

UNITED NATIONS DEVELOPMENT PROGRAMME (UNDP) ERITREA

Food Security and Sustainable Livelihood Programme in Zoba Maekel
A Project Document

Asmara, November 2008

1. COVER PAGE

United Nations Development Programme (UNDP)

Country: Eritrea

Project Title: Food Security and Sustainable Livelihood Programme in Zoba Maekel

UNDAF Outcome: Providing access to adequate food at all times for 10% of the poor by 2010

CP Outcome 3.3:

Improved Access and Availability of Food

CP Outcome 3.4:

Capacity Support Provided to Enhance Food Production at National and Household

Levels

Implementing Partner: Zoba Maekel Ministry of Agriculture Branch Office

Co-partners

i) Zoba Maekel Administrtion

II) Gala Nefhi Nues Zoba Administrtion

Responsible Partner: UNDP

Brief Description

In pursuit of the Government of the State of Eritrea's goal of ensuring sufficient quantity of acceptable quality food at an affordable price at any time and place in the country, and the first Millennium Development Goal combating hunger -, and in line with the Food Security Strategy (2004), Interim Poverty Reduction Paper (2004), and UNDAF Outcome 3 , the UNDP and Zoba Maekle (Central Region) have developed this project. The project aims at improving the household food security status of about 6000 people comprising 1200 households in the villages of Adi Keyih, Adi Tsenaf, Laguen, Adi Hamushte, Adi Ahderom, Embeito and AdomZomat, located comprising Gala Nefhi Nues Zoba through a set of intervention measures involving water conservation, beekeeping, poultry, forage development and input supply. Close to 30% of these households are headed by women. The primary targets of the project are vulnerable households like women-headed and/or asset poor group of members.

Programme Period

2007 - 2011

Kev Results Atlas Award ID

Start Date

January 1, 2009 December 31, 2010

End Date PAC Meeting Date

Management Arrangement National Implementation

Total estimated project budget: Total resources required

Total allocated resources

Regular Other

Donor

Government

Unfunded Budget In-kind contribution

Agreed by: Zoba Maekel Ministry of Agriculture Branch Office HA

Agreed by: UNDP:

Agreed by: Ministry of Finance:

1

USD 1,266,052

USD 1,266,052

USD 1,266,052

2. SITUATION ANALYSIS

Eritrea is an agricultural country, but shortage of food supply remains a challenging problem. The country produces about 60% of its food requirements in good agricultural years, but goes down to 25% in adverse years¹. Time series data on crop production indicates that the overall picture is one of erratic food production, and a growing gap between trends in food production and demand. Thus, the country faces food shortage every year, and household food insecurity is the major challenge for the country. It is estimated that 66%² of the Eritrean population is unable to obtain adequate food both in quantity and quality for their physical, psychological and spiritual well-being. Malnutrition is a common problem. The Food Security Strategy (2004) paper indicated that 38% of the Eritrean children are stunted; 44% are underweight while 50% suffer from anaemia. About 59% of the Eritrean population consumes less than the daily calorie requirement. The average daily per capita calorie intake is about 1750, which shows a shortfall of 26% on the basis of the WHO standard of 2,350 calories per day. In terms of the Millennium Development Goals (MDGs), Eritrea is off tack with respect to eradication of poverty³. About 30% of households in Eritrea are headed by women, of which 18% are widowed. Women bear a disproportionately large share of the country's poverty and food insecurity. They earn less than half of their male counterparts, possess fewer household assets, are less likely to be literate and numerate, and suffer more from poor nutrition.

Various documents show that a considerable proportion of households in Zoba Maekel suffer from wide spread periodic to seasonal food shortages. A study conducted by the UNDP⁴ in 1998, for instance, revealed that with good September rains, farming households can on the average produce enough to cover food needs for 6.3 months, but this may fall to two months when the September rains fail. A discussion with farmers in Adi Keyih Kebabi Memehedar (administration), one of the villages of the project area, similarly revealed that in good rainfall years, i.e. good *Azmera* rains in March-May followed by *Kremt* (June-September) rains, they can produce enough food for subsistence to last 8-12 months, but falls to 2-4 months in bad years.

There are 35,000 rural households with an estimated population of 175,000 in Zoba Maekel. Most of these households struggle to produce their own food from holdings that are less than one hectare, and rely on one crop production cycle a year, the length of which is about 50 days⁵. Erratic rainfall - 277.3 mm in 2002, but as high as 563.4 mm in 1997- and frequent droughts are the major hindrances to intensive agricultural production in the Zoba. Irrigation possibilities are further constrained by limited availability of surface water and depleting groundwater resources. Soil erosion is another problem, which severely limits agricultural productivity. The soils research station at Afdeyu has registered soil loss of 2-25 tons per hectare per year. A sediment study by the Water Resource Department in the Toker catchment indicated a soil loss rate of 12.1 tons per hectare per year. Soil samples collected from Serejeka by the Department of Geography, University of Asmara, showed that they are extremely poor in Nitrogen, Phosphorus, and organic matter. Moreover, lack of access to productive assets like credit means that farmers have little capacity for investments in productivity enhancing technologies. Productivity is thus very low and households reported that seasonal food shortages are common and occur almost every year for many households. The dependence on farming as a sole source of income means that crop failures automatically lead to hunger.

2.1 The Project Area

The localities selected for this project are the villages of Adi Keyih, Adi Tsenaf, Laguen, Adi Hamushte, Adi Ahderom, Embeito and AdomZomat, located in Gala Nefhi Nues Zoba. Gala Nefhi Nues Zoba has an area of 40,414 hectares and population estimated to be 40,754 distributed in 8,974 households. These figures yield a crude population density of 101 persons per sq. km, indicating that it is one of the densely populated areas in the country. It is also estimated that 79% of the population depends on agriculture for its livelihood. Each farming household owns one hectare of farmland or less. Like all small holder producers in Zoba Maekel and the rest of the country, smallholder producers in the project villages rely on one crop a year.

Gala Nefhi Nues Zoba forms watershed between the Red Sea, Anseba-Barka and Mereb basins, and suffers heavily from dissection. Steep scarp slopes and gullies are typical characteristics of the area. Close to 38% of the Nues Zoba has flat to gentle slope (< 8% slope), while the rest has moderately steep to very steep slopes,

Government of the State of Eritrea, (April 2004), Food Security Strategy, Asmara.

² Government of the State of Eritrea, (April 2004), Interim Poverty Reduction Strategy Paper, Asmara.

³ UNDP-Government of the State of Eritrea, UNDAF-Eritrea 2007-2011, Asmara.

⁴ UNDP, (November 1998), Food Security in Eritrea: Issues and Recommendations, Discussion Paper 1, Asmara.

¹<u>ibid</u>

with shallow soils. The physical unavailability of suitable land to which farming can expand is thus one serious problem the population has been facing with increasing demographic pressure.

Like crop production, the dominant livestock husbandry in the Nues Zoba is based on traditional practices, and often occurs on degraded areas. Recently, modern small scale dairy farming is slowly spreading due to good market for dairy products in Asmara. Nevertheless, both traditional and modern livestock husbandries suffer from inadequate fodder resources. Crop straws are often collected as fodder, but they are insufficient and of poor quality. Traditional mechanisms like *Hizaati* are practised by the villages to regulate the use of common grazing lands, but they are becoming less effective under growing stress.

To reduce poverty and/or improve food security, it is crucial to design food security projects and progammes that are sharply focused on developing and improving the capacities of the most vulnerable populations and regions to accelerate the growth and productivity of agriculture, ensure proper functioning of communities and rural institutions, and expand the rural infrastructures that improve food availability, access, utilization and risk management. The foci of such projects should thus include ensuring water availability, agricultural diversification (but not at the expense of food crops), capacity building, input supply, better disaster risk management and coping mechanisms that can help reduce life and asset losses or minimize distress sales. To address food insecurity within the project area, the strategic goal established is to increase household capacity to produce and/or access food. The primary beneficiaries of this project are vulnerable households like those headed by women, villages with no access to irrigation water, and households at an early stage of horticultural production through a set of integrated measures involving water conservation, beekeeping, poultry, forage development and input supply in the selected villages.

3. STRATEGIES

In consultation with Zoba and Nues Zoba authorities, the project has identified localities that are high food-insecure and not covered by any development programme within the Zoba and Nues Zoba. As indicated above, the goal is to improve the food security status of the poor and most vulnerable households and mitigate the uncertainties associated with their current systems of livelihood. The intervention measures and activities proposed are in conformity with, and in support of, Eritrea's food security objectives as enshrined in the Food Security Strategy (April 2004), Interim Poverty Reduction Strategy Paper (2004), and Millennium Development Goals.

Food security is the result of many factors that often work in mutually reinforcing manners to keep certain households poor and vulnerable. Overcoming food insecurity may thus require multi-pronged approachs. The strategy in this project pays particular attention to those factors that improve food availability (like diversification of production, supply of productivity-enhancing technologies) food access (diversification of source of household income, providing access to assets/resources, etc.), and reducing uncertainties (improved water availability, improved resource management). The key strategic priorities identified are thus:

- Build and support the capacity of smallholder households to increase productivity of food
 crops:
- Diversify agricultural production by supporting non-crop based activities that are favourable to poor households;
- Reduce dependence on natural rainfall;
- Enhance agricultural intensification.

These strategic priorities have been selected on the basis of the following principles:

- Unity and coherence among the strategies themselves as well as with other strategies in food security;
- Ownership of programmes by beneficiaries through participatory approach;
- · Ensuring the sustainability of the interventions taken;

The key interventions that will be used to achieve the objectives of the project are:

- 1) Increasing water availability through the construction/rehabilitation of dams and irrigation infrastructure and the treatment of degraded watersheds;
- Promoting livestock production through improved feed and forage development;
- 3) Raising farm productivity through supply of critical inputs.

These strategies are in conformity with the food security strategy of the Government of the State of Eritrea, as stated in the Food Security Strategy (2004) document. The project components and outcomes/outputs of each of these interventions are detailed in Section 4.

4. OUTCOMES/OUTPUTS NARRATIVE

The outcomes/outputs associated with each project component of each of the intervention strategies of the project are briefly presented below.

1. CONSTRUCTION/REHABILITATION OF DAMS AND IRRIGATION INFRASTRUCTURE AND THE TREATMENT OF DEGRADED WATERSHEDS:

Outcome 1.1: Household agricultural income increased Outcome 1.2: Food security status of households improved

Output 1.1: Availability of irrigation water increased by constructing a new, 600,000 M³ dam with irrigation infrastructure at Adi Keyih

Output 1.2: A silted dam and associated irrigation infrastructure at Laguen rehabilitated

Output 1.3: Irrigation infrastructure for the dam at Adi Tsenaf constructed

Output 1.4: About 60 hectares of land put under irrigation

Output 1.5: Crop production expanded (at least twice a year) through intensification

Output 1.6: Three water use associations strengthened

Water and soil are the two critical resources for the smallholder producers in the project villages. Rain-fed crop production is a high risk activity. When farmers were asked to identify five major constraints to food crop production in their locality, rainfall (water) was the first one mentioned. Thus, without ensuring water availability, agricultural intensification and expansion of production is not possible. To improve water availability and facilitate agricultural intensification, a new dam with a capacity of 600,000 M³ will be constructed while the silted dam at the village of Laguen will be rehabilitated.

Many dams in the Zoba are not being properly used due to absence, or use of inappropriate, irrigation infrastructure. Better benefits would be realized only when water-saving irrigation systems are installed. Water-saving irrigation infrastructure will be constructed for the existing dam at Adi Tsenaf and Laguen-Adi Hamushte and the planned dam at Adi Keyih. This component is in line with the government's strategy which aims at increasing food production through projects that "... increase the availability of irrigation water through the rehabilitation of existing micro dams and constructing new ones, and promoting efficient on-farm water management."

Soil erosion is another serious problem in the project area. Deforested watersheds increase runoff and deep gulleys are cutting into prime farm lands. Moreover, dams get silted up rapidly, drastically reducing the water they hold every year. Thus the treatment of degraded watersheds is critical for the enhancement of soil moisture, charging underground water, increasing the life of dams, and protection of farm lands from floods. The untreated parts of the watershed of the dams will thus be properly treated with the support of the project.

2. PROMOTING LIVESTOCK PRODUCTION THROUGH IMPROVED FEED AND FORAGE DEVELOPMENT

Outcome 2.1: Household income increased by Nfa 2,900 a year

Outcome 2.2: Dietary intake of household members improved

Output 2.1: Poultry keeping developed in 80 poor/vulnerable households

This programme aims at boosting household poultry production in the villages of Adi Keyih, Adi Tsrenaf, Laguen and Adi Hamushte by organizing and training of communities, developing proper poultry shelters, purchase of fertile local eggs, supplementary feed distribution and disease prevention. A total of 1200 chicks will be distributed initially (in the first year), but a centralised incubator will be provided to ensure the supply of chicks in the future. The targets of this intervention are women. Thus poultry development is considered not only as generating additional income for vulnerable households, but also as a means of empowering rural women. Each household will be provided with 15 chicks initially. The sustainability of poultry development will be ensured by organizing women into a poultry association, establishing market channels and introducing different poultry forage/feed into the locality. At full maturity, the total annual egg production per household is expected to be 1,458 eggs, which would yield a net household income of Nfa 2,916. This is expected to

⁶ Government of the State of Eritrea, (April 2004), Food Security Strategy, p. 26, Asmara.

increase in the subsequent years. With increased egg production, the dietary intake of households is also expected to improve significantly.

Outcome 2.3: Household income increased by Nfa 3,000 in the first year and Nfa 12,000 a year in the following years

Output 2.2: Modern beekeeping developed in 50 pilot households

The project villages are promising for beekeeping, and there are a number of farmers who own one or two traditional beehives. Almost all existing beekeepers lack modern beekeeping facilities, and face shortage of beehives, lack of sufficient bee flora particularly in the dry season and shortage of mated queen. The benefits derived from beekeeping can be greatly increased by distributing modern beehives, planting honey bee forage plant species as part of afforestation programme, improving wax availability, establishment of centralized honey extractors, and training of farmers. Production is estimated to be 20 kg per beehive per year when fully developed. Beneficiary households will be provided with three beehives and bee colonies initially, but will increase to five when fully developed. Production will be about 20 kg of honey in the first harvest year, but it is expected to increase to 100 kg when fully developed. This will provide a gross income of over Nfa 12,000 per household for year.

Outcome 2.4: Household income increased

Outcome 2.5: Dietary intake improved

Output 2.3: One forage seed multiplication centre established and forage production enhanced

This programme component focuses on enhancing forage production in potential areas, particularly in those localities where dairy farming is spreading, by establishing one hectare of forage seed multiplication centre, cultivation of alfalfa and other fodder crops over 26 hectares of irrigable land, and training of farmers. This intervention is expected to produce 40 tons of fodder (alfalfa) per hectare with 10 harvests per year. Farmers will be trained in forage production and management and they will be organized into an association to ensure sustainability. This will in turn lead to increasing dairy production and household income, in addition to improving the dietary intake of household members. This component is quite consistent with the Government's objective to "...exploit the livestock potential through improved rangeland management and developing high quality feed and pasture systems".

3. RAISING FARM PRODUCTIVITY THROUGH SUPPLY OF CRITICAL INPUTS.

Outcome 3.1: Food crop production increased by 50-60%.

Output 3.1: Fertilizers, improved seeds, and pesticides supplied to rain fed farmers.

Farm productivity is very low in the project area even by any African standards .It ranges from 0.3 to 0.8 ton/hectare in good years, but get as low as 0.1 ton/hectare in bad years. Shortages of inputs are other critical constraints to increased crop production. The project will assist 100 vulnerable, asset-less households with critical inputs to increase food production in the rain-fed production sector.

Under this component, vulnerable households will receive seeds (wheat and barley), fertilizers, and small farm tools. Project partners will together develop criteria to identify beneficiary households.

Outcome 3.2: Quality and quantity of vegetable production improved, and household income increased.

Output 3.2: Fertilizers, improved seeds, and pesticides supplied to horticulture farmers

Many small-scale irrigation farmers in the project area mentioned lack of seeds, fertilizers and pesticides at the right time as being the major hindrance to the quality and quantity of vegetable production. Due to lack of inputs, they use poor quality seeds. The project will supply high quality potato, carrot, tomato, cabbage, and courgette seeds; it will also supply fertilizers and pesticides. These inputs will support about 50 horticulture farmers with a combined acreage of about 100 hectares. Annual yield is expected to increase by 30%.

⁷ Government of the State of Eritrea, (April 2004), Food Security Strategy, p. 27, Asmara.

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Applicable MYEF Service Line: Project fitte and ID (ATLAS Award ID): Food Security and Sustainable Livelihood Programme in Zoba Maekel Availability of impation water increased Availability of impation infrastructure at Laguen rehabilitated infrastructure at Laguen relabilitated on Proper vater toop production expanded (at least from proper water secress. OUTPUT 1.3 About 60 hectares of land put under integration of Silled dam at Laguen serviced and at Sociation expanded (at least from proper water secress. OUTPUT 1.5 About 60 hectares of land put under integration including better food availability and secress. OUTPUT 1.5 About 60 hectares of land put under integration including better food availability and secress. OUTPUT 1.5 About 60 hectares of land put under integration including better food availability and secress. OUTPUT 1.5 About 60 hectares of land put under increased including better food availability and secress. OUTPUT 1.5 About 60 hectares of land put under included including better food availability and secress. OUTPUT 1.5 About 60 hectares of land put under including better food availability and secress. OUTPUT 1.5 About 60 hectares of land put under including better food availability and secress. About 60 hectares of land put under including better food availability and secress. About 60 hectares of land put under incompleted including better food availability and secress. About 60 hectares of land put under incompleted including better food availability and secress. About 60 hectares of land put under including better food availability and secress. About 60 hectares of land put under including better food availability and secress. About 60 hectares of land put under including better food availability and secress. About 60 hectares of land put under including better food availability and secress. About 60 hectares of land put under including better food availability and secress. About 60 hectares of land put under including better food availability and secress. About 60	Outcome indicators: Food for households available throughout the year	s available throughout the ye	əar		
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dam and associated irrigation ructure at Laguen rehabilitated infrastructure at Laguen rehabilitated on infrastructure at Laguen started on infrastructure for the dam at Laguen started on extracted dam at Laguen started on ectares of land put under management a year; through intensification management on getter food availability and better food availability and seasociations and solutions associated irrigation associated irrigation infrastructure completed; (2010) dams constructed and around new (2009) and silted dam (2010) dams around new (2009) and silted irrigation infrastructure completed; (2010) dams constructed and around new (2009) and silted dam at Laguen around new (2009) and silted dam services associated irrigation infrastructure completed; (2010) dams constructed and around new (2009) and silted (2010) dams constructed and around new (2009) and silted (2010) dams constructed and around new (2009) and silted (2010) dams constructed and around new (2009) and silted (2010) dams constructed and around new (2009) and silted (2010) dams constructed and around new (2009) and silted (2010) dams constructed and around new (2009) and silted (2010) dams constructed and around new (2009) and silted (2010) dams constructed and around new (2009) and silted (2010) dams constructed and around new (2009) and silted (2010) dams constructed and around new (2009) and silted dam (2010) dams constructed and around new (2009) and silted dam (2010) dams constructed around new (2009) and silted dam (2010) dams constructed and around new (2009) and silted dam (2010) dams constructed and around new (2009) and silted dam (2010) dams constructed and around new (2009) and silted dam (2010) dams constructed and around new (2009) and silted dam (2010) dams constructed and around new (2010) dams constructed and around new (2010) dams constructed constru	rrigation infrastructure at UT 1.2	with a capacity of 600,000 M³ and associated irrigation infrastructure completed;	1.1.2 Access road to new (2009) and silted (2010) dams constructed	Zoba Maekel MoA Branch Office/UNDP	15,330
Out 1.3 On infrastructure for the dam at Laguen started constructed dam at Laguen started dam at Laguen started dam at Laguen search constructed a year; but the site of a sociations and sear use associations are a constructed and around new (2009) and silted (2010) dams and silted dam at Laguen started and around new (2009) and silted new (2009) and silted new (2009) and silted sear (2010) dams around new (2009) and silted new (2009) and silted sear (2010) dams around new (2009) and silted new (2009) and silted sear (2010) dams around new (2009) and silted new (2009) and silted sear (2010) dams (Silted dam and associated irrigation infrastructure at Laguen rehabilitated	Construction of irrigation infrastructure at Adi	1.1.3 Sites of new (2009) and silted (2010) dams cleared	Zoba Maekel MoA Branch Office/UNDP	20,670
but 1.1.6. Spillways of new (2009) and silted (2010) dams associations and provided with guidelines a year) through intensification ayear through intensification ayear through intensitions and better food availability and water use associations are associations and around new (2009) and silted am at Laguen around new (2009) and silted infrastructure completed; (2010) dams (2009) and silted and around new (2009) and silted infrastructure completed; (2010) dams (2010) dam	OUTPUT 1.3 Irrigation infrastructure for the dam at Adi Tsenaf constructed	I senar completed ; Rehabilitation of Silted dam at Laguen started	1.1.4 Embankments of new (2009) and silted (2010) dams constructed	Zoba Maekel MoA Branch Office/UNDP	363,340
provided with guidelines provided with guidelines production expanded (at least for proper water a year) through intensification management management silted availability and year: 2010 y. Year: 2010	OUTPUT 1.4 About 60 hectares of land put under irrigation	Beneficiaries organized into water use associations and	1.1.5. Spillways of new (2009) and silted (2010) dams constructed	Zoba Maekel MoA Branch Office/UNDP	65,020
Year: 2010 1.1.7. Demobilization: new dam (2009); silted dam (2010) The silted dam at Laguen fully rehabilitated and associations 1.3.1 Survey of irrigable land around new (2009) and silted infrastructure completed; (2010) dams	OUTPUT 1.5 Crop production expanded (at least twice a year) through intensification	provided with guidelines for proper water management	1.1.6 Riprap for new (2009) and silted (2010) dams	Zoba Maekel MoA Branch Office/UNDP	33,920
use associations fully rehabilitated and associated sited and associated irrigation around new (2009) and silted infrastructure completed; (2010) dams	including better food availability and access.	Year: 2010	1.1.7. Demobilization: new dam (2009); silted dam (2010)	Zoba Maekel MoA Branch Office	066'6
	OUTPUT 1.6 Three water use associations strengthened	The silted dam at Laguen fully rehabilitated and associated irrigation infrastructure completed;	1.3.1 Survey of irrigable land around new (2009) and silted (2010) dams	Zoba Maekel MoA Branch Office/UNDP	3,670

066'6	243,810	
Zoba Maekel MoA Branch Office/UNDP	Zoba Maekel MoA Branch Office/UNDP	Zoba Maekel MoA Branch Office/UNDP
1.3.2 Design of downstream irrigation infrastructure for new dam (2009) and silted dam (2010)	1.3.3 Construction of irrigation infrastructure, including installation of 6 diesel pumpsets for Adi Keyih and Adi Tsenaf dams (2009) and two electric pumpsets (2010) for the dam at Adi Hamushte	1.6.1 Training of beneficiaries
Production from 60 hectares of irrigated land realized	Beneficiaries organized into water use associations and provided with guidelines for proper water management	

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Expected Project Outcome 2.1: Household income increased by Nfa 2,900 a year Expected Project Outcome 2.2: Dietary intake of household members improved	old income increased by Nfa intake of household member	1 2,900 a year 's improved		
Outcome indicators: # of households with food available for the whole year and increased income # of female-headed households supported	# of households with food available for the whol # of female-headed households supported	le year and increased income		
Project title and ID (ATLAS Award ID): Food Security and		Sustainable Livelihood in Zoba Maekel		
Intended Outputs	Output Targets	Indicative Activities	Responsible parties	Inputs
	Year; 2009 Poultry keeping in 80 poor/vulnerable	2.1.1 Procurement and installation of one central incubator in 2010	Zoba Maekel MoA Branch Office/UNDP	19,100
OUTPUT 2.1 Poultry keeping developed in 80 poor/vulnerable households	households initiated by distributing 15 chicks, water and feed troughs, poultry feed, vaccines and materials for poultry	2.1.2 Procurement of 1500 fresh fertile eggs, and distribution of 1200 chicks in 2010	Zoba Maekel MoA Branch Office/UNDP	400
		2.1.3 Procurement and distribution of 107 quintals of poultry feed in 2009 and 36 quintals in 2010	Zoba Maekel MoA Branch Office/UNDP	6,460
	poor/vuinerable nousenoids fully developed	2.1.4 Procurement of 80 feed and water troughs in 2009	Zoba Maekel MoA Branch Office/UNDP	5,340
		2.1.5 Procurement of materials for 80 poultry shelter in 2009	Zoba Maekel MoA Branch Office/UNDP	49,330
		2.1.6 Procurement of cleaning materials, vaccines and drugs in 2009 and 2010	Zoba Maekel MoA Branch Office/UNDP	1,050
		2.1.7 Training of 80 female poultry farmers in 2009	Zoba Maekel MoA Branch Office	1,700
		2.1.8 Follow-up of poultry farmers		

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	Quantity of noney produced per flousefloid			
Applicable MYFF Service Line:				
Project title and ID (ATLAS Award ID): Food Security and Sustainable Livelihood in Zoba Maekel	Food Security and Sustaina	ble Livelihood in Zoba Maekel		
Intended Outputs	Output Targets	Indicative Activities	Responsible parties	Inputs
	Year: 2009	2.2.1 Site selection (2009)	Zoba Maekel MoA Branch Office/UNDP	200
	Modern beekeeping started in 50 rural	2.2.2 Procurement of 150 modern beehives, 50 sets of		
OUTPUT 2.2	households, of which 30 households are new bee	bee equipment like protective clothes, and 3 honey extractors	Zoba Maekel MoA Branch Office/UNDP	000'68
Modern beekeeping developed in 50 pilot households	farmers and 20 are with traditional bee hives	to be installed in three Kebabi Memehedars(administrations)		
		in 2009 and 100 modern		
	Year: 2010	beehives and accessories in 2010		
	Modern beekeeping in 50			
	rural households fully developed	2.2.3 Procurement of 30 bee colonies in 2009 and 20 bee colonies in 2010	Zoba Maekel MoA Branch Office/UNDP	3,335
		2.2.4 Planting of 7000 bee forage plants in 2009 and 3000 plants in 2010	Zoba Maekel MoA Branch Office/UNDP	3,330
	·	2.2.4 Procurement of bee feed in both years	Zoba Maekel MoA Branch Office/UNDP	009
		2.2.5 Training of 50 bee farmers in 2009	Zoba Maekel MoA Branch Office/UNDP	1,000

Outcome indicators: # of households with increased income and improved dietary intake % of households income increment Applicable MYFF Service Line:	h increased income and imp ome increment	roved dietary intake		
Partnership Strategy Project title and ID (ATLAS Award ID): Food Security and		Sustainable Livelihood in Zoba Maekel		
Intended Outputs	Output Targets	Indicative Activities	Responsible parties	Inputs
	<u>Year: 2009</u>	2.3.1 Site selection (2009)	Zoba Maekel MoA Branch	300
OUTPUT 2.3	One hectare of forage	2.3.2 Land preparation	Zoba Maekel MoA Branch	27,790
One forage seed multiplication centre established and forage production	seed multiplication centre established	2.3.3 Procurement of inputs and sowing	Zoba Maekel MoA Branch Office/UNDP	7,610
enhanced	10 hectares cultivated with alfalfa, elephant grass and other forage	2.3.4 Seed harvesting and land maintenance	Zoba Maekel MoA Branch Office/UNDP	2,820
	crops	2.3.5 Seed distribution	Zoba Maekel MoA Branch	1,860
	Year: 2010 One hectare of forage seed multiplication centre fully developed	2.3.6 Forage harvesting and land maintenance	Zoba Maekel MoA Branch Office/UNDP	4,330
	25 hectares cultivated with alfalfa, elephant grass and other forage crops			

Expected Project Outcome 3.2: Quality and quantity of vegetable production improved, and household income increased Outcome indicators: % of food crop and vegetable production increased # of households with increased food crop production	tcome 3.2. Quality and quantity of vegetable produc % of food crop and vegetable production increased # of households with increased food crop production	getable production improved, and household on increased rop production	income increased	
Applicable MYFF Service Line:				
Project title and ID (ATLAS Award ID): Food Security and Sustainable Livelihood in Zoba Maekel	Food Security and Sustaina	ble Livelihood in Zoba Maekel		
Intended Outputs	Output Targets	Indicative Activities	Responsible parties	Inputs
	Year: 2009 and 2010	3.1.1 Procurement and distribution of 555 quintals of	Zoba Maekel MoA Branch Office/UNDP	92,280
OUTPUTS 3.1 and 3.2	Increase land productivity by 50-60%	fertilizers in each year		
Fertilizers, improved seeds, and pesticides supplied to a) rain fed farmers b) horticulture farmers	of current yield	3.1.2 Procurement and distribution of 395 quintals of potato, carrot, tomato, cabbage, and courgette seeds in each year	Zoba Maekel MoA Branch Office/UNDP	75,340
		3.1.3 Procurement and distribution of 300 liters and	Zoba Maekel MoA Branch Office/UNDP	36,680
		800 kg of pesticides in each year in each year	Zoba Maekel MoA Branch Office/UNDP	26,070
		3.1.4 Procurement and distribution of 35 quintals of wheat and 35 quintals of barley seeds in 2009 and 35 quintals of wheat and 30 quintals barley in 2010	Zoba Maekel MoA Branch Office/UNDP	2000
		3.1.5 Procurement and distribution of 500 small farm tools in each year		

5. ANNAUL WORK PLAN BUDGET SHEETS

Year: 2009

	ACTIVITIES			E.S. 1628.	100				
-		Q	Q 2	ဗိ	Q 4		Source of Funds	Budget Description	Amount (USD)
Availability of irrination M	Survey and Design of New Dam & Mobilization	×				Zoba Maekel MoA Branch Office/UNDP	UNDP	72100	14,665
 :	Access Road Construction	×	×			Zoba Maekel MoA Branch Office/UNDP	UNDP	72100	10,000
astructure	Site clearance	×	×	_	1	Zoba Maekel MoA Branch Office/UNDP	UNDP	72100	14,670
	Embankment Construction		×	×		Zoba Maekel MoA Branch Office/UNDP	UNDP	72100	261,340
Silted dam and	Spill Way Construction			×		Zoba Maekei MoA Branch Office/UNDP	UNDP	72100	32,500
<u> </u>	Riprap			×		Zoba Maekel MoA Branch		72100	22,260
1	Demobilization				×	Zoba Maekel MoA Branch	ONDP	72100	4,660
<u>o</u>	Survey of Irrigable Land			×		Zoba Maekel MoA Branch Office/UNDP	UNDP	72100	2,000
senat	Design of Down Stream Irrigation			×	×	Zoba Maekel MoA Branch Office/UNDP	ONDP	72100	2,660
About 60 hectares of Called put under Initigation Initigation	Construction of Irrigation				×	Zoba Maekel MoA Branch Office/UNDP	UNOP	72100	126,670
OUTPUT 1.5 Crop production expanded (at least									
: : water ions	Survey and Design of Dam Rehabilitation and Mobilization				×	Zoba Maekel MoA Branch Office/UNDP	UNDP	72100	10,870
						Sub	Sub-total		502,295

EXPECTED	PLANNED	F	TIME FE	RAME		RESPONSIBLE PARTIES		PLANNED BUDGET	DGET
		ō	02	8	Q.		Source of Funds	Budget Description	Amount (USD)
OUTPUT 2.1	Procurement of Incubator and Accessories	×				Zoba Maekel MoA Branch Office/UNDP	UNDP	72200	19,100
Poultry keeping	Procurement of Fresh Fertile Eggs	×	×			Zoba Maekel MoA Branch Office/UNDP	UNDP	72300	400
developed in 80 poor/vulnerable households	Procurement and Transportation of	×	×	×	×	Zoba Maekel MoA Branch Office/UNDP	UNDP	72300	4,810
	Procurement of Feed and Water Troughs	×	×			Zoba Maekel MoA Branch Office/UNDP	UNDP	72200	5,340
	Procurement of Poultry Shelter	×	×			Zoba Maekel MoA Branch Office/UNDP	UNDP	72300	49,330
	Procurement of Cleaning Materials,		×	×	×	Zoba Maekel MoA Branch Office/UNDP	UNDP	72300	650
	Training of Poultry Farmers			×		Zoba Maekel MoA Branch Office/UNDP	UNDP	71400	1,700
	Site Selection	×				Zoba Maekel MoA Branch Office/UNDP	UND	75100	200
OUTPUT 2.2 Modern beekeeping developed in 50 pilot households	Procurement of Equipment: o Modern beehives and accessories o Protective clothes o Honey extractor & accessories		×	×		Zoba Maekel MoA Branch Office/UNDP	A GND	72200	52,850
	Procurement of Bee Colonies	×	×			Zoba Maekel MoA Branch Office/UNDP	UNDP	72300	2,000
	Planting Honey Bee Forage Plants	×	×	×	×	Zoba Maekel MoA Branch Office/UNDP	UNDP	72300	2,330

) ()			58,780							16,760						116,680	7,000	782,845
	Amount (USD)	400	1,000		300	10,920	2,980	160	730	1,670		46,140	37,670	18,340	13,530	1,000			
PLANNED BUDGET	Budget Description	72300	71400		75100	75100	72300	75100	75100	75100		72300	72300	72300	72300	72300		74100	
	Source of Funds	UNDP	UNDP	otal	UNDP	UNDP	UNDP	UNDP	UNDP	UNDP	total	UNDP	UNDP	UNDP	UNDP	UNDP	otal	UNDP	
RESPONSIBLE PARTIES		Zoba Maekel MoA Branch Office/UNDP	Zoba Maekel MoA Branch Office/UNDP	Sub-total	Zoba Maekel MoA Branch Office/UNDP	Zoba Maekel MoA Branch Office/UNDP	Zoba Maekel MoA Branch Office/UNDP	Zoba Maekel MoA Branch Office/UNDP	Zoba Maekel MoA Branch Office/UNDP	Zoba Maekel MoA Branch Office/UNDP	Sub-total	Zoba Maekel MoA Branch Office/UNDP	Zoba Maekel MoA Branch Office/UNDP	Zoba Maekel MoA Branch Office/UNDP	Zoba Maekel MoA Branch Office/UNDP	Zoba Maekel MoA Branch Office/UNDP	Sub-total	Zoba Maekel MoA Branch Office/UNDP	Total (2009)
RAME	20 42							×	×	×								×	
TIME FRA	Q2 Q3					×	×	×	×			×	× ×	×	×	×			-
F	<u>છ</u>		×		×		-					×	×	×	×	×			
PLANNED ACTIVITIES		Procurement of Bee Feed (Sugar Legumes)	Training of Bee Farmers		Site selection	Land Preparation	Seed/other input Procurement and Sowing	Seed Harvesting and Land Maintenance	Seed Distribution	Forage Harvesting and Land Maintenance		Procurement and Distribution of fertilizers	Procurement and distribution of Potato, carrot, Tomato, cabbage and Couraette seeds	Procurement and Distribution of Pesticides	Procurement and Distribution of Wheat and Barley Seeds	Procurement and Distribution Small Farm Tools		Annual Review and/or Reporting	
EXPECTED OUTPUTS						OUTPUT 2.3	One forage seed multiplication centre	forage production					OUTPUT 3.1 and 3.2 Fertilizers, improved seeds, and pesticides subplied to	a) rain fed farmers b) horticulture				Monitoring and Evaluation	

5. ANNAUL WORK PLAN BUDGET SHEETS

Year: <u>2010</u>

	<u>P</u>										288,980			2,050	
BUDGET	Amount (USD)	5,330	000'9	102,000	32,520	11,660	5,330	1,670	7,330	117,140		1,650	400		36,200
PLANNED BUDGET	Budget Description	72100	72100	72100	72100	72100	72100	72100	72100	72100		72300	72300		72300
	Source of Funds	UNDP	UNDP	UNDP	UNDP	UNDP	UNDP	UNDP	UNDP	UNDP	Sub-total	UNDP	UNDP	Sub-total	UNDP
RESPONSIBLE PARTY		Zoba Maekel MoA Branch Office/UNDP	Zoba Maekel MoA Branch Office/UNDP	Zoba Maekel MoA Branch	Zoba Maekel MoA Branch Office/UNDP	Zoba Maekel MoA Branch Office/UNDP	Zoba Maekel MoA Branch Office/UNDP	nS	Zoba Maekel MoA Branch Office/UNDP	Zoba Maekel MoA Branch Office/UNDP		Zoba Maekel MoA Branch Office/UNDP			
ш	Q4						×			×					
TIME FRAME	03				×		×		×	×	_				
TIME	05			×	×	×		×	×			×	-		
	<u>8</u>	×		×				-				×	×	\downarrow	
PLANNED ACTIVITIES		Access Road Construction	Site Clearance	Embankment	Spill Way	Riprap	Demobilization	Survey of Irrigable land	Design of Down Stream Irrigation	Construction of Irrigation		Procurement and Transportation of	Procurement of Vaccines/Drugs		Procurement of Modern Beehives and Accessories
EXPECTED OUTPUTS		OUTPUT 1.2	Silted dam and associated irrigation	infrastructure at Laguen rehabilitated	OUTPUT 1.4	land irrigated	OUTPUT 1.5 Crop production	expanded (at least twice a year) through	intensification OUTPUT 1.6	One water use association strengthened		OUTPUT 2.1	developed in 80 poor/vulnerable households		

	Amount (USD)				38,537						27,950			
BUDGET		1,335	1,000	200		16,870	4,630	2,660	1,130	2,660		46,140	37,670	18,340
PLANNED BUDGET	Budget Description	72300	75100	72300		75100	75100	75100	75100	75100		72300	72300	72300
	Source of Funds	UNDP	UNDP	UNDP	Sub-total	UNDP	UNDP	UNDP	UNDP	UNDP	Sub-total	UNDP 72	UNDP 72	UNDP 72
RESPONSIBLE PARTY		Zoba Maekel MoA Branch Office/UNDP	Zoba Maekel MoA Branch Office/UNDP	Zoba Maekel MoA Branch Office/UNDP	Suk	Zoba Maekel MoA Branch Office/UNDP	Zoba Maekei MoA Branch Office/UNDP	Zoba Maekel MoA Branch Office/UNDP	Zoba Maekel MoA Branch Office/UNDP	Zoba Maekel MoA Branch Office/UNDP	ns	Zoba Maekel MoA Branch Coffice/UNDP	Zoba Maekel MoA Branch Office/UNDP	Zoba Maekel MoA Branch Office/UNDP
111	Q		×	×						×				
RAME	69		×					×		×		×	×	×
TIME	02	×	×			×	×		×	×		×	×	×
F	ဝ	×	×	×		×	×		×			×	×	×
PLANNED ACTIVITIES		Procurement of Bee Colonies	Planting Honey Bee Forage Plants	Procurement of Bee Feed (Sugar	rogalica)	Land	Seed/other input Procurement and	Seed Harvesting and Land	Seed Distribution	Forage Harvesting and Land Maintenance	Mailtoration	Procurement and Distribution of Fertilizers	Procurement and Distribution of Potato, Carrot, Tomato, Cabbage and Courgette	Procurement and Distribution of Pesticides
EXPECTED		OUTPUT 2.2	Modern beekeeping developed in 50 pilot households				Output 2.3	One forage seed multiplication established and	forage production enhanced				OUTPUT 3.1 and 3.2 Fertilizers, improved seeds, and pesticides supplied to	a) rain fed farmers b) horticulture

	Amount (USD)			115,690	10,000	483,207	1,266,052
BUDGET	A	12,540	1,000				
PLANNED BUDGET	of Budget Description	72300	72300	al			
	Source of Funds	UNDP	UNDP	Sub-total	UNDP		ost
RESPONSIBLE PARITY		Zoba Maekel MoA Branch Office/UNDP	Zoba Maekel MoA Branch Office/UNDP		Zoba Maekel MoA Branch UNDP Office/UNDP	Total (2010)	Total Project Cost
ш	Q4				×		
TIME FRAME	Q3	×					
IME	Q1 Q2	×	×				
	8	×	×				
PLANNED		Procurement and Distribution of Wheat and Barley Seeds	Procurement and Distribution Small Farm Tools		Final Project Evaluation		
EXPECTED OUTPUTS		farmers			Monitoring and Evaluation		

6. MANAGEMENT ARRANGEMENTS

The Ministry of Finance, as the Government's Coordinating Authority, will assume responsibility on behalf of the Government for the overall management of the project, and is ultimately accountable to the UNDP for the programming of resources under government management within the framework of the National Implementation Modality (NIM).

Zoba Maekel Ministry of Agriculture Branch Office is designated to manage the implementation of the project under the auspice of a Project Board. It will be responsible for achieving the results expected from the project, and in particular for ensuring that the outputs are produced through effective use of UNDP funds.

A Project Board composed of representatives of Zoba Maekel Ministry of Agriculture Branch Office, Zoba Maekel Administartion, Gala Nefhi Nues Zoba Administration, UNDP will be established and, a Project Manager will be designated. The Project Manager will be appointed by Zoba Maekel Ministry of Agriculture Branch Office. Appointment will be made on the basis of expertise, competence, experience with management of similar projects in the past, and ability to work with communities. The UNDP will appoint a Programme Officer who will assume the role of a Project Assurance Officer to independently monitor and oversee the progress and completion of the project.

The Project Board will be responsible for the overall supervision, coordination and guidance of the project. The Project Board will review the progress on the basis of the Annual Work Plans and budget disbursements, and make necessary recommendations and/or revisions. Only the Project Board will have the powers to take critical management decisions as requested by the Project Manager during the implementation, or when changes and/or revision of the project activities/programmes are required. Decisions will be made on the basis of consensus.

The day to day activities of the project will be managed by the Project Manager. The Project Manager will be accountable to the Project Board and he/she will manage the project on the basis of the guidelines and constraints laid down by the Project Board. The Project Manager's primary task will be to ensure that the project is implemented rightly, progresses well, and produces the planned outputs and outcomes.

7. MONITORING AND EVALUATION

The primary objective of the proposed monitoring and evaluation is to provide flow of information on the performance of the project between stakeholders and to ensure improvement-oriented critical reflection for better results. Such flow of information is imperative for supporting project management and engage the Project Board, the Project Manager, the Project Assurance Officer, and other stakeholders in assessing progress, identifying constraints, learning from achievements, and making decisions to improve implementation and maximize benefits.

A) Monitoring

Monitoring will be undertaken throughout the lifetime of the project in order to determine whether or not the project continues to be relevant, to identify and assess potential problems and gauge success. It provides the basis for corrective actions, both substantive and operational, to improve the project design, manner of implementation, and quality of results through a continuous and systematic process of collecting information and analysing them. The focus will be on realizing the objectives of the project as measured by the targets/indicators stated in the Project Results and Resources Framework (PRRF). This will be monitored through Annual Project Reports (APR), progress reports and other verifications mechanisms appropriate to the project including field surveys. The Annual Work Plan (AWP) Monitoring Tool and PRRFalong with relevant project issues will form the basis for yearly monitoring to measure progress towards the intended outputs as reported by the Zoba Maekel Ministry of Agriculture Branch Office. The Project Assurance Officer, in consultation with the Project Board, may conduct periodic monitoring to assess project progress and improve on-going management and accountability if and when required.

B) Evaluation

The project will be subject to evaluation at the end of the project life to document the achievements, implementation management, constraints faced and how they were addresses, and important lessons learned.

C) Reporting

Zoba Maekel Ministry of Agriculture Branch Office will submit Annual Project Reports (APR) to UNDP. The APR will be due on November 30th every year. The APR is designed to obtain independent views of the main stakeholders of this project on its relevance, performance and the likelihood of its success. It also aims to provide a rating and narrative assessment of the progress of a project in achieving its objectives. The APRs shall be prepared in a way that clearly show accurate updates on project results, conformity with the AWP, major constraints encountered, and propose future directions. Based on the reports, appropriate measures may be taken to improve implementation management, accountability and progress.

D) Accounting

Disbursement of project funds will be made quarterly by the UNDP to the Zoba Maekel Ministry of Agriculture Branch Office as Implementing Partner. This will be based on specific work and/or activity plan and the required inputs developed or approved by the Project Board, the Implementing Partner and UNDP. Quarterly advances will be paid through quarterly financial reports that will have to be received at UNDP by the 15th day of the first month of the following quarter. Zoba Maekel Ministry of Agriculture Branch Office will open a separate bank account for this project.

Zoba Maekel Ministry of Agriculture Branch Office will be accountable for the use of funds advanced to it according to the agreed upon work plans and activities. It is expected to maintain books of account professionally in accordance with National Execution (NEX) accounting and reporting guidelines of UNDP.



E) Auditing

All UNDP project funds are audited. Auditing is an integral part of sound financial and administrative management, and of UNDP's accountability framework. Accordingly, this project will be audited each year by the Audit Services Corporation or by a private auditing firm. The audited account should be submitted to UNDP before or on 31st March of each year. The audit will be done in accordance with the UNDP National Implementation (NIM) Audit Guidelines, which *inter alia*, focuses on

- a) The rate of delivery;
- b) Financial accounting, monitoring and reporting;
- c) Systems for recording and reporting on resources;
- d) Equipment use and management, and
- e) Management structure, including the adequacy of internal control and record keeping.

Zoba Maekel Ministry of Agriculture Branch Office will ensure that the books of account are readily available fort monitoring by UNDP whenever required.

F) Procurement

Procurement of goods and services for the project will be done using Government Procurement Procedures as long as the guidelines are consistent with UNDP procurement policies, which relate to competitiveness, transparency and multilateralism. Otherwise, UNDP procedures will be followed.

G) Sources of Funding

UNDP will fund this project from core resources. However, UNDP in collaboration with the Government will make every effort to mobilize additional resources from other partners and sources.

Year 2009

The Annual Work Plan (AWP) Monitoring Tool

CP Component 2: Food Security, Natural Resources and Sustainable Environmental Development Implementing Partners: Zoba Maekel Ministry of Agriculture Branch Office

EXPENDITURES RESULTS OF PROGRESS TOWARDS ACTIVITIES ACHIEVING OUTPUTS	Dam &									ructure							
PLANNED ACTIVITIES	Survey and design of New Dam	Access road construction	Site clearance	Embankment construction	Spill way construction	Riprap	Demobilization	Survey of irrigable land	Design of down stream irrigation infrastructure	Construction of irrigation infrastructure	Survey and design of dam rehabilitation and mobilization						
EXPECTED OUTPUTS AND INDICATORS	OUTPUT 1.1	Availability of irrigation water increased by	infrastructure at Adi Keih	OUTPUT 1.2	Silted dam and associated irrigation	infrastructure at Laguen rehabilitated		OUTPUT 1.3	Irrigation infrastructure for the dam at Adi I senar constructed		OUTPUT 1.4 About 60 hectares of land put under irrigation	OUTPUT 1.5 Crop production expanded (at least twice a year) through intensification	OUTPUT 1.6 Two Water use associations strengthened	Target	New dam in Adi Keyih with a capacity of 600,000 M³ built Rehabilitation of silted dam in Laguen started Additional 40 ha put under irrigation Beneficiaries organized into water use associations	Indicators	New dam completed Irrigation infrastructure ready for use with 6 diesel pumpsets installed Handover to beneficiaries Mobilization for dam rehabilitation started Acreage of irrigated land in ha # of trainees in proper water use

Year <u>2010</u>

The Annual Work Plan (AWP) Monitoring Tool

CP Component 2: Food Security, Natural Resources and Sustainable Environmental Development Implementing Partners: Zoba Maekel Ministry of Agriculture Branch Office

PROGRESS TOWARDS ACHIEVING OUTPUTS																	23
RESULTS OF ACTIVITIES			· -			Ī											
EXPENDITURES													of				
PLANNED ACTIVITIES	Core excavation	Embankment construction	Spill way construction	Riprap	Demobilization	Survey of irrigable land	Design of down stream irrigation infrastructure	Construction of irrigation	infrastructure				Procurement and transportation of feed		Drougment of varrings/drugs	Procurentent of vaccines/ungs	
EXPECTED OUTPUTS:AND INDICATORS		OUTPUT 1.2 Silted dam and associated irrigation		4 F	About 60 hectares of land put under irrigation		tion expanded (at least twice a year)	1	OUTPUT 1.6 One water use associations strengthened	<u>Target</u>	Silted dam in Laguen fully rehabilitated Irrigation infrastructure completed Additional 20 ha put under irrigation Beneficiaries organized into water use associations Indicator	Dam rehabilitation works completed and functional before <i>Kremt</i> rains Irrigation infrastructure ready for use with two electric pumpsets installed Electricity extension to pump house completed Acreage of additional irrigated fland in ha Acretinese in proper water use	E as	<u>Target</u> ○ Poultry Keeping in 80 households fully developed	Indicators # of additional chicks distributed Poultry feed distributed in quintals	o Central incubator installed and functional	

8. LEGAL CONTEXT

This project document shall be the instrument referred to as such in Article 1 of the Standard Basic Assistance Agreement (SBAA) between the Government of the State of Eritrea and the UNDP, signed on 14 July 1994. This project document will be implemented in accordance with the provisions of this agreement.

9. ANNEXE 1: CAPACITY ASSESSEMNT OF IMPLEMENTER PARTNER

Zoba Maekel Ministry of Agriculture Branch Office has the expertise and experience with similar projects to effectively and efficiently implement the proposed development interventions. It has nine engineers, four of whom are working at Nues Zoba level, while the rest are assigned at the Zoba level. Five of these engineers hold B.Sc degrees; one holds M.Sc while the remaining three hold diplomas. Three of the engineers have over 25 years of experience while the rest have 1-3 years of experience. The Zoba has 64 dams at present, and these engineers participated in their design, construction and supervision.

Zoba Maekel Ministry of Agriculture Branch Office has also two senior livestock experts (one with M.Sc in animal science and one veterinary doctor), three junior experts with B.Sc and one with diploma. In addition to theses experts, there are two junior experts with B.Sc and one with diploma working in Gala Nefhi Nues Zoba. These experts support the veterinary services of the Nues Zoba. Similarly, there are experienced extension agents working at Zoba and Nues Zoba levels. The dedication and desire to make positive changes to the lives of the smallholder farmers is quite impressive.

Zoba Maekel Ministry of Agriculture Branch Office has also built its experiences in the implementation of donor-funded projects. Some of the projects implemented are:

- Sustainable Land Management at Emba Derho, funded by the Lutheran Federation;
- The Toker Project (a project in sustainable land management);
- Integrated Watershed Development funded by DANIDA;
- Rehabilitation works in the Central Highlands funded by the African Development Bank.

With this and similar experience and the expertise it has, Zoba Maekel should not find it difficult to implement the proposed food security project. Above all, the beneficiary farmers in the project area are ready and committed to implement the project properly and derive maximum benefits.