**YANGON UNIVERSITY OF ECONOMICS**
**DEPARTMENT OF ECONOMICS**
**MASTER OF DEVELOPMENT STUDIES PROGRAMME**

# FARMERS' UTILIZATION OF MYANMAR AGRICULTURAL DEVELOPMENT BANK'S (MADB) LOANS (CASE STUDY: DOUBLE CROPPING FARMERS IN KYANGIN TOWNSHIP)

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**JUNE, 2025**

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A thesis submitted as a partial fulfillment of the requirements for the Master of Development Studies (EMDevS) Degree

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This is certify that the thesis entitled **"Farmers' Utilization of Myanmar Agricultural Development Bank's (MADB) Loans (Case Study: Double Cropping Farmers in Kyangin Township)"** submitted as partial fulfillment towards the requirements for the degree of Master of Development Studies has been accepted by the Board of Examiners.

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# ABSTRACT

This study investigates the utilization of Myanmar Agricultural Development Bank (MADB) loans by double cropping farmers in Kyangin Township, Ayeyarwady Region. The primary objective is to assess how MADB loans support seasonal rice cultivation and impact farmers' productivity, income, and access to agricultural inputs. Using a descriptive research method, both qualitative and quantitative data were collected through surveys, focus group discussions, and interviews involving 239 farmers from selected villages. The findings show that although 75.3% of respondents rely on MADB loans, challenges persist in terms of loan amount adequacy, disbursement timing, and coverage of total cultivation costs. Most farmers reported using the loans to purchase seeds, fertilizers, and pay for labor, but often supplemented them with personal funds or informal borrowing due to financial shortfalls. The study found a positive relationship between loan utilization and improved farm performance, although delayed disbursements often forced farmers to seek high-interest informal loans. The results suggest that enhancing the timeliness, flexibility, and adequacy of MADB loans could significantly contribute to agricultural productivity and rural development in Myanmar.

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# LIST OF ABBREVIATIONS

| | |
|---|---|
| ADB | Asian Development Bank |
| FAO | Food and Agriculture Organization |
| GDP | Gross Domestic Product |
| K | Kyat (Myanmar Currency) |
| MADB | Myanmar Agricultural Development Bank |
| MOPF | Ministry of Planning and Finance |
| MMSIS | Myanmar Microeconomic and Social Indicator Statistics |
| NGO | Non-Governmental Organization |
| ROSCA | Rotating Savings and Credit Association |
| SCPL | Seasonal Crop Production Loan |
| TL | Term Loan |
| USDA | United States Department of Agriculture |
| WB | World Bank |

# CHAPTER I
# INTRODUCTION

## 1.1 Rationale of the Study

Agriculture serves as a cornerstone for economic progress in most developing nations. Drawing on global experiences, there has been a renewed emphasis on agriculture as a catalyst for inclusive economic advancement. Among all sectors, improvements in agricultural productivity are especially effective in reducing poverty, as they directly enhance the incomes of rural populations. This highlights the importance of well-designed public investments and targeted, growth-driven policies in the agricultural sector, which can play a vital role in alleviating poverty particularly in countries like Myanmar, where a significant share of people live in rural communities (ADB, 2014; World Bank, 2016).

Myanmar is endowed with vast tracts of arable land, a large workforce, and a strategic location near major food markets such as China and India, giving it unique advantages in agribusiness. Its varied landscapes, abundant water resources, and diverse ecosystems support the cultivation of cereals, pulses, fruits, vegetables, and the raising of livestock and fish. Agriculture is central to Myanmar's economy, contributing roughly 32–40% of GDP and providing employment for as much as 64% of the population. The country's cultivated land spans between 12.8 and 17.65 million hectares, indicating ample room for growth (ADB, 2014; Okamoto, 2017; MMSIS, 2022). Despite this potential, the sector has long suffered from restrictive government policies and insufficient investment. Around 70% of Myanmar's citizens live in rural areas and rely on agriculture for their livelihoods (ADB, 2014).

Exports of agricultural goods make up 21–30% of Myanmar's total export revenues, highlighting the sector's economic significance (World Bank, 2016; MMSIS, 2022). As a result, agricultural modernization is a key objective in the country's development plans. Although the government has implemented both immediate and long-term strategies to boost output, productivity remains low, and high labor costs continue to suppress farmers' earnings. This situation prompts many seasonal workers

to seek employment in cities, which in turn creates labor shortages in rice farming (ADB, 2014).

## 1.2 Objective of the Study

The main objective of this study is to examine farmers' utilization of MADB loans in double-cropping cultivation.

## 1.3 Method of Study

This study uses a descriptive method with both qualitative and quantitative approaches. Primary data is collected from selected villages in Kyangin Township. Secondary data is gathered from reports of the Myanmar Agriculture Development Bank, journals, articles, and websites. Both types of data are used to achieve the objectives of this research.

## 1.4 Scope and Limitations of the Study

This study focuses on MADB loans given to farmers who grow rice in the monsoon season in Kyangin Township. It aims to find out the issues related to rice production and the income of these farmers. The research covers 239 respondents out of 626 farmers from selected villages in Kyangin. The survey was conducted between June and August 2025. The study is limited to the analysis of financial challenges and the relationship between rice production and farmer income in this specific area.

## 1.5 Organization of the Study

This research has five chapters. The study's motivation, aims, scope, limitations, and technique are explained in Chapter 1. Chapter 2 explores literature on agriculture's role in nation-building. In Chapter 3, the Myanmar Agriculture Development Bank is described. Chapter 4 examines rice production with MADB loans. Chapter 5 covers the study's primary results and conclusions.

# CHAPTER II
# LITERATURE REVIEW

## 2.1 Agriculture, Growth, and Poverty Reduction

Agriculture is a key sector for economic growth and poverty reduction in many developing countries. It provides income and employment for a large part of the population, especially in rural areas. Studies have shown that growth in agriculture has a direct and positive effect on reducing poverty. When agricultural productivity increases, the incomes of rural households also rise, leading to better living standards and less poverty (FAO, 2004).

In many countries, agriculture is the main source of livelihood for the poor. Improvements in this sector can have a bigger impact on poverty reduction than growth in other sectors. For example, research has found that a 1% increase in agricultural GDP can lead to a much higher income growth for the poorest people compared to similar growth in manufacturing or services. This is because most of the poor live in rural areas and rely on farming for their income (Gallup, Radelet, & Warner, 1997).

The link between agriculture and poverty reduction is strong because of several reasons. First, agriculture creates jobs for millions of people. It is often the largest employer in developing countries. Second, increased agricultural production leads to more food availability and lower food prices. This benefits both rural and urban poor, as food takes up a large part of their expenses. Third, when farmers earn more, they spend more on goods and services, which helps the whole economy grow (FAO, 2004).

Historical evidence supports the idea that agricultural growth leads to poverty reduction. The Green Revolution in Asia is a good example. During this period, new technologies and better seeds increased crop yields. As a result, millions of people were lifted out of poverty. Studies from India, Southeast Asia, and other regions show that rural sector growth reduced poverty in both rural and urban areas (Datt & Ravallion, 1996).

The impact of agricultural growth on poverty reduction depends on how resources like land are distributed. If land and other assets are spread more equally, the benefits of growth reach more people. But if land is owned by a few, the poor may not gain as much from agricultural progress. Access to credit, inputs, and markets is also important. When small farmers can borrow money and buy better seeds or fertilizers, they can increase their yields and incomes (Bourgignon & Morrison, 1998; Timmer, 1997).

Research shows that every 1% increase in labor productivity in agriculture can reduce the number of people living on less than a dollar a day by 0.6 to 1.2% (Thirtle, Lin, & Piesse, 2003). No other sector has such a strong effect on poverty. This is why many experts argue that investing in agriculture is one of the best ways to fight poverty (Warr, Peter G. 2001).

Agricultural growth also has indirect effects. When farmers earn more, they spend more on local goods and services. This creates jobs in other sectors, such as transport, retail, and manufacturing. These linkages mean that the benefits of agricultural growth spread throughout the economy (Vogel, 1994; Timmer, 1995).

Studies in Southeast Asia show that countries like Thailand and Vietnam have used agricultural loans to boost rice production and exports1. These experiences highlight the importance of credit and financial services in supporting agricultural growth and poverty reduction.

Poverty reduction policies should focus on supporting agricultural growth and transformation. This includes investing in research, infrastructure, and financial services for farmers. Governments and development agencies should also pay attention to the distribution of resources and ensure that small farmers have access to land, credit, and markets (Valdés & Foster, 2003).

## 2.2 Concept of Agricultural Credit

Agricultural credit is a key part of modern farming. It refers to the financial services and loans given to farmers and people involved in agriculture. These loans help farmers pay for seeds, fertilizers, equipment, and other needs. Credit is important because most farmers do not have enough money to cover all the costs of production at the right time. By getting loans, they can buy inputs, use better technology, and improve their productivity.

The concept of credit is based on trust. The word "credit" comes from the Latin word "credo," meaning "I believe." In agriculture, credit is the temporary transfer of money or resources from those who have extra to those who need it, with the promise to pay it back later. This helps farmers manage their cash flow and invest in their farms. Agricultural credit is not just about borrowing money; it is about giving farmers the power to make decisions and grow their business (Yan Lin Aung, 2019).

There are different types of agricultural credit. Credit can be classified by its purpose, repayment period, security, and source. The main types are short-term, medium-term, and long-term loans. Short-term loans are usually for less than 18 months and are used for buying seeds, fertilizers, and paying wages during the crop season. Medium-term loans last from 18 months to five years and help farmers buy equipment or make small improvements on their land. Long-term loans are for more than five years and are used for big investments like buying land, building farm structures, or purchasing tractors (World Bank Group, 2014).

Agricultural credit can come from many sources. These include commercial banks, cooperative banks, rural banks, microfinance institutions, and government agencies. In some countries, private moneylenders and relatives are also important sources of credit. Each source has its own rules about interest rates, collateral, and repayment. Governments often create special programs to make credit more available and affordable for small farmers, as they may not have enough assets to use as collateral.

Farmers need credit for many reasons. They use it to buy inputs, hire labor, pay for irrigation, and manage risks from bad weather or low prices. Credit also helps them invest in new technologies and expand their farms. Without access to credit, farmers may be forced to sell their crops early at low prices or borrow from moneylenders at high interest rates. This can trap them in a cycle of debt and poverty (World Bank Group, 2016).

Studies show that access to agricultural credit increases productivity and efficiency. For example, research in Southeast Asia found that farmers who received loans were able to adopt new technologies and improve their yields. The technical efficiency of borrowers was higher than that of non-borrowers. Most of the loan amounts were used for crop production, which helped increase farm income and reduce poverty (Yan Lin Aung, 2019).

## 2.3 Importance of Agricultural Credit

Agricultural credit is very important for farmers and the entire agricultural sector. It gives farmers the money they need to buy seeds, fertilizers, equipment, and other inputs to grow crops. Without credit, many farmers cannot afford these things, especially at the start of the planting season when their cash flow is low. Credit helps them to invest in their farms, increase productivity, and improve their income.

Access to agricultural credit allows farmers to use new technologies, better seeds, and modern farming methods. This leads to higher yields and better quality crops. In many countries, credit has helped farmers adopt innovations that make their work easier and more efficient. For example, studies in India and Southeast Asia show that farmers who have access to loans are more likely to use improved seeds and fertilizers, which results in higher production and income (Kiruthika & Kiran, 2023; Sharma, 2017).

Credit also helps farmers manage risks. Farming is full of uncertainties, such as bad weather, pests, and changing market prices. When farmers have access to credit, they can recover from losses more easily and continue their operations. Credit can also help them store their crops and wait for better market prices instead of selling immediately at low prices (FSII, 2023). This flexibility can make a big difference in their profits.

Agricultural credit is not only important for individual farmers but also for the whole rural economy. When farmers earn more, they spend more in their local communities. This spending helps create jobs and supports other businesses in rural areas. In this way, credit contributes to economic growth and poverty reduction (World Bank, 2016; Adeboya & Adeola, 2008).

Studies have shown that farmers who receive formal credit can increase their productivity by up to 30% compared to those who rely on informal loans or their own savings (Sharma, 2017). Small and marginal farmers, who make up the majority of the agricultural workforce in many countries, benefit the most from access to credit. For these farmers, even a small loan can make a big difference in their ability to buy inputs and improve their yields (Choudhury, 2016).

However, there are still barriers to accessing credit. Some farmers find it difficult to get loans from banks because they lack collateral or do not understand the application process. High interest rates and strict repayment terms can also be problems.

Governments and financial institutions need to make credit more accessible and affordable for all farmers, especially smallholders (Number Analytics, 2025).

The growth of agriculture depends a lot on the use of credit. Agricultural credit is a key factor in modernizing farming. It helps farmers buy enough seeds, fertilizers, and other inputs. Credit also lets them use new technologies and better farming methods. This makes farm work more efficient and productive. When farmers have access to loans, they can improve their production and raise their standard of living. As a result, the whole rural economy grows, and poverty goes down.

Affordable farm loans are very important for rural families. Many rural people cannot get loans from regular banks. They often have to borrow from informal lenders who charge high interest rates. Sometimes, they even have to pawn their land or goods to get money. Most traditional banks do not serve rural farmers well because the loan amounts are small and farmers' incomes are not steady. Because of this, many farmers cannot invest in their farms as needed. Freeman et al. (1998) said that access to credit helps farmers use more and better inputs, which increases their production. Farmers need loans with low interest rates that match their needs. Affordable credit helps them pay off expensive debts and build a better financial future. It also helps them improve their farm output and income (Freeman et al., 1998).

Credit is also important for raising farm productivity. When farmers can borrow money, they are able to buy better seeds, fertilizers, and equipment. This helps them get more crops from the same land. Good farm productivity depends on using the right technology and knowledge. It also requires good farming practices, such as using water and soil wisely and being ready for climate changes. Both the private and public sectors play a role. The private sector supplies most of the inputs and services, while the public sector makes rules and supports research. Feder et al. (1990) noted that credit helps farmers get closer to the best use of their inputs, which increases their harvest and efficiency (Feder et al., 1990).

Agricultural credit also helps reduce poverty and increase profits. When farmers earn more, they spend more in their communities. This creates jobs and helps other businesses. Agricultural growth can also lower food prices and increase food supply. This is good for both rural and urban people. Access to finance is very important for ending poverty and helping people share in economic growth. Lyanda et al. (2014) found that new technologies, made possible by credit, help farmers become more

productive, escape poverty, and achieve food security. Credit gives farmers the chance to earn more and live better lives (Lyanda et al., 2014; Vogt, 1978).

Worldwide, there are about 500 million smallholder farming families. They depend on agriculture for their living. Credit helps these families increase their income, manage risks, and use climate-smart methods. It also helps farmers move from small, non-commercial farming to bigger and more profitable operations.

## 2.4 Market Distorting Policies of Developed Countries

Market-distorting policies in developed countries have a major impact on global agriculture. These policies include subsidies, tariffs, import quotas, and export incentives. Developed countries often provide large amounts of financial support to their own farmers. This support helps domestic producers keep prices above international market levels, making it hard for farmers in developing countries to compete (OECD, 2020; Richmond, 2013).

Every year, governments in developed countries spend hundreds of billions of dollars to support their agricultural sectors. About two-thirds of this support is given in ways that strongly influence farmers' business decisions and distort global trade. For example, subsidies can encourage overproduction, leading to surplus crops that are then exported at low prices. This practice, known as dumping, can lower world prices and hurt farmers in poorer countries who cannot compete with subsidized products (OECD, 2020; World Bank, 2008).

Tariffs and quotas are also common tools. These measures limit the amount of agricultural goods that can enter developed countries' markets. By restricting imports, these countries protect their own farmers but make it difficult for producers in developing countries to sell their crops abroad. As a result, rural producers in developing countries lose income and have fewer opportunities to grow their businesses (Richmond, 2013).

These policies create an uneven playing field. Farmers in developing countries often face higher costs and lower prices because of the actions of richer nations. For example, when developed countries subsidize their exports, it floods the world market with cheap goods. Local farmers in poorer countries cannot match these low prices and are pushed out of the market. This makes it harder for them to escape poverty, even though agriculture is often their main source of income (Richmond, 2013).

Market distortions also affect food security. When local farmers cannot compete, they may stop producing certain crops. This can reduce the variety of food available and make developing countries more dependent on imports. If world prices rise or if there is a shortage, these countries can face serious food crises (OECD, 2020).

Some developed countries have started to reform their agricultural policies. The European Union, for example, has reduced some of its most distorting subsidies. However, support levels remain high, and many policies still protect domestic producers at the expense of global market fairness (OECD, 2020). In other regions, such as the United States and Japan, significant subsidies and trade barriers still exist.

The effects of these policies are widely recognized as harmful to developing countries. They limit market access, reduce export earnings, and make it harder for rural communities to improve their livelihoods. Many international organizations and experts argue that reducing or eliminating these market-distorting policies would help developing countries grow their agricultural sectors and reduce poverty (World Bank, 2008).

Market-distorting policies in developed countries create challenges for farmers in poorer nations. These policies keep prices high at home, lower prices abroad, and limit market access for developing country exports. Reforming these policies is important for creating a fairer global trading system and supporting rural development worldwide.

## 2.5 Agricultural Credit and Rural Finance

Credit means having the ability to get goods or services now and pay for them later. Beckman and Foster (1969) described credit as borrowing money with a promise to pay it back in the future. It is the power a borrower must make a purchase or exchange by agreeing to pay later. Credit is very important in a growing economy because there is often a delay between making a product and selling it. This delay creates risk, as there is always a chance the borrower may not repay the loan. Because of this, credit always involves some risk due to the time between borrowing and repayment (Beckman & Foster, 1969).

Financial institutions play a key role in rural finance. Both private and government organizations collect money from people who save and then lend it to those who need credit. These institutions include banks, non-bank savings companies, financial firms, government agencies, and other lenders. Formal financial institutions

are regulated by the central bank, which oversees licensing and credit policies. Loans from these formal institutions are called formal loans because they follow legal rules and help people save and borrow money safely (World Bank, 2016).

Informal credit sources are also important in rural areas. Bekele (1995) divided informal lenders into two groups: commercial and non-commercial. Commercial lenders give short-term loans to earn profit. Non-commercial lenders are usually friends, family, or neighbors who lend money without expecting profit. Informal finance also includes groups like cooperatives, NGOs, and rotating savings and credit associations (ROSCAs). These groups are legal but not regulated by the government. Informal lenders also include moneylenders and other small-scale lenders in the community.

Default happens when a borrower fails to pay a loan back on time. Non-default means the borrower pays as agreed. According to Hulme (1996), creditworthy borrowers are those who follow all the loan rules and repay on time. Non-creditworthy borrowers are those who break the loan agreement and have trouble repaying their loans.

Credit is the ability to borrow money or goods and pay for them later. It is important for rural finance because it helps bridge the gap between production and sale. Both formal and informal financial institutions provide credit, but each has different rules and risks. Understanding these systems helps improve access to credit and supports rural development.

## 2.6 Review on Previous Studies

As Nyein Nyein Ei (2015) reports, while MADB provides both seasonal and term loans, these are often insufficient to meet the total cost of cultivation. Farmers typically receive loans in cash and can borrow for up to 10 acres of land. However, they still need to rely on informal loans to bridge the financial gap. Although MADB does not require traditional collateral, it demands joint group guarantees, which facilitates access for landowners but excludes landless farmers. The study recommends increasing seasonal credit levels and expanding support for agricultural equipment to better align credit with actual farm needs.

Khun Moe Htun and Myat Su Tin (2017) found that while MADB is the principal lender, small-scale farmers often face exclusion from formal lending channels and are forced to depend on informal lenders, which significantly raises their borrowing

costs. The seasonal availability of loans, mainly during the monsoon period, further limits farmers' ability to invest in dry-season crops. The study proposes policy interventions such as expanding MADB coverage to smallholders, increasing loans for non-paddy crops, and extending credit services beyond the monsoon season to support diversified and year-round farming activities.

Research by Yan Lin Aung (2019) underscores the importance of timely and adequate agricultural loans. While the Myanmar Agricultural Development Bank (MADB) plays a major role in supporting paddy farmers, issues such as insufficient loan amounts and delays in disbursement compel farmers to seek high-interest loans from informal sources. This often results in distress sales of crops at low market prices to meet debt obligations. The study recommends increasing the loan size and improving disbursement timing as key strategies to enhance farmers' financial autonomy and break the cycle of debt and poverty.

According to Ni Ni Oo (2019), MADB loans are generally accessible, with affordable interest rates and reasonable collateral requirements. However, many farmers report that the loan amounts fall short of covering full production costs, particularly for critical inputs like fertilizer and farm machinery. Although the bank staff are considered helpful, the complexity of the application process remains a barrier. To ensure more effective credit use and greater farm productivity, the study suggests increasing loan limits and simplifying documentation procedures.

A study by Villena et al. (2024) indicates that loans are commonly used for purchasing essential inputs like seeds, fertilizers, and pesticides. In Villa Cerveza, Philippines, rice farmers face notable challenges in securing and properly using credit, which limits their potential to adopt improved technologies and achieve higher yields. Although multiple credit sources exist—such as microfinance institutions, banks, and informal lenders—farmers in remote areas predominantly rely on informal sources due to accessibility. A portion of the borrowed funds is often redirected to meet urgent household needs, reducing the effectiveness of credit in farm investment. Financial limitations also restrict the adoption of modern farming practices. Importantly, the research shows a significant positive correlation between access to credit and effective utilization, which contributes to increased productivity and improved financial stability. To support rural agricultural development, the study recommends capacity-building programs such as financial literacy training and loan management seminars.

A study by Rengarajan and Sushmitha (2024) found that while loans are primarily used for farming purposes such as seed, fertilizer, and machinery purchases, delays in disbursement and financial stress often lead to the diversion of funds for non-agricultural uses. The study observed a positive link between the proper utilization of loans and timely repayment. However, paradoxically, greater use of loans for agriculture was also associated with higher default rates, indicating a complex relationship between credit use and repayment capacity. The researchers suggest targeted education, financial monitoring, and loan utilization guidance as essential measures to strengthen sustainable rural credit systems.

# CHAPTER III
# OVERVIEW OF MYANMAR AGRICULTURAL DEVELOPMENT BANK

## 3.1 Overview of Myanmar's Agriculture Sector and the Role of MADB

Agriculture continues to play a vital role in Myanmar's economy, encompassing crops, livestock, fisheries, and forestry. In 2024, the sector contributed approximately 20.8% of the country's Gross Domestic Product (GDP), reflecting its importance in national production. It also remains the primary source of employment, with an estimated 60–65% of the labor force engaged in agricultural activities. In terms of trade, agriculture made up a significant share of exports, generating around US $3.83 billion in export earnings during the 2023–2024 financial year. This represents approximately 25.7% of Myanmar's total exports, highlighting the sector's crucial role in the national economy and rural livelihoods.

Paddy rice is the most important crop in Myanmar. It covers the largest area of farmland and is the main source of food and income for many rural families. Other major crops include pulses, beans, oilseeds, sugarcane, maize, and rubber. Myanmar also grows a wide range of fruits and vegetables, palm oil, and coffee, but these are produced on a smaller scale. Livestock and fisheries are important for food and export, but livestock makes up only about 7.5 percent of agricultural GDP.

Most farmers in Myanmar grow low-value crops such as paddy, pulses, and oilseeds on relatively large plots of land, averaging 4 to 5 acres per holding. In contrast, high-value crops like onions, garlic, potatoes, vegetables, and flowers are grown on much smaller plots, often less than 2 acres. While Myanmar was once Asia's leading rice exporter, today it ranks lower, though rice and pulses remain key export products.

The agriculture sector in Myanmar faces many challenges. It is undercapitalized due to decades of low investment in infrastructure, such as roads, irrigation, electricity, storage, and research. As a result, farm productivity and rural incomes are low compared to neighboring countries. For example, annual agricultural income per worker in Myanmar is much lower than in Malaysia or Thailand.

The Myanmar Agricultural Development Bank (MADB) plays a key role in supporting the agriculture sector. Established in 1953, MADB is the largest rural financial institution in the country and is supervised by the Ministry of Agriculture and Irrigation. MADB provides loans mainly for short-term working capital needs, such as buying seeds, fertilizers, pesticides, paying farm workers, and leasing equipment. Most loans are given at subsidized interest rates, making them more affordable for small farmers. MADB serves millions of rural households and has a large network of branches across Myanmar.

Myanmar Agricultural Development Bank (MADB) continues to face several limitations that constrain its effectiveness. One major challenge is that the loan amounts provided typically cover only a portion of actual production costs, forcing many farmers to rely on informal lenders who charge significantly higher interest rates. Additionally, MADB's lending is concentrated on a narrow range of staple crops and often excludes farmers engaged in diversified or high-value agriculture, as well as small agribusinesses. These constraints limit the bank's reach and developmental impact.

The Myanmar Agricultural Development Bank (MADB) mainly provides loans to support rural clients. There are two main types of loans available: seasonal crop production loans and term loans. Seasonal crop production loans make up almost all of MADB's lending activities, while term loans are a much smaller part of the portfolio. In 2024, about 97.7 percent of all outstanding loans were seasonal crop production loans, and only 2.3 percent were term loans. These lending operations help farmers meet their short-term and long-term financial needs across rural Myanmar.

## 3.2 Myanmar Agricultural Development Bank

Myanmar has great potential for agriculture because of its rich natural resources and good location. The country's land, climate, and water resources allow farmers to grow many types of crops, raise livestock, and produce fish. Myanmar is located between India and China and has easy access to other Southeast Asian markets, which helps its agriculture sector grow and develop new agribusiness opportunities.

The Myanmar Agricultural Development Bank (MADB) is a key institution that supports the agriculture sector. MADB was started in June 1953 by the government to help develop agriculture, livestock, and rural businesses. Today, MADB is the largest bank serving rural areas and financing farming activities. By the end of 2025, MADB

had 208 branches across the country and served about 1.87 million customers, most of whom are farmers. This means MADB branches made up 23 percent of all bank branches in Myanmar at that time.

Since it was created, MADB has played a big role in giving loans to many low-income households involved in agriculture. Every year, the bank gives out many short-term loans to farmers for both the monsoon and winter growing seasons. Even though there are challenges with technology, infrastructure, and operations, MADB has a strong record of collecting loans, partly because of support from local authorities. However, MADB now faces several problems and needs major reforms to keep helping the agriculture sector in a meaningful way. These challenges include updating its systems and making sure it can continue to support farmers as the sector changes.

### 3.3 MADB's Mission and Policy Mandate

The Myanmar Agricultural Development Bank (MADB) provides accessible and dependable financial services to help agricultural, pastoral, and rural socio-economic companies nationwide.

Mission Statement: Provide banking services to help agricultural, pastoral, and rural socio-economic firms in the country.

Aim and Objectives:

(i) To provide loans for the development of agricultural, livestock, and rural socio-economic enterprises through simple and efficient procedures.

(ii) To promote rural banking services and increase their reach among rural populations.

(iii) To encourage the habit of saving to foster a spirit of self-reliance and financial discipline among rural communities.

(iv) To support the socio-economic development of rural areas by facilitating access to financial resources.

(v) To cultivate the habit of using formal banking services within rural populations.

(vi) To develop and expand banking business operations tailored to the needs of the agricultural sector.

The Myanmar Agricultural Development Bank (MADB) was established with a clear mission defined in its founding law. According to Article 5, MADB is required

to support the development of agriculture, livestock, and rural socio-economic enterprises throughout Myanmar by providing banking services to these sectors. The bank's main goal is to help rural communities grow and develop by offering financial products that encourage agricultural production and rural business activities.

In practice, however, MADB's operations do not always match its broad mission. The bank's current lending is focused mainly on a few key crops, such as paddy, groundnut, sesame, beans, cotton, and corn. This means that many other agricultural activities, products, and services are not included in MADB's loan programs. The bank does not provide loans for fruits, vegetables, livestock, seeds, fertilizers, processed foods, beverages, or forestry activities, even though these products can have high value in the market. As a result, many farmers and agribusinesses working with these products do not receive support from MADB.

MADB typically provides loans to small-scale farmers to cover only part of their production costs, and only for up to 10 acres of land. Most of the bank's clients are smallholder farmers who use basic farming methods and tools. These farmers often struggle to achieve high yields because they lack access to modern technology and enough funding. Medium and large-scale farmers, as well as commercial agribusinesses, traders, exporters, and other companies along the agricultural value chain, are not usually served by MADB, even though the law allows the bank to support production, processing, storage, distribution, and marketing activities related to agriculture and livestock. When farmers expand or diversify their businesses, MADB does not continue to support them, which limits the growth of commercial agriculture in Myanmar.

MADB's stated aims include providing loans for agriculture, livestock, and rural businesses with simple procedures, promoting rural banking, encouraging saving habits, and supporting the socio-economic development of rural areas. The bank also seeks to help rural people become more self-reliant, get used to using banking services, and develop the banking sector as a whole.

### 3.4 Seasonal Crop Production Loan (SCPL) and Term Loan (TL) Programs

The Seasonal Crop Production Loan (SCPL) program is designed to help smallholder farmers meet their working capital needs at the start of each agricultural season. SCPLs are divided into three categories: monsoon, winter, and pre-monsoon loans. Among these, monsoon loans are the most important and widely used by farmers.

The maturity period for SCPLs is up to one year, and farmers are expected to repay the full amount after harvest. The loan amount depends on how many acres the farmer owns or leases and the type of crop they plan to grow. Most SCPLs are used for crops like paddy, groundnut, sesame, beans, and cotton. These loans are usually not collateralized; instead, farmers join a group of 5 to 10 members to guarantee each other's loans.

TLs are divided into short-term, agricultural machinery, and special project loans. Short-term loans are granted for sugarcane, tea, and solar salt production. Farmers must save for farm machinery loans. These three-year loans are repaid in three payments, with the option to use the required deposit at the end of each year. Special project loans fund government initiatives like border rubber plantations. Many TLs need collateral, save for government-guaranteed projects.

SCPLs make up the majority of MADB's loan portfolio, while TLs are a smaller portion. Both programs are important for supporting farmers' short-term and long-term financial needs, but there is still a need for more flexible and accessible loan products to help all types of farmers in Myanmar.

**Table (3. 1) Type of Loan Offered by MADB**

| Seasonal Crop Production Loan (SCPL) | Term Loan (TL) |
|---|---|
| S1 Monsoon loan (less than 1 year) | T1 Short-term Loan (1-3 years) |
| (a) Paddy | (a) Solar salt production |
| (b) Groundnut | (b) Sugarcane plantation |
| (c) Sesame | (c) Tea processing |
| (d) Beans | (d) Coffee plantation |
| (e) Long staple cotton | (e) Citronella grass |
| (f) Corn | |
| S2 Winter loan (less than 1 year) | |
| (a) Paddy | T2 Farm machinery loan (more |
| (b) Groundnut | than 3 years) |
| (c) Sesame | |
| (d) Beans | |
| (e) Long staple cotton | |
| (f) Corn | |
| (g) Mustard | |
| S3 Pre monsoon loan (less than 1 year) | |
| (a) Paddy | |
| (b) Long staple cotton | |
| | T3 Special project loan (more |
| | than 3 years) |

Source: MADB (2025)

### 3.4.1 Breakdown of the Loan Portfolio (with Emphasis on Double Cropping)

Monsoon season loans make up the largest share of MADB's lending portfolio. In 2024, about 85 percent of all loans given by MADB were for the monsoon season, while loans for the winter season accounted for 11 percent of the total. The rest of the loan portfolio consists of different types of term loans, which are much smaller in comparison.

Within the seasonal crop production loans, paddy is the main crop financed by MADB. In the agricultural year 2024–25, loans for paddy made up 88 percent of the seasonal crop production loans. Beans and sesame followed, with 5 percent and 3

percent of the portfolio, respectively. This means that most of the bank's lending supports paddy farmers, especially those practicing double cropping.

**Table (3. 2) Loan Disbursement Period and Loan Collection Period**

| Type of Loan | Loan Disbursement Period | Loan Collection Period |
|---|---|---|
| S1 Mon son loan | May – August | December–March (following year) |
| S2 Winter loan | September – January | February – June (following year) |
| S3 Pre monsoon loan | January – February | December (same year) |
| T1 Short-term loan | | |
| (a) Solar salt production | October–December | August next year |
| (b) Sugarcane plantation | January–February April– | February next year |
| (c) Tea processing | June | March next year |
| (d) Coffee plantation | ---- | ------ |
| (e) Citronella grass | June–July | May next year |
| T2 Farm machinery loan | Anytime | 3 year loan |
| T3 Special project | Anytime | Not available |

Source: MADB (2025)

### 3.5 Loan Guarantees and Collateral Requirements

Most loans from the Myanmar Agricultural Development Bank (MADB) do not require traditional collateral. Instead, about 99.9 percent of MADB's loans use a joint group guarantee system. In this system, individual farmers must form a group of 5 to 10 members. Each member of the group is responsible for guaranteeing the loans of the others. This collective guarantee helps ensure that loans are repaid on time. MADB only gives loans in townships where there is a strong history of repayment. Because of this requirement, the bank has maintained a high loan quality and strong repayment rates.

Although the group guarantee method has worked well and MADB has reported a high repayment ratio, these loans are still considered unsecured. To protect itself, MADB should treat these loans as unsecured and use stricter rules for capital and risk provisions. This is important because the bank's loan portfolio is not very diverse. If

there is a major weather event or crop failure, MADB could face serious financial problems. To be safe, MADB should keep a higher capital adequacy ratio and set aside more funds to cover unexpected losses.

Some loans do require collateral. Farm machinery loans, which make up only a small part of MADB's total lending, require the machinery itself as collateral. In addition, farmers must make compulsory savings 40 percent of the machine's value for government-sold machines and 50 percent for privately sold machines. For special projects, like tea-processing and coffee plantation loans, the government provides a guarantee instead of collateral.

### 3.5.1 Loan Amount per Farmer and Disbursement Procedures

The amount of loan that each farmer receives from the Myanmar Agricultural Development Bank (MADB) depends on the size of the land they are allowed to use for farming activities. MADB sets a maximum loan limit for each farmer, which is up to 10 acres of land. Every year, the Ministry of Planning and Finance (MOPF) calculates the total production cost for each crop type and decides what percentage of that cost MADB will cover with its loans, which is usually less than 40 percent.

The Myanmar Agricultural Development Bank (MADB) has played a vital role in supporting Myanmar's farmers through the provision of seasonal crop loans. Over the years, both the loan limits per acre and the interest rates have changed in response to rising production costs, inflation, and government agricultural policies. The table below shows the evolution of loan limits for paddy and other crops, along with interest rates, from before 2007 to the present.

**Table (3.3) MADB Seasonal Loan Limits and Interest Rates by Agricultural Year**

| Agricultural Year | Loan Limit (K/acre) | | Interest Rate (%) |
|---|---|---|---|
| | Paddy | Other Crop | |
| Before 2007 | 8,000 | 5,000 | 10% |
| 2007–2008 | 10,000 | | 8.5% |
| 2008-2009 | 12,000 | | 8.5% |
| 2009-2010 | 20,000 | 10,000 | 8.5% |
| 2010-2011 | 20,000 | 10,000 | 5% |
| 2011-2012 | 40,000 | 10,000 | 5% |
| 2012-2013 | 80,000 | 20,000 | 5% |
| 2013-2016 | 100,000 | 20,000 | 5% |
| 2016- 2018 | 150,000 | 20,000 | 5% |
| 2018- Now | 150,000 | 100,000 | 5% |

Source: MADB (2025)

Table (3.3) illustrates the evolution of seasonal loan limits and interest rates provided by the Myanmar Agricultural Development Bank (MADB) from before 2007 to the present. Initially, loan amounts per acre for paddy and other crops were quite low, with interest rates as high as 10%. Beginning in the 2010–2011 agricultural year, the government reduced the interest rate to 5% to support farmers more effectively, while gradually increasing the loan limits. The most notable increase occurred between 2016 and 2018, when the loan limit for paddy reached K150,000 per acre, a level that remains unchanged today. In 2018, loan limits for other crops such as sesame and peanut were significantly increased from K 20,000 to K 100,000 per acre.

### 3.5.2 Credit Policies and Eligibility Criteria

The Myanmar Agricultural Development Bank (MADB) follows specific credit policies and eligibility criteria to ensure that loans are distributed to appropriate farmers and are repaid on time. MADB mainly supports smallholder farmers, focusing on those engaged in cultivating paddy and a few other staple crops. The bank offers two main types of loans: Seasonal Crop Production Loans (SCPL) and Term Loans (TL). SCPLs are the most common, designed to meet the working capital needs of farmers during different seasons, while TLs are intended for specific purposes such as purchasing farm machinery or supporting special projects (World Bank, 2014).

The interest rate for MADB loans is set by the Ministry of Agriculture and Irrigation and is typically 8.5 percent per year, which is lower than rates offered by informal lenders. The loan amount a farmer can receive is based on the size of their land, with a maximum of 10 acres per borrower. Each year, the Ministry calculates the estimated production cost for each crop and determines what portion MADB will finance, usually less than 40 percent of the total cost. Loan disbursement is tied to the crop season, and paddy generally receives higher loan amounts than other crops. Seasonal loans must be repaid after harvest, usually within one year, while term loans have longer repayment periods depending on the loan's purpose (World Bank, 2014).

Most MADB loans do not require traditional collateral. Instead, farmers must form groups of 5 to 10 members who collectively guarantee each other's loans. This group guarantee system replaces the need for individual collateral and encourages peer monitoring and repayment. Only machinery loans require the machinery itself as collateral. To be eligible for a loan, farmers must have a valid Farmer Registration Book, recognized land use rights, and a good repayment history. MADB only lends in areas with strong repayment records, and if a group member defaults, the entire group or even the village may lose future access to loans. The bank mainly finances a limited number of crops, and farmers engaged in other types of agriculture or without formal land rights are usually excluded from MADB loans. Applications must be reviewed by the village credit committee before final approval by MADB branch managers (World Bank, 2014).

MADB does not conduct individual credit risk assessments, relying instead on documentation and group guarantees. This exposes the bank to risks from natural disasters or market fluctuations, as there is no agricultural insurance available. Village credit committees are responsible for monitoring loan use and repayment, and they play a key role in encouraging timely repayment. However, many smallholder farmers without formal land titles are excluded from accessing MADB loans, and it is estimated that millions remain unserved due to these requirements (World Bank, 2014).

### 3.6 Pricing, Funding, and Interest Rates

The Myanmar Agricultural Development Bank (MADB) has been a key institution providing seasonal agricultural loans to Myanmar's farmers. These loans are disbursed in alignment with the country's cropping seasons: pre-monsoon, monsoon, and winter. The table below presents the total amounts of seasonal loans disbursed from

2016 through the projected 2025 agricultural seasons, showing the scale and timing of credit support offered to farmers to meet their production needs throughout the year.

**Table (3. 4) Loan Amount between Financial Years 2016 to 2025**

| Year & Season | Amount Disbursed (Kyat in Million) | Loan Duration |
|---|---|---|
| 2016–Monsoon | 1,401,599.58 | May to September |
| 2016–Winter | 212,661.70 | October to January |
| 2017–Pre-monsoon | 16,362.60 | January to March |
| 2017–Monsoon | 1,416,704.30 | May to September |
| 2017–Winter | 272,222.95 | October to January |
| 2018–Pre-monsoon | 18,781.70 | January to March |
| 2018–Monsoon | 1,301,614.55 | May to September |
| 2018–Winter | 366,263.90 | October to January |
| 2019–Pre-monsoon | 16,500.90 | January to March |
| 2019–Monsoon | 1,062,864.05 | May to September |
| 2020–Monsoon | 1,254,000 | May to September |
| 2020–Winter | 300,000 | October to January |
| 2021–Pre-monsoon | 20,000 | January to March |
| 2021–Monsoon | 1,500,000 | May to September |
| 2021–Winter | 350,000 | October to January |
| 2022–Pre-monsoon | 25,000 | January to March |
| 2022–Monsoon | 1,600,000 | May to September |
| 2022–Winter | 400,000 | October to January |
| 2023–Pre-monsoon | 30,000 | January to March |
| 2023–Monsoon | 1,700,000 | May to September |
| 2023–Winter | 450,000 | October to January |
| 2024–Pre-monsoon | 35,000 | January to March |
| 2024–Monsoon | 1,800,000 | May to September |
| 2024–Winter | 500,000 | October to January |
| 2025–Pre-monsoon | 40,000 | January to March |
| 2025–Monsoon | 1,900,000 | May to September |

Source: MADB (2025)

The data highlights the distribution of agricultural loans over multiple cropping seasons, reflecting the seasonal nature of farming activities in Myanmar. The majority of loan disbursements occur during the monsoon season (May to September), which corresponds to the main rice cultivation period. Smaller loan amounts are provided

during the winter season (October to January) and the pre-monsoon season (January to March), which cover off-season and early planting activities.

Loan disbursements have generally increased over time, with monsoon loans rising from about 1.4 trillion kyats in 2016 to nearly 1.9 trillion kyats projected for 2025. This upward trend reflects efforts by MADB and the government to enhance credit availability in response to rising input costs and inflation. Winter and pre-monsoon loans have also increased, though at a smaller scale, consistent with the smaller cropped areas during these seasons.

The loan duration aligns with the crop cycles, ensuring that farmers receive funding at critical times for land preparation, planting, and harvesting. These loans, combined with the relatively low interest rate of 5%, are essential to supporting agricultural productivity and rural livelihoods. However, despite increased loan volumes, challenges remain, including loan accessibility, repayment capacity, and the adequacy of loan amounts relative to actual production costs.

### 3.7 MADB Loan in Kyangin Township

Farmers in Kyangin Township begin preparing for double cropping right after the Water Festival in mid-April, getting machinery and fields ready for the monsoon season. The most critical time for needing loans is from May to July, when land preparation, seed purchase, and fertilizer application take place. However, many farmers do not receive MADB loans on time and must turn to local money lenders to avoid delays in planting. If they wait for the MADB loan, they risk missing the optimal planting period, which can lower yields and reduce farm income. Timely loan disbursement remains a key challenge.

**Table (3.5) Farmer's Seasonal Calendar**

| Description | April | | May | | June | | July | | Aug | | Sep | | Oct | | Nov | | Dec | | Jan | | Feb | | Mar | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Fertilizing | | | | | | | | Fertilizing | | | | | | | | | | | | | | | | |
| Preparing | Preparing | | | | | | | | | | | | | | | | | | | | | | | |
| Breeding | | | | | | Breeding | | | | | | | | | | | | | | | | | | |
| Plotting | | | | Plotting | | | | | | | | | | | | | | | | | | | | |
| Weeding | | | | | | | | | Weeding | | | | | | | | | | | | | | | |
| Harvesting | | | | | | | | | | | | | | | | | Harvesting | | | | | | | |

Source: Generalized cropping calendar of pulses in Lower Myanmar (2025)

The Myanmar Agricultural Development Bank (MADB) in Kyangin Township is mandated by law to disburse seasonal crop production loans to farmers between May and August each year. However, in practice, the bank typically releases loans to farmers in July and August. This delay is mainly due to the bank's policy that requires at least 80% of loan repayments (resettlement) from the previous season to be collected from each village tract before new loans can be disbursed. The bank announces the resettlement period from January to May, during which farmers are expected to repay their outstanding loans.

Some farmers face difficulties repaying their MADB loans on time, often due to problems such as crop damage from irregular rainfall or low yields. As a result, the bank cannot begin new loan disbursements until a sufficient proportion of repayments has been collected. This process leads to most loans being distributed in July and August, rather than earlier in the season when farmers may need funds for land preparation and input purchases.

The table below shows the amount of loans disbursed by the Kyangin MADB Bank during recent monsoon seasons.

**Table (3.6) Loans Disbursed by the Kyangin MADB Bank during recent Monsoon Season**

| Year | Crop Season | Number of Farmers | Area Covered (Acres) | Total Loan Disbursed (Kyat Million) |
|---|---|---|---|---|
| 2020 | Pre-Monsoon | 200 | 1,200 | 120.00 |
| | Monsoon | 4,200 | 22,500 | 2,250.00 |
| | Winter | 900 | 2,000 | 200.00 |
| 2021 | Pre-Monsoon | 220 | 1,300 | 130.00 |
| | Monsoon | 4,300 | 22,800 | 2,280.00 |
| | Winter | 950 | 2,300 | 230.00 |
| 2022 | Pre-Monsoon | 250 | 1,400 | 140.00 |
| | Monsoon | 4,350 | 22,900 | 2,290.00 |
| | Winter | 1,000 | 2,400 | 240.00 |
| 2023 | Pre-Monsoon | 270 | 1,500 | 150.00 |
| | Monsoon | 4,400 | 23,000 | 2,300.00 |
| | Winter | 1,050 | 2,500 | 250.00 |
| 2024 | Pre-Monsoon | 290 | 1,600 | 160.00 |
| | Monsoon | 4,448 | 23,000 | 2,342.50 |
| | Winter | 1,100 | 2,600 | 260.00 |

Source: MADB (2024)

The table presents the seasonal loan disbursement data by the Myanmar Agricultural Development Bank (MADB) in Kyangin Township from 2020 to 2024. Each year, MADB issued loans across three main crop seasons: pre-monsoon, monsoon, and winter. The data show a consistent pattern of increased support over the five-year period in terms of both the number of farmers served and the total loan amount disbursed.

The monsoon season consistently accounted for the largest share of loan disbursements. For instance, in 2020, loans for monsoon cultivation totaled MMK 2,250 million, covering 22,500 acres and benefiting 4,200 farmers. By 2024, these

figures had modestly increased to MMK 2,342.5 million, covering the same acreage but involving 4,448 farmers, reflecting a gradual expansion in outreach.

Pre-monsoon and winter loans, while smaller in scale, also show a steady increase. Pre-monsoon loans rose from MMK 120 million in 2020 to MMK 160 million in 2024, with the number of farmers growing from 200 to 290. Similarly, winter loans increased from MMK 200 million in 2020 to MMK 260 million in 2024, and the number of beneficiaries rose from 900 to 1,100 farmers during this period.

The data indicate that MADB has steadily expanded its seasonal credit operations in Kyangin Township. However, while the number of farmers and total loan amounts have increased moderately, the cultivated acreage has remained relatively stable, particularly for monsoon season. This suggests a potential plateau in land utilization, highlighting the importance of increasing loan efficiency and supporting productivity improvements within existing farmland rather than further expansion of cultivated areas.

# CHAPTER IV
# SURVEY ANALYSIS

## 4.1 Survey Profile

Kyangin Township is located in the northern part of Ayeyarwady Region, Myanmar, under Myanaung District. The township lies between approximately North Latitude 18°22′ and East Longitude 95°31′, covering a total area of about 444.59 square miles (1,151.48 km²). The township stretches from the higher elevations of the Arakan Mountains in the west to the low-lying areas along the Irrawaddy River in the east. Kyangin Township is bordered by Pandaung Township of Bago Region to the north, Shwedaung Township to the east (across the Irrawaddy River), Myanaung Township to the south, and Taungup Township of Rakhine State to the west. The population of Kyangin Township is approximately 80,739 as of 2024, with the majority living in rural areas. There are 30 village tracts comprising 251 villages, and two main towns: Kyangin and Batye.

Kyangin Township is predominantly agricultural. The main crops grown are rice (paddy), beans, pulses, and oilseeds, with rice being the dominant crop. Other significant products include mango and onion. The township's agricultural activities are supported by the fertile alluvial soils of the delta and the availability of water from the Irrawaddy River and its tributaries. The area under cultivation is extensive, with most farmers engaged in both monsoon and summer cropping seasons. Agriculture is the backbone of the local economy, and the socio-economic status of the township depends heavily on paddy yield and market prices.

Transportation within Kyangin Township is facilitated by both river and road networks. The Irrawaddy River serves as a major waterway for transporting goods and people, while a main road connects the township to neighboring towns and regions, supporting trade and access to markets. The township acts as an important intermediary for agricultural exports between Yangon, Pathein, Pyay, and Hinthada.

Kyangin Township is a key agricultural area in the Ayeyarwady Region, with its economy and livelihoods closely tied to rice production and related activities. The

township's geography, population, and infrastructure all contribute to its role as a significant rice-producing area in Myanmar.

## 4.2 Survey Design

The survey examined MADB loans to farmers and their effects on Kyangin Township paddy growers. Paddy farmers who depend on agriculture were the emphasis. Kyangin Township grows paddy in summer and monsoon. To capture the diversity of farming practices, twelve villages were selected for the study: six villages where farmers rely solely on monsoon paddy cultivation, and six villages where both monsoon and summer paddy are grown. Prior to data collection, interviewers were recruited and trained, with each survey question explained in detail to ensure consistency and accuracy during interviews.

The target sample consisted of 239 farmers from the selected villages. Home visits were conducted, and interviewers explained the survey objectives and questions to each farmer before beginning the interview. In addition to the household survey, six focus group discussions were organized, each involving five to eight farmers, to gather in-depth qualitative insights into loan utilization and challenges faced by farmers. Key informant interviews were also conducted to enrich the survey findings. These included an interview with the manager of the MADB branch in Kyangin Township, as well as interviews with four local traders and a private bank manager. This mixed-methods approach provided a comprehensive understanding of the role and impact of MADB loans in the local agricultural economy.

Using Yamane's formula,

$$n = \frac{N}{1 + N(e)^2}$$

Where:

n = sample size

N = population size (total farmers = 626)

e = margin of error (commonly 0.05 for 95% confidence level)

## 4.3 Survey Result

The survey results are presented under the following key topics : Demographic Characteristics of the Respondents, Area under Double Cropping,Cultivation Cost, Types of Double Crops Grown (Multiple choice), Main Sources of Cultivation Cost

(Multiple choice), Credit Accessibility, Loan Utilization of Farmer, Improved Farm Performance, Loan Repayment and Challenges.

### 4.3.3 Demographic Characteristics of the Respondents

This section presents the demographic characteristics of the respondents who participated in the study. A total of 239 double cropping farmers were randomly selected from various villages in Kyangin Township. The demographic information collected includes gender, marital status, number of family members, monthly income, total farming experience, main crops grown, total cultivated area, area under double cropping, types of double crops grown, total cost of cultivation last season, cost per acre, and main sources of cultivation cost. A detailed summary of the demographic profile of the respondents is provided in Table (4.1).

**Table (4. 1) Demographic Characteristics of the Respondents**

| No. | Particular | Number of Respondent | Percentage |
|---|---|---|---|
| 1 | Number of Family Members | | |
| | 1–2 | 18 | 7.5 |
| | 3–4 | 76 | 31.8 |
| | 5–6 | 89 | 37.2 |
| | 7–8 | 38 | 15.9 |
| | >8 | 18 | 7.5 |
| 2 | Seasonal Income (MMK) | | |
| | <400,000 | 20 | 8.4 |
| | 400,000–700,000 | 56 | 23.4 |
| | 700,001–1,000,000 | 72 | 30.1 |
| | 1,000,001–1,500,000 | 45 | 18.8 |
| | 1,500,001–2,000,000 | 29 | 12.1 |
| | >2,000,000 | 17 | 7.1 |
| 3 | Total Farming Experience | | |
| | <2 years | 12 | 5 |
| | 2–5 years | 34 | 14.2 |
| | 6–10 years | 81 | 33.9 |
| | 11–20 years | 70 | 29.3 |
| | >20 years | 42 | 17.6 |

| No. | Particular | Number of Respondent | Percentage |
|---|---|---|---|
| 4 | Total Cultivated Area (acres) | | |
| | <2 acres | 38 | 15.9 |
| | 2–5 acres | 104 | 43.5 |
| | 6–10 acres | 56 | 23.4 |
| | 11–20 acres | 28 | 11.7 |
| | >20 acres | 13 | 5.4 |
| **Total** | | **239** | **100** |

Source: Survey Data (2025)

The demographic and economic characteristics of the 239 surveyed farmers provide important context for understanding their agricultural activities and financial behavior. In terms of household size, the majority of respondents have medium-sized families, with 37.2% reporting 5–6 members and 31.8% having 3–4 members. Smaller families (1–2 members) and larger ones (more than 8 members) each make up only 7.5% of the sample. These figures suggest that most farming households fall within a typical family structure, which may influence both labor availability and consumption needs.

Looking at seasonal income, a substantial portion of respondents (30.1%) earn between MMK 700,001 and 1,000,000 per season. The second-largest group (23.4%) earns between MMK 400,000 and 700,000, while 18.8% earn MMK 1,000,001 to 1,500,000. Only a small number (7.1%) earn more than MMK 2 million. These income levels reflect the limited earnings capacity of most smallholder farmers, which can affect their ability to invest in modern technologies or repay loans on time.

Regarding farming experience, most respondents have significant agricultural backgrounds: 33.9% have 6–10 years of experience, 29.3% have 11–20 years, and 17.6% have over 20 years. Only 5% of respondents are relatively new to farming, with less than two years of experience. This indicates that most farmers are experienced and likely to have deep knowledge of farming practices, though their productivity may still be constrained by other factors such as land size and access to resources.

In terms of cultivated land area, the majority (43.5%) operate on 2–5 acres, and 23.4% cultivate 6–10 acres. Smaller-scale farmers with less than 2 acres account for 15.9% of the sample, while only 5.4% farm more than 20 acres. This shows that most

respondents are small to medium-scale farmers, which typically corresponds to lower economies of scale, higher vulnerability to input price changes, and more limited access to formal financial services.

The surveyed farmers are predominantly from medium-sized households with moderate seasonal incomes and considerable farming experience. However, their relatively small landholdings and modest income levels highlight the challenges they face in achieving sustainable livelihoods and scaling up their agricultural production. These findings are important for designing policies and interventions tailored to the needs of typical smallholder farmers in the region.

**Table (4. 2) Area under Double Cropping (acres)**

| Particular | Number of Respondent | Percentage |
|---|---|---|
| Area Under Double Cropping (acres) | | |
| <2 acres | 70 | 29.0 |
| 2–5 acres | 117 | 49.0 |
| 6–10 acres | 38 | 16.0 |
| >10 acres | 14 | 6.0 |
| **Total** | **239** | **100** |

Source: Survey Data (2025)

The survey results provide a detailed profile of the 239 respondents regarding their area under double cropping. The largest proportion of respondents, 49.0% (117 individuals), cultivated between 2 and 5 acres for double cropping, making this the most common landholding size among the surveyed group. Respondents with less than 2 acres constituted 29.0% (70 individuals), representing a significant segment of small-scale farmers. Those managing 6–10 acres accounted for 16.0% (38 individuals), while only 6.0% (14 respondents) reported having more than 10 acres under double cropping.

**Table (4. 3) Total Cost of Cultivation Last Season (MMK)**

| Particular | Number of Respondent | Percentage |
|---|---|---|
| Total Cost of Cultivation Last Season (MMK) | | |
| <500,000 | 22 | 9.2 |
| 500,000–1,000,000 | 76 | 31.8 |
| 1,000,001–2,000,000 | 85 | 35.6 |
| 2,000,001–3,000,000 | 35 | 14.6 |
| >3,000,000 | 21 | 8.8 |
| **Total** | **239** | **100** |

Source: Survey Data (2025)

The survey results provide a comprehensive overview of the total cost of cultivation incurred by the 239 respondents during the last season. The largest group, representing 35.6% (85 individuals), reported spending between 1,000,000 and 2,000,000 MMK on cultivation costs. This was followed by 31.8% (76 respondents) whose expenses ranged from 500,000 to 1,000,000 MMK, indicating that a significant portion of farmers managed their cultivation within this moderate cost bracket.

A smaller segment, 14.6% (35 respondents), incurred costs between 2,000,000 and 3,000,000 MMK, while 9.2% (22 individuals) reported spending less than 500,000 MMK. Only 8.8% (21 respondents) had cultivation costs exceeding 3,000,000 MMK, representing the high-investment group.

**Table (4. 4) Cost per Acre (MMK)**

| Particular | Number of Respondent | Percentage |
|---|---|---|
| Cost Per Acre (MMK) | | |
| <100,000 | 18 | 7.5 |
| 100,000–200,000 | 88 | 36.8 |
| 200,001–300,000 | 72 | 30.1 |
| 300,001–400,000 | 40 | 16.7 |
| >400,000 | 21 | 8.8 |
| **Total** | **239** | **100** |

Source: Survey Data (2025)

The survey results provide a detailed overview of the cost per acre incurred by the 239 respondents during the last cultivation season. The largest group, comprising 36.8% (88 respondents), reported spending between 100,000 and 200,000 MMK per acre, indicating that this cost range is the most common among local farmers. This was followed by 30.1% (72 respondents) whose costs ranged from 200,001 to 300,000 MMK per acre, reflecting a significant portion of farmers with moderate expenditure levels.

Additionally, 16.7% (40 respondents) incurred costs between 300,00 and 400,000 MMK per acre, while 8.8% (21 respondents) reported spending more than 400,000 MMK per acre, representing the high-cost group. Only 7.5% (18 respondents) had costs per acre below 100,000 MMK, indicating that low-cost cultivation is relatively uncommon.

**Table (4. 5) Types of Double Crops Grown (Multiple choice)**

| Particular | Number of Respondent | Percentage |
|---|---|---|
| Types of Double Crops Grown (Multiple choice) | | |
| Rice + Pulses | 120 | 50.2 |
| Rice + Groundnut | 65 | 27.2 |
| Rice + Sesame | 55 | 23.0 |
| Rice + Sunflower | 36 | 15.1 |
| Rice + Vegetables | 44 | 18.4 |
| Rice + Maize | 28 | 11.7 |

Source: Survey Data (2025)

The survey results provide a detailed profile of the types of double crops grown by the 239 respondents in Kyangin Township. The most common double cropping pattern was Rice + Pulses, practiced by 50.2% (120 respondents), making it the predominant combination among local farmers. Rice + Groundnut was the next most frequent, reported by 27.2% (65 respondents), and followed by Rice + Sesame at 23.0% (55 respondents).

Other notable double cropping patterns included Rice + Vegetables (18.4%, 44 respondents) and Rice + Sunflower (15.1%, 36 respondents), reflecting a degree of

diversification among farming households. Rice + Maize was grown by 11.7% (28 respondents).

**Table (4.6) Main Sources of Cultivation Cost (Multiple choice)**

| Particular | Number of Respondent | Percentage |
|---|---|---|
| Main Sources of Cultivation Cost (Multiple choice) | | |
| Own funds | 120 | 50.2 |
| MADB loan | 180 | 75.3 |
| Other organization loan | 25 | 10.5 |
| Local money lender | 60 | 25.1 |
| Relatives/friends | 38 | 15.9 |

Source: Survey Data (2025)

The most common source was the MADB loan, accessed by 75.3% (180 respondents), making it the predominant financial resource for local farmers. Own funds were the next most frequent source, used by 50.2% (120 respondents), reflecting a significant reliance on personal savings or household resources.

Local money lenders were utilized by 25.1% (60 respondents), indicating that informal credit remains an important option for a quarter of the farming population. Relatives and friends were cited by 15.9% (38 respondents), while loans from other organizations accounted for 10.5% (25 respondents), representing smaller but notable segments of the sample.

### 4.3.4 Farmer Perception on the Utilization of Myanmar Agricultural Development Bank's (MADB) Loans

This study analyzes the utilization of Myanmar Agricultural Development Bank's (MADB) loans among 239 double cropping farmers in Kyangin Township. The study examines to assess how MADB loan access supports double cropping practices and influences farm operations. The analysis is presented through descriptive statistics, correlation analysis, and multiple regression analysis. In this chapter, the patterns of loan utilization including the purposes for which loans are used, the extent of reliance on MADB financing, and the impact on cultivation costs and crop choices are thoroughly examined. The study also explores how MADB loans contribute to

improved farm performance and financial stability for double cropping farmers in the region.

### 4.3.5 Credit Accessibility

Credit accessibility was evaluated by surveying 239 double cropping farmers in Kyangin Township using a 5-point Likert scale. The findings show generally positive perceptions of MADB loans, with respondents appreciating low interest rates and clear information, but expressing some concerns about collateral requirements and the timeliness of loan disbursement.

**Table (4.7) Credit Accessibility**

| No | Statement | Mean | S.D |
|---|---|---|---|
| 1 | Covering double cropping expenses with the MADB loan amount. | 3.42 | 1.01 |
| 2 | Matching the loan repayment period with the crop harvesting cycle. | 3.51 | 0.97 |
| 3 | Benefiting from MADB's lower interest rate compared to informal lenders. | 3.6 | 1.08 |
| 4 | Requiring minimal paperwork in the loan application process. | 3.48 | 1.04 |
| 5 | Disbursing the loan before the start of the cropping season. | 3.39 | 1.11 |
| 6 | Explaining loan terms and conditions clearly by MADB staff. | 3.55 | 0.95 |
| 7 | Fulfilling collateral requirements easily. | 3.44 | 1.07 |
| | **Overall Mean** | **3.48** | |

Source: Survey Data (2025)

According to Table (4.7), the table presents respondents' perceptions of credit accessibility related to MADB loans, highlighting both the benefits and challenges experienced by borrowers. Benefiting from MADB's lower interest rate compared to informal lenders achieved the highest mean score of 3.60, indicating that respondents strongly recognize the advantage of favorable interest rates when accessing MADB loans. In contrast, disbursing the loan before the start of the cropping season had the

lowest mean score of 3.39, suggesting some concerns or less satisfaction regarding the timeliness of loan disbursement.

The overall mean score for credit accessibility was 3.48, reflecting a moderate to high level of agreement among respondents about the accessibility and user-friendliness of MADB loans. All mean values fall within a relatively narrow range from 3.39 to 3.60, indicating generally positive perceptions but also highlighting areas for improvement, particularly in the timing of loan disbursement. While farmers appreciate the lower interest rates and clear communication from MADB staff, there remains room to enhance the loan process, especially regarding prompt disbursement and ease of fulfilling collateral requirements.

### 4.3.6 Loan Utilization of Farmer

Loan utilization was evaluated by surveying 239 double cropping farmers in Kyangin Township, focusing on seven key aspects of how MADB loans are used. Results, measured on a 5-point Likert scale, indicate generally positive perceptions, with respondents effectively utilizing loans for essential farming activities and reporting improved farm operations and productivity.

**Table (4.8) Loan Utilization of Farmer**

| Sr. No. | Statements | Mean Score | Std. Dev |
|---|---|---|---|
| 1 | Using the loan to buy quality seeds for double cropping | 3.70 | 0.93 |
| 2 | Covering all necessary fertilizer costs with the loan | 3.58 | 1.09 |
| 3 | Applying pesticides using funds from the MADB loan | 3.61 | 1.12 |
| 4 | Paying farm laborers with the loan | 3.50 | 1.05 |
| 5 | Renting farm machinery (e.g., tractors) with the loan | 3.32 | 1.18 |
| 6 | Funding land clearing, stumping, or weeding with the loan | 3.29 | 1.02 |
| 7 | Allowing investment in modern farming techniques through the loan | 3.45 | 0.99 |
| | **Overall Mean** | **3.49** | |

Source: Survey Data (2025)

According to Table (4.8), the table presents respondents' perceptions of loan utilization related to MADB loans, highlighting how farmers use these funds for various

agricultural activities. Using the loan to buy quality seeds for double cropping achieved the highest mean score of 3.70, indicating that respondents most strongly associate loan utilization with investing in better seeds. In contrast, funding land clearing, stumping, or weeding with the loan had the lowest mean score of 3.29, suggesting this is a less common or less prioritized use among farmers.

The overall mean score for loan utilization was 3.49, reflecting a moderate to high level of agreement among respondents about the effective use of MADB loans for farming operations. All mean values fall within a relatively narrow range from 3.29 to 3.70, indicating generally positive perceptions but also highlighting areas for improvement, particularly in expanding the scope of loan usage. While farmers effectively utilize loans for key inputs and labor, there is potential to further support investment in machinery, land preparation, and modern techniques.

### 4.3.7 Improved Farm Performance

Improved farm performance was assessed by surveying 239 double cropping farmers in Kyangin Township, focusing on eight key indicators. The results, measured on a 5-point Likert scale, show that respondents generally perceive MADB loans as contributing to higher yields, better crop quality, increased income, and greater financial stability for their farming operations.

**Table (4.9) Improved Farm Performance**

| Sr. No. | Statements | Mean Score | Std. Dev |
|---|---|---|---|
| 1 | Increasing crop yield per acre after using the loan | 3.67 | 1.07 |
| 2 | Harvesting more crops in the same land area | 3.59 | 1.03 |
| 3 | Improving crop quality due to better inputs from the loan | 3.62 | 0.98 |
| 4 | Raising net farm income after using the loan | 3.55 | 1.1 |
| 5 | Earning higher profits from crop sales this season | 3.61 | 1.12 |
| 6 | Helping to sell crops at better market prices with the loan | 3.43 | 0.94 |
| 7 | Improving household financial stability due to higher farm income | 3.50 | 1.15 |
| 8 | Boosting farm productivity and profitability significantly with the loan | 3.58 | 1.06 |
| | **Overall Mean** | **3.57** | |

Source: Survey Data (2025)

According to Table (4.9), the table presents respondents' perceptions of improved farm performance related to the utilization of MADB loans, highlighting both the positive outcomes and areas for further enhancement. Increasing crop yield per acre after using the loan achieved the highest mean score of 3.67, indicating that respondent's most strongly associate loan utilization with higher productivity. On the other hand, helping to sell crops at better market prices with the loan had the lowest mean score of 3.43, suggesting that while respondents benefit from improved production, market-related advantages are perceived less strongly.

The overall mean score for improved farm performance was 3.57, reflecting a moderate to high level of agreement among respondents regarding the positive impact of MADB loans on their farming operations. All mean values fall within a relatively narrow range from 3.43 to 3.67, suggesting that respondents generally perceive significant benefits, particularly in yield and quality improvements, while also recognizing potential for further gains in marketing and profitability. The farmers have a favorable view of the contribution of MADB loans to their farm performance, especially in terms of productivity, income, and financial stability.

### 4.3.8 Loan Repayment and Challenges

To assess the effectiveness and challenges of the Myanmar Agricultural Development Bank (MADB) loan system from the perspective of local farmers, the study collected information on loan repayment performance and key constraints in accessing and utilizing MADB loans. Understanding the repayment behavior and associated difficulties is crucial for evaluating the sustainability of agricultural credit and the financial well-being of rural farming households. The table below presents data on whether farmers were able to repay their MADB loans on time, along with the main reasons for non-repayment. It also highlights the most common challenges faced by respondents in accessing or using MADB loans, including procedural, financial, and institutional factors.

**Table (4. 10) Loan Repayment and Challenges**

| Item | Number of Respondents | Percentage (%) |
|---|---|---|
| Were you able to repay the MADB loan on time? | | |
| Yes | 167 | 69.9 |
| No | 72 | 30.1 |
| If no, main reason(s): | | |
| Low yield | 28 | 11.7 |
| Low market price | 24 | 10 |
| High input costs | 20 | 8.4 |
| Challenges faced in accessing or using MADB loans: | | |
| Application process too complex | 36 | 15.1 |
| Collateral requirements | 44 | 18.4 |
| Loan amount too small | 53 | 22.2 |
| Disbursement delays | 58 | 24.3 |
| High interest rate | 48 | 20.1 |
| Total | 239 | 100 |

Source: Survey Data (2025)

Table 4.10 presents findings from a survey of 239 farmers regarding their experience with MADB loans. Out of the total respondents, 167 farmers, representing 69.9%, reported that they were able to repay their MADB loan on time. However, 72 farmers (30.1%) were unable to do so. Among those who failed to repay on time, the main reasons cited were low agricultural yield (11.7%), low market prices for crops (10%), and high input costs (8.4%). These challenges indicate that many farmers are financially vulnerable to external factors such as weather conditions, market fluctuations, and rising costs of fertilizers, pesticides, and other inputs, which negatively impact their ability to repay loans.

The survey also identified several challenges that farmers faced in accessing or using MADB loans. The most common issue was disbursement delays, reported by 24.3% of respondents. These delays often prevent farmers from receiving the loans in time for critical farming activities such as land preparation or input purchases. Another significant concern was that the loan amount provided was too small (22.2%), making it insufficient to cover the actual cost of farming operations. High interest rates (20.1%)

and collateral requirements (18.4%) were also frequently mentioned, indicating that even government-backed loans are perceived as financially burdensome by many smallholder farmers. Additionally, 15.1% of farmers found the application process too complex, creating barriers especially for those with limited education or experience with formal banking procedures.

# CHAPTER V
# CONCLUSION

## 5.1 Findings

The study reveals that while the Myanmar Agricultural Development Bank (MADB) provides essential financial support to farmers in Kyangin Township, several structural limitations hinder the full potential of its services. Although a significant number of farmers reported accessing MADB loans, many face challenges due to the complexity of the application process, collateral requirements, and procedural delays. These barriers disproportionately affect small-scale and marginal farmers, limiting their access to timely and sufficient financial resources.

The result is the persistent mismatch between the loan amount provided per acre and the actual production costs incurred by farmers. Rising input prices, labor costs, and transportation expenses mean that the current MADB loan packages often fall short of meeting full cultivation needs. As a result, many farmers are compelled to borrow from informal sources with higher interest rates, which increases their financial vulnerability.

The study also identified a timing issue in loan disbursement. Although the agricultural calendar necessitates early access to capital for land preparation and input acquisition, many farmers reported receiving MADB loans late in the planting season. This delay disrupts the optimal planting timeline, leading to reduced yields and lower income.

Despite these challenges, 69.9% of respondents indicated that they were able to repay their loans on time. However, a closer analysis shows that this repayment often occurs under financial stress, driven by low yields, unpredictable weather conditions, and fluctuating market prices. Furthermore, the findings suggest that many farmers lack adequate financial literacy, especially in areas such as budgeting, planning, and risk assessment. This gap in knowledge hinders the effective use of credit and limits the overall impact of agricultural financing on productivity and livelihoods.

## 5.2 Suggestions

Based on the research findings, several suggestions are proposed to enhance the effectiveness of agricultural credit and support rural development in Myanmar. Myanmar Agricultural Development Bank should consider increasing the loan amount per acre to more accurately reflect current production costs. This would help reduce farmers' dependency on high-interest informal loans and ensure they have adequate resources for both monsoon and double-cropping systems.

The timing of loan disbursement should be improved. Funds must be made available ahead of the planting season—particularly between April and June—so that farmers can purchase inputs and prepare their land without delays. Early loan disbursement will allow farmers to maximize yield potential and income.

The MADB loan application and approval process should be simplified. Introducing digital platforms, mobile loan applications, and decentralized village-level support systems could reduce bureaucracy and increase accessibility, especially for remote and less-educated farmers.

There is a pressing need to incorporate financial literacy and farm management training into credit programs. Farmers should be trained in loan planning, cost-benefit analysis, record-keeping, and marketing strategies to improve the productive use of loans and reduce repayment risks. Development partners and government agencies should collaborate to offer such training programs through extension services and local organizations.

Credit diversification and risk management tools must be promoted. This includes exploring weather-indexed insurance schemes, crop-specific credit products, and group-based lending models that encourage collective responsibility and peer monitoring. Flexible repayment terms tied to seasonal income fluctuations would also help farmers better manage cash flow and avoid default.

The MADB should strengthen its monitoring and evaluation systems to ensure that loans are used for their intended purposes. Regular follow-ups, borrower profiling, and performance-based feedback mechanisms can improve accountability and inform future loan program designs. These reforms will help align agricultural credit systems with broader development goals, enabling smallholder farmers to contribute more effectively to Myanmar's rural transformation

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# APPENDICES

## APPENDEX – I

## SURVEY QUESTIONNAIRES

**Section A: Demographic Characteristics of farmers**

- Name (optional): _____
- Age: _____
- Gender: ☐ Male ☐ Female
- Education _____
- Village: _____
- Total farming experience (years): _____
- Main crops grown: _____
- Total cultivated area (acres): _____

**2. Number of family members**

☐1–2

☐3–4

☐5–6

☐7–8

☐ More than 8

**3. Seasonal income (MMK):**

☐ Less than 400,000

☐ 400,000 – 700,000

☐ 700,001 – 1,000,000

☐ 1,000,001 – 1,500,000

☐ 1,500,001 – 2,000,000

☐ More than 2,000,000

**4. Total farming experience**

☐Less than 2 years

☐2–5 years

☐6–10 years

☐11–20years

☐ More than 20 years

**5. Main crops grown**

☐ Paddy (Rice)

☐Groundnut

☐ Sesame

☐ Beans/Pulses

☐ Maize

☐ Cotton

☐ Sunflower

☐ Sugarcane

☐ Vegetables

☐ Fruits

**6. Total cultivated area (acres)**

☐ Less than 2 acres

☐ 2–5 acres

☐ 6–10 acres

☐ 11–20 acres

☐ More than 20 acres

**7. Area under double cropping (acres)**

☐ None

☐ Less than 2 acres

☐ 2–5 acres

☐ 6–10 acres

☐ More than 10 acres

**8. Total cost of cultivation last season (MMK)**

☐ Less than 500,000

☐ 500,000 – 1,000,000

☐ 1,000,001 – 2,000,000

☐ 2,000,001 – 3,000,000

☐ More than 3,000,000

**9. Cost per acre (MMK)**

☐ Less than 100,000

☐ 100,000 – 200,000

☐ 200,001 – 300,000

☐ 300,001 – 400,000

☐ More than 400,000

**10. Main sources of cultivation cost**

☐ Own funds

☐ MADB loan

☐ Other organization loan

☐ Local money lender

☐ Relatives/friends

**Section B:Factors Affecting Farm Performance**

Please indicate your level of agreement with the following statements by ticking (✓) the appropriate box:

(Scale: 1 = Strongly Disagree, 2 = Disagree, 3 = Neutral, 4 = Agree, 5 = Strongly Agree)

**Credit Accessibility**

| Sr. No. | Statement | 1 | 2 | 3 | 4 | 5 |
|---|---|---|---|---|---|---|
| 1 | The MADB loan amount fully covered my double cropping expenses. | | | | | |
| 2 | The loan repayment period matched my crop harvesting cycle. | | | | | |
| 3 | MADB's interest rate was lower than loans from informal lenders. | | | | | |
| 4 | The loan application process required minimal paperwork. | | | | | |
| 5 | Loan disbursement occurred before the start of the cropping season. | | | | | |
| 6 | MADB staff clearly explained loan terms and conditions. | | | | | |
| 7 | Collateral requirements were easy to fulfill. | | | | | |

**Loan Utilization of Farmer**

| Sr. No. | Statement | 1 | 2 | 3 | 4 | 5 |
|---|---|---|---|---|---|---|
| 1 | I used the loan to buy quality seeds for double cropping. | | | | | |
| 2 | The loan covered all necessary fertilizer costs. | | | | | |
| 3 | I applied pesticides using funds from the MADB loan. | | | | | |
| 4 | I paid farm laborers using the loan. | | | | | |
| 5 | I rented farm machinery (e.g., tractors) with the loan. | | | | | |
| 6 | The loan funded land clearing, stumping, or weeding. | | | | | |
| 7 | The loan allowed me to invest in modern farming techniques. | | | | | |

**Section C:Improved Farm Performance**

Please indicate your level of agreement with the following statements by ticking (✓) the appropriate box:

(Scale: 1 = Strongly Disagree, 2 = Disagree, 3 = Neutral, 4 = Agree, 5 = Strongly Agree)

**Improved Farm Performance**

| Sr. No. | Statement | 1 | 2 | 3 | 4 | 5 |
|---|---|---|---|---|---|---|
| 1 | My crop yield per acre increased after using the loan. | | | | | |
| 2 | I harvested more crops in the same land area. | | | | | |
| 3 | Crop quality improved due to better inputs from the loan. | | | | | |
| 4 | My net farm income rose after using the loan. | | | | | |
| 5 | I earned higher profits from crop sales this season. | | | | | |
| 6 | The loan helped me sell crops at better market prices. | | | | | |
| 7 | My household's financial stability improved due to higher farm income. | | | | | |
| 8 | Overall, the loan significantly boosted my farm's productivity and profitability. | | | | | |

**Section D: Loan Repayment and Challenges**

Were you able to repay the MADB loan on time?

☐ Yes ☐ No

If no, main reason(s):

☐ Low yield

☐ Low market price

☐ High input costs

What challenges did you face in accessing or using MADB loans?

☐ Application process too complex

☐ Collateral requirements

☐ Loan amount too small

☐ Disbursement delays

☐ High interest rate