPACTS OF FOOD AID ON PRODUCTION, MARKETING AND FOOD SECURITY

The primary objective of food aid is to alleviate food insecurity problem resulting from temporary or structural food deficits. The major food aid issues relevant for food security will be discussed in the following sub-sections.

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4.6.1 Food Aid and Food Security

Food aid can play a role in food security as part of a comprehensive sustainable development strategy. Food aid is essential to relieve many (though not all) humanitarian emergencies stemming from natural disasters, armed conflict, or a combination of the two (Marc, J. 2000). During the 1980s and 1990s, WFP brought food aid as a short-term response to the recurring disaster (mainly drought) related food shortages and famine that occurred in many parts of Ethiopia. The volume of food aid imported to the country has been continuously increasing through time as domestic food production failed to respond to the requirements of the growing population. The share of food aid increase ranged from a low level of 0.2 million metric tons in 1980s to 1.0 million metric tons in 1990s (Debebe, 2000).

4.6.2 Food Aid and Production

Ethiopia is one of the major food aid recipient from international donors over the last 20 years (see Table 4.2). As indicated in Table 4.2, food aid as proportion to domestic production was high in the years 1985 (26.2 %), 1986 (17.1%), 1988 (15.9 %) and 1994(14.1%). However, from the review of available literature and interview-based discussions, it has been recognized that food aid has both negative and positive impacts on food security.

Table 4.2: Domestic Production and Food Aid

Year	Food aid, 000 tons)	Food Grain Production, 000 tons	Food Aid Proportion to Prod. (%)
1985	1272	4855	26.2
1986	926	5404	17.1
1987	277	6684	4.1
1988	1096	6902	15.9
1989	461	6676	6.9
1990	657	6579	10.0
1991	925	7078	12.0
1992	840	7055	11.9
1993	519	7619	6.8
1994	980	6945	14.1
1995	683	7492	9.1
1996	334	10328	3.2
1997	8970	83617	10.7

Source: MEDaC, 1999: P. 200

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Available information relating to the impact of food aid on production show that, it has not changed significantly the regular farm activities. Rather, in another study (ADE, 1996), it was indicated that the food aid laid the basic foundation for the FFW programs in Ethiopia. The major activities under this scheme include: the establishment of small-scale irrigation schemes, construction of water supply points, rural roads. The evaluation of USAID in ANRS on its intervention that efforts to link relief and development through Food for Work and Employment Generation Schemes has also showed that, food aid led to the creation of sustainable assets at either community or household level in most cases.

However, in another study (Dagnew, 1994; Teressa, 1998), it has been identified that food aid has negative impact in the allocation of family labour between farm and off-farm activities, having negative effect on seasonal agricultural production. As a result of engaging in non-farm activities, shortage of labour is created during peak time of farm activities. This is said

to have led to decreasing in agricultural production; even there are cases where farmers in South Wello and Tigray often leave a small portion of land idle (Halt and Lowrence, 1993). In addition, for the sake of fulfilling the selection criteria to the food aid beneficiaries, farmers were observed selling their livestock, that results in the reduction of their livestock size and farm inputs. Based on his study in Wollo and adjacent zones in the Amhara Region, Dagnew (1994) noted that, although relief assistance during emergency is a necessity, food aid has lead people to develop dependency syndrome. For instance, people used to travel to distribution sites by ignoring the work days in peak agricultural (planting) seasons; and even to the extent of postponing the burial ceremonies which culturally uncommon and unacceptable.

4.6.3. Food Aid and Grain Marketing

A study (Daniel, 1997) carried out in 1995/96 shows that, food aid has no influence on household's ability to purchases. Such result may be due to the small share of food aid to the total household marketing transaction. Another study from Wollo (Dagnew, 1994) revealed that, the relief food distribution during the crises periods stabilized both grain supply/ availability and market prices in relative terms. In other cases in Kindo Koisha, the grain prices had not been affected by increase in money supply from cash payments for EGS activities (Jenden, 1994). Yeraswork and Solomon (1985 cited in Liz Humphery 1992) concluded that farmers saw FFW as an additional rather than alternative source of income.

4.7 TARGETING

Targeting here refers to either area targeting and/or targeting of beneficiaries for development interventions. The processes of selecting the most effective target areas/beneficiaries have produced an extensive debate in itself.

4.7.1 Area Targeting

Regarding area targeting the tradition as outlined in NDPPM is implementing projects in drought/disaster-prone areas with relatively high number of population being identified as vulnerable and food insecure. But, the problem of this approach is that it ignores the social dimension of poverty and food insecurity in different areas. Some times this kind of approach may benefit certain communities, hampering the redistribution of resources to other needy areas. So to ensure better area targeting and for effective redistribution of scarce development and relief resources, an in-depth analysis of both socio-economic and ecological situations is very important.

4.7.2 Beneficiaries Targeting

In targeting beneficiaries, most development actors like NGOs and WFP in all kinds of their public works approaches, by and large, they use the same targeting procedures/practices. These include: administrative, self and community targeting.

An evaluation undertaken by Humphery (IDS Working Paper 81) on different FFW/CFW projects in Ethiopia has shown that, different projects were found following different targeting approaches. For instance, SOS Sahel implemented project in Kindo Koisha opted for administrative targeting. Self-targeting was rejected on the basis of the suspected high

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demand for employment even at very low wage, and due to lack of information about the going rate for the type of work on offer. Instead, SOS Sahel committees and local extension agents were given the responsibility of recruitment. There were some guidelines: priority was given to the poor, 25% of participants should be female, and only one member per household was allowed to participate. More detailed eligibility criteria were left to the discretion of the selectors/committees in each PA, but had to be clearly stated (Jenden, 1994). There were frequent complaints, however, about the selection procedure in the evaluation that committee members were said to generally favour friends and relatives; and sometimes said to recruit more than the agreed one-person per household.

The Merti-Jeju WFP/MoA joint project was an experiment in self-targeting, which maintained a constant food wage based on nutritional requirements; but, introduced more demanding work norms to reduce the number of people who came forward to work. The evaluation states this strategy appeared to be effective, although participants complained about the heavy workload.

The WFP pilot project in Tigray was able to take a more administrative approach because the poorer households seemed to have confidence in the local community - a parliament (*batio*) system, which is different from the experience in other parts of Ethiopia. Besides, requirements focused on ex-soldiers and returnees from other settlement areas since the war between Ethiopia and Eritrea; and both criteria are easily verified which reduced the scope for bias.

In Damot Woyde, Iresh Concern adopted a community targeting approach combined with an element of self-targeting (i.e., a low wage). Concern set the selection criteria, which is applied by an elected committee from within the peasant association. In addition, locally employed nutrition workers and Concern's agricultural extension agents assess the nutrition and crop status in the project area.

In reality, no targeting system can be perfect; and the chosen strategy reflects a judgement about trade-offs between inclusion and exclusion errors (Sharp, 1997). However, the most appropriate method depends on the local context, including the economy, infrastructure and culture. The other factor that influences the course of action is the objective of the programme, the resources available and the cost-effectiveness of different targeting options. However, in the most recent study of WFP (1999), community targeting proved to be specifically appropriate for selecting the actual beneficiaries, as communities are best aware of their most needy members. Interviews with various NGOs and other organizations like WFP implementing EGS revealed that, through community targeting the poorest and most vulnerable members of the community got the chance to participate in EGS activities.

4.8 OFF-FARM EMPLOYMENT OPPORTUNITIES

In the absence of off-farm/non-farm income opportunities, food insecure households have little opportunity to take-off from their poverty status by their own means (Joanne R., 2001). Providing local employment opportunities greatly enhance food security for vulnerable households, avoiding the need for heads of households to leave their family and seek for employment elsewhere. Unless the non-farm activities are intensified, the observable continuing decline of households farm size might lead to worsening food insecurity.

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4.8.1 Employment Generation Schemes

The scheme allows families to access sufficient food/cash payment without eroding the asset base of the households or without resorting to those coping strategies, which are destructive to long-term development (e.g., productive asset sales).

In Ethiopia, EGS has to date been seen as an alternative to relief in vulnerable areas. It is also becoming increasingly clear that EGS as a form of livelihood support both in good and bad years, in contributing to effectively boost the development process and build households capacity to be resilient to future shocks, through encouraging families to feed themselves (be self-reliant), meet other cash needs and have better chance of accumulating assets. However the overall objective of the EGS must be not only to provide a reliable supplement to strengthening the existing coping strategies but also to develop infrastructural assets in many ways, which can generate and raise household incomes in the long term in a sustainable manner. While providing employment for the rural poor, such programs also can be implemented to promote efforts in soil conservation, water harvesting, re-establishment of forest reserves and other development projects aimed at resorting to rehabilitate degraded resources and improving agricultural productive potentials.

A number of factors need to be considered, therefore, in selecting appropriate works for employment generating programs in addition to considering the potential to absorb labour at appropriate times of the year, such as the long term maintenance requirements and possible recurrent costs associated with assets creation needs to be assessed. Experiences suggest that, it is unlikely that communities will accept the responsibility of any program management and costs of maintenance after the life of a project is over, unless they have been fully involved in the planning and management of the program activities from day one. If assets are to be directly relevant to local priorities, it is essential that planning is a collaborative effort.

However, low productivity, small number of commercial farms, limited market opportunities, lack of credit and absence of appropriate policy and institutional supports are the main constraints to opportunities for wage employment in the current Ethiopian situation.

Some different employment generation schemes (EGS) operated by NGOs in different parts of the country can be cited as the good examples. The intervention of CARE International in Addis Ababa, SCF/UK in different regions, and SOS Sahel in Kindo Koisha can be cited as some of good sample project activities (Raisin, J., 2001). The main projects activities implemented by NGOs include: road rehabilitation, construction of public latrines, flood control walls and other related activities. Such intervention supports have also shown that, the food/cash for work projects enable petty traders and other small entrepreneurs to accumulate assets and to improve their business earnings contributing to household food security enhancement.

4.8.2 Credit Schemes

Absence of credit providing institutions in rural areas is believed to be one of the major constraints to improving the cash flow position of Ethiopia's rural input suppliers, farmers, agricultural market processors and traders. Although, at the moment, there are some state dominated/politically affiliated micro-financing institutions (such as: Dedebit, Omo-micro finance and ACSI), the poorest of the poor have little access to such arrangements as they follow the group pressure and collateral system for repayment. In some regions like SNNPR,

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however, it was mentioned (during the fieldwork) that out of those who have access to credit, women represent about 70%. NGOs have been complaining on the Government's new rural finance proclamation, which prohibits their involvement in credit provision.

4.8.3 Small-Scale Enterprise Development

Given the land fragmentation, land degradation, and population pressure, over reliance in agriculture may not be the best option as a way out from food insecurity. Especially, encouraging off-farm and non-farm income generating means (promoting self-help schemes) for rural land-less and urban poor/unemployed would be appreciable. Such self-help schemes may include: skill training, encouraging petty traders, promoting local communities to engage on handicrafts in tourist attraction areas, fishing and fish processing, and marketing, encouraging rural urbanization to promote the establishment/development of small-scale and other appropriate agro-processing industries in the rural areas, etc.

However, only few NGOs and GO offices provide such wide opportunity for local population/communities. An excellent approach in this regard worth citing, however, has been the one initiated by CPAR in Jarso. The project stimulated much interest among the farming communities by encouraging them to organize themselves in groups for undertaking activities such as handicrafts, mining (incense and gypsum), and bee production. Similarly, petty traders have been organized and provided with market places/shops (Ginjo, 2000).

4.9 FOOD SECURITY RESERVE (FSR) MANAGEMENT AND EARLY WARNING SYSTEMS (EWS)

It is the alternative strategy to fill the gap between unforeseen urgent needs and deliveries. In the Ethiopian case, the existence of a well structurally located food security reserve (FSR) is justified by three main factors (ADE, 1996):

- The high risk of crisis and the delays of imports deliveries, which can be estimated to be between 3 and 6 months as well as the limited ability/efficiency of the marketing system to respond to food crisis;
- The limited capacity of neighbouring ports; and
- The difficulties of reaching some remote and vulnerable areas during the rainy seasons.

It is one of the most important preparedness structures/modalities of the Government to prevent famine and severe food shortages in times of emergencies.

The other measure adopted by the Ethiopian Government to address the problems of transitory food insecurity is the early warning system (EWS). The Government in co-ordination and with the support of donors over the last five years, has also been strengthened. the EWS of the country.

4.10 DONORS FOOD SECURITY POLICIES AND SUPPORT TO ETHIOPIA

4.10.1 Aid to Ethiopia : An Overview

Ethiopia is the major recipient country of both multilateral and bilateral donations compared to other countries in Africa. Major food aid donors to the country include: USAID, WFP, EU, CIDA. (See Chapter 4 for details). It has, now, been recognized that food aid alone cannot

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address the structural food insecurity in Ethiopia. In this regard, many donors have sought to promote the relief development continuum through employment generation schemes (EGS) and other related activities (e.g., FFW/CFW, EBSN) with the assumptions that these schemes support to make effective use of relief resources to establish community assets and thereby bridge the gap between relief and development (Joanne R., 2001). Although differences of perception among the donors and between donors and the Government led to differences of approaches, food security support was and still being also provided through the multi-donor approach (Christian Aid, 2001). However, some major donors like World Bank, IMF and African Development Bank suspended the financial support for a wide array of development projects at the time of the out-break of hostilities in 1998 between Ethiopia and Eritrea (CRS, 2000).

Donors that support food security initiatives fall into two main categories (Christian Aid, 1999). The first group is the official donors, which include bilateral agencies such as the United States Agency for International Development (USAID), and multilateral donor agencies such as the World Bank. Official donors form the principal source of support for civil society. The second category includes non-governmental bodies and/or foundations that specialize in funding food security initiatives and often act as intermediaries for bilateral donors.

The Ethiopian economy is largely tied with aid. But the country was out of favour of both bilateral and multilateral donors in the years between 1974 and 1991. However, this is without considering a large inflow of external funding in the mid seventies and mid eighties, to provide assistance during the major drought-related famine years. The external assistance increased more dramatically when the Transitional Government came into power. It peaked in 1994 at over USD 880 million and in 1995 the figure increased to a total of USD 876 million net official development assistance. Aid represented 18.7% of Ethiopia's 1994 GNP and amounted to USD 16 per capita in 1995. In 1996, Ethiopia received almost USD 700 million in external assistance. However, a growing proportion of aid to Ethiopia was provided as a grant. The relatively high proportion of loans in aid to Ethiopia in 1993 and 1994 was due to the introduction of the Structural Adjustment Program (SAP) in 1992.

Bilateral and multilateral aid to Ethiopia is co-ordinated by the Ministry of Economic Development and Co-operation (MEDaC), while the Disaster Prevention and Preparedness commission (DPPC) co-ordinates aid flows through NGOs. External aid was mostly channelled through NGOs during the military regime. The current Government, when it came to power, however, was keen to assert its control over aid flows, especially bilateral aid flows. The Ethiopian Government has largely succeeded in this. It has gone a long way in setting its own agenda for development programs for roads, education and health, which were presented to donors for funding (V. D and Karen Walker, 2000).

The following sub-sections present the summary of discussions on the major multilateral and bilateral donors' support to Ethiopia (i.e, external support mainly with food security concern). For detailed review of major donors policies and strategies on food security and sustainable agriculture, readers are advised to refer to Chapter four of this report.

4.10.2 Summary of Major Bilateral and Multilateral Donors Support to Ethiopia

Multilateral and bilateral donors with food security concern in roughly equal proportions provide aid to Ethiopia. Among the sample donors, the following can be mentioned based on

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the documents/literature reviewed and discussions made with representatives of major donor agencies.

4.10.2.1 European Union (EU)

Ethiopia is one of the most important countries for European aid (EDF) as well as food aid and where the relative weight of EU as a donor is one of the highest in the ACP countries.

Ethiopia is one of the most important recipient countries for European Aid. However, under EU's policy reform measures, food security projects incorporate/follow the following guiding principles (ADE, 1996):

- Increase internal (farm gate prices);
- Increase productivity;
- Increase non-agricultural income;
- Income support to livelihood diversification means outside agriculture;
- Enhance crisis prevention capacity; and
- Support to relief and rehabilitation.

However, EU had strong reservation to fund the FSP; and the following were some of the policy reform measures put as conditions to be fulfilled by the Ethiopian Government in order to get EU's funding support for the program:

- Land tenure, argue that land has to be free;
- Focus should be given to road infrastructures, which would facilitate marketing;
- Good governance;
- Civil societies participation on policy debates;
- The need for revising ADLI, which mainly focus on sedentary life and ignoring pastoral way of life;
- Reflection of clear output and input marketing; including the need to have/be zero tariff for imported agricultural goods and; and
- The country should co-operate on the regional locust control program.

As indicated in BBO (2001), the EU's support to Ethiopia is to support the country's effort to achieve comprehensive, self-reliant and self-sustained socio-economic development in a sustainable way to overcome poverty. Food security, human resource development, road infrastructure, democratisation and institutional building are the major areas of co-operation.

But, EU is criticized for lack of flexibility as the other donors such as CIDA and World Bank in terms of fund disbursement for development projects. Such lack of flexibility and fund disbursement would undoubtedly result in undesirable delay of the implementation process of projects negatively affecting the development/food security programs.

4.10.2.2 World Bank

The World Bank is different from other donors, primarily providing loans to member Governments. Its lead position in the donor community provides it with a potentially powerful role in supporting civil societies. Although, the World Bank temporarily suspended lending operations to Ethiopia in April 1999, it did resume for urgent, high impact projects addressing basic human needs in the same period. The Bank provides a 1.3 USD billion

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support across a number of sectors, including infrastructure, health, education, energy, agriculture, and social protection.

Ethiopia receives the largest share of World Bank loan in the Sub Sahara Africa. Areas of funding include sector programs such as: education, roads, water, agriculture and health. World Bank follows a 'carrot and stick' principle. Carrot being money and stick being policy reform measures. Its major approach clearly includes the issues stated in the Development Credit Agreement (DCA), which passes several phase of dialogue with the Government. Once the DCA is signed, it becomes the binding document. But, to reach to this stage, there is a staff appraisal stage. It is key for approving the project documents by checking all the necessary issues to be included. Before taking the particular policy reform measures the objective reality of the country should be carefully assessed.

Agriculture support program is based on ADLI strategy. The world Bank supports the initiative of the Government to make the country food self-sufficient through which food security can be achieved, the major sub-sectors being:

- **Fertilizer sector project** - 44 million USD has been provided for this sector in the year 2000/2001.
- **Seed sector project**, supporting national seed agency and Ethiopian seed enterprise. There are farmers-based seed production and marketing schemes. The idea is that model framers should play a multiplier effect by providing the improved seeds for other farmers and Ethiopian seed enterprise. There has been an effort to involve the private sector, but the outcome has not been the way expected due to several constraints (e.g., lack of proper policy support for private sector involvement, lack/poor access to credit services, etc.).
- Agriculture research and training, making foreign exchange available and building capacity for national and regional officials, and for those undertaking fertilizer related activities. The development of soil testing laboratory would largely solve the problem of blanket approach in chemical fertilizer application. The agricultural training and research components supported by the World Bank include: providing capacity building and training opportunity for EARO and Alemaya University staff both short-term and overseas long-term training, which would bring positive impact in the near/immediate future.

The World Bank is also supporting NGOs that are implementing community-based development programs/food security projects. However, it was reported that, as the World Bank's fund is loan-based/public fund, the Government doesn't allow the provision of such fund for NGOs. At the moment World Bank's support focused on 8 selected Woredas in the four major regions (SNNR, Oromiya, Amahra, and Tigray.

The Woreda project implementing committee approves the project for which the World Bank provides resources to the Woreda. The World Bank understands that at Woreda level, there is a capacity problem. The World Bank, however, found that NGOs have a comparative advantage to work as a partner in building the local capacity and bringing new ideas.

4.10.2.3 World Food Program (WFP)

Ethiopia was one of the four major food recipients countries from WFP in the year 2000. In Ethiopia, WFP currently implements participatory rural land rehabilitation (Food for Work),

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small-scale irrigation development projects in the awash river, fodder development activities in the Afar and Somali region, and relief food Assistance to small-scale farmers and drought affected pastroilists (BBO, 2001).

4.10.2.4 United Nations Development Program (UNDP)

It strengthens the national capacity for food security and poverty reduction. Its support focuses on key areas that included:

- Upgrading capacities for better gender sensitive and result-oriented research and extension systems to promote access and utilization of improved farm technologies;
- Strengthening the capacity for agricultural information management and establishment of national agricultural information system;
- Developing strategies and strengthening the capacity for improved use and management of small-scale irrigation; and
- Promoting micro-finance institution to serve rural communities.

4.10.2.5 African Development Bank (ADB)

One among the multilateral donors is the African Development Bank (ADB), which disbursed USD 92.3 million to Ethiopia in 1996. The European Union comes next, which disbursed USD 68.2 million. Among the Un multilateral donors, the largest amount was provided by the World Bank's soft loan arm, the International Development Association (IDA) was USD 55.3 million. With the exception of ADB, all multilateral donors did show decreasing disbursement to Ethiopia between 1994 and 1996. The ADB increased its disbursements in 1995 and maintained them relatively at high level in 1996. IDA and EU have lost their positions as top multilateral donors to the ADB Group. ADB in Ethiopia is supporting research, environmental education, land management, the creation of alternative livelihoods, alternative sources of energy, agro-based industrialization and broad based community participation.

4.10.2.6 United States Agency for International Development (USAID)

The United States leads the league of bilateral donors, although disbursements from the USA have shown a steady decline since 1992. The long-term goal of USAID in Ethiopia (since 1993) is to support programs that reduce chronic food insecurity in partnership with the Government, the private sector and private voluntary organizations. To achieve these objectives, the program areas include:

- Increased production and productivity of rural households;
- Improved family health;
- Improved primary education;
- Strengthened civil society and governance;
- Mitigate the effects of disaster; and
- Support for the improvement of livelihoods in pastorialists and agro-pastorilaist areas.

USAUD's initiative to strengthening institutional capacity for emergency response and vulnerability research is appreciable. However, the USAID needs to revisit the possible negative/positive impacts of cereal food aid (including oils) on domestic production and markets.

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4.10.2.7 Department for International Development (DFID)

DFID is the British Government's Department responsible for promoting development and the reduction of poverty. The bulk of DFID's assistance in Ethiopia is concentrated in addressing rural poverty, promoting sustainable improvement of the food security situation at household level, and reducing the vulnerability of the national economy are the major concerns of DFID's funding.

It is also working with other multilateral donors (the World Bank, European commission) and with regional Governments as to improve the policy environment and to test out new approaches to community driven development and employment safety nets for the chronically food insecure. In addition, they are supporting the improvement of rural transport as a way of improving physical and market constraints to improve food security. Further more, strengthening of governance and civil society, working to reduce constraints for private sector development, supporting the Government's initiative to undermine the HIV/AIDS threats, encouraging the education sector development, and also to see the possibility of supporting the Water Sector Development Program (WSDP) that is under preparation by the Government.

4.10.2.8 Canadian International Development Agency (CIDA)

CIDA has a long-term commitment to improving food security in Ethiopia. In the past CIDA used to focus on the emergency food aid/support to Ethiopia. Now, it is shifting its strategy to link relief with development. It disburses funds through regional Governments for food security related projects. It also supports some NGOs implementing food security projects, such as through Oxfam Canada, CPAR and World Vision. CIDA was also supporting and working following the framework of the Government's FSP. However, it has also certain policy concerns mainly relating to land tenure security issues which is believed to negatively affect its irrigation schemes support in Tigray Region. Some of CIDA's policy reform measures include that, support is highly subject (tied) to sub-contracting the technical assistance to Canadian institutions; and also require to see some policy changes having implications at ground level irrigation projects (e.g., policy related to land tenure and use rights). Although they are contributing some inputs to the PRSP process, the co-operation at present between donors and Ethiopian Government is not that strong. For instance, CIDA is a member of Agriculture and Food Security Committees co-ordinated by MEDaC; but, so far its participation in meetings to discuss on FSP, as pointed out during the interview session, is said to be negligible.

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4.10.2.9 Other Donors

Japan Embassy, German Embassy, and the Netherlands Embassy have gained importance as bilateral donors to Ethiopia. FAO is also important with keen concern to food security through agricultural interventions. Among NGOs, the most important players in terms of disbursement are Catholic Relief Service (CRS), CARE International, Norwegian Church Aid (NCA) and World Vision. They all are working with local NGOs in food security and poverty reduction projects, like local capacity building through training and inputs support, capacity building in health and education, social capital improvement like support of policy reform measures and good governance, natural resource rehabilitation and conservation, livelihood diversification through animal husbandry and EGS, gender mainstreaming, and provision of emergency support. Their approaches have some policy implications to bring sustainable livelihoods through advocating on basic issues like land tenure security, private sector

involvement in productive inputs supply, and stakeholders' participation in policy formulation, strengthening EWS, and jointly assessing the negative impacts of food aid, etc.

4.10.3 Some Comments on Donors Food Security Strategies

As summarized by Christian Aid's assessment (2001) and on the basis of the findings of this study, the following are some of the shortcomings related with donor's food security initiatives:
There are big discrepancies between poverty reductions as stated donor priority and the practice of aid allocation. The Ethiopian case study shows that, investment in the social sectors is not necessarily responsive to the needs of the poor, nor does it always address their health and education needs structurally. Even where investment in education and health are relevant and valued by the poor, they do not necessarily help them to emerge out of poverty. Investment on education and health is not synonymous with poverty eradication and should not divert attention from the need to find structural and radical solution to poverty.

The other problem is, fragmentation of aid and its poor co-ordination which has been major obstacle to aid effectiveness. However, the move towards to sector-wide programming in development holds great promise for more effective aid and all stakeholders should contribute to making this approach successful. However, caution is also required in order to ensure that sector wide programs involve all stakeholders in designing, implementation, monitoring and evaluation. Donor funding for sector wide programs and such roles should go beyond contracting to boost the government's implementation capacity. There needs also a change in donor practices, which include an end to aid tying and politically motivated aid giving, problem of flexibility when it comes to donor priorities, and lack of willingness to harmonise rules, regulations and procedures. The successful involvement of all stakeholders is the key to sustainability and for improving aid quality.

Moreover, conditionality, which undermines ownership and sovereignty, has been proven not to work. True partnership needs to be developed between the donor community and the Government for policy debates. Donors will, therefore, have to be ready to listen to alternative opinions and to make compromise on policy reforms. This also means that ownership should be wider than Government ownership. NGOs and other CSOs should press for true partnership between developing countries and donors at large, and ensure that the aid process is participatory and democratic.

Good quality aid makes use of resources, be it human resources, financial resources, and other material resources through proper implementation channels. For technical assistance, all the major donors including DFID, EU, USAID and CIDA too easily rely on expatriate consultants. These show that there is little effort made to build up local capacity. There are various steps donors can take to improve this situation. The report recommends the establishment of rosters, transparency in the selection and recruitment of consultants, public tendering and clear capacity building plan for major consultancy contracts. Donors should also become more sensitive to the relative advantages and disadvantages of different aid implementation channels, including: Government, NGOs and the private sector.

Involving all stakeholders is important as an aspect of participatory approach to development, at all stages of planning, implementation and evaluation processes. There are, however, many obstacles for making meaningful and positive consultations and involvement with donors, Government and civil society. For donors, the main obstacles are human resources

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constraints, reliance on expatriate staff, and pressure to disburse funds. Where donors attempt to consult and involve civil society, this is often not done appropriately. Insufficient time is allowed; the amount and quality of the information provided is in-adequate; and the language used is in-appropriate. Therefore, bilateral and multilateral donors need local presence, that is, credible in terms of numbers of staff, their subject expertise and their knowledge of local reality.

4.10.4 Direct and Indirect Impacts of Government and Donor Policies, Programs and Strategies on NGOs Food Security Project Activities

The following are some of the major survey findings relating to the direct and indirect impacts of Government and donor policies, programmes and strategies on NGO food security and related development programs/project activities.

The Government and NGOs operating in Ethiopia are in general agreement on the belief that national needs and priorities often expressed through policies, strategies and programmes are the underlying basis for development interventions. As such, national development policy instruments and directives provide the mechanism to ensure that NGO resources are expected to complement/supplement rather than substitute development efforts of the Government. Being general guidelines, however, Government policies and strategies are rarely exhaustive in terms of addressing all conceivable development scenarios; and gaps arising therefrom are likely to negatively impact on NGO operations. A summary of such impacts, as expressed by NGOs themselves, is presented in Table 4.3. According to the experience obtained from a sample of 32 NGOs operating in 8 regions of the country, Table 4.3 suggests that, of the three negatively impacting on NGO programmes, the impact of the current land policy appears to be more prevalent than those arising from agriculture/forestry and micro credit policies.

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Table 4.3: Direct and Indirect Impacts of Government Policies, Programmes and Strategies on NGO Food Security and related development Programmes/project activities

Government Policies/Strategies/ Programmes	Gaps/Problems	Negative Impacts on NGOs Programmes/Projects	No. of NGOs Reporting Negative impacts
Policies:			
1. Land	• Ownership insecurity	• Retards progress in adoption of land improvement measures	7
2. Agriculture/Forestry	• No policies	• In-adequate basis for planning and implementing land use management programmes	3
3. Micro credit	• Prohibits NGOs from operating credit schemes	• Sub-contracting credit schemes increases implementation costs	4
Strategies/programmes:			
1. Extension programme	• Blanket approach • Does not address the development support needs of pastoral areas	• Underestimates efforts in broad based technology development to address local needs and capabilities • Strains limited resources; and puts sustainability at stake	13
2. Development partners	• Institutional instability • High staff turnover	• Makes long-term planning difficult	10
3. Local conflict management	• Neglect of traditional conflict resolution mechanisms	• Frequent disruptions in programme implementation	4
4. Sustainability	• Drawbacks in scaling-up/replication of completed projects	• Increases the risk of non-achievement of development objectives	8
5. Resettlement	• Lack of clear direction	• Makes action planning difficult	6
6. Food Security Strategy	• Loose coordination No federal level focal/ co-ordinating office	• Involves too many consultations	4

Source: Field Survey (IDCoF, 2001)

A good number of NGOs mentioned that, only one area of concern with regard to negative impact of donor policies on their programmes, i.e., funding conditionalities and procedures. For instance, many NGOs feel that, they are often pressed by unrealistic expectations of impact as a condition by donors for continued funding; and programme activities do not start as planned due to delays in releasing committed funds.

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4.11 SUMMARY AND CONCLUSIONS

After the late 1970s, Ethiopia has been considered the most food insecure countries in the world. The problem of food security in Ethiopia is multi-faceted one. By and large, lack of alternative income, insufficient and low agricultural productivity, severe land degradation, depletion of soil fertility, unpredictable and erratic rainfall, increased population pressure, and lack of appropriate technologies are the major causes of chronic food security in the country. In general, the causes of food insecurity can be classified into trends and shocks in Ethiopia according to the findings of this study.

4.11.1 Trends

- unreliable rain fall;
- diminishing land holdings;
- animal disease;
- population pressure;
- decreasing soil fertility;
- increasing poverty;
- poor management of national economy;
- in-appropriate political and economic organizations;
- misguided development policies;
- inappropriate technologies such as traditional agricultural practices;
- land degradation and in appropriate utilization of land; and
- lack of proper land tenure and land use policy.

4.11.2 Shocks

- drought/excessive rainfall;
- war, Ethio-Eritrea conflict;
- coffee price failure (sharp decline);
- grain price failure (sharp decline); and
- debt repayment (e.g., fertilizer credit repayment leading to asset depletion).

Hence, given the above shocks and trends there is no doubt that addressing food security is a serious national problem in Ethiopia. Its further implication is that, it is closely linked with chronic poverty; and it may not be useful/may not be possible to make distinction between them. In general, in the following sub-sections, major Government Policies and strategies and donor food security strategies that have direct/indirect impact on food security will be presented. The summary is based on the review of policy documents and findings from sample survey made on the concerned Government and NGOs, officials and senior development staff and some major donor representatives.

4.11.3 Impact of Government Policies and Strategies on Food Security

In order to mitigate the negative effects of both the trends and shocks, different short-term and long-term policy measures have been adopted by the Government. Such policy measures include: ADLI, NPDPM, National Science and Technology Policy, National Agricultural Research Policy and Strategy, Social Policy, National Policy on Ethiopian Women, National

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Population Policy, Health Policy, National Environmental Policy and other macro-economic policy reforms (see Chapter 3 for details).

The Federal Government did formulate the Food Security Strategy (FSS) in 1996 with the support of some major donors. Later, the FSS was upgraded to FSP in 1998. However, its implementation has been delayed due to Ethio-Eritrean war. Although it is early to comment about its positive and negative impacts, based on the review of relevant documents and sampled interview-based discussion with concerned Government and NGOs officials and senior staff at different levels (including four sample FSP intervention regions) and in the light of the conceptual framework of this study, the following summary and conclusions are made.

In the first place, FSP has to have a pilot phase as it is a long-term investment; either to limit the intervention only in drought-prone areas, or to expand it covering nation wide program. One conclusion that comes out at this stage is that, the FSS/P of the four regions covered in this study has more or less similar program goals. However, given the existence of clear regional agro-ecological and socio-economic differences, each intervention may need a separate or slightly modified approach depending on the regional or local variations. Hence, there is a lack of specific food security plan targets reflecting/addressing the actual local or regional circumstances.

More over, the food security strategy doesn't also take the specific problems of each region into consideration. For instance, the strategy of Oromiya region focuses on agricultural and natural resource conservation, while providing little coverage on infrastructure, social works, and in addressing pastoral and agro-pastoral problems.

The study findings also show that, there is a very weak relation (co-ordination) and linkage between the Federal level and regional levels food security units. There is a capacity gap/problem of focal implementing agencies/bureaus to properly co-ordinate food security programs. Co-ordination problem between regional food security units and other sector bureaus who are supposed to implement FSP is a clear problem observed. At federal, and regional levels, it was envisaged that the Food Security Steering Committees were supposed to facilitate the co-ordination of the program implementation through Regional Food Security units (RFSU). In some regions, however, the Regional Steering Committee has not yet been established (e.g., SNNPR and Oromiya); although, it is anticipated that the current reform measure going-on will somehow solve the food security co-ordination problem. More over, no food security co-ordinating units are proposed so far at zonal and Woreda levels for all intervention regions; and both the regional and Woreda level food security units have had little or no linkages with other sector bureaux or offices in the sample study areas observed.

Nevertheless, except in the Amahra Region, there appears to be little co-ordination (i.e., the program is poorly co-ordinated) showing little or/no program impacts. As indicated by Tigray region DPPB, there is a weak co-ordination among different sector offices. The regional FSU is very weak in terms of both technical and financial capacity as indicated during the fieldwork in the Regions.

There is lack of clear data on the livelihood opportunities in the pastoral and urban areas with the exception to the sedentary agriculture (peasant) areas, where relatively better information could be obtained. For instance, there is inadequate data that show the pastoral way of life, the urban poor and actual situation of women. Even in the sedentary agriculture areas, the

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FSS/P has no clear vision on how to address those households with fragmented land holdings and those without land in many areas. In such cases, at least there has to be a clear alternative strategy for creating either off-farm employment or diversifying non-farm income sources for the rural poor. In the urban sector, for instance, urban agriculture (in some cases) can provide additional food with greater variety for low-income households. But, the FSS/P documents give no attention to such kinds of intervention strategy.

Even in the case of agricultural production, the high resource degradation, small landholdings, limited irrigation potential, high population pressure, and poor infrastructure are not clearly analysed and reflected in FSS documents. Especially in some regions of the country (e.g., SNNPR) where the population pressure is high (sharply increasing), it is hardly possible to address the food security concerns without integrating the population control components/family planning in development interventions.

There was little/no proper participation of civil society in FSS/P formulation and implementation. Especially, clear roles of NGOs and private sector has not been defined, even though it was stated that regional governments would use existing communities and NGO capacities for program implementation.

There has been absence of an opportunity for NGOs, bilateral donors and government organizations to meet and share their views and experiences of food security projects in the country; as these actors have some comparative advantages.

There is limited concern for markets in the Government's FSP, particularly relating to the output and input marketing promotional services. The input prices is highly escalating due to lack of supply and monopoly of agricultural input supply by party affiliated trading companies. Very limited/no private sector involvement is seen in inputs supply business due to the unfavourable policy environment/situation.

There is also no alternative means proposed by the Government so far for integration of local markets, and the mechanism for the movement of grain from surplus areas to deficit areas. The problem farmers are facing at the moment relating to the input-output pricing problem is a clear witness of one of the worst scenarios which doesn't need undertaking any formal study/analysis. For instance, the grain price of 100 kg and its grinding mill's price has been found to be almost equal in the recent months (2001) - cereals (e.g., maize) are, currently, sold far below the cost of production in some regions of the country.

In addition to this problem, the study findings show that, the food aid distribution in parts of the country this year has shown a disincentive effect in domestic production by depressing producer prices, contributing to the increased vulnerability of small farmers and risk on technology adoption in future. Having this serious and growing felt problem, relief distribution in different forms is still going-on almost in different parts of the country without considering its negative implications.

Food Security Strategy pays less attention in addressing the problems of pastoralists and agro-pastoralists. Most on-going intervention in pastoral and agro-pastoralist areas are still traditional to change their ways of life, and even to use the local resources. There is a need to have an appropriate forum for discussing the problems relating to pastoral issues. Besides, some cross-cutting issues like the special needs of women such as: their access to land,

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technology, extension services, basic services and technical services from planning point of view are missed, except in Oromiya Regional State FSP document.

Clear understanding of the nature and determinants of food security/insecurity in different areas is very important. There is still lack of conceptual understanding of food security/insecurity issues as revealed by this study/survey. For instance, food security was perceived as having the same definition/meaning as food self-sufficiency by most respondents. This is clear evidence that suggests the need for more sensitisation and consultation meetings and training workshops not only on the conceptual and practical issues; but also about awareness creation on the Food Security Strategy and Programs (FSS/P) designed at different levels would be crucial.

On the other hand, the contribution of cash crop and the potential role of income from tourism has not been mentioned in FSS/P documents of both the federal and regional governments; and this suggests the need to give proper attention by policy makers and planners as regards the contents of FFSs and FSPs; not only taking into account the regional and local/agro-ecological situations, but also including the socio-cultural variations of different nationalities/social groups.

There is also problem of understanding of how FSP is related to other documents like ADLI, sector programs, and that of PRSP. As indicated by the Agricultural Department (MEDaC), some major donors have been raising such questions, like "what makes FSS different from ADLI and other sector programs?". Hence, the consensus on many donors side is to fund the rural development programs in general; suggesting the need for the Government to resolve the problem of the existing policy duplications.

Indigenous social institutions are very important in vulnerability context as copping mechanisms; and the existing useful coping strategies need to be strengthened through different policy support systems. However, none of the policy documents reviewed (ADLI, FSS/P, PRSP) have given attention to strengthen the social capital of the community, and in building their useful traditional coping mechanisms.

At micro level, livelihood protection for food insecure households (protection/rehabilitation of household and community assets) should focus on: targeted safety nets for vulnerable groups, with clear links to a realistic exit strategy, goals with environmental protection/rehabilitation, protecting and enhancing agricultural productivity, and strengthening opportunities for livelihood diversification that focus on both off-farm and non farm activities. Livestock is the most important potential resource in the pastoral and agro-pastoral areas. However, there is no proper veterinary and husbandry including pasture development services provided in such areas. Besides, fishery and bamboo are some of the untapped potential resources in the southern and western regions. However there is no proper policy and strategy to facilitate on how to use these resources. All these points suggest the need of revisiting the existing food security and related policies, strategies and programs/projects in the country.

On the other hand, it can be observed that for the sake of providing development-related aid to the country, donors wish to see the Government dealing/tackling with at least the transitory food insecurity. However, the Government has made very little attempt to separate the two main types of food insecurity: chronic and transitory food insecurity, in order to manage them separately in times of food emergencies/scarcity.

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4.11.4 NGOs Food Security Interventions

NGOs can serve as a potential vehicle for supporting or complementing/supplementing public sector measures in achieving food security objectives through their program/project approaches. The roles played in providing a targeted assistance by NGOs at local level to vulnerable groups needs acknowledgment according to the findings of the fieldwork (assessed from different sample NGOs projects). The strengths and weaknesses of NGOs projects are summarized in the following sub-sections.

4.11.5 Strengths of NGOs in Addressing Food Security Concerns

- The ability to reach poor communities and remote areas that have few basic resources or infrastructures, and where government services are limited or ineffective;
- Their ability to promote local participation in the design and implementation of public programs by building self-confidence and strengthening the organizational capability among low income groups; although mention was made in the Amahra region that, some NGOs do not work in participatory fashion;
- Their relatively innovativeness and adaptability in identifying local needs, building upon existing resources and transferring appropriate technologies developed elsewhere; and
- Institutionalisation of field level achievements into Government sector programs.

4.11.6 Weaknesses of NGOs in Addressing Food Security Concerns

In spite of the above striking/strong points, however, there are certain limitations of NGOs approaches which should be given due consideration, when stronger NGOs involvement is envisaged:

- There is limited replicability of many NGOs-sponsored activities, as they are often small and localised. Replicability, however, is very important as an indicator for sustainability of achievements at grass-roots level;
- NGOs activities may have a limited-self sustainability as they are often conceived as being relief-oriented;
- Lack of broad programming strategy for a region or a sector, and poor co-ordination among NGOs at different levels; and
- High overhead costs as compared to program/project development costs;

In the Ethiopian context, by and large, **NGOs have played a limited role in advocacy and lobbying on different socio-economic and environmental issues.** In fact, there is no conducive policy environment that enables NGOs to collaborate and share experience, pull resources and work jointly on common concern. Integrated and co-ordinated action should be taken by NGOs to influence pertinent policy formulation processes in the country. For instance, from this study/interview-based discussions, it was revealed that except some international NGOs and few local NGOs at country offices, NGOs representatives at project levels have little/no knowledge about the Government FSS/P and other related policies/strategies, like PRSP. This undoubtedly could be a big draw-back for successful implementation of integrated and sustainable food security projects/programs.

Most NGOs follow an integrated development approach. However, the impacts of their development approaches in general has not been encouraging. In most NGOs intervention

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areas, much improvement in people's lives in terms of their socio-economic development (e.g., household level food security and capacity changes/improvement, significant changes in environmental protection, etc.) is very questionable for different reasons. In fact, in areas where there has been NGOs concentration for a decade or more (e.g., North and South Wollo in the Amhara Region, and Wolaita in the SNNPR), the livelihoods of the communities/project beneficiaries has rather been declining and the food security situation deteriorating, becoming more and more food insecure and dependent citizens of food aid from outside sources.

Some of the problems NGOs face to properly plan and implement their projects relates to the problem of assigning properly trained/skilled development staff in the required fields of disciplines depending on the nature/type of project(s), management and financial capacity constraints, lack of co-ordination with GO line departments, and local administrative and policy related problems.

The other problem experienced relates to the nature of NGOs projects, which in the past used to be designed without properly involving the would be beneficiary communities and development agents in the locality at every stage of projects development (from problem identification, planning, implementation and evaluation), a desirable approach and basis for projects sustainability. Such an approach is not only the basis for future projects sustainability, but also the determining factor for the smooth project transfer or handing over to the concerned line department and to the beneficiary communities. In the past many NGOs projects were not sustainable; and many, in fact, have failed for the following reasons among others:

- many NGOs projects used to be designed with no proper needs/situation assessment and participation of stakeholders;
- projects designed lack clear visions;
- phasing/exit strategy is not seen from the project initiation/planning stage;
- management, technical capacity and/or financial capacity problems;
- many NGOs projects lacked integration with the local Government development plans;
- improper utilization of project resources, aid resources in particular in running project management activities (e.g., improper use of relief food items leaving behind dependency feelings), etc.

Local NGOs, in particular have both financial and human capacity problems to properly run their project activities. This suggests the need for capacity development support for the local NGOs themselves from the Government and international NGOs and/or donor communities in order to increase their project management efficiency and keep their designed projects more sustainable.

On the other hand, the findings of this study show that, most NGOs implementing development projects contacted in different sample areas have shown different level of awareness towards Government Food Security Strategy and Food Security Programs including on other related development policy issues. This, undoubtedly, becomes one key source of mis-understanding often created with the local administrations and line departments (among many other causes) during the process of project implementation efforts. This also suggests the need for providing proper policy awareness training or orientation through workshops for any concerned stakeholders by the Government with the support of INGOs and donor agencies at different levels soon after the introduction of any policy changes.

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4.11.7 Donors Food Security Concerns

Both bilateral and multi-lateral donors are found to be active in supporting to develop and funding of food security projects in the country. Among the major donors included in this review and with whom some interview-based discussions were conducted include: WFP, EU, DFID, CIDA, Japan Embassy, Netherlands Embassy, Norway Embassy, World Bank Branch Office, Christian Relief Service, and Norwegian Church Aid (for details of the literature review and discussion, see Chapter 4).

A summary of donors policy impact on food security programs/projects in the country is presented below.

Some major donors have accepted the FSP and committed to finance the budget requested by the Ethiopian Government. Due to the Ethio-Eritrean war, however, some of the donors responded in a very slow manner later, during the same (1998/2000) crisis period.

The World Bank has been working with the framework of FSS/P as it is giving public fund (loan). However, it also uses both the 'carrot and stick ' approach. Some of its positive contribution includes:

- Strengthening agricultural research by initiation regional soil laboratories;
- Developing/supporting Ethiopian seed and fertilizer agencies; and
- Supporting other sector programs;

CIDA is also supporting and working in the framework of Government FSP. But, it has also certain policy concerns with implication on tenure security issues, special concern made for its irrigation schemes support in Tigray and other regions.

Both World Bank's and CIDA's approaches in particular are to be appreciated in that, they assess the priority needs, knowledge and resource capacity of the Government into consideration; although they have some reservations in certain aspects of Government policy measures, such as the land tenure and population issues. The lesson one could draw from the two donors approaches is the need to make/adopt potential based intervention rather than following donor driven intervention by putting a number of conditionalities to the support to be provided.

USAID is also working to improve the country's EWS, and support the research/study on vulnerability, SERA project. In addition it is supporting technologies that increase productivity at household level, improved family health, improved primary education, strengthen primary education and good Governance, mitigating the effects of disaster, and to improve livelihoods of pastorialists through conflict resolution.

EU through its Local Food security Unit (LFSU) provides both emergency support and food security enhancement through both NGOs and GO partners. Although EU has strong policy reform measure to fund the FSP, it is having some areas of concern mainly relating to the absence of clear land tenure and use rights in the country, rapid population growth, and ignorance/neglect of pastoral problems/issues by the Food Security Program. One of its appreciable strategies are ***discouraging food aid imports and support of internal purchase*** of grain to increase the incentives of local producers and capacities of local traders/private sector. On the other hand, its policy reform measure on free trade relating to food items has to be reconsidered, as that would affect local grain price.

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Some donors like USAID, CIDA and WFP often largely fill the aid resources through food aid delivery which has little impact on development and leads to disincentive on domestic production by lowering mainly producer prices. This again increases not only the vulnerability of small farmers in intervention areas, but also increase risk for technology adoptions. This suggests the need for concerned donors to show their willingness and flexibility in revisiting their mode of aid provision/delivery to the country. That is, donors should be willing to provide support to Ethiopia giving primary focus on appropriate/selective and increased financial aid to minimize any likely negative impacts or dis-incentive effects on local production and output prices.

Donors fund releasing procedure is not found to be favourable to operate long term developmental activities including food security both for NGOs and GOs. Donors don't release funds as they pledge. Some regions like the SNNPR, FSU did also mention during the fieldwork that, donors appear to show certain bias in their fund releasing as favouring certain regions (mentioning Tigray and Amhara regions as cases).

In general, on the basis of the findings of this study, there should be clear and open dialogue with civil societies, NGOs communities and donors (donor concerns are not addressed) in FSS/P and related policy implementation. This would give some chance to the Government and other concerned agencies/stakeholders to reconsider some of weaknesses that were observed during policy formulation processes.

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Chapter V

SUSTAINABLE AGRICULTURE

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5.1 INTRODUCTION/BACKGROUND

This Chapter focuses on sustainable agriculture in Ethiopia. The general objective is to assess past and present agricultural development policies and practices in the country and to identify major outstanding issues that need to be addressed for the country's increased capability in meeting immediate and long-term development needs on a sustainable basis. The specific objectives are to: review information on past and current policies and programmes relating to agricultural/rural development; undertake a critical assessment of past and current agricultural/rural development policies, progrmmes and practices; and provide some general directions toward the promotion of sustainable agricultural development as a basis for the attainment of household-level food security and overall socio-economic development of the country.

In predominantly agrarian countries such as Ethiopia, increasing agricultural production and productivity is widely accepted as the most promising option for their economic growth and development. Despite the central role attached to the agricultural sector, however, these countries have made little progress in meeting the susbsistence needs of their population; as is evident in their heavy dependence on food aid and imports. The notion of sustainable agricultural development has, therefore, received much attention as a reliable strategy to increase agricultural production and productivity in these countries and, thereby, overcome both the problem of food insecurity and the forces that limit overall economic development.

At a global level, sustainable development figured out prominently in the 1970s in the ecology debate (Harborth,1991). Presently, it has gained a much wider importance and occupies a central position in the thinking and practice of socio-economic development including agricultural/rural development. In most simple terms, sustainable agricultural production system may be defined as dynamic system that evolves indefintely toward increased level of productivity for greater utility to present and future generations (Gorecki, 1990).

To answer the question under what conditions can sustainable agricultural development be achieved involves a consideration of a multitude of dimensions. However, although sustainable agriculture receives high in the development agenda of international development agencies, it is more inclusive to some than to others depending on their development policies and strategies. For example, it appears that sustainable agriculture has a wider range of dimensions to the the World Bank than to the European Union; the latter's particular area of emphasis being on sustainable natural resource management practices (Website review). The present study considers the sustainability dimensions of agricultural development on the basis of the TOR set for the study and drawing upon FAO's specification of the strategic components of sustainable agriculture (FAO, 2000). More specifically, this Chapter provides a picture of past and present agricultural development practices and suggests possible development options with regard to crop and livestock production, irrigated agriculture, agricultural research and extension, conservation and utilisation of natural resources, agricultural and food marketing, and off-farm income generating activities in Ethiopia. Following the background section on the physical and economic profile of the country, each of these components of sustainable agriculture is considered in detail in the remaining parts of the report.

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5.2 COUNTRY CONTEXT

5.2.1 Land, Topography and Soil

Ethiopia with a total surface area of about 111.5 million hectare (1.115 Sq.Km) lies between latitude 3^0N to 15^0N and longitude 33^0E to 48^0E. Much of the country (about 44%) consists of highland areas lying above 1500 m rising to about to 4600 m. above sea level (m.a.s.l), where as the rest can be catagorized into moist low land (below 1500m.) and dry lowland (FAO, 1986)

The topography of the highland is very complex ranging from steep deeply dissected by river gorges and broad valleys to moderately steep gently rolling foot hills and extensive highlands including plains of medium altitudes (FAO, 1988). In most areas the soils are relatively deep and fertile thus much suitable for crop production. However, soil erosion is no longer a localized issue, and has been recognized as the most dangerous ecological process observed in much of the country, with total estimated soil loss of around 1 billion ton per year (MEDaC,1999).

5.2.2 Climate

In Ethiopia, altitude is one of the factors influencing the climatic conditions.The major factors influencing rainfall is the inter-tropical convergence Zone (ITCZ), in which its northward movement develops a short rainy season (Belg) in some parts while the south west monsoon is dominant in June-July and the main rainy season (Kremt) commences in most part of the country.

Temperature, which is an important climatic variable plays a key roll in the performance of crops and other plants during their various stages of growth and development. Due to the wide range of altitude in the country, a wide range of temperature regimes are obvious. Thus, mean annual daily temperature in the lowlands could be as high as 30^0C with maximum exceeding 40^0C and at the other extreme mean annual daily temperature at high altitude is in the order of 10^0C or even less.

The amount and intensity of rainfall at any location is largely determined by the direction of the incoming moisture air mass and altitude. In general terms, the south-west highlands record the highest annual precipitation within the range of 1400 mm-2200 mm. In other mid-highland areas annual rainfall lies within the range of 1000 mm-1800mm. Mean annual rainfall in the lowlands lie within the range of 200mm-500mm.

5.2.3 Agro-ecological Zones

The country has a diverse physical features, which have resulted a variety of agro-ecological zones (140), which are grouped into agro-ecological regions (15) based on rainfall, temperature regime, potential evapotranspiration , soils and land form (FAO and UN, 1988).

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Further more, the country consists of a total of 53 growing period zones, which comprises 5 with no growing period, 21 with one growing period and 27 with two growing periods in a year and they have been grouped into 14 broad growing period regions (FAO & UN,1988).

5.2.4 Farming Systems

On the basis of the existing major agro-ecological zones in the country, major crops cultivated, and socio-economic aspects of the society, about four types of farming systems have been broadly categorized to indicate the traditional agricultural practices (E.Westphal, 1974).These are further detailed in the following sub-sections.

5.2.4.1 The Seed Farming Complex

The major characterstics of this complex is that reproduction of nearly all crops by seed, which include cereals, pulses, oil seeds and to a much lesser extent tuber crops. This complex is largely found in most of the Ethiopian highlands and in the Konso and adjacent regions. It was further pointed out (E.Westphal,1974) that the main striking feature of the seed-farming complex is that fruit trees, green vegetables and tuber crops are nearly absent and the emphasis is on seed production and broadcast sowing.

Within this complex, livestock are kept through out the year on natural pastures and stubbles. Cattle are primarily kept as a source of draft power, manure, and milk and as an asset for sale when cash is needed (EVDSA, 1993). Supplementary feeding of forage or grain are common practices. The use of a rotational system of farming with a seasonal fallow of the land, and the inclusion of a legume crop are known to be responsible for the sustained yields. In the central and northern highlands, according to E.Westphal, 1974 teff is the most important cereal. If conditions are not extreme, barley and wheat also grow well, while highland sorghum is suitable if the rainy season is long enough. But the eastern highlands of the country are farmed extensively for the production of sorghum mixed with maize and very frequently with haricot beans. Regarding the mix of the crops, there are many variations even including cropping calenders, which are related to altitude, rainfall, soils, pressure on land, food security needs and staple food preference (EVDSA,1993).

In the highland altitude, barley, wheat, and teff are the major/dominant crops; but with decreasing altitude barley and wheat give way to maize as a dominant crop, with pulses, oil crops and a range of high value cash crops such as pepper become increasingly important. In the south and south-west of the country the choice of crops planted for home consumption mainly depend on food preference. In these areas basic food crops include teff, enset, taro, yam, sorghum and maize. The size of the area planted to each crop is based on the provision of continious food supply through out the year and averting food shortage problems in bad years (EVDSA,1993).

The northern, north-east and eastern portions of the highland are primarily single crop growing areas under present conditions. There is much opportunity to increase production and income by intensifying cropping in much of the mixed farming areas. The current belief is that, where there is pressure on land, farmers are already

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intercropping and relay planting, including the viability of intensifying production systems.

5.2.4.2 The Enset Planting Complex

The cultivation of enset (*Ensete ventricosum*) and its use as a staple food is found nearly exclusively under tribes in south west Ethiopia, which speak different languages mainly in the current SNNP region. The enset planting culture is located in the highland zone between 1600-3000 m.a.s.l (E.Westphal 1974).

In Ethiopia enset is not common in the wild form, implying a modification in its ecological adaptation (Taye Bezuneh & Asrat Felleke, 1966). The plant enset altough it can stand a certain period of drought, it grows best where rainfall is evenly distributed. The crop is propagated by suckers. After the enset has been transplanted to its permanent places, maturation requires about three years at 1600-2000m.a.s.l. and more than four years at higher altitudes of 2500-3200 m.a.s.l.(Taye &Asrat ,1966).

It has been reported (Smeds, 1955) that, the enset planting cultivation is superior to the seed-farming of centeral and north by way of maintaining the fertility of the soil because of frequent application of manures to enset growing areas. Furthermore, enset planting culture is known to support a denser population, as enset regions are among the densest population in the whole country.

Enset is the principal source of food for many people living in the rural and even now in urban population largely in the southern portion of the country. It is not the only staple food but exists side by side to other crops, whether tuber crops or cereals, among most tribes in the south (E.Westphal,1974). In some other areas enset looses its dominant position and shares its importance as food crops with cereals and tuber crops (E.Westphal 1974). It is cultivated in addition to other crops of which cereals dominate, this type of enset cultivation is found among people in Wollega, Illubabor, and Keffa zones of the current Oromiya region (E.Westphal,1974). Enset is therefore, restricted in extent as a major production system in Ethiopia to the south west of the country. The plant is related to banana and both the pseudostem and corms are cut and pulped for food. The pulp may be cooked when fresh or, as is more common, fermented in soils usually in the ground (FAO, 1992). Fermentation may take a few weeks or years. The yield of enset is generally high, exceeding more than 30 qt. per hectare of product (FAO, 1992). It is often interplanted with coffee or chat *(Chata edulis)* and is rarely the sole source of human food in the same farming system. Cereals, pulses, tubers and cash crops are usually important components of the overall farming system, supplemented intensively by livestock rearing. According to FAO, 1992 land preparation may involve a long digging stick or the plough could be as well used. It has potential for the expansion in heavily populated areas with suitable environmental conditions for its culture.

5.2.4.3 Enset Based Farming System

Enset based farming systems are dominant on the Gurage plateau and in several other areas of the country. In this farming system enset is the key staple food, and there are

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many variations in the ratio of area planted to enset and other crops. According to Wicks, 1987 the enset based farming systems should be considered on the basis of the ratio of enset to cereals and tubers.
The enset farming system on the Gurage plateau largely comprises very intensively cultivated home lots planted to enset, coffee, chat, maize, various tuber crops and cabbage, surrounded by extensively grazing land, much of which would be suitable for cropping. The dominant activity out side the home lot is livestock raising, primarily for milk products. Enset is nearly a hardy reliable food crop once established.

5.2.4.4 Coffee Based Farming System

Coffee based farming systems are those where coffee is a major crop and the main source of household income. Most farmers in coffee growing regions cultivate coffee as the main source of income, in shaded areas on about half of their land. The balance of the cultivated land is planted to enset, teff, maize, and some sorghum and taro. Fruits, vegetables and pulses are grown in the home lots.

5.2.4.5 Shifting Cultivation

Shifting cultivation is not well documented and only scarce information is available on the occurence of this farming system in Ethiopia which is mainly confined to the low-land tribes in the west and southwest of the country (Westphal,1974 & FAO, 1992).
On the basis of the available information shifting cultivation is practiced by the Gumz, Berta, Kaffa, and Gimira-Maji groups and among the Mikan-Surma and some people in Sidamo (FAO,1992). The typical pattern of shifting cultivation is the use of the same area for one or two years and then abandonment of these fields and movement to more productive land (FAO,1992). Important implements are the planting stick and the hoe in which irregularly shaped plots mostly are situated far from the settlement and are cultivated only for 1-2 years (Westphal,1974) and after wards they are left to revert into woodlands.

Crops grown are mainly sorghum, which is the food crop supplemented by maize, finger millet, sesame, groundnut, pumpkin, yam and ginger (Westphal,1974 & FAO, 1992). Cotton is used as a prominent cash crop. The choice of a piece of land for cultivation, which already has been used before according to E.Westphal (1974), much depends on the presence of certain indicator plants. During dry period of January and February pieces of land are cleared, and in March they are set on fire, and when the rains come through crops are sown (E.Westphal, 1974). Small fenced fields which lie close to the huts has been fertilized with manures of small domestic animals by keeping catttle at night in moveable enclosure that shift every 4-7 days and at the end of the dry season yam is planted on these manured pieces of land, followed by the sowing of other crops in March and April (E.Westphal, 1974).

5.2.4.6 The Pastoral Complex

The agriculturalist groups in Ethiopia belong to three main systems of farming, which are identified as seed farmers, the enset-planting farmers, and the pastoralists (Simmonds, 1958 & E.Westphal,1974). These three systems, which are the result of

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climatic and ethnic factors, are not always clear-cut, neither in operation or in locality; nor are they static all depending on the raising of livestock.The role of livestock in almost all farming systems in Ethiopia is, therefore, very important, beyond the simple provision of draught power (FAO ,1992). As defined by FAO (1992), however, pastoral systems are those which depend almost completely on livestock production for the subsistance of those who practice them. Pastoralism in Ethiopia is practiced in the hotter and drier zones of the country, usually because no other sustainable system is possible in these areas. The pastoral areas are usually, although not always, in the lower and drier parts of the country. In these areas large herds of cattle, sheep, and goats, as well as camels are kept.

As also expressed by Swift (1988) and Bonfiglioli (1992), the pastoral systems are those in which 50% or more of household gross revenue comes from livestock or livestock related activities, or where more than 15% household food energy consumption consists of milk or milk products produced by the household. An agro-pastoral production system, on the other hand is one in which more than 50% of the household gross revenue comes from farming and 10-50% from pastoralism.

5.2.4.7 Agro-pastoralism

Agro-pastoralism is the dominant system mainly in the south eastern, south and south western lowlands among most of the ethnic groups living around the Wabi Shebelle, Genale, Omo and the Kibbish rivers. According to Sutcliffe (1992), these groups were originally pastoralists, but due to loss of grazing areas, through development and war, and loss of livestock due to drought and disease out breaks, have been forced to adapt an agro-pastoral system with higher dependence on cereals.

5.2.5 Land Use/Land Cover

Of the total surface areas in the country intensively cultivated land covers an area of about 11,600,000 hectare (10.5%); high forest, woodland, shrubland, bush land and afro-alpine together cover an area of about 30,900,000 hectare (27.7%), Grassland covers about 49,000,000 ha (43.9%), and water bodies and others occupy a total area of nearly 20,000,000 ha (17.9%) (MNRDEP,1994).

The highland area above 1500 m.a.s.l constitutes 36.3%, and supports 88% of the human and 70% of the livestock population and contributes over 90% of the cropland as well; whereas the lowland below 1500 m.a.s.l constitute about 63.7% of the total area and supports 30% of the livestock and 12% of the human population (MEDaC,1993).

The highland area is highly degraded, while the lowland area is infested with malaria and testse flies. The land potential for irrigation is estimatrd to be about 3.7 million hectare out of which only 4.4% (0.16 m.ha) is only under irrigation contributing to only about 3% of the annual food production.

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5.3 AGRICULTURAL PRODUCTION SITUATION

5.3.1 Rainfed Agricultural Production

Agriculture plays a dominant role in the Ethiopian Economy. It accounts for 45% of the GDP, provides employment for 85% of the population, generates about 85% of the export earnings, and it supplies about 70% of the country's raw material requirments for large and medium sized agro-based industries. Crop production contributes about 60%, livestock accounts for around 27%, forestry and others 13% of the total agriculture value added (MEDaC,1999). The agriculture sector is dominated by small-holder farmers (with small-scale land holdings) who have been adopting low input and low output rainfed and mixed farmng systems. Small-scale farmers hold 95% of the total cultivated land and cover over 90% of the total agricultural outputs. They produce 94% of food crops and 98% of coffee and the rest come from commercial farmers (state & private). Most of these state owned and operated farms were reported to be very poorly productive. Of the total land area of the country, about 73 million hectare (66%) is believed to be potentially suitable for agricultural production.

But various information sources indicate that about 16.5 million hectares (14.8%) is estimated to be under cultivation of which about 14.6 million ha. are under the poduction of annual crops and the remaining being under the production of perennial crops such as enset, coffee and others. Coffee production area is estimated to be 0.5 million ha. Nevertheless, in accordance with some other sources, the area under food crops by the peasant sector in any one crop season had never exceeded 9 million ha. According to CSA average estimates for the period 1980/81-1991/92 it was only 5.5 million ha of land covered under annual crops in one year. But estimates given by the Ministry of Natural Resources Development and Environmental Protection on the Natural Conservation Strategy, Vol I, 1994, indicates that about 11.6 million ha of land (10.5%) has been used for intensive cultivation purpose. Much of the northern portion of the country is covered by shallow, stony soils, which in many cases, are the product of centuries of careless land management. This zone also has considerable areas of slightly deeper soils, which are intensively cultivated for the production of cereal crops. But, because of their limited water holding capacity, however, the crops are particularly sensitive to drought.

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5.3.2 Crop Production

Agriculture is the main activity for over 85% of the population of Ethiopia, which is almost entirely at subsistance level and may be characterized as essentially a low-input low-output production system with the greater part of the population growing and consuming their own food. Such extreme dependence on the agriculture in most densely populated areas has obviously brought a major negative impact on the environment resulting from increased encroachment to marginal areas and deforestation in search of land for crop cultivation. The average land holding size of each household was estimated to be about 1.26 ha and farms are often fragmented (CSA,1979/80).

The agricultural sector is almost exclusively dominated by resource poor small-scale farmers who produce 90-95% of all cereals, oil seeds and pulses grown in the country under rainfed conditions. Small-scale farmers also account for about 98% of the total coffee production, the main foreign exchange earner of the country. Of the total cropped area in 1998/99 for private holdings, cereals accounted for about 6.4 million hectares (84.0%), pulses and oil seeds accounted 900,000 hectares (11%), and other crops 400,000 (5%). But in terms of area coverage teff occupied the largest cultivated area (30%) followed by maize, barely, sorghum and wheat (MOA and UNIDO, 2000). The national average yield for most cereal crops is low and will not exceed 10-12 qt/ha. Production of coffee by small holders is estimated to be about 210,000 tons per year with an average national yield of 400-500 Kg/ha.

Crops grown in Ethiopia can be grouped into cereals, pulses, oil seeds, fibers crops and stimulants or cash crops. Cereal crops include teff, wheat, barley, maize, and sorghum; and pulses are chick peas, faba beans, lentils, haricot beans and fenugreek are the most important ones. On the other hand, crops like Niger seed (*Guizotia abyssinica*), flax, sesame, rape seed and castor beans are the major oil seeds largely grown in the country.

Of the total cultivated area cereals occupy the largest portion (about 80%), followed by pulses (about 12%), and oil seeds (5-8%) on annual basis. The coffee area as estimated by Coffee and Tea Authority is about 321,048 ha producing 151,565 tons on the average with estimated yields of 4.7 qt. per ha (EEA, 1999/2000) largely produced in Oromiya and the Southern regions.

In Ethiopia cotton is cultivated by both the peasant sector and the state farms at large scale, which in most cases involve irrigation practices. The area occupied by cotton in general will not exceed 30,000 ha on annual basis by both large-scale and the peasant sector.

Sugar and tea are commonly produced under state farms covering an area of 15,000 and 1,951 hectares respectively. Farmers traditionally cultivate tobacco as a garden crop in many parts of the country, which is setimated to occupy an area of about 2,090 ha as 1996/97 cropping season (EEA 1999/2000). State farms also cultivate tobacco in an area of nearly 2000 ha to fulfil the demand of the cigarette manufacturing purposes.

Chat (***Cata edulis***) one of the stimulant crops in Ethiopia is largely grown in East and West Haraghe, Sidama, Jimma, Kembata, and Gurage zones occupying an estimated total area of about 81,230 ha in 1996/97 (EEA,1999/2000). Chat is chewed to raise stimulation effect . It is exported to neighbouring countries in quantities amounting to 3,699 tons as of the 1995/96 cropping season becoming the third major export earner of the country, after coffee and hides and skins (EEA, 1999/2000).

Cultivation of vegetable crops, differnt fruit trees cut flowers including spices could be all categirized under the production of horticultural crops in both the State owned and small private farms. Small producers of horticultural crops are mainly located in areas where small-scale irrigation schemes are possible and access to market outlets for the produce are preferably better. There are no reliable estimates of the total area allocated to horticultural crops by small farmers, but state owned horticultural farms may occupy

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an area of about 6,600 ha of land (EEA,1999/2000). Production of vegetables and fruits are the major crops grown under small-scale irrigation schemes for the purpose of enhancing the food security strategy launched by the Government.

5.3.2.1 Crop Production Potential

In most of the highland agricultural areas of the country, it is believed that there is a possibility to more than double agricultural production and significantly increase farm income on a sustainable basis under rainfed conditions (EVDSA,1993). An increase in crop production by 50% above the present level is believed to be feasible in the long-term. But this endeavour presents a formidable challenge to the Government to attain food security on a sustainable basis. It should be understood that the agriculture sector must consider several assumptions and sustained efforts to meet the rapidly increasing food requirments of the populations.

Some of the most important considerations include: the expansion of the area under rainfed cultivation, which is potentially available in the country. Cultivated area expansion should be accompanied with increasing productivity per unit area in order to triple the volume of cereals, pulses, oil seeds, and other high value crops in order to meet the long-term requirments. These targets require considerable increase in the use of external inputs including improved cultural practices. Furthermore, existence of appropriate policies on land tenure, land use, tree ownership, and taxation to provide the necessary incentives for resource poor farmers to conserve and improve their farmland would remain of paramount importance.

Upgrading of the current extension system through the facilitation of credit, input supply, animal health services and soil and water conservation practices to a level where they can function effectively and meet farmers' requirements.

Formulation and introduction of improved farming systems on the basis of the existing agroecological zones incorporating economical forage species to reduce soil erosion and provide acceptable financial returns interms of dry season forage for livestock and other saleable produce.

Improving of basic food production systems especially in the higher risk areas to ensure a relatively even supply of food through out the year and food security in bad years.
Developing of improved cropping systems with a view of maintaining soil fertility, minimizing labour and draft power requirements and maximizing household income.

Crop production in the highland areas can be increased by at least 50% above the current level of production in the long-term effort under rainfed conditions. There is an immence oppotunity to increase production which would satisfy the food requirement of the steadily growing population of the country.

It has been noted that the total area currently under cultivation is much lower when compared with the potentially suitable and cultivable area in the country. Therefore, production can be increased through expansion of the area under cultivation. This area expansion potential need to be accompanied with raising of productivity through the use

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of various improved inputs and cultural practices to increase production per unit area. Furthermore, efficient use of the available water resources in both the highlands and even lower altitudes must be practiced for the attainment of sustained food crop production by farmers.

5.3.2.2 Crop Production Constraints

As reported by EEA (1999/2000), several factors contribute to the poor performance of Ethiopian agriculture. Among others these include: the diminishing of farm size and subsistence nature of farming, soil degradation, and heavily dependence on unreliable rainfall, absence of integrated disease and pest control management, tenure insecurity (which negatively affected farmers' permanent investment on land), lack of financial services, weak agricultural research base and extension system, imperfect agricultural markets and poor infrastructure. Farmers with very small holdings lack not only the cash to buy commercial inputs but also oxen for land preparation. It has been reported that about 29% of the farmers in Ethiopia have no oxen, while 34% posses only one (Azage ILRI, 1997). Crop production is severely constrained by several problems which are associated with low level of technology and lack of adequate supporting services to promote productivity and production.

Crop production at national level is constrained by low level of input use (fertilizers, seeds, pesticides, etc.), poor and unrealiable rainfall, pests and diseases including weed infestations of crops, recurring natural disasters, a decline in size of household land holding calamities per household, soil degradation and more dependency on traditional tools and farming practices. The situation has been further exacerbated as a consequence of pre and post harvest losses of crop production due to diseases, insects, weeds, birds, rodents, insufficent processing practices and defective storages, which is estimated to be about 30-40% of the total potential yield (MOA & UNIDO, 2000).

Losses of food grains largely occur during storage and early post harvest of agricultural practices. The major contributing factors to early post-harvest crop losses include: poor practices of drying, cleaning, and transporting to storage sites. Crop losses in storage are estimated at about 2-4% (FAO, 1990) and 5% due to insects at high and low altitudes respectively and 3% due to rodents at high altitudes. The hygine condition of the traditional stores and underground pits is also very poor and encourage pests to rapidly multiply and serve as a source of infection of stored grains.

Large losses of cereal crops in the field and storage have been estimated at 20-40% of the final yield of which post-harvest losses account for nearly 12% for cereal crops (MOA, 1995). Losses of crops occur at various stages after a crop has matured and before it is used for consumption purposes. But, losses may be reduced at any stage of the post-harvest process by improved harvestig, drying, storage, processing or handling methods. In addition to increasing agricultural production, it would remain essential that unfavorable price fluctuations and storage losses be arrested in order to overcome the food insecurity problem of the country.

Crop production in Ethiopia is affected by various natural and man made calamities either in the field or after crops have been harvested and stored. Crop losses as a

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consequence of various factors were assessed both in the field and after harvest on annual basis and estimated to be about 30% and 10-15% respectively (Abdurahman, 2000).

In order to minimize these crop production losses various types of chemicals are used both in the field and in grain storage sites. Although pesticides are known to reduce pest infestations at certain level they also have direct and indirect hazards on human and livestock health if not properly handled. Pesticide application requires careful management, which otherwise may create resistance problems within the system of pests that predominantly occur in a given environment.

In considering problems associated with widespread application of pesticides and the related hazards on human and livestock health, it was found necessary to develop a system of Integrated Pest Management (IPM) in Ethiopia. As defined by USAID (1991), IPM is a pest management system that initializes all suitable techniques and methods in as compatible manner as possible, and maintains pest populations at levels below those causing economic loss.

The Government of Ethiopia in its draft crop protection policy and strategy stated the fact that agricultural research activities in the country should focus on IPM aspects. In view of this draft policy, the current extension package program is expected to demonstrate all available inputs to farmers including crop protection techniques in order to dessiminate the importance of IPM. As a result, over 72 IPM packages were developed for the major insect pests, plant diseases and weeds of 21 food and high value crops (Abdurahman, 2000), which later on incorporated the post harvest IPM technique in the package to prevent crop losses in the storage.

As IPM practice in Ethiopia is still at an emerging stage, its promotion requires the participation of all concerned stakeholders particularly the Ministry of Agriculture and NGOs who have taken part in assisting farmers in their increased and sustained agricultural production endeavours. Furthermore, the use of IPM technique enables farmers to properly administer the eco-system and the micro-environment in which they are opertating in with optimal use of resources for sustained agricultural production.

Arnold and et al (1995), however, suggest the following steps to IPM: (a) ***integrated control*** in developing countries, which builds on indigenous concepts of traditional agriculture to prevent a severe infestation; and (b) ***supervised crop protection***, based on a well developed and functional extension service for crop protection.

Futrthermore, low fertility status of the soil which was brought about by high degradation of the natural resource mainly due to heavy loss of the top fertile soil cntributed to poor crop harvest. Low crop production in most highland areas can be attributed to farmers' traditional type of farming practices and post-harvest crop losses due to defective storage facilities. Because of various reasons small-scale farmers usually do not use inputs like fertilizers and pesticides to boost productivity and production.

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Limited use of inputs can be linked with either inadequate availability or small size of farmers' farmlands from which production income obtained would not allow to purchase the required inputs. The impact of the population pressure on farm size, particularly in a situation with limited potentials to expand is becoming a very serious problem largely in the highland of Ethiopia. Because the size of individually owned plots of land has been shrinking in the fertile highlands and medium altitudes. The high population pressure in many parts of the country has reduced the size of average household land holdings, thus increasing the man/land ratio and reducing the supply of arable lands for crop production. Unless land productivity is increased, the situation might be even worse leading to an ever-decreasing minimum subsistence; considering that alternative employment opportunities are limited in many parts of the country.

The high rural population growth which has resulted in the fragmentation of farm-land and reduced size of holding, coupled with the traditional cultivation practices have further accelerated the severe degradiation of the eco-system to gradually persuade the cultivation of steep marginal lands and incursion into common grazing areas. Consequently, the loss of land from cultivation has been predicted to rise, and may affect the existence of some 10 million rural households (J.Singer,1989).

5.3.3 Food Production Trends

In the last two decades or so, the problem of food insecurity has been the major issue of the country. This has been caused by the overall decline of crop and livestock production due to natural calamities mainly drought and other human-made factors. The latter includes factors like limitations of rural land-holdings, high population growth rate (which is exceeding the agricultural production growth rate per annum) and unsuitabl traditional farming practices on heavily degraded agricultural lands.

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Table 5.1: Production Trends of Major Crops and Area Occupied (1980-1997)

Year	Total Cultivated Area ('000) Ha	Total Crop Production ('000) Qt.	Yield /Ha	Population Growth ('000)	Land Holding /Capita	Production Per/Capita (Qt.)
1980	5440.5	62868.6	11.6	-	-	-
1981	5409.7	60062.1	11.1	31900	0.2	1.88
1982	5846.5	75223.2	12.9	32770	0.2	2.29
1983	5780.9	63362.6	11.0	41030	0.17	1.54
1984	5571.8	45521.6	8.17	42180	0.16	1.08
1985	5669.9	50014.5	8.8	43350	0.15	1.15
1986	5325.3	58618.2	11.0	44660	0.14	1.31
1987	5228.6	57217.3	10.9	46170	0.13	1.23
1988	4947.2	57049.0	11.5	47520	0.12	1.2
1989	4964.2	61655.3	12.4	47640	0.12	1.29
1990	4912.2	65039.7	13.2	49140	0.12	1.32
1991	4838.8	53838.9	11.1	50740	0.11	1.06
1992	4900.4	89861.9	18.3	52400	0.11	1.71
1993	5017.1	58878.3	11.7	54090	0.11	1.09
1994	6259.4	73446.0	11.7	55810	0.13	1.32
1995	7948.5	92791.1	11.7	57590	0.16	1.61
1996	8072.4	96452.4	11.9	58500	0.16	1.65
1997	6849.5	73626.7	10.7	60500	0.13	1.21

1 Quintal (Qt) = 100 Kg.

Source: Adapted from CSA Statistical Bulletins 56 & 74, 1987 and EEA, 1999/2000

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Figure 5.1: Major Crops Production Trends

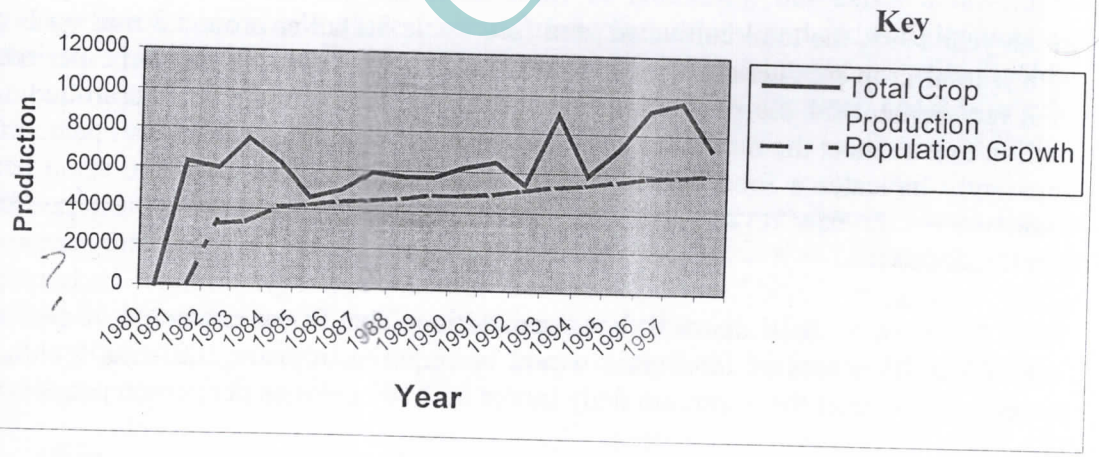
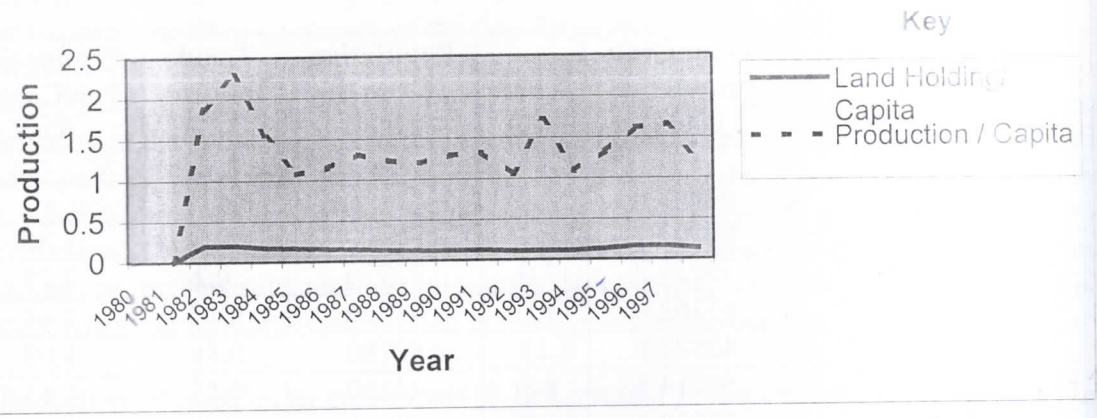


Figure 5.2: Production and Land Holding Per Capita



The agriculture sector which is almost exclusively dominated by small-scale farmers has been known to produce 90-95% of all cereals, oil seeds and coffee grown in the country. Assessment of the area under major crops and production of crops in the priod 1979/80-1990/91 reveals that there is a declining trend or stagnation in both area under cultivation and the corresponding total production of crops with the exception in the 1981/82 and 1989/90 cropping seasons (see Table 5.1).

This either declining trend or stagnation in the areas cultivated and total crop production may be attributed to several factors like serious recurring drought, insecured land tenure system, lack of production incentives, controlled marketing system, and limited supply of inputs mainly fertilizers.

The apparent lack of growth or stagnation in crop production in the period 1979/80-1990/91 has been a serious concern as opposed to the population growth, which is pacing at the rate of about 3.0% per year. This further aggravated the widening gap between supply and demand for cereal grains clearly demonstrating the growing food insecurity situations in the country.

In the year 1995, the total cultivated land (see Table 5.1), was around 8 million hectare with a total crop production of nearly 9.28 million tons. During the same period, the food requirement for the population of 57.6 million was estimated to be around 12.98 million tons to meet the minimum daily intake of 2,100 calories per day per person. This apparently indicates a food deficit of close to 3.7 million tons over the same period. Furthermore, the data reveals that landholding size for the same period per household was about 0.16 ha.

Table 5.2 shows a food demand (need) projection. That is, an estimated of 14.7, 17.7 and 29.3 million tons of food grain would be required in years 2001, 2005 and 2020 respectively to meet the minimum daily intake of 2,100 calories per person per day.

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Table 5.2: Projected (Estimated) Demand for Food (in millions)

Year	Projected Population	Food Requirments at 2100 Kcal Intake
2001	65.0	14.7
2005	79.4	17.7
2010	94.2	21.3
2015	111.1	25.0
2020	129.8	29.3

Source: FAO, 1994

As population increased from 32.8 million in 1981/82 to 60.5 million in 1996/97, the average per capita annual food production declined from 229 kg to 121 kg for the same period. Similarly, the average per capita land-holding also declined from 0.21 ha to 0.13 ha during the same period (see Table 5.3).

Table 5.3: Population, Food Production (Out-put) and Land-holding Per Capita in Ethiopia, 1981/82-1996/97

Year	Population ('000)	Per Capita Food Out-put (kg)	Per Capita Land Holding
1981/82	32,770	229	0.21
1984/85	43,350	115	0.15
1988/89	47,640	129	0.12
1992/93	54,090	109	0.11
1996/97	60,500	121	0.13

Source : Computed form Table 6.1

The information in Table 5.3 indicates that food production is related to access to and size of farmland, which is, on the other hand, negatively related to population growth.

5.3.4 Agricultural Policies and Strategies

In Ethiopia, it appears that there is no as such well defined agricultural policy of the country (except the current unofficial draft in Amharic), but exists a development strategy to enhance smallholders' agricultural productivity and industrialization based activities through the utilization of resources involving labor-intensive technologies, which is known as "Agricultural Development-Led Industrialization" (ADLI) to suit the Ethiopian context.

With respect to land policy issues, NGOs (e.g., WVE) in collaboration with Regional Governments and Agricultural Development Bureaus (Amhara and Tigrai regions) have undertaken community-based natural resources rehabilitation programs enabling participants to obtain certification of land use right for investing on marginal lands by planting trees to protect soil erosion hazards and to minimize land degradation problems.

The FDRE's land policy, which was simply adapted from the Derg regime, without any public debate and improvement have the following negative implications:

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- Frequent decrease in the size of the farmland creating insecurity of land tenure largely caused by the periodic redistribution of land (recent redistribution in Amhara Region, EEA 1999/2000) has disincentive effects on investing and improving land condition giving rise to serious environmental protection implications.
- Due to the current land policy, the movement of farmers from one area to another is arrested due to fear of losing of their holdings, which as a consequence aggravated the increase of population pressure on land ultimately reducing productivity and production, and leading to land degradation.

5.3.4.1 Land Holding and Tenure System

As explained earlier, agriculture plays the major role in the country`s economy. The sector is entirely dominated by small-scale farmers cultivating fragmented pieces of farm-lands on a subsistence level. As mentioned earlier a number of factors (human-made and natural) have been considered to be the major causes for reduced agricutural (crop and livestock) production attributing to food insecurity situations of the country.

Unreliable land tenure system is one among those several factors described to be the major cause for the chronic food insecurity situations and unsustainable investment on land, because of its negative influences on farmers' land management practices, cropping strategies, investment plans and in the overall decision of input use on the land to improve productivity and production.

The land tenure pattern in Ethiopia prior to 1975 has been classified into three broad catagories. These are **the diessa(village ownership), the rist (kinship ownership) and the private ownership**(Kidane, 1990). Under the diessa pattern each village was virtually auto-nomous with its own ***shimagile*** (village elders). In ***rist*** tenure system, ultimate ownership resided in the extended family of an exteremely remote and often legendary ancestor believed to have pioneered the area long ago. A rist holder could cultivate or lease the land but could not dispose or sale out of the family.

The private ownership pattern was the most common pattern, which affected over 60% of Ethiopian peasants. The land owning class lived by extracting surplus products from the tenants as rent. Furthermore, lands were also occupied by the church and the state.
The following impacts of past land tenure systems were noticed:

- Insecurity of tenure and therefore, lack of motivation to invest on permanent improvement;
- Lack of permanent title to land, restricted peasants access to credit for any kind of development activities;
- Fragmentation of holdings, which created under employments; and
- Endless land feuds and court litigations leading to waste of time and property.

Prior to the revolution in 1975, about 40-50% of farmers were tenants and a large number of households were landless. Under the land proclamation act of March, 1975 all lands were declared to be the collective property of the Ethiopian people. Land use

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right were distributed among households living on the land according to family size with an upper limit of 10 ha.

According to this proclamation land could not be sold, exchanged, mortgaged, rented or leased; but land use rights could be inherited. Following this, land allocation was made to accomodate every rural household in the Peasant Asscіation (PA) including new households joining the PAs. As a result of this land distribution policy, holding size became progressively smaller and fragmented. Since then there has been no substantive changes made in land ownership policy. Lack of secure land tenure has still remained with all its disincentive effects for peasants prohibiting them to improve and conserve their land, and plant trees and perennial crops, or deprives them the use of land as collateral for credit for land development purposes; because land remains to be the major natural resource base for poor farmers to depend upon for their livelihood.

Furthermore, the Economic Policy of the FDRE states that there should be no reallocation of land except to the landless and there should be no further fragmentation of holdings (NCS, 1994). Nevertheless, until now no land ownership certificate is issued to any of the rural landholders.

5.3.4.2 Land Use Policies

The agricultural sector policies of the previous Government were centrally planned and, all rural lands were distributed to individual peasants in proportion to family size. As the size of the family changes the land size allocated to the household also changed causing the land under cultivation which invevitably reduced the size of individual holdings (Singer, 1989).

The FDRE's economic policies are market-oriented systems and are inclined toward greater decentralization, autonomy and competition. The country's development strategy appears to favor smallholder agriculture and industrial development with intensive use of labor and technology. Some of the previous regime's undesirable agricultural policies are still operational and fail to address some basic and fundamental problems. The declaration of the free market policy did not alter public ownership of land and minimized the effort to restrain further fragmentation of land and the diminishing of farmland size (Mulat, 2001).

At present landholdings are too small to be economical for each household and it became very difficult for the peasants to work the land properly, and thus has to continue to produce with his traditional tools and can not get the benefits of any modern technology. As a result farmers whose holding is below 0.25 hectare are currently excluded from the use of the high input package by the MOA and SG-2000, since the conditions attached to the use do not permit them (Zerihun, 1996).
Furthermore, the insecurity brought about by the periodic reallocation and fragmentation resulted in reduced long-term investments on land improvement such as conservation and rehablitation efforts; growing and effective management of perennial crops because of uncertainity in receiving future benifits. According to some research findings (Yared, 1995), the process of land redistribution has altered the land

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management practices owing to abandon the periodic fallowing of land by bringing under cultivation.

In a study on Amhara rural land redistribution of 1996 in Amhara (Yigremew, 1997), it was found that in two rural kebeles of West Gojam, land previously used for grazing and other purposes was redisributed to be used as farm plots indicating alteration of land management practices. Furthermore, research work in North Shoa and North Wollo zones of Amhara region (Teferi, 1995), has also noted that farmers were less intersted in investing on land due to repeated land redisribution taking place in the region. According to the author's observation, the impact of this tenure insecurity was reflected in crop rotation and soil conservation practices, whereby farmers avoid planting nitrogen-fixing plants in preference for high valued crops which yield immediate returns. The harmful effect of uncertainty, (Teferi, 1995), is even more worse with respect to manure application, tree planting, terracing and other similar conservation measures. According to Azene (2001), it would not be surprising, under the above tenure scenario, that if many farmers have not been or may not be willing enough to plant trees that have long maturity period for land rehabilitation purposes.

It is thus apparent that, inappropriate land tenure arrangements have a direct and negative influence on the farmers' land management practices, cropping strategies, investment plans as related to labor employment and even household consumption. Land as it is scarce, immovable has been an ideal collateral property/asset thus reducing the risk of uncertainty problems for creditors (Yigremew, 1999).

But, certified access to land seems to have a direct influence on decisions to be made such as investing on land, resource allocation (inputs) on land for improvement purposes for sustained production development and in general for environmental rehabilitation through continued reduction of land degradation. Therefore, unsecured land tenure system will undoubtedly affect these development plans because of the risk that may occur due to the absence of improved ownership security of land.

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5.3.4.3 Land-holding

The country's long term development strategy is largely dependent on small-holder agriculture, which would promote industrialization with the use of locally produced raw materials, through employing labour intensive technologies to achieve the economic policy of Agricultural Development-Led Industrialization (ADLI). It is believed that this interdependecy of agricultural and industrial development would enhance the overall economic growth of the country. Above all, the strategy is believed to consider agriculture as the main engine of growth on its contribution of surplus generation of products, capacity to create market, and provision of raw materials and foreigen exchange.

As indicated earlier, the agriculture sector is dominated by small-scale farmers (resource poor) who produce over 90% of all cereals, pluses and oil seeds; and also contributing to 98% of the coffee production in Ethiopia. According to Befekadu & Berhanu (1999/2000:178), "the average farm size has declined to just 1 ha for the country as a

whole. It has fallen to less than 1 ha in 7 of the 11 regions, or 62% of the households cultivate less than 1 ha. Over one-third (36%) of the holdings are less than 0.5 ha". According to CSA 1996/97 Agricultural Sample Survey, nearly half (50%) of the farm households had per capita holdings which averaged less than 0.5 ha on a cumulative basis.

5.4 LIVESTOCK PRODUCTION

Livestock production is an integral part of nearly all farming systems in Ethiopia. They provide the draught power for the grain producing highland farmers and are kept as the mainstay of most pastoralists and agro-pastoralists. They also provide milk and meat for both rural and urban population. Their manure is an important fuel and fertilizer while hides and skins are used for local leather-based industries as well as for export. They are also the major capital assets and prestige of most farmers. Livestock sub-sector plays an important role in most Ethiopian farms, and is estimated to contribute about 30% of the agricultural GDP (NCS,1994).

Ethiopia possesses the largest livestock population in Africa and the 10th position in the world (NCS, 1994), which is equivalent to about 27-33 million cattle, 23-24 million sheep, 17-18 million goats, 7 million equines and 1 million camels, about 56 million poultry which is about 30.5-36.5 million TLU[1] (MEDaC,1993 & Anteneh, 1992). Estimated per capita livestock is about 4.0 TLU per household (NCS,1994).

Fish are an under-utilized resource in Ethiopia, with only 5% of the estimated sustainable yield to be currently exploited (IUCN,1993), inspite of the public concern regarding the depletion of species due to improper fishing practices and the deliterious effects of fertilizers and pesticides may be washed into lakes and rivers.

5.4.1 Livestock Production System

Production of livestock is largely determined by climate, the type of crops grown, the livestock species reared and economic importance they provide to producers. In general, livestock production can be broadly classified into two main divisions; namely: the highland and the lowland livestock production systems.

In the highland areas livestock are parts of the mixed farming system which is the main agricultural activities. In this agro-ecological zone livestock provide almost all of the agricultural traction required to produce crops, transport services and generate readily consumable and/or saleable items like milk, meat, eggs, wool, hides and skin and manure for fertilizer and fuel.

In return crop residues contribute to animal nutrution, when they are eaten in the field or conserved and fed to animals in times of natural feed scarcity. But, rangelands represent the major livestock feed resource of the country. In some highland areas cattle and

[1]Tropical Livestock Unit (TLU) = is a standard unit of 250kg live weight by which livestock of different species can be compared, and is equivalent to cattle = 0.8, sheep or goat = 0.1, equine = 0.7, camel = 1.0.

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sheep fattening has become an important activity and a profitable means of surplus cash income for the family within a short period of time. Due to high human population and expanded cultivation, the grazing areas are reduced and restricted to the land unsuitable for cropping, or fallowed, waterlogged land and steepy areas. As a result, the concentration of stock-owners became high and likewise the grazing pressure also became very high.

Livestock production systems in the pastoral areas, located below 1500 m.a.s.l., which are considered to be arid and semi-arid regions of the country, are much simpler when compared with highland mixed farming systems. In this production system livestock rearing is the mainstay of the people. Livestock and livestock products provide subsistence either directly in the form of milk, milk products, meat and blood or indirectly in the form of purchased grains through sales of animals when crop production is limited. The major input required for livestock production is labour. In the majority cases, livestock production has very little or no interaction with crop agriculture, but provides almost 20% of the draught animal for the highland. Furthermore, inorder to minmize risk in time of adverse situations, pastoralists keep a range of diversified livestock species such as cattle and/or camel with mixed herds of goats creating a tendency of overstocking.

5.4.1.1 Highland Production System

The major feature of this production system is crop-related in which both are highly interdependent (MOWR,1996). In the highlands, livestock are subservient but economically complementary to crop production, which is the main economic activity of the farmers both as food-stuffs and as a source of cash income (MOWR, 1995). In the prevailing crop production systems, livestock play an important part and can be considered as essential to the economic viability of these farm activities. Livestock in general play an important role in the provision of draft power, transport services, and manure (fertilizer and fuel), and readly generate consumable and/or saleable items such as meat, milk, eggs, hides and skins (MOWR, 1996). The livestock sub-sector review of the MOA (1984), reveals the following highland livestock production systems.

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5.4.1.2 Highland Barley and Sheep Farming System

This farming system is located above 3000 m.a.s.l. where most crop production is limited due to frost occurence, with shallow soil depth and water logged conditions, high altitude crops (barley, field peas, faba beans,) dominate and a large number of flocks of sheep running together with few cattle mainly draught oxen are retained in the system (MOWR, 1996).

5.4.1.3 Highland with Intensive Field Crop Cultivation

This farming system is mostly found between an altitude range of 1,500 m.a.s.l. and 3,000 m.a.s.l. in which a range of cereals, pulses, and oil seeds are intensively cultivated. Livestock in this system are mainly kept for traction and fuel (manure), whereas small number of sheep and goats provide cash income. The grazing areas are

reduced and restricted to the land not suitable for crop production such as fallowed land, water-logged and steep slope lands (MOWR,1996).

5.4.1.4 Perennial Crop Farming of the Highland

This type of livestock production system predominantly occurs in the chat (*Catha edulis*) and coffee (*Coffea arabica*) growing areas of the country, in which case livestock production system is of minor importance as hoe cultivation practice partially utilized.

5.4.1.5 Lowland Livestock Production System

The lowlands of the country are generally located below 1500 m.a.s.l. and the areas are considerd as semi-arid and arid lowlands. In the semi-arid lowlands, cattle are the most important species because they supply milk for subsistence of the pastoral family. In the more arid areas, however, goats and camels are the pre-dominant species reared; the former provide milk, meat and cash income while the latter are kept by pastoralists for milk, transport, and to a limited extent for meat (EVDSA, 1993). This livestock production system is extensive type, in which feed and water are available to the livestock depending on the constant or partial movement of the herd. The system of livestock diversification and a tendency of overstocking are the main features of this system in order to avert risk in time of adverse situations.

The Boran,Garri, Gabbra, Gurra, Degodia, Marrehan, Issa-Somali, Afar, and many other pastoralist and agro-pastoralist groups and hunter-gatherer-fisher and small farmers in the arid and semi-arid regions of Oromiya, Somali, and the Afar regions in north eastern Ethiopia, and Southern Omo areas are some of the pastoralist groups of major concern that require attention with particular emphasis of an increasing trend in population growth. This has resulted an increased competition and demand for grazing farmland, water points, better services and access to local and regional market (Getachew, 2000). In general pastoralsits have been among the most marginalized group of people in Ethiopia whose cultural values were neglected in the formulation and implementation of policy related matters largely by Government and others at all levels.

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5.4.1.6 Pastoral and Agro-pastoral Areas

As livestock production is the major activity of pastoralists and agro-pastoralists, they provide multitude social and economic functions within this farming system. Therefore, livestock in the above farming system are kept either for food security purposes, for investments or for sale to exchange for commodities being required.

Generally speaking Ethiopian livestock are of poor genetic potential and their productivity is usually low. However, there are certainly considerable opportunities for increasing both production and productivity, provided the necessary inputs can be made available in sufficient quantities with improved management practices. Along with this market situations in the pastoral and agro-pastoral areas including other essenitial infrastructures have to be improved in order to create more conducive environment for better maximization of the livestock potentials.

Some of the required strategic options to enhance the potentials include provision of adequate veterinary services to highly reduce the prevalent livestock diseases; provision of improved pasture management practices to the small-scale and traditional sectors; improve market facilities, infrastuctures, extension services and other related activities; improve the genetic potential of indegenous breeds; and provision of appropriate livestock production and marketing polices.

5.4.2 Livestock Population

As discssed earlier, the country's livestock wealth is believed to be equivalent to at about 30-35 million Tropical Livestock Unit (TLU). Livestock are an integral part of mixed farming system over the whole of the highland areas and also ensure the livelhood of the pastoral peoples of the lowlands.

In the most arid areas, however, goats and camels are the predominant species reared; because goats provide milk, meat and cash while camels are kept for milk, transport, and to a limited extent for meat. The average number of livestock per household amounts to 4.6 cattle, 4.4 small ruminants, 1.5 horses, 1.4 asses, 1.1 mules, 3.5 camels, and 6.6 chicken (Dejene and Adugna 1997); whereas the per capita livestock is estimated to be about 2.5 per head.

However, the relative contribution of livestock as compared to its huge number and including its production and productivity per head is very low, due to several factors among which inadequacy of feed compounded with poor health, nutrition and type of local breeds mainly selected over time for their survival and adaptability to the different ecological conditions.

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Table 5.4: Estimated National Livestock Population of Ethiopia.

Species	FAO, 1989 Number ('000)	CSA, 1994/95 Number ('000)
Cattle	28,900	29,825
Sheep	24,000	11,546
Goats	18,000	9.612
Poultry	57,000	25,776
Equines	6,690	3,938
Camel	1,070	248

Source: Adapted from Abbay River Basin Integrated Development Master Plan Project 1997

5.4.2.1 Poultry Production

A large population of polutry (58 million according to 1990 estimate) are found in Ethiopia. The highest concentration of chicken is found in some parts of the highland areas. The local bird has low egg and meat production. On the average about 55-80 eggs each weighing 45 gram are produced per local chicken. It is estimated that about 79,120 tons of eggs and 76,560 tons of poultry meat are produced per annum. According to

estimates given a cock weighs about 1.5 Kg while the hen weighs about 1 Kg. The national poultry flock are composed of some 99% indigenous birds that are mostly managed under a scavengering system, whereas the remaining 1% being imported exotic breeds usually managed intensively.

5.4.2.2 Apiculture

Beekeeping in Ethiopia is a long standing tradition using mainly a traditional single chamber fixed comb hives. In Ethiopia traditional beekeeping might have been practiced for more than 300 years. Bees are traditionally an important part of small-acale integrated farming systems. They are vital contributors to pollination and crop production. The country has very much resources for the production of honey and beeswax.

The physical environment, climate, latitude, rainfall and various plant species make an excellent environment for honey bees. An estimate indicates that over 4.2 million traditional hives with more than 60% being occupied by bees exist in Ethiopia giving the country the largest bee population in Africa, in which the total is estimated at about 5-10 million colonies (EVDSA,1991).

The annual Ethiopian honey and beeswax production have been estimated at 3,330 and 3,500 tons respectively making the country one of the eight leading producers in the world. More than 90% of the honey produced is utilized within the country and over 500 tons is exported annually to seven major world market outlets. Production of honey and beeswax from traditional beehives are low estimated at 5 Kg per season, while production capacity by modern beehives ranges between 15-20 Kg per season. Apiculture plays an important role in the cash economy of the peasantry and in meeting mainly the beverage requirements of the urban population.

The total national income from honey and beeswax is estimated at birr 120 million per year of which earnings from the export of processed beeswax account for about Birr 5 million in foreign currency (Ayalew, 1987).

Beekeeping provides food security and opportunity for many landless peasants and small holders to improve their income, it occupies minimal space and can be carried out on waste land. Furthermore, beekeeping does not compete with other types of agriculture for resources, but produce food from natural resources that are not otherwise exploited.

It was further pointed out that beekeeping, either produces food for the family or provides a cash crop and allows great flexibility in the amount of time it occupies. According to the number of hives kept, it can be a spare time, part-time or even full time occupation. Beekeeping can be undertaken on a small budget, simple hives can be made from a variety of natural products.

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5.4.2.3 Fishery

Ethiopia has abundant fish with annual production capacity of estimated at 23,500 tonnes per year from the 6 major rivers and an estimated production of about 30,000-40,000 tons per year from the seven major lakes. But the current production is estimated to be only about 6,000 tons of fish, which is equivalent to only 15% of the potential.

Ethiopian fresh water bodies are known to contain 101 species of fish among which 4 are endemic to the country. The most important commercial types of fish are Tilapia, Nile Perch and Cat fish (Ethiopian Wildlife Conservation Organization1989).

The demand for fish in Ethiopia in general is seasonal particularly where Orthodox Christians predominate. In these areas fish demand can be high during fasting days. People living adjacent to water bodies use fish for food and for exchange with other goods within their local areas. Fishing has created job opportunities, in the rift valley areas primarily to satisfy the growing demand in Addis Ababa. However, the view that fish should not be eaten during fasting seems to be gaining prevalence, and this may affect fish consumption patterns in the future.
The estimated total sustainable off-take of fish from the lakes of Ethiopia is about 35,300 tons per year. The present off-take is small, and there is much room/potential for increasing exploitation.

However, currently serious concern is being expressed about the impact of irrigation and agricultural development upon lake fisheries, because of the internal drainage system in the lakes, which could lead to concentrations of pesticides and nitrates; in addition to increased depletion of fish species due to mainly improper and poor fishery practices particularly in SNNPR.

Considerable opportunities exist in Ethiopia to expand fisheries production for both domestic and export markets. This, however, will require the development of a storage, distribution and marketing infrastructure.

5.4.3 Livestock Production Constraints

Livestock production is also constrained by a number of problems such as lack of sufficient grazing land (feed), inability to develop stock watering facilities, prevalence of livestock diseases, poor livestock market are among the few worth mentioning (NLDP,1998).

In general, some among the major livestock production constraints in Ethiopia include poor nutrition and prevalence of various types of diseases. Any intervenetion which leads to improvement of these situations will without doubt increase the productivity of the livestock population. The most important livestock diseases are described below.

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5.4.3.1 Livestock Diseases

The major livestock production constraint in the past has been reported to be the occurence of different types of diseases in different parts of the country. Some of the major livestock killer diseases include trypanosomiasis, rinderpest, foot and mouth diseases, sheep and goat pox and parasitic helminths are rampant in all livestock species causing either direct and/or indirect losses.

These diseases are of greater importance in the high rainfall areas or less drained ecosystems where high concentration of livestock population are normally found and grazed on communal pastures. The severity of the diseases is aggravated in combination with poor nutrition status. Furthermore, the area in the highland agro-ecological zone is found to be insufficient for the livestock population. Livestock diseases, weak extension services and poor husbandry practices are other major constraints on livestock production. There is evidence that despite these problems, livestock numbers tend to increase along with human populations in the rural areas.

5.4.3.2 Shortage of Pasture and Water

Livestock feeds in Ethiopia are mainly derived from natural pastures (grazing and browsing) and crop residues. Currently, the production of improved pastures and forage crop species is not significant. Rsidues of various food crops are providing a considerable quantity of dry season feed supply in most of the farming areas of the country. With rapid increase of human population and expansion of arable land the size of grazing land decreases steadly affecting the livestock feed requirements (Keftassa, 1988) and reducing the nutritional quality and quantity of livestock feed.

Natural pasture, which is commonly grazed serve as the main source of livestock feed in the arid and lowland areas all year round, in addition to the availibility of stuble and crop residues in the mixed farming systems of the highlands. Residues of various food crops; cereals, pulses and residues of oil seeds are providing a considerable quantity of dry season feed supply in most of the farming areas of the country. According to FAO (1992), on average crop residues provide 10-15% of total feed intake. The availability of crop residues is closely related to the prevailing farming system, the type of crops produced and intensity of cultivation with the potential of using these residues as livestock being greatly associated with the integrated crop/livestock production system.

The main grazing lands are mostly restricted to areas that have little value such as hill tops, swampy areas, roadsides and other marginal lands, which is mostly common in the mixed farming highlands and mid altitude places of the country. It is noted that feed from the above sources is only sufficient to cover the maintenance requirements of the animals.

The availability of livestock drinking water depends much on the amount of rainfall the area receives. The use of water sources, hand dug wells and birkas customarily used by many pastoralists when water shortage is critical. Pools are also the most commonly used water points. Rivers and their associated irrigation works are important pastoral

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water sources in some locations. Springs also provide a wonderful opportunity to obtain good quality, sustainable supply of drinking water for livestock and pastoralists.

Since these watering points are not properly distributed along the grazing territories, their maldistribution has resulted in overgrazing of the areas in the vicinity of the watering points. Inavailability of enough water is, therefore, a deficient diet in most areas for the most part of the year, contributing to low feed and nutrition seriously limiting livestock production.

5.4.3.3 Livestock Marketing and Infrastructure

Livestock production, in Ethiopia is not generally a market-oriented activity. The main livestock outputs are for draught animals, meat, hides, skins, and milk including milk products (mainly butter), which are all obtained from traditional livestock husbandry. It is estimated that about 105,000 tons of dairy products are produced annually in Ethiopia. In the pastoral areas, income obtained from the sale of surplus milk and milk products is used by women to purchase grains.

Movements of dairy products from surplus to deficit areas is usually hampered by poor road access, transport and storage facilities. Livestock markets lack the basic infrastructure for handling, feeding, watering, transporting and delivering health services to animals. The annual off-take from the national herd is estimated at 2.1 million heads; 8% cattle, 19% sheep, and 25% goats. Of this annual off-take, 83% are backyard slaughtered; 9% slaughtered for the domestic market through the official channels;1% officially exported; and 7% unofficially traded across the boarder (NLDP,1998).

The major constraints to better marketing of livestock and livestock products are reported to be animal diseases and illegal exports to smaller markets of the boardering countries constraining improved national income from licensed exports. Ethiopia's export earnings from semi-processed hides and skins is about US$ 70 million (16% of the total export income) second only to coffee, (which accounts for 57%). Eighty percent of all skins and hides entering the formal market are obtained from rural or backyard slaughter, the rest are coming from official slaughter houses. Ten percent of all hides and goat skins are sun dried. Small ruminants also supply wool for local cottage industries (NLDP,1998).

5.4.3.4 Livestock Pressure on Land

In Ethiopia livestock form part of the mixed farming system in the highland areas above 1500 m.a.s.l where crop husbandry is the principal agricultural activity. In the lowland areas livestock are kept by the pastoralists and agro- pastoralists principally as the main stay of their livelihood. Of the total about 35 million livestock pouplation (TLU), about 70% is found in the highland area (36.3% of the total area of the country), whereas the low land area, which constitute 64% supports 30% of the livestock population.

As a result of the increasing number of population in most part of the country, more pressure on farm lands has been put, which has shortened the fallow period to increase

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production. Consequently, grazing lands are taken away and cattle have nothing to browse, but crop residues, which are eaten *in situ* accelerating soil and land degradation.

5.5 AGRICULTURAL RESEARCH AND EXTENSION SYSTEM

5.5.1 Agricultural Research

Agricultural research in Ethiopia was started in the 1950s with the establishment of agricultural education institutions (the Agricultural College and Mechanical Arts at Alemaya, Ambo and Jimma agricultural institutions) in some parts of the country. Later on the Institute of Agricultural Research (IAR) was established in 1966 to undertake the following major duties and responsibilities:

- To formulate national agricultural research policy guidlines;
- Undertake crops, livestock and farming system research; and
- Coordinate agricultural research programs carried out by other organizations in the country.

IAR (now EARO) has developed over two hundred and fifty technologies, although until recently these technologies were not benefiting farmers merely as a consequence of weak research and extension linkages.

Furthermore, the Agricultural Research System (ARS) through time also developed satisfactory human and physical resources in an attempt of achieving development-oriented research endeavours. Nevertheless, coordinating the contributions of these resources to the same end has become a national concern because of the absence of clearly stated duties and responsibilities of the ARS at national level.

As a result, the former IAR has been recently reorganized as the Ethiopian Agricultural Research Organization (EARO) by Proclamation No.79/1997 in line with the new socio-economic and Federal Administrative setup of the country with particular emphasis of assisting Government formulated agricultural development policy of nationwide extension scheme.

EARO was then established with the major objectives of generating, developing, improving and adapting of agricultural technologies that reflect the overall needs of agricultural development beneficiaries, coordinating of agricultural and related research activities of other institutions and strengethening of research undertaking capacities for the purpose of establishing efficent and effective agricultural research system in order to satisfy a viable and sound development requirements and the social welfare of the people on a sustainable basis.

With the above stated objectives, EARO is currently undertaking coordinated research activities on participatory basis with all stakeholders. It has been discussed that EARO is closely working with the Ministry of Agriculture, Ministry of Water Resources Development, Regional Bureaus of Agriculture, higher learning institutions, farmers and NGOs and other institutions in areas of participatory research activities to strengthen its relationship with research beneficiaries and in addition to obtain assistance while

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disseminating research results and to get feed back information for future research endeavours.

The major areas of research programs under the new organization (EARO), include crops (cereals, pulses, oil seeds, coffee, vegetables, fruits, enset, spices) livestock (dairy, fish, beekeping, animal disease,etc.), forestry and agroforestry, soil and water management, environmental protection aspects and dryland agriculture in about 18 major agro-ecological and 49 sub-agro-ecological zones of the country, with major emphasis on the development policy of ADLI related to food security strategy. In addition, EARO has also given much attention in its areas of research priorities to improve the quality of some high value crops in order to fulfil foreign currency earning of the country.

Furthermore, EARO has established good relations with agro-industry owners, so that research could focus on agricultural produces to be used as raw materials for industries. EARO and other research institutions that are currently engaged in conducting research and related activities are responsible for the development and dissemination of improved agricultural technologies for the rural communities at large. It is highly expected that improved agricultural technologies have yet to bring a broad-based impacts on agricultural productivity in order to alleviate poverty through achieving food security on a sustainable manner.

It was learnt from discussion with EARO's management, that the current areas of research works have focused on the need to improving high yielding varieties, improved soil fertility management, insects and diseases control, improved farm implements and reseach on livestock development aspects. In order to effectively undertake the above and other similar activities, EARO and other similar research institutions have now adequate resources, skilled man power (more than 200 staff members currently on training), the necessary funds and appropriate research policies to effect broad-based technical changes.

EARO currently has reached most agro-ecology areas (about 18 major agro-ecological zones, 49 sub-zones) to undertake research activities in various disciplines within the agriculture and livestock sector including socio-economics and farming systems research.

With respect to technology dissemination, research and extension bilateral relationship need to be further strengthened in order to facilitate farmers' participation in utilizing research results and to enable researchers deal with resource poor farmers' trditional production practices and other related problems. This is mainly because the information about new agricultural technology does not reach the rural people. In addition researchers rarely have the time or the opportunity to communicate with small-scale traditional farmers. Even if agricultural research workers communicate with small-scale famers, it is very unlikely that the average farmer would understand their specialized language. Therefore, extension work would remain the vital link between research on the one hand, and the small-scale farmers on the other i.e, between scientific inquiry and practical application.

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5.5.2 Agricultural Extension

Agricultural advisory work in Ethiopia started in 1952 by the Ethiopian Government and the Point Four Program of the United States of America to advise farmers in Shoa and Arsi regions in sheep improvement through organizing agricultual youth clubs. In 1966 fertilizer demonstrations were started by the Freedom From Hunger Campaign (FFHC) sponsored by FAO to extend the use of fertilizers to farmers. The results from these demonstrations have been used to recommend fertilizers for farmers. Based on these experinces, a credit program was started in 1969 which made fertilizers available even to the small scale farmers in the country. Towards the end of 1960s and the beginning of 1970s comperhensive package approaches to rural development were introduced such as CADU, ADDP, WADU, etc. in potential areas. After the re-organization of the Ministry of Agriculture in 1970, a semi-autonomous Extension and Project Implementation Department (EPID), was created with full responsibility of undertaking the agricultural extension service and activities, which was run by the FFHC fertilizer program (EPID,1972-73). After the establishment of EPID, attempts were made to provide integrated extension services, including credit services to small-scale farmers for the purchase of agricultural inputs, particularly fertilizers.

However, in 1986 rural development approach of the country was formulated, under the Peasant Agricultural Development Project (PADEP), an extension approach known as Training and Visit (T&V) was launched, which operated until 1993 (Tesfaye,1999) and later replaced by Sasakawa-Global 2000 (SG-2000) package program approach.

Extension services are mainly continued to be provided to farmers in order to assist them to produce enough food for themselves and other people engaged in non-agricultural activities by making farmers more profitable through the use of various inputs and improved farming practices. The main sources of getting innovations to be distributed to farmers were the results obtained from the experimental field trials run by the research stations in diffrent agro-ecology of the country. Further attempts in many parts of the country have been made to organize a number of minimum package programs (MPPs) in order to transform peasant agriculture into a more productive enterprise to improve agricultural development between 1967 and 1973, through providing Agricultural Package Projects and facilitating credit and market conditions .

But because of lack of resources, general organizational problems and due to the contradictions between the objective of the MMPs projects and the government's overall development strategy, which emphasized large scale commercial farming the package programs totally failed. In addition to these, high costs of inputs, i.e. fertilizers and improved seeds have also largely contributed to the lack of success of the package programs.

5.5.2.1 The Current Extension Package Program

Over the recent years, the need for a balance between conservation and utilization of natural resources has gained increased recognition; making sustainable agriculture the foundation for further development interventions (Belay,1999).

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On the basis of the FDRE's development strategy, which is dependent on small-holder agriculture, an extension system named "Participatory Demonstration and Training Extension Systems (PADETES)" is formulated in 1995 after a successful demonstration of SG-2000 program in 1993/94 at national level to adapt the program as National Extension Intervention Program(NEIP) to be carried out in the whole country (Tesfaye, 1999). Within the framework of ADLI, PADETES was launched in 1994/95 (EEA, 1999/2000).

The major components of this extension package are fertilizer, improved seeds, pesticides, and better cultural practices to be conducted on 0.25-0.50 ha plots of package participating farmers' land for demonstrating the impacts of the package. During the planting season, package participants receive the inputs after 25-50% down payment with the remaining/balance due after harvest (EEA,1999/2000). This package program has been developed for wet and drier areas, livestock and high value crops such as vegetables, pulses, and oil seeds including post harvest technology.

It was believed that small holder farmers are the major sources of staple food production for national food supply and, therefore, food security can only be achieved through promoting small holder development in a sustainable manner. The implementaion of the SG-2000 strategy involves a package approach geared towards the diffrent agroecological conditions. This package program is being implemenated through 0.25 – 0.50 hectare on farmers' demonstration plots, known as Extension Management Training Plots (EMTPs) to dessiminate improved technologies on the major cereal crops amongst resource poor small-scale farmers in selected Woredas, which has now stretched itself in many Woredas of the country (MEDaC,1999) through quota system. The new package as currently defined entails the use of fertilizers at the rates of 100 kg DAP (46 kg P_2O_5 and 18 kg N) and 100 kg Urea (46 kg N) per hectare recommendation for most crops, improved seeds, chemicals along with improved management practices (Mulat, Ali Said & Jayne,1997).

It was also proposed by Government that other potential and high value crops for both local and foreign market be included in the package program. Furthermore, it appears that this extension package program will include activities like natural resource conservation and livestock production aspects.

Availble information indicates that, out of the total cultivated area for private holdings, cereal crops account for about 84% while the rest occupy 16%. This reflects farmers inclination towards favoring crop production which would be used for consumption purposes. Following this trend, it appears that extension package program also supports the food crop production aspects when the balance is compared with the other high value crops as shown in Table 5.5.

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Table 5.5: Achievement of Extension Package Support by Various Types of Agricultral Practices (1997/98-2000/01)

Agricultural Practices	1997/98%	1998/99%	1999/00%	2000/01 %
Cereals	77	71	74	79
Cash crops	3	9	10	10
Livestock	3	2	2	2
Post harvest	0.02	-	0.02	0.03
Natural resources	17	18	14	9

Source: Ministry of Agriculture, Extension Department, 2001

Under this extension package program, the number of participating farmers has sharply increased. The number which was only limited to 32,047 farmers for some regions in the initial year 1995/96 has expanded to over 3.7 million farmers in the 2000/2001 cropping season. Assessments regarding the performance of the package program indicate that productivity level of most crops were found to be 3-4 times higher than the traditional national average of the respective crops.

The current extension package system carried out at national level, according to the Extension Department briefings, emphasizes on the participatory aspects employing demonstrations and training of farmers in technology packages on their fields. Accordingly, these packages have been categorized on the basis of three agroclimatic conditions, which involve cereals, pulses, high value crops and post harvesting techniques. It was further learnt that, implementation of these packages can be modified by the regional bureaus of agriculture to fit their local coditions.

With respect to the extension system in the pastoral areas, sedentary and mobile types of extension systems at pilot level will begin soon in a holistic approach. Inspite of all the efforts undertaken, there is a gap with respect to capacity building due to time and resource constraints. Therefore, a concerted human resource development effort through capacity building would remain to be highly essential in order to bridge the gap and stimulate sustained development achievements in the agricultural sector of the country.

As discussed earlier (Tesfaye, 1999), this package program lacks diversity of approaches, promoted technologies were generated in the past and lack wider adaptation with limited participation of farmers regarding technology generation and its ultimate utilization largely becoming more of transfer of technology (TOT).

Lack of area specific technology packages suitable to the different agro-ecological zones of the country was and is still a pressing issue. Inadequate extension support, limited scope and variety, limited access of farmers to technologies were the major causes for the very low contribution of research to agricultural development and small farmers adoption.

In general, agricultural extension systems in Ethiopia have been seriously affected by institutional instability for over the past three decades and by inadequate public support. More than anything else, extension work should be with people. Popular support is a

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necessary condition for effective extension service because although technical knowhow is important, the extension worker's job begins and ends with human beings. That is why extension work is frequently described as "helping people to help themselves".

5.5.2.2 Extension for Pastoralists and Agro-pastoralists

Pastoral and the agropastoral areas with a total population of about 7 million (12%) constitute close to 64% of the total land mass, which are a major resource for the country. The areas are characterized by low and unreliable rainfall and high temperature in which the people are engaged in livestock rearing activities.

It appears that little progress has been made in understanding how best to support the development of pastoral and agropastoral communities and ways of improving their contributions to the national economy. Pastoralists and agro-pastoralists have not been encouraged to participate in extension strategy and policy information and provision of on market and inputs that may contribute in improving their livelihood through proper livestock and pasture management.

In order to improve the livestock production system in pastoral and agro-pastoral areas, a draft paper on pastoral extension system (in Amharic), dealing with the conceptual approach has been submitted to the Federal Ministry of Agriculture. According to the draft extension system documents, efforts will be made to meet the extension support needs of both pastoralists and agro-pastoralists (Tafesse, 2000).

5.5.2.3 Research-Extention Linkages

The interaction between research and extension appears to be highly essential for the mutual benefits and to strengthen the two areas/disciplines by way of technology dissemination and effective feedback of information, which will enable to immediately respond to farmers' priority needs and problems. This facilitates smooth acceptance of research findings by the beneficiaries promising good return as well. Such research extension linkage would require viable and sound strategies formulated between Government sponsored research organization and extension services for sustained and reliable delivery and transfer mechanisms of inproved technologies (Teklu,2000). Regarding this linkage, EARO has made attempts to strengthen the relationship among the various research offices and beneficiaries through regional extension linkage committees (RELCs) at both regional and national levels. This was made effective in close collaboration between researchers and MOA staff members at all levels.

The Ethiopian Agricultural Research Organization, Ministry of Agriculture, Alemaya Agricultural University and other Regional Research Institutions are responsible for conducting research and disseminating results to the beneficiary farmers. More importantly, farmers have been made to actively participate in research activities or research participatory approaches, which include all expected stakeholders such as MOA, NGOs, higher education institutions and intersted research professionals. In this respect, farmers participation in the entire process of planning implementation and evaluation plays a major role in utilizing research results properly and in providing feedback information to research organizations for setting research priorities.

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5.6 UNTAPPED RESOURCES: POTENTIALS AND UTILIZATION CONSTRAINTS

5.6.1 Land Resource Base

Land under Ethiopian context is the principal economic source for it contributes employment opportunity for about 85% of the country's rural population. However, Various documented sources indicate that the total area of intensively cultivated land for the production of annual and pernnial crops had never exceeded more than 10-12 % of the land considered to be suitable for crop production purposes. Moreover, most of the intensively cultivated lands are mainly found in medium and high altitudinal zones of the country where environmental conditions for human settlement happened to be relatively conducive. Farmlands in these agro-ecologies have been put under cultivation for over several years without any appreaciable soil conservation measures; and are typically highly degraded and the nutrient contents of the soils are severely depleted to the extent that they could not even support crop growth.

Land degradation in the medium and high altitude zone has been further exacerbated by the high population pressure on land resulting in fragmentation of landholding size, increased man/land ratio, low crop yields, farmers' traditional land management practices, and lack of appropriate technologies. Nevertheless, productivity and production of agricultural commodities in these areas can be improved through sustained Government effort and genuine participation of communities.

In order to enhance agricultural production and productivity, increasing land area under cultivation should be considered as a priority area for action. Expansion of cultivated land needs be accompanied by the use of improved technologies of agricultural production, and an enabling institutional environment.

5.6.2 Human Resource Development

According to the definition given by the National Conservation Strategy (NCS, 1994), human resource refers to the people who can acquire skills or special abilities that they themeselves and other people need to use. It is those men and women who become specialized workers to produce goods and provide services. Human resource should, therefore, be considered as a potential capital for bringing about sustainable agricultural development through the provision of the abiltity and capacity to manage his environment.

5.6.3 Pyrethrum Cultivation

The highland (higher than 2700 m.a.s.l.) portion of the country, which are considered to be suitable for the production of barley and wheat may also be used for the cultivation of pyrethrum(*Chrysanthemum cinerariifolium*). This particular activity seems to confirm with the Government's ADLI strategy, providing additional income generating activities in those areas where economic oppotunities are scarce. This particular activity

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would be more applicable in the higher parts of the country where population pressure and paucity of high value cash crops imposed by the thermal factors limit family income.

Some documents (MOWR, 1996) show that pyrethrum has been introduced and its performance has been evaluated in Arsi zone on farmers fields. Based on the evaluation undertaken, the results obtained were encouraging, and the Essential Oils Research Center agreed and showed interest to upgrade the production and carry out the processing aspect.

With respect to its yields, it is envisaged that about 500 kg/ha are possible under the highland areas of the country due to a clear correlation between altitude and the content of pyrethrins in which case, the highest concentration of these compounds being produced at the higher elevations. A minimum rainfall of 1000 mm is required for its production and the crop is also frost resistant, which is an important consideration.

Pyrethrum thrives best where the soil has a high organic matter content and thus is well suited for cultivation where animal manure is traditionally used for the cultivation of enset. It is normally replanted every fourth year, and then the yields begin to decline significantly. Thus, it would be necessary to replant about one third of the area devoted to pyrethrum each year in order to maintain the total area (MOWR 1996). Under smallholder conditions, the flowers are usually dried in the sun. The flowers, especially the disc flowers, contain pyrethrins, which are used as an insecticide with a rapid 'knock-down' effect. Pyrethrins have a low toxicity to mammals and can be used safely in proximity to human and cattle. Flower production starts 4 months after planting the splits, and 6 months after sowing. At harvest the pyrethrin content is around 1.5% by weight but rapidly declines without care being taken to reduce the volatilization of the active ingredient. The end product is usually a 25% pyrethrin extract, most of which is blended into aerosols. The solid residue of the extract, *Marc* is a useful by-product to be used for the local manufacture of mosquito coils, the production of a low cost mosquito smoke, which contributes in reducing the incidence of malaria and also be used as animal feed (same composition as wheat bran).

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5.6.4 Production of High Value Crops

5.6.4.1 Spices

Spices in this report include some culinary herbs, seasonings and condiments of plant origin, which are normally grown in Ethiopia, which are mainly used to improve the taste of foods as found necessary. The most important spices grown in Ethiopia include the following: Korarima cardamon (*Aframomum corrorima)* is a spice only known from Ethiopia (E.Westphal,1981). Currently the price of korarima cardamon has reached upto 100 Birr/kg.

Black kumin, tukur azmud (A), (*Nigella sativa*); turmeric(*Curcuma longum*) ird (A); common basil-basobilla (A), (*Ocimum longum)*; netch-azmud (A) (Trachyspermum ammi); ginger - zingbel (A) (*Zingiber officinale);* mitmita berbere (A) (*Capsicum annum)*, which is also the most important spice commonly used in Ethiopia having

agricultural significance. The others are grown mainly as garden crops or found under natural forest. The major use of spices in Ethiopia is in the preparation of 'wot', which is a thick usually highly spiced traditional sauce. For the cultivation of these and other types of spices, suitable areas with good moisture, good climatic conditions, and sufficient forest cover are required to provide the essential agroclimatic conditions. The majority of these spices require shaded growing conditions for their succeful cultivation.

Most areas in the SNNPR and Oromiya region in the south west of the country, coffee and spices are grown under sufficient forest cover for their optimum growth and production. These areas play a significant part in contributing to on-farm incomes due to the production of largely ginger, korerima and other related spices. In these areas, there exists some potential to further develop spice cultivation, notably of high value such as cardamon and peppers in the reminant of the forest areas. Spices not only bring foreign exchange, their cultivation and processing are very labour intensive thus, substantially improve the labour market.

5.6.4.2 Horticultural Crops

A number of other crop plants have considerable potentials both economically for broadening and enhancing the dietary intake of the population. Most important fruit tree cultivation includes such as avocado, pine-apple, guava orange on various suitable agro-ecological zones. Avocado would provide for many farm families a very nutritious food source, which would require the planting of only three or four trees around the homestesd. Guva is also well suited for backyard cultivation and produce fruit extremely rich in vitamin C, which is also easily marketed.

These high value tree crops and spices could provide a significant additional source of income to many rural households. In some areas of the south west of SNNPR, there also exists some potentials for expanding the present spice production opportunities where minor spices like black cumin, rue, and others are cultivated in open fields (MOWR, 1996). These activities are in harmony with the Government's ADLI strategy and to the creation of additional source of income for smallholders. In the long-term, it may also possibly create additional jobs from processing of these crops, a number of these spices would be important in the world trade.

5.6.5 Small-holder Grain Storage Improvement

In the past, some work has been done to promote improved grain storage techniques. Grain losses of around 16% were estimated principally due to grain storage pests; with 9% notablly due to weevils, and a further 7% loss caused by fungal pathogens, particularly when the grain is poorly dried (MOWR,1996).

It would thus appear to address this problem with some urgent mechanisms to reduce a loss of just half of the above figures, which in effect would mean an additional increase to the country's food resource. In any strategy aimed at increasing crop production, particularly in high crop producing areas, the problem of on-farm storage must for sure be an important issue to address.

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The objective of such smallholder grain storage facilities would be to enhance/promote the use of low cost on-farm storage techniques, such as natural extracts of locally available plants for detecting or controlling attack by insect pests. Furthermore, it would promote the possible use of low cost materials such as plastic sheeting or the use of water soluble extracts of chille fruits, tobcco leaves and Neem seeds which have been used else where to deter or to kill storage pests.

These materials are relatively harmless to human and other animals when compared to many chemical products (MOWR,1996). They are also available at virtually no cost to the farmers, being commonly grown around the homestead.

5.6.6 Apiculture

In Ethiopia beekeeping has been traditionally practiced for more than 300 years with the use of single chamber fixed comb hives. With the existing suitable physical environment, climatic conditions, rainfall and various plant species beekeeping would be an excellent source of income for both at household and at national levels. Altough the bulk of honey produced in the country is utilized locally about 5-10% produced is exported for local currency earnings. Production of honey and beeswax from the traditional beehives are estimated to be low and there is an immense potential to increase honey and beeswax production through employing improved production mechanisms.

Beekeeping contributes to food security and the opportunity for the many landless peasants and smallholders to improve their income. It occupies minimal space and can be carried out on waste land. It does not also compete with other type of agricultural activities for resource. Rather, it produces food from natural resources that are not otherwise exploited. Based on the number of beehives kept, it can be a spare time, part time or even full time occupation that can be undertaken on a small budget with the use of beehives that can be made from a variety of natural products.

5.6.7 Fishery Development

As a result of the complex nature of livestock production systems in Ethiopia coupled with a low technical base and long gestation period of livestock production, immediate progress in this aspect is becoming increasingly difficult under Ethiopian context. In order to bridge the immediate need of animal protein and to satisfy protein rquirements of the rapidly growing popualtion, it would remain to be imperative to properly exploit the potential resource base of fish, which is available in both fresh and lake bodies of water. It is estimated that maximum sustainable yield of more than 24,000 metric tons of different species of fish and about 5,000 metric tons of fish from lakes and rivers respectively can be harvested per year (Yaicob, 1995).

In view of the existing offtake and the potential for increasing the exploitation, it appears that much can be done along this properly unexploited natural resource base to satisfy the protein requirements of the large population close to the water bodies on the one hand, and attaining of food security on a sustainable manner on the other.

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Fisheries, inspite of its significant potential contributions to food security in general and animal protein in particular, is so far the least properly exploited of the animal resources in Ethiopia. With respect to the demand for fish at national prespectives, as studied by Yaicob (1995), the forecast demand remains to be enormous, indicating unsatisfied demand for fish in the country.

5.6.8 Urban Mushroom Cultivation

Mushrooms are a group of fleshy edible fungi highly appreciated for their good taste and nutritional values. The consumption of mushrooms as food and drugs is closely related to the history of mankind, and they have been used and prized as a delicacy for more than two thousand years (Kapoor, 1989).

Nowadays, mushrooms are regarded as useful food in modern diets, complementing the staple diet. The popularity of mushrooms is due not to their culinary value but also to their potential as a source of protein that can enrich human diets especially in situations where meat may be rare and expensive. The protein content is almost equal to that of corn, milk, and legumes. Mushrooms can be eaten, as they are, cooked or raw, unlike other protein sources such as soybeans and others that have to be processed. In nature, mushrooms grow wild in forest, fields and on all types of soils, cultivated fields or wastelands. Mushroom growing, as a garden crop has remained important in many parts of the world.

In some rural parts of Ethiopia wild mushrooms are gathered and consumed either raw or roasted during the rainy season when they flush in farmlands, fields and meadows. Mushroom cultivation requires plant residues such as straw, leaves, agricultural and industrial wastes and forest remains. They are grown in rooms in vertical stacks and thus yield per unit is the highest as compared with any other vegetable crop. Moreover, mushrooms come into production very rapidly thus making the mushroom growing a profitable activity.

Most of the low-cost methods of mushroom cultivation suitable for rural projects are labor-intensive and can provide employment in both rural and semi-urban areas. Some of the production methods may involve family labor, thus providing all members of the family with employment.

Mushroom growing development initiative targets are women in farming systems who contribute a high percentage of labor to diversify the income opportunities and provide the household with additional food income and thus enhance family welfare (FAO, 1990). Used compost from mushroom growing may also be recycled for use as animal feeds, soil conditioning and fertilizers.

5.6.9 Small Ruminants (Sheep and Goats) Rearing

The basic advantage of rearing small ruminants (sheep in the highland and goats in the lowlands) is the rapid rate of reproduction and quick returns for the initial investment, which can enable timely repayment of credit interest and loans. This activity is expected

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to increase the available small stock in the area if especially women participate through obtaining credit facilities. Potential benefits from this on-farm activity include improved nutrition through greater household consumption of meat, and improved household income through the sale of the stock notably the male animals.

It is believed that the additional income obtained through this program will create demand for goods and services and this in turn will enhance economic activity in the rural areas and the nearby towns. The additional farm household income in the hands of women will satisfy their cash requirements.

Environmental impacts that may be brought about through the grazing of sheep and goats need to be regulated to curb the negative environmental pressure on grazing resources. However, experiences from FARM Africa (an NGO) have shown that viable and environmental friendly project interventions can be designed and implemented.

5.6.10 Potential Contribution of Biodiversity to Food Production

Various information sources indicate that, all cultivated plants were domesticated from their wild species, which were made to adapt to the needs of humankind in efforts undertaken to produce crops in large quantities and continuous level of production. In order to increase crop production through domestication of plants, it has often become increasingly important to determine/study the origin and spread of agriculture. Historically, agriculture had spread southwards and westwards through Africa to the Sudan region from the Nile Valley by about 3,500 BC (Onwueme and Sinha,1991).

Among the several centers of origin of crop plants recorded in History (Vavilov, 1926), Ethiopia has recieved much attention as evidenced by its independently developed agricultural methods, implements and domestic animals. According to Vavilov (1945), the crops which originated in Ethiopia among others include: coffee, cotton, sesame, sorghum, rapeseed, Niger seed, castor, etc.

It is also believed that, Ethiopia being the center of these and other crop plants has contributed in the dispersal/spreading of some of or all of these crops to other parts of the world through the agent of humankind. This dispersal of crop plants from Ethiopia to the rest of the world must undoubtedly have contributed in the great expansion of agricultural research with international cooperation. This dispersion of biodiversity could be in the form of seeds, or collection of germ plasm between agricultural researchers in different parts of the world.

The potential contribution of biodiversity of Ethiopian origin towards food security attainments has also been emphatically described earlier (under the title "untapped natural resources"), which includes both the plant (flora) and the animal (fauna) groups.

5.7 IRRIGATED AGRICULTURE

There are two major barriers to the supply side of food security in Ethiopia. Firstly, under prevailing agricultural production technology, arable land in many parts of the

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country appears to have reached, if not exceeded, the natural limit of its carrying capacity. Neither does extensive production through bringing new land into cultivation such as clearing forestland provide a promising way forward in view of the grave consequences of natural resource depletion. Secondly, given that rainfall pattern that has become increasingly unreliable both in amount and distribution, rain fed agriculture offers little scope for increasing agricultural production. Understandably, therefore, the promotion of irrigated agriculture has gained importance over the recent years. It is envisaged that, irrigation development will make it possible to increase both production, through increased land area under crops and pasture, and productivity per unit area of available farm land through intensification of agricultural production.

5.7.1 Irrigation Potential

Ethiopia is well endowed with rich, but yet untapped water resources that could largely contribute to food security on a sustainable basis. The country has twelve river basins of which nine have perennial flows and the rest are dry basins. The perennial river basins include Abay (Blue Nile), Baro Akobo, Omo-Gibe, Rift Valley Lakes, Genale Dawa, Wabi Shebelle, Tekeze, Mereb and Awash; while Ogaden, Aysha and Denakil are dry basins. The annual surface water flow from these twelve river basins is about 111 billion m^3. About 80 percent of the total flows occur in four river basins, the Abay (53 billion m^3), Omo-Gibe (18 billion m^3), Baro-Akobo (12 billion m^3) and the Tekeze (8 billion m^3).

The ground water potential of the country is insignificant as compared to the surface water flows. However, the exploitable ground water is estimated to be about 2.6 billion m^3 (MOWR, recent master plan studies).
In addition to the above-mentioned twelve rivers there are also other inland lakes (ranging from 7 to 60 km long and 4 to 60 kms wide) providing potential for irrigation development.

On the other hand, the total potentially irrigable land is estimated to be about 3.5 million hectares. Most of the potential for irrigation development exists in the lowlands, where the terrain is favorable for extensive gravity flow schemes and the hot climatic condition makes the irrigation water use economically viable. Development of irrigation in the highlands is restricted since most rivers are deeply incised and require higher investment.

Given this potential, at present only about 5% of the potentially irrigable land is developed. Most of this irrigation development is found in the Awash valley because of its accessibility and relatively better infrastructure. Table 5.6 presents the potentially irrigable areas within the main river basins of Ethiopia.

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Table 5.6: Total Potentially Irrigable Areas in Ethiopia.

No.	River Basin	Potential Irrigable area (ha)	Irrigated Area (ha)	Mean Annual Flow (BM^3)
1	Tekeze	189, 500	12, 270	8.2
2	Abay	1001, 550	36, 010	52.62
3	Baro-Akobo	600, 000	11, 000	11.81
4	Rift-Valley	139, 300	12, 270	5.63
5	Genale-Dawa	600, 000	80	5.88
6	Wabi Shebelle	204, 000	20, 290	3.16
7	Awash	206, 000	88, 000	4.60
8	Omo-Ghibe	348, 000	34, 800	17.96
9	Mereb	37, 560	-	0.26
10	Ogaden	72, 121	-	-
11	Aysha	2,223	-	-
12	Dankil	3, 300		0.86
	Total	3403254	214720	110.98

Source: Compiled from river master plans.

5.7.2 Irrigation Development in Ethiopia

Irrigation development has long been in use in Ethiopia, although until recently it constituted only fragmented small-scale supplementary activities for rain-fed agriculture. Small scale traditional irrigation schemes are found in various parts of the country which consist about 40% of the total currently irrigated area (WWDSE, 2000)

Three levels of irrigation schemes are practiced as small, medium and large, which are determined by their command area. Small-scale projects are generally considered to be less than 200 ha; while medium-scale ranges from 200 ha to 3000 ha. Large scale includes a command area greater than 3000 hectare.

Medium and large-scale irrigation began in Ethiopia in the early 1950s by the Dutch in upper Awash with production of commercial irrigated sugarcane production. Followed this in 1961, commercial irrigated cotton and fruit production has been started at Tendaho in the lower Awash. The Amibara 10,000 ha irrigation was implemented in mid 1970s by multi-lateral funding.

Farmers had handled traditional small-scale irrigation until the 1970s when the Ministry of Agriculture (MOA) took the responsibility of developing small-scale irrigation (SSI). The MOA undertook the study, design and construction of modern SSI for community use. Since 1993 the regional states have been responsible for modern communal SSI schemes. Currently, NGOs and private investors are participating in SSI development in various parts of the country; i.e., in Awash, Meki, Zway, Woito valley and other areas. However, due to the 1975 land reform, all medium and large-scale irrigated farms were nationalized. After the 1984/85 drought the need for developing irrigated agriculture was given due attention in order to:

- increase food crop production, thereby alleviating food shortage;
- produce cash crops in order to increase foreign exchange earnings;

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- produce raw materials for domestic industries; and
- increase employment opportunities and thereby minimizing migration.

5.7.2.1 Small-Scale Irrigation (SSI) Development

Traditional small-scale irrigation practice has a long rooted history in Ethiopia. It has been practiced mainly to supplement rain-fed agriculture. However, as it was poorly and traditionally designed, faced both water surplus (during rainy seasons) and water scarcity (during dry seasons). Since 1984/85 Government had started extending technical support to small irrigation development through farming cooperatives. The main objective of the support was to improve food security and income stability by providing reliable water both for crop and livestock production.

Experiences in many African countries have shown that the adoption of indigenous water harvesting techniques, for example, have resulted in four-fold yield increases as compared with merely dry land farming (FAO, 2000). Elsewhere, FAO have estimated that SSI can increase agricultural production in Ethiopia up to 5 percent (Kl00s, 1991). On the other hand, some studies suggested that 5 percent increase in production would have an increase of 25 percent of the marketed production since it would encourage small holders to sell some of their surplus. A survey conducted by MOA indicated that the most common types of crop grown using SSI are maize, coffee, potatoes, fruit and vegetables. It illustrates that SSI promotes the production of both food and cash crops in order to improve food shortage and cash income.

The different master plan studies indicated that out of the above indicated total irrigation potential, about 18% (470,500 ha.) is to be developed through SSI, whereas the remaining 82% of the potential is for medium and large-scale irrigation development.

From the nine perennial river basins, Mereb river basin has all its irrigation potential for SSI schemes, while Baro Akobo and Rift Valley Lakes have no potential for SSI development. Table 2 presents SSI potential by river basins. Table 5.7 presents small-scale irrigation potential by river basins.

Table 5.7: Potentials for SSI by River Basin

No.	River basin	SSI Potential (ha)	% of Total Potential
1	Abay	150, 000	21.1
2	Awash	55, 000	26.7
3	Baro-Akobo	-	-
4	Genale Dawa	60, 000	22.7
5	Mereb	38, 000	100.0
6	Omo-Gibe	25, 000	7.2
7	Rift Valley Lakes	-	-
8	Tekeze	112, 500	37.2
9	Wabe Shebele	30, 000	24.6
Total		470, 500	18.6

Source: WWDSE, 2000

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According to MOWR, up to 1991, the total area under SSI was 64, 000 ha. Since 1992, the regional governments have taken over the responsibility of SSI development. There are two categories, traditional and modern communal schemes. The traditional SSI schemes (50-100 ha) are built under a self-help program of farmers on their initiative. Traditional water users associations led by elected chiefs carried out operation and maintenance of the schemes. There is high users participation. These schemes have, however, low irrigation efficiency and achieve only half of the production potential. This is due to lack of know how, farm inputs and extension services. The common crops grown in the traditional SSI includes cereals, pulses, oil crops, fruits, vegetables, coffee, 'enset', chat, sugarcane and the likes.

In 1992 in all regions of Ethiopia there were about 1309 traditional small-scale irrigation developed which covers about 64000 ha of land. Table 3 shows traditional SSI by river basin.

Table 5.8: Traditional SSI Schemes by River Basins

No.	River Basin	Hectare
1	Abay	20,000
2	Baro akobo	100
3	Omo-Gibe	5400
4	Rift valley	7300
5	Genale Dawa	1700
6	Wabe Shebele	10600
7	Awash	17400
8	Northern river Basins	1500
Total		64,000

Source: WWDE, 2000

The Modern Communal Irrigation schemes have a command area between 20 ha. and 200 ha. The main purpose of these schemes is to improve food security. The government with active participation of farmers built them. Irrigation efficiency of this category of irrigation schemes are less than the traditional SSI. Agricultural productivity is not more than 50%. The common types of crops grown here are maize, fruits, vegetables and sugarcane. Until 1992, when the MOA had been entrusted to look after these modern communal irrigation schemes, there were 80 communal schemes covering 8,000 ha of land. After 1992, however, like traditional SSI the responsibility has been transferred to regions. From 1992 up to 1998, 156 schemes with a capacity of irrigating 17,120 ha of land were constructed. Moreover, in 1998 additional 52 schemes were constructed which covered an area of 4726 ha. Currently, there are about 288 modern communal irrigation schemes that can irrigate about 30,000 ha. Table 5.9 shows the regional distribution of modern communal irrigation.

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Table 5..9: Regional Distribution of Modern Communal Schemes

S. No.	Region	Hectare
1	Tigray	3,770
2	Amhara	9,000
3	Oromiya	10,000
4	Somali	400
5	Dire DAwa	40
6	Gambella	175
7	Benshangul Gumuz	160
8	SNNPR	7,000

5.7.2.2 Medium and Large-scale Irrigation Development

Previously, the then water Resources Development Authority was responsible for the design, supervision, allocation and administration of medium and large scale irrigation projects, which were then operated by the Relief and Rehabilitation Commission and the Ministry of State Farm Development. Some medium-scale irrigation projects however, such as Borkena and Meki Zewai were operated by peasant associations. Medium scale schemes were used for the production of both cash and food crops.

Currently, there are about 61,000 ha of land under large-scale irrigation. About 73% of these schemes are found in Awash Valley. Region wise, 52.4% of the total irrigated area is found in Oromiya, 34% in Afar, 9.9% in SNNPR and the rest 3.3% in Somali.

Large-scale irrigation is owned and operated by the state farms. These farms mostly produce cash crops. These large enterprises are mainly producing cash crops. Common types of crops grown include cotton (42%), sugarcane (36%) and horticultural crops (16%). The productivity of large scale irrigated agriculture is better than SSI since it is in a better position in terms of access to agricultural inputs and better cultural practices. Medium and large-scale projects were both financed by the Government of Ethiopia and by foreign loans and aid. Table 5.10 shows large-scale irrigation schemes in Ethiopia.

Table 5.10: Large Scale Irrigation Schemes

No.	Irrigated Farms	Area (ha)
1	Upper Awash	23284
2	Middle Awash	10, 000
3	Lower Awash	11, 000
4	Meki Zwai	2, 500
5	Bilate Abaya	2905
6	Sile	2, 171
7	Lower Omo	1, 000
8	Others	8,200
Total		61, 060

Source: Compiled from different master plan studies

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The total area covered under medium and large scale irrigation up to 1991, was 112, 105 ha land (MOWR). According to the ministry the total irrigated land (small, medium and large scale) increased from 176, 105 ha in 1991 to 197, 250 ha in 1998. This increment was mainly attributed to the development of SSI. The development of medium and large scale irrigation has virtually ceased since the mid 90s. This is due to the withdrawal of federal government from running irrigated state farms, following the adoption of market economic policy. **Perhaps due to insecurity of land tenure,** private investors are still reluctant to be involved in the development of large-scale irrigated farm; although 18 investors in three regions are operating on 5,000 ha private farm ranging from 800 ha to 2000 ha.

Since the mid 1990s the MOW, has been involved at the federal level is in the Preparation of Integrated River Basin Master Plans. The Water Works Design & Supervision Enterprise and the Ethiopian Water Work Construction Authority carried out the Design and Construction of irrigation schemes respectively.

5.7.3 Contribution of Irrigated Agriculture to Food Security Improvement

5.7.3.1 Ethiopian Water Resources Management Policy

Before discussing the contribution of irrigated agriculture for food security improvement, it is worth mentioning the policy environment under which it is being operating. Therefore the water resources management policy will be overviewed as follows.

The Ethiopian Water Resources Management Policy (EWRMP) is a recent policy issued in June 2000. The main goal of the policy is "to enhance & promote all national efforts towards the efficient, equitable and optimum utilization of the available Water Resources of Ethiopia for significant socio-economic development on sustainable basis". In order to carry out its goal, the policy objectives include:

- Equitable and sustainable development of the Water Resources of the country for socio-economic benefits of the people;
- Allocation/distribution of water for efficient, equitable and sustainable use, according to integrated plans;
- Managing and combating droughts and related disasters through efficient allocation, distribution, storage and other means;
- Flood control and mitigation through various means; and
- Conserving, protecting and developing water resources and aquatic environment on sustainable basis.

The basic principles on which the above policy, goal and objectives founded are:

- The people of Ethiopia commonly own water, as a natural resource.
- As far as conditions permit, every Ethiopian has a right to access to water of sufficient quality and quantity to satisfy basic needs.

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- Water need to be recognized both as economic and social goods.
- Water resources development shall be rural-centered, decentralized, participatory and integrated approach.
- Management of water resource shall be according to the norms of social equity, systems reliability, economic efficiency and sustainability.
- Water resources management need to promote the participation of stakeholders, especially women and other user communities.

The EWRMP is a comprehensive document covering every aspect. It provides guidelines to inland water transport, aquatic resources, water for tourism and recreation, water allocation, environment, technology, water pricing, stakeholders, gender issues, water quality and enabling environment.

Since irrigation has directly related to food security, this sub-sector policy will be reviewed as follows.

5.7.3.2 Objectives of the Irrigation Policy

The major objectives of the Irrigation Policy includes:

- the development of small, medium and large-scale irrigation for food self-sufficiency and food security both at the household and national levels as well as for producing industrial raw materials and export crops;
- the promotion of irrigation project study and execution on the basis of acceptable socio-economic, technical and environmental criteria, according to principles of sustainability, productivity and affordability;
- the promotion of irrigation systems;
- the advance study and design of irrigation projects for immediate implementation.

Based on these objectives the main features of irrigation policy are:

- ensuring the integration of irrigation with the ADLI strategy;
- promoting irrigation development on strategic planning approach for achieving socio-economic goals and participatory approach for promoting efficiency and sustainability;
- recognize that irrigation is an integral part of the water sector and consequently its development is within the overall water resource management;
- allocation of a given percentage of the GDP as a committed resource for irrigation development;
- promote decentralized and user-based-irrigation management taking particular attention to rural women special needs;
- develop an order of priority for projects based on food requirements, needs of the national economy and requirement for raw materials and other needs;
- supporting and enhancing traditional irrigation schemes by improving their facilities;

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- ensure the prevention and mitigation of irrigated water and maintain standard irrigation water quality;
- establish water allocation and priority setting based on harmonization of social equity, economic efficiency and environmental sustainability;
- integrate appropriate drainage facilities in irrigated agriculture;
- enhance the participation of regional and federal governments in the development of large scale irrigation development in high water potential and low population density;
- promoting the full participation of all stakeholders in all phases of irrigation development;
- establishing norms and procedures for financial sustainability and viability of irrigation schemes;
- developing appropriate cost recovery mechanisms for irrigation schemes;
- developing appropriate technologies for the design, construction, O & M of irrigation schemes ;
- developing guidelines and manuals for sustainable O & M of irrigation development;
- improving and upgrading the capacity of existing irrigation schemes;

The above-mentioned objectives of irrigation policy are therefore consistent with the idea of food self-sufficiency and food security by enhancing, improving traditional small-scale irrigation and developing large scale irrigation. It also encourages the improvement of the capacity of existing irrigation schemes. However, both the EWMP and the irrigation policies do not clearly address the issue of land tenure, as irrigation development (particularly large scale) requires huge investment on land.

5.7.3.3 Irrigation and Food Security

Irrigation is basically an agricultural activity, which is directly relevant to food production and food security. Nevertheless, agriculture in Ethiopia is dominated by subsistence smallholder, which is totally dependent on rain-fed cultivation. Traditional small scale irrigation accounts only 0.7% (63, 170 ha) of the total (8.92 million ha) small holder cultivated land (CSA, 1999 cited in WWDSE, 2000). Of the total area cultivated under traditional irrigation, cereals and permanent crops (coffee, inset, fruit and vegetable) consisted 47.7% and 33.8% respectively (WWDSE, 2000).

As pointed out in the preceding sections, Ethiopia has got about 3.5 million hectares of irrigable land. However, the total area under irrigation so far including traditional small-scale irrigation is only 160,000 ha (about 5%) of the potential or 0.14% of the total landmass of the country.

The importance of irrigation in the world's agriculture is increasing to overcome the food deficiency of the rapidly growing population. According to FAO studies, agriculture in most developing countries was likely to increase from 105 million hectares in 1980 to 148 million hectares in the year 2000. This makes the ratio of irrigated area to total arable area 14% to 16% respectively. This 14% irrigated area is expected to account for 41% of the total crop production (WRDA, 1991). This FAO

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study clearly indicated the contribution of irrigated agriculture in improving food security worldwide.

Irrigation, therefore, plays a significant role to achieve sustainable food security if properly planned, developed and managed, since it can provide water when ever and wherever is needed to reduce moisture deficit.

On the other hand, the country has been suffering from food shortage partly as a result of high population growth rate and recurrent drought in most parts of the country. Although, in general Ethiopia has an annual rainfall adequate for crop production, its amount and distribution is uneven and erratic. Most of the eastern regions of the country have very little rain while the western part and the highlands relatively have adequate rainfall.

Dependable crop production is almost impossible due to the temporal imbalance of rainfall distribution and the consequential non-availability of the required amount of water at the appropriate period. Sometimes even in the highlands of the country, which is said to have relatively adequate rainfall suffers from crop failure due to uneven rainfall distribution. On top of this, shortage of arable land as a result of rapid increase in population leads to settlement outside the traditional zone where rain-fed crops could not be grown with a reasonable degree of reliability into marginal areas where the available water is both lower and more erratic. High population pressure also causes lower per capita farm size.

Since the 1970s Ethiopia has been a food deficit country and forced to depend on food import and aid. For example, in 1999/2000 Ethiopia obtained about 800,000 tons of food aid. While the share of irrigated agriculture in terms of production is only 3% of the total food production in the country. This shows that despite the available potential, the contribution of irrigated agriculture to food security is so minimal.

Increasing food crop production by expanding land under rain-fed agriculture is constrained by shortage of land. From the total 1.13 million square kilometers of land in Ethiopia, 55 million ha is arable. Out of which grazing land accounts 51%, forest, wood land and shrub land, unproductive land and uncultivated land includes 11.7%, 3.8% and 18.7% respectively leaving only 16.7 million ha or 14.8% cultivated land (WWDSE, 2000).

Therefore, increasing existing cultivated land will lead to encroachment to marginal lands or clearance of forest, wood land, bush land and further aggravating land degradation and climatic change.

This brings the advantage of irrigated agriculture for food security in Ethiopia. Since intensive agriculture allows production of two or more crops per year, it enables farmers to grow high value crops, fruits and vegetables. However, it demands huge investment. According to FAO (2000), future costs of irrigation development can be reduced through:

- Improving traditional swamp and flood irrigation;
- Identification of suitable surface and groundwater;
- Supporting farm and village-led schemes;

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- Rehabilitation of existing modern irrigation schemes; and,
- Grant-aided large-scale irrigation development where there is no cheaper and small- scale potential.

To reduce the cost burden and attract investors in irrigated agriculture, the Ethiopian Investment Authority (EIA) is introducing different incentives. Depending on the location of investment, provision is made for preferential tax holidays varying from 3 to 5 years. All capital equipment used for irrigation development is also exempted from taxes and duties.

Moreover, there are a number of regional and national initiatives for small and medium-scale irrigation development, primarily for food security. Several NGOs and regional governments are assisting the small holder by building on existing traditional small-scale irrigation systems and augmenting them with the diversion of additional streams and earth dam construction. To meet the food security objective, however, much has to be done by implementing both the irrigation and Ethiopian water Resource Management Policies

5.7.3.4 Constraints of Irrigation Development

Among the various constraints for the utilization of the country's water resources for the development of irrigated agriculture, the most important ones are outlined below. The late declaration of the comprehensive water resources management policy has caused:

- Lack of reliable and sustainable water resource management strategy
- Inefficient utilization of water resources;
- Prevalence of unattainable action programs

Institutional instability

The water sector was marked by frequent restructuring and reorganization over the years. The institutional restructuring continued until 1996, when the MOWR was established. The frequent restructuring and reorganization of the water sector causes institutional instability and made institutional capacity building difficult.

Financial constraints

The major constraint of irrigation development, particularly that of large scales ID, is its huge capital requirement. Irrigation development projects are capital intensive. On top of this, economic returns particularly from large scale irrigated farms, takes longer period. This discourages private investors to invest on such development. The Government has inadequate capital to invest in such schemes. Getting adequate financing from external sources is also a problem.

Poor infrastructure

Lack of access to urban centers, agro-industry areas and foreign market is a discouraging factor for investing in irrigated agriculture particularly for the production of cash crops.

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Lack of agricultural inputs

Irrigation development involves intensive agriculture, which requires proper inputs such as improved seeds, fertilizers, and herbicides in order to increase productivity. In Ethiopia, particularly small holders irrigated farms are constrained due to lack of affordability of such inputs.

Operational constraints

Field experience suggests that a number of problems are encountered in the construction, use and maintenance of small-scale irrigation schemes. With respect to earth dams, for example, achievement in Tigray has been less than originally envisaged apparently due unrealistic planning assumptions. In SNNPR, it was reported that very often, community labor contribution for the construction of small-scale irrigation structures does not readily come by due to expectation for payment in kind or cash. Similarly, ESRDF could not achieve planned construction targets of irrigation schemes due to shortage of technically competent contractors.

5.7.4 Water Harvesting Techniques

There is several water harvesting techniques in Arid and semi arid regions of Africa. Water harvesting is collecting rainfall or surface runoff and using it for domestic, livestock, irrigation of crops, pasture and trees. Harvested water can be used directly, stored on the surface, in tanks, ponds or used to recharge local aquifers. Water harvesting is therefore, any method that reduces surface runoff and diverts the harvested water either for immediate or later uses.

It is a low-cost technology, however, costs vary depending on the selected techniques and utilization of labor or machinery. The advantage of water harvesting for increasing agricultural productivity has been observed in different African countries. Three to four yield increases as compared with rain fed farming has been seen in Sudan, Kenya, Tanzania, Niger and Burkina Faso (FAO, 2000). This experience illustrates that adoption of water harvesting techniques by the rural communities offers the possibility that significant areas of land can be developed at a reasonable cost on a sustainable basis. Furthermore, harvested water if combined with efficient and proper irrigation techniques can be used also for the cultivation of high value cash crops in areas where other water sources do not exist.

Water harvesting has also been practiced in Ethiopia since many years. During these years rainwater was harvested and stored in ponds for irrigation and water supply purposes. The Konso people traditional rainwater harvesting can be cited where they used for sorghum production. Furthermore, the Gondar castle water harvesting pool and the roof water harvesting in Axum can also justify this long history of water harvesting.

Today, in Ethiopia water harvesting has become crucial in improving food security at the household level. The government drew a national strategy over its five-year development plan, 1996 to 2001. Several NGOs have also been involved in implementing rainwater harvesting techniques in different regions such as Tigrai.

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Wollo, Gondar, East Shewa and Hararghe. Techniques of water harvesting include the following:

5.7.4.1 Rainwater Harvesting

Rainwater harvesting is collecting rainwater from a surface area and directing it through channels to a storage facility or to a near-by field or retained at the harvested site itself. The most commonly used rainwater harvesting techniques are: run-off farming, flood spreading (spate irrigation), in-situ water harvesting (micro basins), and roof water harvesting. Despite its long tradition in Ethiopia, rainwater harvesting gets more attention recently after the occurrence of recurrent drought

5.7.4.2 Run-off Farming

It is one of rainwater harvesting techniques by harvesting and diverting run off produced from the adjacent up land areas and used in the farms of lower elevation. This technique is simple and can be done manually. It is just directing the run-off water into farmlands, thereby making it possible to make crop production possible in unpromising semi-arid climatic condition. In fact, spreading the run-off in the farm is labor intensive and there is a need to avoid soil erosion and soil loss.

Run-off farming technique is commonly used in Hararghe with altitudes ranging between 1700 and 2500 m.a.s.l. In this region, run-off from the farm is harvested and used for the production of major crops, such as sorghum, chat (chat cadulis), coffee, and fruit trees.

The technique is becoming a reliable practice for crop production even in erratic and unreliable conditions. Since the first one or two run-off irrigation improves the establishment of the crop stand and the last season (three or four) irrigation brings the crop to maturity.

5.7.4.3 Flood Spreading (spate irrigation)

Flood spreading, like run-off farming has no water storage facility. This technique uses flash flood from the highlands as it appears along the riverbank by diverting it using temporary structures in to farms, which are located along the river banks. This water is then used in the farm as supplementary irrigation. The flood water stays in the riverbeds only for about two hours only. Two to three irrigation at the beginning, and later part of the cropping season can bring the crop to maturity, and contributes to increased crop yield.

This water harvesting technique is also used in Hararghe, since most of the rivers/streams originate in the highlands, and ends up in the lowland areas. In this area, farmers are able to get increased sorghum yield from 3 to 8 quintal from the same plot (1.2 ha) of land after using flood spreading.

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5.7.4.4 Water Harvesting Ponds

Traditional water harvesting ponds are used in Ethiopia since a long time for both human and livestock water supply. Water harvesting ponds are very simple for construction and management. In Ethiopia, there are about 3000 traditional ponds used for rural water supply and livestock watering. The size of the ponds range from $650m^3$ to several thousands, which serves from 3 to 5 months. The common type of water harvesting pond is the excavated type.

Traditional ponds are the main sources of water in the rift valley areas, where there is limitation of surface water and deep ground water. Development of ponds has been constrained due to the prevalence of malaria and other water-born diseases.

5.7.4.5 Roof Water Harvesting

This technique is mostly used in the rural highland areas of Ethiopia where the terrain is rugged and villages are situated in scattered manner, which makes centralized water supply expensive. Roof water harvesting is simple and cheap technique. But it provides relatively better quality water during the rainy season. The technique is very important in areas where there is no river or deep ground water. Currently, the expansion of corrugated roof house makes roof water harvesting simple in rural households.
Water harvesting is possible in areas where there is only 50 to 80 mm annual rainfall. About 10 mm of rainwater is equals to 100,000 litters of water per ha. It is the cheapest sources of water supply and livestock watering for arid and semi-arid regions.

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5.8 NATURAL RESOURCES CONSERVATION AND UTILIZATION

Conservation and utilization taken together imply that natural resources are commodities that are not only useful but also scarce (NCSE, 1994); and, because of such a dual character, sustainable management of natural resources has increasingly assumed a central place in the international debate on the concept and practice of sustainable development. More particularly, there is a general consensus that development planning that seeks to strike a balance between the conservation and utilization of natural resources for the welfare of present and future generations is a prerequisite for enhancing sustainable livelihoods in the developing countries.

5.8.1 Policy Overview

In Ethiopia policy towards conservation, exploitation and developing natural resources was initiated in the Ten Year Perspective Plan (1983/84 – 1993/94) of the previous Government. In this plan priority was given to agriculture as "the foundation of the country's economy. Emphasis was given to food self-sufficiency (through cooperative farms), increase export and employment opportunity.

The agricultural sector was given the utmost priority and was responsible for improved natural resource management. For this, attention was given to forestry, due to its contribution to soil and water conservation and its implication to agricultural productivity.

In 1988, the Government had decided to undertake a National Conservation Strategy (NCS) with the advice and assistance of the International Union for the Conservation of Nature (IUCN). The NCS takes a holistic view of natural resources, their use and exploitation. It seeks the integration of federal and regional government planning which have implications on natural resources. The NCS was undertaken on three fronts, i.e., the formulation of:

- regional strategies, actions and investment programs;
- national, sect oral policies, strategies, action plans and investment programs; and
- cross sectoral policies, strategies and institutional and legal frameworks.

The national policy framework for natural resource management outlines the institutional framework, responsibilities, mandates and the guiding principles. The National Conservation Strategy (NCS) was prepared in three phases.

Phase 1 (1990 –1990): includes the drafting of a conceptual framework focused on the identification of environmental and development issues
Phase 2 (1990 – 1995): development of policy and institutional framework
Phase 3 (1995 – 1998): implementation phase and finalization of regional action plans.

5.8.2 The Natural Resource Base

The natural resource base of Ethiopia is relatively well endowed in terms of stock, quality and diversity. It is the basic setting for agricultural production. In the highlands, soils are relatively fertile and deep, where 75% of the land has a growing period exceeding 180 days. In about 80% of these areas rainfall exceeds 1000 mm. Ethiopia also benefits from diversity of natural resources as a result of its wide range altitude, which ranges from 100 m.a.s.l to over 4,500 m.a.s.l. This in turn permits the cultivation of temperate, sub tropical and tropical crops. About 45% of the country is classified as highlands (1500 m.a.s.l.) where 88% of the population is living; while the remaining part of the country is lowland where paternalism is dominating. In general, Ethiopia has rich and diverse natural resources, favorable climate, reasonable good soil, huge labor force, largely unexploited livestock and a significant amount of water resources. This natural resource base of the country is summarized in the following sub-sections.

5.8.2.1 Land Resource

Ethiopia has a total land area of about 113, 000.000 ha; and approximately 50%, i.e., 55,000,000 ha. is arable land. The highlands (1500 m.a.s.l.) constitute about 45% (52,589,000 ha.) of the total area (NCS, 1994). The soils in the highlands are volcanic relatively fertile and deep, have a growing period of more than 180 days. However it is only 14.8% of the total land that is being utilized for crop production. Furthermore, highlands reach an altitude of up to 4620 m.a.s.l provide a wide range of favorable climate suitable for crop and livestock production.

In the lowlands, where the majority of the land mass exists, nomadic and semi-nomadic way of life play a dominant role. In these areas crops such as maize and sorghum are cultivated. In some localities, using irrigation, large-scale cash crops are also grown.

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5.8.2.2 Forest Resources

Different publication states that before human interference nearly 40% of the country had been covered by forest. In the 1960s this figure was decreased to 37% or 41,200,000 ha. However, due to population pressure and the need for expansion for cultivated land and the usage of trees for fire wood, forest cover in 1988 was only estimated to be 4.4% (Aklog Laike, 1990).

5.8.2.3 Water Resources

Ethiopia is well endowed with water resources. The country has twelve river basins of which nine have perennial flows and the rest are dry basins. The perennial river basins include Abay (Blue Nile), Baro Akobo, Omo-Gibe, and Rift Valley lakes, Genale Dawa, Wabi Shebelle, Tekeze, Mereb and Awash. Ogaden, Aysha and Denakil on the other hand are dry basins. The annual surface water flow from these twelve river basins is about 112 billion m^3. Furthermore, the country has got about 2.9 billion m3 ground water resources.

However, from this huge resource, only 2% is utilized, whereas 86% of it is used for agriculture (WWDE, 2000). Despite this potential the average access to clean and safe water supply is about 17 % of the total population of Ethiopia. The Hydropower utilization of the country's water is also very limited. From the estimated 161,000 Gwh/year hydropower potential only about 1% is harnessed. These figures illustrate the availability of huge untapped water resources potential of the country.

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5.8.2.4 Animal Resources

Opportunities and constraints relating to livestock, fishery, and apiary resources of the country have been discussed at length in the previous sections of this chapter. Suffice is to say that, lack of improved production practices and inadequate regulatory mechanisms have resulted in a wide spread concern about the sustainable management of these resources.

5.8.2.5 Energy Resources

Ethiopia has both non-renewable and renewable energy resources potential. Although, most energy requirement of the country comes from biomass resources. The hydropower potential of the country is estimated to be 161, 000 Gwh/year, while the geothermal energy resource is estimated to be 700 MW.

Solar radiation is the largest renewable energy resource. It accounts for 23% of renewable energy resources. The exploitable potential of solar radiation depends on the sunshine hours and to the surface area. Hence, Somalia and Oromia regions account for more than 26% of the total, while Arsi region has the smallest, only 1.3% of the total (NCS.1994).

Wind energy is also other source of renewable energy. The total potential is estimated to be 4.3 million Tcal/year, of which 5 percent is exploitable. Two regions, namely: Hararge and Bale have 29.7% and 20% potential respectively.

Wood, animal waste and crop residues are the main sources of biomass energy resources. The estimated annual production is to be 89,793 and 77 thousand Tcal respectively or a total of 1066 million Tcal. It represents 14% of the total exploitable renewable energy resource. The increasing exploitation of these resources however, leads to increasing environmental degradation.

The annual wood production from the available forest is estimated to be 896,000 Tcal per year. Of this production, 62% is obtained from Kefa, Bale, Illubabor, and Sidama, which constitutes only 27.6% of the total area and only 20% of the population. This resource disparity and fast deforestation rate (150,000-200,000 ha/year) leads to the need for the utilization of untapped renewable energy sources and fire wood biomass production.

To alleviate this problem, the current Forestry Policy indicates that there is a need to find substitutes for construction and fuel wood in order to reduce deforestation, whenever conditions and capabilities allow.

5.8.3 Causes and Effects of Natural Resource Degradation, Its Implication on the Environment and Food Security

The extended implications of natural resources degradation have been the problem of many African countries. Economic growth in Africa in general has been declined between 1991 and 1997, having annual 2.3% GDP and 2.7% population growth. Following this decline, the per capita food production and total availability (including imports) has remained stagnant. This decline is partly because of poor agricultural performance on which the economic growth of most African countries (about 30%) is dependent.

Due to the growing poverty, vulnerability and unemployment very high percentage of the continent's population lack sufficient access to food. According to the World Bank estimate, for instance, the poverty line in Guinea Bissau and Zambia is 80% and 50% respectively. In rural areas of the continent, the most vulnerable to food insecurity are the small holders (73% of the rural population) and female-headed households (31% of rural population). If the current food deficit situation continues, by the year 2010, that is in about eight years time the food shortage will be worse than the 1983/85 famine (FAO, 2000).

On the other hand, the productivity of livestock, which has significant contribution to food security, is also declining. This is mainly due to shortage of grazing land, mismanagement and disease. Epidemics of disease, such as: foot and mouth and render pest hinder livestock export.

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The lower productivity both in crop and livestock leads to food insecurity, which made the majority of the population dependent on food aid. In 1994, for example, out of the total 32 million people receiving relief assistance from World Food Program (WFP), 21.5 million were living in Africa (FAO, 2000). There are numerous factors, which attributed to a fall in crop and livestock productivity. In appropriate government policies, population growth, poor resource management (deforestation, land degradation), recurrent droughts and other human-induced problems are but a few of them.

These problems have been long rooted especially in Ethiopia. In Ethiopia, after 1950s increasing trends of natural resource degradation (including soil, forest, farm and grazing land degradation) is observed. Government policies, rapid population growth, land degradation and deforestation among others are the major causes of natural resource degradation. Each of them is discussed below.

5.8.3.1 Government Policies

Agricultural policies were introduced in Ethiopia since the late 1950s. Since then, the country has had numerous agricultural policies. However, most of these policies have focused on a few surplus producing regions (i.e., Gojjam, Shewa and Arsi), while in food deficit and famine affected areas provision of extension services and assistance were neglected. Even in the surplus producing areas the extension services were not sufficient in providing advice about the proper land management for sustainable surplus production. The policies focused only short-term yield maximization.

The Forestry Policy also had a serious impediment to forestation and conservation. The main reason for rapid deforestation was the greater demand for fuel wood than the supply. There has not been clear policy, regarding tree ownership and plantation, which demotivated farmers and resulted in short supply. There is also no clear policy regarding the utilization of trees grown on gullies and unproductive lands, which are exposed to deforestation and land degradation.

Furthermore, villagization and resettlement sites, which were selected without adequate study, also had negative implications on food production. Land that was under dense forest was made more vulnerable to erosion when the forest cover is removed both for construction and converting new land for cultivation. Other related government policies including land tenure, marketing and pricing policies discouraged farmers from developing intensive farming systems and investing in their farms.
The above are some of the major policy constraints under which natural resource conservation has been in place.

5.8.3.2 Population Pressure

Rapid population growth leads to the demand for additional land and clearing of new areas for expansion of farmland and settlement. According to the World Bank, population pressure is one of the key causes of land degradation.

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5.8.3.4 Land Degradation

The topography of the soil, the dissected terrain with slopes above 16% and the high intensity of rainfall lead to land degradation. This problem aggravated by the use of dung and crop residues as fuel instead of maintaining soil fertility. The burning of dung as fuel instead of using for soil conditioner has resulted to an estimated crop production loss of 550,000 tones per year. In 1990, land degradation caused annual grain loss of 40,000 tones; this situation will be aggravated to 170,000 tons/year by 2010 unless controlled (EPA, 1997). If the current land degradation continues at the same rate of 15% the total farmland would be out of crop production by year 2015 and the grain production will be reduced by 2% annually (NCS, 1990).

In addition to this, high stocking rate of livestock (as the country has the largest cattle population in Africa) is becoming over the carrying capacity of grazing lands. Between 1985 and 1995 about 2 million hectares of grazing lands were destroyed by soil erosion. In 1990, land degradation was estimated to have resulted in a loss of livestock production equivalent to 1.1 million tropical livestock units (TLUs). This loss will be increased to 2.0 million TLUs or 10% of the total cattle population by 2010 unless proper mitigation measures are taken (EPA, 1997).

According to EPA the cost of agricultural production due to land degradation was Birr 40 million in 1990, and that of burning dung and crop residues as fuel was about Birr 650 million. During this period about 17% of the potential agricultural GDP was lost due to land degradation. Therefore, the extended implication of land degradation on natural resources and food deficiency is significant.

In general, the effects of unwise utilization of natural resources can be summarized as follows:

- Decrease in the total productivity of the land as well as production per unit area despite the constantly increasing population;
- Increase to the demand for cultivable land in order to compensate decreasing production;
- Marginal areas, steep slopes, grazing and forest covered areas will be brought under cultivation;
- Livestock pressure on the constantly decreasing pasture area accelerates over grazing, and increases susceptibility of animals to diseases and animal mortality which eventually decreases animal products;
- The capacity of the mountains to regulate the hydrological cycle will be drastically reduced; and
- Ultimately results in natural resource degradation thereby bringing a significant decline in agricultural production and food security.

5. 8.4 Possible Ways to Alleviate Depletion of Natural Resources

As pointed out in the previous section, there exists over exploitation and unwise utilization of natural resources, which are partly linked to population pressure, poverty and government policies.

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Deforestation and associated land degradation are among the major problems of natural resources management. Despite the available 16,000 Gwh/year of hydropower potential, only insignificant amount is harnessed. In 1996, the per capita electric power consumption was only 26 kilowatt-hours. This makes Ethiopia as having the least system of power generation in Sub-Saharan Africa.

Energy consumption in rural areas is mainly from traditional biomass fuels, which accounts to about 90% of the total energy supply. Hydropower and gas generated energy consumption out side urban areas are negligible (about 1%). Diesel generated energy is mainly used for grain mills, water pumps and lighting.

Firewood is the preferred source of fuel in rural households, although its use depends on its availability. It is used for cooking using open fire stoves of very low efficiency, which is estimated to be less than 10%. Wood is also used for charcoal production, the production of which is traditional and inefficient, since more than 75% of the original wood input is lost in the production process. In addition to this wood is also used for construction, fabrication of different farm implements. This demand for wood with out replanting and proper management exceeds the natural regeneration of forest resource.

The demand for household fuels is increasing with the growing population, which obliges people to use crop residues and animal dung. This in turn leads to low productivity of land as a result of which farmers need for additional farm and grazing lands and aggravate the situation further by clearing of forest lands and land degradation. In order to improve these situations, there is a need to:

- introduce proper mechanisms, which avoid degradation, improve tenure and resource
  management systems;
- improve information and education systems;
- create people's awareness about natural resource dynamism and proper utilization; and
- diversify farmer's income from forest and wild life resources.

In general, appropriate strategies need to be developed in light of the aforementioned problems.

5.8.4.1 Tree Plantation

Tree plantation could be both at the community level (managed by the community) or individually at the household level (around the homestead). The wood from this plantation can be used for all rural wood requirements such as firewood and construction.

However, there are different issues that need to be addressed. While selecting fast growing tree species, attention should be given to the suitability of the tree species to the local ecology and their impact on the local species. Furthermore, in order to avoid social conflict, and land shortage tree plantation should be carried-out in the available marginal lands.

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5.8.4.2 Utilization of Renewable Energy

Renewable energy sources such as bio-mass, solar, wind and small hydropower are among the untapped resources worth considering, as alternative energy sources, the utilization of renewable energy such as crop residues, animal dung etc., shall be managed in more efficient ways to alleviate the energy problem on the one hand and to manage resources effectively on the other.

Bio-gas generation

Biogas can be generated from animal dung by converting it through anaerobic digestion, from which a gas of high energy content can be obtained. Biogas can be used for cooking and lighting. In addition to this, the by-product of biogas from the anaerobic process, the slurry, can be used for soil fertility.

Residue briquetting

Crop residues such as stalks, cobs, chaffs and husks can be briqutted. The briquette if produced in large amount, could also be supplied to urban areas as substitute to charcoal.

Residue gasification

Crop residue can be also briquetted and gasified to release gases, which can be used as source of energy. The energy obtained from residue justification can be used to power generators, pumps, etc. Which can help substitute the utilization of oil products in rural areas.

Solar energy

The total solar energy potential of Ethiopia is estimated to be 5.5 KWH/m^2/day. The energy, which can be produced from solar, can be used for rural electrification, water pumping, cooking, communication, etc.

Wind energy

By harvesting the abundantly available wind energy power can also be generated and used for pumping water for drinking, irrigation and animal watering.

Small-scale hydropower generation

Different studies have shown that there are several rivers, which have a potential of producing small hydropower for rural utilization. The electric power, which could be obtained from hydropower, can be used for all uses, such as grain milling, water pumping, lighting and rural based agro-industries. The main constraints to utilize such renewable sources of energy however, is their high initial capital cost. Working towards securing this initial capital cost from local and international sources is therefore the primary task.

Utilization of under utilized wild plants

There are different underutilized wild plants, which can contribute to food supply in Ethiopia. Edible wild plant roots, leaves and tubers can be used as supplementary food.

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Among other wild roots, mushrooms (see discussion in section 6.6.8) are untapped food sources in Ethiopia. But, there is a need for a coordinated effort of different institutions, donors and NGOs in conducting research and training members of local communities to increase production and utilization of such resources.

5.9 AGRICULTURAL AND FOOD MARKETING

The critical importance of agricultural and food marketing to sustainable development may be looked at from two directions. It involves, on the one hand, the planning of production to meet specific demands: a process, which begins on the farm and is completed with the sale of fresh or processed products to consumers or raw materials to manufacturers; and on the other hand, agricultural marketing involves the supply of production inputs to farmers. Through this dual function, marketing serves not only as a transmission of price signals between consumers and producers but also as a means of physical transition of the commodity from production to consumption. Cognizant of the strategic importance of marketing, marketing reform has become an integral component of development planning in many developing countries including Ethiopia.

According to Bauer and Yamey (1993), three broad types of statutory measures are designed to improve the processes of agricultural and food marketing: measures to raise the returns of certain classes of producers; measures to stabilize prices or incomes; and miscellaneous measures to regulate other aspects of agricultural marketing such as reduction in the number of intermediaries and quality control.

5.9.1 Agricultural Marketing Reforms in Ethiopia

5.9.1.1 Agricultural Products Marketing Policies

Depending on the prevailing ideological orientation of the larger environment, attempts have been made to reshape the structure, conduct and performance of the agricultural marketing system in Ethiopia. Prior to 1974, government participation in agricultural marketing was very limited. The only direct government intervention in pricing and marketing of agricultural outputs was the setting up of the Ethiopian Grain Corporation (EGC), which lacked in the requisite stockholding capacity and working capital and did not operate effectively (Webb, 1989). Major marketing and price policies that were in force over the period of nearly two decades between 1974 and 1991 may be grouped into four phases; an overview of the nature and their consequences on food production and food security in the country is given below.

In the first phase (1974 to 1979), priority was given to stabilization of food crops. The Government tried to stabilize prices through various price control mechanisms. It procured food grains from producers, stored and distributed to consumers, settled procurement and distribution prices (floor and ceiling market prices). During this period prices of food crops were revised seven times with the objective of supplying for urban consumers at low prices. In doing so, there was interference on market forces that regulate rural-urban terms of trade. The Government also regulated private trade and participated in import and export trades. An attempt was also made to reduce producer

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prices to protect domestic industries from competition and subsidized inputs to decrease producer cost.

During the second phase (1979 and 1987), direct government price control was replaced by official consumers prices. The quota system was put in place. All state and cooperative farm outputs were supplied to the Agricultural Marketing Corporation (AMC) at higher price than private farmers. Individual private producers were regulated to sell a fixed quota at ceiling prices to the AMC and the remaining to private merchants. Private grain merchants were also required to sell some part of their purchase to the AMC as a condition for receiving permit to transport grain from one region to another. This quota system was revised in 1983. In the revised purchasing arrangement private traders were not forced to deliver 50% of their purchase and each peasant association was supposed to supply flat quota, i.e., the supply of (fixed amount of certain crop per peasant association) depending on the output.

During the third phase, (1987 - 1991), once again the marketing policy was revised realizing the impact of the policy on the producers. Since purchasing decisions were made by selecting uniform quota at the central level without taking into consideration the local conditions (surplus and deficit areas). An attempt was also made to increase producer's prices.

The fourth phase covers the period from 1991 to the present. All control over agricultural marketing, transport and trade licensing was abolished after 1991. In 1992 the Transitional Government of Ethiopia, (TGE) announced liberalization of the grain market and limited the role of AMC by re-organizing it into Ethiopian Grain Market Trade Enterprise (EGTE). The EGTE was then involved in wholesale trade primarily for market stabilization and regulatory purposes.

This market liberalization has initially raised output price to the farmers, which is currently on the decline, surplus production in potential areas is still constrained by several factors including favorable terms of credit and poor infrastructure.

5.9.1.2 Agricultural Inputs Marketing Policies

In the quota system mentioned above, farm gate prices were lower than free market prices. Major agricultural inputs such as fertilizer prices were relatively higher than the output prices. This brought deterioration of farmers terms of trade as farm gate prices remained fixed relative to the input prices, since rural-urban terms of trade is a major factor for determining both production and consumption by encouraging producers and by sending messages to consumers.

The then Government had also a discriminatory policy regarding input prices. Private farmers had to pay more than cooperative members. For example, in 1981, the price paid by private farmers for fertilizer was 1.06 Birr/kg, while; the producer's cooperative price was 0.9 Birr/kg. As a result of relative higher price, in 1982, a significant amount of fertilizer remained undistributed. The Government also pursued discriminatory policy with the quantity allocation. Producer cooperatives and state farms had higher allocation than individual small holders in spite of their meager contribution of 5% to the total

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crop production. Furthermore, state farms having the ready supply of improved seed, failed to generate surplus production and had also been operating at a loss.

To improve this distortion, a new input policy was issued in 1991 introducing a free market for inputs. In addition to encourage both private fertilizer imports and reduce input cost to farmers, the government subsidized the fertilizer price by 26.46 Birr/qt (MOA, 1993). Public and private fertilizer importing and distribution agencies have been established.

As a result private importers alone handled 35.3% of the total fertilizer import of 1996 (EEA, 1999/2000). Today, there are other small traders and service cooperatives that are engaged in retailing and wholesaling fertilizer.

5.9.1.3 Agricultural Price Policies

Since most issues related to price has been pointed out under the marketing policy, some significant illustrative points will only be mentioned here.

Output price plays a critical role in determining food production and consumption levels. In 1976, Government obliged each peasant association to deliver 100 quintal of annual production at fixed price. In 1981, this quantity was in fact increased to 150 quintals without an increase in output prices. This price remained unchanged up to late 1980s (Webb et al 1990).

In addition to this, fixed wholesale price was set for regional markets. This fixed lower output price was made for the whole country, without giving attention to deficit regions (local/regional differences). Table 5.11 illustrates the fixed lower farm gate price level for 1985/86 and 1988 comparing surplus region (Gojjam) and deficit region (Wollo).

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Table 5.11: Comparison of AMC Prices to Average Retail Prices Per 100kg (Birr)

	AMC Farm Gate Prices		Mean Retail Prices			
			Gojjam		Wollo	
Crop	1985/86	1988	1985/86	1988	1985/86	1988
Teff	45	48	77	72	157	129
Wheat	34	36	79	69	118	88
Barely	28	30	61	56	106	68
Sorghum	23	25	55	44	118	85

Source: Webb et al 1992

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Source: Webb et al 1992

As shown in the table, in both periods, the AMC producer price was lower than free market retail price and uniform for both regions, for "Wollo" drought-prone (deficit) region and Gojjam (surplus) region. This implies that producers of Wollo and other deficit regions were more affected by government intervention than the surplus region producers (Webb et al, 1992).

This uniform fixed farm gate price was the most discouraging factor for farmers not to produce surplus. Therefore about 25% of farmers were forced to buy grain to meet their quota. Furthermore, the government also set a roadblock and a restriction on free market. But, all these price regulation measures aggravated price distortion and supply shortage. During this period, the impact of producers price on food shortage has been observed. According to Webb et al, 1992, a 10% decrease in cereal production caused an average 14% price increase.

Summing up, in addition to other natural factors, high population pressure, which led to over cultivation, deforestation, over grazing, climatic change, improper agriculture marketing, input and output policies have been central problems for the food insecurity. Markets for inputs and out puts at the local and national levels determine the capacity for crop production and food security. Although the low agricultural production can be attributed to the dependence on climatic conditions, rural marketing policy interference has largely contributed to food shortage.

Therefore, to achieve the food security goal, agricultural marketing, output and input price policies and rural infrastructures need to be improved.

5.10 RURAL CREDIT

Farmers, particularly small holders have financial problems due to the limited output that can be sold for cash. Even where there is surplus production for sale, availability of market is limited. Due to limitations in providing collaterals (fixed assets) small farmers find it difficult to obtain credit. Where credit is available uncertainty of production prevents small farmers from obtaining long-term credit.

Rural credit is usually availed for the purchase of inputs and farming materials. Credit facilities are mostly obtained from Agricultural and Industrial Development Bank (AIDB), Commercial Bank and other fertilizer importing agencies.

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Since the 1980s, cooperatives and state farms were the main beneficiaries due to lower (less than 6%) interest rates available for them. Rural credit facilities were available mainly for members of service cooperatives. They, however, had to go a long way and follow specific procedures. Farmers' request for needed inputs at first had to be approved by the local Agricultural Development Agent (DA) and were eventually submitted to the scrutiny and approval at the Woreda level. It is at this stage that Banks and AISCO were informed to arrange for the credit and supply of inputs. The inputs, therefore, were delivered to the service cooperatives which in turn had to distribute to members. Settlement of debts had to be handle through these service cooperatives that took the loan on behalf of their members. Virtually, smallholder farmers had very limited access to rural credit facilities to purchase inputs. High interest rate and very strong credit terms discouraged smallholder farmers even when they opt to apply for the credit. Since the 1980s cooperative and state farms were the main beneficiaries due to lower (less than 6%) interest rate available for them. Short, medium and long-term loans have to be repaid in a period of one year, two to three years and above five years respectively. Short-term loans were extended for production, marketing and cattle fattening. Medium terms loan were extended for equipment, agricultural machinery, oxen purchase, etc. Input credits cover up to 80% of the total requirement of borrowers.

Since 1994, however, some further changes were introduced, Commercial Banks started extending credit to farmers for the purchase of fertilizers. Regional governments took over the responsibility of facilitating credit and guarantying the repayment of the debt. Banks transfer the loan to the regions, which they have to disburse to farmers. In the end, when there is a default, on the part of the farmers, the region has to repay from their budgets. This procedure improved farmer's access to credit. However, there are still problems in loan repayment due lack/low of farmers purchasing power as their seasonal product/harvest price is below the cost of production.

In addition to the above formal institutions there are several informal rural credit sources such as friends/relatives, merchants, *'iqqub'*, *'idir'*, etc. According to MOA, about 80% of rural credit is obtained from such sources. However, as a result of non-coordinated credit services, there is a wide variation in the interest rates charged.

There are also several NGOs involved in the provision of rural credit targeting the poor. They used mostly revolving funds. Interest rate charged by NGOs are lower than the inflation rates. The main purposes of such rural credits are for purchasing agricultural inputs, farm implements and livestock. Their repayment period for purchasing agricultural inputs is one year and 4 years for that of oxen.

Table 5.13: Average Interest Rate Paid Per Annum by Type of Lenders (%)

No.	Lender	Region				Total
		Tigray	Amhara	Oromiya	SENNP	
1	Money-Lender	56.70	19.31	42.16	42.92	31.97
2	Friends/Relatives	6.67	7.93	6.69	19.49	11.25
3	NGOs	7.03	24.82	7.61	7.84	9.40
4	Idir or Local Groups	6.31	31.69	16.33	30.40	26.65
5	Banks	9.68	13.99	8.00	-	10.25
6	Others	2.00	34.61	-	5.31	32.49

Source: EEA, 1999/2000

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As it is illustrated in the above table, moneylenders charged the highest interest rate in all regions except in Amhara region. It has been also indicated that the annual interest rate charged by money lenders varied between 24% and 900% (EEA, 1999/2000).

On the other hand, the capacity of the 'formal banking' to provide rural credit is not sufficient. For instance, in 1997, the Commercial Bank of Ethiopia and Development Bank of Ethiopia had only 150 and 35 branches respectively. In addition to the limited available banks, most of them are concentrated in urban areas. Only about 21% of the Woredas of Ethiopia have bank branch offices. Therefore, farmers demand for non-fertilizer credit is mostly met from informal sources such as friends, relatives or even from money lenders with high interest rate.

In general, the large segment of rural farmers makes limited use of the few available formal financial institutions. Their high costs of transaction and high collateral requirements are the major factors force rural farmers to depend on the informal credit institutions. The rural poor lacks fixed assets, which can be used as collateral for credit. The rural land cannot be tendered for collateral due to legal limitation for ownership transfer. Access to credit is also more difficult to women than of men since they mostly lack collateral. As a result the contribution of the existing credit in improving food security is very limited.

NGOs' credit programs have generally succeeded in reaching the rural poor; and they mostly give priority to women. However, it needs continuous technical assistance in order to be sustainable.

Other traditional informal rural structures lack legal personality to act as credit institutions. Therefore there is a need to strengthen them.

Rural credit programs need also to focus on women's access to credit. Making linkage among all credit structures need to be encouraged in order to avoid fragmented approach and wide range interest charges, which is the main barrier for small holders participation and improvement in food security.

5.11 ALTERNATIVE INCOME GENERATING ACTIVITIES

Much of the discussion on sustainable agriculture so far has almost exclusively related to land-based traditional crop and livestock farming practices. It is significant to note, however, that the promotion of economic activities that lie beyond the confines of primary agricultural production provide a potentially promising avenue toward improving rural and urban livelihoods. Such activities constitute what is generally known as micro- and small-scale enterprises (MSEs) sub-sector of the national economy.

The sub--sector encompasses a wide array of economic activities that it is difficult to define what an MSE is. The nature of MSE activities is contextual depending on the larger socio-economic environment in which they are embedded. For the present purpose, it is easier and more useful to describe MSEs than to define them. MSEs are

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commonly characterized as being: easy for entry; heavily dependent on local resources; family owned; and labour-intensive (Getachew and Getachew, 1997).

According to the Federal Micro and Small Enterprises Development Agency (FMSEDA) of Ethiopia, the sub-sector apparently represented not less than 30 per cent of the country's GDP in 1997. The significance of this subsector is that apart from contributing to income-source diversification, it also provides an option for reducing land fragmentation and environmental degradation due to increased population pressure. It is, therefore, an important area that should be considered as a component of sustainable agriculture.

5.11.1 Significance of Micro and Small Enterprises (MSEs)

Non-agricultural income generating activities constitute a large portion of total income among poor rural households. For countries like Ethiopia, without such extra income the poverty level would be several times greater than is at present. These activities not only improve the household income, but also offset the effects of sharp fluctuations in household income. World wide the poorest agricultural regions are largely dependent on various off-farm income generating activities. For example, such activities account for 40% of the total rural income in Latin America and the Caribbean. These figures have increased since the 1980s. In countries with high population and limited farm holding, the proportion of people involved in these activities is even more. In some countries such as Colombia and Peru, for example, such income accounts 50% of the rural population's total income. In most African countries including Ethiopia different income generating activities are becoming part of the livelihood of the rural population. In South Africa, community-based natural resources management schemes are introduced. This involves the use of wildlife resources for food and as source of income thereby contributing to sustainable food security. Different wildlife management systems, including wildlife ranching, farming and domestication have shown significant change and have contributed to food security in Africa.

Several studies also indicated that income-generating activities are becoming even more important to rural women due to their limited income from agriculture and access to credit facilities. In Ethiopia, particularly in the highlands the population density is very high, the land is highly degraded and farm sizes are very small (less than 0.5 ha per family). Households often do not have enough food to eat. In several areas, own crop production is no longer the main source of income. This situation will be aggravated as the population pressure increases on the same available land. This is basically why a growing number of people especially rural poor engage them-selves in different activities as sources of additional income and employment in the absence of other alternatives.

In Wolaita (southern Ethiopia), about 80% of the total peasants undertake different income generating activities, such as petty trading and selling of labor (Dagnew, 1995). According to the study in Wolaita, petty trading was found to be the most important income means both in food shortages and normal periods. In Wollo (northern Ethiopia)

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petty trade, wage labor income and sales of wood and charcoal are the main income sources (Dagnew, 1994).

This shows that the most common income generating activities include petty-trade (particularly for women), livestock trade, black-smithing, basketry, pottery, sales of other handicraft (made of wood, grass, leaves, etc), embroidery and daily labor. But there are also other potential income generating activities that can be handled by smallholder farmers.

5.11.2 Potential Alternative Income Generating Activities

5.11.2.1 Civet Farming

The musk, which is extracted from civet, is an important ingredient for the production of perfume. Ethiopia had been one of the oldest producers and exporter of this product. This goes back as far as the 15th century. The production of musk, however, has remained small traditional industry limited to Western Sidamo only.

Studies show that musk can be extracted from the male civet every 9-12 days and from a single civet, about one kg of musk could be produced annually. Though it may seem small in quantity, an average civet farm can rear 15 civets, which altogether produce 15 kg of musk, which can be sold at US $ 165 per kg. This brings about US $ 2475 (Birr 21000) per annum, may be equivalent to 700 quintals of maize at current selling prices.

5.11.2.2 Ostrich Farming

Currently Ostrich farming is at the pilot project stage. The pilot farm is found in Abiata and has income generating potential for farmers living around Abiata-Shala national park. If well developed, the fur, skin and meat of ostriches could be a source of income for rural households.

5.11.2.3 Tourism

Tourism is one of the important income generating activities in different countries such as South Africa, Tanzania, Kenya, etc, For example 35% of Kenya's GDP is generated from tourism. Worldwide tourism industry is growing 5% every year. Africa accounts for about 1.8% of global tourism.

In Ethiopia, despite the availability of several world heritages, historical sites and wild lives, the income from this industry is yet untapped. There is a huge potential earning in this industry. Therefore, tourism if properly managed will have dual advantages. On the one hand, it helps to increase the rural extra income and on the other hand, it contributes for the protection of natural resources.

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5.11.2.4 Apiculture

Apiculture is one of the untapped resources in Ethiopia. The country has the largest bee population in Africa. There are about 5 million colonies. The annual honey production from the existing traditional hives is estimated to be 3,300 tons per annum. Honey production is mostly traditional which has both production and quality impact. Improved utilization of such production can help increase the production of honey, hence, additional income to rural households.

5.11.3 Other Alternative Income Generating Activities

Diversification of the household income base is fundamental in improving the livelihood of farmers, especially for pastoralists. This is because pastoralists are more prone to drought related crisis than settled farmers. For example, during 1983-85 drought pastoralists in Borena lost 30-35% of their livestock as a result of which they were forced to sell 20% of their total heads of cattle to buy food. Pastoralists in Somali Region also lost over 50% of their livestock during the 1999/2000 drought period. This implies that non-livestock income generating activities are vital areas of concern for pastoralists. In addition short-cycle livestock, such as: poultry, sheep, goats, etc. have higher future income potentials. Processing of animal products such as, milk, meat, hides and skins, collecting and selling of gum arabic, wage labor and handicraft are other sources of income for pastoralists

Poor pastoralists in Somali obtain about 40% of their total income from non-livestock sources. These income sources include labor wage, trade, charcoal and sale of other bush products. Pastoralists around Borena receive about 30% of their total income from handicrafts and from wage labor earnings.

In general, forest and tree resources have huge future potential in improving food insecurity both in grain producing and pastoralist areas if they are properly preserved. Further more they can provide employment opportunities for the fast growing population.

Looking/focusing at various income-generating activities from the point of reducing food insecurity should be taken as a central livelihood strategy; since households who have permanent income earning activities have better food security. Income generating activities, however, lack proper institutional support. It is, therefore, important to organize and give mandate to responsible Government institution in order to make such activities sustainable and contribute to the national food security program.

5.11.4 Constraints of MSE Develpment in Ethiopia

Cognizant of the critical role that micro and small enterprises could play in contributing attaining food security and in promoting overall economic growth, the Government formulated in 1997 a national strategy to, among others, alleviate the problems confronting the promotion and growth of micro and small enterprises in Ethiopia (Ministry of Trade and Industry, 1997). Despite the formulation of such an enabling

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strategy, however, there appears sufficient evidence to suggest that institutional forces that work against the promotion of MSEs are still unresolved.

The major outstanding problem areas that need to be addressed in order to promote MSE development include: restricted access to market and finance; lack of skill training provisions; and legal and procedural constraints (Endanchyelem, 2000). From the discussion held with FMSEDA staff it became adequately clear that their priority lies in establishing and consolidating the capacity of regional offices who are mandated to and directly responsible for putting in place the necessary institutional and technical mechanisms in support of MSE development. In this regard, therefore, the implementation of the aforementioned strategy in terms of providing practical to the problems of MSE operators appears far from being a reality.

5.12 SUMMARY AND CONCLUSIONS

On the basis of a review of the literature and information obtained from the field survey, the preceding sections of this chapter have provided a general picture of the situation with regard to sustainable agricultural development in Ethiopia. A situation assessment was made to throw some light into the past, present, and future prospects of the major components of sustainable agriculture-crop and livestock production; agricultural research and extension, irrigation development, conservation and utilisation of natural resources, agricultural and food marketing, rural credit, and alternative sources of livelihood. In this section, an attempt is made first to give a summary of what has been discussed so far and then to draw conclusions, with the view to identify issues and concerns about sustainable agriculture that may be considered for advocacy and lobbying work.

5.12.1 Summary

Ethiopia is a country of diverse physical features and agro-ecological conditions. Agriculture is characterised by mixed farming system of predominantly crop and livestock production.

Four broad types of crop production practices have been identified, ranging from entirely seed farming on one end and agro-pastoralism on the other. In between these two extremes lie other categories of farming complexes that combine both annual and perennial crop production practices.

Cereal crops, produced mainly for subsistence, occupy by far the largest proportion of cultivated land (80%); while the remaining land is occupied by cash crops, including oil seeds, coffee and cotton. Cultivation of cereal crops is essentially a low-input and low-output production system; and posses a serious threat to food security in the country.

Opportunities for increasing crop production and productivity lie on: promoting sustainable land management practices; the use of improved production technologies; efficient use of water resources; crop diversification; expanding land area under cultivation; and on appropriate policy environment. However, crop production potential

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has not yet been realised due to several constraints, such as: insecurity of land tenure; increased land fragmentation; recurring droughts; high prevalence of crop pests and diseases; and lack of appropriate technologies.

Intensive and extensive livestock production systems are prominent features of the agricultural sector in Ethiopia. In the mid and high-altitude areas, livestock production is an integral part of crop production and together, they form interdependent economic activities of farm households; while livestock production is the mainstay of the lowland population.

The Country's livestock wealth provides a considerable potential for enhancing sustainable agricultural development and overall economic growth. The large number of livestock, both in terms of type and breed, could be used as a resource base toward increasing domestic food supply and export earnings.

By and large, however, the livestock sub-sector in Ethiopia is still underdeveloped and its productivity is constrained by several factors that are typical of traditional agriculture elsewhere. Shortage of pasture resulting from shrinking grazing lands; wide prevalence of diseases, and poor water supply and marketing infrastructure are often mentioned as the major bottlenecks of livestock development. These constraints are particularly conspicuous in pastoral and agro-pastoral areas where public support services are relatively minimal.

Agricultural research and extension system in Ethiopia is barely 50 years old. Public research and extension services started as part of higher agricultural education curricula and evolved into national systems in support of agricultural development. Agricultural research has undergone several organisational changes before it assumed its present structure as Ethiopian Agricultural Research Organisation; while public extension service has remained and still is the organisational domain of the Ministry of Agriculture.

Agricultural research programmes undertaken over the last three decades have achieved successful results particularly in the development of improved crop varieties; soil fertility management; crop protection; and animal nutrition. Similarly, agricultural extension service has significantly contributed to promote the use of improved technologies among farming communities. Currently, there is an increasing trend to integrate the functions of agricultural research and extension services in order to effectively address the pressing needs for alleviation of food insecurity and enhancing sustainable agriculture.

There appears, however, the need for broadening the technology base for use by farmers. The current extension package programme does not sufficiently address local-specific needs and priorities. Moreover, coverage of agricultural research and advisory services for pastoralists and agropastoralists leaves much to be desired.

In view of increasing unreliabilty of the amount and distribution of rainfall in the country, it is imperative that emphasis be put on the promotion of small and large-scale irrigated schemes for productive agriculture. The country has considerable amount of

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untapped water resources the utilisation of which could contribute to increased agricultural productivity through the intensification of production. Furthermore, rain water and surface runoff could be collected and/or stored and productively used through various water harvesting techniques.

There are a number of institutional and operational challenges to the promotion of irrigated agriculture in the country. Among others, these are: lack of enabling policy and strategy environment, financial and human resource constraints; and limited foreign capital investment on irrigated agriculture.

A proper balance between conservation and utlisation of natural resources is closely linked to the concept and practice of sustainable agricultural development. Cognizant that the continued welfare of the Country's population depends on the sound management of its natural resource base, past and current governments have initiated policies and strategies for the proper exploitation of natural resources, mainly forestry. However, increasing depeletion of natural resources due to social and economic forces, including population pressure and traditional farming practices, still remains a major threat to sustainable livelihoods.

A promissing avenue counterveil the forces that work against sustainable management of natural resources is the provision of alternative options for people to meet their basic needs, such as alternative sources of fuel energy.

The importance of agricultural and food marketing lies in its function not only as a mechanism of regulating the supply and demand of agricultural commodities through transmitting price signals, but also as a means of physical transition of such products from production to consumption.

Agricultural marketing in Ethiopia has been a major focus of public intervention, depending on their ideological oreintation, successive governments have introduced a range of marketing reforms that provided for excersising control over the marketing system of agricultural inputs and outputs.

Currently, the agricultural marketing system in Ethiopia is relatively decentralised. However, marketing of available surplus agricultural produce is made difficult by poor infrastructure, such as road transportation. With regard to input marketing, limited access to rural credit on favourable terms to farmers remains a bottleneck for increased agricultural production and productivity

A progressive move toward sustainable agriculture requires, among others, the promotion of economic activities that lie beyond the traditional crop and livestock production activities. Such economic activities, generally known as micro and small-scale enterprises, not only supplement farm income of the rural poor; but they also provide the opportunity to ease the population pressure on land for cultivation.

In Ethiopia, micro and small scale activities contribute a significant proportion to the country's GDP; and the Government has formulated a strategy in support of the promotion and growth of such income generating activities. In practice, however, micro and small scale activities are still confronted with enormous difficulties and their future remains uncertain.

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5.12.2 Conclusions

Drawing upon both secondary and primary information, this subsection outlines some outstanding issues to be considered for advocacy and lobbying in promoting sustainable agriculture in the country.

The issue of sustainable agriculture in Ethiopia has become a major development concern not only for the Government but also for NGOs including international donor agencies and CRDA members. It is now almost taken for granted that sustainable agriculture is the basis and the engine for the attainment of food security and meaningful overall economic growth in Ethiopia. Sustainable agricultural development is contingent upon the interplay of several factors; and thus, can only be achieved through a multi-dimensional strategy, both in terms of the spheres of action required and the actors involved.

Findings of previous empirical studies and discussions held with various stakeholders in connection with the present study suggest that the limited progress in sustainable agriculture and food security in Ethiopia is explained by a multitude of constraints that relate to natural, institutional (including Government policy), socio-economic and technical factors; some of which are outlined below. It is important to note that these constraints are mutually reinforcing, thereby making the attainment of sustainable agriculture a complex and difficult task indeed.

The prevailing land tenure system in the country has become a central development issue; the primary cause for concern being that the prevailing current land tenure policy is counter productive as it does not provide the incentive, in terms of ownership security, for farmers to adopt productivity-enhancing land improvement practices. Land tenure till continues to be a subject of continued public debate; albeit mainly centering on either for or against private land holding. In between these two extreme positions, however, innovative collaborative practices between NGOs and the Government are emerging that aim primarily at ensuring land use right and thereby encourage investments on land improvement as one other option.

Frequent land redistribution to accomodate the ever increasing size of rural population has resulted in growing land fragmentation. The extent of land fragmentation in some areas of the country is such that farm sizes are too small to justify the use of purchased inputs and to provide space for biological and physical conservation measures.
Land scarcity and lack/declining size of draught oxen are among the most determining and constraining factors, severely limiting the agricultural production development efforts in the crop dependent regions of the country. Draught power, mainly plough oxen are very indispensable that determine the production capacity of most small-scale farmers. As a consequence of the existing inadequate access to plough oxen, most small-holders/farmers have been forced to work for oxen owners through crop-sharing arrangements to over-come their immediate problems (i.e., to meet their family food/income needs). Thus, the lack or growing problem of plough oxen ownership among the resource poor farmers remains to be one of the most significant issues of concern that need to be addressed to enhance sustainable agriculture and that of household food security.

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Recurrent drought has now become a common phenomena in the country and poses a major challenge to increasing agricultural production and productivity on a sustainable basis. In response to this challenge, the development of small-scale irrigation schemes and water harvesting techniques has drawn increased attention both from the Government and the international community. Outstanding issues that need further action in this regard include: insufficient technical knowhow; inadequate community participation; and constraints of sustainable use of such provisions by communities.

Sustainable agriculture in Ethiopia is unthinkable without a proper balance between the conservation and utilisation of its natural resources. Increased population growth, and hence the need for more cultivable land and increased demand for fuelwood energy, is the major force behind the unprecedented depletion of the country's natural resources.

It is, therefore, widely believed that providing alternative options for basic needs fulfilment offers a realistic intervention strategy to check and even reverse the increasing trend in the depletion of the country's natural resources, particularly forest and wildlife resources.

The extension package programme of the Ministry of Agriculture has undoubtedly made significant contribution to increased agricultural production and productivity in the country. However, there is suffient evidence to suggest that the programme has fallen short of addressing the advisory needs of low potential areas and resource poor farmers. This has become an area of serious concern for many NGOs operating in such areas. For instance, preoccupation of the Ministry's development agents with implementation of the programme often undermines the importance of their meaningful collaboration with NGOs in the implementation of broad-based intervention strategies.

To a significant extent, the prospect for sustainable agricultural development, the attainment of food security in Ethiopia depends on success in reducing the current size of smallholder farming population subsisting on traditional crop and livestock production. Non-farm income generating activities provide such an opportunity; and thereby, increase farm labour productivity and household incomes. NGOs constitute a major source of support for the promotion of this informal economic sector activities through credit provision for startup capital.

Despite the formulation of a strategy designed to support the promotion of micro and small scale enterprises, however, their operation and growth are still made difficult by restrictive legal and procedural problems.

Livestock production is the sole or the major source of livelihood for the country's pastoral and agro-pastoral population, and has become an important area of NGO activities; concentrating mainly on water and pasture development.

According to the experience of several NGOs and their Government partners, the institutionalisation of local conflict resolution mechanisms is a prerequisite bottleneck for expanding development programme activities in these areas.

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Chapter VI

TRADE ISSUES

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6.1 INTRODUCTION

There is plenty of empirical evidence that trade-induced economic growth and job creation have greatly enhanced the power of people to purchase food. Further trade liberalization can be a forceful weapon in the fight against poverty. In this regard, the dismantling of excessive trade barriers at home is of as much importance as improvements in market access abroad.

Genuine trade liberalization can benefit poor and food insecure people, but the magnitude of such benefits will depend on the extent to which the distribution of productive assets, such as land, water, and credit is equitable. For developing countries, emphasis on trade liberalization must be matched with similar or stronger emphasis on rectifying domestic policies, including improved access by poor people to jobs and resources.

One of the most remarkable outcomes in the policy domain of the change of Government in Ethiopia in 1991 was the phenomenal shift in the trade policy regime. The exchange rate changed its parity from Birr 2.07 per US dollar (which it maintained for 28 years) to Birr 5.00 per US dollar when it was devalued in 1992. These significant exchange rate policy reforms were accompanied by extensive changes in trade policy. Quota imposed on imports was excised in favour of tariff, which were in turn drastically reduced. Export taxes were eliminated with the exception of that imposed on coffee. By so revising its trade and exchange rate regime, the country was adjusting its tune to the rest of the world, which was globalizing at a fast pace, and were in accord with the demands of the World Bank and the International Monetary Fund (IMF) inspired and supported Structural Adjustment Program. We hereunder review these developments and summarize some of the trade policies of multilateral and regional institutions pertinent to Africa in general and to Ethiopia in particular.

6.2 BASIC CHARACTERISTICS OF ETHIOPIAN TRADE IN THE PRE-REFORM PERIOD

Looking at the different aspects of Ethiopian trade before 1991, one can identify some general characteristics (overwhelmingly structural) that have remained as its main features for a long time.

- First and foremost, Ethiopia's pattern of exports and imports exhibits a familiar developing country composition where exports consist of almost entirely of primary products and imports largely dominated by manufactures and fuel. In particular, the dependence of Ethiopian exports on primary products has been limited to few agricultural products. Close to 90% of Ethiopian exports were agricultural products. Coffee, the major export item, accounted 55-65% out of the total export proceeds of every year. This structure of exports was reflected in the country's export diversification index constructed by UNCTAD. In the period between 1988-1991, the average diversification index stood at 0.91[1], which reflected a near complete specialization of the export sector in few commodities.

[1] An index closer to 1 is a reflection that a country's exports are highly un-diversified.

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- Secondly, the markets for both exports and imports were limited with few developed countries of Western Europe and North America.
- Thirdly, trade in services had been a small component of foreign trade and was largely associated with transport services mainly of Ethiopian Airlines.
- Lastly, marketing of both exports and imports was monopolized by state enterprises.

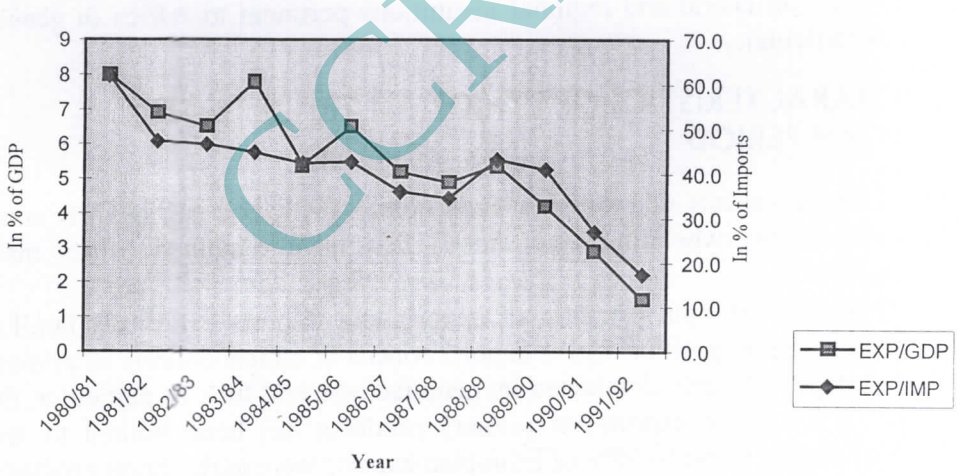
6.3 AN OVERVIEW OF PRE-REFORM TRADE PERFORMANCE

This overview of the pre-reform trade performance covers the period starting the early 1980s to the beginning of the 1990s, looks at exports at first, and imports later. Generally, the performance of exports during 1980s appeared to be in a state of stagnation and an overall trend of decline. The declining trend particularly out-stood when we consider exports in percent of GDP and of imports (see Figure 1). The amount of export proceeds relative to GDP averaged only at 6.1% during this period. Compared to 23% registered by Sub-Saharan African countries and 20% by low-income countries[2], the extent of Ethiopian exports were disquieting. In terms of the level of imports financing capacity, Ethiopian exports had, on average, covered only 45% of imports. Volume indices constructed for major exports showed the same pattern of stagnation and decline except for some fluctuations between years.

The on-going trend of decline in overall exports has become severe particularly at the early 1990s where exports plummeted to 1.3% of GDP and to import financing capacity of 15% in 1991/92.

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Figure 1: Trends in Exports during the pre-reform period



Unlike exports, the performance of imports (as a percentage of GDP) was stable in much of the 1980s, taking close to 15% of GDP. Raw materials, semi-finished goods, fuel and capital goods, which are usually considered as development or investment goods and particularly employed in the process of industrial production, had represented the

[2] CD ROM, World Bank Data base, 1999

dominant part of imports. This structure of imports has made the economy to be highly dependent on foreign trade as a source of economic growth and development and forced it to maintain a certain level of imports. Subsequent to dry up of soft loans, regressing export earnings and continuous erosion of the country's foreign exchange reserve, however, a forced contraction in imports was ensued beginning in 1988/89 and has declined to 9% of GDP in 1991/92. Trade in services (net), although shares a relatively small percent of foreign trade, has been performing well. Except the year 1990/91, services account was positive and slightly helped to finance the huge trade deficit (see Table 6.1). The lion's share of the surplus in services trade came from transportation services particularly from that of Ethiopian Airlines.

Table 6.1: Trends in Exports, Imports, and Net Services

	1985/86	19986/87	1987/88	1988/89	1989/90	1990/91
Exports in millions of USD	425.5	383.9	373.5	436.1	355.9	262.1
Exports in % of GDP	6.5	5.5	5.2	5.7	4.4	2.8
Imports in millions of USD	1087.4	1080.6	1098.9	1019.5	881.2	1029.1
Imports in % of GDP	15.5	14.4	14.2	12.5	10.2	10.8
Trade deficits in millions of USD	661.9	696.7	725.4	583.4	525.3	767.0
Net Services in million USD	60.6	49.5	37.4	45.5	43.1	-29.9
Net services in % of trade deficit	9.2	7.1	5.2	7.8	8.2	-4.0

Source: NBE Annual Bulletin (various issues)

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6.4 FACTORS ACCOUNTING FOR POOR TRADE PERFORMANCE

A number of factors that in some ways contributed to the registered poor trade performance during the pre-reform period can be outlined. The major ones can be categorized in to four groups, namely: the policy environment, the inherent structural problems of exports and imports, supply side factors and external factors. A brief look to each one of them is made in the following paragraphs.

6.4.1 The Policy Environment

The combination of trade policies that were implemented were by their nature trade diverting, both from the side of exports and imports. The policy stance that existed immediately before the reform period can be generally characterized as inward-oriented regime with highly import restrictive features and prominent anti-export bias. An attempt made by the World Bank[3] to classify forty-one developing economies by their trade

[3] World Bank (1987), World Development Report

orientation using such quantitative and qualitative indicators as effective rate of protection include: use of direct controls, use of export incentives, and degree of exchange rate overvaluation put Ethiopia as one of strongly inward-oriented economies. It underscored that the overall incentive structure strongly favors production for domestic market, the average rate of effective protection for home markets is high and the range of effective protection rates are relatively wide. It also noted that direct controls and licensing disincentives to the traditional export sector were pervasive, positive incentives to the non-traditional export sector non-existent, and the exchange rate significantly overvalued.

The export sector was discouraged through various direct and indirect mechanisms. Among others, direct taxes were instituted on export products and the substantially overvalued exchange rate had imposed an implicit tax particularly on agricultural exports. This had reduced the competitive edge of exports in the world market and substantially jeopardized the profit margin derived from the production and marketing of exportable goods. In addition, a myriad of administrative bottlenecks restrained the expansion of exportable goods. The licensing procedure was tight and restricted, maintaining the monopoly position of public enterprises in marketing exports. At the production level, producers of export products, which at large are in the hand of private sector, were unfavorably discriminated with regard to access to credit and various inputs. Furthermore, the prices of export products were highly regulated down to the producers' level, making prices artificially low.

On the other side, imports were restricted through high tariff walls and closely monitored through various quantitative restrictions such as quotas, strict licensing procedures, foreign exchange rationing, and extended negative lists. A relatively better provision in all aspects was made to basic imports like pharmaceuticals, basic inputs, and fuel. Luxurious consumer goods were taxed with the highest reaching to 230% of the import value.

In general, the substantial overvaluation of the exchange rate, which together with high export taxes and unfavorable trend of major export prices, dampened producer prices and thereby undermined the profitability of exports. This low profitability of exports and the protection provided to the domestic industries made import substitution more profitable relative to export production; hence, encouraging resources to be deployed in the former and not the latter. Moreover, the existence of favorable domestic prices for exportable at the one hand and the wide spread in illegal trade on the other has become detrimental to exports.

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6.4.2 Inherent Structural Problems

The aforementioned inherent structural characteristics of Ethiopian exports and imports could be taken as one of the detrimental factors when viewed over the long run. The fact that exports were overwhelmingly dependent on few agricultural products that are directed to limited markets and that imports were largely manufactured products has made the country liable to a long run decline in the terms of trade and to be a victim of various restrictions that were particularly made on agricultural products by industrialized countries. These have in some way a contribution to poor development in foreign trade in general.

6.4.3 Supply Side Factors

Supply side factors include those factors that curtail the expansion in the production and the improvement in the quality of existing as well as potentially feasible exports. At the forefront in this regard was the poorly developed infrastructure (transportation, communication, water supply, energy, etc.), which undermined the full exploitation of potentially rich areas. The use of a backward technology in the process of production, harvesting, storage, processing, and distribution had led to significant losses in the quantity and quality of exportable goods. The poor quality of exportable made them to be un-competitive and to fetch lower prices at the international market.

6.4.4 External Factors

Under these factors, the major ones are erratic weather changes, terms of trade shocks and civil wars. With recurrent droughts being the norm in the country than an exception, the quality and quantity of our agricultural exports, which are highly dependent on rain, have been frequently affected by erratic weather changes. With regard to terms of trade shocks, notwithstanding the expected long run secular decline in the terms of trade that originated from the inherent structure of exports and imports, some terms of trade shocks that are mostly associated to the situations of major suppliers of our exports have had some impacts on the performance of foreign trade. The long civil war that was going on in the country have also affected the performance of trade through diverting resources that otherwise could have been used partly in this sector. Particularly, the drastic decline in exports registered in the first two years of the 1990s were highly associated with the heightened civil war which disrupted most socio-economic activities and incapacitated the Government to control the growing illegal foreign trade.

6.5 TRADE POLICIES

There is no as such trade policy in Ethiopia. However, pursuant to the new economic policy (1992), the Ethiopian Government introduced a variety of free market-oriented measures. The policy measures are a drastic turn away from centrally managed economy into a liberalized free market system. The major trade policy packages of the new policy framework are briefly highlighted below.

6.5.1 Domestic Trade

- Limit the role of the state in wholesale trade;

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- Encourage domestic private capital to play the dominant role in wholesale trade;
- Phase out the role of the state in retail trade;
- Issue laws and policies to regulate private sector wholesale and retail trade practices and enforce them properly;
- Stabilize prices in the wholesale trade of basic goods of mass consumption; and
- Decontrol prices and deregulate markets.

6.5.2 Foreign Trade

- Ensure adequate private participation in foreign trade activities by abolishing state monopoly over foreign trade;
- Manage foreign trade by issuing appropriate foreign exchange and import-export regulations;
- Design and provide adequate incentives (fiscal, monetary, information, etc.) to exporters;
- Replace quantitative trade restrictions with tariffs;
- Encourage investment in export-oriented ventures and projects;
- Encourage the diversification of Ethiopian export products and minimize illicit trade; and
- Carry out restructuring and privatization of state owned trading enterprises.

6.5.3 Trade Strategy

- Building and sustaining a culture of exporting and developing export market skills;
- Ensuring the provision of inputs at world prices to exporters;
- Providing ready access to trade finance for large and small exporters;
- Establishing efficient export processing zones;
- Providing meaningful tax and other forms of incentives to exporters;
- Prudent exchange rate management to ensure regional and international competitiveness;
- Substantial reductions in interest rate and maintaining low inflation;
- Enhance trade facilitation by simplifying export and import procedures, improve customs administration and ensure that exporters benefit fully from technological information super-highways and electronic commerce;
- Provision of mechanisms that offer protection against dumping and other forms of unfair trading practices; and
- Active participation in the regional and international trade initiatives.

In line with these strategies, numerous measures that are tailored to attain the aforementioned objectives have been introduced. For ease of presentation, these measures can be categorized into two interdependent groups.

The first groups of measures are those aimed at ensuring appropriate economic incentives to both exports and imports through gradually eliminating factors responsible for the contemporary market and price distortions. The prime measure in this regard is the

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devaluation of the domestic currency by 142% (in terms of the domestic currency) and the subsequent steps made to move towards eventual full market determination of the value of Birr. With respect to the steps made towards realizing the gradual transfer from fixed exchange system to that of flexible system, the introduction of foreign exchange auction system and its graduation from bi-weekly, retail, and double exchange rate towards weekly, wholesale and unified exchange rate could be mentioned. Payments on current account were liberalized to a great extent and foreign exchange bureaus opened to facilitate the service rendered. Moreover, the elimination of foreign exchange rationing and extended negative lists are also worth noting.

In a country like Ethiopia where there has been very active illicit trade activities in some of its exportable (particularly coffee and live animals), the devaluation and accompanied foreign exchange measures are believed to divert substantial quantities of exports from unofficial market to official channels. This is because of the fact that the active illicit trade was largely rooted at the overvalued exchange rate, which had instituted a higher parallel exchange rate premium.

The other measures within this group include the elimination of taxes and subsidies on exports, and elimination of various quantitative restrictions and tariffs on imports. Taxes and subsidies on all exports (except coffee tax) are eliminated and this is believed to encourage exports in extent and diversification as it allows exporters to receive the equivalent of world prices for exportable goods. However, the incentive that can be derived from this is believed to be limited since more than 85% of export taxes are originated from coffee.

With regard to liberalizing imports, quantitative restricting mechanisms like quotas, import prohibitions and impediments in import licensing procedure, which are considered as the first steps in liberalization, were eliminated. At the same time, the associated costs with licensing are reduced. More over, the excessive sales tax on imported items was revised to be in tandem with the sales tax on domestic products. On the other side, the Government has been introducing a gradual tariff reform program, which reduces the level and dispersion of tariff rates and subsequently the effective rates of protection.

The second groups of measures involve those policy measures primarily targeted to eliminate administrative and legal bottlenecks that restrained the active participation of the private sector in foreign trade and those which provide additional incentives to encourage the same. Among these measures:

- Administrative and legal impediments on import and export licensing procedures are removed and the associated costs are reduced. Automatic, non-discriminatory, and transparent licensing process for both importers and exporters are ensured. This smoothes the entry and exit to and from foreign trade.
- Controls on marketing and pricing of exports and their inputs were completely deregulated giving room for the private sector to actively participate in foreign trade activities and reap the appropriate benefit from such occasions as devaluation and price increases. In addition to this, Government trade enterprises, which had controlled the sector, have been partly privatized and those that are not

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are given management autonomy and made to operate according to the market forces.

- A duty drawback scheme that grants a privilege for export manufactures to get re-imbursement of duties levied on used inputs has been introduced.
- A trade point which carryout a match making function between sellers and buyers and export promotion committee to quickly address problems that might face the export sector were formed.
- All duty on all exportable (except coffee) has been waived and this enhanced price of exportable to be competitive in world market. The three different taxes imposed on coffee, i.e., customs duty Birr 15 per 100 kg; 2% transaction tax and excise tax of Birr 5 per 100 kg were consolidated in to a single rate of 6.5% tax on the values of export.
- To encourage exporters, foreign exchange retention scheme was introduced which allow exporters to retain part of their foreign exchange proceeds. The scheme went through a series of modifications and currently the exporters are allowed to retain 10% for indefinite period and sell the 90% over a 28 days period.
- To facilitate exporters access to bank credit and to safeguard export financing banks against losses resulting from the export transactions they finance to non-coffee export, the National Bank of Ethiopia has established an Export Credit Guarantee Scheme.

Apart from the above direct measures, there have been quite a number of complementary and supportive measures introduced in other spheres of the economy. The myriad of fiscal and monetary policies introduced to stabilize the economy, the institutional and administrative reforms being made towards promoting the private sector and re-orienting the state managed economy to market economy.

6.6 IMPLICATIONS OF THE TRADE POLICY MEASURES ON FOOD SECURITY

The three major policies introduced in foreign trade, namely: devaluation, elimination of export taxes and suspension of subsidies, are evaluated by looking at the changes induced in the average export unit value that the exporter gets in terms of the domestic currency. Due to the absence of a reliable figure on the extent of all the three variables under consideration during the previous regime some approximates arrived by international institutions are used. Devaluation and elimination of taxes are obviously expected to increase the income of those involved in the production and marketing of exportable while that of the suspension of subsidies are expected to have the reverse effect.

According to our calculation based on the World Bank's study, the net effect of the three measures has doubled the export unit value in terms of the domestic currency. The major inducement for this has come from the substantial devaluation, which is largely assumed to translate to real devaluation. The elimination of export taxes (except on coffee) slightly helped to tamper off the negative effect exerted from the suspension of subsidies. In general, the incentive structure for exports has become undoubtedly favorable and is

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expected to induce a substantial supply response, assuming that exportable goods are responsive to price changes.

On the positive side, devaluation has been a boon to exporters, recipient of remittances from abroad, foreign tourists, and the few foreign investors that have come to Ethiopia. However, there has been no significant increase in the total volume of exports; export diversification remains a pipe-dream, the trend actually being in the opposite direction where coffee has increased its share in total export earnings. Despite the advantages devaluation has offered, the country's tourism industry continues to be in the doldrums; and foreign direct investment is paltry for the size of Ethiopia's economy and the length of time it has been actively courted. On the demand side, devaluation does not appear to have dampened the demand for imports, official figures showing a rising tendency in the Ethiopia's merchandise trade deficit.

The above assessment would indicate that devaluation has, by and large, failed in areas where it matters most. Should one, therefore, say devaluation as a policy instrument a failure in Ethiopia? The answer is, of course, no for the following reasons: first Ethiopia is on the right path to correctly pricing her hard-won foreign exchange. In retrospect, this, in itself is a remarkable achievement. It has sent out the right price signals to domestic operators. Secondly, devaluation as a policy instrument has shown a clear signs of its potential efficacy, particularly in the case of coffee, oilseeds, fruits and vegetables and chat; only its potential. It has not been exploited fully because of lack of complementary and reinforcing policy measures in the real sectors of the economy. Thirdly, the devaluation as the archetypal policy measure signifies commitment to economic and financial liberalization. It has served the country, at least until the Ethio-Eritrea conflict, as a magnet for mobilizing foreign aid.

Therefore, devaluation and periodic exchange rate adjustments are financial measures whose full beneficial impact cannot be realized unless policy, institutional and operational constraints, and rigidities in the physical sectors of the economy are concomitantly grappled within a determined manner.

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6.7 INDUSTRIAL POLICY AND STRATEGY

The current industrial development policy of Ethiopia is a direct derivative of the overall long-term development strategy of the country (ADLI), which gives due attention to industrial advancement based on agriculture. The strategy harmonizes two industrial policy variants, i.e., Import Substitution Industrialization and Export Oriented Industrialization by emphasizing on a gradual shift from the former to the latter based on the promotion of agro-processing industries. Some of the major industrial policy components within the framework of ADLI are the following:

- Enhance local processing of agricultural products, develop agro-based industries and strengthen inter and intra-sectoral linkages, especially between industry, agriculture and mining;
- Ensure free domestic and foreign private participation in the process of industrial development;

- Encourage the development of small scale industries which are labor intensive and uses local raw materials;
- Promote balanced industrial development and women participation;
- Enhance technology transfer, research and development for adaptation and innovation, and dynamic enterpreneurship development; and
- Proceed with the process of industrial privatization and encourage environmentally safe industrial ventures.

6.8 MARKET AND PRICE POLICY

It is to be noted that the overriding objectives of Government food pricing policies, while varying from country to country, have, in general, been to stimulate production, bring about equity in income distribution and ensure food availability at low and stable prices in urban centers (Ouedraogo and Oben, 1990). The pursuance of these price policies has been manifested in Government intervention in food and agricultural marketing and efforts to set and regulate prices of export and controlled food commodities. The impact of policies involving producer price support and subsidy on farm inputs has generally been mixed. That of controlling prices of locally produced and imported food through Government subsidy has generally been ineffective. The high taxation of export crops has also created disincentives among farmers, although it remains an important source of Government revenues.

Before 1975, Government intervention in food markets was minimal. The Ethiopian Grain Corporation had been established in 1960 as a public corporation with a view to maximizing the export of high-quality grains, but by 1975, it commanded only 5 percent of the market share of the grain trade (Patrick Webb et al.1994). The end of share tenancy in 1975, however, had an immediate effect on the cereal market. Relieved of the long established obligation of paying rents and tributes to property owners, small-holders apparently consumed more of their production, causing the share of marketed surplus to fall. It is estimated that by 1977/78 it had dropped to around 11 percent production. This decline in the quantity of grain made available to the market caused urban consumer prices to rise (Ibid).

The Government's first response to rising urban prices was to establish the Agricultural Marketing Corporation (AMC) in 1976.This agency absorbed the functions of the Ethiopian Grain Corporation and began operations with a special focus on grain procurement for public distribution and on cereal price stabilization. Grain supplies for the towns and the army were secured via a quota system.
Wholesale grain prices were centrally fixed for many of the provincial markets by the end of 1976, establishing an official producer pricing structure that remained essentially unchanged until the late 1980s (except for a 2.2 percent increase in the price of teff and sorghum in 1982/83 and further increases of 7-10 percent in1988). When we compare the price levels for 1985/86 and 1988, shows that although AMCs farm-gate prices were generally fixed for the country as a whole, they were: (1) substantially lower than market prices in both Wello (a deficit region) and Gojam (a surplus region); (2) the price differences varied by region (the gap generally being narrower in surplus regions). Both

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points imply that households in deficit (drought-prone) regions felt the effects of procurement relatively more than did those in surplus regions. As a result, several observers lay a large blame on the quota system for famine causation.

Policy restrictions were not the only constraint to efficient market operations. The lack of adequate infrastructure also hindered market integration and a more equal sharing of scarcity or surpluses between localities.

6.9 MARKETS, PRICE DEVELOPMENTS, AND THEIR IMPACT ON FOOD SECURITY

In line with the socialist policies prevalent throughout the Derg period, the functioning of free markets was flawed at least on two counts. The first is the restrictive Government policies regarding private trade in food grain. These included, the creation of a Government marketing organization (AMC) whose main function was the purchase of grain from the rural areas for supply to the urban population at subsidized prices. Effective operations of this corporation had necessitated policy measure directed at curbing competition from private traders. This often meant that the activities of private traders were severely restricted and occasionally outlawed depending on whether or not the particular region had fulfilled its quota of grain delivery to the AMC. Besides the adverse policy which had smothered private trade in food grain, the poorly developed transport network, the inadequate marketing infrastructure in the private sector, the civil strife have all contributed to the fragmentation and malfunctioning of the local markets.

What then are the implications to famine prevention policy? Probably the most important implication is to policy relating to the use of prices in early warning systems (EWS). In an attempt to reduce the recurrence of the major drought related disasters in the 1970s, the Ethiopian Government had established such a system (EWS) within the Relief and Rehabilitation Commission the current DPPC. The underlying assumption is in the design of the system, which appears to be that famine distress would inevitably lead to sharp increases in the prices of food grains. On the basis of the findings of Derseh Endale study (WIDER, 1993) on different regions and forty-nine local markets, such an assumption does not seem to be warranted. Prices may or may not rise depending on the people's purchasing power in the affected community. When prices rise sharply in response to severe drought, there is no way of attributing the price rise to the distress conditions of the affected rural population. This is so because the observed price increases could have been due to the increased purchasing for food stockholding purposes by the town residents, who faced with the prospect of reduced supply in immediate future. Alternatively, it could have been a reflection of the increased purchasing by the affected pastoral population.

Based on CSA's 'meher' and 'belg' production estimate of 1995/96, the total quantity of grain marketed by farmers and state farms in 1995/96 was estimated at about 26.4 million quintals or 28 % of total production during that year. The inter-regional traders, that is, wholesale traders, Ethiopian Grain Trade Enterprise (EGTE), and private incorporated companies, are the principal actors in inter-regional grain movement. These actors

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purchase about 45% of the grain sold by farmers and state farms nationally. They then transport about 69% of this amount to the terminal markets and food deficit areas.

Farmers normally bring their marketable grain to markets that are 5 to 20 km away from their villages by carrying it or using pack animals. About 79% of farmers' annual grain sales occur immediately after the harvest season - January to March - because of fear of storage loss and in order to fulfill their immediate cash needs.

Throughout the world, the major share of staple food costs to the consumer is typically accounted for by marketing costs. In Ethiopia, marketing costs account for about 40% to 60% of the total price spread between producer and retail prices (EGTE, 1997 cited in Gebremeskel et al.). The reduction of these costs represents a major opportunity to improve farm production incentives and simultaneously make food more affordable to low-income consumers.
Many of the institutional barriers to grain trade have been abolished since the liberalization of markets in 1990. These were the enforcement of the quota system, price control, preferential treatment given to state enterprises and cooperatives in the allocation of bank credit, limitations imposed on capital ceilings for wholesale and retail trade, restrictions on the number of merchants in a particular market, etc.

Even though such barriers are no longer obstacles to private participation in grain trade, still other barriers exist that require serious attention. The main constraints identified by traders are 'kella' (grain check point) taxes, lack of financial credit, absence of control on unlicensed traders, unavailability of transport services and high transport tariff, lack of adequate storage facilities at appropriate locations, and lack of market information (ibid).

One of the issues identified by surveyed institutions during the fieldwork (such as from Chamber of Commerce), is the problem of management of time. Time is not considered as a resource in most cases, which have caused transaction cost in doing business to be high. In addition the promotion of the informal sector to gradually transform into formal business sector should be given attention. In this regard, reducing licensing fee and tax could be considered.

The increase in surplus production as a result of extension service led to excess supply and damping of prices. As a coping mechanism it was suggested by some of the interviewed institutions during this study are, export to regional markets like wheat to Kenya and making contractual agreement with flour factories before producing. In addition, Government should engage itself in stabilizing prices. In this regard, EGTE could be mandated to re-engage in this endeavor.

One of the coping mechanisms against output decline (due to weather change) developed and implemented in SNNPR is the provision of weather insurance. This scheme, which was appreciated by the World Bank, was designed for farmers who are involved in extension package program to meet their credit commitments in times of production decline associated with adverse weather condition. This scheme looks very viable and

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efficient. Thus, it is advisable to replicate such experience in other regions and involve farmers who do not participate in the extension program.

6.10 GLOBALIZATION OF TRADE AND FOOD SECURITY

The globalization of food trade refers to the process of improving access to food markets throughout the world by reducing and ultimately removing barriers to trade. During the Uruguay Round of multilateral trade negotiation, which started in 1986 and lasted eight years, the international community attempted for the first time to introduce rules regarding the liberalization of trade in agricultural products. The Marrakech Agreement, which marked the close of the Uruguay Round negotiations, established the World Trade Organization (WTO) with the mandate to establish the global rules of trade between nations.

The value of international food trade in 1997 stood at US$ 458 billion and continues to show steady growth (UN Report 2000). The international food market is of great importance to industrialize and developing countries alike. Growth of food exports not only provides much needed foreign exchange but also generates employment within the agricultural and agro- industrial sectors. Having decided to embark upon the path towards a globalize food market, Governments must deal with several issues related to the regulation of international food trade in order to protect their citizens. Governments must ensure the quality and safety of food supplies without introducing unnecessary barriers to trade.

The Sanitary and Phyto-sanitary Measures (SPS Agreement) of WTO is intended to set rules that prevent food safety measures from being used as non-tariff barriers to trade. The technical Barriers to Trade (TBT Agreement) are designed to ensure that technical regulations and standards do not create unnecessary obstacles to trade. This agreement covers a large number of measures that seek to protect consumers from economic fraud and deception. The WTO Agreement on Agriculture (AoA) also contains provisions related to domestic food security programs, particularly the green box cover for domestic food aid and public stockholding for food security purposes.

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6.11 LIKELY FOOD SECURITY IMPACT OF URUGUAY ROUND AGREEMENT (URA)

According to FAO studies (2001) of the impact of the URA on developing countries suggest mixed effects. Estimates of the real income effects of the Agreement on Agriculture alone were generally found to be negative for China, South Asia, and Sub-Saharan Africa, but positive for most other developing countries. However, the studies found that the aggregate impact on international food and agricultural prices would be limited, increasing grain and livestock prices by 2 and 5 percent between 1995 and 2005. This will not offset the long-term declining trend of real food prices. The study by FAO on the overall impact of the URA (not just agriculture) found that Sub-Saharan Africa would suffer a loss of 0.5 percent of their GDP, but developing countries as a whole would enjoy a 1.1 percent gain, or more than the industrialized countries by 0.6 percent.

Ethiopia currently participates in the WTO as an observer since October 1997. The observer status will lapse in October 2002 and formally has to present its accession application before that. To examine the pros and cons of joining WTO, and the agreements impact on Ethiopia's economic policy, the Ethiopian Government has commissioned a study through setting ten committees drawn from different organizations. The committees have studied the implications of the WTO agreements on Ethiopia's economic policy, sectoral strategies, rules, and regulations. According to the findings of the study, Ethiopia has in place an export-led economic policy and will benefit from wider market access opportunities. Most of the rules and regulations are consistent with WTO agreements, and complying with these agreements will not bring much pressure on the economic policy of the country. On the other hand, provided the domestic supply constraints are improved joining WTO will definitely improve the opportunity of gaining wider market access for Ethiopia.

However, Dani Rodrik of Harvard University (2001) argues that advocates of global economic integration hold out utopian visions of the prosperity that developing countries will reap if they open their borders to commerce and capital. This hollow promise diverts poor nations' attention and resources from the key domestic innovations needed to spur economic growth. Joining the world economy is no longer a matter simply of dismantling barriers to trade and investment. Countries now must comply with a long list of admission requirements, from new patent rules to more rigorous banking standards. The apostles of economic integration prescribe comprehensive institutional reforms that took today's advanced countries generations to accomplish, so that developing countries can, as the cliché goes, maximize the gains and minimize the risks of participation in the world economy. Global integration has become, for all practical purposes, a substitute for a development strategy.

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World Bank trade economist Michael Finger (as cited by Rodrik) has estimated that a developing country must spend $150 million to implement requirements under just three WTO agreements (those on customs valuation, sanitary and phyto-sanitary measures, and trade related intellectual property rights). As Finger notes, this sum equals a year's development budget for many least-developed countries.

Rodrik further asserts that unorthodox innovations that depart from the integration rule-book are typically part and parcel of such strategies. Public enterprises during the Meiji restoration in Japan, township and village enterprises in China, an export processing zone in Mauritius, generous tax incentives for priority investments in Taiwan, extensive credit subsidies in South Korea, and infant-industry protection in Brazil during the 1960s and 1970s are some of the innovations that have been instrumental in kick-starting investment and growth in the past. None came out of Washington economist's tool kit.

6.12 OVERVIEW OF MULTILATERAL AND REGIONAL INSTITUTIONS' TRADE POLICIES

A number of multilateral and regional institutions and associations are engaged in the promotion and support of trading activities among nations. Among these World Bank, WTO, African Development Bank (ADB), USAID, EU, COMESA is found, and we will look into their trade policies below.

6.12.1 World Bank and WTO

The World Bank has launched a project **called *Capacity Building for Trade Policy, Strategy Development and WTO Negotiations***. The project aims to carryout an integrated programme of research, policy analyses, and capacity building to strengthen the ability of developing countries to capture the benefits from trade and global market developments. A two-pronged approach is adopted - first, focusing on the needs of poor countries inside the trade negotiations and second, advancing complementary measures such as mainstreaming trade capacity development and integration strategy in Bank assistance.

With regard to the 4th Ministerial Conference of WTO in Qatar (held in November 2001), the World Bank sates that the next trade round must be "fair" as well as focused on the needs of developing countries inside the trade negotiations. It should grant improved market access to goods produced by poor countries, allow poor countries greater flexibility to make trade agreements consistent with development priorities, and provide more international aid and technical assistance in ***key sectors such as agriculture***.

- Even more important is enhancing the trade capacity of developing countries.
- Multinationals and private firms must also contribute to social and sustainable development goals, and strengthen their contributions to mitigate adverse impacts of global market integration on the poor.
- Trade issues need to be viewed in an interconnected way that co-ordinates work to help countries develop their trade architecture, addresses environmental and other global public goods issues in appropriate ways and moves ahead with trade liberalisation.

6.12.2 Agricultural Trade Policy and Related Issues

6.12.2.1 Agreement on Agriculture

In 1995, agriculture was for the first time included in multilateral trade agreements, in the framework of the Uruguay Round agreement. The Uruguay Round Agreement is being implemented over a six-year period (10 years for developing countries) that began in 1995. Participants agreed to initiate negotiations for continuing the reform process one year before the end of the implementation period (2000). The negotiations are now underway.

The aim of the Agreement on Agriculture is to reduce agricultural support and protection so as to correct and prevent distortions in world agricultural markets. This would improve

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predictability and security for importing and exporting countries alike. The commitments apply to:

- Increased market access;
- Reduction of domestic support (some subsidies, however, are exempt from reductions: certain forms of direct payment subsidies, provided they are not linked to production and prices – green box, or are applied so as to limit production – blue box); and
- Reduction of export subsidies and other forms of support used to make exports artificially competitive.

Critics state, that in many instances agricultural trade liberalisation has not benefited developing countries in ways that it promised. What actually emerged was an Agreement on Agriculture that largely liberalised agricultural trade in developing countries and legitimised protectionism and farm support policies in developed countries. Through a high agricultural support and export specific supports, cheap EU and USA agricultural products are often dumped on international markets, thus creating unfair competition in world markets. The policy options of developing countries to implement pro-poor agricultural policies, safeguard food security, and to promote rural development and the sustainable use of natural resources were further eroded.

6.12.2.2 Special and Differential Treatment for Developing Countries

Over three-quarters of WTO members are developing or least-developed countries. Special provisions for these members are included in all the WTO agreements. The special and differential treatment includes:

- Longer time periods for implementing agreements and commitments;
- Measures to increase trading opportunities for these countries;
- Provisions requiring all WTO members to safeguard the trade interests of developing countries; and
- Support to help developing countries build the infrastructure for WTO work, handle disputes, and implement technical standards. The WTO Secretariat organises a number of programmes to explain how the system works and to help train Government officials and negotiators of developing countries.

The Agreement on Agriculture allows some flexibility in the way commitments is implemented. Developing countries do not have to cut their subsidies or lower their tariffs as much as developed countries, and they are given extra time to complete their obligations. Special provisions deal with the interests of countries that rely on imports for their food supplies, and the least developed economies. They include some of the poorest countries, and although their farming sectors might receive a boost from higher prices, they might need temporary assistance to make the necessary adjustments to deal with higher priced imports, and eventually to export. A special ministerial decision sets out objectives, and certain measures, for the provision of food aid and aid for agricultural development. In spite of this special and differential treatment, many developing countries have serious problems of implementing the Uruguay Round, including the difficulty of implementing so many agreements in so short a time, anti-dumping rules and the rules on Sanitary and Phyto-sanitary Standards.

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A proposal for taking more in serious developing countries' concerns in WTO is that of a development box (proposal submitted to the Committee of Agriculture by a group of developing countries in June 2000). The development box consists of a package of changes to the Agreement on Agriculture aimed at enabling developing countries better to address their food security concerns and to preserve and improve rural livelihoods. In particular, it advocates rules that provide greater flexibility to governments to give priority to small producers and 'food security crops', defined as crops or animal products that are either staple foods in the country concerned or are the sources of livelihood for low-income and resource-poor farmers.[4]

6.12.2.3 Agreement on Sanitary and Phyto-sanitary Measures

The Agreement on Sanitary and Phyto-sanitary Measures (SPS Agreement) entered into force with the establishment of the WTO on 1 January 1995. It concerns the application of food safety and animal and plant health regulations. It sets out the basic rules for food safety and animal and plant health standards. It allows countries to set their own standards. But, it also says regulations must be based on scientific justification. They should be applied only to the extent necessary to protect human, animal or plant life or health; and they should not arbitrarily or unjustifiably discriminate between countries where identical or similar conditions prevail.

There are growing complaints from developing countries that as more obvious tariff barriers to their exports have fallen, the developed countries are abusing the SPS rules by exaggerating health risks from imports as an excuse to keep out products that compete with those of their own farmers.

6.12.2.4 Technical Barriers to Trade

A number of agreements deal with various technical, bureaucratic or legal issues that could involve hindrances to trade, such as technical regulations and standards, import licensing, rules of origin and investment measures. It covers any procedures or standards that might be deemed to interfere with international trade. For agricultural products, the rules referring to packaging, marking and labelling standards are important.

6.12.2.5 Trade and Environment

The WTO has no specific agreement dealing with the environment. The objectives of sustainable development and environmental protection are stated in the preamble to the Agreement establishing the WTO. The increased emphasis on environmental policies is

[4] For food security crops and small producers, the development box would build on current levels of special and differential treatment in the areas of both domestic support and protection of domestic markets. Developing countries would be able to impose 'special safeguard measures', temporarily raising tariffs when small farmers are threatened by import surges. They would also be able to nominate a list of food security crops that would be exempted from the Agreement on Agriculture reduction commitments. Developing country governments would be able to spend money on a wider range of support to small farmers, without it being included in their spending total (AMS), and hence subject to commitments to reduce levels of domestic support.

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relatively recent. At the end of the Uruguay Round in 1994, trade ministers from participating countries decided to begin a comprehensive work programme on trade and environment in the WTO. They created the WTO Committee on Trade and Environment, with a twofold mandate: to identify the relationship between trade and environmental measures, and to make recommendations whether any modifications of the provisions of the multilateral trading system are required.

Environmental NGOs criticise WTO for not integrating environmental considerations into trade policy-making as a general principle. They recommend, that WTO respects the autonomy and effectiveness of multilateral environmental agreements and the legitimacy of non-protectionist trade measures used in these agreements. They advocate for the elimination of environmentally harmful subsidies, especially in the agricultural sector.

6.12.2.6 Africa and the Agreement on Agriculture of WTO

African trade ministers feel that in WTO the understanding and recognition of the special structural difficulties faced by their countries, especially the LDCs, is not sufficient. On the one hand, they ask for additional technical and financial assistance for upgrading their trade related infrastructure, institutional strengthening and capacity building and capacity building on multilateral trade negotiation issues (such as SPS and TBT). On the other hand, they ask for duty free and quota free market access for all products from LDCs, full implementation of the Marrakech decision on measures concerning the possible negative effects of WTO agreements on net food importing developing countries, binding implementation of the provision for special and differential treatment, abolition of export subsidies for agricultural products of special interest to LDCs, and facilitating the access of LDCs into the WTO with a more streamlined process of accession.

As to the proposal launched by EU and USA for a broad new trade round, African governments want a comprehensive re-evaluation of existing agreements and solving of the many difficulties they face in setting up legal and administrative systems for implementation of trade rules, before starting up a new series of complex negotiations on additional sectors,

6.12.2.7 Implications for Ethiopia of Accession to WTO[5]

Since the change in Government in 1991, Ethiopia implemented a variety of structural reforms under the guidance of IMF and World Bank, whose conditionality with respect to trade liberalisation appear to be stricter than those of the WTO. In case Ethiopia becomes a member of WTO, WTO rules would impose few restrictions on current economic policies due to the many exemptions applicable for LDCs and to Ethiopia's policy reforms since 1991. The current development projects for coffee, cereals and livestock, for example, are fully exempted from the reduction requirements.

[5] Based on the report Keyzer, M., M. Merbis & G. Overbosch (2000), WTO, agriculture and developing countries. The case of Ethiopia. FAO/SOW-VU.

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With regard to agricultural policies, present WTO rules imply that Ethiopia's initial AMS is very low, which limits the scope for introducing agricultural support policies such as floor prices. Policies to stabilise the domestic food prices are also restricted by WTO rules on import tariffs, though present agricultural imports largely consist of food aid, that are exempted from tariff restrictions.

Ethiopia would benefit from improved access to the markets of developed countries; particularly to the EU member countries, whose Common Agricultural Policy imposes severe restrictions. It would especially gain from increased opportunities to export fruits, vegetables and possible sugar. With respect to livestock, it seems almost impossible to raise the quality of meat and dairy products to a level that can meet the strict sanitary standards of many industrialised countries.

6.12.3 EU Trade Policy and Agriculture

WTO negotiations on agriculture began in 2000 and will continue throughout 2001 and 2002. They seek to strike a balance between the long-term objective of fundamental reform, and experience gained following the implementation of the 1994 Uruguay Round agreement. The EU presented its comprehensive negotiating proposal in December 2000. It stresses that further liberalisation and expansion of trade for agricultural products is an important contribution to sustained and continued economic growth. It aims at further reductions in support and protection, balance between trade and non-trade concerns, and special treatment for developing countries.

The EU recognises the need for developing countries to benefit from the expansion of world trade and agricultural reform. At least in theory, it wants to create opportunities for increased market access for products from developing countries, while accepting that some may take time to adapt and may need to maintain some protection. The decision in February 2001 to allow duty-free and quota-free access for all products from nearly 50 least-developed countries ('Everything But Arms' initiative, which includes Ethiopia), which goes beyond the commitment the EU made in the Cotonou Agreement, must be considered as a first step in the good direction. Furthermore, trade preferences should be made stable and predictable to create conditions for further investment to develop agriculture. As for food aid, this must be in the vision of the EU, not be a means of surplus disposal and should be given only in grant form.

In practice, the EU does not stick completely to its intentions. Many EU countries insist on maintaining support to their farmers while not agreeing to protect domestic agriculture by developing countries.

6.12.4 USAID Trade Policy

USAID has obligated $84 million for trade-related capacity building in the last three years in Least Developed Countries (LDCs). Ethiopia was not one of the countries that shared in this amount. The assistance has been in the following areas: trade policy reform, other WTO-relevant assistance, legal and regulatory reform, technology and standards, customs,

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human resources, finance, infrastructure, environment, foreign investment/ incentives, trade facilitation and other activities (agriculture[6]). In addition, USAID provided an estimated $3 million to the group of fourteen LDCs (inter alias Ethiopia) of the Common Market for Eastern and Southern Africa (COMESA).

6.12.4.1 Regional Trade Analytical Agenda

USAID supports the Regional Trade and Comparative Advantage Project (**Error! Bookmark not defined.**[7]): a series of analytical activities addressing regional trade issues and the impact of regional trade (formal and informal) on agricultural production, comparative advantages and food security in eastern and southern Africa. These analyses are intended to inform policy makers.

6.12.5 ADB Trade Policy

The ADB and ADF policy paper "Economic Co-operation and Regional Integration Policy" (2000) defines a framework to guide its efforts aimed at promoting economic co-operation and regional integration in Africa. Surprisingly little attention is paid to trade in agricultural products or regional economic co-operation in this sector. One paragraph in this paper is called "Ensuring Sustainable Development", in which is stated that 'in dealing with environmental issues, the Bank would encourage member countries to adopt and implement harmonised policies on environment'. To achieve this 'the Bank will work closely with the relevant sub-regional organizations and other development partners including NGOs and civil society organisations to support initiatives aimed at improving the quality of life of present and future generations'.

6.12.6 COMESA Trade Policy

COMESA is a regional grouping of 21 countries of Eastern and Southern Africa (inter alias Ethiopia), spreading all the way from Egypt in the north, down to Namibia and Swaziland in the south of the continent. It was established in 1994 to replace the Preferential Trade Area for Eastern and Southern Africa (PTA). The PTA treaty had envisaged the grouping's transformation into a Common Market, and it was in conformity with this vision that the treaty establishing COMESA was signed in November 1993 in Kampala, Uganda; and was ratified a year later in Lilongwe, Malawi.

The objective of COMESA is to facilitate the removal of structural and institutional weaknesses of member states so that they are able to attain collective and sustained development.

COMESA member states have agreed to:

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[6] Assistance is geared towards finding solutions to the challenges facing agriculture in these countries so that the sector can contribute to increased economic growth and trade.

[7] USAID Regional Economic Development Services Office for East and Southern Africa (REDSO/ESA)

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- The creation of a full free trade area guaranteeing the free movement of goods and services produced within COMESA and the removal of all tariffs and non-tariff barriers (by the year 2000);
- The creation of customs union under which goods and services imported from non-COMESA countries will attract an agreed single tariff in all COMESA states (by the year 2004);
- Free movement of capital and investment supported by the adoption of common investment practices so as to create a more favourable investment climate for the COMESA region;
- The gradual establishment of a payments union based on the COMESA Clearing House and the eventual establishment of a common monetary union with a common currency (by the year 2025);
- The adoption of common visa arrangements, including the right of establishment leading eventually to the free movement of bona fide persons (by the year 2025).

COMESA has defined its strategic focus over the next 3 to 5 years, as being Promotion of Regional Integration through Trade Development and Investment Promotion. It intends to enable member states to make the adjustments necessary for them to become part of the global economy within the framework of WTO regulations and other international agreements. WTO recognises regional trade arrangements such as COMESA and makes specific provision for them under its rules-based trading system.

In pursuit of the goals of a free trade area, a customs union, and an economic community, COMESA is implementing a wide range of programmes, inter alias[8]:

- Promotion of the development and promotion of agro-industries in the COMESA region;
- Technical assistance and capacity building to ensure WTO compliance;
- Study on the removal of Non-Tariff Barriers;
- Strengthening of national bureaux of standards;
- Information Dissemination through the Trade Information Network and COMESA Website.

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6.12.6.1 COMESA and Other Regional Economic Groups

Geographically, COMESA covers a region within which other regional groupings such as the Southern Africa Development Community (SADC), the East African Community (EAC), the Intergovernmental Authority on Development (IGAD) and the Indian Ocean Commission (IOC) also operate. COMESA sees its contribution to the process of regional integration and regional economic development as being able to work together with the other regional bodies to which its member states are affiliated, and build upon the achievements it has already made in its priority areas. COMESA perceives these sister regional groups as examples of the variable speed approach to regional integration.

[8] For a complete overview: see Website information (2001)

Progress within them will facilitate the eventual creation of the Common Market for Eastern and Southern Africa.

It is quite remarkable that, in spite of the ambitious trade targets, COMESA has set for itself for the near future and longer-term, very little or no attention is paid to the following subjects:

- The danger of exhausting natural resources with the expansion of (international) trade opportunities;
- Consultation with civil society organisations; and
- The problem of integrating economies of different strength. Is integration positive for the weakest economies such as Ethiopia?

6.13 CONCLUDING REMARKS

Export development represents one of the most pressing economic challenges of Ethiopia. The country has the lowest exports per capita in the world. The absolute purchasing power of exports has fallen by nearly half since the last years of the Imperial Government (1973-74), while population has doubled. The country has historically been inward looking in its economic orientation. It now has no access to the sea except through ports controlled by other countries. Road links with the rest of Africa are grossly inadequate, and rail links are almost nonexistent (World Bank, 1997).

Since the end of 1992, Ethiopia has introduced wide-ranging trade reform measures that are particularly targeted to encourage exports. The measures have almost incorporated all the elements that are usually considered in export promotion strategies. Encouraging outcomes have been registered, however, there are some areas that need attention in the future. First and foremost, exports have still continued to be dependent on few commodities and the recovery was accounted by a better performance of these commodities (coffee, chat and gold). Particularly, the dependence on coffee has become even stronger in the post reform years. Not only are exports dependent on few commodities but also they are channeled to limited markets. This undermines the country's capacity in adjusting to external shocks. The issue of diversifying exports and their destination will thus continue to be of a prime concern to the country.

Arising from its strategic importance of inducing growth in the economy and the present trend of global economic integration, developing the country's foreign trade and introducing dynamism in its structure is undoubtedly necessary. In this regard, the country should continue to open up its economy through promoting and diversifying exports and systematically liberalizing imports. Doing so, however involves a number of challenges to be surmounted and constraints to be addressed. The challenges that the country might ultimately face in improving its foreign trade revolve around the effort needed to diversify and change the present structure and destination markets of exports. The diversification of exports should, in the long run, be geared towards manufacturing products and income elastic horticultural products (like flowers, fruits and vegetables). With regard to

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diversification of exports towards manufacturing exports, there is a need to identify those manufacturing industries that can be competitive if appropriate incentives (like protection of these industries from external industries for sometime) are provided for a given period of time. Diversifying markets for exports could partly be addressed from the perspective of boosting trade among African countries through strengthening the already existing trade associations.

Being one of the least developing countries, the constraints in facing the challenges are numerous. The major constraints are particularly related with those that undermined the country's economy to be dynamic and predominantly dependent on agriculture. Among others, lack of sufficient capital, skilled human resource and technological capabilities; poorly developed infrastructure; inefficient institutions and recurring susceptibility of the economy to external shocks could be mentioned.

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Chapter VII

OVERALL CONCLUSIONS AND ISSUES OF CONCERN FOR LOBBYING AND ADVOCACY

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7.1. CONCLUSIONS

On the basis of the findings of the study on food security, sustainable agriculture and trade in Ethiopia presented in the preceding chapters of the report; this chapter attempts to draw general conclusions and policy implications. Attempts are also made to identify some outstanding issues of concern in the field of food security, sustainable agriculture and trade in order to facilitate the proper designing of advocacy and lobbying strategy.

7.1.1 Macroeconomic Performance, Policies and Strategies

Ethiopia's chronically food insecure population which is estimated to be 4 to 5 million every year has continued to increase as annual population growth of 2.7% outstrips the average annual 2.4% increase in agricultural production. Furthermore, these national figures do not reflect the extent of food insecurity since agricultural growth is mainly taking place in surplus production areas, and not in food deficit regions. The agricultural performance in the country has never exceeded population growth over the past almost four decades, and the gap between food needs and availability may continue to widen, requiring additional food aid, unless some appropriate basic economic transformation/policy intervention measures are adopted. In general, the prevalence of transitory and chronic food insecurity in the country has been growing since the 1970s due to human-made and natural factors. According to the more recent available information, the country's food insecure population has reached an alarming proportion of 52%. Unsurprisingly, therefore, the country has been a major recipient of food aid from the international community/donors, not only in times of recurring disaster-related crisis or famine years, but also during the 'normal' production years.

Being a multi-dimensional issue, a number of intertwined and interrelated factors have been responsible to the continuing deterioration in the food security situation of the country in the past three decades. Among the basic factors are the policy environment, be it at the macro or sectoral levels, and the efficiency and appropriateness of the institutional structure put in place to implement policies, programs and strategies.

The on-going reform policies that are being introduced to transform the economy from state domination and the corresponding inappropriate economic system is generally on the right direction although much has been desired in its pace. The overall development strategy (ADLI) is in principle on the right direction as agriculture is the dominant sector of the economy. However, the strategy needs to consider increasing labour productivity hand in hand with improving land productivity (which is the major preoccupation of ADLI at present). The strategy also needs to accommodate the issues of output marketing, secured land tenure and commercial agriculture expansion.

By and large, the existing macro economic policies do not have adverse implications on food security activities. Some adjustment is believed to make the macroeconomic policies more responsive and geared to complement food security activities. In the area of fiscal policy, there is a need to push the initial taxable income level at least to a level equal to the food poverty income cut off income and at most to the absolute poverty cut off income level. The issue of reducing or making tax free of those items either consumed by the very poor or used to help the poor should be given due attention. In the area of investment and finance, a lot remains to be

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done. There is a dire need to improve the business environment and Government bureaucracy as well as strengthen financial institutions. Particularly, micro-credit institutions that provide capital to the people who are food insecure or at a risk of becoming food insecure need to be strengthened.

Generally, the major sectoral policies are consistent with the goal of ensuring food security. Particularly, the due attention that the Government is giving to infrastructure development (particularly of roads) and social services greatly contributes to the effort of addressing food security in the country. The major issue that the Government should revisit is the case of land tenure and land use that has enshrined in the institution to remain, as state owned. Different studies have documented the negative effects of the instituted land tenure and land use system, which, among others, include the growing land fragmentation and severe soil and forest degradation.

An official food security strategy is still non-existent, which has been a major constraint to effective and co-ordinated food security interventions by the Government and donors, including NGOs. There is a draft food security strategy that is still under revision. Interventions on food security have been based on the draft strategy. The absence of a clear institutional arrangement for implementing food security activities also stands to be the major problem in the country. At present, several functional units at Federal and Regional levels have mandates for food security and the implementation of food aid programs. However, the present institutional arrangements and mandates make co-ordination regarding the access, use and control of food aid resources and food security assistance difficult. In addition, food security, though, it is a cross cutting issue, there is no one responsible focal point at the federal level.

The problem of food insecurity in Ethiopia is mainly chronic in nature; and decades of food aid distribution has not contributed in improving the nutritional and economic status of the poor, suggesting the need to properly address the problem through an appropriate institutional arrangement/creation of mandated responsible umbrella institution at federal and appropriate structures by regions.

Moreover, food aid is presently provided to Ethiopia by the donor community in response to appeals, without any contribution by the Ethiopian Government, except in very exceptional circumstances (e.g., 2000). It would be desirable that the Government contributes a proportion of its own budgetary resources to DPPC appeals in acute crises.

In conclusion, a number of existing policies and strategies are criticized for their inadequacies to bring about meaningful impact on food security, sustainable agriculture and trade. It is argued that ADLI is preoccupied with improving land productivity; while it does not adequately provide for increasing labour productivity through measures such as improved land tenure, output marketing and commercial agriculture expansion. In the area of fiscal policy, there is a need to push the initial taxable income level at least to a level equal to absolute poverty cut-off income. A lot remains to be done to improve strengthen micro-credit institutions that provide capital to the people who are food insecure or at a risk of becoming food insecure The present institutional arrangements for the implementation of the Food Security Strategy makes coordination difficult regarding access, use and control of food aid resources and food security assistance, and a dire need is apparent for a strengthened focal point institution at the federal level.

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7.1.2 Multilateral and Bilateral Donors Policies

External assistance has significantly contributed to the development efforts in Ethiopia. In particular, both multilateral and bilateral donors constitute a major source of support in the design and implementation of food security programmes. There appears, however, a wide room for improvement to provide for the effective utilization of external assistance. Many development agencies, both Government and NGOs share the view that donors lack a common focus in terms of priority and mode of external assistance. For example, it is often mentioned that some donors are insistent on providing of food aid; despite the widely expressed concern about food aid's adverse effects on the domestic production and prices of agricultural products.

Other issues and concerns raised during the survey conducted for this study include the following:

- Donors' expectation of credible outcomes from projects within a short period of time often lead to undesirable pressure on implementing agencies. For example, it was frequently mentioned that EU usually release fund for only a year and expect visible project impacts in a short time as a condition for continued funding; despite the fact that food security is a long term outcome.
- There is a long disbursement procedure from the side of donors that often hampers the timely release/utilization of funds and implementation of planned activities.
- Most donors follow a general policy in line with their interests that does not consider the specific situation of localities or regions within which they operate. This has created fragmentation of policy objectives, lack of co-ordination and poor project outcomes. A case in point in this regard is the lack of consensus among donors on the issue of 'food' and/or 'cash' for work

7.1.3 Sustainable Agriculture, Trade and Food Security

This study has made it adequately clear that food security, sustainable agriculture and trade in Ethiopia are dynamically interrelated. In the present context; it may be argued that sustainable agricultural development and promotion of trade are prerequisites for the attainment of food security in the country.

There is ample evidence to suggest that, in Ethiopia, the agricultural sector provides the most promising potential for the attainment of sustainable food security and overall economic growth. The country is endowed with untapped land and water resources; and is characterized by a wide range of agro-ecological features that are suitable for crop and animal production, both for consumption and the market. In reality, however, agricultural production practices are predominantly traditional and the production of food crops has not kept pace with the rapid population growth.

Low agricultural productivity in Ethiopia is a result of a number of interrelated factors. Macro level constraints include inappropriate land tenure policy, inadequate institutional support for broad-based agricultural technology development and extension advisory service, and donors'

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restrictive policies on funding development projects and programmes. Such macro level constraints are reflected at the micro level in various ways. For example, among the operational level constraints are: increased fragmentation of household land holdings; degradation and depletion of natural resources as a result increasing population pressure and over-use of resources by communities for survival; growing problems of land tenure and use rights; marginalization of resource-poor farmers and pastoral communities in terms of access to appropriate technologies.

Increased agricultural production (i.e., increased food supply) is a necessary but not a sufficient condition for the attainment of food security. Equally important is the entitlement dimension of food security, which could be enhanced through increased effective demand for and physical access not only to food, but also access to basic productive resources or livelihood assets. Thus, a culture of dialogue within and between policy makers, researchers and practitioners/program implementers is a pre-requisite for achieving/ensuring sustainable agricultural development and household food security in Ethiopia.

The promotion of domestic trade offers the opportunity for alternative sources of employment and income. In so doing, trade could significantly contribute to food security in Ethiopia in two ways: by easing the population pressure on land, and thereby raising the level of farm income; and by providing a source of income mainly for the large contingent of unemployed urban population.

The development of informal sector activities is a major component of domestic trade that should be further promoted to address the food insecurity problem in Ethiopia. In spite of the recognition of micro and small enterprises as a potential source of employment and income, however, strategies that were designed in the late 1990s to support the further development of this sector have not yet been implemented.

The promotion of international trade can contribute not only to food security attainment but also to the overall economic growth. Ethiopia could gain from current trends toward increased globalization. Diversification of agricultural production appears to provide high potential for entry to export market. Export earnings could be used both to stimulate increased production and productivity in agriculture, and to generate employment opportunities for food insecure segments of society to engage in productive activities.

Food insecurity in Ethiopia is predominantly chronic in nature. That is, there are households that cannot meet their food needs in any given year, regardless of climatic variables or other external shocks. Decades of food aid distribution has not improved the nutritional and economic well-being of the food insecure, suggesting the need for appropriate policy measures to enhance food production and household income through creation proper institutional arrangements (i.e., establishing appropriate mandated umbrella organization responsible for co-ordinating food security and related development program activities in the country).

The national food security strategy was initially envisaged as an investment strategy, although this is not yet evident in practice. This is most notable in relation to the supply driven nature of Agricultural Development Led Industrialization (ADLI), which focuses on productivity in

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higher yielding areas while lacking investment prioritisation in the chronically food insecure areas. The national fertiliser program and the extension system, neither of which have impacted positively in the chronically food deficit regions, are of particular concern Thus, constraints related to the absence of appropriate policies, programs and strategies, or the limitations of existing ones, have contributed to the slow progress in promoting sustainable agriculture and trade, and ultimately to the rampant rural and urban food insecurity in the country.

7.2 ISSUES OF CONCERN FOR LOBBYING AND ADVOCACY

The findings from the reviewed literature, and the impressions and observations gained from the series of discussions held with sample respondents (i.e., representatives from the Government, donor agencies and NGOs) during the fieldwork have revealed several issues of concern about the future prospects of food security, sustainable agriculture and trade in the country. Some of such major issues of concern are outlined below.

7.2.1 Issues of Concern Relating to Food Security, Policies and Strategies

- The lack of clear differentiation between transitory and chronic food insecurity has become a constraint for effective resource mobilization, delineation of corresponding institutional responsibilities and strategies, and coordination of efforts toward the alleviation of food insecurity.
  Food insecurity issue should not be seen as transitory problem given the prevalent trends and shocks that the country is facing.
- Government budget allocation as a matching fund to complement international assistance in times of food shortage crises due to natural and/or human-induced disasters needs to be seriously looked into.
- There is a need for debate over 'food for work' and 'cash for work' regarding employment generation schemes. That is, the disincentive effect of 'food for work' on domestic production and technology adoption appears to be a major area of concern to be addressed.
- The promotion of free movement of food grains from surplus to deficit areas makes immense contribution to ensure household food security.
- Special emphasis needs to be put on strengthening early warning system and vulnerability studies for agro-pastoral and pastoral areas.
- Support to the growth of informal sector income generating activities is an important strategy for addressing the food needs of the urban poor.
- Some of the public policies and strategies need urgent reconsideration or revisiting. These include: ADLI, land tenure policy, the policy of economic liberalization, FSS/P and policies and strategies to do with farm input marketing and subsidies.
- The special needs of women/female headed households (like access to land, technology, extension services, basic survival support, etc.) should be clearly identified and addressed in any development policies and interventions.
- Before policy formulation, regional and local differences have to be clearly explored. That means, enough knowledge about the root cause of food

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insecurity/vulnerability in the respective areas and what is more likely to succeed/not succeed among the program components should be explored.

- There is a need to improve the approach of agricultural inputs provision. The involvement of private sector in inputs supply will undoubtedly improve the timely delivery of inputs to the farmers/producers.
- Resettlement on a voluntary basis within localities/regions should be taken into consideration despite land and other resource related limitations in some regions. Given the existing ethnic federalism, inter-regional resettlement program may, however, result in some hostilities unless positive policy measures/changes are made which may be more effective.
- The development of service co-operatives is essential to mitigate mainly market-related problems not only in times of bumper production of cereals, but also in times of input-output price soaring/escalation in regions and urban centers. Although, currently, efforts are being made to rehabilitate co-operatives in terms of improving service provision, they are not as such effective yet.
- Emphasis on non-farm/off-farm income sources is very important given the land fragmentation and degradation of farmlands in many parts of the country. That is, the Government should promote off-farm and non-farm employment opportunities as land is becoming highly fragmented.
- There should be more effective HIV/AIDS awareness creation and control measure. HIV/AIDS is an actual and potential threat for the productive human resource of the country.

  The social welfare burden has increased from time to time as poverty is deepening and scourge of HIV/AIDS mounting. In addition, the loosening of extended family tradition which is instrumental in the fight against poverty and caring for orphans, elders, disabled, etc., and the worrying expansion of begging (increasing number of beggars) with no inhibition as used to be in the olden days has exacerbated the worsening economic condition of the society.
- The fragmented efforts of NGOs and limited resources of the Government to reach the ever-increasing number of population who needs welfare posed serious challenges. Therefore, this calls for collective efforts and common approach to tackle the problem through partnership.

  Among the potential partners are: private sector, regional institutions, NGOs, and communities. However, to sustain the welfare scheme in urban centres, imposing national social welfare tax on salaried personnel, and private sectors may be a desirable mechanism.
- The Federal Government should develop the technical and financial capacity of those regions presently not covered under the FSP. This is particularly important for pastoral areas and other marginal regions which have been neglected by the past development initiatives.
- The Government should strengthen the Food Security Steering Committees at various levels as food security issues are both sectoral and cross-sectoral in nature.
- Forum has to be created for partnership building between different stakeholders and to avoid duplication of tasks.

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- Both GO and NGOs should give attention to capacity building – emphasize on skill upgrading and vocational/technical training which might lead to small enterprise development in urban areas.
- There should be stability on Government structures including managing the current high turn-over of Government staff through introducing necessary reform measures.
- Government, NGOs and donors should further strengthen free delivery of primary health care and primary education.
- International NGOs and the Government should support the local NGOs and see them as their development partners.
- Most NGOs face a problem of handing over of their projects for the concerned bureaus/departments when projects phase out. To avoid/minimize such problems, NGOs should plan a clear exit strategy and devise ways for ensuring project sustainability.
- There should also be efforts for proper policy awareness creation in general, and policy familiarization and clarification of policies on EGS in particular to all stakeholders implementing it. Although it is the first employment creation resort in the country, the associated issues like targeting and dependency syndrome that may be resulting if unwisely implemented should be further and critically examined.
- Some donors need to revisit their fund releasing procedures as it has/is not favorable to operate long-term developmental activities, including food security programs for GO and NGO partners.
- The Government should design certain standards to ensure the work quality of NGOs food security program components; and NGOs to abide their codes of conduct.
- Public policies and local regulations relevant for urban food security, health and nutrition should be designed. This is expected to contribute to a more effective poverty reduction strategy.
- The urban and pastoral food security concerns have to be clearly addressed in the PRSP and the Government's Second Five Year Plan.
- Some donors should revisit the negative/positive impacts of food aid on sustainable food security enhancement and overall development sustainability in intervention areas.

7.2.2 Issues of Concern Relating to Sustainable Agriculture

- Land tenure continues to be a subject of continued public debate. The choice between private or public land 'ownership' appears to be the dominant issue of concern. There is a need for lobbying on this basic source of livelihood in terms of appropriate promotion of innovative practices of improving land use and tenure rights in the country.
- Concern is widely expressed over the frequent land redistribution that is undertaken to accommodate the ever-increasing size of rural population; as this has resulted in land fragmentation. The extent of land fragmentation in many areas of the country is such that farm plots have become too small to justify the use of purchased inputs and the adoption of soil and water conservation measures.

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- The development of small-scale irrigation schemes and water harvesting techniques has drawn increased attention both from the Government and the international communities. Outstanding issues that need further action in this regard include: the problem of insufficient technical know-how, inadequate community participation, and lack of commitment in the sustainable use of water supply structures.
  In particular, attention should given to strengthening small-scale irrigation, as it ensures increasing the level of productivity for farm households in a sustainable manner. In addition, it would help households to produce different kinds of crops (double or multiple cropping) without much dependence on seasonal rainfall.
- Rapid population growth has led to increasing demand for cultivable land and domestic energy and, hence, to the unprecedented depletion of the country's natural resources. It is, therefore, widely believed that the promotion of alternative options for basic needs fulfillment has to be considered as a priority area of intervention in order to ensure sustainable use of natural resources.
- Reliable information on the country's resources endowments should be developed. Natural resource inventory is essential and policy on watershed development needs to be strengthened.
- There is a need to strengthen the Environmental Protection Authority; and its structure has to be extended up to Woreda level to closely monitor the practices and implementation of the environmental protection policies/strategies/programs.
- The current extension package program needs to be revisited, with the view to address its limitations. In particular, it is widely felt that the program should diversify its activities to be able to address the extension advisory needs of resource poor farmers and pastoral communities.
- According to the experience of several NGOs and their Government partners, the institutionalisation of local conflict resolution mechanisms has become an important area for immediate action.
- Undoubtedly, the donor community is an indispensable partner in sustainable agricultural/rural development projects and programs. However, it is a widely held view of NGOs and Government partners that several donor agencies are too restrictive in their funding policies and procedures.
  It was particularly highlighted during the survey period that the smooth flow of funds already committed by a number of donors is often hampered by their insistence on demonstrating credible impact following a too short period of project implementation.
- With regard to agricultural marketing, the outstanding issues include: the expansion of rural infrastructure, particularly rural transport, and the promotion of linkages between production and processing industries.

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7.2.3 Issues of Concern Relating to Trade

- For Ethiopia to take full advantage of the prevailing market-oriented economic policy at home and global trade opportunities, diversification of agricultural production stands out as a priority area for action. In the field of international trade, the country has a potential comparative advantage in the production of cash crops, including spices, oil crops, other non-indigenous high value crops; and livestock and livestock products.

- On the domestic trade scene, it is generally believed that little institutional support is given to the growth and development of the informal economic sector. In particular, concern is widely expressed about the inadequacy of such support in terms access to land and credit facilities for resource poor people to engage in micro- and small-scale income generating activities.

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CSRDA

Annex 1

CHRISTIAN RELIEF AND DEVELOPMENT ASSOCIATION

STUDY ON FOOD SECURITY, SUSTAINABLE AGRICULTURE AND TRADE IN ETHIOPIA

TERMS OF REFERENCE (TOR)

FOR THE INTERNATIONAL AND LOCAL CONSULTANTS

I. Main Objectives of the Study

The objective of the study is to provide CRDA members with the necessary tools and information to lobby and advocate on food security, sustainable agriculture and trade issues.

II. Specific Objectives of the Study

1. To review and analyze national, regional and major donor policies, programs and strategies in the field of food security, sustainable agriculture and trade in Ethiopia.

2. To assess the direct and indirect impacts of past and current Government of Ethiopia and Donor policies, programs and strategies on NGO food security and sustainable agriculture programs, in Ethiopia.

3. To conduct a survey on the knowledge and understanding of the CRDA members regarding policies on food security, sustainable agriculture and trade in Ethiopia.

4. To document and analyze the links between food security, sustainable agriculture and trade at household, regional, national level, on one hand and key global and international trade issues that affect Ethiopia on the other, for dissemination to CRDA members.

5. To identify tools towards developing CRDA members capacity to lobbying and advocacy in the field of food security.

6. To document specific areas of regional and national concern with regards to food security issues, for regional workshops.

7. To investigate the availability of untapped potential resources (natural) and the constraints in utilizing these and make recommendations on how to link this resource potential with food security programs.

CRDA

III. Expected Outcomes

- To assist the design of advocacy and lobbying strategies by CRDA members.
- To create awareness and understanding among all stakeholders to tackle food security issues.
- To identify untapped potential resources, and constraints in using the resources.
- To identify issues of concern of CRDA members in food security sustainable agriculture and trade in Ethiopia.

It is hoped that these Terms of Reference will guide the International consultant /BBO/ and the Local Consultants to undertake the above indicated study and to come up with workable recommendations.

IV. TOR FOR LOCAL CONSULTANTS

Thus the Consultant(s) should:

1. Review and analyze national, regional and major donor policies, programs and strategies in the field of food security, sustainable agriculture and trade in Ethiopia.

Suggested Methodology:-

1.1. Review background documents (some of which will be provided by the CRDA.)

1.2. In addition to this, Consultants should contact or discuss with :

- Representatives of International Organizations e.g. UNDP (WFP, FAO, ETC.) EU, USAID, World Bank, DFID, NLE, Canadian Embassy, Japan Embassy, etc.
- Representatives of Government Organizations e.g. MOA, ESRDF, MEDAC, Women's Affairs, Trade and Industry, DPPC, Prime Minister Office, Ethiopian Chamber of Commerce, etc.
- Representatives of Gov't. Office at the Regional Level e.g. Bureau of Agriculture, Food Security Coordination Offices, DPPB, Bureau of PED, Women's Affairs, and others.

2. Assess the direct and indirect impacts of past and current Gov't. of Ethiopia and Donor policies, programs and strategies on NGO food security and sustainable agriculture programs, in Ethiopia

CRDA

Suggested Methodology:-

2.1. Assess evaluation reports prepared by NGOs, Gov't and Donors.
2.2. Discuss with selected local and international NGOs implementing significant food security projects and programs.
2.3. Conduct focus group discussions with Gov't. Food Security Experts, others as deemed necessary.

3. Conduct sample survey on the knowledge and understanding of the CRDA members regarding policies on Food Security, Sustainable Agriculture and Trade in Ethiopia.

Suggested Methodology:-

Randomly selected CRDA member NGOs working in different Regions in food security projects should be consulted from the following Regions :

3.1. Amhara Region - 4 Sample NGOs, one implementing in each of the following Areas:

- Wollo Area.
- Gonder Area.
- Shewa Area.
- Gojjam Area.

3.2. Oromiya Region - 4 Sample NGOs, one implementing in each of the following Areas.

- East Oromiya (East and West Harrerghe Areas.)
- Central Oromiya (Ziway and Arsi Areas.)
- Western Oromiya (Wollega and Illubabore Areas.)
- Southern Oromiya (Borena Area.)

3.3. SNNP Region - 4 Sample NGOs, one from each of the following zones :

- Wollayita and Sidama Areas.
- Guraghe Areas.
- Konso Especial Woreda.
- South Omo Area (Hammer, etc.)

3.4. Tigray Region - 2 sample NGOs
3.5. Addis Ababa Region - 2 sample NGOs
3.6. Dire Dawa - 1 sample NGO and Harrar -1 sample NGO.
3.7. Somalia Region - 2 sample NGOs
3.8. Afar Region - 2 sample NGOs
3.9. Benshangul Gumuz Region - 2 sample NGOs
3.10. Gambella Region - 2 sample NGOs

CRDA

4. Document and analyze the links between food security, sustainable agriculture and trade at household, regional, national level, on one hand and key global and international trade issues that affect Ethiopia on the other, for dissemination to CRDA members.

Suggested Methodology:-

The methodologies are the same in 1 and 2 above. However, local consultants are expected to work in collaboration with BBO.

5. Investigate the availability of untapped potential resources and the constraints in utilizing them and recommend on how to link this with Food Security Programs.

Suggested Methodology:-

The methodologies are the same in 1 and 2 above. However, in addition to the indicated methodology above local consultants should conduct discussions with the Investment Office, Natural Resources Authority, Ministry of Mining and Energy, Ministry of Water Dev't., Micro - Finance Institutions (could be responsible for untapped resources), and others.

6. Summarize specific areas of Regional and National concerns for a Regional Workshops.

Suggested Methodology:-

The methodologies are the same in 1 and 2 above. However, it is suggested that, local consultants are expected to work in collaboration with BBO. Consultants are expected to classify concerns under availability, access or quality.

7. Participate in the coordination of the Regional and National Workshops including presentation of the Study.

8. Forward conclusions and formulate recommendations.

An International Consultant will be assigned to the team with the following tasks.

CRDA

V. TOR FOR INTERNATIONAL CONSULTANT /BBO/

1. Identify tools towards developing members capacity in the area of Food Security, Lobbying and Advocacy.

2. Review the inception report with the food security Steering Committee and CRDA.

3. Get the zero draft from the local consultants by e-mail for comments and suggestions to design the draft advocacy and lobbying strategy.

4. Identify and review global agreements, conventions, major international donor policies e.g. UNDP (WFP, FAO, ETC.) EU, USAID, World Bank, DFID, NLE, Canadian Embassy, Japan Embassy, etc. that have impacts on food security in Ethiopia.

5. Based on analysis of global issues and local findings suggest possible strategies for lobbying and advocacy.

6. In collaboration with the local consultants, present the draft document to a National NGOs Workshop and based on the feedback of the National Workshop, produce the final document.

7. Handle the first NGOs familiarization regional workshop along with the food security Steering Committee and the local consultants.

NB!

1. It should be noted that the inclusion of Addis Ababa, Dire Dawa and Harrar, Afar and Somalia Regions is to put emphasis particularly on the issues of urban and pastorals food security problems.

2. Since all the selected NGOs for the survey have Offices in Addis, there will be no need of planning to go to the Regions, except for the Regional workshops

3. It should be noted that a multi - disciplinary team of 5 consultants (i.e. 4 local and one International) are required to participate in the study.
   The suggested disciplines are the following :
   - Food Security Specialist.
   - Agricultural Economist - with ample experience in Mixed farming and Pastorals.
   - Macro - Economist - Economic Policy and
   - Agriculturist.

4. The Food Security Steering Committee will provide one orientation session to all consultants on the TOR and a separate briefing session to the International Consultant on lobbying and advocacy in the Ethiopia context.

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Annex 2

ITINERARY FOR THE FIELDWORK

The following list shows the relevant federal/national and regional levels sample organizations (GOs and NGOs - including donor organizations) selected for visits (interview-based discussions with concerned staff and heads/authorities/ representatives), from Sept. 28 to November 5/2001.

a) Sample Offices Visited/Persons Contacted

(At Headquarter or Federal Level)

S.No	Name of Organization	Date and Persons Contacted		
		Date	Contact Person	Remark
	i) Government Organizations			
1	MOA - Extension Department	26/10/01	Ato Ibrahim Mohammed	
	- Women's Affairs Dept.	30/10/01	W/ro Bogalech Alemu	
2	ESRDF	05/11/01	Ato Tesfaye Desta	
3	MEDaC - Agr. Dept. & Food Security Unit	01/10/01	Ato Beyene Haile	
4	Ministry of Trade, Industry & Tourism	31/10/01	Ato Mulugeta Haile (Trade Dept. Head) Ato Jemil Mohammed (Industry Dept. Head)	-failed to respect appointment -refused to discuss/ provide information
5	Ethiopian Chamber of Commerce	30/10/01	Ato Andualem Tegegn	
6	Ministry of Water Resources	28/09/01	Ato Gulilat Berhane	
7	DPPC	05/10/01	Ato Berhane Gizaw	
8	Investment Authority	29/10/01	Ato Tilahun Gelan	Poor cooperation to provide information
9	EARO	31/10/01	Dr. Abera Debello	
10	Environmental Protection Authority	31/10/01	Yigzaw Ayalew	
11	Development Bank of Ethiopia	31/10/01	Ato Kidane Nikodemos	
12	Federal Micro & Small Enterprise Development Agency - FeMSEDA	02/11/01	Ato Abebe Negash	
13	EFSRA	17/10/01	W/ro Zewdnesh Tadele	
	ii) Major Multilateral & Bilateral Donors & NGOs			
1	UNDP	05/10/01	Ato Getachew Asamenew	
2	WFP	03/10/01	Ms. Nigist Biru	
3	FAO	04/10/01	Ato Sintayehu G/Mariam	
4	EU/LFSU	22/10/01	Dr. Hans Jorg Neun & Ato Berhanu Taye	
5	USAID	03/10/01	Mr. Monty Crisp	
6	World Bank	15/10/01	Ato Asaye Legesse	
7	British Embassy - DFID	05/10/01	Mr. peter Curby	
8	Netherlands Embassy - NLE	24/10/01	W/ro Martha Dibisa	
9	Canadian Embassy/CIDA	15/10/01	Ms. Caroline Lavoie & Mr. Douglas Clements	
10	Japan Embassy	05/10/01	Mr. Nishi Makoto & Ato Mekonnen Ashenafi	
11	Norwegian Embassy	24/10/01	Mr. Gunnar A. Holm	
12	Norwegian Church Aid	03/10/01	Ato Dawit Kebede	
13	Christian Relief Service	04/10/01	Ato Solomon Bezabeh & Gure Kumsa	
14	KHCDP	03/10/01	Ato Desta Demissie	
15	Alrejah Charity Organization - ACO	03/10/01	Ato Tarekegn	

CRDA

16	World Vision Ethiopia	04/10/01	Ato Teklu Wodajo	
17	SCF/UK	04/10/01	Mr. Andrew Krewood	
18	SCF/USA	05/10/01	Ato Yoseph G/Hiwot	
19	SOS/Sahel	28/09/01	Ato Feyira Abadi	
20	Ogaden Welfare Society - OWS	01/10/01	Mr. Mohamud Abdi Ahmed	
21	Ethiopian Orthodox Church	02/10/01	Ato Abadi Abdu	
22	Lay Volunteers International Association - LVIA	01/10/01	Mr. Daniel Mordin	
23	SPAR	02/10/01	Ato Kassaye Derseh	
24	Ethiopian Catholic Secretariat- ECS	02/10/01	Ato W/Gebriel W/Giorgis	
25	Action Aid Ethiopia	18/10/01	Ato Jemal & Ato Ahmed Ali	

b) Sample Offices Visited/Persons Contacted

(Samples at Regional Level)

S. No	Name of Organization	Date and Persons Contacted		
		Date	Contact Person	Remark
I	**Tigray Region:**			
1	WVE	06/10/01	Aklilu Dogiso	
2	BOPED	09/10/01	Ato Haile Yohannes	
3	BOA	09/10/01	Ato Tesfaye Hagos	
4	BDPP	09/10/01	Ato Biraru	
5	Women Affairs (WAT)	08/10/01	W/ro Kidusan Nega & W/ro Tamirat	
6	Food Security Coord. Office (FSCO)	09/10/01	Ato Mengesha Haile	
7	REST	08/10/01	Ato Berhane G/Egziabher	
II	**Amhara Region:**			**Remark**
8	BOPED	12/10/01	Ato Solomon Abebe	
9	BOA	12/10/01	Ato Dereje	
10	BDPP	11/10/01	Ato Wuletaw H/Mariam	
11	FSCO	12/10/01	Ato Mulugeta Said	
12	ORDA	12/10/01	Ato Mamid Ahmed	
13	Women Affairs Office	13/10/01	W/rit Zenebu Tadesse	
14	JACH* (West Gojam)	13/10/01	Ato Mekonen Hishe	
15	SCF/UK (North Wollo Project)	16/10/01	Ato Nigussie Tedla	failed/lost cooperation
16	EOC-DICAC (North Shewa Projects)	12/10/01	Ato Merid Eyasu	
III	**Oromia Region:**			
17	BOPED	18/10/01	Ato Teshome Nigussie Ato Dereje Tolu	
18	BOA	18/10/01	Ato Berecha	
19	BDPP	19/10/01	Ato Futa Tesso & Ato Aman Muda	
20	FSCO	16/10/01	Ato Habtamu Teklu & Ato Berhanu Sima	
21	Women Affairs Office	17/10/01	W/ro Gifty Abasia	Meeting failed
22	BOWRD	19/10/01	Ato Tariku Negassa	
23	E. &. Harerghe – ECS (Eth. Catholic Secretariat)	19/10/01	Ato Shibru/Ato Bekele	Meeting failed/ no sign of cooperation

* Jerusalem Association Children's Homes

CCRDA

24	Central Oromia – ADAA	18/10/01	Ato Mulugeta Ketchemo, Ato Desta Bulli & Ato Aman Wabi	
25	Western Oromia – SHDA	15/10/01	Dr. Alemayehu Areda	
26	Southern Oromia – CARE-Ethiopia	19/10/01	Mr. Salvador Bildizone & Edward	
IV	**SNNPR:**			**Remark**
27	BOPED	22/10/01	Ato Kayida Gezahegn	
28	BOA	23/10/01	Ato Melese Argaw/Ato Kassa Aecha	
29	BDPP	23/10/01	Ato Getachew Lema/Ato W/ Gebriel Unulo	Avoided meeting/no cooperation
30	FSCO	24/10/01	Ato Wasie Azaze	
31	Women Affairs Office - WAO	22/10/01	W/ro Asegedech Gessesse	
32	Bureau of Water, Mineral & Energy Resources (BOWMER)	22/10/01	Ato Asfaw Dingasso	
33	**Wolaita & Sidama** – Inter-Aid France	23/10/01	Ato Abegas Amare	
34	**Gurage Zone** – Action Aid-Ethiopia	18/10/01	Ato Ahmed Ali/ Ato Jemal/Ato Tamirat	
35	**North Omo** – AFD	17/10/01	Ato Yosef Negassa/Ato Habtamu	
36	**South Omo** – SIM	17/10/01	Ms. Yvonn Mildral/Ato Fekadu Reda	
V	**Addis Ababa Admin.:**			
37	BOPED	01/11/01	Ato Ketema Zewdie	
38	BOLSA	03/11/01	Ato Mulugeta Sitotaw	
39	Women's Affairs Offiec	02/11/01	W/ro Almaz W/Tensai	
40	Social Sector	Early November	Ato Habtu	Unwilling to take appointment/ asked for special letter addressed
41	Economic sector	Early November	Ato Kassahun Muluneh	Unwilling to take appointment
42	Hope Enterprise	25/10/01	Dr. Minas Hiruy	
43	Gimini Trust (EGT)	25/10/01	S/r Mekdes Tesfaye	
VI	**Somali Region:**			
44	OWS	01/10/01	Mr. Mohamud Abdi Ahmed	
45	SCF/USA	05/10/01	Yosef G/Hiwot	
VII	**Afar Region:**			
46	YCDMF	26/10/01	Ato Yimer Mohamed/ Ato Mohamed Ahmed	
47	Farm Africa	25/10/01	Dr. Seme Debela/ Dr. Tafesse Mesfin	
VIII	**Benishangul Region:**			
48	CISP	19/10/01	Ato Assefa Adisu/ Andargachew Woldeab	
49	Dutch Inter-Church Aid (DIA)	19/10/01	Mr. Bob Hadley, Ato Tamiru & Abdu Mohammed Ali	
IX	**Gambella Region:**			
50	Africare (Gambella Project)	23/10/01	Mr. Paul Davis/Dr. Robert	
51	EECMY	25/10/01	Dr. Abeya Wakoya/ Ato Soresa Ergena	

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Annex 3

Christian Relief And Development Association

Workshop

On

"Food Security, Sustainable Agriculture and Trade: Issues of Concern for Lobbying and Advocacy"

January 9, 2002

Global Hotel, Debre Zeit Road, Tegene Building

Programme

January 9, 2002

08:30 - 09:00	Registration
09:00 - 09:15	Welcoming Address - *Ato Fekade Tsegaye* *Deputy Executive Director - CRDA*

Chairperson - Dr. Awole Mela

09:15 - 10:30	Presentation of the Study ✚ *Introduction of the Study* (IDCoF) ✚ *Policies their Impacts and Trade Issues* (IDCoF) ✚ *Food security and related issues* (IDCoF) ✚ *Sustainable agriculture* (IDCoF) ✚ *Introduction to Lobbying and Advocacy Strategy (BBO)*
10:30 - 11:00	Discussion
11:00 - 11:15	***Coffee Break***
11:15 – 11:30	*Introduction to Group Work*
11:30 – 12:45	*Group Discussion*
12:45 – 13:45	***Lunch Break***
13:45 – 15:00	*Cont'd Group Discussion*
15:00 - 15:30	***Coffee Break***
15:30 – 16:30	Presentations of Group Discussions
16:30 – 17:00	Panel Discussion (Feedback) - Dr. Seme Debela – FARM-Africa - Mr. Peter Kerby – DFID - Ato Dejene Abesha – MoA - Ato Sentayehu G/Mariam - FAO

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Annex 3 (continued)

CHRISTIAN RELIEF AND DEVELOPMENT ASSOCIATION

WORKSHOP ON

"FOOD SECURITY, SUSTAINABLE AGRICULTURE AND TRADE: ISSUES OF CONCERN FOR LOBBYING AND ADVOCACY"

Global Hotel, Debre Zeit Road, Tegene Building

January 9, 2002

List of Participants

CRDA

No.	Name	Organization	Position	Sex	Place of Work	Tel No.	P.O. Box
1	Ashebir Debebe	Save the Children UK	Program Manager	M	A.A	504225	13375
2	Yues Gminand	UN-EUE	Deputy Coordinator	M	A.A	513725	60252
3	Girma Shegute	ESRDF	Head, Micro Finance Team	M	A.A	556763	
4	Aklilu Hailu	ACSO	PR & Fund Raising Office	M	A.A	202660	12280
5	G/Michael Heramo	OWS	Dept Head	M	A.A	505822	2189
6	Nishi Makoto	Embassy of Japan	Development Cooperative	M	A.A	511088	5650
7	Dr. Robert Kagbu	Africare	Country Rep.	M	A.A	531150	2309
8	Aman Wabe	ADAA	Food Security Coordinator	M	A.A	462607	100061
9	Sintayehu G/Mariam	FAO	NPO	M	A.A	511394	5536
10	Alemayehu G/Hiwot	IDCoF	Consultant	M	A.A	555105	62789
11	Tezera Getahun	Panos	Program Officer	M	A.A	525585	1570 Code 111
12	Hailu Tafesse	JACH	Program Officer	M	A.A	611093	41742
13	Rahel Bekele	CRDA	AAPP Head	F	A.A	650100	5674
14	Dejene Abesha	MoA	Team Leader	M	A.A	153445	21855
15	Seble Shimeles	MoA	Expert	F	A.A	514220	
16	Alemseged T/Medhin	ECS	H. HRDD	M	A.A	550300	2454

17	Bekele Hamlissa	EENGO	Executive Director	M	A.A	614370	8838
18	Mekonnen Ashenafi	Embassy of Japan	Dev. Cooperation	M	A.A	511088	5650
19	Declassa Lemesa	UNDP (EUE)	Field Officer	M	A.A	444148	13158
20	Kebede Lule	FHI/Ethiopia	PR Officer	M	A.A	660261	4181
21	Michael Damiel	Freelance	Consultant	M	A.A	122190	1969
22	Wednesh Haile	WIE	Country Rep. & Prog. Coord.	M	A.A	655537	2417
23	Seifu Mamo	CRDA	Partner Relation officer	M	A.A	650100	5674
24	Yonas Gedamu	ORDA	Director	M	B/Dar	200985	132
25	Seme Debela	Farm Africa	Country Director	M	A.A	551208	5769
26	Ephraim Alamerew	Agriservice Ethiopia	Program Officer	M	A.A	651212	2460
27	Tefera Talore	KHC	Training D. Team Leader	M	A.A	506989	5829
28	Dr. Aklilu Dalelo	KHC	Environment Dept.	M	A.A	506989	5829
29	Habtamu Zeleke	AFD	Head, Program	M	A.A	625976	
30	Molla Ayele	MTI	Senior Expert	M	A.A	531038	704
31	Salvador Baldizone	CART	Food Security Coordinator	M	A.A	469422	1147
32	Tarekegn Yimesel	Alnejah Charity Org.	Finance and Admin.	M	A.A	621990	80266
33	Roba Duitta	ADRA	Ware House Manager	M	A.A	592942	145
34	Wondwossen Delelegn	SC UK	Food Security-coordinator	M	A.A	293469	
35	Caroline Lavoie	CIDA/ Canadian Embassy	Second secretary	F	A.A	713022	1130
36	Landuber Araya	Save the Children	Program Coordinators	M	A.A	518964	6589
37	Telahun Abebe	Help Age/ Adama Elders Assoc.	Chairman	M	Nazareth	123637	
38	Ahmed Mohammed	USAID	MED Manager	M	A.A	510088	
39	Sileshi Damte	CPAR	Coordinator	M	A.A	655575	
40	Dr Auwle Mela	SHDI	Director	M	A.A	522313	1204
41	Fiona Meehar	REST	Head Policy Research	F	Mekelle	512629	20
42	Girma Zewdie	CRDA	Officer	M	A.A	650100	
43	Abebe Belay	SNV	Program Officer	M	A.A	654386	40675
44	Peter Kerby	DFID	Food Security Advisor	M	A.A	09203079	
45	Takele Gebre	MoA	Program Coordinator	M	A.A	152324	12771
46	Dr. Menbere Lulu	ORDA	Sen. Fund raising officer	M	A.A	504454	8122
47	Zegeye Asfaw	HUNDEE	G. Manager	M	Oromia	519026	9062
48	Daba Luish	SEDA	P. Officer	M	A.A	161060	8577
49	Martha Dibissa	Netherlands Embassy	Senior Program officer	F	A.A	711100	1241
50	Dawit Kebede	NCA	P. Manager	M	A.A	512922	1248

CCRDA

51	Fiker Atalay	RLO	Administrator	M	A.A	112303	131667
52	Belayneh Bigajo	Action Aid	Program Officer	M	A.A	654671	1261
53	Dagnew Eshete	IDCoF	Consultant	M	A.A	555105	22482
54	Feyera Abdi	SOS Sahel	Country Director	M	A.A	615582	3262
55	Fesseha Gedamu	Environ. Asoc. Consultant	G/Manager	M	A.A	713360	12790
56	Akalewold Belachew	CRDA	Division Head	M	A.A	656105	
57	Zeleke Tesfaye	ERSHA	Deputies	M	A.A	654652	102367
58	Samuel Muna	Oxfam Canadian	Program Officer	M	A.A	610044	
59	Yvonne Milored	S/M	Community Services Director	M	A.A	09214667	127
60	Alemayehu Begasaw	RLO	Liaison Officer	M	A.A	112303	13667
61	Fikre Zewdie	AAE	Country Director	M	A.A	654671	1261
62	Beruk Rabtamu	LWF	Plan & Mon. Officer	M	A.A	556204	40132
63	Assefa Addisu	CISP	Program Officer	M	A.A	624556	60014
64	Dr. Hailu	LVIA	Advisor	M	A.A	189446	
65	Senait H. Giorgis	Ethiopian Aid	Program officer	F	A.A	504408	101992
66	Tassew Shiferaw	WAO/PMO		M	A.A		
67	Leulseged Assfaw	CRDA	Dept. Head	M	A.A	09228539	26395

A.A. = Addis Ababa
M = Male
F = Female

CRDA