

ERITREA



FOOD SECURITY STRATEGY

Government of the State of Eritrea
Asmara, April 2004

ERITREA

FOOD SECURITY STRATEGY**Table of Contents**

	<u>Page Number</u>
ACCRONYMS	iv
COUNTRY AT A GLANCE	v
I. INTRODUCTION	1
A. Background	1
B. The Challenge	2
C. Conceptual Framework	2
D. Goals and Objectives of Eritrea's Food Security Strategy	3
E. Overview	5
II. POVERTY AND FOOD SECURITY ASSESSMENT	
A. Data Sources on Food Insecurity	5
B. Incidence of Poverty	7
C. Poverty Profile	9
D. The Impact of recent Events (war& drought) on Food security	10
E. Sources and Indicators of Vulnerability	12
F. Food Insecurity Diagnosis	13
G. Access to Social Services	19
H. Coping Strategies	20
I. Perceptions of the Poor	22
III. FOOD SECURITY STRATEGY	23
Part I. NATIONAL FOOD SECURITY STRATEGY	23
<u>Pillar I. Enhancing the domestic production capacity in agriculture and Fisheries</u>	23
A. Rainfed Agriculture	24
B. Irrigation	25
C. Livestock & rangelands	27
D. Commercial & artisinal fisheries	28
E. Support Services for Agriculture, Livestock and Fisheries	29
<u>Pillar II. Enhancing national capacity to import adequate quantity of food by increasing export earnings</u>	30
A. Exporting High-Value Agricultural Products	30

	<u>Page Number</u>
B. Expanding production and export of high value fisheries Products	32
C. Developing the Tourism Industry	33
D. Expanding the manufacturing sector aimed at exports	33
<u>Pillar III.</u> Using Food Assistance Efficiently	34
Part II . HOUSEHOLD FOOD SECURITY STRATEGY	38
Pillar 1. Enhancing the Productive Capacity of Small Scale Farmers	39
Pillar 2. Enhancing Household Purchasing Power	42
Pillar 3. Public Assistance Programs Targeted at the Poor & Vulnerable	44
IV. PREPARATION AND CONSULTATION PROCESS	45
A. Institutional Arrangement	45
B. Consultation with Key Stakeholders	46
C. Key Measures that Emerged from Consultation with Community Members & Representatives from Zobas	47
V. MONITORING AND EVALUATION	48
A. Monitoring Mechanism	49
B. Evaluation Mechanism	50
BOXES:	
Box 2:1 Facts on Poverty in Eritrea	7
Box 2:2 The 2002-2003 Drought & its Impact	11
Box 2:3 Coping mechanisms of The Poor	20
Box 2:4 Individual & Community Perceptions	22
TABLES :	
Table 1: Population below the poverty line	7
Table 2: Average daily per capita calorie consumption	17
FIGURES:	
Figure 1: Cereal production	15
ANNEX:	
National & Household Food Security Strategy Policy Matrix	52

A. ACRONYMS AND ABBREVIATIONS

ACCORD	Agency For Co-operation and Research in Development
CAP	Consolidated Inter-Agency Appeal
CSI	Coping Strategy Index
EDHS	Eritrean Demographic & Health Survey
EGB	Eritrean Grain Board
ERP	Emergency Reconstruction Program
ERREC	Eritrean Refugee & Rehabilitation Commission
FAO	Food & Agriculture Organization
FHH	Female Headed Household
FSSP	Food Security Strategy Paper
GDP	Gross Domestic Product
GoE	Government of Eritrea
IC	Investment Center
IFS	Integrated Farming System
IPRSP	Interim Poverty Reduction Strategy Paper
LSMS	Living Standards Measurement Survey
M & E	Monitoring & Evaluation
MoA	Ministry of Agriculture
MoFi	Ministry of Fisheries
MoLG	Ministry of Local Government
MoLHW	Ministry of Labor & Human Welfare
MoND	Ministry of National Development
MT	Metric Tonne
MTDP	Medium Term Development Plan
NFIS	National Food Information System
NGO	Non-Governmental Organization
NRS	Northern Red Sea
NSEO	National Statistics & Evaluation Office
OCHA	Office for Coordination of Humanitarian Affairs
O&M	Operation & Maintenance
PPA	Participatory Poverty Assessment
RLSA	Rural Livelihood Security Assessment
SME	Small and Medium Enterprises
SMEDU	Small and Medium Enterprises Development Unit
SRS	Southern Red Sea
UNDP	United Nations Development Program
WFP	World Food Program
WHO	World Health Organization

ERITREA

FOOD SECURITY STRATEGY

I. INTRODUCTION

A. Background

1.1 Eritrea is a poor country with an estimated annual GDP of about US\$ 180 per capita. At independence, the government concentrated on meeting the emergency needs of the people, rebuilding and rehabilitating its economic and social infrastructure and the institutions essential for achieving rapid economic and social development. The Government put in place a Macro Economic Policy Framework (Para. 1.11) and made key investments in priority sectors of the economy to accelerate economic recovery and address the deep-rooted problems of poverty. By early 1993, Eritrea had managed to lay the basis for sustainable broad-based growth and the economy registered a growth in GDP of about 7 percent over the period 1993-97. Much progress was made in increasing access to education and health facilities and rural roads with significant positive impact on the living conditions of the people.¹

1.2 Nonetheless, the border conflict with Ethiopia during 1998-2000 resulted in massive destruction of economic and social infrastructure and led to a marked decline in the living conditions of the population. It displaced over one million people, mainly farmers, from their homes. The past three years of drought have also exacerbated poverty by reducing agricultural output and water supply for human and livestock use. Refugees returning from Sudan and people expelled from Ethiopia have come with few or no resources other than their labor and willingness to work. They are likely to add to the numbers of the poor until they can gain access to land and other resources they need to support themselves.

1.3 In 1998-2002, GNP per capita declined as a consequence of the border war and severe drought. Eritrea is now recovering from the war with Ethiopia, with the dispute over the demarcation of the border still not settled. Consequently, a large number of people including farmers have been displaced while thousands of soldiers who were to be demobilized are still in the military service. This has created shortage in manpower, leaving women, children, and the elderly to do the heavy work of tilling, planting and harvesting. This resulted in a sharp drop in production.

¹ One notable achievement of Eritrea's health system has been in reducing infant and child mortality. Infant mortality declined from 72 per 1,000 live births in 1992 to 48 in 2001. Mortality of children under-five years declined from 140 per 1,000 live births in 1992 to 93 in 2001. Considerable progress has also been made in primary school education. At independence, only about 58 percent of men and 28 percent of women could read and write. By 2001, 67 percent of men and 39 percent of women were literate.

1.4 Geographically, Eritrea is located in one of the driest parts of Africa, and suffers from repeated shortfall of rains. In 2002 and 2003, Eritrea suffered from severe drought that is considered as the worst since independence. The limited amount of rainfall has not only affected agricultural production but also the availability of drinking water for both people and animals. Loss of livestock from starvation was estimated at 15 - 20% in 2002 and remains significant in 2003. According to the Eritrean Relief and Refugee Commission (ERREC) and the UN Coordinator for Humanitarian Affairs, the government will be hard pressed to secure the livelihood of approximately 1.7 million people, or about half the total population, directly affected by the drought and the border dispute.

B. The Challenge

1.5 Eritrea is a food insecure country. In good years, the country produces only about 60 percent of its total food needs and in poor years, it produces no more than 25 percent. On average, once every ten years, the country is threatened with famine. Annual crop production depends on rainfall that is variable and unevenly distributed from year to year. Eritrea has so far not managed to raise crop production to a level that can support the entire population, and is forced to cover nearly 50 percent of its annual cereal requirements through imports-commercial and food assistance. The majority of Eritreans farmers live close to subsistence level even during normal agricultural season ; they complement their income by working as manual laborers and selling firewood to support themselves and their families.

1.6 As a result of widespread periodic food shortages, child malnutrition in Eritrea is high. About 38 percent of children in Eritrea under five years are stunted (low height for age), 15 percent are wasted (low weight for age) and 44 percent of children are underweight. Nearly 50 percent of children suffer from anemia. Furthermore, women are most critically affected by food insecurity and malnutrition, which puts them at a greater risk of complications and death during pregnancy and childbirth. Malnutrition rates for lactating mothers are among the highest in Africa. This is in part a reflection of inadequate food supply at the household and national levels, due to a complex set of factors. Caloric intake and nutritional composition of the typical Eritrean diet are below minimum standard. High levels of poverty restrict household access to food. The lack of adequate potable water, poor sanitary conditions and disease also affect nutritional status.

C. Conceptual Framework

1.7 What is food security? Food security is access by all people at all times to adequate nutritious food to lead a healthy and productive life. The right to a standard of living for health and well being, including food, is recognized in the Universal Declaration of Human Rights. Food security is a fundamental objective of development policy for all countries.

1.8 Conceptually, food security has two dimensions, national food security strategy and household food security strategy. An effective food security strategy will ensure:

- National Food Security: Food is available in market throughout the country from domestic production, commercial imports, or food assistance; and
- Household Food Security: All household members have affordable access at all times to the food they need for a healthy life.

1.9 Food insecurity arises from a lack of both national and household capacity to produce or procure adequate quantity and quality food. At the national level, food insecurity arises from inadequate production or imports of food and lack of capacity to predict, assess, or respond to impending food shortages. At the household level, food insecurity is closely related to asset ownership and poverty. It arises from lack of access to land or agricultural inputs needed to produce food, lack of opportunities for remunerative non-farm employment, sub-optimal health practices, lack of access to clean water and health services, poor sanitation, and lack of family and community support. Consequently, national food security is a necessary but not sufficient condition for reducing food insecurity at the household level. Household food security is both a necessary and sufficient condition for resolving hunger and improving the quality of life of poor, food insecure people.

1.10 The concept of food security must be viewed from a broad perspective. A successful food security strategy needs to address the multiple causes of food insecurity at both the national and household levels. The concept has evolved from the notion of supply stability (guaranteeing enough food at the national level in the long-term) to encompass the problem of access to food taking account of the poor purchasing power (inadequate income) of most of the population. Food security is, therefore, seen in the broader context of poverty reduction and development goals.

1.11 Reinvigorating economic growth by a sound and consistent macroeconomic policy is fundamental to attaining national food security. This food security strategy paper presupposes that sound macroeconomic policies will be implemented.²

D. Goals and Objectives of Eritrea's Food Security Strategy

1.12 Ensuring food security is one of the top national priorities and the cornerstone for sustainable economic growth and poverty reduction strategy in Eritrea. The goal of the food security strategy is to ensure that all Eritreans have sufficient quantity of acceptable quality food at an affordable price at any time and place within the country. This is to be achieved largely from a combination of increases in domestic food production and importation from abroad, complemented by food assistance to meet the supply gap

² A summary of the Macroeconomic Framework and the key fiscal, monetary, foreign exchange and trade and investment policy measures and sector priorities and programs are discussed in the Interim-Poverty Reduction Strategy Paper (I-PRSP) –which is under preparation. A more detailed discussion will be provided in the Medium Term Economic Framework (2004-06).

particularly during emergencies such as severe drought. Food security at the household level is fundamental and this goal will be achieved by raising the incomes and quality of life of the poorest and most food insecure segments of the population. It also entails assisting vulnerable groups establish sustainable means of livelihood to become food secure (e.g. internally displaced people and returnees etc). It is the intention and commitment of the Government to reduce and finally eliminate food insecurity on a sustainable basis.

1.13 The operational objectives are:

- Understanding the incidence, geographic distribution, nature and causes of food insecurity;
- Developing a sound strategy to enhance national and household food security; and
- Defining a sound and realistic program of action – including policies, institutional reforms, capacity building measures, and investments to strengthen food security in the medium- and long-term.

1.14 The food security strategy forms an integral part of the poverty reduction strategy (I-PRSP). Thus, it is developed contiguously with the PRSP. Consultations on the PRSP also covered topics important for food security (Chapter IV). Preparing the two strategies simultaneously has the following advantages:

- (a) Builds critical linkages between the two strategies. Food insecurity is both a cause and consequence of poverty and by developing the two strategies simultaneously; critical linkages can be identified thus resulting in an overall impact greater than if each of the strategies was developed independently;
- (b) Exploits critical synergies between the two. Given the multi-layered nature of food security encompassing supply, access, affordability (income) and vulnerability to shortages, food security is embedded in the government's strategies for poverty reduction and national development; and
- (c) Reduces duplication of efforts. Integrating these two strategies and linking them to the macro-economic growth strategy of the country will also help reduce duplication of efforts that could result in multiplicity of unconnected strategies, a critical concern for a country such as Eritrea with limited institutional and human capacities and financial resources.

E. Overview

1.15 In addition to this chapter, the Food Security Strategy Paper contains four chapters and an annex:

- Chapter II - A detailed discussion of food security in Eritrea based on four recent studies: household living standards measurement survey, participatory community poverty assessment, demographic and health survey, and rural livelihood security assessment.
- Chapter III - The food security strategy for Eritrea includes challenges and recommendations for short, medium and long-term actions to reduce and eventually eliminate national and household food insecurity in Eritrea.
- Chapter IV - Describes the participatory process followed by the government in developing and building consensus for the Food Security Strategy Paper.
- Chapter V - Mechanisms for monitoring progress and evaluating the effectiveness of policies and programs to reduce food insecurity; developing intermediate indicators for timely monitoring of performance and feedback; identifying and developing key monitorable indicators of food insecurity reduction.
- Annex: Food Security Strategy Policy Matrix.

II. POVERTY AND FOOD SECURITY ASSESSMENT

2.1 This chapter provides a comprehensive assessment of the nature and extent of poverty and food insecurity in Eritrea and analyzes the determinants of food insecurity.

A. Data Sources on Food Insecurity.

2.2 The food security analysis and formulation of the strategy to enhance food security is based on the following surveys and quantitative data, and participative qualitative assessments:

- Household Living Standards Measurement Survey (LSMS).³ The National Statistics and Evaluation Office (NSEO) conducted this survey in 2003 with a view to fully understand the nature, extent and causes of poverty; ⁴ and
- Participatory Poverty Assessment (PPA). ⁵ The PPA provides qualitative information on the dimensions of poverty and valuable insights on the perceptions of the communities including the poor. An experienced team of Eritrean consultants conducted the participatory assessment that collected and

³ Living Standards Measurement Survey, NSEO, 2003

⁴ The first rapid poverty assessment was carried out in 1996 based on information from a survey conducted in 1993–94.

⁵ Participatory Poverty Assessment, Prof. Asmerom Legesse, 2003

analyzed data on poverty (for households and communities in selected villages in all Zobas).

2.3 Two complementary studies were also completed recently, namely:

- The Second Demographic and Health Survey (EDHS) also conducted by the NSEO in 2002, provides valuable information on the status of health, nutrition and demographic parameters in Eritrea, including national estimates relating to fertility, mortality, family planning, maternal and child health, and nutrition for all six Zobas with a breakdown for urban and rural areas.
- The Rural Livelihood Security Assessment (2003) ⁶ describes the food security situation of rural households throughout Eritrea, identified the most vulnerable geographic areas, and vulnerable households. The survey collected and analyzed data on household resources, livelihood strategies and availability of health services, access to water, etc.

2.4 On the basis of information collected and analyzed from the LSMS, complemented by the findings from the other two studies listed above, the NSEO carried out a comprehensive assessment of the poverty situation in Eritrea and produced a report: "Dimensions of Poverty in Eritrea". ⁷ These four surveys have significantly increased our understanding of the nature, extent, geographical distribution, and structural causes of poverty.

2.5 The assessment of food security at the household level was carried out as part of the poverty assessment. The questionnaire used for the LSMS included questions on household access to food, crop production, livestock ownership, dietary habits, access to water and sanitation facilities. Also discussions and interviews were carried out as part of the participatory poverty assessment that included topics on food security.

⁶ Eritrea: Rural Livelihood Security Assessment (July, 2003), ERREC, WFP and CARE Eritrea (July 2003). It established a baseline of indicators to monitor the impact of the drought on household food security

⁷ The Social Policy and Development Center (SPDC) in Pakistan provided technical backstopping to the NSEO at the various stages of the household survey and preparation of the poverty assessment. The UNDP, UNFPA and WFP funded the various tasks related to the field survey, and report writing.

B. Incidence of Poverty ⁸

Table 1: Population Below the Poverty Line

POVERTY INCIDENCE (HEAD COUNT)						
Location	Population		Poor		Of which	
	Mill	(%)	Mill	(%)	Extreme	Poor
Rural	2.45	68.8	1.58	64.64	0.95	38.90
Urban	1.11	31.2	0.78	70.32	0.36	32.65
Overall	3.56	100.0	2.36	66.40	1.31	36.97

Source: LSMS, 2003

Note: The Poverty Line is Nkfa 240 per capita/month; Extreme Poverty line: Nakfa 150 per capita/month

2.6 An overview of the poverty situation in Eritrea based on the findings of the LSMS estimate reveals the following stylized facts-highlighted in Box 2.1

Box 2.1: Stylized Facts on Poverty in Eritrea

- 66 percent of Eritreans (or 2.36 million) are poor unable to obtain sufficient food (in terms of calories) and other essential goods and services to lead a healthy life.
- Approximately 37 percent (or 1.31 million) of the poor live under extreme poverty, i.e., below the food poverty line.
- About 65 percent of the population in rural areas of the country is unable to obtain sufficient food (in terms of calorie intake) and other essential goods and services.
- With food assistance, about 53 percent of the population lack access to a minimal basket of consumption goods. Further, the study shows that about 50 percent of households require food aid even in good years, while 80 percent depend on it in years of poor harvests.
- Poverty incidences show significant variation between Zobas where the Northern Red Sea and Anseba have the highest poverty incidence followed by Southern Red Sea.
- Urban poverty is more serious than originally thought. About 33 percent of the poor or (0.78 million) live in urban areas. The incidence is more pervasive in small towns with a very high percentage of the population below the poverty line.
- Poverty is strongly related to lack of basic needs in education (especially literacy level of head of household) and health services and access to cultivable land.
- In rural areas, the poor households cultivate only 0.9 hectares of land, less

⁸ A more detailed presentation of poverty indicators including definitions and methodology is presented in "Dimensions of Poverty (March, 2003).

than the average of 1.1 ha for each household, are less able to diversify their agricultural production and are thus more susceptible to economic shocks.

- The poor, in particular the rural poor, have larger families (average of 6 persons) compared to only 4.2 persons for the non-poor. The average family size in Eritrea is 5.1 persons.
- About 30% of households are headed by women (of which 18% are widowed); on average female employees earn less than half that of males and the majority of poor women in the rural areas are engaged in low-paying manual labor in construction and agriculture. Furthermore, female-headed households cultivate fewer plots and have fewer household assets including livestock than do male-headed households. Rural women are less likely to be literate and numerate and about 40% leave school at an early stage due to marriage. Rural women often do not receive antenatal care and suffer from poor nutrition.

2.7 Because the surveys were done during an abnormal year when Eritrea was hit by the worst drought since independence, the NSEO carried out a sensitivity analysis to assess the impact of the severe drought on the incidence of poverty and living conditions of the people. The analysis reveals that the overall poverty incidence would have been lower at 56 percent – a decrease of about 10 percentage points under a scenario of normal weather (average drought) conditions. Similarly, rural incomes decreased by about 18 percent due to reduced agricultural output. Urban purchasing power declined by about 10 percent, largely due to higher food prices that followed the severe drought.

2.8 Rural and urban dimensions. The challenges for the poor in rural and urban areas vary in nature and magnitude. The rural poor face high-income risk because their income sources are not diversified. They are predominantly dependent on rain-fed agriculture and face a high frequency of food insecurity. The physical and social infrastructure is poor and non-farm income is sought often through periodic migration. Rural residents face the problems of access to land or insecurity in land tenure.

2.9 The urban poor earn income mainly from wage labor and informal sector activities including petty trade. The adequacy of food depends on cash availability. The physical and social infrastructure is generally of adequate quality and affordable for most residents. Housing problems are critical. Housing is often costly or unavailable thus forcing many to go to inexpensive houses in localities with poor or no water supply and sanitation facilities. Although they may be in close proximity to the political power networks in the national capital as well as Zoba centers, the poor often have limited access to them. Therefore, they often rely on community and social networks that serve as important coping mechanisms in difficult times.

2.10 Agro-ecological distribution of poverty and income. In high rainfall Zones, poor households depend primarily on remittances while the non-poor depend on livestock rearing and agriculture. Women head more than half of the poor households. These

households are frequently dependent on remittances from male relatives in the national service. Poor households are much more involved in the labor market, both in agricultural and non-agricultural employment.

2.11 Poor households residing in the medium rainfall zones report dependence on a variety of income sources indicating a more diversified livelihood strategy portfolio. However, 80 percent of the households report high dependence on internal remittances as well as non-agricultural sources of income. Poultry and handicrafts also constitute important income generating activities.

2.12 Households in the low rainfall zones rely on numerous income sources, with livestock as the most important income source. Agricultural and non-agricultural day labor are also a critical source of income. Remittances from within Eritrea are also important, particularly to poor households. About 10 percent of all households derive income from fishing. Crop sales are relatively insignificant and very few households participate in small business, trade, poultry, and handicrafts.

C. Poverty Profile

2.13 Poverty is concentrated in rural areas, and is most severe in the arid zones. About 67 percent of the poor live in rural areas and rely on low output agriculture and animal herding for their livelihoods. The incidence and severity of poverty among rural inhabitants depend on the agricultural endowments of the region in which they live. People living in chronically arid areas, such as the coastal plains and the northwestern lowlands are on average much worse off than those living in the wetter eastern escarpment, western escarpment, and central highlands.

2.14 About 36 percent of the nation's people live in the arid areas. The great majority of them are semi-nomadic pastoralists who depend on cattle, camels, sheep and goats for food and income. During years of normal rainfall, they cultivate sorghum or millet, but during years of drought they sell their animals in exchange for grains and vegetables. Because they move frequently in search of water and grass for grazing animals, nomadic people are harder to reach with health care and education services. Consequently, they suffer higher rates of maternal, infant and child mortality and lower life expectancies than settled groups. They are also less likely to be literate, especially women.

2.15 The greatest number of poor live in the highlands. While poverty is more pervasive among people living in the arid regions, the greatest number of poor people live in more densely populated highland regions. The majority of the highland poor possess a small plot of farmland of poor quality, rely primarily on subsistence agriculture (crop cultivation and animal husbandry) for their livelihoods. They have poor access to farm inputs, (seed, irrigation water and animal power) and show very limited engagement in non-farm activities, such as trade and remittances. This suggests that in Eritrea having opportunities for engaging in non-farm activities and receiving remittances from families and friends are critical for moving out of poverty.

2.16 Households headed by women are poorer than average. About 30% of Eritrean households are headed by women, of whom 18 percent are widows the legacy of long years of the war of independence and the recent border conflict. Women comprise about 30 percent of the labor force. This group is, however, poorer on average than households headed by men because the majority of the poor women in the rural areas are engaged in low-paying manual labor in construction and agriculture. Also on average, female employees earn less than half that of males. Furthermore, female-headed households have fewer household assets including livestock than do male-headed households. Rural women are less likely to be literate and numerate, where nearly 74 per cent have not attended school, about 40% leave school at an early age due to marriage and 10 percent due to illnesses. Rural women often do not receive antenatal care and suffer from malnutrition.

2.17 The poor have larger Family Size and high dependency ratio. Family size is directly related with poverty status. The extreme poor have larger families (6.1), compared to the non-poor (4.2). The survey result shows a strong and direct relationship between dependency ratio and level and incidence of poverty.

2.18 Income distribution is not extreme. The ratio of share of consumption of the richest quintile (top 20%) to that of the poorest (bottom 20%) is 6.8, which is relatively high.

2.19 The poor have limited access to social services. While much progress has been made in increasing access to basic social services since independence, coverage and quality of social services is still poor in Eritrea. Limited access undermines their capabilities and potentials to secure gainful employment, and results in income poverty and food insecurity (see Para. 2.43-2.48 in section F for more detail on access to social services).

D. The Impact of Recent Events (war and drought) on Poverty and Food Security.

2.20 Border war. After six years of steady improvement in Eritrea's economy, a border dispute with neighboring Ethiopia led to the destruction of economic and social infrastructure, productive assets and businesses. It had a significant adverse impact on the living conditions of the people. More than 60,000 displaced people still live in temporary camps in the country. In addition, large tracts of fertile land and pastures in the border areas remain inaccessible for farming due to land mines. The conflict also resulted in mass displacement of nearly one million Eritreans residing especially in the agricultural areas of Gash-Barka and Debub Regions.

2.21 Drought. The 2002 drought --the worst since independence in 1993, threatened the lives of over 1.4 million Eritreans, more than one-third of the population. An almost complete absence of rain seriously undermined agricultural production, even in the most fertile areas of the country. Crop production dropped sharply in 2002 to an estimated 54,000 metric tons (MT), only about one-fourth of the average production during the past ten years. A significant number of livestock died or were sold off by farmers to

mitigate the adverse impacts of the drought. Similarly, in 2003, although the overall amount of kremti rains (June-September 2003) was about average for most areas of the country, their distribution was unfavorable with long dry spells alternating with torrential downpours. As a result, crop production for 2003 was only about 106,000 MT. The drought also reduced the availability of seeds and affected the 2003-planting season. Significant quantities of food purchases and food aid were needed, and much of the population resorted to a variety of coping strategies to survive (see section E on coping strategies).

2.22 In almost all the drought-affected areas, the ground and surface waters have been depleted. In coastal areas, the ground water level has dropped by up to 10 meters. In some cases, the 2003 drought has led to crop failures, livestock losses, and acute shortage of drinking water, thus exacerbating the already critical food and water shortages from last year's drought (see box 2.1).

Box 2.2: The 2002-2003 Drought and its Impact

Causes. The current drought is the worst since independence in 1993. An almost complete absence of rain has seriously undermined agricultural production, even in the most fertile areas of the country. The crisis has been aggravated by the continued mobilization of large number of farmers into the armed forces. In addition, sections of the most fertile land remain covered with mines from the 1998-2000-border war.

Impact. Crop production dropped sharply in 2002 because of the drought. The harvest is estimated at 54,000 metric tons (MT), only about one –fourth of the average production over the past ten years. As a result, the overall food deficit is estimated at 476,000 metric tons of grain equivalent. Furthermore, drinking water has become increasingly scarce, and considerable parts of the livestock have died. The drought is estimated to threaten the lives of over 1.4 million Eritreans, more than one-third of the population, according to a joint UN-government study. In addition, the large number of internally displaced people from the war, who are presently living in refugee camps, would need food and other humanitarian assistance. There are indications of growing malnutrition and subsequent death, especially among children.

The 2002 drought also reduced the availability of seeds and affected the 2003-planting season. A significant number of livestock have also died or were sold off by farmers to mitigate the considerable adverse impacts of the drought. Livestock represents the main mechanism utilized by farmers as a coping device against emergency. Mainly as the result of the drought, but also reflecting slow progress in demobilization, and slow progress in demining, crop production is estimated to have fallen by 77 percent in 2002.

In 2003, crop production was severely constrained by erratic rains starting late and ending early. Although the amounts of kremti rains (June-September

2003 were about average for most areas of the country, long dry spells alternated with torrential downpours, thus crop production for 2003 was about 106,000 MT.

Immediate response. In November 2003, the government appealed for emergency food assistance, supported by UN Consolidated Inter-Agency Appeal. The cereal import requirement for 2004 has been estimated at 478,000 tones, setting the estimated domestic availability of 136,000 tones against the estimated total utilization of 614,000 tones. Given the precarious foreign exchange situation, it is anticipated that around 30,000 tones of cereals can be commercially imported for consumption. With about 31,000 tones of cereals in stock or in pipelines as food aid, the uncovered cereal deficit – for which international assistance is, needed amounts to 417,000 tones.

Government Plans. The Government has prepared an alternative way to prevent starvation in case of insufficient or slow response as in 2003 when the government was compelled to use much needed foreign exchange reserves to procure food from the international market thereby averting a humanitarian crisis. The 2004 budget provides for ERN 105 million in contingency funding for emergencies (amounting to about 30,000 tones depending on the exchange rate and food prices). Additional funds may be gained by cuts in other budgeted expenditures. However, the low level of foreign reserves limits the use of such funds for purchases from abroad. As a last resort, the Government stands ready to borrow abroad, preferably on concessionary terms, to avoid starvation of the population in year 2004. Eritrean nationals in the country and abroad have made significant contributions towards meeting the challenge in year 2003, and it is hoped that they would rise to the occasion again in 2004 if needed.

Tackling chronic food insecurity. The Government is working on a medium-term food security strategy to tackle the country's chronic food deficit. This strategy includes, inter alia, strengthening water catchments and irrigation systems, enhancing the productivity of rain-fed agriculture, and increasing livestock and fish production and creating alternative sources of employment and income.

Food production and security are also expected to benefit from demobilization and demining. Over the next year, more than 120,000 persons are expected to be demobilized, many of who will return to agriculture. The increase in arable land as a result of demining and the newly resettled areas by returnees from Sudan will also boost production.

E. Sources and Indicators of Vulnerability

2.23 Sources of Vulnerability The main sources of vulnerability for the people of Eritrea are external and internal shocks that include: (a) food insecurity (due to drought,

pest infestation or military conflict); (b) dependence on a single source of income and employment (agricultural-based source of livelihood is vulnerable to drought, pests, degradation of natural resources and fragmentation of small holder farms); (c) lack of access to basic social services and infrastructure (in particular water during drought conditions); (d) lack of access to productive assets (land, credit and farm equipment) and markets; and (e) lack of adequate social safety nets to protect the socially and economically vulnerable persons.

2.24 The survey results show that the most vulnerable are mainly-

- Households that live in high rainfall zones and depend on agriculture as their primary livelihood strategy. They are more food insecure because they are more dependent on fewer livelihood activities, particularly on subsistence agriculture. Communities situated in the lower rainfall zones appear to have greater diversity of livelihood activities which allows them to spread their risks. They depend primarily on livestock production as their main source of subsistence and livestock sales for weathering the crisis and maintaining adequate levels of food consumption. They own animals that are more drought tolerant and therefore are less susceptible to climate variability.
- Households with the highest dependency ratios. They are highly vulnerable particularly those in the highest rainfall zones. Poor households are employing coping mechanisms that increase their long-term vulnerability. For example, the majority are consuming their planting seed stock and nearly half are selling off farm implements to respond to food scarcity;
- Female-headed households. They are more vulnerable than male-headed households. Gender could be seen as a source of vulnerability because of gender bias in employment and wages reflected in substantial differences in the level of income earned and the concentration of females in low-skilled and low-status job; and
- Socially and economically disadvantaged persons. These include children in difficult circumstances (e.g. orphans, street children, disabled, commercial sex workers) and socially disadvantaged persons (e.g. the destitute, displaced returnees and deportees, persons with disability and the elderly)

F. Food Insecurity Diagnosis

1. The Underlying Causes of Food Insecurity

2.25 The food security diagnosis takes a multi-dimensional view of food security and considers opportunities, empowerment and vulnerability dimensions. The approach and analysis recognize the heterogeneity of food security and linkages with poverty and integrates social, gender, regional and environmental concerns (see Chapter I - Conceptual Framework).

2.26 The underlying causes of national food insecurity include lack of foreign exchange to import food, unsupportive policies, lack of capacity to store and transport food where and when it is needed, and others. Main causes of household food insecurity include shortage of food in markets, isolation from markets, lack of capacity to produce food or earn income to purchase food, lack of a reliable source of potable water, sanitation, and inadequate health services. Drought and war are the main factors that have exacerbated the food insecurity problem in Eritrea. High rates of population growth and poverty also have played a part, within an already difficult environment of fragile ecosystems.

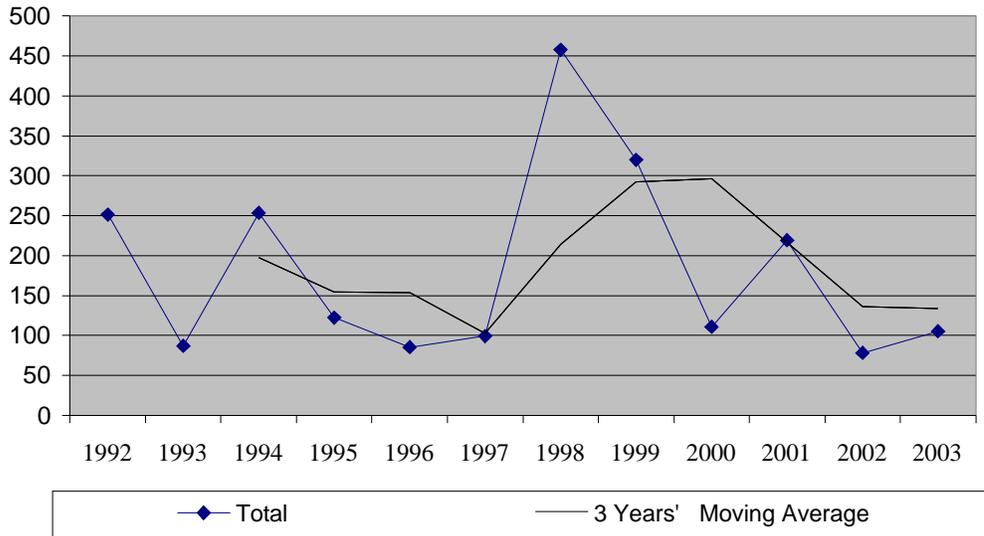
2.27 Long-term factors, such as the interaction between environment, high population growth, diminishing land holding size, and a lack of on-farm technology have led to a significant decline in productivity. Crop yields are falling due to declining soil fertility and inefficient use of irrigation water. These trends have combined with the repeated effects of drought over the years to substantially erode the productive assets of communities and households. Loss of community assets (e.g. pasture and forest) led to environmental degradation and increased the pressure on subsistence-farm families, leading to declining investment in soil and water conservation practices.

2.28 The lack of access to resources, employment opportunities and income result in poor purchasing power of households. This makes the poor most vulnerable to acute food insecurity when faced with external shocks, such as harvest failure. Concomitantly, food prices also rise, which make their vulnerability worse. More importantly, households are less able to cope with shocks because it is difficult to accumulate savings (e.g. livestock holdings and food stores) even in good years.

2. Food Supply, Availability and Requirements

2.29 Food availability is inadequate. Food availability is achieved when sufficient quantities of food are consistently available to all individuals within a country. Such food can be supplied through domestic output, commercial imports, existing stocks, food assistance or a combination of two or more of these. Food availability, when considered at the national level, is affected chiefly by the national economic context, itself a function of both international assistance flows including food aid and domestic macroeconomic and food policy, including imports of food.

FIGURE 1
Cereal Production (000 mt)



Source: Ministry of Agriculture of the State of Eritrea; 2002 & 2003 figures are estimates.

2.30 Unstable quantity in Cereal Production. The figure shown above clearly illustrates the very wide annual fluctuations that the country experiences. It indicates an extraordinary instability in food production, as the annual fluctuations are very wide. Even the three-year moving average does not result in a flatter trend line as it too shows extreme highs and lows. Due to inadequate and erratic rainfall, agricultural production has not been satisfactory over the years. During the past 10 years, domestic food production met on average not more than 60% of annual food requirements. In 2002⁹ Cereal Production dropped sharply and met only less than 15 percent of Eritrea's annual requirements and the production in 2003 was not much better. Crop production in 2003 reached about 115 000 Mt covering only about 20% of total annual food requirements. Clearly, water is the most critical factor in shaping Eritrea's agricultural output, which shows wide fluctuations in staple and cash crop production.

2.31 Commercial food imports cover 15-20 percent of the demand and food assistance makes up for the remaining deficit. Maximum commercial import capacity, according to the WFP/FAO country assessment report (2002) is around 80,000 Mt of food grains. In addition to that, there has been traditional cross border trade with neighboring countries, estimated to be about 70,000 Mt.

2.32 Food assistance has been diminishing since 1994. International food assistance has been used to fill the remaining food deficit. There has been no consistent trend in food aid over the years, although there are clear indications that after reaching a peak of 223,000 Mt in 1994, it fell to a meager 552 Mt in 1997. However, there has been

⁹ 2002 production estimates are- Cereals 78000 mt; Pulses 3304mt; Fruits and Vegetables 10000 mt; and Oil Seeds 11000mt. in a total area of about 536 000 hectares.

an increase in food assistance rising from a level of 50,000 Mt in 1998 to a peak of 229,000 Mt in 2000. Given the recurrence of droughts, bad harvests and unpredictability of external shocks, it is necessary to have a more secure and assured supply of food assistance over the medium-term to enable Eritrea to plan with confidence its development expenditures.

2.33 Livestock production is an extremely important sector of the rural economy, especially in the more arid areas of the country. Although the largest herds are in the lowlands, the overall herding pattern is characterized by seasonal movement in search of grazing, both within the lowlands and between the lowlands and the highlands. The principal animals are sheep and goats, followed by cattle, camels, donkeys and horses. On average, rural households have 3-5 sheep and/or goats. Apart from work oxen, which are often put to graze in areas especially reserved for them, most livestock are raised on an extensive system that relies on natural pasture and crop residues. As a result, there is a marked annual fluctuation in stock condition, which reflects the availability of fodder. Livestock numbers are said to have increased in the years immediately after independence, and then fallen during the recent two years of conflict with Ethiopia. Since then, numbers are thought to have risen again. Pastoralists tend to over-stock, despite the frequent shortages of fodder and water, as they usually put more store by numbers than by condition; they are often loath to sell off stock even when times are hard. The border conflict with Ethiopia has largely halted the movement of livestock both to traditional grazing lands across the border and to grazing areas within Eritrean territory that are still mined; it has also closed important livestock trade routes.

3. Food Access (Demand Side)

2.34 Food access is ensured when households and all individuals within them have adequate resources to obtain appropriate foods for a nutritious diet. Access depends on the income (in cash or in kind) available to the household. Household's food access is premised on the capacity of households to produce their own food and/or to purchase it on the market out of their income. Thus, income in kind and cash reflecting the household's purchasing power, is the primary determinant of food security¹⁰.

2.35 Inadequate Household Wealth. Household wealth is an important determinant of household access to food during economic shocks and vulnerable conditions. A crude idea about household wealth, excluding the imputed value of own house, estimated in the LSMS, indicates that in rural areas households have on average livestock worth only about 5,000 NAKFA. Also a very low value is reported for other household assets. The average worth of household assets (including livestock) is approximately 7,000 NAKFA per household. These figures clearly indicate that, in general, the accumulated wealth is not enough for households to cope with emergencies.

¹⁰ This presentation is heavily drawn from 'Dimensions of Poverty in Eritrea'. For detailed methodological issues, sources and references see the appendix of the report.

2.36 Sources of Income. On average, about 40 percent of income is obtained from wages (employees of Government, private and public establishments). This category also includes the casual labor in agriculture and non-agricultural sectors. About 15 percent of income is obtained from cultivation, and the magnitude does not vary across income categories (poor and non-poor). The share of non-agriculture income is very small. On the average, only 5 percent of income is obtained from non-agricultural activities, and the majority of the establishments owned by non-poor. About 23 percent of household income is aid and transfers¹¹. The magnitude of this source of income, even in case of the non-poor suggests severe food insecurity in Eritrea. Households also reported 'other income'¹² as an important source. However, a major part of this comprises loans and sale of household assets. On average, the share of this source is about 17 percent. Altogether, about 40 percent of household receipts include food and nonfood assistance, transfers from abroad, loan, sale of assets and charity, with the remainder obtained from economic activities.

4. Food Absorption (Nutritious food Intake)

2.37 Food absorption or utilization is the proper biological use of food, requiring a diet providing sufficient energy and essential nutrients, consumed in conjunction with potable water, and adequate sanitation. Effective food utilization depends in large measure on the knowledge within the household of food storage and processing techniques, and on the basic principles of nutrition, childcare and illness management. Food utilization is premised not only on appropriate food intake, but also on the physical health of the individual, access to safe water, the prevention of epidemics, reproductive health and family planning.

2.38 Household Calorie Intake is Insufficient. The calorie consumption of Eritrean households is shown in Table 3 below. It is evident from the table that the extreme poor are far below the minimum necessary (2000 calories for urban and 2100 calories for rural) to meet the basic nutritional requirements. On average, this group is consuming 25 percent less calories than minimum requirement. On the other hand, the 'non-extreme poor' group consumes about 5 percent above the minimum requirement.

¹¹ Transfers include; money assistance from abroad or within Eritrea, rehabilitation money and martyrs' family allowance, while food and non-food aid and assistance is obtained from NGOs, Government and other households.

¹² Other receipts includes; pension, interest income, inheritance money, dowry, sale of household assets and goods, loan etc.

TABLE 2.2 Average Daily Per Capita Calorie Consumption

	Poor		Non-Poor	Overall
	Extreme	Non-Extreme		
Eritrea	1616	2130	3142	2385
Urban Areas	1474	2101	3151	2160
Rural Areas	1671	2209	3314	2498

Source: Dimensions of Poverty (March, 2003)

2.41 Undernourishment is high. On the average, about 59 percent of population is consuming less than the minimum calorie requirement and is therefore, food insecure. The incidence of under-or-malnourished is higher in urban areas (66 percent) than in the rural areas (56 percent). The prevalence of undernourishment is highest in the Debub and Maekel zobas. Anseba and Gash Barka have relatively lower incidence as compared to Southern and Northern Red Sea and Mackel. The severity of food insecurity may be gauged by the facts that about 15 percent of the population is consuming less than 50 percent of the recommended requirements. The largest percentage (35.6 percent) of this group live in the Southern Red Sea.

2.42 High share of food expenditure. A good measure of vulnerability of the household is the percent of the household's expenditure on food in total expenditure. On average, expenditure on food accounts for 66 percent of total household expenditure. In rural areas, households devote around 70 percent of their budget for food, irrespective of their poverty status. This indicates that a large percentage of households that spend high proportions of their income on food are vulnerable because any reduction in their income, for example due to a job loss, natural disaster or higher prices, will jeopardize their ability to meet their food needs.

2.43 Diversity in dietary intake is low. Calories (unit of dietary energy) are not the only nutrient people need to lead active, healthy lives. The average diversity of diet displayed by the share of food items in total food quantity consumed clearly reveals low diversity and, in fact, severe deficiency in some food items. For instance, very low shares of animal and fish products (6-7%) both in rural and urban areas indicate a low nutritional status.

2.44 Poor nutritional status of children. As a result of widespread periodic food shortages, child malnutrition in Eritrea is high. About 38 percent of children in Eritrea under five years are stunted (low height for age), 13 percent wasted (low weight for age) and 40 percent underweight. In rural areas, the percentage of children stunted is about 43. About 29 percent of urban children are underweight as compared with 45 percent in rural areas. Nearly 50 percent of all children suffer from anemia.

2.45 Gender and food insecurity. Female-headed households (FHH) represent a typical group of the vulnerable segments of the poor that are food insecure. They exhibit

low farm production and income largely because they lack manpower and have fewer assets than an average poor household. Furthermore, FHH consume less amounts of nutritious foods. They plant on average only 4.6 percent of the area with fruits and vegetables as compared to 10.4 percent by an average poor household, which means that in quantitative terms the FHH has lesser amount of these nutritious foods available. They also earn low disposable income from crops sales. The poor-FHH on an average get Nakfa 222 from all crops, which is 45 percent less than that of an average poor non-FHH's (Nakfa 400). The overall crop income of a FHH (Nakfa 332) shows a similar trend when compared with the overall crop income of an average household (Nakfa 544).

2.46 Cereals are the dominant calorie intake. Eritreans on the average obtain about 66 percent of the calories from cereals, making them an important component of Eritrean diet. Figure 1 shows Eritrea's annual cereal production from 1992 to 2001 along with estimates for 2002 (from LSMS) and 2003 (from FAO and WFP report). Insufficient supply of grains is largely attributed to the use of traditional methods of agricultural production on fragmented small holdings. Fragile soils, irregular rainfall, low inputs and lack of credit are not conducive to moving away from the traditional methods to modern agriculture.

G. Access to Social Services

2.47 While much progress has been made in increasing access to basic social services since independence, coverage and quality of social services is still poor in Eritrea. An analysis of the key poverty indicators show that the poor in Eritrea not only have low levels of income and expenditure, but also more limited access to public infrastructure and basic services such as education, health, clean drinking water, and proper sanitation. Such limited access undermines their capabilities and severely limits their potential to secure gainful employment, resulting in poverty and food insecurity. Furthermore, limited access to productive assets and fewer coping mechanisms make the poor very vulnerable to external shocks.

2.48 Poor access to Health and nutrition. In 2002, life expectancy at birth stood at 52 years, well below the average of 59 years for other low-income countries. The maternal mortality rate is 250 deaths per 100,000 live births (facility based data) related mostly to complications of pregnancy and childbirth. One notable achievement of Eritrea's health system has been the significant reduction in infant and child mortality. Infant mortality declined from 72 per 1,000 live births in 1992 to 48 in 2001. Mortality of children under five years declined from 140 per 1,000 live births in 1992 to 93 in 2001.

2.49 Low access to Education. Considerable progress has been made in bringing primary school education to the citizens of Eritrea. At independence, it was estimated that only about 58 percent of men and 28 percent of women could read and write. By 2001, it was estimated that 67 percent of men and 39 percent of women were literate. Currently the gross primary school enrollment rate at 53 percent for boys and 49 percent for girls is low and repetition and drop out rates are high, especially for girls. Girls are much less likely to attend and complete secondary school than boys, and still fewer attend the University of Asmara or other institutions of higher education.

2.50 Inadequate access to potable Water and sanitation. Approximately 18 percent of rural inhabitants have access to clean water from public taps.¹³ They obtain their water supplies from streams or ponds during the rainy season and from deep wells at other times of the year. Women and children typically spend up to two hours a day fetching water, and more during the dry season. On the other hand, about 67 percent of urban residents have access to clean water from taps. Many poor urban dwellers live in peri-urban areas, which are not served with piped water. They buy water from private vendors or municipality tanker trucks. Like the rural poor, they lack access to sanitation facilities.

2.51 Significant gap in access to services between rural and urban population. Households living in urban areas, and especially in the cities, are much more likely to visit health facilities and send their children to school than those living in rural areas. For example, Asmara, with 15 percent of the nation's population, has both the largest number and the highest quality of schools and health care facilities. Rural women are five times as likely to receive no antenatal care as urban women. Most rural women's delivery is not attended by health personnel or trained TBAs, thus they have a high rate of maternal mortality, child mortality and child malnutrition in comparison with those living in urban areas. Similarly, school enrollment and repetition rates and drop out rates are high in rural areas especially for girls.

2.52 Lack of Asset Ownership. The poor lack access to productive assets mainly farm land, livestock including farm animals. The value of assets owned and food consumption show a strong positive correlation. Poor households also lack access to credit because they have fewer assets to use as collateral and may have lower social network to rely on.

H. Coping Strategies

2.53 Eritrean communities have developed indigenous social welfare systems and ecological coping mechanisms that protect the poor from hunger, starvation and death even under the most difficult circumstances. When the normal agro-pastoral system of production faces difficulties, the community supports in rebuilding the herds of destitute families to the level at which they can be self supporting. Whereas the ecological coping mechanisms are ultimately vulnerable to climatic hazards, the social mechanisms can continue to function during period of crisis. They begin to decline only when the extent of poverty is so pervasive and so deep that even the relatively well-off members of the community also become impoverished and the welfare system collapses.

Box 2.3 Coping Mechanisms of the Poor

Social Coping Mechanisms

- Alternative sources of income include: (i) fetching gold, sea products, forest products, using pack animals in and around the village, (between the

¹³ Eritrea Demographic and Health Survey, 2002

villages and market centers), (ii) plowing the fields of villagers who have neither plow animals nor labor to do the job; and (iii) collecting water or firewood and selling it in the villages and towns.

- Outside the traditional subsistence economy, coping mechanisms include seeking jobs in towns and neighboring countries, selling the remaining productive assets to keep the family alive, and selling jewelry that was given to the women of the households on the occasion of their marriage as a measure of last resort.

Ecological Coping Mechanism

Three differing approaches are observed:

- The conservationists who have lived in the same environment for many generations have a deep knowledge of the natural vegetation and they tend to it with care. "If you know your trees, you will never starve." Knowledge of trees whose leaves are edible, therefore, becomes important because such leaves are available year round and can compensate for the seasonally restricted availability of the green leafy vegetables.
- The pioneers are those who moved away from their original habitat during the last generation or two and left their barren, degraded fields in the highlands to seek their fortune in the great river basins of the lower Mareb, the Gash, and the Barka rivers. They see their habitat as a "production site." Their motto is exploit the land, scoop off the wealth while they can, and when the land is denuded and exhausted move on to another site.
- The pastoralists have a highly protective attitude toward the riverine forests that give them fodder for their animals, supplementary food for humans, construction material for their homes and materials for their craft products. They have an adequate body of knowledge of trees and use it in times of drought and famine. They know a great deal more about animal fodder for their livestock than about wild famine foods for humans.

2.54 Households that rely exclusively or mainly on rain-fed agriculture are very vulnerable to external shocks such as drought and displacement. Coping strategies are differentiated by agro-ecological zones and levels of poverty.

- In High rainfall zones, the great majority of the poor households (83 %) consume less preferred foods and reduce the quantity and quality of food during emergencies. While the poor households are forced to limit the amount of daily food consumption by the adults, the non-poor (more than 75% of the non-poor) sell livestock to cope with their food deficit.
- In medium rainfall zones. There is higher dependence on food aid. The poor households tend to employ coping strategies that increase their long term

vulnerability, resulting in increasing reliance on food aid. For example, 83 percent of the poor households consume from their planting seed stocks compared with 69 percent of the non-poor households. Sale of farm implements as a response to food scarcity among the poor households (48%) is also observed;

- In Low Rainfall Zones: Nearly 66 % of the households rely on less preferred foods which is common among all families as a daily coping mechanism. Poor households, however, are more likely to skip meals for an entire day. Roughly one-third of the households across wealth categories borrowed food on credit to meet short- term consumption needs.

I. Perceptions of the Poor

2.55 The PPA presents peoples' perceptions and rank their choices as individuals and community members regarding the causes of poverty, measures to alleviate poverty, and coping mechanisms. The results are summarized in Box 2.2.

Box 2.4 Individual and Community Perceptions

The priority measures for poverty alleviation for the individual and community groups are ranked and summarized below.

A. Individual Perspective.

- Borrowing. Indigenous credit arrangements prevail in many rural communities in Eritrea. As drought intensifies, the poor families take food and other necessities on credit.
- Sale of Production Assets. Camels, goats, cattle and sheep (in declining order of importance) are principal means of livelihood, particularly for pastorlists. Sale of these is a key coping mechanism for resident farmers.
- Food Assistance when the household does not have able-bodied members who can produce food or earn an income, no resources like pack animals that can generate income, no access to the traditional welfare institutions, and no knowledge of wild famine foods, they have to rely on food assistance for survival.
- Adequate Housing. The housing problem is severe in urban and peri-urban communities. The pace of urbanization has far outstripped the rate of home construction, particularly low cost housing that can serve the needs of the poor.

B. Community perspective

- Peace is at the top of the priority list. Nearly all the community members acknowledge the obligation of the young to defend their nation. The absence of the young in the labor force is their main concern. They propose partial demobilization as a way out of poverty. Their preference is that their children will return to their villages and engage in farming, herding, and craft activities that they left behind.
- Access to Adequate Health Facilities is considered key element in alleviating their poverty. Lack of good health is directly implicated in the impoverishment of households.
- Jobs/employment mainly in the form of cash for work programs to rehabilitate drought stricken population in the near term.
- Access to farm inputs, schools, drinking water supply, rural roads and micro credit schemes (in declining order of importance).

III. FOOD SECURITY STRATEGY

Introduction

3.1 Government's Long-term Objectives. Eritrea's long-term vision is to make food of sufficient quantity and acceptable quality readily accessible to all at an affordable price at any time and place within the country. Ensuring food security for all its citizens is, therefore, a key long-term development goal of Eritrea. The principles that underpin the vision are that national food security depends first and foremost, on the ability to increase production levels; secondly, on purchasing power or incomes of the people from farm and non-farm sources (the first and the second are interrelated, especially in rural areas), and thirdly, on the adequacy of and effectiveness of the food assistance program, as a means of last resort to meet the needs of the most vulnerable.

3.2 Eritrea's food security strategy contains two inter-related sub-strategies presented below in two parts: (i) National Food Security Strategy and (ii) Household Food Security Strategy. The key elements of these strategies and supporting policies and programs are summarized in this chapter. Ensuring National and Household Food Security involve activities and programs that help increase agricultural and fisheries production, enhancing foreign exchange earnings through exports and effective use of food assistance. Consequently, there is an unavoidable overlap of activities and programs therefore several sections in Part II are repeated in Part I.

PART I: NATIONAL FOOD SECURITY STRATEGY

3.3 The strategy for achieving national food security objectives rests on three pillars: (a) Enhancing the domestic food production capacity; (b) Increasing national capacity to import an adequate quantity of food supply; and (c) Enhancing the effective use of food assistance to fill the supply gap during emergencies.

Pillar I. Enhancing the Domestic Production Capacity in Agriculture and Fisheries

3.4 Recognizing the importance of agriculture to meet the country's objectives of raising rural income, reducing poverty, enhancing national food security, support industrialization and raising foreign exchange earnings, the government undertook an agricultural sector review in 2001¹⁴. It formulated a sector strategy whose objective is to increase domestic food production by enhancing the productive capacity in agricultural and livestock systems through actions in the following four important areas:

A. Rainfed Agriculture

3.5 Domestic agricultural production in rainfed areas will be increased by:

- Appropriate intensive and extensive farming. The objective is to raise agricultural production through an expansion in farm area in the lowlands ¹⁵ complemented by an increase in intensity and diversification in the highlands. This is to be achieved through coordinated farming practices compatible with the different agro-ecological conditions in the various zones of the country.
- Effective research and extension services. The objective is to reorient the extension and research system towards addressing priority problems and concerns of subsistence farmers. This entails conducting applied research and extension programs in support of the strategies for rainfed agriculture. It emphasizes adoption of appropriate technologies employing modern agricultural inputs and practices taking into consideration risks, developing and disseminating drought-resistant, faster-maturing seed varieties, training the agricultural extension staff with effective skills, strengthened through introduction of agricultural extension packages that take into account agro-ecological conditions.
- Raising farm productivity (unit yields) by introducing and adopting improved farming techniques and promoting the use of modern farming practices – primarily farm inputs (increasing fertilizer use, pesticides), use of improved pest control and reducing post-harvest losses.¹⁶ One important action is to harness seasonal water flows for use in seasons with low rainfall through catchment rehabilitation, and rainwater harvesting.
- Increasing water availability. The objective is to harness the seasonal water flows and augment water storage capacity through the construction of reservoirs, small dams, lining of watercourses and rehabilitation of degraded catchments. These initiatives will provide additional storage capacity bringing

¹⁴ The role of Agriculture in the National Economy, Ministry of Agriculture (MoA, 1996); Eritrea – Agricultural Sector review (World Bank, 2001); and Agricultural Sector Policy and Strategic Framework, MoA (2003).

¹⁵ Some parts of eastern and western lowlands are endowed with fertile land and water

a large tract of land under cultivation.¹⁷ There are several watercourse renovation initiatives planned for completion during 2004-06 periods. All new water schemes will be required to recover restoration and maintenance costs of water schemes. Most of the watercourse schemes require community participation and their contributions in renovating or building watercourses.

- In addition to benefiting agriculture, increasing water availability will benefit rural households and communities, in particular women and girls by reducing the time required to obtain water.

3.6 Because of moderate to high land degradation in the semi mountainous moist areas, expanding cultivated land in these locations may be a major constraint. Sustainability of the food production system cannot be ensured unless forests are increased and soil quality improved. To promote improvements in land use in dry and highly degraded highland areas, the priority will be on implementing measures that would reduce soil erosion, conserve topsoil, restore soil fertility and improve water conservation. These measures are expected to significantly contribute to raising productivity in traditional agriculture in these fragile systems. Priority measures would include: (i) implementing programs to reduce soil degradation and improving efficiency in water use in rain fed areas; (ii) providing technical advice, infrastructure, essential services, and access to credit and farm inputs, (iii) secure rights of tenure to individuals and groups; (iv) rehabilitate and desilt micro-dams which are deemed viable , and (v) introducing appropriate modern, labor-saving farming techniques. Some of the rehabilitation works can be done with cash-for-work projects and other approaches promoting community participation.

3.7 Development and protection of forestry and wildlife by adopting more effective measures including proper tree and land tenure schemes, development of alternative sources of energy (to minimize the use of fire wood); and providing seedlings and guidance to communities that want to establish woodlands and enhancing the tree survival rates to above 70% of seedlings planted. Furthermore, rangeland areas that require protection by temporary closure would be identified and protected.

B. Irrigation

3.8 While expanding cultivated land may be a constraint in moderately to severely degraded highlands, there is abundant land in the western lowlands and eastern

¹⁶ Under the 2004 capital budget, nearly 100 million Nakfa is earmarked for water related infrastructure, mainly the rehabilitation and construction of water projects. Planning and implementation of these projects will be accorded high priority. Main segment of this program involves construction of micro-dams, much of it under Warsai Yekealo campaign.

¹⁷ Under the on-going Integrated Farming System (IFS) initiative, yields for a number of major crops more than doubled. The Sasakawa Global 2000 initiative to enhance agricultural productivity, support investments in irrigation and soil and water conservation.

escarpments.¹⁸ The priority measures include increasing cultivated land through mechanized farming that takes into account the terrain and the current severe shortage of labor, together with the introduction of modern farming techniques and management methods, providing improved seeds, fertilizer, and technical packages. Private investment will be encouraged by providing incentives to open new commercial farms or rehabilitate existing ones in the form of concessions (e.g. land lease privileges to individuals and associations), and small concessions that show greater scope to quickly transform to commercial agriculture. The goal is to bring large tracts of cultivable land under cultivation and increase appreciably crop and animal production by improving production conditions in the western lowlands, where potential exists.

3.9 Measures to enhance water availability. The objective is to augment water storage capacity through the construction of reservoirs, small dams, lining of watercourses and new irrigation schemes. Thousands of cubic meters of water will be saved through the watercourse improvement programs by minimizing water losses in the watercourses and applying more evenly through land leveling and improved water application techniques at the farm level. Planning and implementation of these projects will be accorded high priority. Under the Medium Term Development Plan (2004-06),¹⁹ the Government will support projects that aim to increase the availability of irrigation water through the rehabilitation of existing micro dams and constructing new ones, and promoting efficient on farm-water management. Specific actions for increasing watercourse improvements program include support for constructing hand-dug wells, reservoirs, pump houses, ventilated storerooms, and secondary earthen canals, purchasing and installing motor pumps, generators, and pipes, preparing and clearing land, training farmers in irrigation and appropriate farming methodologies; and providing seeds, fertilizer, chemicals and farm tools, and market information to improve product sales.

3.10 The Government will encourage commercial farming, by among others, introducing industrial crops, promoting the use of tube wells, construction of micro dams and small water storage facilities, and spate irrigation in selected areas in the eastern and western lowlands; opening up roads to high potential agricultural areas like the Gash Barka; and providing extension advice on cultivation techniques and marketing facilities.

3.11 The strategy also supports the development of smallholder irrigation with priority given, where feasible, to irrigation schemes that have high levels of community participation in planning, cost sharing in the construction (mainly in labor) and full operation and maintenance (O&M) of the schemes. Increasing areas under irrigation and doubling the cultivation intensity in the irrigated areas²⁰ will be achieved through

¹⁸ From an estimated 2.1 million ha of arable land suitable for agriculture production using both rain-fed and irrigation, barely half a million are cultivated in years of good rainfall. However, not all areas are equally endowed with soil and water resources

¹⁹ Under the 2004 capital budget, nearly 100 million Nakfa is earmarked for water related infrastructure, mainly the rehabilitation and construction of water projects. Planning and implementation of these projects will be accorded high priority. Main segment of this program involves construction of micro-dams, much of it under Warsai Yekealo campaign.

²⁰ From a low of 3.7% to 7.4 % with an anticipated 15% annual growth rate.

effective use of surface and ground water by tapping into ground water resources starting with the main rivers, such as Setit.

3.12 Moreover, the government is giving special attention to water pricing and water tariffs for irrigation schemes aimed at recovering the O&M costs. For on-going irrigation schemes, water charges will be adjusted upwards to reflect cost recovery goals. Water resource assessment will also be carried out to assess the quantity and quality of water in each of the main rivers following which a national water resources development framework will be developed including investment programs for the development and efficient management of water resources.

C. Livestock and Rangelands

3.13 The objective is to exploit the potential in livestock production, through improved rangeland management in the traditional pastoral system, promoting animal breeding systems, improving animal health and nutrition and developing higher quality animal feed and pasture systems.²¹ This objective will be achieved by adopting an extension program designed to modernize the sub-sector, providing incentives for private sector investment in modern production methods, and introducing quality improvements and market opportunities for animal production. A key to the success of the proposed measures will be to develop and implement integrated agro-livestock-rangeland support systems that address the inputs and credit needs of the farmers, assure them reasonable returns through Producers Cooperatives, and mitigate their crop failure or livestock mortality risks (insurance).

3.14 Developing and implementing integrated agro-livestock-rangeland support systems in the traditional pastoral areas. The objective is to enhance livestock production and marketing system, particularly for pastoral communities in the main livestock producing areas in Gash Barka and Debub; the Government will support the drilling of boreholes by co-financing necessary pumps, motors, overhead tanks, and pipe connections. The local communities will be organized into user associations and provided with training on how to operate the water points. Special attention will be paid to ensuring greater participation of women, especially female heads of households

3.15 The key elements of the strategy include:

- introducing and promoting better pasture management, forage development, and providing more water points at strategic locations to increase pasture-lands and reduce their degradation;

²¹ Eritrea has a substantial potential for increasing earnings from livestock (goats, sheep, cattle, camels, pigs and poultry). This will be achieved by improving quality, raising productivity and expanding markets.

- distributing better breeds to farmers to build up stock and making available quality animal feed and animal health services; development and rehabilitation of breeding/ hatching centers;
- developing the dairy industry by training smallholder farmers and the commercial sector in animal husbandry, supporting and training dairy farmers' associations, and production technicians and field agents, and establishing cost-effective milk collection and processing systems; and
- improving marketing of livestock and livestock products ²² by providing technical advice to producers on management and marketing, provision of credit facilities to small scale farmers, helping create market outlets and encourage widespread use of refrigerated transportation services for perishables.

3.16 Productive and sustainable agro-pastoral systems will be achieved; degradation of pastoral lands reversed and their productivity increased by introducing technical change and more input use, establishing formal tenure that does not discourage mobility in arid pastoral lands, and recognizing the traditional water and land rights of herders in areas where change from subsistence to commercial agriculture is rapid. In addition, it involves the distribution of chicks to needy farmers and female-headed households for income generation, organization of cooperation of livestock and dairy producers, and establishment of bee-colony breeding and multiplication centers.

3.17 Improvements in management of rangelands will be achieved by improving soil fertility by undertaking an accelerated and sustainable afforestation program in partnership with communities. The Ministry of Agriculture will provide the seedlings and overall guidance, and residents will actively participate in designing and managing the community woodlots. The Summer Youth Program could also help in building terraces, planting trees and undertaking other soil and water conservation works.

D. Industrial and Artisanal Fisheries

3.18 The fisheries of Eritrea are unique in the world today, in that they are not generally overcapitalized or over exploited.²³ While many of the fishing areas in the world have been depleted and are yielding declining returns, Eritrean fisheries resources are still relatively healthy and in some cases underexploited. Therefore, Eritrea finds itself in a unique position of managing and exploiting a relatively young and healthy resource with the potential to offer great prospects for economic growth, meeting national food security objectives and earning foreign exchange for the country.

²² All of these measures will be primarily the domain of private sector, with government providing a regulatory framework and creating an enabling environment for private entrepreneurs.

²³ Fisheries Sector Management and Development Action Plan , World Bank and FAO, (Draft Report, October 2003).

3.19 With a view to increase the contribution of the fisheries sector to Eritrea's economy, the following strategic objectives and priority measures will be pursued:

- Increase the productivity of the artisanal fisheries by strengthening the cooperatives of artisanal fisheries through technical assistance for marketing, distribution, linking them to established high-value export markets, reducing import duties on fishing inputs to decrease their cost and assisting cooperatives to rebuild the stock of small pelagic fishery
- Strengthen resource management and planning to serve as a catalyst to promote production and productivity enhancing measures and protect the environment. Key measures include: conduct fisheries assessment and expand the current resource and fisheries monitoring program and adopt a sound vessel monitoring

3.20 The key element of the strategy is to improve the incomes of coastal villagers, which is a pre-requisite for enhancing their food security by strengthening their cooperative associations to enhance their productivity. Specific measures involve training fishermen, building cooperative storage, promoting domestic fish dietary intake, processing and marketing by the small fishermen. The Sahel Fisheries Development Project and the Barasole Community Fishing projects are supporting coastal villagers in 25 fishing villages (2,000 households) in Teo, Gelallo and Eddi.

E. Support Services for Agriculture, Livestock and Fisheries

3.21 Improving Rural Infrastructure and Promoting Rural Markets is critical for achieving the national food security objectives of enhancing domestic food production and marketing. The agricultural marketing and distribution system²⁴ will be enhanced by strengthening the agricultural price and market information system that will facilitate distribution of food from surplus to deficit areas and help reduce cost of food marketing and distribution and reach farmers who are far from agricultural input and output markets. The on-going effort in the rehabilitation and maintenance of the main and rural roads, coupled with promotion of competition in the transportation, trade, processing and distribution of food will be continued to help further reduce costs of marketing and distribution as well as input costs, which are key to enhancing agricultural productivity. Prices of strategic food crops will be stabilized through sound market stabilization schemes and storing and managing strategic reserves. Providing rural electricity for lighting, operation of tube-wells for extracting ground water and for operating small-scale processing machinery will have a major impact on the modernization of agriculture and in turn, on national food security.

²⁴ The on-going effort in the rehabilitation and maintenance of main and rural roads, coupled with promotion of competition in the transportation, trade, processing and distribution of food would help further reduce costs of marketing and distribution as well as input costs, which are key to enhancing agricultural productivity

3.22 Increasing the flow of credit to the agricultural sector. The Agricultural and Development Bank (ADB) has been reorganized under a new management. The Bank will increase availability of adequate credit to support modernization of the agricultural sector and support small-scale enterprises.

Pillar II. Enhancing National Capacity to import adequate Quantity of Food by Increasing Export Earnings

3.23 This pillar contains activities and programs that help increase foreign exchange earnings through exports to food security. This will improve our national capability to import adequate quantity of food and food products from the international market and improve food security. This goal is to be achieved by generating increased foreign exchange from exports in particular high-value agricultural products, fisheries and tourism and manufacturing. The Government of Eritrea is committed to pursuing sound macroeconomic policies that would help stabilize the macroeconomic situation, provide incentives to private investment, and achieve rapid growth.

3.24 With a view to boost foreign exchange earnings through exports, the following strategic objectives and priority measures will be pursued:

- create a suitable investment climate that would attract both national and foreign investors and enhance the profitability of the industrial fisheries in the high-value export markets. The key measures are: adopting a sound investment policy for the sector that identifies major opportunities in fishing, processing, services and aquaculture, define specific incentive measures in fishing rights, tax regime, import duties on capital investment (eg. Vessels, freezers) and inputs and approval process for granting incentives; stabilize the investment climate through government participation, investment guarantees, bilateral agreements to cover investment risk etc.; and identify and select foreign investors with good reputation and profile; and
- boost export earnings by tapping the potential in production of high value agriculture and fisheries products
- boost export earnings from tourism and manufacturing

A. Exporting High-Value Agricultural Products

3.25 Recognizing the importance of agriculture to generating foreign exchange from exports, (para. 3.4), the strategy in support of enhancing agriculture's capacity to increase export earnings draws on programs and technical approaches discussed in Pillar I, in particular, the sections on expanding irrigation in high potential areas, improving livestock production systems. It is expected that the contributions of the agricultural sector to export earnings will come primarily from irrigated agriculture and livestock production and tapping the high potential of marine fisheries and increasing the catch

yield. The commodities that actually enter the export market will of necessity reflect the comparative advantage of Eritrea in world markets. The key actions required to realize the export potential of the agricultural/livestock sector include:

- Encouraging small holders and commercial farmers to produce high-value crops and livestock products for export
- Expanding the area under irrigation primarily in the western lowlands and the eastern escarpments;
- Increasing water availability, including storage capacity, and efficiency in irrigation water use by developing surface and groundwater sources, introducing efficient irrigation technologies, and training of farmers on water management practices;
- Raising farm productivity by the use of modern techniques that are appropriate for irrigated agriculture;
- Improving livestock production by improving management, breed selection, range and pasture development, and veterinary services
- Increasing the availability of credit to the agricultural/livestock sector;
- Constructing essential infrastructure and improving markets and marketing of high-value agricultural products; and
- Reorienting agricultural extension and research programs to provide needed technologies and information for profitable agricultural and livestock production.

3.26 Production of high value crops mainly for export will be increased by encouraging smallholder and commercial farmers. In Gash-Barka Zoba, and the fertile valleys in the Eastern Lowlands and Central highlands, the Government's strategy is to support intensive crop production introducing appropriate water harvesting and farm management techniques aimed at increasing yields. Under this program, approximately forty thousand hectares of farmland, mainly in the Western lowlands are being readied for cultivation of high value crops for export (like cotton, oil seeds, cut flowers, fruits, vegetables, and tobacco) over the next five years. The key element of this initiative is to enhance productivity through improved use of technologies by the private sector.

3.27 Given the availability of skilled horticulturists, the potential for increased production for use in domestic consumption is great. Horticulture production especially that already established around population centers such as Asmara, Dekemhare, Keren, and Mendefera could expand production for consumption. The Government will take measures to encourage private investment, ensure, as far as possible, that fertile and developed horticultural farm is not endangered by urbanization, that the existing extension program is strengthened to ensure availability of inputs (e.g. improved seeds, credit, water pumps), adaptable research, identifying market outlets, and that technical assistance to horticulturalists is provided on establishing and running viable farms, that emphasize quality production and handling practices.

3.28 Banana production has a good potential the export market. In the past banana production in Eritrea has always been important source of export earnings. However, the product has recently gone through hard times. At present, product quality is too low to allow for banana exports. The strategy is to introduce modern method of production, post-harvest handling, and transport with a view to produce higher quality production and marketing. The approach is sequential, starting with demonstrating better growing and handling techniques to selected farmers (in the Adi Sheikh Banana Producers' Association near Akordat in Gash Barka zone). The plan is now to establish a five-hectare demonstration plot and demonstration packing plant in the Akordat area. Another step is examine opportunities for marketing an improved product in upscale stores and hotels/restaurants in Asmara. In 2004, a study tour is also planned to visit a few countries that export high quality horticultural produce to examine how the country's private sector handles the export marketing of such products.

B. Expanding production and export of High value fisheries products

3.29 The fisheries sector offers great prospects for meeting national food security objectives by earning foreign exchange for the country.²⁵ High-value species such as lobster, shrimp and crab offer considerable potential for exports. The total annual catch of all species including pelagic has been estimated to be 37,000 metric tons, less than 50 per cent of the maximum anticipated yield of 80,000 metric tons. Reef fishes (fillets) and shrimps (frozen) have great demand in Europe. Likewise, demersals and shark fins have a potential market in the Middle East.

3.30 The key is attracting foreign investment to establish a vibrant and modern fisheries sector with a modern fishing fleet, processing plants, and distribution and marketing facilities for exporting high-value species. Also, expanding artisan fishing and establishing viable inland-water fisheries to boost incomes of coastal villagers is necessary. This strategy will be pursued while at the same time regulating the withdrawals to ensure that commercial fishing will not crowd out traditional fishing.

3.31 To encourage private investment, the Ministry of Fisheries is putting in place a conducive business environment and legal and regulatory framework for sustainable exploitation of marine resources while preserving the environment. Basic infrastructure is in place, namely the international port in Massawa and the asphalted road connection with Asmara.. The Government is encouraging private investment in modern fishing fleets and fish processing facilities, including through joint ventures with foreign investors. In 1998, a joint venture of the government with Italian and Dutch investors established a modern fish processing plant in Massawa at a cost of US\$1.2 million. The plant, Eri-Fish, is now exporting 150 tons of frozen fish every month to markets in Europe. New joint ventures with foreign investors are under negotiations.

²⁵ Eritrea's more than 1,200-kilometer coastal water along the Red Sea have significant fish and marine resources and contains more than 1,000 known species of fish and 220 species of coral. The total annual catch of all species including pelagic has been estimated to be less than 50 per cent of the maximum anticipated yield of 80,000 metric tons

3.32 The Government is making concerted efforts to increase fishing efficiency by supporting and introducing modern fishing technology and by designing appropriate fishing gears adapted to local environment and providing training on various skills including modern handling and processing.

C. Developing the Tourism industry

3.33 The tourism industry in Eritrea is not yet developed, but it has significant potential for growth and as a source of foreign exchange earnings. Eritrea's pleasant climate and the warm waters of the Red Sea, with unspoiled beaches and offshore islands, and with marine life off the Eritrean coast augur well for the development of a dynamic tourism industry. However, substantial investment is required in hotel infrastructure, modern municipal facilities, transportation, telecommunications, and recreational facilities and general tourist services to achieve the desired long-term economic benefits in the sector. The long-term objective is to develop a dynamic tourism sector. The strategy is to undertake a more aggressive promotion of private and foreign direct investment in the development of tourism facilities both on and offshore of the Eritrean Red Sea to encouraging investors to open new hotels and restaurants and other hospitality facilities.

3.34 The Government is taking important steps to develop the tourist industry: renovated the Asmara-Massawa road, asphaltting of Massawa-Assab road, constructing a new international airport in Massawa, and asphaltting of the "Felfel" road is being finalized. The government is encouraging private investors to open new hotels and restaurants and other hospitality facilities, and is privatizing or offering for private management of all the hotels and related facilities under its control. New hotels are being constructed by private investors in Massawa and the Dahlak Islands. Cultural tourism will be promoted in the rural areas of Gash-Barka region and "Felfel" in North-Eastern Mountains. The construction of Gash Setit Wildlife Park and camping sites and roadside lodges is a major initiative for jungle safari and tourist cultural centers will be developed along with other service facilities.²⁶ Measures will be taken to protect Eritrea's natural environment and ensure that tourist activities do not negatively affect the environment.

D. Expanding the manufacturing sector aimed at exports

3.35 Eritrea's small and medium enterprises (SME) sector holds great potential for generating employment, adapting technology, and creating an export base grounded in the country's true comparative advantage. The objective is to establish a competitive and diversified export sector for processed and manufactured products. The potentials are particularly high in textiles and garments, leather goods, processed foods, fabricated metals, plastics, construction materials, and other resource-based goods. With a view to

²⁶ Tourism is one of the sectors with high growth potential in Eritrea's Red Sea coastline and offshore islands. Marine life off the coast offers the best sites for scuba diving. The long-term objective is to develop a dynamic tourism industry.

encourage foreign private investment, the government has taken a number of steps including streamlining customs administration and introducing a one-stop shop for business licensing. It has adopted tax policies to encourage investment, introducing a simplified corporate income tax regime, reducing the top rate on business income and treating tax loss carry forwards more favorably. It will streamline the process of acquiring land by investors.

3.36 To encourage expansion of SMEs, the Small and Medium Enterprise Development Unit (SMEDU) within the Ministry of Trade and Industry is being strengthened. The focus of the new organization is to develop programs for providing managerial, technical and information support to SMEs, including easier documentation with financial institutions, free technical, managerial and marketing advice, pre-feasibility reports, and access to trade information on various commodities. SMEDU will undertake a study to assess the bottlenecks impeding the growth of SME sector and devise a strategy and priority measures that would be implemented to enhance their efficiency and growth. The Investment Center, a virtually ineffective organization, is being revitalized with a view to promote SMEs.

3.37 Encouraging domestic, regional and international trade by reducing tariff and non-tariff barriers to trade. The objective is to develop a well functioning trading system, promote expansion of production and exports and to help stabilize significant fluctuations in prices of key commodities. Managing commodity price volatility efficiently and effectively is important since imports of food represent a significant proportion of Eritrea's total import bill, especially in years of poor harvests. Setting up strategic monetary and grain reserves at national and regional levels is also being considered as an essential component of the national food security strategy.

Pillar III: Using Food Assistance Efficiently

3.38 The third pillar of the national food security strategy is to strengthen the efficiency of food assistance program that provides relief for people in emergency situations. The strategy is to: (a) establish a sound mechanism that would help to anticipate more precisely the national food production estimates, projected supply gap and needs for food assistance; (b) use food assistance in ways that promote the nation's development, does not disrupt the traditional family and community-based coping mechanisms, does not encourage dependency, and does not undermine incentives of farmers to produce and market food; and (c) manage strategic food reserves in a manner that maintains adequate food supplies at all times.

3.39 Food assistance is necessitated when domestic production and commercial imports fall way below total demand. The degree of dependence on commercial imports and food assistance varies in accordance with the good and bad crop years. Historically, domestic production has been sufficient to meet 50-55 percent of the food requirements on an average. However, cereal production in 2002 and 2003 has been very low barely meeting 10 and 20 percent, respectively of the food requirements. Therefore, the volume of food assistance required is expected to be much higher in 2003 and 2004 as compared to the previous years' average.

3.40 Food Assistance Policy. The Government has articulated its food assistance policy which basically stresses on: (i) national ownership of the assistance; (ii) monetization of grant food assistance, and (iii) utilization of funds generated as a result of monetization to finance programmes and projects that enhance food security.

3.41 Food assistance in Eritrea is received, handled and transported by the Eritrean Relief and Refugee Commission (ERREC), which is the overall coordinating body for all relief assistance and implementing partner. It monitors food availability, informs international partners of impending food shortages, coordinates humanitarian assistance, manages warehouses and distributes food to needy families. The role, responsibility and capacity of this agency have evolved over the years as it has implemented an array of programs and has targeted diverse nature of beneficiaries.

3.42 A serious drought situation in Eritrea in 2002 prompted the ERREC to inform the international community of the impending serious food shortages and appealed for humanitarian assistance. Humanitarian agencies responded by launching Emergency to assist ERREC in delivering a targeted package of interventions focused on general food distribution, water, and health activities. Interventions by the government, communities and international humanitarian organizations (albeit slow), played a significant part in averting a major catastrophe. Based on the assessment of the poor harvest in 2004, Emergency Appeal for 2004 was launched. The appeal focuses on general food distribution, and water and health services, combined with community activities, to reduce the vulnerability of 50,000 drought-affected peoples.

3.43 The UN Consolidated Inter-Agency Appeal (CAP) for 2004 aims at providing food and non-food assistance to some 1.7 million people due to the combined effects of drought and the aftermath of the border war with Ethiopia. Out of these, 600,000 are directly affected by drought due to a shortage of cereal and water caused by the failure of rains during the last three seasons.

3.44 Strategic Food Reserve Policy. The government created the Eritrean Grain Board (EGB) in 1993 with the responsibility for managing food reserves. The main objectives of the EGB are to:

- stock, preserve and administer national food reserves to supplement emergency measures taken to contain national disasters and save human lives;
- purchase cereals, oil seeds and pulses from the open market at reasonable prices beneficial to farmers and motivating them to boost their production;
- stabilize the grain market in order to protect the consumers from exaggerated price increases; and

- export pulses and oilseeds via private businessmen and thus invigorate the export of agricultural products and increase foreign exchange earnings.

3.45 The EGB has its own storage facility in Asmara with a total capacity of 55,000 MT. Grain is sold to government owned grain mills on the basis of their milling capacity. One is located in Asmara which has milling capacity of around 200 tons per day and the other one is located in Dekemhare which has milling capacity of around 100 tons per day. In Zobas, there are sales centers with storage capacity of 20-30 tons of flour. The distribution at these Zoba sales centers is performed by demobilized fighters (most of them women), and in Asmara by members of the National Union of Eritrean Women who work on commission basis. It is generally accepted that a three-month supply of food reserves is desirable to meet emergency needs. This level of stocks will allow adequate time (for preparation and approval of requests, arrival and transport of grain to Asmara, etc.) for replacement by food purchases and/or food aid.

3.46 The Government is committed to act decisively to counter food insecurity, and is pushing forward with new initiatives to address the short-term, medium-term and long-term policy responses. While the challenges are great, the opportunities are great as well. With the concerted efforts of the farm community, the government and the development partners, Eritrea can have a real chance to make famine and chronic food insecurity a thing of the past.

3.47 To achieve these objectives, the priority measures include:

- Preparation: Even as we address the current emergency, we need to prevent future ones. The first step is to prepare for emergency by strengthening the existing early warning system (EWS) as a mechanism for predicting the scale and timing of the threat in a timely and accurate manner. Such a system would enable the government and the affected communities at large to face impending threats. A reliable EWS will be instituted with active and direct involvement of key ministries and agencies indicated above. This will help improved communication, raise awareness of an impending food crisis and mobilize support within government, international organizations and NGOs [non-governmental organizations] to respond. The early warning system in Eritrea is working fairly well, and early government, community and donor responses have saved.
- Establishing a sound assessment tool and institutional mechanism to undertake a rapid and credible crop assessment. The objective is to assist policy makers and humanitarian agencies to predict more accurately the anticipated food supply gap. The Government has established a technical team led by the Ministry of Agriculture with members drawn from the Ministries of Labor and Human Welfare, Local Government, and Health, and ERREC to assess annual production of the main cereals and pulses as well as the condition of livestock, review the overall food situation and estimate the cereal import requirement for 2004 – including food aid needs. The international technical team is led by FAO and WFP with membership

from OCHA and UNDP. The capacity of the National Food Information System (NFIS) will be strengthened in rapid assessment, and improved communications to raise awareness of an impending food crisis.

- Ensuring gender equity. Women play an important role in household food security including food distribution among family members
- Better targeting of relief to the needy including urban poor by targeting humanitarian assistance to households that have the least resources and minimal influence. Traditional humanitarian and targeting method should be refined and beneficiary-targeting criteria should be instituted. In addition to the provincial administrations that are closely involved in the identification of the beneficiaries at the community level, technical support will be provided to ERREC in logistics, and monitoring. Distribution is based on the decision of the village committees and finally approved by the Zoba Administration. The Zoba Administration establishes the criteria for selection of individuals and communities. ERREC's responsibility is to purchase the required grain supply and transport to various delivery points in the Zobas.
- Using food assistance in support of development programs by monetizing it - thus treating it like any other imported food. This approach has a minimal distortion effect in the economy. Therefore, the government's preferred approach is to sell donated food to the Eritrean Grain Board, which in turn sells the food to wholesalers for the same prices as imported food. The government then uses the proceeds to finance agricultural and rural development programs. The funds generated under the monetization program, have been utilized for construction of the Keren- Agordat road. In 2004, there is a plan to utilize the funds from sales of monetized food for development of integrated agricultural projects in Hazemo, Galluj and Shieb.
- Exploring other means of resource mobilization. The government has established a Drought Combating Committee (DCC) that leads the effort to mobilize resources from nationals living inside Eritrea, from the diaspora, and from external humanitarian agencies. Timely deliveries of food assistance should be given due consideration by humanitarian agencies as late delivery in the past has hampered provision of regular and sufficient rations to the needy.
- Targeting is of critical importance in the distribution of food assistance. The LSMS data, reveals that out of the total 85 percent households reported having received food and non-food aid, 35 percent were non-poor. This is not because of lack of targeting or inefficiencies in food assistance distribution. It is because both the poor and the non-poor suffered during severe drought. The non-poor received assistance essentially because they may experience temporary poverty during the period.

- Addressing Awareness and understanding of the humanitarian challenges continuously by local and international communities. ERREC jointly with the UN Coordinator for Humanitarian Affairs facilitated by OCHA have regular periodic updates of the humanitarian situation. Every two months, briefing meetings are conducted on food availability, disbursed quantities and stocks at hand. Under the Consolidated Appeals Program (CAP),²⁷ the DCC together with the UN Coordinator for Humanitarian Affairs jointly explain the drought situation and indicate the amount of grain and other food items the Government plans to procure from own sources and outline the magnitude of assistance required from humanitarian agencies to fill the gap.

3.48 To improve the effectiveness and efficiency of the Eritrean Grain Board (EGB), the following actions will be taken:

- Increase public investment to construct appropriate storage facilities at strategic locations;
- Make available adequate foreign exchange for the timely procurement of grain and other products to buy grain at favorable world market prices;
- Procure modern grain handling equipment, and communication and transport facilities
- Improve the marketing information system by skills training of personnel and the acquisition of basic facilities;
- Improve the coordination and management of strategic food reserves to meet the overall objectives of food assistance policy.

3.49 The Long Term: Increasing Agricultural Productivity. In the long run, the key is to strengthen the national capacity to increase agricultural production, to give the population a chance to move out of poverty, hunger and malnutrition that are both a cause and an effect. The Government has launched several initiatives to raise agricultural production, enhance export earnings and targeted measures to reduce food insecurity. The strategy is to empower farmers by increasing access to both new technologies and markets. The initiative's goal is to double the production of the basic food crops that make up the traditional diets and increase family incomes. The Government is committed to working with and assisting farmers to meet the national and household food security objectives, but the needs are great for Eritrea to shoulder the burden alone. It is therefore critical to build a strong international partnership for assisting Eritrea in meeting the food security and poverty reduction objectives.

²⁷ The Consolidated Appeal for 2004 provides a framework for humanitarian assistance in the context of a continuous emergency, the result of the past years' recurrent drought and the border conflict, coupled with the prevalence of poverty.

PART II. HOUSEHOLD FOOD SECURITY STRATEGY

3.50 Food insecurity and problems of malnutrition have been viewed essentially as problems that confront rural households. However, as a consequence of dwindling rural farm and non-farm income resulting from soil degradation and recurrent drought, a growing number of people are migrating to the urban centers, where opportunities for employment and income generating activities are limited. As a result, food insecurity and malnutrition are increasing among the urban population. Added is the impact of the HIV/AIDS pandemic, leading to increased food insecurity and vulnerability, in both urban and rural communities.

3.51 Another fact of food insecurity is that increasing the food supply alone will not eliminate this problem, since it will not necessarily improve the incomes and purchasing power of the poor. The lack of food security reflects inadequate income and purchasing power of people and nations. Thus, there is a strong convergence between the objectives of alleviating poverty and increasing food security. Food security in the long run is a matter of achieving economic growth and alleviating poverty. In the short-run it is a matter of redistributing purchasing power and resources towards those who are undernourished. By choosing redistribution policies on the basis of cost effectiveness, governments can do much to improve the food security of their people. Transitory food insecurity which results from fluctuations in domestic harvests, international prices and foreign exchange earnings can best be reduced through measures that facilitate trade and provide income relief to afflicted people.

3.52. There is a consensus that ensuring food security at the national level, does not necessarily lead to household food security. A national strategy to promote food security must, therefore, include measures that would ensure food security at the household level.

3.53. The government will implement programs that would enable the poor to take advantage of economic growth, enhance their opportunities through increased access to productive resources and skills that enhance job creation and generate income, and provide essential basic services in health, education and literacy that are essential to raise their standard of living. The strategy rests on the following three pillars:

- enhancing the productive capacity of small-scale farmers and fishermen ;
- enhancing their purchasing power through labor intensive public works programs as a source of employment for the poor (construction and maintenance of road networks, dams, canals); and
- expanding public assistance programs targeted at the poor and the vulnerable.

Pillar I: Enhancing the productive capacity of small scale farmers

3.54 For the vast majority of the poor who live in rural areas, agriculture and agriculture related employment is the main source of food and household income.

Livestock production is an extremely important sector in the rural economy, especially in the more arid areas of the country. One pillar of the strategy is, therefore, to enhance the productive capacity of the farming sector in crop and livestock production. Increases in farm output will also generate employment opportunities and enhance the income of the unemployed in rural communities.

3.55 Priority measures will focus on the following activities:

- Reorienting the extension and research system towards addressing priority problems and concerns of subsistence farmers. This covers effective extension packages in land preparation, household-based water harvesting, catchment rehabilitation, scale-appropriate farm mechanization, and on-farm irrigation water use. Tractor ploughing services will be made available on a cost plus basis to farmers through lending. Technologies and inputs (such as drought tolerant, relatively high yielding crop varieties) and short cycle livestock (such as poultry, sheep & goats) are critical measures.
- Promoting effective soil and water conservation measures including tree planting, (as critical element to reduce risk from rainfall anomalies), especially in the highland areas where the majority of the population live. Reducing on-farm soil erosion and increasing fertility is expected to improve crop yields in the long-term.
- § Supplying through the market critical agricultural inputs such as cereal, pulse, and other vegetable seeds, fertilizers (DAP and Urea), pesticides and herbicides, agricultural tools and equipment (to undertake various asset repair and development tasks), and small-scale irrigation. Like agricultural inputs, the farm tools and equipment would be provided to farmers on credit (refer to micro-credit section below).
- Supporting rehabilitation of degraded catchments by providing materials and equipment necessary for rehabilitation works and for runoff reducing treatments. Priority measures on the catchments will include contour barriers, absorption ditches, check dams, hill terraces, planting trees and other vegetative ground cover. It also includes regulating grazing and conserving forage for use in the dry months. Catchment treatment will be undertaken by communities that are organized for taking ownership of the individual programs.
- Increasing Access to Land by poor farmers: In view of the positive impact that access to cultivable land has on food production and incomes of poor households, additional (plots) acres of available land will be distributed along with technical packages for effective application of fertilizer and other inputs. Priority will be given to women so they can equally benefit from such measures.

- Supporting the development of smallholder irrigation with high priority given to those that have high levels of community participation in planning, cost sharing in the construction (mainly in labor) and full operation and maintenance (O&M). Seasonal water flows will be harnessed by building small dams for use to store excess water during low rainfall season. Measures would also be taken to encourage rehabilitation of small-scale irrigation systems by developing simple, low-cost gravity fed and pumped systems for community ownership and operation. The proposed system is simple and labor intensive, and would provide employment for several thousand rural dwellers. Rehabilitating existing community water systems, dams and boreholes will be intensified in collaboration with the private sector, NGOs and other development partners. The community will be encouraged to participate by covering at least 33 percent of the investment costs, in cash or in kind contribution. Water price for irrigation schemes will aim at recovering operation and maintenance costs. For on-going irrigation schemes, water charges will be adjusted upwards to reflect this cost recovery goals.
- § Enhancing livestock production²⁸ through improved rangeland management in the traditional pastoral system, promoting animal breeding systems, improving animal health and nutrition and developing higher quality animal feed and pasture systems. A key will be to develop and implement integrated agro-livestock-rangeland support systems that address inputs and credit needs of the farmers, assure them reasonable returns, and mitigate their crop failure or livestock mortality risks (insurance). Provision of vaccines for immunizing cattle against major diseases including rabies, veterinary drugs and feed supplies is an important element of the priority measures. For pastoral communities, the critical element is to improve their livestock production and marketing system through water and pasture development and promoting and diversifying income sources thus reducing their vulnerability.
- § Expanding Artisanal Fisheries.²⁹ The Government will continue to support community based artisanal fisheries to increase the income of coastal villagers and enhance their household food security. To increase the profitability of the artisanal fisheries by strengthening the cooperatives of Artisanal Fisheries, establishing an area based co-management system between the Ministry of Fisheries and the co-operatives, assisting cooperatives to establish fully protected marine reserves in respective zones, increasing licence fees for foreign fishers, issued by a zone or group of zones, in conjunction with increased surveillance and enforcement, and assisting cooperatives to rebuild the small pelagic fishery. Towards this end improving fisheries infrastructure

²⁸ Eritrea has a substantial potential for increasing earnings from livestock (goats, sheep, cattle, camels, pigs and poultry). This will be achieved by improving quality, raising productivity and expanding markets.

²⁹ Fisheries Sector Management and Development Action Plan: WB October 2003

(e.g. cold water facility, water desalination service, electricity supply, flake ice machine etc), and providing training, and strengthening fisheries' cooperatives in storage, processing and marketing is being undertaken. The Sahel Fisheries Development Project and the Barasole Community Fishing projects are supporting a total of 2,000 households in 25 fishing villages. Based on the experience and success of this model, similar community based artisanal fisheries will be established in other coastal villages.

Pillar II. Enhancing Household Purchasing Power

3.56. Whereas farming households often meet their food requirements from own production; it is supplemented with food purchased from the market during times of below average harvest. On the other hand, non-farming rural household purchase almost all of their food needs from the market. The ability of the farming and non-farming households to buy at least the minimum food and non-food requirements depends largely on their purchasing power.

3.57. To increase purchasing power of the poor households thereby ensuring their access to the food available in the market, the strategy entails:

- Promoting micro and small scale that have high growth potential and significant opportunities for self-employment in the formal and informal sectors, a model industrial estate, is being developed to provide the necessary assistance and services to help start and expand businesses, or to prevent their closing. The objective is to increase productivity, create new jobs, improve product quality and design of local micro-industrial products and develop markets, both domestic and international.
- This will be achieved by promoting Micro and Small-Scale Enterprises with high market demand in agro-business, tourism and services sector. Farm based micro-enterprises (rural poultry, bee keeping, food processing and small packaging) have significant potential for self-employment and income for the poorest households, particularly for women ³⁰ and therefore will be supported through community skill development and rural support programs.
- Providing micro-credit, training in marketing, counseling services, and other support mechanisms through NGOs and semi-government entities to facilitate a noticeable growth in this critical segment. Strengthening farmers' association would also be important to improve the rural marketing and credit system.
- Promoting Public Works Programs to generate Off-farm Employment and income. The public employment schemes (Cash for Work, etc) which are essential instruments for employment and income generation for the poor by supporting labor intensive activities. They entail work in road rehabilitation and

³⁰ The National Gender Action Plan for Period August 2003 -December 2008. NUEW July 2003

maintenance, soil conservation, forestry and water supply and sanitation schemes. The program contributes to improve people's access to markets and services, increase income of the poor and help in environmental protection and natural resources conservation. The public works programs in road rehabilitation and maintenance and community development aimed at improving access to markets and ensuring delivery of emergency aid. Toward this end, the Government would expand the Eritrean Community Development Fund's basic social infrastructure component and community development components.³¹ The objective is to support community driven sub projects which will (i) rehabilitate and develop basic social and economic infrastructure (health centers, schools, market places, water supplies etc), and (ii) improve the income generating capacity of the poor people and households, Since female-headed households constitute a significant portion of the poor, the targeted programs pay attention to water supply, health care and nutrition, activities that are high in the priority list of women.

- Expanding investment in regional development programs to catalyze development of small businesses and a wide spectrum of income generating activities with emphasis in localities where there is high incidence of poverty and unemployment.
- Supporting the development of handicrafts and cottage industries such as artisans making ornaments, jewelry, metal, clay, wood, bead based products, handloom weaving, etc.). The existing micro-industries center in the Medeber area of Asmara is being rehabilitated. It will have modern facilities, management and technological support, training and counselling services. The handloom sub-sector has been the priority sector for training and capacity building. The target beneficiaries are demobilized soldiers, women from under privileged sections of the society as well as displaced women from areas affected by the border war. The Government will re-establish these and provide the artisans with the necessary skills.
- Improving access to micro credit as one of the key instruments to empowering and improving the income generating opportunities of small enterprises including the poor. With the aim of increasing credit access to small enterprises, two government supported micro-credit programs are under implementation. The first program provides small credit to individuals/groups that provide evidence that they have a proven savings record of at least three months, and a member of a solidarity group. Each group is responsible for the repayment of loans defaulted by any of the other group members and none of the members will be given access to new credit until all loans have been repaid. The second system provides loans

³¹ The first Eritrea Community Rehabilitation Fund was established as a pilot within the first Recovery and Rehabilitation program (ERRP) for Eritrea and is being implemented through community driven mechanisms to improve the economic and social conditions of people living in the poorest and drought affected areas of the country. Upon satisfactory completion of the pilot phase, in 1996, the Eritrea Community Development Fund (ECDF) was approved in 1996 and completed in 2002. Due to its successful impact and performance, the Government has expressed its desire for a broader community development project, which is under preparation.

to small enterprises up to a maximum amount of Nakfa 100,000 based on the determination that the project proposal is profitable and interview results and the profile of the applicant including his credit profile are acceptable.

- A 'Micro credit' component under the Food Security Project is being piloted with UNDP's financial support. The project provides micro credit, training in marketing, counseling services, and other support mechanisms to poor households and communities through NGOs and semi-government entities. The project aims at increasing the physical assets and incomes of the poor, mainly women heads of households and diversifying their livelihood systems for improved food security in three Zones, where the incidence of poverty is the highest. The fund is operating satisfactorily and promoting diversification of both food crops production and non-farm income generating activities.

Pillar III. Public Assistance Programs Targeted at the poor and Vulnerable

3.58. The third pillar of the household food security strategy relates to supporting directly those unable to help themselves or are food insecure with no asset base or skill to engage in productive employment. The objective is to alleviate poverty for the poorest segments of the population (those food insecure and vulnerable groups) through targeted public assistance programs. With a view to provide basic support targeted at the poor and vulnerable groups, the following measure will be taken:

- Strengthening national emergency Response Capabilities including annual crop assessment, monitoring, surveillance, and early warning systems and food and relief distribution. It also entails building the capacity of regional governments (Zobas) to carefully plan and adopt effective targeting mechanism for food assistance to the needy in a timely manner.
- Strengthening Public Assistance Programs primarily aimed at transferring resources to resource poor farmers through input supply (seed and fertilizer), small agricultural tools and implements and extending small grants for use in creating small self help activities that creates employment and income for the poor household. Another is to improve family health and nutrition in rural and urban areas, raising awareness of proper nutrition, childcare, sanitation, and health care, and targeted supplementary feeding.
- § Strengthening existing social safety nets to assist particular vulnerable groups (e.g. handicapped, orphans, and old people) with no social support network through cash transfers, or self-targeting food subsidies. The program would develop synergy with existing traditional coping mechanisms whereby communities and families nearly always provide for the vulnerable and destitute. The program could also provide cash assistance, if deemed appropriate, to the vulnerable households so that they can access the food they require from the market – when food is available in the market at affordable prices.

- Other approaches, such as cash for work will also be applied, depending on their suitability to the particular regional and sub-Zoba situation. The Zoba and sub-Zoba offices in collaboration with village administration offices, will be responsible for setting eligibility criteria, identifying beneficiaries, implementing and monitoring the program. Safety nets should be devised to prevent asset sales among households that are becoming more indebted because of the crisis.

3.61 Targeted interventions/programs, such as orphan reunification, orphan care in government and non-government institutions, rehabilitation of street children through provision of financial support for schooling are priority measures. Providing assistance to poor women and children through various schemes including assistance through the Food Support Program, financial assistance, medical assistance and educational stipends. The Ministry of Labor, and Human Welfare (MoLHW) is also running handicraft schools with the aim of inculcating skill development among women.

IV. PREPARATION AND CONSULTATION PROCESS ³²

4.1 This chapter describes the process used to develop this FSSP and the consultation process with various national and international stakeholders including sector ministries, government agencies, private sector, non-government organizations, development partners and community representatives.

A. Institutional Arrangement

4.2 A National Steering Committee (NSC) was formed to guide and oversee the overall process of FSSP preparation. The NSC, which comprises the Ministers of National Development (Chairperson), Agriculture, Education, Health, and Labor and Human Welfare guided the overall work leading to the preparation of the FSSP. The Ministry of National Development [the former International Cooperation, Macro Policy and Economic Coordination unit in the Office of the President] led and coordinated the overall process.

4.3 A Technical Committee (TC) was also formed under the direct supervision of the NSC. The TC was entrusted with the responsibility to coordinate and guide the various activities involved in the preparation of the strategy). They met periodically to review progress and ensure greater integration of various tasks that form an important input into drafting the strategy and ensure better integration of policies and programs in the strategy. The TC comprised representatives of the five sector ministries in the NSC, and the Eritrean Relief and Refugee Commission (ERREC), National Statistics and

³² The UNDP provided financing to carry out poverty assessment and the overall task leading to the preparation of this draft strategy, and consultations with national stakeholders and development partners. The UNFPA and UNDP also provided financial support.

Evaluation Office (NSEO), National Union of Eritrean Women (NUEW), National Confederation of Eritrea Workers (NCEW) and National Union of Eritrean Youth (NUEY).

4.4 The preparation of the FSSP in tandem with I-PRSP was a major challenge, both in terms of content and process. The main steps involved organizing and carrying out a national household survey (LSMS), and a complementary participatory poverty assessment (PPA) in which quantitative and qualitative data was collected. This was followed by an analysis of the data and a report on the nature, severity and underlying causes of food insecurity. Sector ministries, national NGOs and the Chamber of Commerce and Employers Association prepared a report which summarized their main achievements since independence, key challenges and the main elements of their sector policy and priority programs in the medium-term, designed to promote rapid economic growth and assist the poor in the form of employment generation and income-earning opportunities. These sectoral reports from the various agencies provided the essential inputs for formulating the Food Security Strategy and the I-PRSP.

B. Consultation with Key Stakeholders

4.5 Consultation with all stakeholders is recognized as a critical component of the process of formulating the food security strategy. The GoE adopted a framework for participation that advances the following goals: (i) to ensure country ownership; (ii) to allow the various stakeholders to exchange views and expectations; (iii) to ensure that the strategy addresses the priority needs of the poor and reflect local realities; and (iv) to enhance the chances that key stakeholders, including development partners, buy-into the process and overall direction and content of the strategy.

4.6 This draft food security strategy has been prepared through a participatory process that provided opportunities for dialogue with key national stakeholders. The objective of this consultation process was to elicit views, share experiences, and understand expectations of the stakeholders while formulating the food security strategy. Principally, it served as a forum where stakeholders influence and share experience on the overall direction of the strategy and the priority measures based on international experience under similar settings.

4.7 The consultation process to develop the FSSP was completed in stages. The process involved consultation with key partners to review three important products that were distributed to key partners in advance. The products consist of (i) a concept paper which outlined the overall framework, work program, timetable and resources needed; (ii) the approach and methodology to be used in conducting the field surveys (LSMS and PPA); (iii) food insecurity assessment covering the extent, severity and geographic distribution and perceptions of the poor; and (iv) the main elements of the proposed strategy and the near and medium-term priorities and programs to address food insecurity and poverty.

4.8 The process first involved consultation with key government entities, civil society, private sector and academia.³³ Consultation was also conducted with development partners at the various stages of the process with a view to draw lessons of international experience and best practice related to process and content of a food security strategy. The development partners provided timely and constructive feedback, both early in the process and on the draft report. The revised FSSP takes into account the various comments received from stakeholders.

4.9 The GoE presented this strategy to all stakeholders during July - September 2003. Participants included government officials from sector ministries and local administration, development partners, civil society organizations, business and workers' associations. Similar consultations were also organized with local government and community representatives in the Zobas in March 2004 to solicit their views and to ensure broad ownership and support for both the process and content of the strategy. The draft FSSP has been revised to reflect the valuable feedback obtained from consultations with national stakeholders and development partners.

C. Key Messages that Emerged from Consultations with Community Members and representatives in the Provinces

4.10 Consultation was also held with representatives from Zobas, private sector and NGOs operating in these areas and the target population to inform and discuss the overall focus of the strategy, priority measures and public programs. It provided a reality-check on the perceptions of the people and the implementation agencies including NGOs on the strategy and realities on the ground and feedback on whether public programs address the priority needs of the communities.

4.11 The consultations highlighted the fact that food security efforts need commitment at all levels of society and community groups should be associated in these efforts. The Government should continue this process of local consultations to build ownership and gain support of all stakeholders. For this purpose it was necessary that the community members expressed their priorities and actions. Similarly, they recommended that sound monitoring mechanisms be put in place to track and monitor these policies.

4.12 The following are the summary recommendations of the consultations with communities:

- The nation's number one preoccupation is peace and national security related to the recent border war with Ethiopia. The community representatives expressed that implementation of the decision of the Border commission should start without delay and this would allow the demobilization and reintegration of combatants to civilian life.

³³ The UNDP provided funding to carry out the field surveys covering the LSMS (quantitative) and Participatory poverty assessment, analytical work, and the preparation of the report and consultation process.

- Food assistance to mitigate the severe drought as a temporary measure. Perhaps the most valuable view expressed during these consultations was that they do not like to depend on government handouts on a regular basis. The participants contended that the government should focus its attention on creating opportunities for jobs that can give them a decent living with dignity and respect. These opportunities should relate to income earning possibilities outside agriculture, access to basic services in education and health and infrastructure, in particular rural roads and electricity
- The government should be actively engaged in developing economic and social infrastructure, particularly water, roads, schools, hospitals, training and skill development facilities; these have direct impact on food security and improving their living conditions.
- The government should focus its activities on a few critical areas, mainly employment generation and provision of water supply and rural roads (linking farms to markets). Employment generation through public works programs and other income earning opportunities are considered critical.
- The agricultural sector should be developed through an adequate extension system that includes timely availability of critical inputs and access to credit facilities
- Zoba level capacity building is necessary for effective implementation of government policies and programs.

4.13 The consultation held with key stakeholders in the six provinces encouraged broad public participation and evoked ownership at the level of provinces, national NGOs and community leaders. These consultations have not only built greater ownership among the Zoba governments but have also elicited input from them in terms of developing a nationally consistent monitoring and evaluation mechanism for tracking expenditures, monitoring policies, and assessing impact on the (agreed) final set of FSS outcome indicators. Most importantly, this round of dialogue has underscored the point that overall there are essential differences in the nature of food insecurity across different Zobas, there are distinct differences also and therefore a single approach will not be adequate for all. Rather allowances will have to be made for peculiarities and varying contexts presented by each Zoba or group of Zobas.

V. MONITORING AND EVALUATION

5.1 The Government is making an effort to moving toward peace time economy, through both structural reforms and sound macroeconomic policies in support of growth and poverty reduction. A sound reform strategy is set out in a draft Interim Poverty Reduction Strategy Paper (IPRSP). The proposed food security strategy forms an integral part of the poverty reduction and development strategies. An integrated program of policy and institutional reforms and investments is being prepared namely in agriculture, as part of the Medium Term Plan (2004-06). The main elements of the proposed strategy and the supporting policy and institutional measures including investments are provided in more detail in Chapter IV and the matrix in the appendix.

5.2 With a view to implement the key elements of the Food Security Strategy, integrated programs and projects aimed at enhancing food security at the national and household levels will be designed and implemented. In parallel, investments focusing at improving the income and social conditions of the community will also be made by constructing health centers, schools, feeder roads, development of water points, and soil and water conservation schemes. These activities will be part of the overall development programs for the regions.

5.3 Several projects and programs are already under implementation in the country focusing on various aspects of food security. These include: (i) those focusing on increasing crop production (cereals, horticulture etc) and livestock production; (ii) those aimed at conserving the production base (water and soil conservation works); (iii) those that support the fisheries and marine resources development sector; (iv) those that support basic health care and improvement of the nutritional status of the population, particularly children and pregnant women; and (v) those that provide overall support services and facilities to promote food security policy formulation, analysis, capacity building, research and training, rural credit, piloting on participatory and integrated approaches.

5.4 Consistent with the key elements of the strategy and the priority policy and institutional reform measures, the concerned public entities will develop sub sector strategies for some of the priority areas, including for: (i) Enhancing pastoral livelihoods, ii) Marketing agricultural inputs and outputs; (iii) Promoting agricultural cooperatives; (iv) assessing ways to manage commodity price risks, (v) Preparing for and mitigating droughts and disasters; and (vi) Developing monitoring and information systems.

A. Monitoring Mechanism

5.5 To ensure effective implementation of the key elements of the food security strategy the government will put in place a M&E mechanism with the requisite institutional and manpower capabilities.

5.6 The M&E mechanism that will be adopted for the PRSP will remain as the guiding instrument for the overall development strategy, and an M&E specific to the food security strategy will be worked out in detail. The main elements consist:

- § monitoring the national food security strategy (NFSS) will require i) compilation of annual food production data disaggregated by zoba and type of crops produced, ii) annual and when possible quarterly data on food imports as well as strategic reserves and iii) food assistance disbursements to the vulnerable by region, and social groups
- § monitoring household food security strategy (HHFSS) will require i) annual production levels by crop type by regions and sub regions/districts, ii) annual income from non-farm activities, including small and medium scale enterprises iii) annual credit services rendered i.e. number of recipients and total amount

disbursed by purpose by region and lower level when possible, and employment generated as a result; iv) public works programs implemented by region, number of persons employed disaggregated by gender; and v) food assistance program implemented by region and sub-zoba, number and type of recipients and type and quantity of food distributed per household (on the average).

B. Evaluation Mechanism

5.7 At a later stage, when the overall costing of the proposed program will be prepared such estimate will be reflected in the budget of the respective implementing ministries and regional administrations. Tentative cost estimates to implement the program during 2004-07, including the financial gap will be prepared at a later date, to coincide with the budget preparation process and the Medium Term Development Plan. The Government will present to the donor community the proposed priority projects and requests for assistance to provide funding and technical assistance towards implementation of the strategy. The program costing will serve as an instrument to track food security related expenditures but also monitor key intermediate success drivers (or catalysts) and outcomes.

5.8 The proposed policy measures and institutional reforms as well as priority investments to enhance food security will be prioritized and sequenced based on sound socio-economic and technical criterion that take into account gender and environmental concerns. The priorities will emerge from an assessment of the various practical options available. The Strategy has also identified immediate actions in existing programs and projects with known and measurable impacts on food security.

5.9 Implementation of the proposed strategy will build on the existing institutions, mechanisms, structures and human resources, while seeking to improve their capacities for greater effectiveness and efficiency as appropriate. The design and implementation of policy and institutional reforms and investment projects/programs to implement the various elements of the strategy will be discussed with development partners with a view to seek technical and financial cooperation.

5.10 The regional administrations will play an important role in addressing, managing and analyzing information related to household food insecurity and their capacity will be strengthened towards this end. To evaluate progress on the FSS indicators, regions will identify focal points within their respective desks. These monitoring units will track progress, in close coordination with district administrations, on intermediate and outcome indicators and report periodic progress to the national PRSP monitoring and evaluation unit at the MoND.

5.11 The MoND will collect and evaluate all information relating to inputs (expenditures), output/intermediate and outcome indicators from the Zoba monitoring units and other concerned departments. The MoND will be involved in developing and institutionalizing the system for food security monitoring at the national, zoba and district levels and analyzing impact of FSS policies on the poor. It will also be

responsible for producing analytical progress reports on the FSSP indicators on a periodic basis. To ensure the success of this system the process of data reporting (of FSSP indicators) to MoND will have to be strengthened and streamlined.

ERITREA
NATIONAL AND HOUSEHOLD FOOD SECURITY STRATEGY
POLICY MATRIX

Area	Objectives	Strategies / Measures	Expected output
Pillar I: Enhancing the Domestic Production Capacity in Agriculture and Fisheries			
Rainfed Agriculture	<ul style="list-style-type: none"> - Raising rural income - Reducing poverty - Enhancing national food security 	<ul style="list-style-type: none"> - appropriate intensive and extensive farming - effective research & extension services - increasing water availability - development & protection of forestry & wildlife - raising farm productivity 	<ul style="list-style-type: none"> - extension & research systems towards addressing priority problems & concerns of subsistence farmers strengthened - water storage capacity expanded - employment for several thousand rural dwellers provided - Sustainability of the food production system ensured productivity in traditional agriculture in the fragile systems raised
Irrigation	<ul style="list-style-type: none"> - To bring large tracks of uncultivable land under irrigation cultivation - Increase appreciably crop and animal production 	<ul style="list-style-type: none"> - increasing on farm water use efficiency - construction of reservoirs, small dams, lining of watercourses and new irrigation schemes - training farmers on irrigation and appropriate farming methods 	<ul style="list-style-type: none"> - modern farming practices adopted i.e. use of fertilizers, pesticides improved - seasonal water flows harnessed and water storage capacity augmented
Livestock and Rangelands	<ul style="list-style-type: none"> - Exploit the potential in livestock production, through improved rangeland management in the traditional pastoral systems 	<ul style="list-style-type: none"> - develop & implement integrated agro-livestock-rangeland system 	<ul style="list-style-type: none"> - better pasture management, forage development achieved - increased stock of better breeds - livestock and livestock product marketing improved
Commercial & artisinal fisheries	<ul style="list-style-type: none"> - boost export earnings by tapping the high potential of marine fisheries - improve the income of costal villagers 	<ul style="list-style-type: none"> - creating a suitable investment climate (and increasing profitability) for the industrial fisheries - strengthening fisheries resource management and planning 	<ul style="list-style-type: none"> - increased fish production (attain maximum sustainable yield level of 80,000 tons) - food security of costal villagers enhanced
F.			
G. Pillar II: Enhancing National Capacity to import Adequate Food by Increasing Export Earnings			
Area	Objectives	Strategies / Measures	Expected output

agriculture	Generate foreign exchange from exports to meet the gap in national food requirement and domestic production	<ul style="list-style-type: none"> - encourage small holders and commercial farmers to produce high value crops & livestock products for export - expand area under irrigation primarily in the western lowlands & eastern escarpments - increase the availability of credit to the agricultural sector 	<ul style="list-style-type: none"> - small holder & commercial farmers enabled to produce high value crops for exports
fisheries	Offer foreign exchange earnings and expand prospects for meeting national food security	<ul style="list-style-type: none"> - attract foreign investment to establish a vibrant & modern fishing sector with modern fishing infrastructure - expand artisanal fishing & establish viable inland water fisheries to boost incomes of coastal villagers 	<ul style="list-style-type: none"> - foreign exchange earnings expanded improving incomes of coastal villagers
tourism	Exploit the prospects for economic growth and foreign exchange earnings	<ul style="list-style-type: none"> - undertake aggressive promotion of private and foreign direct investment 	Physical infrastructure and tourism facilities laid down for expansion of the tourism industry
manufacturing	<ul style="list-style-type: none"> - establish a competitive and diversified export sector for manufactured products 	<ul style="list-style-type: none"> - provide export promotion support - promote SMEs through skills training - Revitalize the Investment Center to promote SME oriented towards exports 	<ul style="list-style-type: none"> - Number of successful SME with export base increased - Sound base established for export, industrial base diversified and manufacturing output increased, exports and foreign exchange earnings increased

Pillar III: Using Food Assistance Efficiently

Area	Objectives	Strategies / Measures	Expected output
Strengthen efficiency of food assistance	<ul style="list-style-type: none"> - to use food assistance in ways that promote nation's development, without disrupting traditional coping mechanisms which does not encourage dependency - Meet the gap in national food requirement in exceptional years through international food assistance 	<ul style="list-style-type: none"> - prepare for emergency by strengthening early warning system (EWS) - introduce better targeting of relief aid - explore other means of resource mobilization 	<ul style="list-style-type: none"> - a reliable EWS and a sound assessment tool and institutional mechanism established - beneficiary targeting improved - rural development efforts enhanced through food aid monetization

HOUSEHOLD FOOD SECURITY STRATEGY

Area	Objectives	Strategies / Measures	Expected output
B. Pillar I: Enhancing the productive capacity of small scale farmers			
Small scale agriculture	Enhance household sources of food	<ul style="list-style-type: none"> - Reorienting the extension and research 	<ul style="list-style-type: none"> - enhanced farm output; employment opportunities

and fisheries production	consumption and income	<p>system</p> <ul style="list-style-type: none"> - Promoting effective soil and water conservation - Supplying through the market critical agricultural input - Supplying through the market critical agricultural input - Increasing Access to Land by poor farmers - Harnessing the seasonal water flows - Supporting the development of smallholder irrigation - Enhancing livestock production - strengthening the cooperatives of artisanal fisheries and improving fisheries infrastructure 	<p>generated and the income of the rural communities Increased</p> <ul style="list-style-type: none"> - Cash earning and asset base of fishing households increased
--------------------------	------------------------	---	--

C. Pillar II. Enhancing Household Purchasing Power

Area	Objectives	Strategies / Measures	Expected output
Household purchasing power:	Increase the purchasing capacity of farm and non-farm to be able to buy the minimum food and non-food requirements	<ul style="list-style-type: none"> - Promoting micro and small scale enterprises; - Improve access to micro-credit - Support development of handcrafts and cottage industries - Providing micro credit, training in marketing, counseling services; - Promoting public works programs to generate off-farm employment and income expanding investment in regional development programs; 	<ul style="list-style-type: none"> - Household purchasing power strengthened - productive capacity of the poor in non-farming sector enhanced - improved access to markets that ensures delivery of emergency aid; reduced input and output costs for farmers.

D. Pillar III. Public Assistance Programs Targeted at the poor and Vulnerable

Area	Objectives	Strategies / Measures	Expected output
Assist the poor and the vulnerable	Provide direct food and non-food assistance to the poorest segments of the population thereby alleviating those who can not help themselves	<ul style="list-style-type: none"> - strengthen national emergency response capabilities - increase effectiveness of existing assistance programs targeted towards the poor - Strengthening existing social safety nets 	<ul style="list-style-type: none"> - An effective social/community system that provides direct support to the poor households instituted - mechanism that strengthens the coping capabilities of the vulnerable institutionalized - the poorest and most vulnerable members of the community receive adequate support on a timely basis

--	--	--	--