



**New Partnership for
Africa's Development (NEPAD)
Comprehensive Africa Agriculture
Development Programme (CAADP)**



**Food and Agriculture Organization
of the United Nations
Investment Centre Division**

GOVERNMENT OF ERITREA

SUPPORT TO NEPAD–CAADP IMPLEMENTATION

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**NATIONAL MEDIUM TERM INVESTMENT PROGRAMME
(NMTIP)**

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ERITREA: Support to NEPAD–CAADP Implementation

Volume I: National Medium–Term Investment Programme (NMTIP)

Bankable Investment Project Profiles (BIPPs)

Volume II: Hazemo Plains Integrated Development Project

Volume III: Tseada–Kelay Plains Integrated Development Project

Volume IV: Tsilima Plains Integrated Development Project

Volume V: Zula Plains Integrated Development Project

ERITREA:

NEPAD–CAADP National Medium–Term Investment Programme (NMTIP)

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Currency Equivalents

Currency Unit	=	Nakfa
1.00 US\$	=	13.50 Nakfa
1.00 Nakfa	=	0.074 US\$

Abbreviations

ADB	African Development Bank
CAADP	Comprehensive Africa Agriculture Development Programme
EU	European Union
FAO	Food and Agriculture Organization of the United Nations
FAS	Farmers' Advisory Service
FSS(P)	Food Security Strategy (Paper)
GDP	Gross Domestic Product
HRD/M	Human Resource Development/Management
IFAD	International Fund for Agricultural Development
IFS	Integrated Farming Scheme
I-PRSP	Interim Poverty Reduction Strategy Paper
LSMS	Living Standards Measurement Survey
MoA	Ministry of Agriculture
MoF	Ministry of Fisheries
MTS	Medium Term Strategy
NEPAD	New Partnership for Africa's Development
NEPPF	National Economic Policy Framework and Programme
NFIS	National Food Information System
NGO	Non-Governmental Organization
NMTIP	National Medium–Term Investment Programme
TCP	FAO's Technical Cooperation Programme
TEGPRS	Transitional Economic Growth and Poverty Reduction Strategy
TS	Transitional Strategy
UNCDF	United Nations Capital Development Fund
UNDAF	United Nations Development Assistance Framework
UNDP	United Nations Development Programme
USAID	United States Agency for International Development
WB	World Bank

Preface

*In an effort to halt and reverse the decline of the agricultural sector in the continent, the African ministers for agriculture unanimously adopted, at the 22nd FAO Regional Conference for Africa, held on 8 February 2002 in Cairo, a resolution laying down key steps to be taken in relation to agriculture in the framework of the **New Partnership for Africa's Development (NEPAD)**. As a follow-up to this resolution, they endorsed, on 9 June, 2002, the **NEPAD Comprehensive Africa Agriculture Development Programme (CAADP)**. The recent **Declaration on Agriculture and Food Security in Africa**, ratified by the African Union Assembly of Heads of State and Government during its Second Ordinary Session, held in Maputo between 10 and 11 July 2003, provided strong political support to the CAADP. During this session, the Heads of State and Government agreed to adopt sound policies for agricultural and rural development, and committed themselves to allocating at least 10 percent of national budgetary resources for their implementation within five years.*

*The CAADP provides an integrated framework of development priorities aimed at restoring agricultural growth, rural development and food security in the African region. In its very essence, it seeks to implement the key recommendations on food security, poverty reduction and sustainable use of natural resources, made at recent global conferences. The CAADP comprises **five pillars**:¹*

- 1. Expansion of the area under sustainable land management and reliable water control systems.*
- 2. Improvement of rural infrastructure and trade-related capacities for improved market access.*
- 3. Enhancement of food supply and reduction of hunger.*
- 4. Development of agricultural research, technological dissemination and adoption to sustain long-term productivity growth.*
- 5. Sustainable development of livestock, fisheries and forestry resources.*

As an immediate follow-up to the Maputo Declaration, representatives of 18 African ministries for agriculture from member countries of the NEPAD Implementation Committee, the NEPAD Steering Committee, the African Development Bank, the World Bank, the International Fund for Agricultural Development, the World Food Programme, FAO and civil society, participated in a meeting held in Rome on 17 September 2003, in order to discuss the implementation of the CAADP, and more specifically the:

- Methodology for the review/update of the **national long-term food security and agricultural development strategies**.*
- Preparation of **National Medium–Term Investment Programmes (NMTIPs)**.*
- Formulation of the related “**Bankable Investment Project Profiles**”(BIPPs).*

¹ Pillar 5 was initially not part of CAADP, but has been added in recognition of the importance of the sub-sectors.

It is within this context that the Government of Eritrea, in an effort to reinforce its interventions aimed at fighting poverty and food insecurity, has requested FAO to assist in preparing a NMTIP and a portfolio of BIPPs, with the aim to:

- *create an environment favourable to improved competitiveness of the agricultural and rural sector;*
- *achieve quantitative objectives and mobilize resources to the extent needed for the associated investment in agriculture;*
- *achieve the targeted allocation of national budgetary resources to this area, reflecting the commitment made in the Maputo Declaration; and*
- *create a framework for coordinated bilateral and multilateral financing of the sector.*

*The present NMTIP, which draws on work of Transitional Economic Growth and Poverty Reduction Strategy (TEGPRS), the Transitional Strategy (TS), the Medium–Term Strategy (MTS), the Interim Poverty Reduction Strategy Paper (I–PRSP) and the Food Security Strategy Paper (FSSP), was prepared by a team of consultants,² under the overall supervision of the National Project Coordinator/NEPAD focal point in the Ministry of Agriculture.³ The team was assisted by an officer of the FAO Investment Centre Division⁴ while the Office of the FAO Representative in Eritrea provided crucial administrative support. In the process of preparing this document, participation was sought from major stakeholders from government, development partners, farmer's organisations, private sector and civil society. Key to the finalization of the NMTIP was the **National Stakeholder Workshop** held in Asmara on 16 August 2004, during which a draft of this document was discussed and validated, and project ideas for the BIPPs prioritized, based on agreed–upon selection criteria. Four of these were further developed into BIPPs, that are presented in a separate document.⁵ Lastly, the NMTIP and the BIPPs were reviewed by an FAO Virtual Task Force of technical experts.*

This document starts with a brief description of Eritrea's agricultural sector in the context of the country's economy and poverty and food security situation. This is followed by a review of national and development partner strategies and programmes, lessons learned, and an analysis of the principal constraints to, as well as opportunities for, the development of the sector. Based on this analysis and taking into account existing government strategies and the five pillars of CAADP, priority areas for investment have been identified. Finally, an attempt has been made to estimate the financing gap in terms of additional resources that would be required to meet the target of allocating 10 percent of national budget to the sector within five years, and a proposal put forward for monitoring and evaluation of the NMTIP implementation.

² Messrs Zerom, T. Zeggu, A. Haile, Y. Debrezion, and G. Tekle.

³ Mr S. Halle.

⁴ Mr Pietros Kidane, Senior Economist.

⁵ For the purposes of the present exercise, “Bankable Investment Project Profiles” are defined as documents elaborated in a format and with the information that could make them favourably considered by the financial institutions, donors and private investors foreseen in the Maputo Declaration. These documents should enable cooperating partners to make preliminary indications of interest, and of approximate level of funding commitment. Further feasibility analysis and subsequent processing through the concerned partner(s) regular project formulation systems would follow to obtain a project/programme proposal elaborated to the feasibility study level.

I. INTRODUCTION

A. The Economy

I.1. Eritrea is located in the Horn of Africa, bordered by the Red Sea, Djibouti, Ethiopia and the Sudan. It has an area of 124,320 km² (including around 350 islands) and a coastline of 1,200 km. Its population is estimated at 4.48 million. It was liberated in 1991 after a 30–year war with Ethiopia and became formally independent two years later on 24 May 1993.

I.2. In terms of its human development index, Eritrea ranked 156 out of 177 countries included in the UNDP's *Human Development Report 2004*. Its annual GNP per capita varied during recent years (1995–2001) between US\$170–220.

I.3. Immediately after liberation, Eritrea moved quickly to jump start the war damaged economy and supported investment in strategic sectors. As a result, GDP grew at an average annual rate of 7 percent between 1992 and 1997. In 1997, the fiscal deficit and inflation rate decreased from 19 and 13.5 percent in 1995 to 5.5 and 4 percent respectively, and foreign reserves reached over five months of imports.

I.4. The commendable growth trend was halted by the 1998–2000 conflict with Ethiopia. The social and economic cost of the conflict was exacerbated by one of the country's worst droughts in many years. As a result:

- Eritrea's annual GDP growth rate declined to around 4 percent in 1998, 0.3 percent in 1999 and fell to negative 12 percent in 2000;
- Government revenues declined from an average of 35 percent of GDP in 1998 to 25 percent of GDP in 2000;
- Government expenditure increased sharply (from 43 percent and 66 percent of GDP in 1994 and 1995 to 90 percent of GDP in 1999), resulting in marked rise in fiscal deficits (from pre-war levels of 12–30 percent of GDP to 58 percent of GDP in 1999);
- Money supply expanded rapidly, triggering inflationary pressures;
- Exports fell sharply;
- The overall public debt-to-GDP ratio rose significantly (from less than 10 percent in 1994 to 42 percent in 1997, 77 percent in 1998 and to some 200 percent in 2002);
- Foreign reserves were reduced to less than one month of imports; and
- The Nakfa depreciated significantly, from 7.2 Nakfa per US\$ in 1997 to 14.0 Nakfa in 2002.

I.5. With the cessation of the war, the government has strongly committed to restoring the development momentum, assisting displaced people to resume their economic activities, redressing fiscal and monetary imbalances through an austerity budget, restraining inflationary pressure and halting the further depreciation of the Nakfa.

I.6. Eritrea's recent economic performance demonstrates some progress in achieving macroeconomic stabilization; GDP in 2002 was Nakfa 8.8 billion or US\$652 million, with a fiscal deficit of 32 percent of GDP and inflation rate of 16 percent. Preliminary data from 2003 indicates the

fiscal deficit has fallen to 17 percent of GDP but inflation rose to 23 percent. Under the official exchange rate the Nakfa currently trades at 13.5 Nakfa to the dollar.

B. Poverty and Food Security

I.7. According to the recent *National Living Standards Measurement Survey (LSMS)*, the overall poverty estimate for Eritrea is 66 percent, with 37 percent living in extreme poverty (below the food poverty line).⁶ Poverty is concentrated in rural areas and is most severe in arid zones. Vulnerable groups include refugee populations such as Eritrean refugees from the Sudan, internally displaced people and expellees from Ethiopia as a result of the border conflict; and vulnerable urban populations comprising the very poor, disabled, elderly persons and socially and economically marginalized (war– and/or drought–affected) persons.

I.8. Domestic food grain production is well below demand and is supplemented through imports. The typical import requirement varies between one–quarter and one–half of demand depending on domestic production. Imports generally remain high even in good years; for example, despite 1998 being a year of good rainfall, national import requirements were nearly 200,000 tons or 30.5 percent of consumption. Food aid delivery to Eritrea between 1992 and 2000 is estimated to have been, on the average, about 120,000 tons per annum; in 2001, 2002 and 2003 it was 198,200 tons, 70,000 tons and 318,500 tons respectively. The total national food requirement of the country for 2004 is estimated to be about 614,000 tons with a food aid requirement estimated at 443,000 tons. With current production and import trends it is clear there is a large shortfall and hence serious food insecurity by those without access or income to purchase food.

C. The Agricultural Sector (including Fisheries)

I.9. **Contribution to the Economy.** Between 70 and 80 percent of the Eritrean population relies on agriculture, pastoralism and fishing for income and employment. Nonetheless, agriculture's share of GDP has markedly declined from 22.5 percent in 1993 to 11.7 percent in 2002, primarily due to recurrent drought, erratic and uneven distribution of rainfall, and the recent conflict with Ethiopia, which led to the displacement of the agricultural population along the border and the mining of vast agricultural fields.

I.10. **Physical Characteristics.** Eritrea has six agricultural zones defined by climate, altitude, and soils:

- The central highland with an altitude of over 1,500 m, and annual rainfall of over 500 mm;
- The western escarpment, with an altitude ranging between 600 and 1,500 m, warm to hot semi–arid climate and rainfall up to 500 mm;
- The south western lowlands at an altitude of 600 to 750 m, with annual rainfall in excess of 400 mm, and a hot semi arid climate;
- The green belt of the eastern escarpment of the highlands, ranging in altitude between 750 and over 2,000 m, with rainfall of up to 1,000 mm and, unlike other zones, supporting perennial crops, such as coffee, without irrigation;

⁶ Poverty line: Nakfa 240 per capita/month; Extreme Poverty Line: Nakfa 150 per capita/month.

- *The coastal plains* having an altitude that ranges from sea level to 600 m, with Saharan climate and rainfall of less than 200 mm; and
- *The north–western lowland*, having an altitude ranging from 400 to 1,500m, with hot arid climate and annual rainfall of less than 300 mm.

I.11. **Land use.** Out of the total land area of about 12.4 million hectares, 4 million ha are estimated to be barren; 7 million ha are browsing and grazing land and 1.65 million ha are classified as cultivable land. The average area cultivated annually is estimated at 0.53 million ha, of which 28,000 ha is irrigated, which is equivalent to 5 percent of the potential irrigable land.

I.12. **Agricultural Potential.** Areas with unexploited agricultural potential are located in the eastern and western lowlands and, to some extent, the southern and central highlands. Future agricultural growth will depend on development of new products, expanding production of niche and industrial crops (including lentils, sesame, cotton, etc.), and further developing commercial farming of vegetables and fruits, both for local consumption and export.

I.13. **Land Holdings and Tenure.** Land holdings in the highlands are generally small and fragmented. In addition, the land tenure system in the highlands results in periodic re–distribution of land leading to low incentives for long term investment and land improvement. Holdings in the lowland are comparatively larger, less fragmented and more secure as they are not subject to periodic redistribution.

I.14. **Land Policy.** The recent land policy has established ownership of land by the state but allows usufruct rights to land by every citizen over the age of 18 years with the government reserving the right to appropriate land for development after due compensation. The objectives of the Government’s land policy include equitable and efficient utilization of land through preparation of proper land use classification plans, formulation of effective methods of land distribution; encouraging long–term investment in agriculture and prudent environment management; and promoting commercial agriculture. In the past, the land tenure system has resulted in poor resource management and low productivity. The land policy will need to be implemented pragmatically in order to ensure proper soil and water conservation, farmland management, long–term investment, and development of commercial farming.

I.15. **Crop and Livestock Production.** The farming system in Eritrea is determined by the seasonal distribution and amount of rainfall. On the basis of intensification levels, it consists of: (a) *rain–fed crop and traditional livestock* production, largely in the central and southern highlands; (b) *irrigated agriculture*, mainly in the central and western lowlands and spate irrigated in the eastern low lands; and (c) *pastoral system*, mainly in the western and eastern lowlands.

I.16. The rain–fed crop/livestock system entails extensive land use and employs the majority of the population. It is the main source of staple crop production (cereal and pulses) and contributes to relatively high value food supplies of animal origin. Over time, the system has gradually lost its diversity and resilience, particularly in the highlands, due to loss of soil fertility and poor resource management. The system’s function as a source of food, income and employment has been reduced, hence the vulnerability to food insecurity. Declining soil fertility is related to land tenure issues mentioned above as well as increasing population pressure in certain highland areas that has altered fallow practices.

I.17. The main *rainfed crops* are: *cereals* composed of sorghum, pearl millet, barley, wheat, teff and maize; *pulses* composed of chickpea, field pea and horse bean; and *oilseeds* composed of sesame,

cottonseed and groundnuts. Grain output reached a peak of about 472,200 metric tons in 1998; it then fell to 341,000, 133,200, 238,000 and 64,000 mt in 1999, 2000, 2001 and 2002, respectively, resulting in heavy food deficits. The estimate for 2003 amounts to about 115,330 mt. The fruit and vegetable production include tomato, onion, peppers, eggplant, okra, banana, papaya, citrus and mango. Fruit and vegetable production in 2002 is estimated to have been about 114,000 and 14,090 mt respectively.

I.18. The *irrigated system* consists of both seasonal and perennial irrigation. Under the seasonal variant, irrigation occurs through river flood diversion, water is either stored in ponds to supplement rainfall or is directly flooded onto fields. In the perennial irrigation variant, underground aquifer reserves serve as the main source of water.

I.19. The *pastoral system* thrives mainly in the lowlands and has two variants: (a) the pastoral, in which stock management involves transhumance; and (b) the agro–pastoral, in which livestock production and arable farming are closely associated and transhumance is seasonal over short distances. Under the pastoral system, ruminant animals represent a cash asset (through sale mainly of male livestock) as well as a subsistence asset (through the consumption of milk and meat). The system has been under continuous destabilization due to the shrinkage of grazing land and disease, affecting productivity and export trade.

I.20. The livestock population of Eritrea was estimated in 2003 at about 7 million, consisting of: about 1.7 million goats, 2.1 million sheep, 1.9 million cattle, 1.3 million birds (mainly poultry), and 0.1 million camels. The livestock have suffered from the frequent droughts of the past years and their numbers have been declining over time.

I.21. **Fisheries.** The Red Sea coast of Eritrea is one of the richest depositories of marine biodiversity in the world, with around 1,000 known species of fish and 220 species of coral. Commercially valuable species include reef fish, snappers and groupers other demersal species (thread fin bream and lizard fish); sharks; crustaceans, including rock lobster, crab and shrimp; small pelagic fish, especially sardines and anchovy; large pelagic fish, mackerels, tunas and related species; and other commercial species, such as aquarium species, sea cucumber, conches, trochus and pearl oysters. Marine resources provide a good source of protein food, employment, income, and have provided an increasing amount of foreign exchange over the past years. The potential for growth in the fisheries sector is substantial, the maximum sustainable production is estimated to be 80,000 tons per annum and the present annual catch is only around 12,600 tons.

I.22. **Forestry.** The forest coverage of the country has dwindled over the years due to unabated exploitation, neglect and inadequate protection and management. Various steps are now being taken to protect forests from further deterioration and to restore and expand them through an improved policy and legal framework; water, soil and biodiversity conservation; plantation of multiple–use tree species (fruit, fodder, wood) and the development of agro–forestry; ensuring well planned sustainable exploitation of forest products (wood, gum arabic, resins, frankincense).

I.23. **Institutions.** The *Ministry of Agriculture* (MoA) has undergone several restructuring since 1993. Its most recent structure is based on its five strategic functions:

- Strategic planning of the sector (involving policies, sector plans, performance monitoring and impact evaluation);
- Managing and developing MoA resources (comprising good governance in terms of accounting for and managing public funds, Human Resource Development (HRD) and Human Resource Management (HRM));

- Promotion and development of agriculture (including technical backstopping, demand driven provision of services etc.);
- Agricultural research (focusing on basic and applied research and dissemination of results); and
- Regulation of the sector (by setting and enforcing standards and statutory responsibilities).

I.24. The *Ministry of Fisheries* (MoF) has been recently organized into two major Departments responsible for: (a) *Fisheries Development* (infrastructure development, artisanal fisheries and inland fisheries); and (b) Fisheries Resource Regulatory Service (research and statistics, fish inspection and quality control, and fish industry liaison), and several support units and/or divisions.

I.25. The other major institutions with close bearing on the agriculture sector are:

- The *Ministry of Regional Administration*, which is in the process of implementing a decentralized administrative system under three phases.
- The *Ministry of National Development*, which is entrusted, among others, with the formulation of indicative medium–term development plans; promoting efficiency in the implementation of major sectoral programs and projects; and enhancing and securing output maximization.
- The *Ministry of Land, Water and Environment*.

D. The Strategic Framework

(i) Government Objectives and Strategies

I.26. **Strategy.** The overall national development policy and strategy of the country was initially articulated in the *Macro Policy Paper* which was issued in 1994 and has been subsequently elaborated in the *National Economic Policy Framework and Programme* (NEPFP, 1998) and the *Transitional Economic Growth and Poverty Reduction Strategy* (TEGPRS, 2001). Four strategy papers with interlinked objectives have recently been issued: (a) the *Transitional Strategy* (TS, 2003); (b) the *Medium–Term Strategy* (MTS, 2004–2006); (c) the *Interim Poverty Reduction Strategy Paper* (I–PRSP, Draft 2003); and (d) the *Food Security Strategy Paper* (FSSP, Draft 2003).

I.27. The **TS** was launched with the objective of: (a) meeting the significant urgent humanitarian needs resulting from the recent conflict with Ethiopia and further exacerbated by the severe drought in 2002; (b) redressing the fiscal and monetary imbalances through an austerity budget to reduce the large budget deficit and restrain the inflationary pressure and the further depreciation of the currency; (c) reinvigorating the economy by releasing skilled and unskilled manpower; and (d) restoring the development momentum through the rehabilitation and expansion of economic infrastructure and assisting displaced people resume their economic activities.

I.28. The **MTS** is a continuum of the transition period; its objectives comprise: achieving macroeconomic stability and growth (attaining, by end of 2006, a real GDP growth of 5 percent and an inflation rate of 8–10 percent, a budget deficit and current account deficit — including official transfer — of about 10 percent and 20 percent of GDP respectively, and official free reserves equivalent to five

months of import); attracting private sector investment and expanding exports; and ensuring food security.

I.29. The objectives of the ***I-PRSP*** are the achievement of rapid, balanced and sustainable economic growth with social equity that translates into improved standard of life of the people, through (a) creating favourable conditions to achieve high and sustainable economic growth; (b) investing in productive sectors, with concentration on areas where Eritrea has comparative advantage and in priority infrastructure services; (c) investing in human resources development, with priority to education and health sector, prevention of HIV/AIDS transmission and infection and development of social protection and social safety nets for the most vulnerable; (d) ensuring participation of the population in the political, economic, and social processes of nation building; (e) establishing a responsive and efficient public services administration.

I.30. ***Food Security Strategy.*** The *National Food Security Strategy* rests on three pillars: (a) raising or increasing agricultural production and productivity and improving marketing of agricultural output; (b) improving national capacity to import food, including keeping adequate strategic reserve; and (c) using international food assistance more efficiently and effectively, as a measure of last resort during emergencies. The *Household Food Security Strategy* comprises: (a) increasing domestic production and farm income; (b) ensuring access to food or enhancing household purchasing power; and (c) promoting a targeted public assistance program including food for the vulnerable and very poor.

I.31. ***Development Objectives.*** Although the government has multiple strategy documents, they promote the same *fundamental set of rural development objectives*, which can be summarized as follows:

- Achieving improvements in food security;
- Raising incomes and generating employment;
- Increasing the supply of agricultural raw materials to domestic industries;
- Increasing foreign exchange earnings;
- Revitalization of forestry and wildlife resources;
- Protection and restoration of rural environment;
- Ensuring the sustained protection of the marine environment from over–exploitation and pollution; and
- Promotion of more equitable gender participation in development activities.

I.32. Within the agriculture sector, the government’s development strategy translates into the following ***medium term objectives***:

- Raising crop production and productivity;
- Increasing production of commercial crops, particularly horticulture;
- Enhancing livestock production;
- Enhanced exploitation of the fishery resources of the country; and
- More efficient forestry and wildlife re–generation, development and protection.

(ii) *Major Strategies of Cooperating Partners*

I.33. Eritrea is moving towards a sector wide approach in its partner funding and project management by establishing close working relationships with its development partners. Eritrea's major development partners in the agricultural and rural sector consist of international financing organizations, multi and bilateral donors as well as NGOs.

I.34. **United Nations Development Assistance Framework (UNDAF).** UNDAF aims to contribute to the achievement of the overarching goals laid out in the *United Nations Millennium Declaration*, that is, eradicating extreme poverty; achieving universal primary education; promoting gender equality and empowering women; reducing child mortality; improving maternal health; combating HIV/AIDS, malaria and other diseases; ensuring environmental sustainability; and developing a global partnership for development.

I.35. **UNDP.** UNDP's current country programme for the period 2002– 2006 focuses on promoting democratic governance; promoting the sustainable management of natural resources, the environment and energy; and promoting sustainable livelihoods and pro-poor economic growth, with the third including assistance for carrying out poverty assessments and formulating and implementing poverty reduction strategies; technical support for the development and implementation of a national food security strategy.

I.36. **UNCDF.** UNCDF has been providing assistance mostly in the fisheries sector (*Semhar Fisheries Rehabilitation Project*), in collaboration with FAO and UNDP.

I.37. **World Bank.** The WB *Country Assistance Strategy* is under preparation and is expected to be adopted by September 2006. The sectors in which the World Bank has so far been mainly involved include: education, health, early childhood development, social protection, transport, environment protection, power distribution and agriculture.

I.38. **ADB.** The ADB has been involved in various agricultural projects including irrigation and livestock development. It is the primary funding institution in the agriculture sector with the following projects: (a) the *National Livestock Development Project*; (b) the *Fisheries Infrastructure Development Project*; and (c) the *Highland Agriculture Development Project*, which includes substantial components on irrigation and horticulture development.

I.39. **IFAD.** IFAD supported the *Eastern Lowlands Wadi Development Project* which was launched with the aim of rehabilitating and improving the spate irrigation-based system in three wadis (Laba, Mai Ule and Labka) in the eastern lowlands. It is also financing the *Gash-Barka Livestock and Agriculture Development Project*.

I.40. **FAO.** FAO has been engaged in agricultural and related technical assistance cooperation activities through various programmes/projects, including the Trust Fund, Technical Cooperation, Emergency, *Special Program for Food Security* and Regional Programmes. FAO has also assisted MoA in the identification and formulation of investment projects that were financed by UNCDF, ADB and IFAD.

I.41. **European Union.** According to the EU *Country Strategy Paper* and *National Indicative Programme* for the period 2002–2007, the EU short-term approach/areas of concentration comprise of the continuation of the present support to the peace process and improvement of its conflict prevention strategy to help stabilize the region. EU's medium term approach is aimed at supporting the government in the development and finalization of long-term strategies and policies in key areas.

I.42. ***Bilateral Development Partners.*** The assistance received by Eritrea under bilateral arrangements have been primarily channelled to: locust control, natural resources conservation and management, crop production (including farm input supply), control of livestock disease, fisheries and human resource development including training.

I.43. ***NGOs.*** Many NGOs operating in the country are pursuing a related set of activities, many of which are emergency oriented; they include inputs distribution, seed multiplication, promoting irrigation, agricultural services, natural resource management and environmental protection.

(iii) Major Ongoing and Pipeline Programmes and Projects and Linkage to CAADP

I.44. The major ongoing and pipeline programmes and projects in the agricultural and fisheries sectors are listed in Table 3 of Annex 1.

(iv) Concluding Remarks

I.45. Development efforts to aid in the speedy recovery of the agriculture sector and improve its growth should be designed to fit into the general framework of the government's development programmes and plans. Above all, they should be designed to contribute to the realization of the principal long-term development objective of the country: the achievement of rapid, and balanced economic growth with social equity that translates into improved standard of life of the people.

II. MAIN CHALLENGES AND DEVELOPMENT OPPORTUNITIES

II.1. The major threat currently faced by Eritrea as it endeavours to return its economy to its previous path of socio-economic development is the present state of no-war-no-peace that is the result of stalled border demarcation efforts. Political efforts are underway to address the problem but it remains a significant risk to future growth in the agriculture sector. The main challenges and development opportunities facing the agricultural sector in Eritrea are briefly outlined below.

A. Macro-economic

II.2. ***Challenges.*** The recent conflict with Ethiopia has led to serious macroeconomic imbalances and instability in the Eritrean economy, i.e. high fiscal deficits, inflation and depreciation of the Nakfa, low levels of foreign reserves, declining exports, reduced investment and savings; and diversion of material and human resources to the defence of the country and to the attendance of emergency needs.

II.3. ***Opportunities.*** Notwithstanding the above setting, the government is highly committed to the restoration of macro-economic stability and establishment of a conducive investment environment. Measures being taken to stabilize the economy include: introduction of public expenditure controls, improvements in tax collection and introduction of administration reforms to effectively mobilize revenues, reduced domestic borrowing, and carrying out programmed demobilization measures.

B. Natural Resource and Environment

II.4. ***Challenges.*** Eritrea is faced with a number of natural resource and environmental challenges due to, among others, widespread land degradation as a result of deforestation, soil erosion, recurrent droughts and lack of sound soil and water conservation measures. Efforts to improve crop production

have also resulted in land degradation. The *Integrated Farming Scheme* (IFS) which provided farmers with mechanized services for cultivation using disk ploughs and disc harrows, and with improved seeds and fertilizer on over 80,000 ha in 2000/01 contributed in some cases to serious land degradation, erosion and crop failure in drought periods.

II.5. **Opportunities.** Major efforts and investments have been made to improve the deteriorating environment since the liberation of the country. These include implementation of soil and water conservation programmes (building of small dams, ponds, diversions, terraces, afforestation) in many parts of the country with the active involvement of the local communities and students during summer vacation. More recently, the intensive Warsai–Yikeallo development campaign, which entailed the deployment of youth under national service, carried out developmental and environment protection works such as soil and water conservation, feeder road construction and building of social service facilities.

II.6. Evidence from pilot activities in Eritrea also demonstrate the combination of no tillage, cover crops and suitable rotations is recommended as a viable and sound alternative to current practices. Conservation agriculture principles and practices are being increasingly tested and adapted across Africa as a promising solution for restoring degraded soils and improving the productivity of smallholder and commercial farming. The increased farm diversification with cereals, leguminous cover crops, agroforestry species and crop–livestock integration besides improving ecological function and productivity enhances farm–household nutrition and reduces food insecurity.

C. Crop Production

II.7. **Challenges.** The challenges/constraints facing the crop sub–sector include: rapid degradation of land and loss of soil fertility; small farm size and farm land fragmentation and dispersion of plots, particularly in the highland; low and variable rainfall, recurrent drought; poor water management; utilization of low level production and post harvest technologies; inadequate agricultural research and extension service and technology delivery system; poor rural infrastructure, especially feeder roads, power supply, storage facilities; and lack of credit facilities and services; and security of land tenure.

II.8. **Opportunities.** The opportunities for developing crop production will involve increasing the efficient of available resources through improving rainfed farming in the highlands and expansion of irrigation in the lowlands. Potential strategies include: developing the potential for well planned increases in land under cultivation; introduction of suitable crop varieties, efficient and sustainable water management; application of appropriate farm technology, introduction of modern farm management practices, and empowering farmers to manage and direct the provision of agricultural services.

D. Livestock Production

II.9. **Challenges.** The main challenges/constraints of livestock production include: low level of nutrition; low producing breeds; overstocking; inadequate animal disease surveillance and control; variable climate and drought; shortage of animal feed and water sources, poor marketing, and lack of credit.

II.10. **Opportunities.** Opportunities for improving mixed crop–livestock and pastoral systems include: improvement of animal breeding systems and herd productivity; improved and sustainable rangeland management; raising the efficiency of existing hatchery centres; and promotion of commercial animal husbandry.

E. Fisheries Development

II.11. **Challenges.** Fisheries production challenges/constraints include: inadequate assessment of the fisheries resource potential; weak fisheries planning and programme implementation capacity; inadequate fish landing infrastructure or sites and harvesting and processing facilities and equipment; industrial fishing with little or no domestic value added; unfavourable climatic conditions and water shortage; and low domestic market consumption.

II.12. **Opportunities.** There are ample opportunities for the exploitation of the untapped fisheries resources of the country through sound resource management and protection; development of sustainable industrial and artisanal fishing, and the introduction of effective marketing.

F. Institutional

II.13. **Challenges.** Institutional challenges/constraints of the agricultural and fisheries sectors include: weak capacity with regard to sectoral planning, monitoring and evaluation of development programmes, research and extension services, and regulatory framework and enforcement; shortage of qualified and skilled staff; weak inter–sectoral or inter–ministerial coordination; lack of adequate agricultural data and information; and inadequate availability of widespread and organized credit services.

II.14. **Opportunities.** Opportunities to improve the institutional framework for agricultural development include: Government’s commitment to the rapid development of the agriculture sector, also supported by interest of development partners in raising the performance of the sector; ample scope for networking among the various stakeholders in the development of the sector; and an encouraging trend in community driven development and expanding the demonstrated success of the piloted extension strategy based on the *Farmers’ Advisory Service* (FAS) approach in the agricultural sector.⁷

III. INVESTMENT PROGRAMME OUTLINE

A. Priority Setting

III.1. The priority areas for the medium term investment programme in the agricultural and fisheries sectors are derived from the I–PRSP and FSS from which Eritrea’s Medium–Term Development Plan will be based. They are closely aligned to the five pillars of CAADP (see *Preface*).

III.2. The *National Medium–Term Investment Programme* (NMTIP) gives due focus to the promotion of sustainable livelihoods of farmers, pastoralists and fishing communities and to the sustainable improvement of natural resource management. The priorities, which are briefly presented below (*without ranking implication*) were agreed on at a nationwide stakeholders workshop which took place in Asmara in August 2004.

⁷ The Government of Eritrea is committed to moving towards the FAS, a new approach to extension which is intended to be participatory, grassroots and focused on demand generated by farmers. The general aim of the approach is to facilitate the better use of Eritrea’s natural resources and enhance farmers’ potential for improved agricultural production by empowering them to take an active role in decision making processes for the long–term sustainable development of agriculture.

- ***Natural Resources Management.*** Priority areas for the natural resource management programme are: integrating natural resource management into crop and livestock production initiatives, soil fertility improvement, agro–forestry improvement, afforestation and watershed development and management.
- ***Physical and Institutional Infrastructure Development.*** Priority areas for the proposed infrastructure programme are: support to policy and strategy formulation as well as programme/project development; Human Resource Development and Management (HRD/M) and research and extension services; irrigation policy and strategy development and management; strengthening of statistical and information database, including crop monitoring and early warning systems, and building MoA’s project implementation and regulatory capacities.
- ***Crop Development.*** Priority areas for the crop development programme are: crop productivity and production improvement; expansion of irrigated and supplementary irrigated farming; improvement in post harvest management practices; provision of credit; and promotion of marketing development.
- ***Livestock Development.*** Priority areas for the livestock development programme are: dairy technology development, poultry development (backyard and commercial), bee–keeping development, meat technology development, and credit and marketing development.
- ***Fisheries Development.*** Priority areas for the fisheries development programme are: improved fishery production and processing technology; fisheries resources development and regulatory management, marketing development and promotion of domestic fish consumption.

B. Project Selection Criteria

III.3. Potential investment programmes/projects under the NMTIP will address at least one of the above–mentioned priority areas, thereby supporting the government’s strategy as outlined in the I–PRSP and FSS and contributing to the implementation of CAADP. The principal criterion for selecting a specific programme/project will be its potential to contribute to sustained poverty reduction and enhanced food security, particularly among the disadvantaged groups, while protecting the natural resource base. Additional selection criteria are listed below.

- Consistency with government’s basic policy and development programme orientation;
- Country comparative advantage in the context of regional and global competitors;
- Technical feasibility and implementability;
- Financial and economic viability and sustainability;
- Synergy with ongoing and pipeline programmes.

C. Preliminary Identification of Projects

III.4. The NMTIP will be supported by a portfolio of *Bankable Investment Projects Profiles* (BIPPs).⁸ Based on the investment opportunities briefly described above and an analysis of

⁸ See *Preface*.

government priorities and main development partners' areas of interest, four specific investment ideas have been identified on which BIPPs were subsequently developed that are presented in separate documents. They are (the order of listing does not imply any ranking):

- **Hazemo Plains Integrated Development Project (CAADP Pillars 1, 3 & 5).** The project would aim at increasing agricultural productivity and production, of both crops and livestock, by improving farming practices through the provision of new and improved inputs, better livestock management practices and improving the infrastructure base, particularly access roads; and to arrest and improve the deterioration of the environment by carrying out water and soil conservation techniques, including reforestation, by the communities.
- **Zula Plains Integrated Development project (CAADP Pillars 1, 3 & 5).** The project's objective will be to increase staple and cash crop production on a sustainable basis by improving water control system and irrigation practices; boost livestock production and nutrition; prevent soil infertility; offer training; and promote sustainable natural resource use and management.
- **Tslima Plains Integrated Development Project (CAADP Pillars 1, 3 & 5).** The project would aim to increase field crop production by conserving soil moisture and soil fertility; increase irrigation water supply availability and introduce efficient water use management; establish irrigation infrastructure; increase animal production on a sustainable basis; strengthen the institutional base at all levels; and develop services for information technology, extension, finance, management of resources and marketing.
- **Tsada–Kelay Plains Integrated Development Project (CAADP Pillars 1, 3 & 5).** The project objective's is to improve and maintain soil fertility and moisture through effective soil/water conservation measures; establish water source and irrigation infrastructure; increase crop production on a suitable basis; increase animal production by intensifying the traditional methods; develop the institutional base; and establish research and extension mechanisms specific to the project area.

IV. FINANCING GAP

IV.1. The *Declaration on Agriculture and Food Security in Africa* ratified by the African Union Assembly of Heads of State and Government during its Second Ordinary Session, held in Maputo in July 2003, provided concrete political support to the CAADP. Among other objectives, the Heads of State and Government adopted a resolution that committed member countries to allocate 10 percent of their national budgetary resources to agriculture and rural development within five years.

IV.2. As the majority of the country's population lives in rural areas, the Eritrean government has from the onset (in 1991) placed high priority on agricultural and rural development. Consequently, considerable budgetary resources were directed towards the development of rural areas through a number of institutions since the liberation of the country in May 1991. However, lack of any detailed information on financial outlays for the activities associated with rural development, which involved a number of diverse institutions, prevents a reasonable estimation of the actual expenditures on agriculture and rural development to date. In addition to the Ministries of Agriculture and Fisheries, public resources allocated to agriculture and rural development are dispersed among several other ministries including Public Works, Lands, Water and Environment, as well Local Governments which are involved in the construction and rehabilitation of rural infrastructure, soil and water conservation

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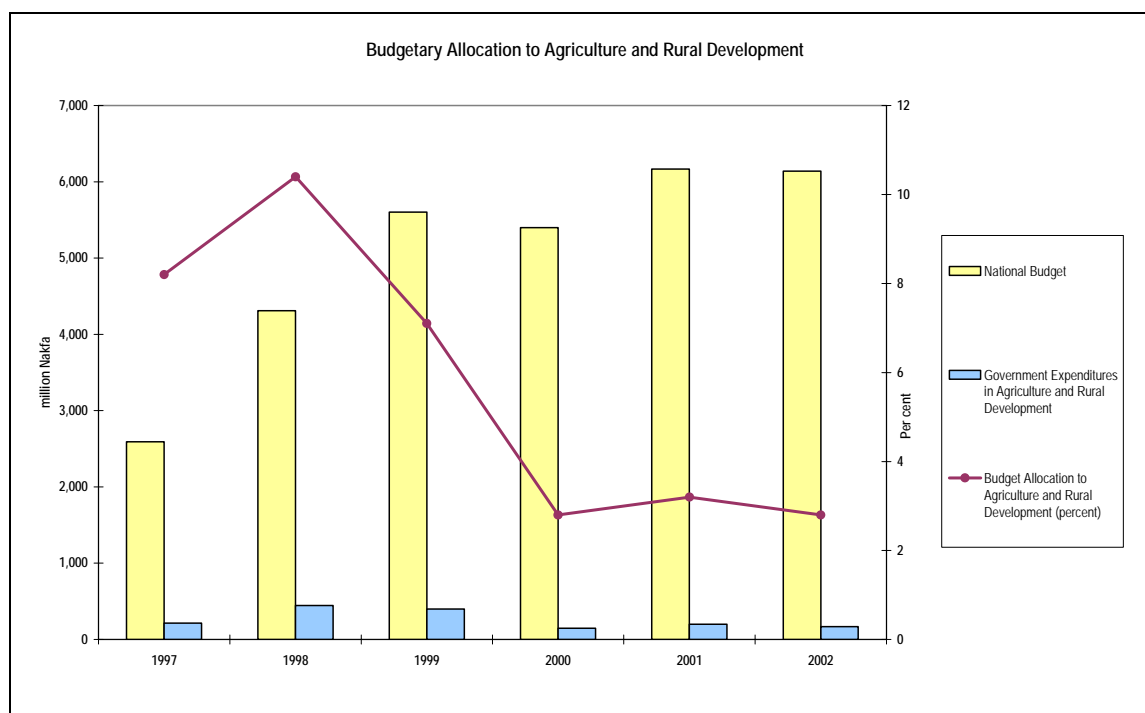
and other environmental protection works. Currently, no detailed data has been compiled for the public expenditures incurred by these institutions on agriculture and rural development. However, an attempt was made to compile this data by the IMF with some assistance from the Ministry of Finance for the period 1997–2002. Results are shown in the table below. Although the figures may not reflect the entire public expenditure on agriculture and rural development, they do provide a general illustration of the budgetary resource allocation.

IV.3. According to this data, the annual national budgetary expenditure during period 1997–2002, varied from 2,592 and 6,165 million Nakfa. The annual expenditure on agriculture and natural resources (including fisheries) fluctuated between 213 and 447 million Nakfa for the same period, equal to 10.4 percent and 2.8 percent of total public budget with an average of nearly 6 percent. The greater part of the expenditures in agriculture and natural resources consisted of capital expenditures as recurrent expenses accounted for only a minor portion of the total annual budgets ranging from 8 to 15 percent between 1997 and 2002.

Total Government Expenditure and Outlays on Agriculture and Natural Resources (million Nakfa)						
Year	1997	1998	1999	2000	2001 Prel.	2002 Est.
Total Public Sector Recurrent Expenditure	1,445.5	2,872.3	3,355.9	4,333.8	4,160.4	4,147.1
Recurrent expenditure on agriculture and natural resources (including Ministry of Fisheries)	32.8	36.0	31.5	32.9	34.3	37.5
<i>Recurrent expenditure on agriculture and natural resources as % of total</i>	<i>2.3</i>	<i>1.3</i>	<i>0.9</i>	<i>0.7</i>	<i>0.8</i>	<i>0.9</i>
Total Public Sector Capital Expenditure	1,147.8	1,437.4	2,245.7	1,064.9	2,005.0	1,991.3
Capital expenditure on agriculture and natural resources (including Ministry of Fisheries)	180.6	410.6	367.5	116.2	164.7	131.3
<i>Capital expenditure on Agriculture and natural resources as % of total</i>	<i>15.7</i>	<i>28.6</i>	<i>16.4</i>	<i>10.9</i>	<i>8.2</i>	<i>6.6</i>
Total Recurrent and Capital Expenditure	2,592.3	4,309.7	5,601.6	5,398.7	6,165.4	6,138.4
Recurrent and capital expenditure on agriculture and natural resources (including Ministry of Fisheries)	213.4	446.6	399.0	149.1	199.0	168.8
<i>Recurrent and capital expenditure on agriculture and natural resources as % of total</i>	<i>8.2</i>	<i>10.4</i>	<i>7.1</i>	<i>2.8</i>	<i>3.2</i>	<i>2.8</i>
<i>Average over the period</i>	<i>5.8 %</i>					
Source: IMF Statistics						

IV.4. As the figures above indicate, Eritrea had already exceeded the Maputo Declaration target of 10 percent in 1998, when the government had spent some 10.4 percent of its budget on agriculture and natural resources. It should be underscored, however, that the figures do not comprise all public expenditures on agriculture and rural development, since the expenditures incurred by other associated institutions have not been all reflected in the table. Hence, the actual expenditure was likely much larger than indicated by the IMF–derived tables. Unfortunately, after the start of the war with Ethiopia in mid–1998, government spending in the agricultural sector started to decline due to a reallocation of resources to the defence needs and support required to the war–affected population. It should be emphasized that allocation of resources to agriculture and rural development declined not because of change in the development priority, but, rather, as a force majeure dictated by the war. On the basis of the strategy that prevailed prior to the war, resource allocation to agriculture and rural development would have likely remained relatively high, at least at the level attained in 1998, or higher.

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IV.5. At present, there are no projections of national budget for the short to medium–term as they are still under preparation. As a result, there is no basis for estimation of the percentages of national budgetary allocations for agriculture and rural sectors for the period 2003–2008. However, government’s commitment to poverty reduction and food insecurity is robust as is demonstrated in the recently prepared draft I–PRSP and FSS. Both strategies imply a higher resource allocation to the rural sector, where most poverty–stricken people live. Although the percentage of future allocations of national budget to agriculture and rural development cannot be estimated accurately, it can be realistically assumed that the country would readily achieve the minimum 10 percent target set at Maputo, once full peace is attained.

V. MONITORING AND EVALUATION

V.1. Monitoring and Evaluation of the NMTIP will be carried out within the overall framework of monitoring and evaluating development activities to be undertaken in the implementation of the I–PRSP. The *Policy Planning, Monitoring and Evaluating* (PPME) Divisions in each ministry will be responsible for project monitoring and evaluation in a participatory manner. At the regional level, the *Regional Agricultural Committees*, which include all major stakeholders, will constantly monitor project implementation and impact. The Ministries of Finance and National Development and NEPAD will periodically monitor overall programme implementation and macro–economic and rural development indicators.

V.2. Programme indicators, which will be further developed, include the following:

- **Indicators measuring achievement of development objectives:**
 - Number of under–nourished people;
 - Incidence of rural poverty;

- Household food security situation;
- Growth of the agricultural sector and its contribution to GDP, broken down by sub-sector;
- Self-sufficiency ratios for major food crops;
- Export revenues from agricultural commodities;
- Incidence of coastal areas poverty;
- Growth of the fisheries sector and its contribution to GDP;
- Export revenues from fisheries sector.
- ***Indicators measuring achievement of target of allocating 10 percent of national budget to agriculture and rural development:***
 - Percentage of the national budget allocated to the agriculture, fisheries and rural development sector;
 - Actual public expenditures in the agriculture, fisheries and rural development sectors and share of recurrent costs.
- ***Indicators measuring sector performance and achievement of programme outputs:***
 - Production and yield levels of major crops;
 - Livestock products and by-products supply;
 - Incidence of livestock disease;
 - Area under irrigation (developed/rehabilitated);
 - Level of improvement in data collection and analysis;
 - Increase in level of investment;
 - Outreach of rural and fisheries financial services;
 - Extension agent/farmer ratio;
 - Number of small-scale agro-processing industries;
 - Number of farmer-based organizations;
 - Kilometres of rural feeder roads constructed, rehabilitated or maintained;
 - Number of rural markets constructed, rehabilitated or maintained;
 - Production and yield levels of major fishery products;
 - Level of improvement in fisheries resources and their marine habitat, proper management control, and enforcement;
 - Number and type of fisheries infrastructure provided;
 - Number of fisheries-based organizations.

ANNEXES:

Annex 1: Tables

Table 1: Priority Areas, Linkages to CAADP and Areas of Interest of Major Cooperating Partners

Table 2: Agricultural Growth and Development Strategy and Linkages to CAADP

Table 3: Ministry of Agriculture and Ministry of Fisheries Major Ongoing and Pipeline Programmes and Projects

Annex 2: List of References

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Annex 1: Tables

Table 1: Priority Areas, Linkages to CAADP and Areas of Interest of Major Cooperating Partners																			
Priority Areas	CAADP Pillars					Cooperating Partners													
	1	2	3	4	5	1	2	3	4	5	6	7	8	9	10	11	12	13	14
Institutional and Capacity Building																			
Policy and strategy formulation, programme/project development and implementation capacity		X				X				X									
Human Resource Development and Management (HRD/M)		X				X									X				
Research strengthening			X																
Regulatory capacity building		X																	
Extension services (technical back-up) strengthening		X		X									X						
Irrigation policy and strategy development and management	X	X						X											
Strengthening of statistical and information database, including crop monitoring and early warning		X						X					X						
Crop Development																			
Crop productivity and production improvement				X				X									X		X
Irrigated farming development	X						X			X		X							X
Post harvest management services improvement		X						X											
Marketing development and promotion		X						X											X
Livestock Development																			
Dairy technology development				X				X	X	X									
Poultry development (backyard and commercial)				X				X	X	X									
Bee-keeping development				X				X	X	X									
Meat (including piggery) technology Development				X				X	X	X									X
Marketing development and promotion		X						X	X										X
Fisheries Development																			
Fishery production and processing technology development					X	X	X	X			X			X	X				
Fisheries resources development and regulatory management		X			X	X	X	X			X			X	X				
Marketing development and domestic consumption promotion		X				X	X	X			X			X	X				
Natural Resources Management																			
Soil Fertility improvement	X				X		X	X										X	
Agro-forestry improvement					X		X	X		X								X	
Afforestation					X		X	X		X								X	
Catchment Area Recovery					X		X	X										X	
Cooperating Partners																			
1. UNDP					4. IFAD					7. Germany					10. Netherlands				
2. World Bank					5. ADB					8. Italy					11. United Kingdom				
3. FAO					6. European Union					9. France					12. Belgium				
															13. Canada				
															14. USAID				

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Table 2: Agricultural Growth and Development Strategy and Linkages to CAADP

Area	Objective	Strategies and Measures	CAADP Pillars				
			1	2	3	4	5
A. Increasing Investments in Economic Sectors							
1. Agriculture	<ul style="list-style-type: none">• Enhance domestic food production• Supply raw materials for industrial and agribusiness purposes• Increase foreign exchange earnings	• Develop and disseminate drought resistant, fast maturing seed varieties, promoting indigenous species and local varietal selection and breeding				X	
		• Improve soil fertility by conservation measures including zero or reduced tillage, cover crops, crop rotations and crop–livestock integration and additional soil and water conservation measures as appropriate	X			X	
		• Promote production of high–value crops for export and domestic consumption	X			X	
		• Expand land under integrated farming systems with appropriate combinations of trees, crops and livestock for drought resilience, efficient use of resources and diversified livelihoods	X				
		• Increase water availability and water use efficiency including rainwater and soil moisture management and where appropriate irrigation	X				
		• Increase availability and flow of credit to the agricultural sector and expand micro–finance programs and farm business skills for small investment at the local level	X	X			
		• Develop agricultural marketing system including farmer market information and organization		X			
2. Livestock	<ul style="list-style-type: none">• Modernize and expand livestock and dairy production	• Promote modern production and management techniques while building on local knowledge and locally adapted breeds and races.					X
		• Establish a modern system of milk collection		X			X
		• Provide incentives for private sector investment in modern production					X
		• Develop and rehabilitate breeding/hatching centres for bee colony production		X			X
		• Increase the availability of credit to small scale and commercial poultry and livestock farms.					X
		• Develop livestock marketing systems		X			X
		• Awareness raising of livestock herders on stocking capacities and improved pasture and range management	X				X
3. Fisheries	<ul style="list-style-type: none">• Exploit the large untapped potential to enhance national food security and foreign exchange earnings	• Create a suitable investment climate for the industrial fisheries					X
		• Strengthening fisheries resource management and planning					X
		• Develop fisheries marketing systems		X			X
4. Forestry	<ul style="list-style-type: none">• Prevent further deterioration and restoration and expansion of forest resource	• Protect and enhance water, soil and bio diversity conservation	X				X
		• Undertake a full forest resource inventory					X
		• Promote plantation of multiple use tree species (fruit, fodder, wood and the developing of agro–forestry)				X	X
		• Ensure the sustainable exploitation of forest products, (wood, gum arabic, resins, frankincense)					X
		• Carry an accelerated and sustainable afforestation programme with active participation of communities	X				X

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Table 2: Agricultural Growth and Development Strategy and Linkages to CAADP

Area	Objective	Strategies and Measures	CAADP Pillars				
			1	2	3	4	5
B. Creating Income Generating Opportunities							
Agriculture and fisheries	<ul style="list-style-type: none">Enhance the productive capacity of small traditional farmers and fishermenIncrease the food production and incomes of poor households, and provide infrastructureEncourage efficient utilization of water in agriculture	• Increase access to farmland by poor farmers by distributing plots (with priority to women farmers)	X		X		
		• Reorient extension and research systems towards addressing priority problems and concern of subsistence farmers				X	
		• Support building small dams to harness the seasonal water flows and rehabilitation of degraded catchments	X				
		• Implement integrated agro–livestock–rangeland support			X		X
		• Support the development of smallholder irrigation with high level of community participation and diversity into higher value crops	X				
		• Strengthen the cooperatives of artisanal fisheries and improving fisheries infrastructure		X			X
		• Develop and strengthen off farm activities (e.g. backyard poultry, bee keeping, handicrafts, farm tools, workshops)		X	X		

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Table 3: Ministry of Agriculture and Ministry of Fisheries Major Ongoing and Pipeline Programmes and Projects		
Ministry of Agriculture	Ongoing	Central highland horticultural development (CHIHDP)
		National livestock development (NLDP)
		Gash Barka livestock and range Development
		Animal resource development
		Dairy Development Project
		Toker Integrated Development – Kona Dirga
		WADI Integrated Development – Eastern Lowland
		Integrated water shed development
		Integrated pest management
		PACE
		NFIS
		National seed development
		National tree seed development
		Vegetable seed production and distribution
		Self Help International Development Project (Debub and Anseba)
		Financial management system
		Agricultural reconstruction project
		CCD Convention to combat desertification
		Planning, monitoring and evaluation
		FAS – Farmers advisory service
		Piloting Conservation agriculture
	Pipeline Projects	Planning and Statistics
		Agricultural Statistics
		Agricultural Promotion and Development
		Extension Support Service (FAS)
		Strategic Pests, Diseases and Weeds Control and Monitoring
		Compulsory Vaccination
		Integrated Agricultural Development
		Hazemo Integrated Agricultural Development
		Goluji Integrated Agricultural Development
		Shieb-Ule-Labka Integrated Agricultural Development
		Fruit nursery Development
		Poultry Production Development
		A.I (Artificial Inseminations)
		Bee-Keeping Development
		Regulatory Services
		Strengthening Central Laboratory
		Plant and Animal Quarantine Stations
		Development of forest guard system
		Development of Animal, Plant and Environmental Standards & Guidelines
		Agricultural Research Development
		Vegetable crops Improvement
		Fruit crops
		Animal feed and feeding
		Animal Production
		Legume Crops Improvement
		Sesame Improvement
		Cotton Improvement

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Table 3: Ministry of Agriculture and Ministry of Fisheries Major Ongoing and Pipeline Programmes and Projects

Ministry of Agriculture	Pipeline Projects	Sorghum Improvement
		Pearl Millet Improvement
		Maize Improvement
		Plant genetic resources (gene bank)
		Tree Improvement & Seed Production
		Strengthening laboratory and workshop capacity
		Infrastructure Development
		Human Resource Development
		In-service Training
		External Training for Higher Qualification
Ministry of Fisheries	Ongoing	Fisheries Infrastructure Development Programme
		Gellalo, Tio and Edi Projects
		Dahlak fish Landing Projects
		Massawa Fish Landing Port Project
		Fisheries Community Development Programme
		Sahel Fisheries Development Project
		Barasole Fishing Community Development Project
		Pilot Programmes
		Eddi Small Pelagic Fisheries Centre
		Small Pelagic Fishery Project
		Human Resource Development Programmes
		Hirgigo Fisheries Training Centre
		Fishing Gear Development
		Research and Development Programmes
		Conservation Management of Eritrea's Coastal Marine and Island Biodiversity Project
		Stock Assessment Project
		Manazanar Mangrove Initiative Project
		Inland Fisheries Project
		Mari Culture Project
		Monitoring Control and Surveillance (MCS)

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