YANGON UNIVERSITY OF ECONOMICS

DEPARTMENT OF COMMERCE

EXECUTIVE MASTER OF BANKING AND FINANCE PROGRAMME

ANALYSIS OF THE WORLD BANK LOAN ON AGRICULTURE SUPPORT PROJECT IN MYANMAR

YE THU AUNG

EMBF - 78 (5th BATCH)

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A thesis submitted as a partial fulfillment towards the requirement for the degree of Executive Master of Banking and Finance (EMBF)

Supervised by

Prof. Dr. Daw Soe Thu
Head of Department
Department of Commerce
Yangon University of Economics

Submitted by

Ye Thu Aung
Roll No. 78
MBF- 5th Batch
Yangon University of Economics

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ABSTRACT

Agriculture sector plays a critical role for country economic growth. The World Bank suggests that growth in the agriculture sector is two to four times more effective in raising incomes among the low-income countries compared to other sectors. Hence, the World Bank sees agricultural development is one of the most powerful tools to achieve its twin goals (eliminating extreme poverty and sharing boost prosperity). The World Bank supports assistance in financing and knowledge sharing for agricultural development. This paper discusses on the World Bank's loan for agricultural sector, taking the Agricultural Development Support Project, Myanmar (2015 – 2022) as a case study. Secondary data was used to find out the research purpose. According to the literature review on the importance of agricultural productivity and the role of official development assistance (particularly on the concessional loan from the World Bank as a Multilateral Development Bank - MDB), the paper contends that the World Bank's loan practice is in line with the academic literature, prioritizing the country strategy, strengthening the country system and its capacity. The World Bank's loan term is financially highly concessional as well.

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TABLE OF CONTENTS

LIST OF TABLES

LIST OF ABBREVIATIONS

ASA	Advisory Services and Analytics
ADSP	Agricultural Development Support Project
AMD	Agricultural Mechanization Department
AVCF	Agricultural Value Chain Facility
ANR	Agriculture and Natural Resource
DOA	Department of Agriculture
DAR	Department of Agricultural Research
DPF	Development Policy Financing
DLI	Disbursement-Linked Indicator
ERM	Emergency Response Manual
ESMF	Environmental and Social Management Framework
FM	Financial Management
FY	Fiscal Year
GDP	Gross Domestic Product
GNI	Gross National Income
IRM	Immediate Response Mechanism
IBRD	International Bank for Reconstruction and Development
IDA	International Development Association
IPM	Integrated Pest Management
IFR	Interim Unaudited Financial Report
IFC	International Finance Corporation
IPF	Investment Project Financing
ID	Irrigation Department
LUC	Land Use Right Certificate
MTR	Mid-Term Review
M&E	Monitoring and Evaluation
MDB	Multilateral Development Bank
MSDP	Myanmar Sustainable Development Plan
ODA	Official Development Assistance
OECD	Organization for Economic Cooperation and Development
PforR	Program-for-Results

PMU	Project Management Unit
QPR	Quarterly Progress Reports
SLRD	Settlement and Land Records Department
SLC	Social Land Concession
SDR	Special Drawing Right
SMS	Subject Matter Specialist
TA	Technical Advisory
WUG	Water User Group
WTO	World Trade Organization

CHAPTER (I) – INTRODUCTION

The World Bank is a multilateral development bank (MDB) that provides assistance in the form of financing and knowledge sharing to the low- and middle-income countries for the purpose of pursuing their own development agenda. The World Bank is comprised with two institutions: The International Bank for Reconstruction and Development (IBRD), and the International Development Association (IDA). The World Bank Group[1] has set two goals for the world to achieve by 2030: 1) to eradicate extreme poverty by decreasing the percentage of people living on less than $1.90 a day to no more than 3%; and 2) to promote shared prosperity by fostering the income growth of the bottom 40% for every country (The World Bank, 2019). The World Bank is one of the major sources of financial and technical assistance to low-and-middle income countries around the world.

Under the financial products and services, the World Bank provide low-interest loans, zero to low-interest credits, and grants to low- and middle-income countries. These support covers a wide array of investments in areas such as education, health, public administration, infrastructure, financial and private sector development, agriculture, and environmental and natural resource management. Some projects are co-mingled in financing with governments, other multilateral institutions, commercial banks, export credit agencies, and private sector investors. The World Bank also provide or facilitate financing support through trust fund partnerships with bilateral and multilateral donors. Many partners have asked the World Bank to help manage initiatives that address needs across a wide range of sectors and developing regions.

Under the innovative knowledge sharing, the World Bank offers support to low- and middle-income countries through policy advice, research and analysis, and technical assistance. The World Bank's analytical work often underpins the World Bank financing and helps inform low- and middle-income countries' own investments. In addition, the World Bank supports capacity development in the countries they engage. Often in collaboration with partners, the World Bank also sponsors, hosts, or participates in many conferences and forums on development issues. To ensure that countries can access the best global expertise and help generate cutting-edge knowledge, the World Bank is constantly seeking to improve

[1] The World Bank Group comprises five institutions as follow: 1) the International Bank for Reconstruction and Development, 2) The International Development Association, 3) The International Finance Corporation, 4) The Multilateral Investment Guarantee Agency and 5) the International Centre for Settlement of Investment Disputes).

the way it shares its knowledge on measurable results, reform agenda, open data information, and engages with clients and the public at large.

The World Bank's financing investment and knowledge sharing covers a wide array of areas such as education, health, public administration, infrastructure, financial and private sector development, agriculture, and environmental and natural resource management. Amongst these areas, agriculture sector is one of the World Bank's prioritized areas of investment because the World Bank sees agricultural development is one of the most powerful tools to achieve its twin goals. Growth in the agriculture sector is two to four times more effective in raising incomes among the low-income countries compared with other sectors. The World Bank data (2016) showed that 65% of poor working adults made a living through agriculture. Agriculture is also critical to economic growth: in 2014, it accounted for one-third of global gross-domestic product (GDP). Hence, support in agriculture development through financing or knowledge sharing is always part of the World Bank's engagement with its member countries.

To support Myanmar transition and development, the World Bank has re-engaged with Myanmar since 2013. The World Bank is working with the Myanmar government and other partners in support of reforms that benefits all the people in Myanmar, including the poor and vulnerable. Since 2013, Myanmar has been receiving IDA assistance in the forms of concessional loans, grants and analytical works. As of 2019, the total portfolio size is amounted to $ 2.1 billion, and the World Bank is investing in agriculture, energy, education, health and rural areas developments in Myanmar. The World Bank is supporting the assistance in the form of concessional loans and analytical works (the World Bank Myanmar, 2019).

Myanmar agriculture sector development is critically important for country economy. According to Myanmar Agriculture Development Strategy and Investment Plan (2018-19 ~ 2022-23), nearly 30% of GDP is estimated to come from the agricultural sector while industry accounts for about 25% and services about 45% of GDP. A significant proportion of trade and industry is related either directly or indirectly to the agriculture and natural resource (ANR) sector. 60% of total workforce are in the ANR sector. However, Myanmar's agriculture is characterized by low productivity, inequality and high volatility. Despite its potential, the agriculture sector has suffered decades of insufficient investment in basic infrastructure such as irrigation system and rural roads, as well as from weak research, extension and finance support services. In 2018, Myanmar adopted Myanmar Agriculture Development Strategy and Investment Plan (2018-19 ~ 2022-23) with the support of

development partners. Together with other development partners, the World Bank is supporting Myanmar government to improve the agriculture sector.

1.1 Rationale of the Study

In line with the organization's twin goals, the World Bank's support for agriculture development in Myanmar is the improvement of material and social welfare of the targeted people. The objectives of the World Bank's support are 1) to raise agricultural productivity and profitability, 2) to create more wage jobs for the rural landless with potentially higher wages, 3) to stimulate job creation through increased agro-processing and trading activities and earn foreign exchange through exports, 4) to enable farmers to apply better land management and other climate smart practices, and 5) to contribute to more stable food prices and serve as an effective rural safety net. Nwachukwu (2008) defined agricultural development as a multi-sectional activity that support and promote positive change in the rural and urban areas. Mellor (2017) and Suman (n.d.) identified 12 determinants to increase agricultural productivity. They are 1) Transport Facilities, 2) Irrigation Facilities, 3) Institutional Credit, 4) Proper Marketing Facilities, 5) Supply of Quality Inputs, 6) Consolidation of Holdings, 7) Agricultural Education, 8) Reduction of Population on Land, 9) Provision of Better Manure Seeds, 10) Land Reforms, 11) Co-operative Farming, and 12) Development of Cottage and Small Scale Industries. Therefore, it is seen as integrated approach to improving the environment and well-being of the people of the community. The approach is consistent with the World Bank's overall strategy.

The World Bank (2019) works with countries by providing innovation, infrastructure and resources so that the food and agriculture sector become Climate-Smart (i.e., more productive and resilient notwithstanding climate change while reducing emissions, both for crops and livestock). Moreover, the sector improves livelihoods and creates more and better jobs, including for women and youth; boost agribusiness in the means of building inclusive and efficient value chains; and improve food security and produces enough safe and nutritious food. The World Bank's agricultural support strategy for Myanmar is also the same. Hence, this paper studied the effect of the World Bank loan on agricultural sector in Myanmar by employing Mellor and Suman's determinants on agricultural development.

The World Bank's support in Myanmar agriculture sector has been more than five years since its reengagement in 2013. In Myanmar, the World Bank has helped boost irrigation infrastructure and the use of climate-smart technologies. Since 2017, the World Bank helped Myanmar to improve irrigation and drainage on 19,595 hectares of land that

serves 33,688 beneficiaries and shared CSA technologies with 8,088 beneficiaries -- 26% of them women. However, there is a broad debate about the effectiveness of foreign aid, including the aid provided by the Multilateral Development Banks (MDBs) like the World Bank. For instance, IFI Watch Groups criticizes that the World Bank support is not effective to improve the agricultural development. According to the World Bank Information Center, for the World Bank's poorest clients, over a third of approved, "committed" aid is not reaching them. Therefore, it is the time to take stock on the World Bank's loan practice to find out whether the World Bank loan delivers intended results or not.

Critics of the MDBs argue that they are international bureaucracies paid more attention on lending money to low-and-middle-income countries, rather than on delivering sustainable results in these countries; that the MDBs emphasize short term outputs like reports and frameworks but do not engage in long term activities like the evaluation of projects after their project completion; and that they demand enormous administrative procedures on developing country governments. Hence, it is time to take stock on whether it is worthwhile for the low-income country like Myanmar to take loan from the World Bank.

1.2 Objectives of the Study

The objectives of the study are:

1) To explore the World Bank's loan practices of agriculture sector in Myanmar;

2) To analyze the effect of the World Bank's loan on agriculture sector, taking the Agricultural Development Support Project, Myanmar (2015 – 2022) as a case study.

1.3 Scope and Method of the study

The World Bank provides assistance in the form of financing and knowledge sharing. The World Bank provides financing to its borrowers through three financing instruments: 1) Investment Project Financing (IPF); 2) Development Policy Financing (DPF); and 3) Program-for-Results (PforR). But this paper discusses only the World Bank's financing instrument of IPF for agriculture sector. To analyze the World Bank's loan practice in agriculture sector, the study employed Agricultural Development Support Project, Myanmar (ADSP) as a case study. The study uses the secondary data and quantitative analysis is mainly applied. The secondary data are retrieved from different published sources such as the government report, research papers, articles and news from the internet.

1.4 Organization of the Study

This study is organized with five chapters. Chapter (I) is an introductory one that includes the rationale of the study, objectives of the study, method and scope of the study and organization of the study. Chapter (II) discusses literature review on the importance of agricultural sector and multilateral development banks' loan as official development assistance (ODA). Chapter (III) describes the World Bank's loan practice for agriculture productivity in Myanmar and other countries. Chapter (IV) consists of the analysis on the World Bank's loan practices for agriculture sector, using the Agricultural Development Support Project as a case study. Chapter (V) presents the conclusion of the study with finding and discussion, recommendations and suggestions and needs for further studies.

CHAPTER (II) – LITERATURE REVIEW

This chapter discusses definition of loan, agriculture loan, the importance of agriculture sector and the role of the foreign aid (particularly on multilateral development banks' loan) in agricultural support. First, the chapter looks at literatures on loan, agriculture sector and its importance. Then, the importance of MDBs as foreign aid in agriculture sector are explored.

2.1 Definition of Loan and Agriculture Loan

A loan is defined as the lending of money to one or more individuals, organizations, or entities by other individuals, organizations or entities. The recipient of a loan (i.e. the borrower) shoulders the burden of debt: the borrower is legally responsible to pay interest on that debt and also to repay the principal amount borrowed. The debt document will normally specify, among other things, the principal amount of money borrowed, the interest rate the lender is charging, and date of repayment. The interest incentivizes the lender to engage in the loan. Acting as a lender is one of the main activities of financial institutions such as banks and credit card companies. Similarly, governments, banks and financial institutions lend money to farmers or cultivators for agricultural development. Agricultural loans are to finance either the production of crops, vegetables and livestock or the purchase capital assets such as farmland, equipment, breeder livestock, and farm real estate improvements (for example, storage facilities).

2.2 Importance of Agriculture Sector

Agriculture is a major human activity. Spedding (2012) defined that agriculture is an activity undertaken primarily to produce food, fibers, fuel and other commodities through the controlled use of mainly terrestrial plants and animals in an overall perspective. Ten Napel et al. (2011) show that the practice of agriculture started about 10,000 years ago when people started to produce food, feed and other useful biomass through the management of biological and ecological systems, with technical inputs. Hence, both livestock production and farming systems are in the agricultural sectors.

Smith and McDonald (1997) contemplate the agriculture scope in terms of spatial scale: at the field scale, agriculture is mainly concerned with soil conditions, nutrient levels, water availability and plant growth; at the farm scale, agriculture is contingent on crop and livestock production and management, and the organization and viability of farm operations;

at the regional scale, agriculture is a major factor in natural resource use and land use; and, at the national and global scales, agriculture involves trade, equity and sufficient food supply. Hence, the productivity of a region's farms is important for many reasons. In addition to providing more food, increasing the productivity of farms affects the region's prospects for growth and competitiveness on the agricultural market, income distribution and savings, and labor migration.

Agricultural productivity increase of a region implies a more efficient distribution of scarce resources. As farmers adopt new techniques and differences, the more productive farmers benefit from their welfare increase while farmers who are not competitive enough exit the market. As a region's farms become more productive, its comparative advantage in agricultural products increases, which means that it can produce these products at a lower opportunity cost than can other regions. Therefore, the region becomes more competitive on the world market by attracting more consumers. Increases in agricultural productivity lead also to agricultural growth and can help to alleviate poverty in low-and-middle-income countries, where agriculture often employs the greatest portion of the population. As farms become more productive, the wages for agriculture-related workers increase. Meanwhile, food prices decrease, and food supplies become more stable. Laborers have more money to spend on food as well as other products. In fact, it is not only the people employed in agriculture who benefit from agricultural productivity increase. Those employed in other sectors also enjoy lower food prices and a more stable food supply. Their wages may also increase. Therefore, agriculture sector is becoming increasingly important as the world population continues to grow.

2.3 Determinants for Agricultural Productivity Increase

Increase in agricultural production can improve people's access to more and better-quality food; raise farm incomes; create employment on and off of the farm; and empower poor and marginalized groups, including women. The sustainable management of natural resources can be promoted as well. Several studies, including from Harvard University (Timmer, 1997), the World Bank (Ravallion and Datt, 2002), the United Kingdom's Overseas Development Institute (Thirtle et al. 2003) document from quite different data sets and across different sets of countries, show that agricultural growth reduces poverty rapidly while industrial growth does not. Increase in agricultural productivity can lead to agricultural growth. Mellor (2017) and Suman (n.d.) identified the 12 determinants in four factors to increase agricultural productivity as follow:

Institutional Factor

1) Institutional Credit: provision of credit facilities (such as land mortgage banks, co-operative credit societies) with reasonable cheap rates in rural areas for farmers to save the farmers from the clutches of loan sharks.

2) Consolidation of Holdings: the redistribution of all or any of the lands in an estate or sub-division of an estate so as to reduce the number of plots.

3) Land Reforms: efforts to plug the loopholes in the existing land legislations such as streamlining the farmland administrative set-up so that the surplus land may be distributed among the small and marginal farmers.

Infrastructural Factor

4) Transport Facilities: building or renovating transport facilities such as rural connecting roads and farm access road for farmers to enable to produce new farm inputs and to sell their product in markets.

5) Irrigation Facilities: constructing/renovating irrigation facilities such as canals, tube wells to provide better irrigation facilities for the security of crops.

6) Proper Marketing Facilities: widening and strengthening of marketing infrastructure for the farmers to sell their products at better prices. Moreover, price support policy must be adopted, and minimum prices should be guaranteed to the peasants.

7) Co-operative Farming: to check the sub-division and fragmentation of holding, the movement of co-operative farming should be launched. In this way, agriculture become profitable occupation through economies of large-scale farming.

*8) Development of Cottage and Small-Scale Industries: i*n rural areas, more emphasis should be made to set up cottage and small-scale industries. This raise the income of the peasants and keep them busy during the off season.

Technological Factor

9) Supply of Quality Inputs: The farmers are to be supplied with quality inputs at proper times and at controlled prices.

10) Provision of Better Manure Seeds: The farmers should be trained to be familiar with the advantage of chemical fertilizer, insecticides and pesticides through exhibitions and these inputs should be made easily available through co-operative societies.

Socio-economic Factor

11) Agricultural Education: agricultural education and extension services as part of the adoption of new technology arrangements should be made available for farmers.

12) Reduction of Population on Land: The majority of population depends on agriculture for their living. Surplus labor should be migrated from agriculture sector and be absorbed in non-agricultural sector.

2.4 The World Bank Loan as Official Development Assistance for Agriculture Sector

The Organization for Economic Cooperation and Development (OECD) defines official development assistance (ODA) as a government aid which is designed to promote the socioeconomic development of low-and-middle income countries. Loans and credits for military purposes are not considered as ODA. The government assistance may be provided either bilaterally (i.e., from donor country to recipient country), or channeled through a multilateral development agency such as the United Nations or the World Bank. Multilateral development banks (MDBs) like the World Bank are one of the conduits of ODA channeling (OECD, 2019). Unlike commercial banks, MDBs are not to maximize profits for their shareholders. Rather, they prioritize development issues, such as ending extreme poverty and reducing economic inequality. Grants, concessional loans and technical assistance are provided by MDBs.

MDBs are the international institutions that provide financial assistance to low-and-middle-income countries, typically in the form of loans and grants, for investment projects and policy-based loans. MDB loans include large infrastructure projects, such as highways, power plants, and dams, as well as social projects such as health and education initiatives. Policy based loans provide governments with financing in exchange for agreement by the borrower country government that it undertakes particular policy reforms, such as the privatization of state-owned industries or reform in agriculture or electricity sector policies. Policy-based lending can also provide budgetary support to low-income countries. In order for the disbursement of a policy-based loan to continue, the recipient country must implement the specified economic or financial policies.

Mostly, MDBs have two major lending windows or facilities. One lending window is used to provide not only financial assistance on market-based terms, typically in the form of loans, but also through equity investments and loan guarantees. The market-rate assistance is extended to middle income countries, some creditworthy low-income countries, and private sector firms in low-and-middle-income countries. The other window is used to provide

financial assistance at below market-based terms (concessional assistance), typically in the form of loans at below market interest rates and grants, to governments of low-income countries.

Advocates of the MDBs argue that, despite some weaknesses, such aid fundamentally serves vital economic and political functions. With about 767 million people living on less than $1.90 a day in 2013, they argue that providing assistance is a 'must'; they argue it is the "right" thing to do and part of "the world's shared commitments to human dignity and survival." These advocates typically point to the use of foreign aid to provide basic necessities, such as food, vaccines, nurses, and access to education, to the world's poorest countries, which will not be financed by private investors. Additionally, advocates of foreign aid argue that foreign aid has been successful in dramatically improving health and education in low-and-middle-income countries over the past four decades (Nelson, 2018).

2.5 The Importance of MDBs as Foreign Aid in Agriculture Sector

Foreign aid assistance is important for agriculture sector. First, there is a huge financial and technical gap for foreign assistance to the agricultural research/extension systems including higher education. Large-scale advanced degrees training is central. Second, is assistance to credit institutions, micro-credit for the rural non-farm sector, and a specialized lending agency for the small commercial farmer, with the emphasis on making them fully self-supporting. Third, if large-scale funds are available then the accelerated expansion of rural roads, electrification, and schools with the emphasis on subsidized girls' participation is essential (Mellor, 2017).

Foreign assistance to agriculture is a portion of total ODA and includes such diverse components as agricultural research and extension, irrigation projects, rural roads, agricultural education and training, flood control projects, integrated rural development project and agricultural policy assistance. Foreign development assistance to agriculture in low- and middle-income countries has taken many forms: financial, technical, and food. This aid may be transferred through projects or programs and may represent grants or concessional loans. The World Bank Group is a vital financier of agricultural support: IBRD/IDA committed US$ 6.8 billion in 2018.

CHAPTER (III) – THE WORLD BANK SUPPORT IN AGRICULTURE SECTOR

This chapter explores the World Bank's support in agricultural sector. The first of this the chapter presents the background of the World Bank, its products and IDA credit terms. Then, what and how the Word Bank Group supports in the agriculture sector are explored in the last part of this chapter.

3.1 Background of the World Bank

The World Bank is not only the oldest but also largest of the MDBs. The World Bank Group is comprised with three organizations: The International Bank for Reconstruction and Development (IBRD), the International Development Association (IDA), and the International Finance Corporation (IFC). The World Bank makes loans and grants to low-and middle-income countries. The establishment of the World Bank was originated from the 1944 Bretton Woods Conference. The IBRD was the very first the World Bank affiliate created, when its Articles of Agreement became effective in 1945 with the signatures of 28 member governments. Currently, the IBRD has near universal membership with 189 member nations. Only Cuba and North Korea, and a few micro states such as the Vatican, Monaco, and Andorra, are nonmembers. The IBRD lends mainly to the middle-income countries at market-based interest rates. In 1960, IDA was created to make concessional loans (with low interest rates and long repayment periods) to the low-income countries. IDA also now provides grants to these low-income countries. The World Bank initially focused on providing financing for large infrastructure projects. Over time, the World Bank's financing has broadened to include social projects and policy-based loans (Nelson, 2018).

Table (3. 1) – Overview of the World Bank's Lending Windows

The World Bank Group	Type of Financing	Type of Borrower	Year Founded	New Commitment (2019) Billions
International Bank for Reconstruction and Development (IBRD)	Non-concessional loans and loan guarantees	Primarily middle-income governments, also some creditworthy low-income countries	1944	22.6
International Development Association (IDA)	Concessional loans and grants	Low-income governments	1960	19.5

Source: The World Bank Data, 2019

3.2 The World Bank's Products

The World Bank's support is mainly in two categories: 1) financing instruments and 2) advisory services and analytics. The World Bank (2019) provides financing to its borrowers through three financing instruments. One of the financing instruments is called investment project financing (IPF). IPF is used in all sectors such as the infrastructure, human development, agriculture, and public administration sectors. IPF is focused on the medium to long-term (5 to 10-year horizon) and supports a wide range of activities such as capital-intensive investments, agricultural development, service delivery, credit and grant delivery, community-based development, and institution building. Unlike commercial financing, the World Bank IPF supplies recipient countries with not only financing needs but also sustained, global knowledge transfer and technical assistance. The latter includes support to analytical and design work in the conceptual stages of project preparation, technical support and expertise (including project management and fiduciary and environmental and social activities) during implementation, and institution building throughout the project.

The second one is called development policy financing (DPF). DPF provides rapidly-disbursing financing to help a debtor address actual or projected development financing needs. DPF aims to support the recipient in achieving sustainable, shared growth and poverty

reduction through a program of policy and institutional actions. These policy actions include, for example, strengthening public financial management, improving the investment climate, addressing bottlenecks to improve service delivery, and diversifying the economy. DPF supports such reforms through non-earmarked general budget financing. The third instrument is the program-for-results financing (PforR). PforR support government programs to achieve results. PforR provides financing support for a certain portion of a government program through loans, credits or grants. PforRs disburse against the achievement and verification of program results. PforR use client processes and systems. PforR require the preparation of technical, fiduciary, environmental and social and integrated risk assessments, which provide the basis for actions to strengthen institutions and improve system performance during implementation. All three financing instruments seeks to improve the recipient country system strengthening.

The World Bank (2019) undertakes non-lending activities called Advisory Services and Analytics (ASA) to inform country, regional and global development agenda. ASAs help external clients or audiences advance a development objective. The World Bank provides the analytical work to support design or implementation of better policies, strengthen institutions, build capacity, inform development strategies or operations, and contribute to the global development agenda. The knowledge outputs include analytical reports, policy notes, impact evaluations, non-lending technical assistance, hands-on advice, and knowledge-sharing workshops or training programs.

3.3 The World Bank's Credit Terms

IBRD provides non-concessional loans and loan guarantees for middle-income governments, also some creditworthy low-income countries while IDA provides concessional loans and grants for low-income countries. This paper discusses only IDA credit terms. IDA is the World Bank's concessional lending window, extending funds to the low- and middle-income countries. According to the World Bank Group Loan Handbook (2017), IDA provides credits (the term used for its concessional loans) at little or no interest, and repayments are stretched over 25 to 40 years, including a 5- to 10-year grace period. A country's IDA eligibility is determined at the beginning of each fiscal year (July) based on the country's risk of debt distress, gross national income (GNI), and eligibility for borrowing from IBRD. The IDA development credits are mostly denominated in special drawing rights (SDRs). Disbursements and debt service payments are calculated in SDRs. Debt service

payments are made in the following currencies – U.S. dollar, pounds sterling, or euro – specified in the financing agreement in an amount equivalent to the SDRs required under the agreement. The recipient country can select the currency at the time of negotiations.

3.4 IDA Current Charges and Rates

Currently, IDA credits on concessional terms incur the following charges (Loan Handbook, 2017):

• Service charge: A charge of 0.75 percent is applied to disbursed amounts and is intended to cover the administrative expenses of IDA. A service charge is applied to all types of IDA credits and is embedded in the floating rate for transitional support and hard-term credits.

• Commitment charge: A commitment charge is applied to all IDA credits, which is currently zero but can be as much as 0.5 percent. The Board of Executive Directors review the commitment charge for IDA on an annual basis and the Board decides partial or complete waiver of the charge. The commitment charge applies to undisbursed amounts and starts accruing 60 days after the financing agreement is signed. It becomes due once the credit becomes effective.

• Interest charge: An interest charge on disbursed amounts is applied to IDA blend-term, hard-term, and transitional support credits. The rate is updated quarterly and varies with the currency selected.

3.5 IDA Repayment Term

By the Loan Handbook (2017), IDA repayment terms are decided every three years, at the time of the donor meetings called IDA Replenishment. Currently, IDA regular credits have a 6-year grace period and a 38-year final maturity, with the exception of regular credits for small island economies. However, IDA blend-term, hard-term, and transitional support credits have a 5-year grace period with a 25-year final maturity. Repayments are done on a semiannual basis. IDA grants do not have to be repaid. See the table below for IDA concessional terms.

Table (3.2) – Current IDA Concessional Terms

	Service Charge	Commitment Charge	Interest	Acceleration Clause	Maturity	Grace Period (years)
Regular	✓	✓	✓	✓	38	6
Blend Term	✓	✓	✓	✓	25	5
Hard Term	✓	✓	✓	✓	25	5
Transitional Support	✓	✓	✓	n.a.	25	5

Source: The World Bank, 2019

3.6 The World Bank Support in Agriculture Sector

The World Bank (2019) sees that agricultural development is one of the most powerful tools to end extreme poverty, boost shared prosperity and feed a projected 9.7 billion people by 2050. Growth in the agriculture sector is two to four times more effective in raising incomes among the low-income countries compared to other sectors such as industry. The World Bank (2016) analyses found that 65% of poor workers made a living through agriculture. Agriculture is also vital to economic growth: in 2014, one-third of global gross-domestic product (GDP) came from the agriculture sector. Christiaensen et al. (2011) confirmed the World Bank findings and noted that agricultural growth was associated with substantial rate of growth of labor productivity. Indeed, agricultural labor productivity grew much faster than other sectors such as urban industrial labor productivity. They also found the impact of agriculture on poverty reduction was greater for the under one dollar a day poor than for the two dollars a day poor.

However, agriculture-driven growth is at risk: climate change could cut crop productions, especially in the world's most food-insecure regions. Agriculture, forestry and land use change are accounted for 25% of greenhouse gas emissions (The World Bank, 2019). Hence, mitigation in the agriculture sector is part of the solution to climate change. The current food system also threatens the people health and the planet because agriculture accounts for 70% of water use and it generates unsustainable levels of pollution and waste.

The World Bank is working with member countries for addressing the issue. In 2019, The World Bank committed US$ 5.4 billion to agriculture and related sectors. The World Bank financed 94 projects which helped provide 6.7 million farmers with agricultural assets

and services. 3 million farmers adopted improved agricultural technology. Irrigation and drainage were improved on 730,000 hectares of agricultural land. In 2019, 53% of the World Bank's agricultural investments are directly financing climate mitigation and adaptation measures, up from 28% just 4 years ago. According to the World Bank Data, there are 151 active operations worth of US$18.63 billion and 32 pipeline projects accounted for the total of US$ 4.03 billion in the fiscal year 2020. On the knowledge sharing side, there are 78 analytical works worth of US$ 20.94m.

Table (3. 3) – The World Bank Support in Agricultural Sector and Their Results

Country	Results in Agricultural Sector
Afghanistan	Since 2010, 81,880 people – over 50% of them are women – participated in savings groups in 694 villages. The groups saved more than US$ 5.2 million and made 41,900 loans. 1,424 enterprise groups and 617 small-and-medium enterprises benefited from stronger links to markets and value chains.
Brazil	Since 2010, over 271 rural producer organizations, including 73 representing indigenous peoples, and land reform communities around Sao Paulo benefited with improved access to markets. This paved the way for an average 87% increase in sales revenues and improved environmental sustainability instruments and policies for over 340,000 farming families.
China	Since 2014, a World Bank-financed project has helped expand climate-smart agriculture. Better water-use efficiency on 44,000 hectares of farmland and new technologies improved soil conditions, and boosted production of rice by 12% and maize by 9%. More than 29,000 farmers' cooperatives benefited with higher incomes and increased climate resilience.
Colombia	34,500 hectares of degraded pastures were converted into more productive landscapes and captured 1,480,000 tons of CO2 through the adoption of environmentally friendly Silvopastoral Production Systems for over 4,1000 cattle ranching farms.
India	The Jeevika project benefited 9.8 million women and their families by transforming their livelihoods and economic well-being. They saved US$ 121 million and leveraged US$ 1.1 billion from the formal financial sector. Since 2009, over one million farmers were trained to improve their productivity in staple crops such as rice and wheat.

Table (3. 4) – The World Bank Support in Agricultural Sector and Their Results (Continued)

Country	Results in Agricultural Sector
Indonesia	Since 2013, Indonesia's agricultural research system was strengthened. 33 Assessment Institute for Agricultural Technology (AIAT) centers were capacitated to develop improved rice, vegetable, fruit varieties. 161 agriculture researchers through degree programs (68 PhD and 93 Master's degree) were supported; 58 labs and 54 research stations were upgraded, 1,134 research activities including 44 international research collaboration activities were funded.
Nepal	Nepal Poverty Alleviation Fund was financed to help small farmers and rural poor people access microcredit, assets, services and training. Since 2004, over 30,000 community organizations were set up, benefiting over 900,000 households.
Philippines	since 2015, mainstream institutional and operational reforms and science-based planning for agricultural commodities in 81 provinces were supported. 452 rural infrastructure projects were approved to benefit over 600,000 households. 2,300 km of farm-to-market roads, irrigation systems, potable water systems, and other post-harvest infrastructures were targeted to improved.
Vietnam	since 2010, sustainable livelihoods was promoted through helping develop 9,000 'common interest groups' (CIGs) comprising over 15,500 households and partnering them with agro-enterprises. More than 20,000 farmers were supported to improve their livestock production, benefiting an additional 130,000 people through capacity building in food safety.

Source: The World Bank, 2019

3.7 The World Bank Agriculture Operations in Lao PDR and Cambodia

Lao People's Democratic Republic

Agriculture Competitiveness Project is to improve the competitiveness of selected agricultural value chains in the project areas. This project is comprised with four components: 1) Improved Agricultural Efficiency and Sustainability; 2) Enhanced Agricultural Commercialization; 3) Project Management; and 4) Contingent Emergency Response. The component (1) has the following four subcomponents: (i) Promoting Adoption of Good Varieties and Quality Seeds; (ii) Promoting Good Agricultural Practices; (iii) Providing Critical Productive Infrastructure; and (iv) Strengthening Public Services Delivery. The component (2) has three subcomponents: (i) Establishing an Agricultural Value Chain Facility; (ii) Linking Farmers to Markets; and (iii) Improving the Enabling Environment. The component (3) has the following subcomponents: (a) project management; and (b) monitoring and evaluation (M and E). The component (4) aims to finance public and private sector expenditures on a positive list of goods and/or specific works, goods, services, and emergency operation costs required for emergency recovery. The project timeline is from 2018 to 2024. Total project cost is US$ 29.30 million and IDA commitment amount is US$25.00 million (The World Bank, 2019).

Project Development Objective Indicators are as follow:

1) Increase in rice milling efficiency of rice mills supported by the project
2) Increase in sales of farm produce as a share of production among targeted farmers supported by the project
3) Increase in sales from female-headed households supported by the project
4) Change in agricultural land productivity of targeted farmers supported by the project

Cambodia

The Agricultural Sector Diversification Project is to support the development of diversified agriculture value chains in selected geographical areas in Cambodia, and to provide immediate and effective response in case of an eligible crisis or emergency. The project has five components: (1) Enabling agriculture diversification; (2) Supporting public infrastructure; (3) Improving agriculture information systems and quality control management; (4) Project management, coordination, and monitoring and evaluation; and (5) Contingent emergency response. The project timeline is from 2019 to 2025. Total project cost

is US$ 101.67 million and IDA commitment amount is US$ 91.67 million (The World Bank, 2019).

Project Development Objective Indicators are as follow:

1) Share of non-rice production area of participating farmers
2) Increase in the value of gross sales of benefitting agribusinesses
3) Increase in the volume and value of gross sales of benefiting female owned agribusinesses
4) Increased in the volume of gross sale of benefitting farms
5) Increased in the volume of gross sales of benefitting female owned farms
6) Increase in the value of gross sales at benefitting farms
7) Increase in the value of gross sales at benefitting female owned farms

Table (3. 5) – The World Bank-financed Projects and their linkages with Productivity Increase Determinants

Country	Project Title	Project Components	Linkage with Determinants
Loa PDR	Agriculture Competitiveness Project	1) Improved Agricultural Efficiency and Sustainability 2) Enhanced Agricultural Commercialization 3) Project Management 4) Contingent Emergency Response	✓ Irrigation facilities ✓ Agricultural education ✓ Proper market facilities ✓ Supply of quality inputs
Cambodia	Agricultural Sector Diversification Project	1) Enabling agriculture diversification 2) Supporting public infrastructure; Improving agriculture information systems and quality control management 3) Project management, coordination, and monitoring and evaluation 4) Contingent emergency response.	✓ Co-operative farming ✓ Irrigation facilities ✓ Agricultural education ✓ Proper market facilities ✓ Supply of quality inputs

Source: Own Compilation Based on the World Bank Report and Literature

3.8 The World Bank's support in consistent with the agricultural productivity determinants

This section discusses how the World Bank's approach and results in agricultural sector are consistent with the agricultural productivity determinants driven from Mellor (2017) and Suman (2013). Mellor and Suman suggests that for the agricultural productivity increase, all the above-mentioned 12determinants should be considered. In the above-mentioned the World Bank results, it is proved that all these determinants are addressed. Some of the results are in 1) transport facilities improvement, 2) irrigation system strengthening, 3) institutional credit provision, 4) marketing facilities provision, 5) supply of quality inputs such as fertilizers and high-yield seeds, 6) consolidation of holdings, 7) providing agricultural education, 8) reduction of population on land, 9) provision of better manure seeds, 10) land reforms support, 11) support in co-operative farming, and 12) facilitating development of cottage and small-scale industries.

Mellor (2017) discussed on the role of foreign aid to agriculture. He suggests that first, there is a large need for foreign assistance, both financial and technical, to the agricultural research/extension systems including higher education. Large-scale advanced degrees training is central. Second, is assistance to credit institutions, micro-credit for the rural non-farm sector, and a specialized lending agency for the small commercial farmer, with the emphasis on making them fully self-supporting. Third, if large-scale funds are available then the accelerated expansion of rural roads, electrification, and schools with the emphasis on subsidized girls' participation is essential. The World Bank's assistance in agriculture follows his line of arguments.

CHAPTER (IV) – ANALYSIS OF THE WORLD BANK'S AGRICULTURE LOAN

The chapter analyzes the World Bank's loan practice in Myanmr agriculture sector, using the Agricultural Development Support Project, Myanmar (ADSP) as a case study. First, the chapter describes the ADSP project briefly and then analyses the project from the perspectives of conceptual framework, financial support and good practices of foreign aid.

4.1 Agricultural Development Support Project

The very first project of the World Bank in Myanmar agriculture sector is the the Agriculture Development Support Project (ADSP). The World Bank project (2015) was started in 2015 and it is planned to end in 2022. The project amount is $100m. The development objective of the project is to increase crop yields and cropping intensity in selected irrigation sites in Bago East, Nay Pyi Taw, Mandalay, and Sagaing regions of Myanmar. The project has four components such as 1) Irrigatino and Driange Mangement allocated $78.40m, 2) Farm Advisory and Technical Services financed for $17.20m, 3) Project coordination and management budgeted for 4.40 and 4) Contingent Emergency Response.

Table (4. 1) – Project Components and Financing

Project Components	Project Cost (US$)	IDA Financing	% Financing
1. Irrigation and Driange Management	78.4	78.4	100
2. Farm Advisory and Technical Services	17.2	17.2	100
3. Project Coordination and Management	4.4	4.4	100
4. Continget Emergency Response	0	0	100
Total Costs	100	100	100

Source: The World Bank, 2015, p. 13.

4.2 Agriulture Development Support Project Components

Component (1) – Irrigation and Drainage Management

The project component (1) supports more responsive and reliable provision of irrigation and drainage services in the project irrigation sites to enable an increase in irrigation area coverage, and to achieve better farm productivity and distribution of benefits between upstream and downstream users. Firstly, it focus on institutional improvements

required for the provision of farmer responsive irrigation services, including development of a new management paradigm with an elevated role for Water User Groups (WUGs), which is complemented with development and gradual introduction of more responsive water delivery systems, data collection and management information systems. The component support the development of irrigation and drainage management institutions, data collection and management information systems and infrastructure. In particular, the component support the establishment and development of about 280 WUGs in up to 8 irrigation sites, utilizing qualified facilitators (i.e. third party service providers). Capacity building and training are provided at all levels of service delivery agencies, including WUGs and township-level government agencies. Facilitators are recruited to develop WUGs and to establish cooperation between farmers and government agencies. WUGs and agency officials are trained in new technologies and management approaches for improved service delivery and scheme management. In order to facilitate better information sharing and more reliable provision of irrigation and drainage services, the project also strengthen the management capacity of the ID.

Secondly, the component also finances the improvement and rehabilitation of irrigation and drainage infrastructure. It finances rehabilitation and improvement of main conveyance, flow control and sediment management systems and de-siltation of irrigation and drainage systems and dam safety enhancement measures. The project also supports improvement of farmer owned water management infrastructure and pilot land improvement approaches. The specific infrastructure rehabilitation investments is determined based on the results of special studies related to the project irrigation sites undertaken during project implementation. These feasibility studies, environmental and social assessments, options for improved cost recovery, performance assessment benchmarking and scheme management improvement potential, asset management, disaster risk management, dam safety and drainage master planning.

Finally, the project pays also attention to clarity of land tenure issues. The component supports inclusive land administration activities in the project irrigation and land improvement sites. It support production of new digital cadastral maps for the project irrigation sites based on international best practices. New LUCs be issued to the farmers based on these maps. International best practice approaches in land improvement be piloted, starting from community engagement in order to generate rights-sensitive parcel layout plans, which minimize needs for transactions and land acquisition. Finally, the project support community awareness raising campaigns to educate beneficiary farmers on operating in

market economy with tradable land rights, including about farmland values and options that the market economy provides. The purpose is to provide knowledge and skills to farmers to protect themselves against uninformed or duress land transactions.

Component (2) – Farm Advisory and Technical Services

This component is to enhance MOALI technology development and farm advisory services in project townships. An improvement of the irrigation sites under Component 1 achieves improved water availability and water control. The production and extension of improved technologies and agronomic practices supported under Component 2 enhance the economic and financial viability of farming systems on these sites. Farmers have the capacity to improve cropping intensity and where feasible diversify to more water efficient crops such as legumes, oil seed crops and vegetables. Increasing awareness of costs and benefits of improved varieties, good seed, and upgraded fertilizer recommendations to take advantage of improved water conditions also raises productivity as the introduction of other agronomic and farm mechanization practices.

The component support technology development and adoption activities in the project irrigation sites, which focus on increasing farm productivity and reducing production costs of farming systems. Screening of technologies include systematic assessment of their nutrition improvement potential. It builds on the existing public extension system, which is relatively well staffed but lacks operational funds, knowledge in modern technologies and farm practices, and interaction skills with farmers. The component is to address these weaknesses. Functionally, it support quality seed production (mainly rice, beans and pulses, and oil crops that are not produced by the private sector) by developing farmer-based seed multiplication infrastructure and facilities and strengthen seed supply chains. This fosters improvements in varietal development, on-farm seed multiplication, and distribution of improved seed to farmers. Improved fertilizer applications are expected to increase yield response rates to appropriate nutrient applications while reducing fertilizer costs. The potential risk of crop losses due to insect pest and disease outbreaks is addressed by improving the capacity of the MOALI and farmers to protect both public health and the environment through the adoption of Integrated Pest Management (IPM) techniques tested on the specimen problem identification collections of pests in target townships. All these agricultural technology development activities and knowledge of improved farming practices is to be disseminated to target farmers through improved farm advisory services which are based on farmers' needs and technical limits, farming systems and market opportunities. These activites seek to

improve the diversity of nutritional content of smallholder production and processing systems. The project support rehabilitation of village extension education centers, establish field demonstration sites of improved technologies, expand training programs and provide operational and mobility support to MOALI extension staff and subject matter specialists.

The rising rural labor costs and increasing scarcity of hired labor is evidenced in the target locations at peak season times of planting and harvesting. The farmers experience also high post-harvest losses. The relatively large farm sizes of Myanmar smallholders create good preconditions for profitable farm mechanization in the target irrigation sites. However, Myanmar farmers is significantly behind the culitvators in neighboring countries in the use of machinery. The private sector rarely provides mechanization services. The country cannot provide a strong vocational training system for farm machinery or engineering. The component is to support training of MOALI mechanics, test and demonstrate new climate-smart technologies suitable for smallholder farming systems, and provide mechanization services in the project irrigation sites. It is to upgrade the capacity of the MOALI mechanization training center in Meikhtila, Mandalay region, through the introduction of modern training methodologies, materials, and upgrade repair workshops, in order to provide more and better vocational training to the staff of MOALI mechanization service stations, farmers, and the private sector. It also supports four MOALI mechanization service stations in the project regions, through procurement of machine packages and mobile repair workshops selected in collaboration with the private sectors in order to promote climate-smart mechanization technologies, provide costeffective services suitable for smallholder farming systems in the target irrigation sites, and carry out farmer training.

Component (3) – Project Coordination and Management

The Project Management Unit (PMU) be established in the MOALI. It include technical and fiduciary MOALI staff, to be seconded to PMU on full-time basis from the relevant implementing departments, as well as consultants. The PMU be responsible for the overall coordination of the project implementation and fiduciary arrangements, including procurement, financial management, management of safeguards issues, internal and external auditing and the establishment of the project Monitoring and Evaluation (M&E) system. Outside consultants are recruited in areas which require strengthening of MOALI implementation capacity. The component funds the establishment of the M&E and Management Information Systems and associated Technical Advisory (TA) services;

communication and consultation program; salaries of the externally recruited staff, related office equipment and mobility.

Component (4) – Contingent Emergency Response

The objective of this zero component is to allow a rapid reallocation of credit proceeds from other components to provide emergency recovery and reconstruction support after an eligible crisis or emergency. The component is to finance public and private sector expenditures on a positive list of goods and/or specific works, goods, services and emergency operation costs required for Myanmar's emergency recovery. A Contingent Emergency Response Implementation Plan applies to this component, detailing financial management, procurement, safeguard and any other necessary implementation arrangements.

4.3 Approach of the Agricultural Development Support Project

The ADSP uses a phased approach, which allows flexible identification of the number and size of target gravity irrigation perimeters. The project implementation starts with smaller and technically relatively simple irrigation sites. It gradually scales up to potentially larger systems or systems with more complex problems as the lessons from the initial areas become available. In fact, the implementation of the project is hinged on a learning approach that allows testing of different ways to forge trust among farmers to stimulate collective action, strengthen bridges between farmers and the Iirrigatoin Department (ID) of MOALI and promote coordination between the ID and other Departments of the MOALI to improve and synchronize the irrigation management and delivery of farm advisory services under different circumstances. The integrated farming systems approach under the project is expected to achieve better synergies between farmers' empowerment, irrigation and drainage infrastructure rehabilitation, land improvement, technology development, delivery of advisory services, and technologyadoption and utilization.

Mellor (2017) and Suman (n.d.) identified 12 determinants to increase agricultural productivity as such 1) transport facilities, 2) irrigation facilities, 3) institutional credit, 4) proper marketing facilities, 5) supply of quality inputs, 6) consolidation of holdings, 7) agricultural education, 8) reduction of population on land, 9) provision of better manure seeds, 10) land reforms, 11) co-operative farming, and 12) development of cottage and small scale industries. By analyzing the ADSP components and its activities, it finds that ADSP is in line with most of the determinants as the following table.

Table (4. 2) – Consistency with Agricultural Projectivity Determinants

Project Components	In line with Productivity Increase Determinants
1) irrigation and drainage management 2) farm advisory and technical services 3) project coordination and management 4) contingent emergency response	✓ Irrigation facilities ✓ Transport Facilities ✓ Irrigation Facilities ✓ Proper Marketing Facilities ✓ Supply of Quality Inputs ✓ Consolidation of Holdings ✓ Agricultural Education ✓ Provision of Better Manure Seeds ✓ Land Reforms ✓ Co-operative Farming

Source: Own Compilation Based on the World Bank Report and Literature

4.4 Institutional and Implementation Arrangement

The Project is governed at the Union level by the National Project Steering Committee (NPSC) and at the township level by the Township Agricultural Coordination Committees (ACC). The main responsibilities of the NPSC are to review project work plans and project progress, resolve implementation bottlenecks, and provide guidance on any other matters as requested by the Project Management Unit (PMU). Implementation of the project activities is carried out by five technical departments (ID, DOA, AMD, DAR, and SLRD) through their central, regional, district and township level structures. ID is the lead agency for the implementation of the Component 1, with technical inputs from SLRD and AMD, and DOA is the lead agency for Component 2, with technical inputs from DAR and AMD. These implementing departments provide necessary technical expertise or recruit necessary expertice if needed to ensure smooth implementation of the project. They are responsible for: (i) initiating the procurement activities as per work plan, providing technical specifications and TORs to PMU and serving as members of the evaluation committee; (ii) accounting for funds on their respective operating accounts and at district level accounts and providing financial information to PMU for the compilation of the Interim Unaudited Financial Reports (IFRs); and (iii) perparing the annual work plans of their respective sub-components and activities, and providing information and indicators for the PMU for the consolidated project reporting. The implementation of field activities is done by respective township level staff

with the supervision and technical backstopping from the team of central/regional/district level Subject Matter Specialists (SMS) of the MOALI, except for the irrigation rehabilitation works which be done by ID directly.

The World Bank provides the implementation support on the following areas:

(a) Project Management: the World Bank closely monitors the capacities of the project and component management teams throughout the implementation period to ensure adequacy. In particular, implementation support is provided to the PMU and implementing departments of the MOALI. Where needed, additional trainings are provided in relation to the World Bank's fiduciary and reporting requirements, as well as in the areas of environmental and social safeguards management.

(b) Procurement: Implementation support include: (i) procurement training for the implementing agencies staff; (ii) hiring of procurement specialists to support the ADSP; (iii) reviewing and providing feedback on the procurement documents to the implementation agency; (iv) providing the Government with detailed guidance on the World Bank's Procurement Guidelines; (v) monitoring of procurement progress against the detailed Procurement Plan; and (vi) providing any other required training and support when needed in the procurement cycle. During the first 12 months of project implementation, close support was provided to the MOALI to ensure timely procurement and contracting of critical large, technical procurement packages.

(c) Financial management (FM): the financial management implementation support is carried out semi-annually. FM risk is reassessed at each mission and the number of implementation support adjusted accordingly. The implementation support mission includes reviews of the continued adequacy of the project's financial management arrangements and a review of selected transactions on an annual basis. Where possible, an integrated fiduciary review of goods and services contracts are carried out jointly with procurement team.

(d) Safeguards: the World Bank provides enhanced implementation support based upon needs discussed and agreed upon with counterparts. It also provides feedback and follow up with the implementing departments on any issues identified. Given the very low institutional capacity and underdeveloped regulatory regime for environmental and social safeguards, the World Bank, including environmental and social specialists, provides enhanced safeguards support to the implementing agencies.

(e) Implementation Progress: the World Bank closely monitors the overall progress of project implementation by providing reviews of the semi-annual progress reports, the execution of the Procurement Plan, and the actual disbursement of the IDA credit. The World

Bank also provide support through regular supervision missions to help the implementing agencies identify and address any issues that may arise to ensure timely project progress.

By looking at the project's institutional and implementation arrangement, it is evident that the project is designed to strengthen the capacity of govt. implementation agencies. It is in line with the Government strategy of agriculture sector development stated in Mynamar Sustainable Development Plan (2018 – 2030). The project design itself is for the Govt. to implement their requested project with the Bank's implementation support. Since the project design stage, the client is the pivotal of implementation. The Bank's role is to provide implementation support. Moreover, the Bank transfers the knowledge and skills on project management, fiduciary, safeguards and technical know-how. In this way, the Govt. has the sense of their ownership on the operation. This is also a susutainable way of delivering the public services as the Govt in its capaicty of prime duty bearer.

Some organizations claimed that the MDB-funded projects can cause serious damage to the environment and communities in the project area. Large development projects can lead to violations of human rights and environmental destruction in countries that lack a strong civil society, solid rule of law, and the political to prevent environmental and social harms. Despite all the talk of poverty reduction and all the safeguard policies, MDBs often fund projects that are harmful and create, rather than reduce, poverty. It should be noted here that in the case of loans, even if the project does not meet its stated goals, the recipient country, and ultimately the taxpayers of the country, are nevertheless obliged to repay the loan. But the World Bank's mechanism for 'do-no-harms' can ensure that. The World Bank's also have Office of Vice Presidency Integrity for any complaints.

4.5 Project Results Monitoring and Evaluation

PMU monitor progress against the agreed performance indicators. Data are collected for each of the indicators by PIUs who is responsible for monitoring technical progress of their respective activities. The project's M&E system focus on tracking and assessing project implementation progress, outputs, outcomes and impacts across all three components. Quarterly progress reports (QPR) are provided to the World Bank within 45 days from the end of each quarter. Updates on the project implementation progress and up-to-date data on key performance indicators, financial and procurement information, and contract monitoring are included in the QPRs.

The World Bank, together with MOALI, carry out a mid-term review (MTR) to assess the status of the project as measured against the performance indicators. The MOALI

prepare and furnish to the World Bank a mid-term report on or about forty months after the effectiveness date, documenting: (i) the overall progress in implementation of the project; (ii) result indicators and other results, for instance, impact evaluation; (iii) progress on financial management, procurement, and disbursement; (iv) progress on the Environmental and Social Management Framework (ESMF) and other safeguards measures implementation; (v) implementation arrangements; and (vi) plans for completion and need for any project adjustments or reallocation of funds to improve performance. This report is reviewed with the World Bank and the NPSC to help PMU take measures required.

Table (4.3) – Results Framework of the Agricultural Development Support Project

Annex 1: Results Framework and Monitoring
MYANMAR: AGRICULTURAL DEVELOPMENT SUPPORT PROJECT

Project Development Objective														
The Project Development Objective is to increase crop yields and cropping intensity in selected existing irrigation sites in the Recipient's Bago East, Nay Pyi Taw, Mandalay and Sagaing regions.														
Project Development Objective Indicators														
					Cumulative Target Values									
No	**Indicator Name**	**Core**	**Unit of Measure**	**Baseline**	**YR1**	**YR2**	**YR3**	**YR4**	**YR5**	**YR6**	**YR7**	**Frequency**	**Data Source**	**Responsibility for Data Collection**
1	Direct project beneficiaries	☒	Number	0	0	10,300	34,000	51,500	86,000	110,000	120,000	Annually	Surveys	DOA/ID/AMD/ SLRD/PMU
	Including of female	☒	Percentage	0	0	50	50	50	50	50	50	Annually	Surveys	DOA/ID/AMD/ SLRD/PMU
2	Average yields of selected crops in the project area increased											Annually	Farm surveys/ Impact evaluation (*)	DOA/SLRD/PMU
	Paddy (wet season)		Percent	2.50 tons/hectare	0	0	10	15*	20	25	25*			
	Paddy (dry season)		Percent	3.00 tons/hectare	0	0	10	15*	25	30	30*			
	Black gram		Percent	1.20 tons/hectare	0	70	10	15*	25	30	30*			
	Green gram		Percent	0.80 tons/hectare	0	0	10	15*	25	30	30*			
3	Cropping intensity in the project area increased		Percentage	120%				140%			160%	Year 4 and Year 7	Surveys	ID/SLRD/PMU
Intermediate Results Indicators														
Component 1: Irrigation and Drainage Management Improvement														
4	Area provided with irrigation and drainage services – improved	☒	Hectare	0	0	3,000	10,000	15,000	25,000	32,000	35,000	Semi-annually	Project reports/ Surveys	ID
5	Water users provided with improved irrigation and drainage services	☒	Number	Female: 0 Male: 0	0 0	190 1,700	620 5,600	940 8,400	1,600 14,000	2,000 18,000	2,200 19,800	Annually	Surveys	ID
6	Water user groups created and operational	☒	Number	0	0	0	30	60	120	200	280	Annually	Surveys	ID
Component 2: Farm Advisory and Technical Services														
7	Technologies demonstrated in the project area	☒	Number	0	0	9	17	25	38	48	56	Semi-annually	Survey	DOA/DAR/AMD
8	Land area where SLM practices have been adopted as a result of the project	☒	Hectare	0	0	0	3,000	4,500*	7,500	9,600	10,500*	Annually	Farm surveys/ Impact evaluations (*)	DOA/DAR
9	Land users adopting SLM practices as a result of the project	☒	Number	Female: 0 Male: 0	0	0	190 1,700	280* 2,500*	470 4,200	600 5,400	600* 5,900*	Annually	Farm surveys/Impact evaluations (*)	DOA/DAR
10	Clients who have adopted improved agricultural technologies promoted by the project	☒	Number	Female: 0 Male: 0	0	0 0	300 2,800	470* 4,200*	780 7,000	1,000 9,000	1,100* 9,900*	Annually	Farm surveys/ Impact evaluations (*)	DOA/DAR/AMD
11	Targeted clients satisfied with advisory services	☒	Percentage	Female: 0 Male: 0	0 0	25 25	30 30	40* 40*	50 50	55 55	60* 60*	Annually	Stakeholder surveys/Impact evaluation (*)	DOA/DAR/AMD
11a	Targeted clients satisfied with agricultural services	☒	Number	Female: 0 Male: 0	0 0	7,090 7,090	28,350 28,350	56,700* 56,700*	118,000 118,000	166,000 166,000	198,000* 198,000*	Annually	Stakeholder surveys/Impact evaluation (*)	DOA/DAR/AMD
11b	Targeted clients	☒	Number	Female: 0 Male: 0	0 0	28,000 28,000	95,000 95,000	142,000* 142,000*	236,000 236,000	302,500 302,500	331,000* 331,000*	Annually	Stakeholder surveys/Impact evaluation (*)	DOA/DAR/AMD
12	Client days of training on irrigation, water managements, land, and agriculture provided	☒	Number	Female: 0 Male: 0	0 0	500 4,500	1,000 9,000	1,500 13,500	2,000 18,000	2,500 22,500	3,000 27,000	Semi-annually	Progress reports	DOA/DAR/AMD/SLRD
Component 3: Project Management														
13	Project progress reports submitted on time		Yes/No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Annually/ Quarterly	Progress reports	PMU
14	Annual audit report submitted on time		Yes/No	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Annually	Project reports	PMU

The project implementation is closely monitored, and data are collected as planned. Midterm data showed that the project is on the right track and delivering the results as targeted. Please see the result table below:

Table (4. 4) – Result Achieved as of Oct, 2019

Indicator		Baseline	Current	Target
Farmers adopting improved agricultural technology	Value	0.0	8088.00	22000.00
	Date	Oct 30, 14	Oct 31, 19	Jun 30, 2022
Cropping intensity in project areas increased	Value	120.00	140.00	160.00
	Date	Oct 30, 14	Oct 31, 19	Jun 30, 2022
Farmers reached with agricultural assets or services	Value	0.0	33688.00	120000.00
	Date	Oct 30, 14	Oct 31, 19	Jun 30, 2022
Average yields of selected crops in project areas increased	Value	0.0	58.00	25.00
	Date	Oct 30, 14	Oct 31, 19	Jun 30, 2022
- Paddy Rice (Wet Season)	Value	0.0	70.00	25.00
	Date	Oct 30, 14	Oct 31, 19	Jun 30, 2022
- Paddy Rice (Dry Season)	Value	0.0	48.00	30.00
	Date	Oct 30, 14	Oct 31, 19	Jun 30, 2022
- Blackgram	Value	0.0	15.00	30.00
	Date	Oct 30, 14	Oct 31, 19	Jun 30, 2022
- Green Gram	Value	0.0	15.00	30.00
	Date	Oct 30, 14	Oct 31, 19	Jun 30, 2022
Direct project beneficiaries	Value	0.0	33688.00	120000.00
	Date	Oct 30, 14	Oct 31, 19	Jun 30, 2022

Source: The World Bank, 2019

4.7 Concessional Borrowing

The ADSP financing comes from the International Development Association (IDA) to help the low-income countries. Overseen by 173 shareholder nations, IDA seeks to reduce poverty by providing loans (called “credits”) and grants for programs that boost economic growth, reduce inequalities, and improve people’s living conditions. IDA lends money on concessional terms. This means that IDA credits have a zero or very low interest charge and repayments are stretched over 30 to 38 years, including a 5- to 10-year grace period. The ADSP was financed by IDA-17 with regular terms, so maturity period is 38 years with 6 year grace period. Principal repayments is 3.125% (7-38 years). No interest need to pay. Service fee 0.75% charged on the withdrawal amount of the loan. Commitment fees is waived. Hence, it is highly concessional. Detailed financial transitions are publicly available. Hence, some countries borrow the World Bank loan and invest their own revenue in more profitable investment, for example China and Russia.

Table (4. 5) – Detailed Financial Activity as of December 30, 2019

Period	Financier	Transaction Type	Amount (US$)
Apr, 2015	IDA56240	Commitment	100,000,000.00
Jun, 2016	IDA56240	Disbursement	5,977,016.01
Dec, 2016	IDA56240	Fees	20,664.52
Jan, 2017	IDA56240	Disbursement	19,049.99
Feb, 2017	IDA56240	Disbursement	13,800.00
Mar, 2017	IDA56240	Disbursement	23,600.00
Jun, 2017	IDA56240	Disbursement	1,243,635.87
Jun, 2017	IDA56240	Fees	21,591.46
Jul, 2017	IDA56240	Disbursement	21,880.00
Sep, 2017	IDA56240	Disbursement	260,835.00
Oct, 2017	IDA56240	Disbursement	15,600.00
Dec, 2017	IDA56240	Disbursement	306,172.90
Dec, 2017	IDA56240	Fees	28,421.61
Jan, 2018	IDA56240	Disbursement	1,494,466.74
Feb, 2018	IDA56240	Disbursement	22,050.00
Mar, 2018	IDA56240	Disbursement	6,243,793.81
May, 2018	IDA56240	Disbursement	27,460.01
Jun, 2018	IDA56240	Disbursement	1,217,741.34
Jun, 2018	IDA56240	Fees	46,431.57
Aug, 2018	IDA56240	Disbursement	105,212.30
Dec, 2018	IDA56240	Disbursement	1,508,491.91
Dec, 2018	IDA56240	Fees	61,599.93
Feb, 2019	IDA56240	Disbursement	324,861.39
Mar, 2019	IDA56240	Disbursement	6,648,759.34
Apr, 2019	IDA56240	Disbursement	4,239,649.03
Jun, 2019	IDA56240	Disbursement	150,000.01
Jun, 2019	IDA56240	Fees	87,431.26
Jul, 2019	IDA56240	Disbursement	-561,912.86
Aug, 2019	IDA56240	Disbursement	8,123,209.71
Sep, 2019	IDA56240	Disbursement	594,997.53
Nov, 2019	IDA56240	Disbursement	4,494,462.22
Dec, 2019	IDA56240	Disbursement	61,949.95
Dec, 2019	IDA56240	Fees	127,455.64

Source: The World Bank Data, 2019

CHAPTER (V) - CONCLUSION

This chapter presents a discussion on findings from the study of the effect of the World Bank loan on agriculture sector in Myanmar and suggestion that emerge from these findings. It also describes the recommendations for further studies.

5.1 Findings and Discussion

Agriculture sector is important for Myanmar Economic development. Agriculture accounts for about 70 percent of jobs in rural areas and among poor households. Incomes from agriculture have contributed to at least half of poverty reduction in the last decade. However, agricultural growth is limited by thin input markets, reflecting the broader investment climate, and poor institutional infrastructure such as irrigation, extension, and marketing services. Low-quality physical infrastructure reduces productivity and limits value-chain potential. The potential for agricultural growth in Myanmar is still unfulfilled, although this sector is key for poverty reduction.

To eliminate extreme poverty and to boost shared prosperity, the World Bank provides assistance in Myanmar Agriculture Sector. Results shows that the World Bank has helped Myanmar to boost irrigation infrastructure and the use of climate-smart technologies. Since 2017, the World Bank helped to improve irrigation and drainage on 19,595 hectares of land that serves 33,688 beneficiaries and shared CSA technologies with 8,088 beneficiaries--26% of them women.

The study finds that the Bank's support in agriculture is in line with the agricultural productivity determinants derived from Mellor (2017) and Suman (2013). The study shows that the World Bank-financed project help Myanmar to strengthen its country systems, not creating parallel or new mechanism. The project aims to build the capacity of the Government staff on their technical skills. Hence, the approach is also in line with the Government's development strategy of country alignment. The World Bank provides strong implementation support. Throughout the whole project cycle since the early stage of the project formulation, skills and knowledge transfer on project management, fiduciary, and safeguards is the essential element. The project data indicates that the project is on the right track of delivering the target results. Moreover, the project is financed by highly concessional credit. According to the findings, it can be concluded that the World Bank loan on Myanmar Agriculture Development Support Project is benefiting the country.

5.2 Suggestions

The World Bank loan on Myanmar Agricultural Development Support Project is manily focusing on improving the irrigation and drianage management system. It also supports for farm advisory and technical services. In the analysis, the project designs to strengthen the capacity of the Government agencies and the country system as well. However, the project does not provide agriculture loans to farmers. Access to finance for agriculture is one of key determinants for agricultural productivity increase. Therefore, the study suggests that the World Bank coonsider including the component of agricultural loan provision for farmers. Agricultural productivity increase is also dependent on rural infrastructure development so that farmers can send/bring their products to markets. Hence, the study suggests that the World Bank-financed projects be well coordinated and complementing each other for poverty alleviation.

5.3 Needs for Further Studies

The study only examines the IPF instrument of IDA lending. Therefore, other lending instruments (DPF and PforR) of IDA need to analyze whether the Bank loan is effective in delivering the results. This study only uses the data publicly available by the World Bank. For more comprehensive idea to suggest, other studies should use primary data to examine the World Bank operation is needed. The comparative research should be done to know the trends of agriculture sector development in Myanmar by considering the World Bank loan support projects.

REFERENCES

Bank Information Center. (n.d.). https://bankinformationcenter.org/

Hayati, D. (2017). *A literature review on Frameworks and Methods for Measuring and Monitoring sustainable Agriculture* (No. 22). Technical Report.

Islam, N. (2011). Foreign aid to agriculture: review of facts and analysis. *IFPRI-Discussion Papers*, (1053). International Food Policy Research Institute.

Mellor, J. W. (2017). *Agricultural development and economic transformation: promoting growth with poverty reduction*. Springer.

Moyo, D. (2009). *Dead aid: Why aid is not working and how there is a better way for Africa*. Macmillan.

Myanmar. Ministry of Agriculture, Livestock and Irrigation. (2018). *Myanmar Agriculture Development Strategy and Investment Plan (2018-19 ~ 2022-23).* MOALI.

Nelson. M. R. (2018). *Multilateral Development Banks: Overview and Issues for Congress.* Congressional Research Service.

Nwachukwu, I. (2008). *Planning and evaluation of agricultural and rural development project*. Lambhouse publishers.

Organization for Economic Cooperation and Development. (2019). *Net ODA.* https://data.oecd.org/oda/net-oda.htm

Ravallion, M., & Datt, G. (2002). Why has economic growth been more pro-poor in some states of India than others?. *Journal of development economics*, *68*(2), 381-400.

Smith, C. S., & McDonald, G. T. (1998). Assessing the sustainability of agriculture at the planning stage. *Journal of environmental management*, *52*(1), 15-37.

Spedding, C. (2012). *An introduction to agricultural systems*. Springer Science and Business Media.

Suman. S. (n.d.). *How to increase agricultural productivity (11 ways).* http://www.economicsdiscussion.net/agriculture/productivity/how-to-increase-agricultural-productivity-11-ways/13217

Ten Napel, J., Van der Veen, A. A., Oosting, S. J., & Koerkamp, P. G. (2011). A conceptual approach to design livestock production systems for robustness to enhance sustainability. *Livestock Science*, *139*(1-2), 150-160.

The World Bank. (2015). *Agricultural Development Support Project: Project Appraisal Document.*

The World Bank. (2019). *Agricultural Development Support Project Results.* https://projects.worldbank.org/en/projects-operations/project-detail/P147629?lang=en

The World Bank. (2019). *Agriculture Overview.* https://www.worldbank.org/en/topic/agriculture/overview

The World Bank. (2019). *Agriculture Results.* https://www.worldbank.org/en/topic/agriculture/overview#3

The World Bank. (2019). *Cambodia Agricultural Sector Diversification Project*. https://projects.worldbank.org/en/projects-operations/project-detail/P163264

The World Bank. (2019). *Agriculture Competitiveness Project.* https://projects.worldbank.org/en/projects-operations/project-detail/P161473?lang=en

The World Bank Group. (2017). *Loan Handbook for World Bank Borrowers*. http://siteresources.worldbank.org/LOANS/Resources/Disbursement09.pdf

The World Bank. (2019). *Myanmar Overview.* https://www.worldbank.org/en/country/myanmar/overview

The World Bank. (2019). *What We do.* https://www.worldbank.org/en/about/what-we-do

The World Bank. (2019). *Products and Services*. https://projects.worldbank.org/en/projects-operations/products-and-services#2

The World Bank. (2019). *Products and Services*. https://projects.worldbank.org/en/projects-operations/products-and-services#3

Thirtle, C., Lin, L., & Piesse, J. (2003). The impact of research-led agricultural productivity growth on poverty reduction in Africa, Asia and Latin America. *World Development*, *31*(12), 1959-1975.

Timmer, C. P. (1997). *How well do the poor connect to the growth process?*. Harvard Institute for International Development.