COUNTRY PROGRAMMING FRAMEWORK 2012 – 2016

for

the Cooperation and Partnership

between

the Food and Agriculture Organization and the Republic of the Union of Myanmar

Myanmar October 2012

FOREWORD

The Government of the Republic of the Union of Myanmar (GoRUM), represented by the Ministry of National Planning and Economic Development, and the Food and Agriculture Organization of the United Nations (FAO), represented by its Representative to the Republic of the Union of Myanmar, are pleased to jointly launch the Country Programming Framework (CPF) 2012 – 2016.

The CPF 2012-2016 is a result of extensive consultations held with a wide range of stakeholders and partners within the country as well as relevant technical units of FAO Regional Office in Bangkok. The GoRUM and FAO express their sincere appreciation to all who have made constructive comments and suggestions through the consultative process.

This document, co-owned by the GoRUM and FAO, indicates the broad commitment of the GoRUM and FAO to work closely on the identified medium-term priority areas in the CPF for agriculture and rural development and poverty alleviation in Myanmar. The CPF priorities were identified in line with the Fifth National Development Plan (2011/12 – 2015/16) and the Millennium Development Goals. These also supplement and contribute to the strategic objectives of the United Nations Strategic Framework 2012-2015 for Myanmar.

The CPF 2012-2016 will be pursued in partnerships as broad as possible and in alignment with the joint efforts of the GoRUM and the development partners for enhanced coordination and aid effectiveness. The GoRUM and FAO look forward to seeking collaboration and support from all concerned partners for the successful implementation of the CPF 2012-2016.

For the Food and Agriculture Organization of the United Nations For the Government of the Republic of the Union of Myanmar

Bui Thi Lan FAO Representative in Myanmar

Daw Khin San Yee Deputy Minister Ministry of National Planning and Economic Development

CONTENTS

	Page
FOREWORD	i
CONTENTS	ii
ACRONYMS AND ABBREVIATIONS	iii
I. INTRODUCTION	1
II. SITUATION ANALYSIS	1
2.1 Background on the economy, agriculture and food security	1
2.2 National priorities	4
2.3 National Millennium Development Goals (MDGs)	6
2.4 Key institutions in the agriculture sector	7
2.5 Collaboration with FAO and other development partners	8
2.6 Gaps and areas requiring priority attention	9
III. PROPOSED COUNTRY PROGRAMMING FRAMEWORK	11
3.1 Priority outcomes for the next five years	11
3.2 Priority outputs, projects and focussed activities	11
IV. CPF RESOURCE REQUIREMENTS	14
V. IMPLEMENTATION, MONITORING AND COORDINATION	15
5.1 Implementation, including monitoring and evaluation, and coor	edination 15
5.2 Short-term implementation plan	15
V. CONCLUSION	16
ANNEXES	
Annex A: List of National and Regional On-going Projects in Myanmar	17
Annex B: Priority Outcomes and Outputs	19
Annex C: Matrix of Major Priority Outputs, Focused Activities and Reso	ources 21
Annex D: Short-Term Implementation Plan	34

ACRONYMS AND ABBREVIATIONS

ADB Asian Development Bank

ASEAN Association of Southeast Asian Nations

CDM Clean Development Mechanism
CPF Country Programming Framework

CPF-SC CPF Steering Committee

CPF-TC CPF Technical Sub-committee

DoF Department of Fisheries

EU European Union

FAO Food and Agriculture Organization of the United Nations

FDI Foreign Direct Investment
GDP Gross Domestic Products
GEF Global Environment Facility
GMP Good Management Practice

GoRUM Government of Republic of the Union of Myanmar
IFAD International Fund for Agriculture Development
IHLCA Integrated Household Living Conditions Assessment

MDG Millennium Development Goal

MNPED Ministry of National Planning and Economic Development

MoAI Ministry of Agriculture and Irrigation

MoECAF Ministry of Environmental Conservation and Forestry

MoLF Ministry of Livestock and Fisheries

NDPCC National Disaster Preparedness Central Committee

NGO Non-governmental Organization

NMTPF National Medium-term Priority Framework

NWFP Non-wood Forest Product

OFID OPEC Fund for International Development

SPS Sanitary and Phytosanitary

SSOP Sanitation Standard Operation Procedure

TCP Technical Cooperation Programme

TF Trust Fund

UNCT United Nations Country Team

UNDP United Nations Development Programme

UNFCCC United Nations Framework Convention on Climate Change

UNSF United Nation Strategic Framework

WTO World Trade Organization

I. INTRODUCTION

FAO and the Government of Myanmar share a long history of cooperation in their respective pursuits to eradicate hunger, malnutrition and poverty through agricultural and rural development. To further streamline this cooperation, the two partners decided to undertake a joint effort to formulate a new Country Programming Framework (CPF) as the basis for mutual cooperation and partnership for the period 2012-2016. The CPF will provide strategic guidance for future work programme to be implemented jointly by FAO and the Government, in close partnership with other UN agencies and development partners. It sets out key priorities and identifies activities and projects to be implemented by the GoRUM with the support of the FAO.

The CPF has been formulated under the leadership of the Ministry of National Planning and Economic Development (MNPED) through a series of consultations involving FAO and various Government ministries and departments, United Nations organizations, development partners, civil society organizations, non-government organizations and the private sector.

It has been developed in line with the Fifth National Development Plan 2011/12-2015/16 and the Millennium Development Goals (MDGs). It also seeks synergy and complementarities with the UN Strategic Framework for Myanmar 2011-2015. It sets out key priorities and identifies activities and projects to be implemented by the GoRUM with the support of the FAO. These priorities and activities cover various areas of FAO's competence including agriculture, food security, natural resource management and rural livelihoods, mainly through agriculture-based activities.

The CPF has identified seven priority outcomes covering a number of priority areas: food and agricultural production including fisheries and forestry sub-sectors, food security, food safety, human resource development, land use and land management, sustainable management of natural resources, preparedness for and mitigation of disasters and climate change. In each of these areas, a number of priority activities and projects have been identified, with indicative funding requirements. These individual building blocks of the CPF will be further elaborated for resource mobilization and implementation. Flexibility is allowed for in the CPF, as emphasis is laid on the broad-based programming approach. In this sense, a CPF is a living document, the contents of which will be adjusted over time taking into consideration the changing circumstances and needs of the country.

II. SITUATION ANALYSIS

2.1 Background on the economy, agriculture and food insecurity

Agriculture in the national economy Agriculture sector, defined broadly to include crops, livestock, fisheries and forestry, accounted for 38% of Myanmar's GDP in 2010/11, down from 47 percent in 2005/2006 (Table 1), as manufacturing and services sectors have grown rapidly. Within agriculture, the share of the crop subsector in the GDP also fell from 11% to 4% during the same period. While these shares have fallen, growth rates have been robust as the table shows, with the exception of the forestry subsector.

Table 1 Contribution of the agriculture sector to GDP growth in Myanmar (%)

		05/06	06/07	07/08	08/09	09/10	10/11
1.	GDP growth	13.6	13.1	12.0	10.3	10.6	10.4
2.	Share of the agriculture sector in GDP	38.4	37.1	35.6	33.8	31.9	30.0
3.	3. Share of the livestock & fishery sector in GDP		7.6	7.5	7.5	7.6	7.4
4.	Share of the forestry sector in GDP		0.6	0.6	0.5	0.4	0.4
5.	5. Share of the total agriculture sector in GDP (2+3+4)		45.3	43.7	41.8	39.9	37.8
6.	Growth of the agriculture sector	10.7	9.2	7.5	4.8	4.2	4.1
7.	. Growth of the livestock & fishery sector		12.2	10.9	10.1	12.3	7.5
8.	Growth of the forestry sector	4.0	8.3	0.3	-2.3	-3.1	0.3

Reference: "Myanmar Agriculture at a Glance 2011", DAP, MoAI (From the source of Central Statistical Organization, Ministry of National Planning and Economic Development)

Food insecurity and poverty Although Myanmar is a net food exporter, about 10 percent of the population of 60 million is estimated to be below the official food poverty line, with many pockets of high levels of food and nutrition insecurity across various states/regions and villages. Food poverty is generally higher in states than regions and higher in rural than in urban areas. Some 69% of the population is rural. Likewise, the nationwide prevalence of moderately underweight children was recorded at 34 percent, representing 16 million children (UNDP 2007). In the mean time, household incomes expended on food have increased sharply, to as high as 73 percent for many population groups, which has also increased indebtedness. The IHLCA survey has also shown increased incidences of landlessness in recent years (in the range of 30 percent of the rural population).

A food basket Myanmar enjoys diverse climatic conditions including both subtropical and tropical zones, as well as low to high rainfall regions. As a result, the country produces a wide range of almost all crops, and livestock and fishery products. Livestock production is mostly small-scale and largely fulfils national demand and generates considerable cash incomes also. The fisheries subsector is developing rapidly, notably marine capture and aquaculture, and export earnings did indeed double to US\$567 million in 2008 from 2007.

Land and water use Of the total land mass of 67.66 million hectares, about 12 million hectares (18 percent) are cropped currently. This can be extended to 26 percent of the total as roughly 5.7 million hectares of land (8 percent) are estimated to be still available for cropping. Forest cover accounts for 48 percent of the total land mass. Kachin, Shan and Chin states, and Sagaing region provide promising options for further agricultural expansion. The 2003 Myanmar Agricultural Census showed that there were about 3.46 million farm families, cultivating about 8.7 million hectares of land. The average farm size was about 2.5 hectares (6.24 acres), relatively larger than in many other countries, e.g. India, Indonesia and China. About 60 percent of cropped areas are held by farmers with landholding of less than 4 hectares. The country is currently utilizing only about 6 percent of the total water resource of 870 million acre-feet *per annum*. Between 1987/88 and 2010/11, irrigation coverage increased from 12.5 percent of the net sown area to 16.7 percent, and, consequently, cropping intensity increased from 141 percent in 1995 to 172 percent in 2011. Crop production fluctuates for a number of reasons. With the exception of paddy rice, yields of most crops are relatively low compared to neighbouring countries.

_

¹ Based on the 2007 Integrated Household Living Conditions Assessment (IHLCA), UNDP, 2007

Land ownership All land in Myanmar is owned by the state and cultivators only retain the tilling rights, which cannot be transferred, mortgaged, taken in lieu of loan repayment, or used as collateral for obtaining loans. However they are inheritable by grown-up children or other family members who continue to till the land by themselves. This pattern of intergenerational land transfer has increased land fragmentation of holdings and small farming households. Although the new land laws of "Vacant, Fallow and Virgin Land Management Law" and "Farmland Law" are both enacted in March 2012 to solve land-related problems, land reform still remains as a major challenging task.

Domestic and external trade With the introduction of the market economy in 1988, internal and external barriers to trade were relaxed to some extent. As a result, both the domestic marketing activities and external trade have expanded considerably, with the private sector playing an increasingly larger role. The country has reasonably good road and river networks for trade, with the exception of disruptions during the rainy seasons. A further important boost to trade was the abolition in 2003 of the policy of compulsory procurement of paddy rice by the state at low prices. In addition, to promote export, the new Government lowered in 2011 export tax on all commodities to 2 percent only, from 12 percent before.

Access to export markets for beef, pig and chicken meat, is limited as production and processing facilities lack the capacity for producing quality products in sufficient quantity for international markets. Consequently, only live animals are exported to neighbouring countries. High import tax and commercial tax on medicines and feed supplement additives increase the cost of livestock production and disease control, reducing the competitiveness of the industry.

During the past 15 years since 1995/96, the value of agricultural exports has continued to rise, bolstered in large part by market reforms, and despite the fact that its share in total exports has dropped from 77 percent to 24 percent as the exports of other products, notably gas, minerals, gems and ready-made garment, have soared. Teak and other hardwoods are also major export items, although their productions have fluctuated lately due to export restrictions to discourage over- and illegal cutting. Myanmar is a member of the Association of Southeast Asian Nations (ASEAN) Free Trade Agreement (AFTA) and the World Trade Organization (WTO).

Natural disasters Floods occur regularly during the mid-monsoon season (June to August) in areas traversed by rivers and large streams. The country is also prone to cyclones, droughts, earthquakes and landslides. Droughts occur frequently in the dry zone region of central Myanmar, and western parts of South Shan State. Climate change phenomena have been cited as the reason for late and lower rainfall, longer dry spells and increased temperatures. These conditions have direct implications on the livelihoods and human security of the population, more so for many resource-poor farmers who live and grow crops on slopes with shallow, depleted and erosion-prone soils. Myanmar was affected by the Indian Ocean tsunami in 2004, Cyclone Nargis in 2008 and Cyclone Giri in 2010. Landslides are very common in the rainy season in mountainous areas. To deal with emergency situations caused by natural calamities, the Myanmar Disaster Preparedness Central Committee (MDPCC) was reconstituted in April 2011 to Myanmar Disaster Preparedness Agency (MDPA) with thirteen sub-committees, chaired by the Minister of Ministry of Social Welfare, Relief and Resettlement with the executive members from 10 related ministries.

The fisheries sub-sector Fish is an essential part of the Myanmar diet, second only to rice. Fisheries may be classified into various categories: marine, coastal, river, inland and

aquaculture. A new system of Paddy plus Fish production has been introduced in the deepwater areas and fish production from these areas is on the rise. Fisheries and aquaculture are labour-intensive economic activities and create jobs, directly and indirectly, for a number of rural and urban households. Postharvest treatment of the catches, such as freezing, drying, smoking, salting and the preparation of fermented fish, fish paste and sauce products, provides important employment opportunities for the rural population, particularly women. A significant number of poor and vulnerable people live in the marine, coastal, riverine, inland areas and their livelihoods are strongly linked to small-scale fisheries and aquaculture. Development of sustainable aquaculture systems and management of small-scale fisheries are therefore essential for their well-being. Maintaining the mangrove ecosystem is necessary to protect unique biodiversity.

The forestry sub-sector This sector is vital to Myanmar because of its substantial contributions to the economy and its strong influences on climate stability, soil and water conservation and environmental protection. Myanmar forest cover was recorded at 31.8 million hectares, which is equivalent to 48 percent of the country's total land area of approximately 67 million hectares (FAO 2010). Permanent forest estate constituted about 24 percent while the rest belonged to other forest categories. Apart from high value timber such as teak and other hardwoods Myanmar forests produce abundant non-wood forest products (NWFPs) such as bamboo and rattan, which provide the main source of income for poor and landless rural households. Women play an important role in collecting and selling these products to earn extra income.

2.2 National priorities

The *National Economic and Social Development Plan 2011/12-2015/16* sets a vision for the country to become a peaceful, modern and developed nation. Some immediate objectives set for the financial year 2011-2012 include: (i) continuation of the infrastructure development, (ii) development of border areas, (iii) development of rural areas, (iv) poverty alleviation, (v) achieving MDGs 1 and 7, and (vi) maintaining good economic foundations and financial conditions. To achieve these objectives, the following planned interventions, relating to the agriculture, livestock, fisheries and forestry sectors, are prioritized for implementation in 2011-2012:

- (1) To encourage the establishment of agriculture-based industries and other industries for building an industrialized nation.
- (2) To expand agriculture, livestock and fishery sectors in order to meet ever-increasing local demand and to promote exports.
- (3) To endeavour to meet the targeted yields of designated crops.
- (4) To expand new cultivable land for agricultural use.
- (5) To address shortages in edible oil and lubricant oil.
- (6) To promote widespread use of biodiesel to supplement lubricant and fuel needs.
- (7) To restore and expand forest area coverage.
- (8) To conserve natural resources and protect the environment.

In November 2011, the government launched a *National Strategy on Rural Development and Poverty Alleviation* focusing on the following eight priority areas: 1) agriculture production; 2) livestock and fisheries production; 3) rural productivity and cottage

² Food and Agriculture Organization of the United Nations (FAO). 2010. "Global Forest Resources Assessment

⁻ Country Report: Myanmar"

industry; 4) micro savings and credit enterprises; 5) rural cooperatives; 6) rural socio economy; 7) rural renewable energy; and 8) environmental conservation.

The *Agriculture Sector Review* undertaken in 2004 recommended to focus on i) developing a consolidated database on rural statistics, ii) developing poverty profile for all townships, iii) mainstreaming of landless households, iv) addressing land tenure right issues, v) developing potentially viable livelihood options, vi) developing viable farming system options, vii) investing more on rural infrastructure development, and vii) improving access to education and health services for rural population.

Sub-sectoral priorities have been articulated in various national policies and priority frameworks, notably the *National Economic and Social Development Plan 2011/12-2015/16*, the *National Strategy on Rural Development and Poverty Alleviation*, the 2004 *Agriculture Sector Review*, and the *National Millennium Development Goals*. What follows summarizes these priorities.

Crop subsector priorities The responsibility for the development of the crop subsector to achieve the planned targets of the National Economic and Social Development Plan 2011/12-2015/16 rests with the Ministry of Agriculture and Irrigation (MoAI). In this context, the MoAI has adopted the following policies and measures:

- To emphasize production and utilization of high yield and good quality seeds
- To conduct training and education activities for farmers and extension staff to provide advanced agricultural techniques and to introduce agricultural knowledge with primary and secondary level students to produce qualified agricultural technicians from State Agricultural Institutes and Yezin Agricultural University
- To implement R&D activities for sustainable agricultural development
- To protect farmers' rights and benefits
- To assist farmers to get fair price on their produce
- To assist in lowering the production costs, increasing high quality crop production, developing and strengthening of markets
- To encourage transformation from conventional agriculture to mechanized agriculture
- To undertake renovation and maintenance works on old irrigation, pumping and underground water systems
- To support rural development and poverty reduction activities through development of agriculture sector
- To help strengthening of markets and allowing farmers freedom of choice for crop cultivation
- To encourage local and international investment in agriculture sector for the development of advanced agricultural technology and commercial agricultural production, and
- To justify and amend the existing agricultural laws and regulations in line with current economic situation

Five key priorities were set to ensure the development of the crop subsector: (i) strengthening of profitable and sustainable market for farmers, (ii) utilization of good quality seeds to produce quality products for higher price, (iii) utilization of Good Agricultural Practices (GAP), (iv) application of agricultural inputs such as irrigation water, chemical and natural fertilizers efficiently, and (v) reduction of production costs and transactional costs

along the supply chain. Efforts are being made to improve the production and productivity of ten principal crops namely rice, sugar cane, long staple cotton, maize, groundnut, sunflower, black gram, green gram and pigeon pea.

Livestock and fisheries subsector priorities The Ministry of Livestock and Fisheries (MoLF) is responsible for ensuring that the targets set in the National Economic and Social Development Plan 2011/12-2015/16 are met. The objectives of the livestock sector are to: (a) improve livestock and livestock products for domestic consumption through improved animal health care, (b) increase the draught cattle population, proportional to crop area expansion, (c) promote trade in livestock and livestock products, and (d) investigate identified products and conduct related research on various aspects related to biological production.

The fisheries subsector aims to: (a) support rural development through the extension of aquaculture activities, (b) increase export earnings from shrimp aquaculture, (c) sustain and increase the fisheries resources of both inland and marine waters, (d) accelerate the integrated fisheries development process without impacting on the natural environment and (e) adopt and implement an extension programme to ensure sustainable fisheries development. Priority areas for intervention by the MoLF to ensure the development of the fisheries subsector are: (a) expansion of shrimp breeding farms, (b) prevention of natural resource spoilage by inland and offshore fisheries, (c) acceleration of development momentum for inland fisheries in order to satisfy domestic consumption needs.

Overall, the MoLF plans to (a) promote sufficient investment in the livestock and fisheries subsectors through private-public partnership, and (b) upgrade the socio-economic status of communities whose livelihoods are dependent on the livestock and fishery subsectors in a gender-equitable manner. This has a bearing on the extent to which women are engaged in the livestock and fishery subsectors and are dependent on them, often as their primary livelihood.

Forestry subsector priorities The National Forest Master Plan (NFMP), a 30-year roadmap (2001/2002-2030/2031) for effective and efficient conservation of forest resources, reflects not only the current status of forests in Myanmar but also the social and macroeconomic policies of the country. The Plan's focused objectives are developing rural communities, alleviating poverty and conserving the environment; this is to be accomplished through the creation of job opportunities, affording permission to use forest lands and extraction of NWFPs and diversification of cooking energy sources and incomes. Establishment of forest plantations and community forests, promotion of bio-energy and NWFPs, human resource development and forestry extension services are major thrusts of the NFMP.

2.3 National Millennium Development Goals (MDGs)

The Myanmar MDG Report, issued jointly in 2006 by the GoRUM and the UNDP, reaffirmed the country's progress in meeting most of the MDG targets before 2015 and commitment to achieving more ambitious targets including reduction of the proportion of poor people. The report noted that Myanmar had made some progress towards the achievement of MDGs while implementing national development plans and programmes.

Under MDG 1 (eradicate poverty and hunger), Myanmar established a food security programme that prioritized expansion of agriculture, livestock and fishery production to ensure self-sufficiency in quality food production for local consumption and export. In order

to better understand the ground-reality regarding food security, a *Food Insecurity and Vulnerability Information Mapping System Mission* was launched in 2006 and the *Crop and Food Security Assessment Mission* also conducted in 2008 after Cyclone Nargis. Findings and recommendations from these reports were instrumental in making targeted budget allocations to reduce poverty and hunger.

To contribute to MDG 7 (ensure environmental sustainability), Myanmar is committed to promoting energy efficiency and making greater use of renewable energy resources, in particular bio-energy. It is recognized that the required technical analyses, policy formulation, capacity building and technology transfer can only be implemented with the support of external resources. With a view to ensuring environmental sustainability, Myanmar established the *National Commission for Environmental Affairs*, adopted a new forest policy, implemented the greening of arid areas in the Central Dry Zone, extended reserved forests and protected public forest areas, adopted *Myanmar Agenda 21* and ratified the *UN Framework Convention on Climate Change* (UNFCCC) and accession to the Kyoto Protocol.

MDG 8 (global partnership for development) is one of the most important MDGs for Myanmar as a developing country with decades of experience and lessons learned in advancing its agricultural development. By engaging in South-South cooperation and technical cooperation among developing countries, Myanmar is sharing its experience with other countries including developing countries such as Cook Islands, Sri Lanka, Viet Nam, Tanzania and Malawi.

2.4 Key institutions in the agriculture sector

There are several ministries involved in agriculture, natural resources and rural development. The Ministry of National Planning and Economic Development was tasked with the overall planning and development of all national economic sectors, including the agriculture sector with its crop, livestock, fishery and forestry subsectors.

The MoAI is responsible for overall development of the crop subsector, including: i) extension; ii) research and development; iii) irrigation; iv) agricultural mechanization; v) formulation of agricultural plans and policies; vi) higher education in agriculture; vii) agricultural micro-credit and loans; viii) agricultural land reclamation; ix) land development and land reform; x) biodiversity; xi) land surveying and mapping; xii) and coordination with key concerned agencies.

The MoLF takes the leading role in the overall development of the livestock subsector, with the Livestock Breeding Veterinary Department (LBVD) as the executing arm. Important existing programmes are Highly Pathogenic Avian Influenza Control, Native Chicken Development, the Livestock Development Bank (chickens and pigs), Development of Mythum Breeding, Livestock Breeding Loans, Establishment of Livestock Zones, Vaccination of Chickens with I2 and AP (wing web), and Pasture Development. These programmes aim to expand the current level of livestock production to satisfy ever-increasing domestic demand and improve the nutritional status and quality of the food. Bee production is also under the responsibility of LBVD.

The Department of Fisheries (DoF), under the MoLF, is the lead national agency in policy development for fisheries in Myanmar. The DoF is the sole institution and competent authority responsible for the management and sustainable development of the fishery subsector. Its main function includes effective use of fishery resources, support for fish food

security, integration of fishery livelihoods for poverty alleviation, implementing research and extension activities and capacity building of all stakeholders.

The Ministry of Environmental Conservation and Forestry (MoECAF) is responsible for sustainable management of forest resources, national parks, wild life and plant conservation. The National Commission for Environmental Affairs was terminated and the MOECAF took its responsibilities to oversee and manage all matters related to the environment and climate change. The MoECAF is also the official Myanmar focal point for the Global Environment Facility (GEF).

The Ministry of Social Welfare, Relief and Resettlement handles affairs related to social services, protection, relief and rehabilitation including support for disadvantaged groups of people such as the disabled and elderly. The rural development sector is under the Ministry of Border Affairs.

The MoAI is the Myanmar focal point for FAO at the country level and coordinates line ministries on FAO-related matters. However the submission of project proposals to FAO and their prioritization are handled separately by each ministry.

The UN Country Team is coordinated by the UN Resident Coordinator in Myanmar. It has three UN Thematic Working Groups, of which FAO chairs the Thematic Working Group on Food Security and Agriculture. FAO also chairs the Regional Working Group on Agriculture and Food Security for the Northern Rakhine State.

At the time of Cyclone Nargis emergency relief and rehabilitation, FAO provided leadership in the Agriculture Cluster, helping to coordinate and provide technical guidance to the GoRUM, the UN agencies, donors and NGOs.

2.5 Collaboration with FAO and other development partners

FAO has a long history of cooperation with the GoRUM. FAO's field programme in Myanmar is grouped into three main categories: i) focused technical cooperation to address most pressing development issues, ii) emergency assistance to meet unexpected, urgent and immediate needs, and iii) direct support to poor farm families through an extra-budgetary Trust Fund (TF) as well as UNDP and Telefood grassroots-level micro-projects. FAO's country programme focuses in the technical areas of food production (crop, livestock, fishery), capacity building, environmental protection, poverty alleviation, and emergency.

FAO's projects in Myanmar consist of 12 national ongoing projects (4 Technical Cooperation Programmes [TCPs], 5 TFs and 3 Telefood Projects) with a total budget of US\$13.6 million. There are also 18 regional and interregional projects (7 TCPs and 11 TFs) with a total budget of US\$32.1 million. In addition, there are six emergency projects (US\$23.8 million) which are ongoing. Many projects support poverty alleviation, crop production, integrated pest management and environmental sustainability.

FAO devotes more than half of its resources to poverty alleviation (MDG 1) and about one fifth to environmental sustainability (MDG 7). This pattern of funding is likely to continue over the near term in Myanmar. FAO will explore the possibility of working with the major multilateral financial/funding institutions notably the World Bank (WB), the Asian Development Bank (ADB), the OPEC Fund for International Development (OFID), the European Union (EU) and the International Fund for Agricultural Development (IFAD) in

implementing investment projects in the agriculture sector as circumstances permit. FAO has displayed its important role as a complementary partner with other donor agencies, especially in enabling the policy and operational environment for the major donors to provide critical funding for infrastructure support to agricultural development.

Under normal circumstances, annual Overseas Development Assistance (ODA) received by Myanmar is insignificant, about US\$5.6 per capita in 2010. However, for 2009, Myanmar received a total sum, about US\$284 million to counter the devastation caused by Cyclone Nargis in May 2008; of that sum of US\$169.73 million was spent in FAO-related sectors. The major contributors of ODA in 2009 were the United Kingdom, the EU, Japan, Norway, Germany, Australia, Denmark, UNDP, Republic of Korea and Italy. The contributions made by international and local NGOs in the emergency and rehabilitation phases were quite significant.

According to the Economist Intelligence Unit report of June 2011, foreign direct investment (FDI) approvals have continued to pick up because of foreign interest in offshore gas fields and hydropower. Between April 2010 and January 2011, new FDI approvals totaled US\$19.4 billion, up from just US\$302 million in 2009/10. Of the US\$19.4 billion in approvals, US\$10.2 billion was in the oil and gas sector, with a further US\$8.2 billion in the power sector and US\$997 million in the mining sector. The bulk of new FDI approvals have come from China and Thailand. Outside of the oil and gas, mining and power sectors, the available industrial indicators point to a rather mixed performance in the first 10 months of 2010/11. For example, output (by state-owned firms) of bricks, plywood, cotton yarn and paper rose on a year-on-year basis, but the output of many other items declined, including cotton fabrics, sugar and paints.

2.6 Gaps and areas requiring priority attention

Crop subsector Sustained growth in crop production and off-farm incomes requires many forms of interventions, including the reform of the policy environment under which farmers currently operate. A new approach is needed to agricultural planning and development, including the full adoption of a market-oriented system and institutional reform of government services involved in the sector. To take full advantage of a liberalized crop production environment to significantly increase crop production and farm incomes, farmers need access to key production services, notably affordable seasonal credit; reliable supply of improved seed and planting materials; adequate supply of good quality farm inputs, fertilizers and sprays; opportunities to sell crops in open and competitive markets; and access to relevant technologies to improve farm incomes in a sustainable and resource-efficient manner under the climate change scenario.

Livestock subsector Control of diseases in animal populations is a key priority. This requires building of institutional capacity in terms of epidemiology and laboratory skills, as well as improved sector governance, for example collection of animal population data, and vaccination planning, production, and delivery including reliable cold chains. Community animal health workers (CAHWs) are at the frontline of vaccinating and treating animals, so support for development of CAHW networks is a high priority. Improved production through extension advice on breeds, feeding and management to smallholders is important, including not only farmers in mixed crop-livestock systems, but also to those farmers who have invested in small scale commercial farms in the pig, poultry and dairy sectors. Artificial insemination is a potential improvement in some sectors, and improved feeds and forages can also contribute to improved productivity. Improved industry development based on sound

supply chain studies should be conducted to more clearly define trends and potential improvements in inputs and service supplies or processing, marketing and trading systems that are responsive to domestic and regional demand for products.

Adequate regulatory measures for meat processing and government infrastructure for animal health testing are needed to increase exports. Insufficient FDI is constraining the development of the livestock processing industry. There is a need to support emerging commercial livestock production and processing industries for accessing the overseas market in a competitive manner.

Experience with Highly Pathogenic Avian Influenza and Porcine Respiratory and Reproductive Syndrome in pigs has shown that new diseases can emerge in the region and affect Myanmar. It is important that Myanmar remains closely engaged with regional initiatives on disease control in order to be able to prepare and respond when necessary. Also zoonotic diseases such as Rabies continue to pose a threat to human health and should be addressed.

An important priority in developing overall human resources is support to the University of Veterinary Science, Yezin. Support would be to improve its core mandate in training veterinarians but also to adapt the curriculum to changing demands of the livestock sector. Overall collaboration in the livestock sector between FAO and LBVD has been agreed to and is described in the Animal Health Priority Plan (2011-15).

Fisheries subsector Although this subsector is making remarkable progress, challenges remain. Most fishery commodities are exported in raw forms, which are processed by importers who add value and reap benefits. Upgrading traditional fisheries processing and preservation methods and market promotion are also critical for the effective utilization of fisheries resources.

Fisheries resources are used without considering sustainable production. Effective utilization of catches needs further development. There is a strong need for proper assessments of marine fisheries and river fisheries (e.g. the Ayeyarwady River). Governance of inland fishery concessions needs to be strengthened. The subsector needs to put in place appropriate regulations and quality and food safety standards, in particular those related to pre- and postharvest practices. Sustainable development of the fisheries sub-sector needs to address:

- Low prices of aquaculture products;
- A high percentage of small-size catches in capture fisheries;
- Limited preservation and processing techniques in small and medium enterprises;
- Ineffective utilization of low-valued trash fish in marine fishing;
- Insufficient awareness of product quality in the production chain;
- Insufficient fish supply in mountainous areas;
- Lack of complete fisheries data and statistical analysis.

Forestry subsector Population growth has increased the demands for forest and agricultural products. Consequently, unauthorized human interventions in the forms of shifting cultivation, agricultural expansion and overcutting/illegal logging have resulted in some forest depletion and degradation. The annual deforestation rate between 2000 and 2010 is estimated at 114 000 hectares according to FAO. Measures are being undertaken to reverse the current trend of deforestation.

The main issues faced by the forestry subsector, and which require priority attention, include:

- Encroachment of forest land for agriculture, infrastructure, factories and dwellings as population increases;
- Some illicit cutting of trees for commercial use;
- Extension of grazing land;
- Shifting cultivation;
- Excessive utilization of fuel wood.

III. PROPOSED COUNTRY PROGRAMMING FRAMEWORK

3.1 Priority outcomes for the next five years

A total of **seven priority outcomes** have been considered for FAO assistance in Myanmar for the next five years. These were identified through a series of analytical and consultative process that took into account the situation analysis, the ongoing Short-term Five Year Plan, achievements made so far under MDGs 1 and 7, and the ongoing FAO programmes in Myanmar. The joint technical and consultative meetings between various technical departments of the GoRUM and FAO were notably crucial for this process.

Outcome 1.	Increased agricultural production to enhance food security
Outcome 2.	Improved food safety and quality
Outcome 3.	Sustainable management of natural resources and the environment
Outcome 4.	Land use and land management
Outcome 5.	Human resource development and institutional capacity building
Outcome 6.	Rural livelihoods improvement
Outcome 7.	Preparedness for and mitigation of disasters and climate change

3.2 Priority outputs, projects and focussed activities

One of the important results of the process of identifying priority outcomes was also the process of identifying outputs, focused activities and possible projects under each priority outcome. At the same time, log-frames outlining the focused activities and possible projects were also prepared for each subsector. At the validation workshop in September 2012, the following list of 39 projects/activities were approved for the period 2012-2016 by representatives for each key subsector, notably crops, forestry, fisheries and livestock. The list of priority projects was then sent to the Food Security and Agriculture Thematic Working Group which consists of seven UN organizations and seven NGOs and donors.

Annex B summarizes the priority outcomes and outputs in a matrix form while **Annex C** presents focused activities as well as required resources. It is to be noted that these 39 activities have been prioritized for implementation as resources become available – thus, resource mobilization for these activities is in itself a high priority task. A CPF is a living document and so priorities would need to be adjusted to address emerging needs and challenges.

By way of summary, of the 39 projects/activities, 14 pertain to the crop subsector, 3 to livestock subsector, 7 to fisheries subsector, 9 to forestry subsector, 6 to cross-subsectors. Likewise, Table 2 provides a summary of the number of projects/activities and estimated resource needs for each of the seven priority outcomes, as detailed in **Annex C**.

Table 2: Summary of priority outcomes, activities/projects and estimated resource requirements

	Priority outcomes	Number of activities/projects	Estimated resource needs (US\$ million)
1.	Increased agricultural production to enhance food security	10	47.4
2.	Improved food safety and quality	2	14.0
3.	Sustainable management of natural resources and the environment	6	24.7
4.	Land use and land management	3	9.0
5.	Human resource development and institutional capacity building	5	11.0
6.	Rural livelihoods improvement	5	6.4
7.	Preparedness for disaster and climate change	8	7.3
	Total	39	119.8
8. V	Various cross-cutting areas	6	Not budgeted

Source: Based on Annex C.

Outcome 1. Increased agricultural production to enhance food security

- 1.1 Conducting an agriculture census covering crop, livestock, fisheries and related sectors
- 1.2 Market information and policy support (MIPS)
- 1.3 Capacity building for Hybrid Rice Production
- 1.4 Enhancing land consolidation and sustainable farm mechanization through establishment of model villages
- 1.5 Enhancing sustainable improvement in household food production and nutritional status through crop diversification, irrigation and income generating activities
- 1.6 Formulating policy and action plan for development of small holder dairy sub-sector
- 1.7 Reducing mortality and morbidity in village-based and small holder commercial herds
- 1.8 Develop seed supplies and hatcheries for groupers, sea bass, mud-crab through the provision of hatchery technologies
- 1.9 Development of studies on genetic management and improvement of brood stock of farmed Rohu (*Labeo rohita*)
- 1.10 Development of cold water species aquaculture in hilly regions

Outcome 2. Improved food safety and quality

2.1 Enhancing food safety and quality improvement of food products

2.2 Strengthening disease control systems which support, farm- and village-level services

Outcome 3. Sustainable management of natural resources and the environment

- 3.1 Improving food security & sustainable livelihoods through conservation & use of indigenous horticulture in Central Dry Zone
- 3.2 Strengthening of forest resource database management
- 3.3 Development of community-based coastal fisheries management and concomitant capacity building
- 3.4 Strengthening Integrated Pest and Disease Management
- 3.5 Conducting fisheries conservation & management studies through ecosystem appraisals & exploratory fishing
- 3.6 Strengthening of community forestry in degraded forests

Outcome 4. Land use and Land Management

- 4.1 Formulating policy and regulatory framework for land use
- 4.2 Efficient and sustainable land use planning
- 4.3 Completing land tenure registration process

Outcome 5. Human resource development and institutional capacity building

- 5.1 Improving National Actionable Programme for Poverty Alleviation
- 5.2 Strengthening the human resource and institutional capacity of Yezin Agriculture University (YAU), Department of Agricultural Research (DAR) and Rural Credit Institution
- 5.3 Forming of water user association and practicing of participatory irrigation management
- 5.4 Improving undergraduate training in veterinary science, upgrading in-service education, and strengthening the capacity in R&D of the Fishery Training Centre in Yangon
- 5.5 Enhancing of the capacity of the staff of MoCAF and University of Forestry

Outcome 6. Rural livelihoods improvement

- 6.1 Sustainable sericulture enterprise for subtropical mountainous areas
- 6.2 Development of small and medium enterprise aquaculture, including processing methods in rural areas

- 6.3 Development of forest dwellers' rural livelihood
- 6.4 Development of rural non-farm economy, including through cottage and agro-based industry
- 6.5 Rural electrification using hydro turbine generators installing in potential irrigation facilities

Outcome 7. Preparedness for and mitigation of disasters and climate change

- 7.1 Preparation of a hazard map and enhancing community food and agriculture service system
- 7.2 Community based rehabilitation of mangrove forests
- 7.3 Strengthening rehabilitation of degraded forests in the Central Dry Zone (CDZ)
- 7.4 Development of innovative & resilient dry land farming systems
- 7.5 Strengthening afforestation under the CDM/REDD³ mechanisms
- 7.6 Assessment of the environmental quality status in major cities
- 7.7 Development of measures for controlling rapid spread of plant and livestock diseases
- 7.8 Introduction of salinity and temperature tolerant species for aquaculture

Cross-cutting areas

In addition, FAO will support capacity development in the following areas, through workshops, forums and hands-on trainings.

- 1. Strategy/action plan formulation
- 2. Policy analysis
- 3. Project formulation, evaluation and monitoring
- 4. Institutional capacity building
- 5. Partnership/network building
- 6. Mainstreaming gender in agriculture

IV. CPF RESOURCE REQUIREMENTS

Programmes and focused activities for the implementation of the CPF are identified, based on mutual consultation among GoRUM, FAO and development partners with estimated financial resources, as indicated in **Annex C**. The total resource estimate for the 39 prioritized focused activities/projects for the current CPF is US\$119.8 million. Mobilizing resources for these activities remains a top priority. A CPF is a living document and so priorities would need to be adjusted to address emerging needs and challenges, and unforeseen circumstances, during the implementation stage.

-

³ Reducing Emission from Deforestation and Forest Degradation (UN collaborative programme).

As with ongoing activities, resources will come from three sources: FAO, GoRUM and development partners. FAO's own resources are from TCP and TCP Facility (TCPF). A TCP can finance up to US\$500,000 per project, and TCPF has a total of US\$200,000 per biennium to support small projects for the formulation of project proposals, carry out assessments, studies, and other priority interventions. Contribution by GoRUM will lead to higher outputs and expanded outcomes for CPF. Priority areas of CPF are expected to be incorporated in the GoRUM work plan for implementation under cooperation of and in partnership with FAO. Other sources include Trust Funds from external donors, IFIs and Global Environmental Facility (GEF).

FAO and the GoRUM will work together to mobilize resources for the prioritized activities. This will include working with the major multilateral financial/funding institutions such as the Asian Development Bank (ADB), World Bank (WB), the OPEC Fund for International Development (OFID), and the International Fund for Agricultural Development (IFAD) and bilateral development partners. FAO has displayed its important role as a complementary partner with other donor agencies, especially in enabling the policy and operational environment for the major donors to provide critical funding for infrastructure support to agricultural development.

V. IMPLEMENTATION, MONITORING AND EVALUATION

5.1 Implementation, including monitoring and evaluation, and coordination

The CPF is co-owned by the GoRUM and FAO and the coordination and implementation mechanism is established based on this basic principle. In order to effectively implement the CPF, a national-level *CPF Steering Committee* (CPF-SC) and *CPF Technical Sub-committee* (CPF-TC) will be formed right after the endorsement of the CPF document. The CPF-SC will be comprised of Director Generals of concerned ministries including Ministry of Finance and chaired by Minister/Deputy Minister of National Planning and Economic Development (MNEDP) and the FAO representative. The CPF-TC will involve senior technical officials in relevant subject matters from all institutions under the line ministries and project personnel from concerned ministries. The CPF-TC is the coordinating and monitoring body of the implementation of the priority projects.

Soon after the CPF document is signed by the GoRUM and FAO, a donor briefing meeting will be organized to present CPF and seek donor funding.

Monitoring and evaluation of the CPF implementation will be carried out through regular meetings of the CPF Committees. The CPF-TC would meet at least twice a year while the CPF-SC would meet once a year. *Ad hoc* committee meetings will be held as and when needed. The CPF-TC will prepare brief reports on its meetings while a more detailed report will be prepared on an annual basis. These reports will be submitted to the CPF-SC for clearance and endorsement, and used as the basis for the annual *CPF Implementation Review Workshop*.

5.2 Short-term Implementation Plan

A Short–term Implementation Plan is prepared and attached to CPF document (**Annex D**). This plan will be used to accelerate the implementation of CPF. The MNPED will

coordinate the implementation of CPF Short Term Implementation Plan in close consultation with line ministries through periodic meetings of the CPF-SC. During the implementation of the CPF, the Government may seek technical support from FAO. The implementation plan for the next 15 months is attached as **Annex D**.

VI. CONCLUSION

Blessed with rich endowments of agricultural, natural and human resources, Myanmar holds immense potentials to develop a vibrant agricultural economy that will not only minimize the incidences of poverty and hunger but will also contribute to transforming the overall economy. Indeed, with agricultural growth, Myanmar also stands to contribute to the regional food security.

The Government has been according increasingly high priority to agricultural development. Not only in investments in rural and agricultural infrastructures, this is also evident in recent policy reforms. The focus of the latest *National Strategy on Rural Development and Poverty Alleviation*, launched in November 2011, is largely on agricultural sub-sectors, rural economy and resource conservation.

The CPF has been formulated with these evolving trends and opportunities in mind. Although it is primary designed as a framework for collaboration between the Government and FAO, its usefulness goes much beyond that. It is also a document that identifies priority areas for support to the agricultural sector in general, and so it should also be equally useful for all development partners working in the agricultural and rural sub-sectors. FAO welcomes collaboration with other UN agencies and partner agencies including international and local NGOs in implementing the CPF.

Annex A: List of National and Regional On-going Projects in Myanmar

Sr. No.	Project Symbol	Project Title	Actual NTE	Total Budget (DWH)
1.	TCP/MYA/3301	Planning for the 2010 Myanmar census of agriculture (MCA 2010)	2012-12-31	\$436,000
2.	TCP/MYA/3302	Food security through the strengthening of the institutional capacity for seed production	2013-01-22	\$385,000
3.	TCP/MYA/3401	Capacity building to improve market access for fish and fishery products	2013-11-30	\$298,000
4.	TCP/MYA/3402	TCP Facility	2013-12-31	\$213,072
5.	TCP/RAS/3202	Poverty reduction and biofuels in the Greater Mekong Subregion region	2011-07-31	\$352,237
6.	TCP/RAS/3207	TCP Facility	2010-11-11	\$218,934
7.	TCP/RAS/3309	Enhancing milk consumption and livelihoods through school milk programmes linked to smallholder dairy operations	2013-09-30	\$490,000
8.	TCP/RAS/3310	Capacity Development to Reduce Post- harvest Losses in Horticultural Chains in GMS Countries	2013-07-31	\$451,000
9.	TCP/RAS/3311	Capacity Building for Spread Prevention and Management of Cassava Pink Mealybug in the Greater Mekong Subregion	2012-12-31	\$491,000
10.	TCP/RAS/3402	Bioenergy and food security in ASEAN	2014-03-31	\$488,000
11.	TCP/RAS/3403	TCP Facility (ASEAN+)	2013-12-31	\$119,974
12.	GCP /RAS/236/GFF	Sustainable Management of the Bay of Bengal Large Marine Ecosystem (BOBLME) - FULL SIZE PROJECT	2014-03-31	\$12,082,100
13.	MTF/RAS/231/CFC	Organic Aquaculture in Myanmar, Thailand and Malaysia	2011-03-31	\$45,000
14.	MTF /RAS/242/CFC	Production of Certified Fruit and Vegetables for Export from Lao PDR and Myanmar through Integrated Supply Chain	2012 07 14	¢1 664 967
15.	MTF /RAS/259/CFC	Management Smallholder Dairy Development in Bangladesh, Myanmar and Thailand (SDDP): Improving the Bargaining Power and Sustainable Livelihood of Smallholder Dairy Farmers, through the Enhancement of Productivity and Market Access in Dairy. (CFC/FIGMDP/19)	2013-07-14	\$1,664,867 \$1,999,778
16.	OSRO/MYA/102/CHA	Enhancing Food and Nutritional Security Through Crop Production in NRS, Myanmar	2012-06-30	\$380,000
17.	OSRO/MYA/702/USA	Immediate Technical Assistance to Strengthen Emergency Preparedness for Highly Pathogenic Avian Influenza (HPAI) (Grant N. GHA-G-00-06-00001)	2012-09-30	\$2,054,000
18.	OSRO/RAS/102/EC	Integrated Food Security Phase Classification (IPC) in Asia: Special Focus to Strengthen IPC Capacity in Four Countries	2012-12-31	\$1,679,584

List of National and Regional On-going Projects in Myanmar (Annex A continued)

Sr. No.	Project Symbol	Project Title	Actual NTE	Available Budget
19.	OSRO/RAS/604/USA	Immediate technical assistance to strengthen		
	BABY05	emergency preparedness for Highly Pathogenic		
		Avian Influenza (HPAI) (Regional Activities)	2012-09-30	\$6,197,179
20.	OSRO/RAS/701/USA	Strengthening cross border activities among		
		Bangladesh, India, Nepal and Myanmar to		
		control possible cross-border spread of HPAI	2011-09-30	\$2,000,000
21.	OSRO/RAS/901/EC	Improvement of regional capacities for the		
		prevention, control and eradication of highly		
		pathogenic and emerging diseases (HPED)		
		including HPAI in ASEAN and SAARC	2012 12 15	Φ11 52 4 100
	CCD A TIME 10.50 TELA	countries	2013-12-15	\$11,524,190
22.	GCPA/INT/052/ITA	Mr Orani, Marco, Associate Professional		
		Officer, Programme Officer (Agricultural	2012 00 20	¢201 12 <i>C</i>
22	CCD /INIT/052/IDNI	Economist)	2013-09-30	\$301,136
23.	GCP /INT/053/JPN	Intra-African Training and Dissemination of		
		Technical know-how for Sustainable Agriculture		
		and Rural Development with Africa-ASEAN Country Cooperation within the Framework of		
		South-south Cooperation	2013-11-30	\$6,293,651
24.	GCP /MYA/010/ITA	Sustainable small-scale fisheries and aquaculture	2013 11 30	ψ0,273,031
۵¬۰.	GCI /WIIIVOIO/IIII	livelihoods in coastal mangrove ecosystems.	2013-03-31	\$1,249,999
25.	GCP/MYA/011/ITA	Support to Special Rice Production	2012-12-31	\$1,250,000
26.	GCP /MYA/012/ITA	Immediate Rehabilitation of Farming, Coastal	2012 12 01	ψ1 ,200,000
20.	GC1 / W1111 / 012/1111	Fisheries and Aquaculture Livelihoods in the		
		Cyclone Nargis Affected Areas.	2013-03-31	\$2,785,517
27.	GCP /RAS/217/IFA	Enhancing Agricultural Competitiveness of		. , ,
		Rural Households in the Greater Mekong Sub-		
		Region	2012-09-30	\$609,000
28.	GCP /RAS/247/EC	Support to the EC Programme on Linking		
		Information and Decision Making to Improve		
		Food Security for Selected Greater Mekong		
		Sub-regional Countries	2012-09-30	\$2,683,461
29.	GCP /RAS/249/IFA	Medium-term cooperation Programme with		
		Farmers Organizations in Asia and the Pacific Region	2012-12-31	\$1,083,000
30.	GCP /RAS/280/JPN	Support to Capacity Building and		
		Implementation of International Food Safety		
		Standards in ASEAN Countries	2016-12-07	\$2,297,075
31.	GCP/RAS/284/JPN	Enhancing Understanding and implementation		
		of the International Treaty on Plant Genetic	2017.07.11	4.27 000
	1771777 A 471 101 1 477 10	Resources for Food and Agriculture in Asia	2015-07-11	\$435,000
32.	UNJP/MYA/014/UNO	Enhancement of Human Security for the Muslim		
		Resident Population and other vulnerable		
		persons in northern Rakhine State, Myanmar -	2012 12 21	¢774 020
22	LITE /MX/ A /OOC/MX/ A	HCR-AS-09-077	2012-12-31	\$774,038
33.	UTF/MYA/006/MYA	Oil Crops Developement Project (OPEC Fund)	2012-12-31	\$6,239,263
34.	TFD-10/MYA/001	Enhancing Income through Layer Duck rearing	2012 05 14	¢1 000
25	TFD-10/MYA/002	for Nargis Affected Farmers in Bogalay Township	2013-05-14	\$1,000
35.	11'D-10/1911 A/002	Support for improvement of crops, small livestock and fish production for small farmers		
		and landless households	2013-03-30	\$9,880
36.	TFD-10/MYA/003	Support for improvement of crops, small	2013-03-30	\$7,000
50.	11 D-10/1911 17/003	livestock and fish production for small farmers		
		and landless households	2013-04-30	\$9,980
		Total:	2013 01 30	\$69,591,915
		I VIIII		Ψυν,υν1,ν10

Annex B: Priority Outcomes and Outputs

Priority Outcomes	1. Increased agricultural production to ensure food security	2. Improved food safety and quality	3. Sustainable management of natural resources and the environment	4. Land use and Land Management	5. Human resource development and institutional capacity building	6. Rural livelihood improvement	7. Preparedness for and Mitigation of disasters and climate change
			Pric	ority Outputs			
	Conducting an agriculture census covering crop, livestock, fisheries and related sectors	Enhancing food safety and quality improvement of food products	Improving food security and sustainable livelihoods through on-farm participatory conservation and use of indigenous vegetables, fruit trees and minor grain legumes in the Central Dry Zone	Formulating policy and regulatory framework for land use	Improving National Actionable Programme for Poverty Alleviation	Sustainable sericulture enterprise for subtropical mountainous areas	Preparation of a hazard map and enhancing community food and agriculture service system
	Market information and policy support project (MIPS)	Strengthening the disease control systems which support, coordinate and target farm-and village-level services.	Strengthening of forest resources development and database management in Myanmar	Efficient and Sustainable land-use planning	Strengthening the human resource and institutional capacity of Yezin Agriculture University (YAU), Department of Agricultural Research (DAR) and Rural Credit Institutions	Development of small and medium enterprise aquaculture including processing methods in rural areas.	Community based rehabilitation of mangrove forests
	Capacity building for Hybrid Rice Production		Development of community based coastal fishery management and concomitant capacity building	Completing land tenure registration process	Forming of water user association and practicing of participatory irrigation management	development of forest dwellers' rural livelihood	Strengthening of restoration degraded forests in the Central Dry Zone
	Enhancing land consolidation and sustainable farm mechanization through establishment of model villages		Integrated Pest and Disease Management		Improving undergraduate training in veterinary science, upgrading in-service education, and strengthening the capacity in R&D of the Fishery Training Centre in Yangon	Development of rural non-farm economy, including through cottage and agro- based industry	Development of innovative and resilient dry land forming systems by exploiting appropriate production technologies and crop varieties

Priority Outcomes and Outputs (continued)

Priority Outcomes	1. Increased agricultural production to ensure food security	2. Improved food safety and quality	3. Sustainable management of natural resources and the environment	4. Land use and Land Management	5. Human resource development and institutional capacity building	6. Rural livelihood improvement	7. Preparedness for and Mitigation of disasters and climate change
			Prio	ority Outputs			
	Enhancing sustainable improvement in household food production and nutritional status through crop diversification, irrigation and income generating activities		Fisheries conservation and management studies through ecosystem appraisals and exploratory fishing		Enhancing of the capacity of the staff of MoCAF and University of Forestry	Rural electrification using hydro turbine generators installing in potential irrigation facilities	Strengthening afforestation under the CDM/REDD mechanisms
	Formulating policy and action plan for development of small holder dairy subsector		Strengthening of community forestry in degraded forests				Assessment of the environmental quality status in major cities
	Reduce mortality and morbidity in village-based and small holder commercial herds that limit productivity and decrease livelihood of farmers						Development of measures for controlling rapid spread of plant and livestock diseases
	Develop seed supplies and hatcheries for groupers, sea bass, mud-crab through the provision of hatchery technologies, including disease control						Introduction of salinity and temperature tolerant species for aquaculture
	Development study and genetic management and improvement of brood stock of farmed Rohu (Lobea rohita)						
	Development of cold water species aquaculture in hilly regions						

Annex C: Matrix of Major Priority Outputs, Focused Activities and Resources

Major Priorities Output	Focused Activities	Responsible Ministry/Dept.	Resources Committed	Additional Resources Required	Total Resources Planned	Source of Funding*
1. Increased agriculture production to ensure food security						
1.1 Conducting an agriculture census covering crop, livestock, fisheries and related sectors	 Census processing and analysis Census report publication and dissemination Preparation of a Medium Term Agricultural Statistics Development Programme (MTASDP) Associated capacity building 	SLRD/MoAI	-	3.5 Million	-	TCP/GCP
1.2 Market information and policy support project (MIPS)	 MOAI's contribution to agricultural policy reform is enhanced through the development of staff capacities and improvements in policy analysis and advice Farmers' capacity to take advantage of market transactions and new opportunities is increased through improved access to market information and intelligence 	DAP/MoAI	-	3.5 Million	-	GCP
1.3 Capacity building for Hybrid Rice Production	 Capacity building of staff Technology development Lab and research facilities Seed processing Extension Demonstration 	DoA/MoAI	-	0.5 Million	-	ТСР

1.4 Enhancing land consolidation and sustainable farm mechanization through establishment of model villages	 Land leveling and plotting Procurement of construction machineries and farm machineries Construction of Farm roads, irrigation and drainage canals and structures Farmer trainings Need assessment for scaling up farm mechanization in rice-based farming system with special emphasis on increasing crop diversification Participatory planning for generating suitable production technology from sowing to post harvest handling adapted to farm mechanization Increasing partnership with NGOs, CBO, regional and global organizations related to farm mechanization 	AMD/ID/MoAI	-	10.6 Million	-	TCP/GCP
1.5 Enhancing sustainable improvement in household food production and nutritional status through crop diversification, irrigation and income generating activities	 Selecting the most suitable and promising crop varieties for specific agro-ecological zones Identification of best technological practices Rehabilitation of small-scale irrigation schemes Improve procedure for the selection of beneficiary and project site for construction/ rehabilitation in line with the project objectives Provide designs and construction/ rehabilitation procedures for small scale irrigation facilities (e.g. reservoirs, small tanks, ponds, channels) with proper protection against erosion Disseminate the knowledge of on-farm level water management practice with aspect of efficient and effective water 	MAS/ ID/DICD/ /MoAI	-	8.2 Million	1	GCP

1.6 Formulating policy and action plan for development of small holder dairy sub-sector	utilization practice and induce the farmers' participation in water management Evaluation of supply chain management and market mechanisms of industrial crops in Myanmar Formulation of policy and action plan Varietal improvement of dairy cattle Health care for dairy cattle Establishment of small-scale dairy processing plants Pasture development	LBVD/MoLF	-	10Million	-	TCP/GCP
1.7 Reduce mortality and morbidity in village-based and small holder commercial herds that limit productivity and decrease livelihood of farmers	 Baseline of existing annual health services to small holders Develop appropriate policies and regulations for the establishment and sustainability Upgrading of existing CAHWs and township LBVD staff, training of new CAHWs Strengthening ongoing management of animal health services Small Scale Dairy and Beef Development Provision of inputs to increase royal jelly production on commercial scale Capacity building on commercial royal jelly production for private bee-keepers Enhancing royal jelly production in terms of quantity and quality Royal jelly processing/marketing Empowerment of rural community through improved access to the Government services 	LBVD/MoLF		0.3 Million	-	TCP

1.8 Develop seed supplies and hatcheries for groupers, sea bass, mud-crab through the provision of hatchery technologies, including disease control	 Development of hatchery technology, including disease prevention and control Development of larval nutrition and feeds and water quantity management for a variety of species, particularly marine finfish through basic and applied research and testing in pilot scale Developing conversation measures and regulations to ensure sustained supply of brood stock and spawns 	DoF/MoLF	-	1.8 Million	-	TCP/GCP
1.9 Development study and genetic management and improvement of brood stock of farmed Rohu (<i>Lobea rohita</i>)	 Selection of brood stock Producing good quality fingerling which will lead to increased production and profit in aquaculture Producing better health and high disease resistance fish which will further reduce the use of medicine and will contribute to improved quality for export Selecting of better food conversation ratio which will reduce cost of feed Reducing culture period and quick economic return 	DoF/MoLF	-	1.0 Million	-	TCP/GCP
1.10 Development of cold water species aquaculture in hilly regions	 Learning technical know-how on cold water fish farming from some BIMSTEC member countries such as Nepal and Bhutan Introducing cold water fish farming in some appropriate rears and hilly region in pilot scale Implementing backyard hatchery on this kind of fish species and restocking fingerlings to natural waters for sustainable fisheries in those areas Improving food security, livelihood, self sufficiency in rural community through expansion of fish culture in those areas 	DoF/MoLF	-	8.0 Million	-	TCP/GCP

2. Improved food safety and quality						
2.1 Enhancing food safety and quality improvement of food products	 Developing food safety and quality improvement policy framework with special emphasis on food crops Developing agricultural practices for stable and non-staple crops Short term in-country and overseas training for SPS; improvement of safety and quality standard as well as traceability system Strengthening sanitary and phytosanitary laboratory Capacity building for developing SPS measures Enhancing Good Agricultural Practice (GAP) and Good Manufacturing Practice (GMP) for major crops and industrial crops 	MAS/DICD /MoAI /MoLF	-	1.5Million 7.5Million	-	TCP GCP
2.2 Strengthening the disease control systems which support, coordinate and target farm-and village-level services.	 Annual disease risk analysis Farm and supply chain bio security improvement Epidemiology studies Zoonosis and emerging diseases Strengthening laboratory capacity Strengthening epidemiology capacity Improvement of data and information management in LBVD 	LBVD/MoLF	-	5.0 Million	_	GCP
3. Sustainable management of natural resources and the environment						
3.1 Improving food security and sustainable livelihoods through onfarm participatory conservation and use of indigenous vegetables, fruit trees and minor grain legumes in the Central Dry Zone	 Assessment of existing agro-biodiversity and stock taking, making inventory of underutilized, lesser known plant species and indigenous vegetables in different ecological zones for alternative and sustainable food-fiber-fuel system Establishment of community gene bank 	MAS/MoAI	-	0.8 Million 2.0 Million	- -	TCP GCP

	 Establishment of model diversity villages and diversity fair for promoting agro-tourism Promoting supply chain and market for indigenous vegetables Bio-prospecting the indigenous crops for possible medicinal and dietary value 					
3.2 Strengthening of forest resources development and database management in Myanmar	 Strengthening of protected areas system (PAS) Strengthening watershed and local supply plantations Development of forest resources and staff database management system Enhancement of the capacity of the staff engaged in database management system Provision of high tech instrument to facilitate development of database and generation of reports Establishment of an efficient intranet system within the Ministry of Environmental Conservation and Forestry Establishment of an efficient internet system with other line ministries and stakeholders 	FD/MoECAF	-	2.0 Million 5.0 Million	-	TCP GCP
3.3 Development of community based coastal fishery management and concomitant capacity building	 Information/data needs analysis Ecosystem analysis Fisher-folk community analysis Identification of critical parameters Development of methodologies Testing of methodologies in pilot scale Training of staff Demonstration of result 	DoF/MoLF	-	1.0 Million	-	ТСР
3.4 Integrated Pest and Disease Management	Review on existing technical standard of package technology on integrated pest	DICD, MAS, DAR/MoAI	-	0.4 Million	-	ТСР

	 and disease management Technical backstopping Conducting demonstration for integrated pest management in rice and other crops Promoting use of botanical pesticide Strengthening innovative research for integrated pest management and extension Conducting demonstration for integrated pest management in rice and other major crops, and industrial crops 				
3.5 Fisheries conservation and management studies through ecosystem appraisals and exploratory fishing	 Pre-employment and post-deployment fisheries conservation and management measures Development of data collection quick-line Development of appropriate methodologies for assessment of biological impacts and cost effectiveness of such measures Testing of methodologies Continue the fisheries co-management but expand to other village tracts Support to the Disaster Risk Management Revision and improving of law and regulations Capacity building activities for fisheries staff from Delta region Develop co-management plan in lease fisheries and tender fisheries areas Establishment of conservation (protected areas) Focus on specific post-harvest product improvements Infrastructure support to specific links in the marketing chain 	DoF	-	8.0 Million	TCP/GCP

	 Concerted assessment of potential for introduction alternative/ supplementary livelihood opportunities Streamlining and computerizing the licensing system 					
3.6 Strengthening of community forestry in degraded forests	 Promotion of community forestry through agro forestry Improvement of the situation of watershed Development of livelihood options Development sustainable biomass and biogas energy 	FD/MoECAF	-	0.5Million 5.0Million	-	TCP GCP
4. Land use and Land Management						
4.1 Formulating policy and regulatory framework for land use	Land use change detectionLand property rightForest encroachment analysis	MoCAF	-	0.5Million 2Million	-	TCP GCP
4.2 Efficient and Sustainable land-use planning	 Reviewing existing land-use practices Developing appropriate land-use policy Problem identification and proper technique for amelioration of soil structure Site specific nutrient management for different location Upgrading GIS technology for land use planning Water management for important crops 	SLRD/MAS /MoAI	-	1.0 Million	-	TCP
4.3 Completing land tenure registration process	 Review of current registration process Modernization of ICT facilities Development of registration system Capacity building of staff Monitoring and evaluation Research and Development Field studies Integration with other information 	SLRD/MoAI	-	0.5Million 5Million	-	TCP GCP

	systems					
5. Human resource development and institutional capacity building						
5.1 Improving National Actionable Programme for Poverty Alleviation	 Need assessment of poverty reduction Improvement of national action plan for poverty reduction Study on poverty reduction through agricultural development Monitoring and evaluation Human resources development Enhancement of institutional capacity 	MoAI, MoLF, MoCAF	-	3Million	-	TCP/GCP
5.2 Strengthening the human resource and institutional capacity of Yezin Agriculture University (YAU), Department of Agricultural Research (DAR) and Rural Credit Institution	 Need assessment for upgrading of Yezin Agriculture University, Department of Agricultural Research and rural credit institutions Need based strengthening of the institutions Scaling up post graduate curriculum and thesis research Development of YAU outreach campuses Promoting role of YAU and DAR in participation of national agriculture research and extension system Development of rural credit institutions 	YAU, DAR, MAS/MoAI	-	0.5Million 1.0Million	-	TCP GCP
5.3 Forming of water user associations and practicing of participatory irrigation management	 Farmer trainings Establish farmers' water user groups and associations Micro-finance for rehabilitation works Rehabilitation of on-farm irrigation facilities Monitoring and Evaluation 	ID/MoAI	-	0.5Million	-	ТСР
5.4 Improving undergraduate training in veterinary science, upgrading inservice education, and strengthening	Active improvement of University of Veterinary Science (UVS) actors in LBVD field programmes, and	LBVD, UVS, DoF/MoLF	-	0.5Million	-	ТСР

the capacity in R&D of the Fishery Training Centre in Yangon	 international scientific visits Contribute to improvement of curriculum design and delivery in undergraduate and graduate courses International postgraduate training and higher degree for UVS actors and LBVD staff Diploma and short course in-service 					
	training for LBVD staff, including subject matter specialist training and field epidemiology training for veterinarians • Poultry health certificate training to private veterinarians • Upgrading of the Fishery Training Centre					
5.5 Enhancing of the capacity of the staff of MoCAF and University of Forestry	 Development of a human resource development plan Strengthening of academic institutions with revised curriculums, development of its out-reach campuses Enhancing of the capacity of the faculty of the University of Forestry, promoting post-graduate research program, Provision of the state-of –the-art technology 	MoCAF	-	0.5Million 5.0Million	-	TCP GCP
6. Rural livelihood improvement						
6.1 Sustainable sericulture enterprise for subtropical mountainous areas	 Need assessment for developing existing sericulture Rural extension for silk worm raring and processing Establishment of mulberry plantation for leaves production and other by-products Institutional strengthening for sericulture research and development Maximizing synergism among and between public, private, NGOs and CBO Adopting one-village one-product model 	DICD/MoAI	-	0.5Million 1.0Million	-	TCP GCP

6.2 Development of small and medium enterprise aquaculture including processing methods in rural areas.	 Conducting short term training for small and medium aquaculture Conducting short term training for fish handling and processing Conducting short term training for fish handling and processing 	DoF/MoLF	-	0.5Million	-	TCP/GCP
6.3 development of forest dwellers' rural livelihood	 extension activities for local rural people Capacity building of forest dwellers and staff 	DoF/MoCAF	-	1.0Million 0.4Million	-	GCP TCP
6.4 Development of rural non-farm economy, including through cottage and agro-based industry	 Formulation of development plan of rural cottage industries Improvement of access to credit Technology transfer Monitoring and evaluation 	MoAI, MoLF, MoCAF	-	2Million	-	TCP
6.5 Rural electrification using hydro turbine generators installing in potential irrigation facilities	 Establish rural electricity committee Mini-hydropower designing Procurement of mini-hydropower turbines and accessories Construction of mini-hydropower plants in irrigation canals drop structures Linings of electricity distribution Monitoring and Evaluation 	ID/MoAI	-	1Million	-	TCP
7. Preparedness for and Mitigation of disasters and climate change						
7.1 Preparation of a hazard map and enhancing community food and agriculture service system	 Reviewing current mechanism and institutional strength for ensuring food security at time of crisis Conducting survey for disaster prone areas throughout Myanmar Establishing model community food and agriculture service system in disaster prone areas. 	MAS/MoAI	-	0.4Million	-	TCP
7.2 Community based rehabilitation of mangrove forests	Rehabilitation of mangrove forest	FD/MoECAF	-	0.5Million 0.5Million	-	TCP GCP

7.3 Strengthening of restoration degraded forests in the Central Dry Zone	 Rehabilitation of degraded forests in the Central Dry Zone Restoration of degraded forests in the Central Dry Zone Assessment of and combating desertification in Dry Zone clean water, drinking water supply, rain water storage and fuel wood substitution activities 	DZGD /MoECAF	-	0.5Million 1.0Million	-	TCP GCP
7.4 Development of innovative and resilient dry land forming systems by exploiting appropriate production technologies and crop varieties	 Reviewing current undertaking for innovative dry land farming system Conducting participatory rural appraisal for developing management practices for efficient soil moisture conservation and utilization through innovative management Conducting participatory research and demonstration cum trial of conservation tillage, inter-cultivation, appropriate cropping system, application of soil & crop mulch for soil moisture conservation, crop residue management Strengthening drought resistant crop varietal improvement program and genetic resources utilization in couple with capacity building and institutional strengthening Scaling up the development of site specific crop production technology exploiting genotype x environment, production technology 	DICD, DAR, MAS/MoAI	-	0.5Million 2.5Million	-	TCP GCP
7.5 Strengthening afforestation under the CDM/REDD mechanisms	 Promotion of afforestation /reforestation CDM/REDD+ Raising awareness about the environmental conservation 	FD/MoECAF				

7.6 Assessment of the environmental quality status in major cities	 Investigation of environmental quality status in major cities pollution control EIA activities GHS inventory 	MoECAF	-	0.4Million 1Million	-	TCP GCP
7.7 Development of measures for controlling rapid spread of plant and livestock diseases	 Surveillance and risk assessment Undertaking preventive activities Formulation of Emergency Guidelines and Standards Strengthening laboratory capacity Improving farming practices (GAP, GAHP) Human resources development Raising public awareness 	MoAI, MoLF	-	3 Million	-	TCP/GCP
7.8 Introduction of salinity and temperature tolerant species for aquaculture	 Surveillance on climate change Research on local and foreign tolerant species Upgrading of research facilities Building institutional capacity Introducing salinity and temperature tolerant species in pilot scale Commercialization of tolerant species for aquaculture 	MoF/MoLF	-	2 Million	-	TCP/GCP
Cross cutting areas: FAO will provide capacity development supports in the following areas across the subsectors. These supports can be provided through workshops, forums and hands-on training. 1. Strategy/ action plan formulation 2. Policy analysis 3. Project formulation, evaluation and monitoring 4. Institutional capacity building 5. Partnership network building 6. Mainstreaming Gender in agriculture						

^{*} Subject to technical clearance and fund availability

Annex D: Short-Term Implementation Plan (Oct 2012-Dec 2013)

Sr.				2012							20	13					
No.	Activities	Responsible Agencies	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12
1.	First meeting of National CPF Steering Committee and prioritization of project/programs and focused activities for 2013-14	CPFSC (CPF Steering Committee) and TC (Technical Committee)	X														
2.	Submission of CPF prioritised areas to GoRUM Planning Commission for endorsement and budget allocation	CPFSC		X													
3.	Formulation of concept notes for prioritized projects and programs	Line Ministries and/or external stakeholders and TC			X	X											
4.	Submission of concept notes to GoRUM for consideration and holding workshop on for fund mobilization for CPF implementation with donors /development partners	CPFSC, FAOMM All stakeholders					X	X									
5.	Implementation of 2013-14 program	тс							X	X	X	X	X	X	X	X	X
6.	Review of CPF implementation and preparation of the progress report	CPFSC and TC														X	
7.	CPF implementation review workshop and clearance on annual CPF report and 2014-15 priority program and focused activities	GoRUM, FAOMM and/or external stakeholders															X