TOWARDS A USAID FOOD SECURITY STRATEGY FOR ERITREA

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Executive Summary

As one of the newest countries in the world, Eritrea offers important potential to become a productive and engaged development partner. Eritrea holds a key strategic position along a narrow edge of the Red Sea, one of the most important shipping transit routes of the world. The initiative and entrepreneurial spirit of the Eritrean people, which characterized their three decades-long fight for independence can be a driving force in re-building the region as a whole. However, Eritrea is a country in transition and the new government must create the conditions necessary for a dynamic economy in order to guarantee the food security of the population.

USAID can play a role in supporting the fledgling government institutions and emphasis on liberal economic policies. This paper examines the issue of food security in Eritrea acknowledging the parameters of current Government policies, other donor investments, and recognizing the basic lack of data -- it does not present a comprehensive strategy to address food security, but attempts to outline options for USAID to support government priorities to address food security concerns and to leverage government and other donor investments.

Prospects for Growth: Trade, Agriculture, Private Sector, Roads, and Financial Institutions

Eritrean policy makers have set forth a progressive, market-oriented growth strategy to create a modern, technologically advanced and internationally competitive economy within the next two decades. The Government has outlined several priority areas in trade and agriculture with investments in infrastructure and supporting institutional development an immediate priority. With a history as a trading nation, the country's current trade opportunities are good - there is considerable scope for the export of products from the mining, manufacturing, and agricultural sectors. The country has two ports which provide potential for significant direct and transit trade. Trade with neighboring countries, Ethiopia and Sudan, are already substantial.

Successful development in Eritrea will rely on a strong productive agricultural sector. The Government is pursuing a diversified growth strategy based on trade and a combination of export-oriented and import-substituting goods to promote agricultural and non-agricultural production. There is considerable scope for both extensification and intensification of agricultural production in the relatively uncultivated lands in the Eastern and Western Lowlands. Land reform, liberal trading policies, and investment priorities on rural roads and productivity increasing technology (e.g. irrigation) all should create an environment for agricultural and rural sector growth. The private sector is seen as the key to the development of a dynamic economy and in both industrial and agricultural areas the incentives promote private sector growth. Poor infrastructure is seen as one of the greatest constraints to the development of the economy - rural roads, financial institutions, and the

development of human capital are all important preconditions for the country's economic growth.

Food Security Problems and Programs

The Government is committed to ensuring immediate food access to the most food insecure populations in Eritrea in the process of achieving economic growth. Basic indicators of well-being underscore the implications of chronic and severe problems of inadequate food intake, combined with a high prevalence of disease. Years of war and repeated drought have contributed to some of the highest levels of wasting and stunting for children under the age of five in sub-Saharan Africa. Infant mortality is well above the level for average sub-Saharan Africa as is maternal mortality.

Food access has largely been guaranteed over the past four years through large levels of food aid. Although the agricultural sector has considerable potential for growth, Eritrea only produces two-thirds of its domestic consumption needs in a climatically "good" crop year. Crop yields are low due to concentration on rainfed agriculture, small land-holdings, inefficient water use, and lack of draft animals and other inputs. As a result of low per capita food production, Eritrea relies to a large extent on donor food aid. The Government is acutely aware that the management of this aid in turn influences agricultural production, and there is a move toward a more integrated food policy.

Elements and Options of a USAID Food Security Strategy

Given food security conditions in Eritrea, and importantly, the current focus of investments by the Government and other donors, this paper advocates a focus on rural incomes and food policy formation as the basis for its food security strategy. Four inter-related objectives are proposed as strategic components of a food security strategy for Eritrea: Enhanced smallholder production; expanded and more stable rural employment and incomes; expanded and more stable rural market linkages; and improved nutrition and health of key vulnerable groups. A dynamic small-scale rural trading sector is the key for any sustainable food security gains to ensure sustainable access to low cost food production, greater competition in food marketing, and continued improvements and maintenance of rural infrastructure to facilitate production increases.

USAID investments should probably in initial stages be limited to a specific region of Eritrea or a specific sector. A regional approach would enable USAID to leverage results of other activities in the selected region, and fully exploit growth linkages between farm and on-farm sectors. A sectoral approach (e.g. an agricultural production chain from farm to export) would ensure that the forward and backward linkages were in place to maximize the benefits of investment. A two-phased approach is recommended to ensure a proper constraints analysis and information base exist. Opportunities are outlined in the following areas: Smallholder production, rural microenterprise development; rural roads; employment-based safety net; nutrition; and food policy formation.

TOWARDS A USAID FOOD SECURITY STRATEGY FOR ERITREA

I. Introduction: Renewal in the Horn of Africa

The final decade of the twentieth century will be remembered in the Horn of Africa for both crisis and renewal: the dissolution of one country, yet the birth of another; the entrenchment of despotic leadership, yet the emergence of young and dynamic statesmen; the plague of war and famine, yet the hope for regional peace and food security. Eritrea, one of the youngest nation states in the world, represents renewed hope in this region of contradictions, a potential keystone of political and economic stability in the Horn.

Eritrea holds a key strategic position along a narrow edge of the Red Sea, one of the most important shipping transit routes of the world. This position is of geo-political importance, as evidenced by its neighbors Sudan and Ethiopia, and its position across the Red Sea from Saudi Arabia and Yemen. The country was formerly a center of trading activity with two ports, Massawa and Assab, and a simple, yet well-maintained road and rail network. Its ports are still critical for the economic well-being of its southern neighbor, Ethiopia. Given its strategic location, Eritrea could provide a key regional link to Europe and the Gulf countries and play an increasing role in both regional and international trade.

The initiative and entrepreneurial spirit of the Eritrean people, which characterized their three decades-long fight for independence, can be a driving force in re-building the region as a whole. However, Eritrea, like Ethiopia and Uganda, is a country in transition. There are many divisions in societies which have fought wars, and each of these countries contains a rich diversity of cultures and societies to be balanced with economic and political access. These new governments must create the conditions necessary for a dynamic economy in order to guarantee the economic well-being of the population.

Support for Eritrea's fledgling government institutions and a continued emphasis on liberal economic policies can provide an important source of stability for surrounding countries as well. In the worst of times, given continued instability elsewhere in the Horn, Eritrea can serve as safe haven for business and investment from within the region, providing a stable channel of income and the basic necessities of life for affected populations. In the best of times, Eritrea can serve as a catalyst for expanded trade and economic growth throughout the Horn region.

II. Objectives and Realities for Food Security in Eritrea

Over the past three years the Government of Eritrea has set forth a progressive, market-oriented growth strategy, established executive, legislative and judicial institutions, issued several specific legal codes for private enterprise, and is in the process of grappling with the complex and politically sensitive issues such as land reform. Trade, agriculture and industry are the intended engines of economic growth. Food security is, however, a high priority and the identification and targeting of programs for vulnerable people consume a considerable

proportion of resources. Sectors have been selected not only according to their growth potential, but also according to their potential to increase incomes of a large proportion of the population.

The Government's pragmatic approach recognizes both the large investments needed to produce sustained growth, and the growing demands of the population for improvements in their livelihoods. A pointed determination to restrict levels of official debt, however, combined with limited capacity to manage a large investment portfolio and slow growth from external private sources has implied a period of protracted discussion with international donors and slow investment rates. Although broad-based economic growth is an important and effective means to improve living standards in the country, there are additional low-cost interventions which may make an important contribution to reducing relatively high levels of malnutrition and poor health of the population which are described later in this paper. Achieving food security will require a combination of high growth rates as well as targeted health and access interventions.

This paper examines the issue of food security in Eritrea acknowledging these parameters. In particular, it outlines possibilities to support Government priorities given both Eritrean and U.S. resource constraints, highlighting food security and insecurity implications, rather than detailing a comprehensive strategy to solve the food security problems of the population.

III. Prospects for Growth - Government Priorities and Constraints

In the past three years, Eritrean policy makers have set forth a progressive, market-oriented growth strategy. The main economic policy objective of the Eritrean Government is to create a modern, technologically advanced and internationally competitive economy within the next two decades. This is to be achieved through improving agricultural productivity and establishing export-oriented industries, as well as vibrant financial and tourism sectors. Free market policies have been articulated as the primary means to this end:

> *The centerpiece of this strategy is the establishment of an efficient, outward looking, private sector-led market economy, with the government playing a proactive role to stimulate private economic activities (GSE, November 1994).*

Subsequent published policies have underscored this emphasis. A new and favorable investment code has been adopted, the tax system overhauled and government ministries have recently been restructured with a reduction of the civil service of 30 percent (IMF, 1995). The Government has also sought to establish executive, legislative and judicial institutions, issue specific legal codes in private enterprise, and are in the process of grappling with the complex and politically sensitive issues of finance and land reform.

An important principle of the Government is the determination to both develop their own policies and strategies without substantial donor input, and to implement their strategies relying largely on their own resources. The implication of this policy is that donor internal

strategy development must be focused sharply on Government objectives, and that implementation plans must be realistic. Both financial and human resources are extremely limited.

The Government of Eritrea has outlined several priority areas for development focusing on trade and agriculture with investments in infrastructure and the development of supporting institutions an immediate priority. The following sections outline the prospects in trade and agriculture as well as the constraints facing successful development.

A. The Role of Trade. The Government has presented the vision that Eritrea is to develop into a trading nation. Eritrea has a history in this regard. In the early 1970s, the country earned almost US $100 million per year of foreign exchange through exports. Eritrea's current trade opportunities are good, although the country has lost important markets and its competitive edge due to years of war. Trade experience for 1992 and 1995 are reported in Tables 1 and 2.

There is considerable scope for the export of products from the mining, manufacturing, and agricultural sectors. Salt, marble, granite, metals, industrial minerals, off-shore oil and natural gas, and glass and ceramic products all have potential markets in Europe, the Middle East and Asia. Leather and leather goods, yarns, fabrics and clothing could also find both international and regional markets. Many agricultural products are also good export prospects, including oils and oilseeds, pulses, fruits and vegetables, and flowers and spices. The marine resources of coastal waters offer considerable potential for the development of export markets as well. Markets for products in the Middle East, Europe and Asia are already appearing, albeit for small quantities (e.g. salt to Ethiopia, Sudan and Scandinavia, skins to Europe, soybeans to Japan and fish to Yemen).

Eritrea has increasing domestic demand for salt, glass bottles, plate glass, ceramics and possibly other basic manufactured goods. Beyond this local market, Eritrea has the potential to expand or open new markets in base metals and minerals, clothing, cotton yarn, shoes and other leather goods, bottled mineral water, fish, meat, livestock and some agricultural products, especially oilseeds and horticultural crops

The country has two ports, Massawa and Assab which provide potential for significant direct and transit trade. Assab is the primary port used by Ethiopia for imports and exports. Trade with Sudan has also been an important source of food and income for Eritreans, particularly in the western provinces. Sorghum, palm products and other items traditionally cross the Sudanese-Eritrean border. While recent tension between the two countries might have resulted in constriction of this cross-border trading activity, over the long term the prospects for expansion of these markets should be considered in investment decisions.

Table 1: Eritrea: Commodity Composition of Foreign Trade, 1992, 1995
(millions of birr)

	Exports		Imports	
	1992	1995	1992	1995
Food and Live Animals	1.5	138.5	99.1	446.9
Beverages and tobacco	4.0	20.2	13.8	12.4
Crude Materials	35.7	157.7	3.6	64.7
Mineral fuels, lubricants, etc.	-	-	4.6	50.1
Animal and vegetable oils, fats and waxes	-	1.9	1.9	30.5
Chemicals and related products	0.3	13.1	32.2	157.0
Manufactured goods	2.4	102.4	107.1	499.3
Machinery and Transport equipment	1.2	19.9	55.0	1,178.4
Miscellaneous manufactures	1.0	75.8	49.9	169.2
Total	46.1	529.5	367.1	2,608.5

Source: IMF, Recent Economic Development, May 1996
Exchange rate (auction rate Birr/US$ period average): 1992: 2.8; 1995: 6.3

Table 2: Eritrea: Direction of Exports, 1992, 1995

	1992	1995
	in percent	
Djibouti	-	0.2
Ethiopia	86.8	63.3
Germany	0.3	0.5
Italy	7.5	2.2
Netherlands	0.3	-
Saudi Arabia	0.3	3.7
Sudan	-	16.4
Sweden	2.5	-
United Arab Emirates	0.6	0.4
United Kingdom	0.6	0.3
United States	-	-
Yemen	0.5	4.9
Other	0.6	8.0
Total	100.0	100.0

Source: IMF, Recent Economic Developments, May 1996

The government has already taken several measures to promote exports through policy reforms and efforts to rehabilitate the country's ports, roads and communications system. The exchange rate appears to be market-determined (linked to the Addis Ababa auction market rate), although recent information indicates the existence of multiple exchange rates. High trade taxes which discourage exports have also been reduced. In order for trade to flourish, the institutional and physical infrastructure of the economy must be sound. Telecommunications, energy and transport must be rehabilitated, and the financial sector must be strengthened.

B. Agriculture. The primary objective of the Government's agricultural policy is the promotion of food security, obtained through the following key strategies:

- promoting increased agricultural productivity through improved inputs, expansion in high potential rainfed and irrigated areas, and rehabilitation of commercial farms;
- increasing livestock and small animal production through improved techniques and veterinary services; and
- environmental protection through terracing, afforestation, and effective water harvesting techniques (Ministry of Agriculture, June 1994).

The Government has also signaled its plans to reform Eritrea's land tenure policies, a move which could have important implications for productivity over the long term. In addition to efforts in soil and water management, expanded irrigated area, the development of improved crop varieties through an adaptive agricultural research program, efforts in agricultural sector include improved crop statistics and early warning information systems, as well as a variety of institutional development and training initiative within the Ministry of Agriculture (MOA).

Successful development in Eritrea will rely on a strong and productive agricultural sector. However, most experts agree that Eritrea does not have the potential to produce sufficient foodstuffs to meet its domestic consumption needs. Instead, the Government is pursuing a diversified growth strategy based on trade and a combination of export-oriented and import-substituting goods to promote agricultural and non-agricultural production. By increasing Eritrea's role in regional and, ultimately, international trade, the Government intends to meet its additional food needs through commercial imports.

Priority for agricultural development efforts has been placed on the relatively uncultivated lands in the Eastern and Western Lowlands. In the Western Lowlands, current schemes include a German-funded Integrated Food Security Project in Gash-Setit, the rehabilitation of the Alighidir cotton plantation for ex-combatants, and the refugee resettlement and post-war rehabilitation programs. Three additional externally-funded programs also indicate the Ministry's priority of rehabilitating irrigated areas in the Eastern Escarpment and Lowlands: These include Zula Bay south of Massawa (NCA), Wadi Labka and Shaeb (IFAD) and Wadi Badda (Africare). The Government is also planning large-scale soil and water conservation

efforts in the Central Highlands areas as well (AfDB). Throughout the country, food-for-work activities undertaken by the MOA, in cooperation with Eritrean Relief and Refugee Commission (ERREC)[1], focus on soil and water conservation activities (terracing, construction of microdams, tree-planting, etc.).

Since 1991, the MOA has implemented two phases of a rehabilitation program under the donor-funded Relief and Rehabilitation Programme for Eritrea. While seeds, tools, oxen and other inputs were initially distributed for free, a quasi-credit program began in 1994 through which inputs (oxen and seeds) are supplied to farmers at an interest rate of 5 percent, repayable over five years with a one-year grace period. The MOA has also distributed around 50 tractors to commercial farmers through loans made directly through the Commercial Bank of Eritrea.

In spite of stated objectives, the desire to reduce food aid dependence and increase domestic food production is often articulated by Government and other Eritrean sources; the choice facing the government is how to allocate scarce investment resources between crops meant primarily to meet domestic needs (import-substituting crops) and crops which have greater potential for export. It is likely that wheat, barley, sorghum and cotton represent examples of import-substituting crops, given domestic costs of production and world market prices, whereas fruits, vegetables, spices, and flowers represent potential export crops. Livestock and livestock products are also potentially important exports.

Fishing was a thriving industry in the 1950s when the annual catch reached a peak of 25,000 tons, but this industry collapsed during the prolonged war. There have been recent efforts to resuscitate the fishing industry; government has provided credit to cooperatives to purchase equipment and other fishing materials. Artisanal fishing increased by almost 30 percent in 1995. Commercial fishing increased at the same rate. A stock assessment and monitoring project has started to form the basis for setting guidelines for sustainable fishing.

In addition to its agricultural development efforts, the Government has also developed policies to improve price incentives to producers and traders, primarily through the as yet limited price stabilization efforts of the Eritrean Grain Board. Improved price and market conditions are also the stated objectives of the proposed use of cash as a form of wage payment in some of the Government's labor-intensive rural public works programs, as are investments in primary and feeder road construction activities. Apart from liberal private investment policies, direct support to expand private trade has been limited. The lack of credit in rural areas, poor infrastructure, and the large transport fleet maintained by the Government (ERREC) and some NGOs are among the disincentives to investment in private rural transport and trade.

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[1] ERRA and CERA were combined in 1995 to form the Eritrean Relief & Refugee Commission (ERREC).

A good infrastructure including roads, communications, transport fleet, storage and processing capacity, strong institutions and a positive policy environment are the critical prerequisites for a dynamic agriculture-led growth process which can support not only an increase in per capita food production among smallholders, but also expand the capacity for commercial food imports through expanded export crop production. Improved information on the agricultural sector and economic research is needed to set the appropriate policies on exchange rate structure, tax rates, land security and others to ensure optimal growth in agriculture.

C. The Role of the Private Sector. The private sector is key to the development of a dynamic economy. Eritrea inherited 30 percent of the industrial base of Ethiopia because these industries lay within its boundaries upon Independence. While the initial reconstruction of a dynamic private sector has been slow, government policies have aimed at promoting private enterprise. The revised investment code (August 1994) allows private participation in most business activities and places no restriction on foreign exchange retention. New registration procedures are being enacted, and the Eritrean Investment Center has been established to promote investment and facilitate business.

The Eritrean private industrial sector consists mainly of processed food, beverages, textiles, leather goods, chemical products, construction materials, and metal products. There are very few vertical linkages outside the textile industry. Much of the industrial infrastructure was destroyed during the war, but factories have benefited greatly from the Government's rehabilitation efforts with the provision of machinery and raw imports.

The urban informal sector plays an important role in providing private sector employment during the current transition period, especially in areas such as processed foods, hand tools and handicrafts (Table 3). Asmara accounts for 57 percent of these businesses and towns close to the Sudan border are also key locations (ILO, 1994). These businesses are characterized by ventures employing less than 20 workers, in existence less than six years, and run by a family or single owner with limited education and training. These enterprises seldom operate through credit and low capital investment is probably an important limiting factor. There are no stated government policies yet for the informal sector, although the recent closing of the border with Sudan has indirectly created trade and business disruptions.

Table 3—Concentration of enterprises in urban informal sector

Commerce and Trading	61 %
General services	22 %
Manufacturing, handicrafts	14 %
Construction, agro-based	2 %
Unclassified	1 %

Source: ILO, 1994

There have been no recent systematic studies of rural private enterprise (non-farm) activities in Eritrea. Some of these are likely clustered around farming areas, but trading activities probably form the bulk of non-farm rural income generation. Evidence from rural credit and savings programs recently undertaken indicate that possibilities exist for small-scale food processing such as camel-drawn oil presses, manufacturing of farm implements, basic construction, trucking, and a variety of others. In rural areas, the development of cooperative groups may facilitate micro-enterprise development by pooling skills, resources and risks. The Government is currently working to formulate a cooperatives policy.

D. Financial Institutions. At present, the financial sector in Eritrea consists of a few government-owned institutions including the Bank of Eritrea, the Commercial Bank of Eritrea, the National Insurance Corporation, and two specialized banks -- the Housing and Savings Bank, and the Agricultural and Industrial Development Bank. A more detailed review of the financial sector in Eritrea is presented in Annex 1. The Commercial Bank of Eritrea (CBE) is the dominant financial institute, acting in part as the agent of the nation's central bank, the Bank of Eritrea. The CBE has 13 branches across the country, the most extensive network, but is severely constrained by lack of skilled personnel. The CBE holds about 80 percent of the total assets of the banking system and is being drawn upon by most development projects with savings and credit components. While it is currently used to supply development loans, the CBE staff are not trained in project appraisal. It is the ultimate mandate of the incipient AIDB to fill the development financing niche.

There is not very much information or experience with rural credit in Eritrea. Community self-help groups with financial functions have a long tradition, but these are essentially redistributive or safety net mechanisms. Small revolving savings funds or self-help groups provide some experience with indigenous savings and credit schemes. The potential for drawing on these rural credit experiences is being studied by the government, NGOs and donors. In the past 2-3 years, several rural credit schemes have been established with the support of various government agencies and NGOs. Most of these schemes are variants of

the Grameen Bank structure, differing according to levels of external capitalization, methods of project approval, and interest rates. Given the incipient nature of these activities, it is difficult to judge their success at this time.

E. Road Infrastructure and Market Development. Particularly given the Government's strategy to rely in large part on regional and international trade to meet its national food deficits, poorly functioning markets are perhaps the most significant barrier to sustainable food security in Eritrea. Efficient markets are critical to the equitable distribution of food from both domestic and external sources, particularly for populations in urban and chronically food deficit areas. Poorly functioning domestic markets can also be a major barrier to the Government's export strategy, limiting access to essential agricultural inputs and inhibiting the flow of agricultural products to foreign markets. Where rural markets are inefficient, smallholder farmers often forego the production of higher value cash crops, reverting to a food-first production strategy rather than rely on risky markets as their major sources of income and food.

As a result of the effects of the war and the absence of even routine maintenance during that period, the road network in Eritrea has deteriorated significantly. Road density in Eritrea is very low, just over half the average for Eastern and Southern Africa. As a result of poor road conditions, low population densities in some areas, and low levels of income and effective demand, a number of rural areas are currently not well-served by markets, particularly food markets. These poor market conditions exacerbate fluctuations in food prices, both on a seasonal and an inter-annual basis, and probably further limit access to food through the marketplace for a large share of Eritrea's rural population. Poor market conditions also limit opportunities for farmers and herders to sell their output, implying lower prices for marketed goods and, again, lower incomes.

Primary road construction has focused on the Asmara-Massawa route, as well as the Asmara-Keren-Agordat, Asmara-Dekemhare and Asmara-Medefera routes. Although an important linkage from major production and trading centers, the main road from Agordat-Tesseney remains in very poor condition and is a priority for future rehabilitation efforts. Secondary roads from Dekemhare-Mai Aini, Tesseney-Um Hajer are also a priority. The Ministry of Agriculture frequently constructs feeder roads as an element of its public works programs. However, according to the World Bank, there is limited capacity for rural feeder road construction, particularly given the difficulty of developing a sustainable rural road maintenance program.

In addition to the condition of the road network, the current structure of trade in Eritrea presents some additional obstacles to market development. Incipient agricultural markets are currently dominated by a few large, typically Asmara-based, traders, whose trading networks often reach beyond national borders. Although not fully documented, distortions in price incentives are a likely result of large-scale movement of food aid. Poor infrastructure in addition to large Government and NGO transport fleets threaten to crowd out private investment in trade and, in particular, limit the expansion of small-scale transport and trade

necessary to reach marginal areas. Currently in many of these areas, access may be more reliable to still-distant markets in Sudan or Ethiopia.

IV. Food Security Problems and Programs

At the time of this report, the Government of Eritrea has not published a food security policy, although one is expected soon. Several elements are, however, clearly articulated in other government policies. The following three points are general "principles" which have been extracted from policy statements:

- the agricultural sector is central to ensuring maximum food availability, primarily through increased production of food crops, but also through the development of an agricultural export sector, and increasing employment opportunities;

- Eritrea has a commitment to reducing dependence on food aid through increased production and, when necessary, importing food commercially; and,

- the government has a role in meeting the food needs of vulnerable populations, but these policies should promote productive enterprise and not increase dependency.

In addition, since independence, Eritrea has come to play an increasingly important role in regional efforts to promote food security through Inter-Governmental Association for Development (GAD)[2] and has embraced the principles enumerated in the Kampala Conference of Ministers on the Food Security Strategy of the GAD Region.

A. Agriculture. The intended role of the agricultural sector in contributing to economic growth has been detailed in the section above. Agriculture is expected to play a dual role of both increasing incomes, and in maintaining food supplies. Though Eritrea has publicly rejected the principle of food self-sufficiency, the policy of food self-reliance is frequently articulated -- the intention to increase food production, especially the staple grains, maintain stocks if possible, and minimize the role of food imports.

The potential of the agricultural sector in Eritrea to meet these objectives is constrained by both the natural resource base and the physical, human and capital inputs available. The primary constraints to improved agricultural production include the following factors:

- Eritrea is largely dependent on rainfed agriculture. However, close to 70 percent of the total area of the country has average annual rainfall below 400mm and drought is common. Currently, only 6 percent of cultivated area is under irrigation, suggesting the continued vulnerability of the agricultural sector to drought. There are plans for rehabilitation of the irrigation sector in the western part of the country.

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[2] Formerly the Inter-Governmental Association for Drought and Development (IGADD).

- Although less than 25 percent of the total potential agricultural land is currently cultivated, land holdings are quite small. Localized scarcity of arable land exists primarily in the central highlands. Farm sizes are as low as 0.75 ha. on average in the high population density central highland areas and 2 ha. in the western lowlands.

- Water use is very inefficient. In the highlands, most production is rainfed and water from hand-dug wells is used primarily for small vegetable plots. In the lowlands, farmers rely more on recessional floodplain cultivation, the diversion of flood water to fields or pump irrigation from small wells. In general, only minimal water control is possible. Dams and water reception systems are easily destroyed by heavy flooding -- which often damages crops -- and frequent repairs are necessary.

- Draft animals are scarce, particularly among poor farmers. Due to high population pressure on land and low rainfall, oxen are difficult to maintain in the highlands with limited fodder and grazing available. In the lowlands, camels perform better as draft animals and are useful as transport for small-scale trading. However, both oxen and camels are difficult for the poor to gain access to, limiting their production capacity.

As a result of these and other factors, crop yields are low in Eritrea, at only 0.75 MT/ha nationally for the major cereals combined in 1994. On a per capita basis, only Gash-Setit, Seraye and Barka provinces produced sufficient quantities of food for their populations, according to FAO/WFP per capita needs estimates of 140 kg/capita. Overall, based on a population of 2.75 million, per capita production of cereals and pulses was only 96 kg/capita in 1994, which was a relatively good year (Table 4).

In the highlands, any increase in production will have to come from agricultural intensification, while in the lowlands, increased production could come through both expansion and intensification of cultivated land. The southwest is the "new economic frontier" of Eritrea, where many initiatives converge. One of the main effects of development in the lowlands will be to transfer labor out of the heavily populated, environmentally fragile highlands. However, unless constraints such as the lack of agricultural extension services and rural credit, poor farm-to-market roads and other factors are removed, only limited gains in productivity could be expected in the short-term.

Eritrea also has good cash crop potential for oilseeds, fruits and vegetables, but it faces competition for some of these crops such as oilseeds from neighboring countries, especially Sudan. With the exception of a few large estates, the production of fruits and vegetables is scattered over small units from less than 1 ha to 200 ha. The primary constraints to expansion of these crops are the high costs of production, especially labor and energy, and poor market access. Channels for domestic markets are still poorly developed and access to international markets is further limited by the degree of international competition and quality restrictions. Eritrea's numerous small producers are currently ill-equipped to deal with the storage, quality control and marketing networks required to enter foreign markets.

Table 4--Cereal and Pulse Production, 1994

Province	Population	Area	Production	Yield	Deficit:	
					ERREC[1]	FAO/WFP[2]
Akele Guzai	330.0	48.3	34.9	0.72	31,347.5	11,300.0
Asmara	413.0	-	-	-	82,909.8	57,820.0
Barka	206.0	58.1	35.8	0.62	5,554.5	-6,960.0
Denkalia	170.0	-	-	-	34,127.5	23,800.0
Gash-Setit	263.0	60.5	58.0	0.96	-5,202.8	-21,180.0
Hamasien	275.0	35.0	35.0	1.00	20,206.3	3,500.0
Sahel	194.0	15.5	9.3	0.60	29,645.5	17,860.0
Semhar	108.0	9.4	6.6	0.70	15,081.0	8,520.0
Senhit	234.0	37.9	36.1	0.95	10,875.5	-3,340.0
Seraye	407.0	79.3	52.8	0.67	28,905.3	4,180.0
Returnees	150.0	-	-	-	30,112.5	21,000.0
Total	2750.0	344.0	268.5	0.78	283,563	116,500

Source: ERREC (1995)

[1]based on annual need calculation of 200.75 kg/capita

[2]based on annual need calculation of 140 kg/capita

B. Food Aid. As a result of its low per capita food production, Eritrea relies to a large extent on donor food aid to meet its aggregate food needs. According to the IMF, addressing the long-term structural food deficit is vital, if economic recovery is to take place. Over the 1985-1994 period, Eritrea has received between 38,377MT and 300,000MT annually for food aid programs that have assisted between 92,000 and 2,000,000 persons each year. Receipts from 1990 to 1995 are shown in Table 5. A World Food Program-commissioned study suggests that these structural food deficits may be as high as 275,000 MT in "bad" years and a minimum of 93,000-125,000MT in "good" (non-drought) years (Riely, 1995).

Table 5--Food Aid Receipts, 1990-1995

Year	Food Aid Received (MT)	U.S. Food Aid (MT)
1990	182,561	
1991	300,000	
1992	270,000	
1993	123,803	
1994	283,617	85,400
1995	193,846*	17,580

Source: Riely, F., 1995.

*(1995 figure includes 29,900MT of locally purchased sorghum)

The Government's food aid policy is largely committed to ensuring immediate food access to the most food insecure populations in Eritrea while attempting to minimize the negative impacts of food aid in terms of the dependency of recipients and market disincentives (ERRA, 1994). A recent policy change requires that all able-bodied food aid recipients must participate in rural public works activities (RPW), rather than receiving free food distributions, which are now limited to specifically-defined disadvantaged groups. The Government has also placed major emphasis on the monetization of food aid commodities, a potentially innovative policy which should allow tremendous flexibility in the use of these development resources and, if implemented properly, can overcome the common disincentive effects of food aid in domestic food markets.

In the aftermath of its recent war, Eritrea still has a sizable population of disabled and otherwise disadvantaged groups which will require some level of on-going support from the Government. Under current policy, free food distributions are limited to these disadvantaged

groups, which include the disabled, elderly, orphans and female-headed households with children under 5 years of age. Estimates of the numbers of these groups and their total food requirements are provided in Table 6.[3] A package of one-off food aid benefits is also provided for demobilized soldiers and returning refugees.

Table 6--Disadvantaged Groups in Eritrea, 1995

		Estimated Population	Food Needs (MT)
Displaced			
	Demobilized fighters	60,000	10,950
	War displaced	40,000	7,300
Orphans		90,000	16,425
Disabled			
	War disabled	15,000	2,738
	Others	61,000	11,133
Female headed households		75,000	13,688
Elderly		100,000	18,250
Returnees		110,000	20,075
Total		551,000	100,558
Percent of Total Population		20	

Source: ERRA (as reported in Riely, 1995)

The Government's rural public works (RPW) programs are currently managed by the Ministries of Agriculture and Local Government, with support from ERREC and participating NGOs. Investment in public assets through RPW activities are primarily focused on soil and water conservation, road maintenance and other small-scale construction and maintenance activities. Although RPW activities have been an important means of employment generation in Eritrea, a lack of tools and other capital inputs, as well as limited technical supervision have constrained the quality and impact of many of these efforts. RPW activities are not targeted, although communities are supposed to give priority for participation to the poorest households. Projects are selected on the basis of the need for the public asset and a determination of technical merit.

[3]It is important to note that these estimates were developed for planning purposes by ERRA and do not reflect the total numbers actually being fed under the program in the reference year.

The Government is currently considering the expansion of the cash-for-work component of its RPW, in order to minimize the common distortion of market incentives that accompany in-kind food distributions. While considered a positive step, there is a more general concern that, whatever the form of payment, the wage levels offered in public employment activities may displace labor from other private sector activities. By limiting labor availability, high wages in RPW programs could suppress agricultural production, which is central to the Government's economic growth and export strategy.[4] In February 1996, the Government announced a policy of full monetization of food aid in order to counter some of the negative effects of the in-kind distribution programs (Legal Notice No 26/1996). The policy is currently in the process of being implemented.

In urban areas, the Government has implemented a general bread subsidy to provide the urban population with access to low-cost food. The bread subsidy, which is currently untargeted, is achieved primarily through the monetization of food aid wheat through the government-owned Red Sea General Mills (RSGM), which processes the grain into wheat flour. Currently, the food aid donors (EU, WFP, US and Italy in particular) bear the full cost of the subsidy by providing food aid wheat at or below f.a.s. prices. While the Government have stated its intention to eventually phase out the urban subsidy, no specific plan or time schedule has been formally announced. At the same time, the price of a 100 gm roll was increased in late 1994 and early 1995. The price in mid-1994 was Br. 0.20 per roll, which is approximately double the 1994 price.

The Government is also involved in a number of other food-assisted programs, including the refugee resettlement program, a small school feeding program implemented primarily by NGOs in Barka Province, and a small weaning foods/supplementary feeding program implemented by the Ministry of Health (MOH), with support from UNICEF and WFP.

C. Food Access. While agriculture is the major source of income in the rural economy in Eritrea, that economy is also fairly diverse, providing a range of possible sources of income and, in many locations, providing access to food through fairly reliable market mechanisms. For women, non-farm income sources include the sale of tea, beer and other beverages, doing laundry and housekeeping in both rural and urban areas, gathering firewood for sale, as well as producing a range of handicrafts. For men, non-farm opportunities include work in rural construction, digging wells, herding livestock and collecting hay and wood for fuel and construction purposes. Seasonal labor migration, internally to both rural and urban areas, as well as to neighboring countries, especially Ethiopia, is a particularly important source of income in Eritrea. Remittances from family members overseas are also usually cited as providing important additional income to many. Private remittances from

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[4]Rural labor shortages have been cited in World Bank (1993), as cited above, Dommen, A. (no date) "Report of the OFDA Mission to Eritrea." and in key informant interviews reported in Okubay, T. (1994) "Eritrea: Rapid Rural Appraisal of Household Food Security and Nutrition," Ministry of Agriculture.

Eritreans residing abroad were estimated in 1994 to be $US 290, although this figure dropped significantly to $US 220 in 1995.

The diversity of the rural economy does not imply that food access is not an important concern in Eritrea. The incomes of much of the population in Eritrea are quite low, particularly in rural areas. Similarly, households have limited access to productive assets such as draft animals and, as mentioned above, low per capita landholdings. According to the World Bank, Eritrea is among the poorest countries in the world, with per capita GDP estimated to range between US$130 to US$150, or less than half of the average for other Sub-Saharan African countries.

A number of rural areas are currently not well-served by food markets, as a result of poor road conditions, low population densities in some areas, and low levels of income and effective demand. These poor market conditions result in high and unstable consumer food prices which can also compound problems of food access. In addition, these factors serve to limit opportunities for farmers and herders to sell their output, implying lower prices for marketed goods and, again, lower incomes.

While many marginal rural areas are not well-integrated into the national food economy, trade between the center and provincial capitals is fairly efficient, although dominated by a fairly small number of large, Asmara-based traders. Market entry by small traders is restricted not only by the poor quality of rural roads, but also by the lack of access to reliable, low-cost transportation, inadequate storage and limited access to investment capital.

In many parts of Eritrea, cross-border linkages with markets in neighboring countries are often stronger than those to domestic markets. Along the Sudanese border, for example, transactions are frequently conducted in Sudanese currency, rather than in birr. Cross-border food trade plays an important role even in Eritrea's urban areas, primarily for the import of taff for consumption in Asmara and surrounding urban areas, but also for a range of other food commodities. Cross-border trade presents opportunities for income generation, provides a commercial outlet for commercial crops, keeps prices down and is the major source of the unofficial food imports that have supplemented food aid during past crisis years. Over the long-term, much of Eritrea's structural food deficit will have to be met by cross-border trade with neighboring countries. Further documentation of the extent of the flows of both labor and agricultural products is needed to establish their importance for the food security of the country.

D. Health and Nutrition. Data from a 1993 national nutrition assessment conducted by UNICEF show particularly high levels of malnutrition in Eritrea. Just over 10 percent of children under five years of age are considered wasted and nearly 41 percent are

underweight.[5] Perhaps more telling of Eritrea's recent history of civil war and repeated drought, the proportion of under-fives considered to be stunted -- an indicator of prolonged malnutrition according to the height/age measure -- is approximately 66 percent, one of the highest in the world. Micronutrient deficiencies, particularly iodine deficiency and anemia are also particular concerns among the under-five population in Eritrea.

Basic indicators of well-being underscore the implications of chronic and severe problems of inadequate food intake, combined with a high prevalence of disease in Eritrea. Infant mortality in Eritrea is estimated to be 135 per 1,000 live births, which is well above the average of 106 per 1,000 live births for the rest of Sub-Saharan Africa. Under-five mortality is approximately 203 per 1,000 live births, compared to 181 for the rest of the region. Maternal mortality is also one of the highest in Sub-Saharan Africa, at 710 per 1,000 live births (UNICEF 1993).

According to the GSE/UNICEF report, the major determinants of child malnutrition in Eritrea include the combination of (a) inadequate diets, (b) poor weaning practices, (c) inadequate access to clean water and sanitation, and (d) poor maternal health and nutrition. Low levels of adult literacy are also thought to be important factors that negatively influence child nutritional status, through the impact on health and nutrition-related knowledge, attitudes and child care practices. Limited access to quality health care facilities is another important factor . As of 1993, only 14 percent of children were fully immunized, although, more recently, significant strides have been reported in expanding immunization coverage.

E. Vulnerability. Vulnerability in Eritrea is the result of chronically low levels of productivity, a deteriorating natural resource base, declining asset holdings, and low levels of income and consumption which limit the capacity of many to cope with the country's highly variable rainfall and economic conditions. The extreme degree of vulnerability in Eritrea is largely due to the prolonged war, which not only destroyed much of the country's productive infrastructure, but created a large class of displaced, destitute and disabled groups who are unable to cope with the vagaries of Eritrea's climate and economy.

While the understanding of household level food insecurity is still quite limited in Eritrea, the most vulnerable populations are likely to be comprised of: (a) the disadvantaged, including the disabled, the elderly, female-headed households, orphans and, perhaps in the short-term, recent returnees; (b) the ultra-poor, who are primarily in rural areas (including pastoralist groups and those with low landholdings) and who are typically unable to produce sufficient food or earn sufficient income to obtain adequate food, even during the best of years; and (c) the middle poor (in both rural and urban areas), who may have adequate food access in "normal" periods, but may also experience acute food insecurity due to periodic shocks to their incomes and crop production resulting from drought and/or abrupt changes in food

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[5]These data refer to the proportion of children who fall below -2 Z-scores according to the weight/height anthropometric measure (wasting) and the weight/age measure (underweight).

prices and wages. An on-going study by ERREC is attempting to shed some light on the specific socioeconomic characteristics of these groups.

Vulnerability is also likely to have a regional dimension in Eritrea, to the extent that particular areas of the country can be distinguished by their poor natural resource base, poor access to infrastructure and food markets, low levels of productivity and incomes, as well as highly variable climatic conditions. While no formal analysis of regional vulnerability has been conducted in Eritrea to date, officials at ERREC have identified Denkel and Sahel provinces, as well as parts of eastern Barka, southwestern Senhit and southern Akele Guzai as among the most vulnerable. These are the areas which are considered to be most drought-prone and are reported to have been the particular focus of relief operations in the recent past in Eritrea.

V. The Need for Policy Integration

The various elements of the Government's food security policies are potentially very complementary. Intended measures to promote price stability as a means of encouraging expanded crop production, for example, are highly compatible with other investments in the agricultural sector designed to expand output. Similarly, Rural Public Works which focus on soil and water conservation both improve the immediate prospects for food access to needy households and, to the extent they promote fruit and vegetable crop production for export, reinforce the Government's other agricultural development policies. Adding cash payments to the RPW program also offers the prospect of promoting market incentives for producers and traders, as, in theory, do price stabilization activities and efforts in primary and feeder road construction currently undertaken through a variety of Government programs.

However, the potential interactions between agriculture, food aid, and relief and development programs have not been directly considered or exploited. Also, there is some concern that current activities under the direction of separate agencies may work at cross-purposes. For example, as already mentioned, the level of wage payments in RPW activities also risks limiting the availability of labor in the agricultural sector, potentially limiting output for both food and cash crops and thereby undermining the Government's agricultural export strategy. The recognition of labor market effects was one of the reasons cited by the Government in January 1996 when a full monetization policy for food aid was announced. The implementation of the monetization policy may address some of these concerns.

The need for a food security strategy which addresses cross-sectoral complementarities and priorities has been recognized by Government. UNDP and FAO supported a workshop in January 1996 on the development of a Food Security and Nutrition Programme, and a Food Security Policy paper is expected to be issued by mid-1996. However, the capacity of the Government to support on-going food policy analysis is limited. Even after the establishment of broad policy goals and objectives, there are a number of specific, operational questions which will need to be addressed, including:

- appropriate price stabilization policies and comprehensive price monitoring system for agricultural products;
- rationale for establishment and optimal size of an emergency food reserve;
- understanding of market structure and implications for domestic and cross-border trade;
- public grain procurement policies, including local purchases of relief supplies;
- costs of production and implications for public and private investment in the agricultural sector; and
- options for targeted food interventions, the use of cash v. commodity public works programs and determination of wage rates on relief projects.

VI. Elements of a USAID Food Security Strategy

Given the Government's policies and the analysis of food insecurity and vulnerability in Eritrea presented above, any effort to promote sustainable improvements in food security conditions there must focus on four inter-related objectives:

(1) **Enhanced smallholder production** of cereals, other high-value food crops and livestock products, derived from the provision of improved inputs and services, greater access to irrigation, improved soil and water conservation, and the expansion of rural infrastructure;

(2) **Expanded and more stable rural employment and incomes** derived not only from increased agricultural productivity, particularly cash crop production, but also from labor-intensive rural enterprises linked to a dynamic agricultural sector and an effective, well-targeted public sector employment program; and

(3) **Expanded and more stable rural market linkages** to ensure stable supplies of low cost food in urban and deficit rural areas, promote the diversification of production into high value food crops, provide incentives to small-scale rural traders, and facilitate the marketing of agricultural inputs and produce for domestic, regional and, eventually, international markets.

(4) **Improved nutrition and health of key vulnerable groups** to ensure the efficient utilization of food supplies, improve the productivity of the labor force, limit the income losses often associated with illness, and promote the general well-being of the rural population.

These four objectives are highly inter-related. A dynamic smallholder agricultural sector is the key to increased employment and incomes in rural areas, not only employment in agricultural activities, but also from growth in labor-intensive rural microenterprises linked to a dynamic agricultural sector. Improved market linkages also promote increased agricultural and non-agricultural production. And, in general, improvements in income and food access may lead to improved food utilization and reductions in malnutrition.

The basis for any sustainable food security gains in Eritrea must be a dynamic, small-scale, rural trading sector, which can provide:

- a key to sustainable access to low cost food for populations in urban and, particularly, food-deficit rural areas where the cost structure of small traders permits a deeper penetration into marginal areas;

- the only means to ensure greater competition in food marketing, thereby minimizing the current dominance of large traders in Eritrea's food markets and exerting a steady downward pressure on consumer prices; and

- along with general improvements in market infrastructure, an important pre-requisite for risk-averse farmers to expand their production of higher value crops with the potential for domestic trade and export.

Promotion of small-scale rural trade is also likely to be highly complementary to the development of a strong rural microenterprise sector. In the short-term, improvements in rural marketing conditions will promote linkages to domestic and regional markets for the producers and processors of both agricultural and non-agricultural goods. Any effort to expand Eritrea's access to highly competitive international markets must be supported in the short-term by an expanded domestic and regional demand until the necessary infrastructure, institutions and expertise are in place to compete on world markets. In the long-term, investment in rural, small-scale trade is the first step towards the integration of Eritrea's rural producers into international markets, again for both agricultural and non-agricultural goods.

Given food security conditions in Eritrea and, importantly, the current focus of investments by the Government and other donors, this paper advocates a focus on rural incomes and food policy formation as the basis for its food security strategy. USAID investments should probably in initial stages be limited to a specific region of Eritrea or a specific sector. A regional emphasis which should be considered is the southwestern lowlands. This approach is manageable and complementary to the Government's own implicit regional emphasis. Such an approach would enable USAID to leverage results of other activities in the selected region, and fully exploit growth linkages between farm and non-farm sectors.

The key constraint to any intervention in Eritrea is the Government's absorptive capacity, given the incipient private sector, and the determination of the Government to minimize the

role of international NGOs or other potential expatriate partners. USAID already provides technical assistance toward capacity building in key areas, though additional areas are suggested below. Government capacity and the transitional nature of Eritrean institutions and economy call for a phased approach. A suggested approach is outlined as follows:

Phase One (first year):

- Institutional strengthening in technical planning (soil and water conservation) and in food policy analysis,
- Bridging information gap with studies,
- Small-scale pilot projects designed to test conditions in rural micro-enterprise and export crop areas.

Phase Two (years 2-5):

- Broader support to rural incomes through microenterprise development activities, particularly food marketing, or to the development of a specific agricultural production sector, such as a specific export crop and marketing chain.
- Moving toward greater regional integration of markets as a step toward integration with international markets.

Specific elements of a program could include any or all of the following areas depending on the volume and type of assistance, management and human capacity which USAID/Eritrea will have over the next five years. Given that resources are most likely to remain constant, it is again recommended that the program develop a geographical or sectoral focus.

VII. USAID Food Security Program Options

Through its efforts in the resettlement of refugees and reconstitution of their livelihoods through participation in the PROFERI Program, technical assistance in the control of locusts through the AELGA Project, support for the design of soil and water conservation efforts through the TAP Project, and numerous PVO Title II food aid programs in soil and water conservation and agricultural development, USAID/Eritrea already has a significant food security portfolio with a demonstrated impact on the well-being of the Eritrean people. Approximately 40 percent of overall Mission resources (food, financial and managerial) are currently devoted to addressing the food security needs in Eritrea. Given the diverse challenges facing Eritrea during the current period of rehabilitation, the USAID program has proven an important, flexible resource for the Government in addressing a range of food security-related issues.

Options for the future direction of a USAID food security program in Eritrea must maintain

that flexibility in order to continue to address the key issues of national rehabilitation. Government and private sector institutions are not yet fully developed and absorptive capacity is limited, restricting many immediate options for the implementation of new programs. In the short- to medium-term, support for government-led initiatives in capacity-building must play a key role in any food security strategy, working toward the broader implementation of programs in the long-term. In particular, it is necessary to work with Government to explore the best means to support the involvement of the private sector and create an environment in which the private sector takes the lead in the growth process.

Given the potential sources of food security enumerated above, there are a number of likely areas of support:

A. Smallholder Production. Agricultural development forms the major emphasis in government and donor efforts to improve food security in Eritrea. A matrix of Government and donor investments is provided in Annex 2. Large-scale investments in the agricultural sector are either on-going or planned in eastern lowlands by IFAD, in central highlands by the African Development Bank and in the western lowlands by GTZ.

To date, it has been USAID strategy to leverage other donor resources through jointly-funded activities: including its participation in multi-donor programs such as the Eritrean Relief and Rehabilitation Program (ERRP) and the Programme for Refugee Reintegration and Rehabilitation of Resettlement Areas in Eritrea (PROFERI). Through it efforts in locust control under the AELGA Project and planned technical assistance in soil and water conservation, in cooperation with the U.S. Department of Agriculture, the USAID/Eritrea has provided value-added to current U.S. and donor investments in the agricultural sector, by both preventing large-scale production losses and supporting soil and water conservation activities that form the core of U.S. PVO Title II food-for-work programs.

In the long-term, a sustainable increase in agricultural productivity and incomes is the best means to mitigate the effects of drought and other risks to household production, incomes and consumption in Eritrea. Elements include appropriate technology, improved infrastructure, stronger market linkages which enable households to build-up a reserve of assets and diversify into higher-value, lower risk production strategies. Stronger market linkages, both domestically and on a regional basis, minimize the impact of localized drought on production, employment and incomes, but especially on the cost of food.

The Ministry of Agriculture has identified several areas within the agricultural sector for priority funding. These include specific export crops (e.g., horticulture), small-scale irrigation, as well as livestock, fisheries and plant protection programs. Selecting programs which have high growth potential as well as broad employment impacts will be the challenge.

Regarding agricultural production possibilities in a regional context, the World Bank is quite sanguine: "Regional cooperation in border production zones should be possible to help increase food security in Eritrea, Ethiopia and Sudan" (World Bank, 1994). Investments in

agriculture in neighboring productive areas (Tesseney via Omahajer in Eritrea to Humera-Chilga in Ethiopia and eastern Sudan) would increase trade and potentially have stabilizing effects through the development of mutual economic interests.

B. Rural Microenterprise Development (emphasis on agricultural marketing). The food security concerns of Eritrea and the Government's development strategy suggest a particular emphasis on agricultural marketing and processing, as well as the marketing and processing of livestock and livestock products. The former are highly complementary to the Government's strategy to focus on export crop production. The latter represent an important comparative advantage in the region and address the income needs of a particularly vulnerable segment of the population.

Although the Government is working to establish the legal and institutional structures to promote private sector development, with the exception of a small savings and credit component in the World Bank-funded Eritrean Community Development Fund (ECDF) Project and a number of smaller PVO-based savings and credit schemes, rural micro-enterprise development is an area of relative neglect in both government and donor efforts. (See Annex 1 for a summary of rural credit schemes). As a result, USAID/Eritrea is currently developing a number of small pilots to explore opportunities and understand the constraints to more widespread investment in rural microenterprise development.

In general, options should also be explored for the promotion of labor-intensive rural microenterprises with strong linkages to the likely areas of rapid agricultural growth, particularly in the western and eastern lowlands. Given USAID's experience and comparative advantage in supporting microenterprise development initiatives, this should be an area of primary consideration in defining a food security program strategy in Eritrea. The importance of linkages within the GHA region also highlight this as an investment opportunity.

C. Rural Roads. Road rehabilitation was a major emphasis of the multi-donor Eritrea Relief and Rehabilitation Program, although the emphasis was on primary roads linking provincial capitals with Asmara and the port in Massawa. Currently, leadership in the area of rural roads construction has been taken by both the EU, GTZ and Italy. The construction of rural feeder roads is also an important component of the World Bank-funded Eritrean Community Development Fund Project.

Rural road maintenance is also an important component of the Ministry of Agriculture and Ministry of Local Government food-for-work programs, which are, in part, supported through U.S. government Title II food aid. USAID has also provided support for the construction of rural feeder roads through its participation in that component of the PROFERI refugee resettlement project.

Road construction and rehabilitation (both primary and feeder roads) are critical complementary activities to efforts designed to promote export crop production and more

efficient agricultural market functioning. Investments in roads is a particular option for a possible Title III food aid program, since likely program outputs would be relatively simple to monitor. Road construction and rehabilitation efforts might be linked to an investment strategy which attempts to leverage investments by USAID or other donors to promote export crop production and marketing in a particular region of the country.

D. Employment-based Safety Net. The Government food-for-work program is central to its food security strategy and has been a major emphasis of U.S. Title II food aid programs through PVOs as well as the World Food Programme. Food-for-work efforts in soil and water conservation, rural road rehabilitation and maintenance and other activities are strongly linked to agricultural development activities in general, and are likely to benefit significantly from planned USAID-funded technical assistance in the design of soil and water conservation efforts.

Effective use of food aid through food-for-work and other safety net mechanisms, through its potential impact on market incentives, will also likely influence efforts to promote rural microenterprise development in the area of agricultural marketing and processing. Given those linkages, and the importance of U.S. Title II food aid resources in Eritrea, USAID should continue to support the Government's efforts in this area if possible. However, the new monetization policy may limit the opportunities in these areas. These safety net programs represent a possible channel for the use of counterpart funds from a Title III food aid program.

E. Nutrition. UNICEF is generally taking the lead on nutrition issues among donors in Eritrea, especially in the support for nutrition education and in addressing key micronutrient deficiencies, such as iodine deficiency. SIDA is also providing support in the promotion of breastfeeding. The Government has recently undertaken efforts to promote the local production and use of appropriate weaning foods, which includes an innovative private sector marketing component, and is currently supported at a small scale by UNICEF and WFP.

USAID, through the OMNI Project, has also provided technical assistance in efforts to address micronutrient deficiencies. In general, USAID efforts in the health sector through the BASICS Project are highly complementary to efforts to address specific nutrition problems as well. In addition, the planned DHS survey, which includes a module on child nutritional status, represents a potentially important input into national health and nutrition planning.

Although a number of institutions are involved in nutrition-related activities, most interventions are quite limited in their scope, particularly in light of the extreme levels of malnutrition found in Eritrea. Given that fact, and USAID's current level of investment in the health sector in general, it may be worth exploring further opportunities in this area as a possible element of a country food security strategy.

F. Food Policy Formation. USAID should explore options to promote national food

policy formation through the establishment of a long-term research and advisory service based at the Ministry of Agriculture to strengthen the institutional capacity of the GSE to carry out effective food system management. Capacity-building in this area is critical to address a number of important national and regional policy concerns, including agricultural development, agricultural trade and the management of public safety net programs.

The potential cross-cutting implications of this activity would have important benefits for the range of other program options listed above and would, again, provide important value added to other government and donor food-related programs. Given the Government's increasingly important role within GAD, this initiative could provide an important input into regional food policy, as well, in critical areas such as agricultural development, the management of regional water supplies, the promotion of cross-border trade on the basis of regional comparative advantage, and the management and potential savings from regional food security food reserves.

USAID can play a constructive role in Eritrea through undertaking selective analytical work in the above areas upon government request, and/or supporting the development of analytical capacity in the appropriate Ministries and offices. Support might focus on local and regional training in data collection and analysis, as well as collaborative research on key food sector issues. Analytical studies which cover regional issues such as trade could be important contributions to improving information and informing the policy dialogue in Eritrea. Selective proposals are detailed in Annex 3.

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Annex 1--Financial sector development

The financial sector in Eritrea consists of a few government-owned institutions including the Bank of Eritrea, the Commercial Bank of Eritea, the National Insurance Corporation, and two specialized banks -- the Housing and Savings Bank, and the Agricultural and Industrial Development Bank.

Formal Banking Institutions. The Bank of Eritea is being developed as the central bank for the country, but technical capacity is still extremely limited. The legislation governing the functions of the Bank were drafted in 1994, but has still not been enacted. The Commercial Bank of Eritrea is the dominant financial institute, acting in part as the agent of the Bank of Eritrea. The CBE has 13 branches across the country, the most extensive network, but is severely constrained by lack of skilled personnel. The CBE holds about 80 percent of the total assets of the banking system, and is being drawn upon by most development project with savings and credit components.

The Housing and Savings Bank has resumed operations in mobilizing retail savings and provides loans in the area of construction and repair of residential or business premises. A new scheme is just getting started to offer credit to established companies engaged in the production of construction materials. The HSB also intends to open branches in Massawa, Tessenei and Assab. The status of the Agricultural and Industrial Bank is still unclear. There are reported to be only five current staff members, and serious capitalization issues. Claims against the Ethiopian government might provide necessary capital once these claims are settled. There has been some interest in the establishment of a private banking sector, but the capital requirement of US $3 million which is currently being discussed by the Bank of Eritrea is a barrier to entry.

The current institutional structure leaves a gap in development funding. The Commercial Bank of Eritrea is currently being used to supply development loans, but the staff is not trained in project appraisal, and given the specialized nature of this lending, it should probably not invest in these skills. One proposal has been to incorporate the AIDB as a sub-unit of CBE. Another option is the reestablishment of the AIDB. Another proposal has been to design the AIDB to initially fill the development niche but to establish early plans for its subsequent diversification as development banks in other countries have done (e.g. Malaysia).

Rural credit schemes. There is not very much information on experience with rural credit in Eritrea. Community self-help groups with financial functions have a long tradition, but these are essentially redistributive or safety net mechanisms. Small revolving savings groups or self-help groups such as the *mahabar* and *ekub* common among Christian Tigrinya provide some experience with group savings. The importance of drawing on this type of experience is underlined by the story of one *ekub,* or women's group, which eventually negotiated a loan from the National Union of Eritrean Women and purchased land for farming. (J. Sutton, 1995). The potential for drawing on these rural credit experiences is being studied by other

credit schemes.

In the past two to three years, several rural credit schemes have been established with the support of various government and non-government organizations. Most of these schemes are variants of the Grameen Bank structure differing according to levels of external capitalization, methods of project approval, and interest rates.

The scheme furthest into implementation is the Seraye Savings and Credit Scheme which is being assisted by the British NGO, A.C.O.R.D.. The project is based on village savings and credit groups with group pressure substituting for collateral. Loans range from 100 to 5,000 Birr with the interest rate at 12 % for loans and 7 % for savings. Loan repayment is between 6 and 18 months. In 1984 there were 430 members in 81 groups of which 24 percent were women. As of September 1995, there were 1,000 total members. The loans are not sectorally-based, and currently 50 percent are used for agricultural purposes (livestock and agricultural inputs), 30 to 35 percent for trading (predominantly livestock), and 20 percent for services and non-agricultural production. Participation of women remains around 20 to 25 percent with 20 all-women groups. The project has an account in the Commercial Bank of Eritrea and funds 10 promoters (bank liaison officers) who have been trained in banking and enterprise. A.C.O.R.D has a plan to phase out of the project and intends by 1998 to only be subsidizing the scheme for training and research. The project managers cited marketing services and research as a critical area of need

The National Union of Eritrean Women started up a pilot scheme in March/April 1995 in Barka and Gash and Setit provinces. The revolving credit and savings scheme has a skills training component. The target beneficiaries are 500 women-headed households, returnees and internally displaced women with the objective oof average loan size of 1000 Birr. Women need to organize themsleves into groups and save 10% of weekly income in order to qualify for a loan. Targets are currently not being met. So far women have gone for traditional activities such as tea shops, retail stores or animal and poultry raising. (Sutton). NUEW has plans to begin at least one other savings and credit program in Hamassien Province.

The Integrated Food Security Project of the Ministry of Agriculture with support from the German Technical Assistance Agency (GTZ) also has a credit (and savings) program. The program is beginning small and focusing on three districts of "high" agricultural potential. It is to become a model for future MOA credit schemes. IFSP-PMU will support the scheme financially and logistically and assist in monitoring and evaluating the credit activities. Three credit workers and one accountant will be employed by the MOA funded by IFSP monies. A revolving fund will be established with the initial capital and repayments paid into an account controlled by MOA of Gash & Setit. The target activities are on agaricultural and related businesses including draft and transport animals and other animal activities; small trade, carpentry, blacksmithing, dairy, gold mining, camel-driven oil mills, small enterprises, handicrafts and construction. A credit applicant has to meet several criteria: own land which is being self-cultivated; live at least 3 years in the area; have capability of carrying out

activity; be recommended by the baito; be recommended by MOA extension worker (for agricultural credits).

An important entrant into rural credit will be the Eritrean Community Development Fund of the Ministry of Local Government. The ECDF is being funded by the World Bank, with contributions from other donors. The largest component of the scheme is for community infrastructure development including road construction and maintenance, water supply schemes, and health and education infrastructure, but US$6 million will be put into a micro-enterprise component.

In the pilot phase of the broad community development support, 75 projects have been approved, and 30 are currently in implementation. The micro-enterprise program will be based on "solidarity groups" at the village level, a subcommittee at the Baito level chaired by the Baito chairperson (and composed of at least one woman) which will review proposals, and provincial branches which will review and forward proposals to national headquarters. If ECDF follows this procedure, the lengthy and centralized review process will likely create major delays in the implementation of this program.

The credit component is to be "two-tiered" with small loans of not more than 750 Birr for first-time "poor" applicants, and loans of 30-100,000 Birr on the basis of collateral for applicants with existing capital and assets. Both interest and savings rates were reported to be set at 12%. Staffing constraints and lack of funds for training are delaying the implementation of the micro-enterprise component according the MLG officials. The program intends to start slowly in cluster areas close to CBE branches, but with the objective of making a total of 15,000 loans within two years of operation and eventually developing village banks.

Annex 2--Matrix of Food Security Activities in Eritrea

Ministry/Agency	Activity	Donor	Geographic Focus
Agriculture	Soil/Water Conservation Reforestation Rural Feeder Roads (ERRA/FFW)	Food donors (NGOs)	Nationwide
	Rural Credit	World Bank (RRPE)	Nationwide
	National Livestock Lab	ODA	
	Microdam Construction	AfDB	Central Highlands
	Food Information and Early Warning Unit	FAO/Italy	
	Water Resource Study	EU	Nationwide
	Special Food Security Program	FAO	
	Tractor Credit (CBE)	USAID, World Bank (RRPE)	W Lowlands
	Flower Production	Israel	Hamasein
	Demobilized Soldiers	Israel	
	Capacity in Research/Extension	FAO/Italy	
	Food Security Strategy Development	FAO	
	Seraye Credit and Savings Scheme	ACORD	Seraye
	Mendefera Farmer Marketing Cooperative		Seraye
	Lowland Women's Credit	NCA	
	Fisheries Development	FAO/UNDP	

Ministry/Agency	Activity	Donor	Geographic Focus
	Capacity Agric. Planning	GTZ	
	Shaeb, Wadi Labka Ag Development	IFAD	E. Lowlands
	Integrated Food Security Project	GTZ	Gash-Setit
	Zula Bay Ag Development	NCA, Norad	E. Lowlands
	Wadi Badda Ag Development	Africare	E. Lowlands
	Agriculture Sub-Sector Study	AfDB, DANIDA	
	TA-Soil and Water Conservation	USAID	
	Alighider Cotton Scheme		Gash-Setit
BOE	Technical Assistance	USAID, GTZ	
CBE	Rural Rehabilitation Loan Program	World Bank (RRPE)	
CERA	Refugee Resettlement	PROFERI donors	W Lowlands
Construction	Asmara-Massawa Road	EU	
Education	School Feeding Program	CRS	Barka
ERRA	Targeted Feeding	Food donors (NGOs)	Nationwide
	Leeds HH Coping Study	Oxfam/Netherlands	5 provinces
	Vulnerability Study	USAID, WFP	Nationwide
	TA Early Warning	CIDA	
	Food-for-Work (MOA/MLG)	Food donors (NGOs)	Nationwide
Health	Micronutrient (salt iodization)	USAID, UNICEF(?)	

Ministry/Agency	Activity	Donor	Geographic Focus
	Basics Program	USAID	
	Weaning Foods Program	WFP, UNICEF	Nationwide
	Rural Health	CRS	
	Rural Health	Africare	
	Rural Health	WVRD	
	EPI	UNICEF	Nationwide
Justice			
Local Government	Rural Road Maintenence (ERRA/FFW)	Food donors (NGOs)	Nationwide
	Community Development Fund	World Bank, UNDP, Italy, others	Nationwide
Macro Policy Office	Econ and Fin Mgmt Project	USAID, UNDP, Italy, ODA, IMF	
MFD	TA Macroeconomic Policy	UNDP	
MITIAS	Demobilization		
NUEW	Credit Schemes	WVRD	Barka, Gash-Setit, Seraye
Port Authority	Massawa Port Rehabilitation	World Bank	

Annex 3--Proposal for a Technical Secretariat on Food Security Policy

Eritrea requires a on-going country food security assessment mechanism (a "Technical Secretariat") which would refine common terms of reference and improve assessment methodology. Detailed and periodic household surveys would be used to reassess the best selection of interventions to deal with food security problems.[6] In the first instance, the Technical Secretariat would focus on a clear description of the prevalence and geographic distribution of vulnerable groups, delineate more precisely where food aid resources may be over or insufficiently committed, better define communalities of approach as to how food aid may best be targeted to reach the most vulnerable and food insecure, and rationalize the size of rations for varied interventions;

The Kampala Conference of Ministers on the Food Security Strategy of the IGAAD Region (signed by the then IGAAD member states in Kampala, Uganda on September 21, 1990) listed as a priority area for action "improving national and food policy management, (including):

- strengthening education, training and research,
- improving information dissemination, and
- improving policy coordination among member states".

It is proposed that USAID focus on improving national (and regional through IGAAD) food policy management through the establishment of a long-term research and advisory service aimed at improving food distribution systems, agricultural pricing policies, and including the establishment of a Eritrean food information system. The provision of technical assistance in the form of resident advisory and short-term consultancies, including specified professional training for Eritreans both in-country and abroad could be arranged on either a bi-lateral basis or through IGADD.

The purpose of the project will be to strengthen the institutional capacity of the GOE in general and the GOE's Ministries of Agriculture, Trade and ERRA in particular, to carry out effective food system management including: data collection and analysis, planning, policy formulation, program and project design, development, implementation and evaluation. Major areas of analysis (illustrative) might include:

- Price stabilization policies and comprehensive price monitoring system for agricultural products,

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[6] A start has been made in September with the launching of a national 3,000 household vulnerability assessment by the Eritrean Relief and Rehabilitation Agency {ERRA} and the World Food Program {WFP}.)

- Rationale for establishment and optimal size of an emergency food reserve,
- Market structure analysis including distribution facilities, logistics, and management,
- Public grain procurement practices,
- Agricultural growth through diversification as a means of increasing farm productivity, expanding income-generating employment, and improving availability of nutritious foods,
- Options for targeted food interventions,
- Cash v. commodity public works programs,
- Cross-border trade practices and possibilities,
- Determination of wage rates on relief projects,
- Design of a food consumption monitoring system, and
- Formulation of a national food policy.

The USAID intervention would also focus on developing the capacity within the respective GOE partner organizations through:

- local training (computer-based analysis, analytical, rapid appraisal);
- regional training; and
- collaborative research.

It is anticipated that the USAID/IGAAD Food Security Policy Project would achieve the following results:

- affect food policy initiatives/reforms and generate public cost savings;
- change/improve the conventional wisdom in food management systems;
- develop regional cooperation through mutually beneficial exchange and joint policy action across national borders.