

SECTOR ASSESSMENT (SUMMARY): AGRICULTURE AND NATURAL RESOURCES

I. Sector Performance, Problems, and Opportunities

1. Myanmar, geographically and in population, is one of the largest countries in Southeast Asia, strategically located, between Bangladesh and India to the east and the Peoples' Republic of China (PRC), the Lao People's Democratic Republic (Lao PDR) and Thailand to the west. Myanmar is endowed with substantial arable land, valuable forest reserves, and considerable water and marine resources. Geographically the country may be divided roughly into five major topographic and climatic zones: the Mountainous Region, the Shan Plateau, the Central Dry Zone Region, the Delta Region, and the Coastal Region. The wide-ranging climatic conditions make it possible to grow tropical and moderate temperate crops. Principal crops consist of rice; beans and pulses, which have become major export crops; oil seeds; vegetables; and appreciable amounts of other crops, including maize, cotton rubber, sugarcane and tropical fruit crops.

2. Myanmar's forest land constitutes one of the largest forest reserves in Southeast Asia and is still in reasonably sound condition with closed forests still accounting for 37% of total land area.¹ The country has significant water resources with five major rivers flowing through the country providing the potential for water use for irrigation and hydropower generation. At present, irrigation for agriculture production is the major use for water. Only about 10% of the total water resources available to the country are utilized, and 90% of that use is for irrigation. There are also substantial fishery resources in the major rivers, considerable potential for aquaculture development in the low-lying river delta areas in the south and centre of the country, and significant marine fishery resources along the country's 1,900 km coastline and 500,000 ha of mangrove swamps. Fish and shrimp have now become major exports.

3. **Overall Sectoral Trends.** Agriculture accounts for about 40% of the country's gross development product (GDP)², about 70% of employment³ and between 25 and 30% of exports by value.^{4,5} However, about 36% of the rural population is estimated to live below the poverty line. The sector continues to grow on a year by year basis over the past decade. Between 2001 and 2005, growth reached as much as 21.1%, but slowed in 2008, in part due to the destruction caused by Cyclone Nargis which devastated much of productive Delta region. The share of the agriculture sector as a component of the country's GDP has declined over the past decade, constituting 57.1% of GDP in 2001, and 36.4% in 2010. Although reliable figures are not readily available, estimates are that the agriculture sector still contributes to about 70% of employment, and that it is the only sector in which employment can be quickly and readily generated nationwide. This becomes even more important when combined with the fact that about 30% of the rural population is classified as landless and has no source of income other than providing labor to the agriculture sector⁶. Overall future trends of the sector are strongly linked to the development of the food crop subsector, which on its own, makes up 80% of the total value of sector production.

4. **Sector constraints.** As is the case in most monsoon countries, the agriculture and natural resource sector faces the risk of floods and typhoons during the monsoon season and

¹ Ministry of Agriculture and Irrigation *Myanmar Agriculture at a Glance*. Naypyitaw, 2011.

² 36.4% in 2010 down from 57.2% in 2000 (ADB. *Key Indicators*, Manila, 2011).

³ ADB's key indicators (op.cit.) show 82% of the force was engaged in agriculture in 1997 while the Myanmar Census of Agriculture indicates that 69.4% of the population lived in rural areas in 2003.

⁴ UNDP. *Agriculture Development Issues and Strategies – Myanmar*. Yangon, 2011.

⁵ Figures for the percentage of exports in recent years range from 30.5% in 2005 to 25.7% in 2008. However this latter figure is probably anomalous since 2008 was the year that much of the rice crop was destroyed by Cyclone Nargis. The percentage of exports from the sector increased again to 27.9% in 2009.

⁶ In addition, some 37% of rural households have land-holdings of less than 2.0 ha.

drought during the dry season. These risks are likely to be exacerbated due to climate change. In addition, the sector faces potential competition for land and water resources from other uses. In the case of land resources this would be from urban and industrial development in the densely populated Delta region where the most productive lands and water-spread areas are located, whereas in the case of water resources this would be from hydropower development. Many dams are planned or under development along the country's major rivers and their tributaries. A further risk is from the uncontrolled exploitation of the forest resource as well as the loss of prime habitat for a wide range of rare and distinct flora and fauna. Finally, the sector faces the danger of loss of value added from uncontrolled and unregulated direct foreign investment, especially in perennial crops such as rubber and oil palm as has happened in some neighboring countries.

5. Physical constraints affect the capacity and incentives for farmers to enhance and increase the quality and quantity of food crop production. These include: inadequate access to irrigation; inadequate, limited and undependable rural electrification; deficient flood control, drainage and salinity control structures; and inadequate access to markets and inputs due to the poor condition of the rural road network. Policy related issues include: directed production planning; high export taxes; imposition of road and bridge tolls by local administrations; lack of access to rural credit; unattractive producer prices; high costs of farm inputs; an outmoded land tenure system which provides tillage rights but not ownership⁷; less than open and transparent market mechanisms; and poorly developed research and extension system. In the productive areas affected by Cyclone Nargis, these deficiencies have been exacerbated by the destruction of critical rural infrastructure (including flood and salinity control structures) which have yet to be repaired four years later.

6. **Institutional Performance and Governance** The Ministry of Agriculture and Irrigation (MOAI) is the main government body responsible for managing the food crop sector. With a staff of 70,000 it is one of the largest ministries and covers a wide range of activities including planning, water resources, and irrigation, mechanization, settlement and land records. Myanmar Agricultural Services (MAS) is the largest unit within MOAI, with a staff of more than 14,000, and is comprised of nine divisions responsible for a variety of field operations, including extension, research, seed multiplication, plant protection and land use. The overall efficacy of the Ministry is constrained by inadequate budget, lack of technical expertise and inaccessibility of most rural areas. A national level Myanmar Water Resources Committee (MWRC) was planned together with the formulation of a strategic management plan (SMP) to enhance the application of integrated water resources management (IWRM) in the country. However, the proposed MWRC has not yet been established, and no official approval of the plan has been given. Existing laws, rules and regulations need to be reviewed to establish a unified water resources law that would result in a more effective legal framework for coordinating and managing water resources for alternative uses.⁸ For irrigation, much of the management and maintenance costs come from the budget of the Irrigation Department of MOAI, which is limited. A sound institutional management system and implementable legislation is needed to ensure the sustainability of water resources in Myanmar and neighboring countries.

7. **Development needs and opportunities.** Broad needs are (i) an enhanced enabling policy and institutional framework to improve market signals, information and incentives to producers; and (ii) reduced transaction costs to farmers. Key policy issues include the removal

⁷ This has recently changed. A new Land Law was approved in April, 2012 but it is not yet in effect. The implications of the new Land Law are not yet clear.

⁸ A Conservation of Water Resources and Rivers Law was enacted by the State Peace and Development Council in 2006. However it deals mainly with the use of rivers from the point of view of transportation, the regulation of fishing and the regulation of sewage discharge.

of the export tax, and the provision of firm land tenure and tenurial arrangements. If the new Land Law covers areas currently under shifting cultivation in addition to developed lowland areas, it could also be a major step in limiting upland degradation due to shifting cultivation. Enhanced and secure land tenure has proven in many countries to be a key to increased and stable agriculture production. To meet the second need requires a focus on the provision of rural infrastructure to lower production and transaction costs and to better facilitate farmer response to growing market opportunities. Investment needs include (i) improved rural roads, tracks and bridges; (ii) more efficient irrigation systems resulting in lower irrigation costs; (iii) more extensive flood protection, drainage and salinity control; (iv) expanded storage or drying facilities and (v) the expansion of related supporting social infrastructure.

II. Government's Sector Strategy

8. Agricultural development is regarded by the Government as one of the major driving forces of the economy and the foundation for broad-based development that is needed to uplift the wellbeing of majority of Myanmar's population.⁹ The Government expects the agriculture sector to ensure food security, increase foreign exchange earnings through agricultural exports, and promote rural development. Accordingly, over the past decade, some major policy reforms and measures covering the sector have been put in place. These included the abolition of the rice production quota for farmers, liberalization of domestic and international marketing of rice in 2003 and of most industrial crops in 2004, passage of a series of regulatory laws (a plant pest quarantine law in 1990, a fertilizer law in 2000 and a pesticide law in 1993), construction of a large number of irrigation schemes, and provision of pumping equipment to farmers.

9. However, from a strategic viewpoint, practice has not always matched stated objectives and priorities for the sector. For example, access to the rural areas is severely constrained by the poor state of rural roads; rural areas are hardly served by electricity; Government funding for the management of the sector is far below needed levels; and a repressive 10% tax is imposed on agriculture. Thus, despite the stated priority of agriculture as the source of sustainable economic growth, few strategic measures have been taken to address the binding constraints to growth and development of the sector. The challenge will be to promote sectoral growth by identifying the principal needs for growth; assigning meaningful budgetary priorities; and strengthening key institutions in the sector. It will also be necessary to adopt policies that promote the involvement of the private sector in rural and agricultural development in such areas as marketing, processing, storage, supply of inputs and credit.

III. ADB Sector Experience

10. ADB has not operated in Myanmar since 1988 and, even prior to that date, operations were sparse; hence, lessons from the bank's past experience in Myanmar are not of not much direct relevance to future operations. In this regard, ADB's experience in Cambodia, Lao PDR and Viet Nam during their transition from centrally-planned to market economies may be useful. ADB's experience in these countries shows that the main thrust of re-engagement activities should be to promote a conducive environment for the growth of the sector by addressing policy, regulatory, institutional, physical and financial constraints and issues faced by the sector. This would require supporting at the early stages of re-engagement the following: (i) policy and institutional reforms; (ii) rural infrastructure to increase agricultural productivity (irrigation, flood control, drainage and salinity control); (iii) market infrastructure for inputs and outputs, particularly rural transport infrastructure to reduce transaction costs (rural roads and trails, post-harvest storage and processing facilities); and (iv) rural finance. Support for gender mainstreaming in agriculture and rural development is an integral component of promoting

⁹ National Medium-Term Priority Framework (NMTPF) 2010-2014, FAO.

inclusive growth in Myanmar. ADB will deliver gender-equitable benefits by ensuring (i) that gender analysis is integrated into any policy reform; (ii) targets for women's participation in rural infrastructure planning and maintenance bodies; (iii) targets for increasing women's access to training and inputs related productivity enhancement and diversification interventions and (iv) strategies for increasing women's access to markets and financial services.

DRAFT

Problem Tree for Agriculture, Renewable Natural Resources and Environment Sector

