

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

**A STUDY ON FARM AND OFF-FARM ACTIVITIES IN
RURAL DEVELOPMENT: CASE STUDY OF
MODEL VILLAGES IN MEIKTILA TOWNSHIP**

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**A STUDY ON FARM AND OFF-FARM ACTIVITIES IN RURAL
DEVELOPMENT: CASE STUDY OF MODEL VILLAGES IN
MEIKTILA TOWNSHIP**

A thesis submitted in partial fulfillment of the requirements for the Master of
Development Studies (MDevS) Degree

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ABSTRACT

Rural economic development is crucial for Myanmar as larger share (around 70%) of the country's population is residing in rural area. Throughout the past decades, diverse approaches have been implemented to promote rural development and among them, establishment of model villages was renowned. Nowadays, new forms of rural development initiatives are set to promote rural economy. However, most of the previous model villages are not included in these current rural development initiatives. This study aims to identify current farm and off -farm economic activities of selected model villages in Meiktila Township and to examine the challenges and opportunities faced in farm and off- farm economic activities in these villages. Descriptive method is used and primary data is collected from 200 respondents from 4 selected model villages within the Meiktila Township. The study found that both farm and non-farm rural businesses are operating based on their normal flows and still lack of innovation to adapt in new normal. As these villages have stable economic conditions, their role is important in contributing rural economic development. In particular, if these villages can expand their markets and innovate new production techniques, employment opportunities can be generated for those from nearby villages to improve income generations and other related spillover effects.

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LIST OF ABBREVIATIONS

| | |
|---------|---|
| ADB | Asian Development Bank |
| APO | Asian Productivity Organization |
| BBC | British Broadcasting Corporation |
| CBEs | Community Based Enterprises |
| CDD | Community Driven Development |
| DOP | Department of Population |
| DRD | Department of Rural Development |
| FAO | Food and Agriculture Organization |
| GAP | Good Agriculture Practice |
| GMS | Greater Mekong Sub-Region |
| GPRS II | Growth and Poverty Reduction Strategy II |
| IBRD | International Bank for Reconstruction and Development |
| ICT | Information and Communication Technology |
| IMF | International Monetary Fund |
| JICA | Japanese International Cooperation Agency |
| KDP | Kecamatan Development Programme |
| KOICA | Korean International Cooperation Agency |
| LIP | Livelihood Improvement Program |
| NCDP | National Community Driven Development Project |
| NGOs | Non-Governmental Organizations |
| NPOs | Non- Profit Organizations (NPOs) |
| OTOP | One Tambon One Product |
| OVOP | One Village One Product |
| PNPM | Program Nasional Pemberdayaan Masyarakat |
| PSF | PNPM Support Facility |
| SDGs | Sustainable Development Goals |
| SMEs | Small and Medium Enterprises |
| SMU | Saemaul Undong |
| UN | United Nations |
| UNDP | United Nations Development Program |
| UPP | Urban Poverty Project |

CHAPTER I

INTRODUCTION

1.1 Rationale of the Study

In today's developing world, rural population contributes around 70 % of the total. Usually, rural areas in developing countries are regarded as sparsely populated, underdeveloped, agro-based, subsistence farming of small-holder farmers. With the low level of job opportunities and incomes, majority of the rural people migrate to urban area or abroad due to several pull and push factors. Rest of the family members depend on remittances from migrant youths. However, in some of the rural areas of developing countries, youth still contribute in economic activities of their native villages, both in farm and off-farm jobs.

Since 1970s, the concept of rural development has emerged as an important branch of economic development and regarded as important part of the economy. Early rural development efforts were emphasized on agricultural development and later transformed to diversification of rural economic activities by encouraging off-farm activities. At the global level, rural development efforts were transformed to foster social values, inclusion and equitable distribution of advantages since early 2000s (ADB, 2006). After 2010, attention has been paid on sustainable development and emphasizing on local human resources, natural resources and maintaining social structures and networks. In the United Nations' Sustainable Development Goals (SDGs), rural development is related with all 17 Goals although it is directly linked with Goal 2 and Goal 11.

In developing countries, rural development initiatives are provided by various stakeholders including Government at different levels, Non-Governmental Organizations (NGOs) and private non-profit entities (NPOs). In developing countries, Government set rural development policies and plans together with infrastructure development programs while NGOs and NPOs launch projects for trainings and

provision of needed inputs (finance, raw materials, quality seeds, machineries, water, etc.). With the improvement of transportation infrastructure, use of ICT, better access to resources, getting needed trainings for modern production and distribution methods, farmers in rural areas can engage not only in farming sector, also in off-farm economic activities for improving their livelihoods.

When implementing rural development programs and projects, one important challenge is to maintain socioeconomic situation of the villages concerned. Once the economy of the villages in project area have been improved, it is responsible for villagers and village administrators to sustain the good condition. Nowadays, rural development not only means just improving physical infrastructure and able to operate typical economic activities, also consider promoting innovative approach to realize economic activities of the rural people (both farm and off-farm) and making these innovative approaches and products/ services to reach larger market and sustaining this proactive ways for further improvements.

Rural development projects are intended not only for achieving social and economic progress and desired goals in selected areas, they also intended to sustain these developments by villagers themselves even after the project. In some cases, previously succeeded rural development projects are deteriorated or only few years of the end of project. Therefore, the reasons and challenges faced by these villages are necessary to find out. If the beneficiaries (villagers) can maintain their improved economic activities after the project, it is necessary to examine the reasons behind this sustainability.

In Myanmar, 70.3% of total population is residing in rural area (DOP, 2014) and several youths migrate externally and internally due mainly to economic and push factors. Almost 20% of the population is migrating internally (DOP, 2014) and around 10 % of Myanmar's population is migrating internationally (IOM, 2015). Myanmar has initiated different types of rural development projects throughout the past decades ranging from agricultural development to provision of microfinance and rural infrastructure projects. Among them, model village project was renowned during 1990s in all over Myanmar. Model villages were selected based on 15 criteria.

Nowadays, several rural development initiatives have been introducing by the Government and NGOs based on the needs of each States and Regions. In the meantime, the economic activities of previous model villages have neglected. Most rural development projects omitted model villages in supporting to promote economic

activities due to their previously good conditions. However, changes in climatic conditions, changes in transport networks and other external and internal affect economic activities of previous model villages. It is indispensable to examine the current economic activities of these model villages as well as their challenges and prospects.

Rural workforce mostly contributes to farming in Myanmar. However, off-farm economic activities such as small scale businesses, renting farm machineries and service businesses provide employment opportunities for rural people in Myanmar that contribute rural development in some areas. As a result, studying both farm and off-farm economic activities are essential in examining the rural economic activities. Previously, rural economy mainly relied on traditional farming and selling their produces in typical markets through middlemen. Also for off- farm economic activities, it included operating a typical small businesses or services. However, most of the today's rural development takes into account the development of farm and off-farm economic activities in innovative manner through producing better quality, value added products and sell them in new and wider market with effective ways of distribution methods.

Especially in Central Myanmar, Meiktila Township is renowned for its agriculture, trading and weaving businesses. At the same time, there are 25 villages in rural areas of the Meiktila Township, which were designated as model villages in 1990s (Meiktila GAD, 2005). Nowadays, new forms of rural development projects are initiating within the Meiktila Township and most of these previous model villages are excluded (due to their good reputation in previous decades and regarded them as prosperous and having challenge free area until today).

However, previous model villages are also facing economic challenges in this 21st century although they can perform better than poor villages. Furthermore, there is no new study on economic activities of these villages today. In addition to inadequate follow up studies on previously well-performed villages, economic activities of these model villages are experiencing new challenges comparing to normal time due to several factors during the pandemic. Accordingly, this study intends to explore the economic activities of selected model villages in Meiktila Township. Studying the challenges and opportunities of rural farm and off-farm economic activities can help improve the implementing of rural development efforts and achieve required goals and outcomes in future.

1.2 Objectives of the Study

The objectives of the study are

- To identify the current status of farm and off-farm economic activities of selected model villages in Meiktila Township and
- To examine the challenges and opportunities faced in farm and off-farm economic activities in these villages.

1.3 Method of Study

Descriptive method is used and it is based on primary and secondary data. Primary data is collected from 200 respondents from 4 selected model villages (Hta Naung Kan, Taw Ma, Lain Taw and Sutkhin Pauk Villages) within the Meiktila Township. Interviews are carried out by phone and by local interviewers to explore villagers' socio-demographic background, reasons and forms of contribution in farm and off-farm economic activities, challenges and opportunities faced in these villages. Interviews were made between June and November, 2020 in 4 selected villages. Convenient sampling method is used for collecting primary data. As most of interviews were carried out by phone, more open-ended questions were used in semi-structured questionnaire. As a result, the study is more qualitative in nature. Secondary data is gathered from General Administration Department of the Meiktila Township, publications of Government Departments, from international organizations and internet websites, etc.

1.4 Scope and Limitations of the Study

This study covers both farm and off-farm economic activities of the 4 selected model villages in Meiktila Township. These villages (Htanaung Kan, Taw Ma, Lain Taw and Sutkhin Pauk Villages) are selected. Throughout the past decades, construction of new national express way and other changes (both natural and manmade) has occurred and affected more or less to the economy of the Meiktila Township. Consequently, choosing villages from different locations can reveal the changing economic activities of the model villages. However, the limitation is due to the outbreak of global pandemic, it is difficult to study all model villages from Meiktila Township.

When investigating economic activities of the selected villages, emphasis has been made mainly on current (before and during pandemic) farm and off-farm economic activities. In addition to investigating their current economic activities, challenges faced by these villages in carrying out economic activities as well as their opportunities and prospects in normal period and during the outbreak of Covid 19 are included. Challenges and prospects include internal and external manmade and natural such as climate change, changing transport networks, migration, etc. It is expected that the result from this study can contribute to revitalization of local economic development by the Regional Government in new normal period (which is hoped to be in near future).

1.5 Organizations of the Study

This study is organized with five main parts. Chapter one is the introduction, including rationale of the study, objectives, method, scope and limitations and organization. Chapter two covers literature review concerning rural development efforts and challenges and prospects faced by farm and off-farm economic activities of the rural areas of developing countries. Chapter three is mainly emphasized on rural development initiatives in Myanmar, concept of Model Village and background of the study area, Meiktila Township. Chapter four is the empirical analysis, emphasizing on background situations of the respondents, their reasons and operation of farm and non-farm economic activities and challenges and opportunities of these economic activities during normal and pandemic period. Chapter five is concluded with findings and suggestions.

CHAPTER II

LITERATURE REVIEW

2.1 Identification and Features of Rural Area

Distinguish between rural and urban around the world is varied based on several factors. All over the world, more people live in rural areas than in urban areas. As stated by the National Geographic (2011), a rural area is an open swath of land that has few homes or other buildings with low population density and high importance of agriculture.

Several different definitions are set for classifying rural today. Some are based on area, whilst others emphasize settlement. Area based classification normally defining a municipality as rural or urban according to its population density and number, whereas settlement based setting classify individual settlements as rural, according to size. Also, main livelihoods of rural area is regarded as agriculture, livestock, forestry or fishing, which are based on natural resources with greater level of self-subsistence and less commercial.

Generally, a rural area or countryside is a geographic area that is located outside towns and cities. In US, the United States Census Bureau classifies a rural area as a town with fewer than 1,000 people per 2.6 square kilometers, and surrounding areas with fewer than 500 people per 2.6 square kilometers. In UK, rural area is classified as areas which are outside settlements with more than 10,000 resident populations (Government of UK, 2016). According to Australian Standard Geographical Classification System, rural areas are classified as inner regional, outer regional, remote or very remote areas of the country (Australian Statistical Geography Standard- ASGS, 2016).

As stated by the World Employment and Social Outlook (WESO) (2016), rural areas are home to most of the poor. The study showed that 88 per cent of the world's poor live in rural areas with poverty rates, four times higher than in urban areas. Nearly 20 per cent of people employed in rural areas live in extreme poverty, compared with

just over 4 per cent in urban areas. Differences between rural and urban areas are categorized into six groups by MIT (2011). These include livelihoods, access to land for housing, accessibility to government services, infrastructure, opportunities for earning income and specific features. The study classified rural areas as livelihoods mainly drawn from primary sectors such as agriculture, livestock, forestry, fishing, etc. with less difficult in access to land and building materials for building a house. In addition, rural is the area far from government services with lower opportunities for their economy, social structure and attitudes, have limited economic opportunities, high unemployment and low wages. Usually, it is accepted that access to modern infrastructure, government and public services and market information is relatively lower among rural population than those in urban areas.

However, in reality, rural societies are diverse around the world. Some of the urban characteristics can be found in certain rural areas, which include well-off tourist areas, mining sites, areas with high value crops, etc. Specifically, rural areas may be isolated and sparsely populated, yet they offer attractive natural beauties with rich culture. Nowadays, the local communities from rural areas are taking wider outlooks with seeking economic growth through tourism. Moreover, some rural areas which are close to cities are crucial for urban development. They provide needed inputs and basic necessities such as foods and raw materials to urban residents and firms.

2.2 Concept of Rural Development

Around the world, development of rural areas, regardless of their locations and features, is essential for overall economic development of each country. For developing countries, proper development of rural areas is important as majority of their population resides in these rural areas and depend their livelihoods on farm and off-farm economic activities. In contrast, rural development is also desirable in developed world to achieve equality, to reduce hardships among rural people, to build successful and active working environment, to mitigate excessive rural urban migration and to control depopulation in rural areas (APO, 2003).

Rural development in simple terms can be defined as the process of improving the quality of life and economy in the remote and rural parts of the country. Rural development is defined by various authors and organizations. As stated by Wijayarathna, (ed.) (2004), rural development is defined as supporting rural people to set priorities in their own communities through effective and democratic bodies, providing the local

capacity and facilitating justice, equity and security. Moseley (2003) explored rural development as the process of improving the quality of life and economic well-being of people living in relatively isolated and sparsely populated areas.

Rural development is a strategy designed to improve the economic and social life of a specific group of people, mainly the rural poor. It involves extending the benefits of development to the poorest among those who seek a livelihood in the rural areas (Takeuchi, 2002). Furthermore, rural development is related with most of the Sustainable Development Goals (SDGs) such as poverty reduction, end hunger, promoting agriculture, etc. (UN, 2020). Rural development is not only important for rural area, it is a part of structural transformation characterized by diversification of the economy away from agriculture to industrial and services. This process is facilitated by rapid agricultural growth initially, but leads ultimately to a significant decline in the share of agriculture to total employment and output and in the proportion of rural population to total population.

Rural development actions are intended to promote social and economic development of rural communities. Rural development is important not only for the improvement of livelihood and wellbeing of the population residing in rural areas, also for the economy as a whole. Rural economy plays an important role with regard to employment, as the economic growth in urban centers is too slow to generate sufficient employment to absorb the migrated labor force, particularly in developing countries. Employment in rural areas may depend heavily on agriculture and related sectors, especially in areas where other off-farm businesses are underdeveloped.

Basic issues in rural development initiatives include rural people in decisions that affect their lives through participation in rural local government, increase employment and economic growth in rural areas, provide affordable infrastructure and ensure social sustainability in rural areas. Traditionally, rural development programs have been top-down from local or regional authorities, regional development agencies, NGOs, national governments or international development organizations.

Beforehand, rural communities were able to react by increasing specialization to take advantage of comparative advantages and economies of scale. However, globalization and increased competition from other regions generate the need for applying new strategies, based on mobilization and the interconnection of different fields. Therefore, not only the agriculture sector, rural development also takes into account environment, water resource, energy, local handicrafts, tourism, organic

agriculture, local products, direct on-farm sales and heritage have to be combined in order to form a new, territorial based, production system.

Nowadays, rural development aims at finding ways to improve rural lives with participation of rural people themselves to meet the needs of rural communities. As the outsider may not understand the setting, culture, language and other things prevalent in the local area, rural people themselves have to participate in their sustainable rural development. Different countries and various nongovernment organizations use different rural development approaches to avoid these negative outcomes. However, impact of former government led rural development approaches contribute more or less on development of rural farming and off-farm in both developed and developing countries today.

Several countries used different approaches to achieve rural development. Some used sectoral approach; with assumption of increasing agriculture production would increase the income of rural poor and bring about rural development. The main intention of this approach is to include rural poor into the economy, and part of which can be found during green revolution of 1960s. However, agricultural growth was successful in capturing economic growth but failed to combat poverty (Hodge and Midmore, 2008).

Following approach is the multisectoral approach which was initiated in 1970s in order to improve the vicious cycles in rural areas by a multisectoral development. As stated by Gasson (1988), this approach mainly consists of infrastructure development, production program, education, and health, etc. During the 1980s, new way of rural development approach, namely, the Participatory Development Approach, was used. This approach provides voice to rural community in planning and implementation of development projects and programs. It recognized the self-respect of poor people and took into account the poor people's needs, interests, and knowledge of their environment. It focused on economic stabilization and brought a shift back to production from charity

The most recent one is the Integrated Rural Development Approach (IRD) emerged in the mid-1990s (Forsyth, 2005). This one is based on the strengths of the multisectoral approach whilst avoiding its weaknesses. It focused on the poor people's access to different capitals- physical, natural, human, social, and financial. It has implemented the development process together with the poor from beginning to end and implement the development projects by the decision of administrative level. Integrated development approach focuses on both economic growths of production sectors by

market forces and social services at the same time.

UNDP's Integrated Rural Development also explored the myth and reality of rural development in Bosnia and Herzegovina. 60% of the population was still resided in rural areas, and rural communities tend to be older than urban, with a smaller proportion of working ages with gradual migration to urban areas. Outside the central urban areas with economically active locations were medium-sized towns that perform worse than rural areas. In this study, municipalities in Bosnia and Herzegovina are divided into three groups, city, other urban and rural. Among them, the cities are regarded as the best performed areas while the other urban the worst and the rural areas as intermediate position. However, the rest depend mainly on the economic condition of the nearby urban centers. This study not only covered the economic conditions of the rural Bosnia and Herzegovina, also took into account social conditions. Although rural economy was better comparing to other urban areas, they still need improved early childhood education and entrepreneurial attitudes as majority of the incomes of rural people depended on regular jobs (52%) and 36% from social benefits followed by 6% from farming. The study found that rural areas are closely linked to the socioeconomic conditions of the nearby towns and cities and to the macroeconomic situation of the whole economy. Fulfilling the improvement in farming activities, enhancing entrepreneurial abilities, promoting infrastructure including transport facilities and promoting good governance will achieve the goal of better development of the rural area in Bosnia and Herzegovina.

2.3 Nature and Importance of Rural Farm and Off-Farm Economic Activities

When exploring the rural area and its development, farming sector plays as indispensable role. Yet, it is also necessary to investigate and examine the off-farm activities of the rural area when setting and implementing rural development goals.

Farming Sector in Rural Economy

Farming can be classified in various ways based on location, resource endowment and development stage of the world's country. In the UK, farming can be divided into arable farming grows crops, such as wheat and barley, pastoral farming is raising animals, such as cows and sheep and mixed farming, based on intensive or extensive approaches (BBC, 2020).

In developing world of Asia, countries mainly emphasize on rice farming as their main crop. However, other farm products such as maize, coffee, cocoa, fruits, vegetables, fishery and livestock products and palm oil are also play as major role in Asian economies. Farming systems in these countries include lowland rice farming system, tree crop mixed farming system, root-tuber farming system, upland intensive mixed farming system, highland extensive mixed farming system, temperate mixed farming system, pastoral farming system, forest farming system, sparse farming system in arid zones and coastal artisanal fishing farming system (FAO, 2001).

Especially in developing countries, agriculture plays as the key role in rural area. Rural people from developing world depend on subsistence farming and labor intensive non- farm jobs for their living. More important thing is that most of the world's poor live in rural areas. World Bank (2016) stated that 70 percent of the world's poor who live in rural areas and among them, majority engage in agriculture as the main source of living. In developed countries, rural people are migrating to urban areas due to advancement of agricultural technology, industrial technology, and the hope of changing ones economic circumstances.

According to Collins Cobuild Dictionary (2020), farming is the activity or business of growing crops and raising livestock. Within rural economy, farming continues to play an important role and still contributes as large share of land use in developing countries. Farming and related agro based economic activities play as major role in rural life, and contribute large share of employment and economic opportunities. Off- farm activities such as artisans, crafts, cottage industries and small and medium enterprises (SMEs) are also important, though less comparable to that of farming sector in developing countries.

In general, farming sector can provide inputs for other economic sectors, factor contribution, as well as market or product contribution (Kuznets, 1961).

Factor contribution occurs when development of agriculture provides needed productive resources for other the development of other economic sectors. These factors mainly include labor, and capital. Farming sector provide labor supply for off-farm sectors in most economy. The supply of labor from farm to off-farm sectors was prominent in previous centuries, especially during the first industrial revolution in Europe. Today, this labor contribution is still existed yet moving farm labor to the non-agricultural sectors is not always easy. Transfer of labor from the farming sector to the developing off- farm sectors may not create a serious problem in over-populated countries. In addition, farm laborers remain the reliable source of labor supply for rapidly developed off-farm sectors. In countries with low level of population, the transfer of labor from the agricultural sector for the development of the off-farm economic sectors is desirable when it is accompanied by an increase in the productivity in the agricultural sector itself.

Another type of farm sector's factor contribution is providing capital to off-farm sectors. Off-farm or non-agricultural sectors need capital for new investment and expansion of businesses. In the initial stages of development, these funds will be generated in the agricultural sector and then transferred to the other sectors although this transfer can be compulsory or voluntary. The compulsory capital contribution occurs when the government imposes tax on the agricultural sector and spent for the development of the other off- farm or non-agricultural sectors within the economy. Voluntary capital contribution occur when farmers themselves invest their savings in the industrial or service sector businesses.

Market or Product Contribution includes provision of wage goods and provision of industrial raw materials. People shift their occupations from agriculture to various occupations in off-farm sectors. However, this process needs food for these labors even after shifting to new off-farm sectors. The demand for farm products is expected to increase because of increase in income after their transfer to the off-farm sectors. Moreover, the demand for food grains can also increase due to higher prices of agricultural products.

Farming sector also provides a promising market for the products of the other off-farm sectors in the initial stages of development of the economy. Agricultural sector, while helping the development of the other sectors, also finds the income of its people increasing, which in turn leads to an increase demand for the products of other sectors, not only for consumption purposes but also for production. For instance,

farmers demand manufactured products from industrial sector to use in farming to provide an expanded market for agricultural products. This is a virtuous circle which in the process gives rise to institutions facilitating two way exchanges of commodities. In addition to the above contributions of farming sector, it also supports economy through generating foreign earnings, saving foreign exchange from importing farm products from abroad, production and developing high- value added products and enhancing international trade.

Off- Farm Sector in Rural Economy

With the specializations and occupational diversification in rural areas, off-farm economic activities became crucial in rural economy today. Rural non-farm activities consisting rural and cottage industries, crafts and artisan activities though found to have low level of value-added per labour hours some of which often earn below the wage for agriculture worker (Hossain, 1984) but provided additional earnings to the poor households.

Globally, off-farm economic activities in rural areas of the in developing countries account for 35 to 50 percent of rural income and play as key role for source of income among landless and grass root people. Sustainable income gains in rural household are associated with additional incomes earned from off-farm economic activities. Households relying only on farming tend to be among the poorest. Rural off-farm economic activities can contribute to economic growth, rural employment, poverty reduction and even distribution of population (World Bank, 2017).

There are several reasons that affect the emergence of rural off-farm economic activities. One of the reasons is the improvements in infrastructure, especially the transport and communications networks, which increase the competitiveness of the farm and other sectors of the rural economy. This can facilitate the establishment of new economic activities in rural areas, although such developments are not dependent on farming. Initiation of local off-farm development projects by the government and NGOs is also a reason for the development of off-farm economic activities. In some cases, farm buildings and land represent assets to farmers, which can be used in diverse ways to develop off-farm income through tourism projects. Access to inputs and historical role of art works also support expansion of off-farm businesses.

In contrast, devastating farming businesses followed by economic backwardness in a rural area sometimes forced rural poor workers to pursue low

productive non-farm activities as a survival strategy (Vaidyanathan, 1986). Impacts of climate change also cause emergence of off-farm economic activities. In addition, rural occupational diversification is to reduce production and income risks and stabilize and augment household income (Sahu, 1998). As majority of rural people are poor, landless and marginal holders, they shift from low income economic activity to high value and high income activities from single activity to multiple activities (Ajani and Igbokwe, 2014). Rural occupational diversification process is encouraged for better utilization of both human and natural resources and there is need to identify and encourage these activities or enterprises in the context of impacts of technology, factor use, employment and income growth (Agarwal, 1980).

According to FAO (2002), rural off-farm activities have certain features based on their level of activities ranging from cottage activities to village enterprises and commercialized production. Table (2.1) shows the characteristics of three different stages of rural off-farm processing activities.

Table (2.1) Characteristics of Rural Off-farm Economic Activities

| Features | Cottage Activities | Village Enterprises | Rural Industries |
|---------------------|---------------------------|---|-----------------------------|
| Location | Household | Village Vicinity | Vicinity/ Outside |
| Ownership | Women/ Family | Extended Family Cooperative Entrepreneurs | Entrepreneurs |
| Labour | Family | Extended Family Villagers | Villagers/ Non Villagers |
| Organization | Non- Wage Shared Tasks | Non-Wage/ Wage | Wage, Contract |
| Technology | Low | Medium | High, Imported |
| Scale | Very Small | Small | Medium |
| Regularity | Non Regular | | Regular |
| Formality | Informal | Rudimentary Formal | Formal |
| Fuel Use | Low | Low/ High | High |

Source: FAO (2020)

According to the above table, rural industrial activities can be divided into the following three categories, small-scale cottage activities, medium-scale village enterprises, and large-scale rural industries. This classification can be carried out on the basis of the features of location, ownership, labour source and organization, complexity of technology used, scale of production, regularity of production, form of organization, and flexibility of energy source and use. FAO (2002) explored the criteria for assessing the importance of rural off-farm activities are fuel consumption, employment and income development, food production and security, nutrition and health, and impact on the environment.

In rural areas, most of the small-scale cottage activities are food processing, such as baking, preparation of noodles, fish smoking, preservation of fruits and vegetables, meat grilling, street food preparation, drying of grain and spices and roasting of coffee. These activities are of particular importance to women who usually tend to both own and manage them. Yet the economic importance of these activities to the rural economy as a whole is significant. These activities can provide supports for increasing need for the off-farm cash generating activities. With these activities, young people and women can pay for school and hospital fees and other needed expenses.

The second group is village enterprises, which include breweries, bakeries, dairies, restaurants, blacksmithing, potteries, lime processing and brick manufacturing. There are significant differences between household level processing and village enterprises, which are owned and operated by a group of people, an extended family, a cooperative or an entrepreneur, with hired labors. Processing usually takes place in a separate building or site, away from the household. These enterprises are mainly headed by male and the most owners have a considerable business skill, although most small enterprises are run by people with little schooling or experience outside their own village. Some village enterprises are registered and have potentials for expanded markets,

The largest form of rural off-farm businesses are larger-scale rural industries operating with formal basis, employed labor on contract basis, higher level of process technology, which in many cases is imported, and a relatively good fuel flexibility. Although these are called off-farm economic activities, they can include manufacturing and processing of cash crops such as tobacco, tea, coffee, cocoa, perennial crops, horticulture products and rubber, which are also important export products with a high impact on the national economy. Their proportion in the GNP of is significant in some

countries. However, all types of rural off-farm businesses need to overcome many policy and resource constraints in developing countries, which comprise limited access to connectivity, education and relevant skills training, finance, and legal rights to access land. In addition, gender, age, or ethnic and other biases are also necessary to resolve until now.

2.4 Rural Development Approaches in Selected Economies

Different countries used the most appropriate rural development approach to promote their rural economies. Among them, rural development approaches used by currently industrialized Asian economies, mainly Japan and Korea, Livelihood Improvement (Kaizen) Approach and the Saemaul Undong (SMU), were the most prominent ones in realization of rural infrastructure development and supporting farm and off-farm economic activities.

Japan's Livelihood Improvement Approach

In post war period, rural areas of Japan had experienced severe economic and social impacts. In late 1940s and 1950s, the livelihood improvement approach was used to improve the lives of people in rural area. Farming sector in rural areas of Japan had experienced severe problems that many developing countries face today as well as low level of education, sanitation and health.

The significant feature of the livelihood improvement approach is its way of solving issues not by introducing foreign or new systems and technologies, but by efficient utilization of existing limited resources available to the villagers to improve their own lives. Under this approach, the Livelihood Improvement Program (LIP) extension workers helped providing needed information, knowledge and reforms to each rural household in the areas of agriculture, off-farm economic activities, streamlining daily household routines, improving nutrition, etc. Under this LIP approach, the problems that needed to be solved were identified, and the rural residents took possession of the activities to plan and implement solutions based on Kaizen approach. Kaizen is a Japanese philosophy, which means change for the better/continuous improvement (Investopedia, 2020). The difference between the convention way of development process and LIP based on Kaizen are summarized by Table (2.2).

Table (2.2) Difference between Conventional Development and LIP

| Particular | Conventional Development Approach | KAIZEN Approach |
|-------------------|--|--|
| Purpose | Betterment of life | Betterment of life |
| Starting Point | What we don't have | What we have in hands |
| Main Strategy | Transplant, Import | Create, Domesticated |
| Important Tools | Technology, Money | Information, Mutual help (Social Capital) |
| Drivers | The outsiders, specialists | The local leaders |
| Events | Sporadic | Connected one after another |
| Central Issues | Productivity, Income | Comfort, Safety, Saving |
| Main Concerns | As much as possible | As long as possible |
| Source of Finance | rent from outsiders Credit from local government, | People by themselves |

Source: Mizuno and Sato (2005)

The first steps of LIP in post war Japan was started with provision of agriculture extension services and consulting with rural women to resolve their household problems. Under this approach, women in rural communities came together and formed groups, discussing the problems and needs they had in their lives. Over time, working groups developed to work in specific areas such as rice cultivation, horticulture and household finances. Improvement activities they carried out included stove improvements, community cooking, and community daycare programs.

Stove improvement is significant impacts of the LIP as the program transformed traditional kitchen stoves that generated poor ventilation and physical distress on women using them to waist-high and well ventilated one. Community cooking was realized by housewives of farm families to manage household work, and to reduce weight and enhance proper nutrition. Community daycare was to use farmhouses and schools to take care of the children cooperatively to reduce accidents and injuries to children as well as helping the early detection of illness.

Although this post war LIP approach had succeeded in 1950s, the resulting livelihood improvement and social development within the community is still maintained in Japanese community. In addition to eradicate absolute poverty, this participatory rural development approach has spread to the rural areas in developing world today with Japan as a role model.

One Village One Product (OVOP) Concept

The OVOP concept is a unique approach to local development which was the brain of the Japanese former Governor of Oita prefecture, Hiramatsu, who used his previous experience and exposure in the Japanese Ministry of Economy, Trade and Industry (METI) to aim for a solution to Oita's serious rural economic decline. The countries that have embraced OVOP include Thailand, Vietnam, Korea, China, Cambodia, Philippines, Laos, and Indonesia in South East Asia. OVOP is a distinctive approach to rural community development in which latent local community creativity and potential is triggered, through effective local leadership and human resources development, and directed at community revitalisation through development of unique products that have strong market appeal. Its overall aim is to develop and consolidate local self-organising capability for sustainable local development and poverty reduction.

There are the three principles as follows: (i) self-reliance and creativity (ii) human resources development, and (iii) thinking locally but acting globally. These principles are based on the Livelihood Improvement Program (LIP). Local people take the lead, independent of external prompting and largely on their own creativity and self-reliance, to make unique products from local resources for their own good and to capture markets external to their locality. In the process they develop their expertise through production of competitive products, their livelihoods improve due to enhanced incomes, and their communities develop closer bonds at the same time. The OVOP rural community development concept has been implemented in different ways where it has been introduced, depending on the over all objectives and the unique circumstances of each country. As a result, it was widely adopted by many local governments of Japan and spread to the rest of the world.

Saemaul Undong (SMU) Approach by Korea

Saemaul Undong is the Korea's community development model, initiated in the 1970s. The main aim is to promote development of Korean rural sector which in turn support macroeconomic development. In post war period, Korean economy was devastated with low level of economic and social development all over the country.

During the period, the main economic policy of the Korea, export-driven economic growth policy, did not improve the livelihood of the rural community at all

and around 80% of the households living under thatched roof houses and only 20% have access to electricity. Park (2009) stated that absolute rural poverty in Korea has decreased from 27.9 percent to 10.8 percent between 1970 and 1978 due to the results of SMU, which is an integrated local development program that flourished between 1971 and 1979. The SMU was launched by the president Park Chung-Hee.

The approach was formerly defined as a movement for a better living and later recognized as a movement to develop the work ethics of farmers by participating in village projects to accelerate rural modernization. The aim was to generate economic, social and attitudinal improvement with the broad objectives of enhancing income generation, improvement of living environments and basic rural infrastructure and capacity building. The term Saemaul Undong (SMU) means New Village Movement, in which emphasis has been made to rehabilitate village infrastructure, improve living conditions in rural areas and promote rural household incomes. SMU Projects has three main stages: focusing on basic infrastructure, development and dissemination of the results (ADB, 2012).

During the early stage of implementation, it focused on improvement in physical infrastructure at village level. The approach started with top down scheme and later transformed to participatory ways. At first, selected projects were developed by the government and provided guidelines to the villagers for developing ideas on transforming their village in their own way. After gaining certain level of confidence and experience by villagers along with the initially developed basic infrastructures agricultural productivity were improved. The focus of SMU shifted from infrastructure development to income generation projects. Then, capacity building and attitudinal changes phases were launched in the final stage. Choe (2005) studied that SMU has been widely recognized as a successful model of rural community development, especially for underdeveloped and developing nations around the world.

Although most of the development projects could be implemented successfully, sustainability of the project and generating positive impacts are still low in most countries. However, the SMU is different from failure cases and factors behind the successful implementation include resolving realistic rural problems concerning socio-economic improvement as well as proper integration with other policy variables. Kwon (2010) studied that land reforms in Korea had a significant impact in transforming the rural economy and social structure. In particular, land reform and agriculture sector reform provided farmers to own lands and motivate them to implement modern farming

and infrastructure development within their community. Promoting education is another factor that affects the success of SMU in post war Korean Economy.

Rural Entrepreneurship Initiative in Thailand

In Thailand, rural development initiatives have been promoted by the government through Community Based Enterprises (CBEs) in 1980s. The main reason is to earn additional income for rural farm households since 1982 by different government departments. In early 2000s, Thai government has launched the One Tambon One Product (OTOP) project. Especially in 2001, Thai government follows the way of Japanese One Village One Product (OVOP) project to improve the economic condition of grass roots level people. However, the government did not adopt the whole principal of OVOP from Japan rather than modifying it.

Tambon means village or sub-district in Thailand. OTOP is a local entrepreneurship stimulus program which aims to support the unique locally made and marketed products of each Thai tambon all over Thailand. OTOP drew its inspiration from Japan's successful One Village One Product (OVOP) program, and encourages village communities to improve local product quality, innovation and marketing (Denpaiboon, 2012). Table (2.3) shows the development of OTOP in Thailand from 2001 till 2014. Until 2007, OTOP was initiated for developing local entrepreneurs in all provinces of Thailand. After 2007, introduction of ICT and knowledge based pattern was placed in developing local businesses to access to international market.

Table (2.3) Development of OTOP in Thailand

| Year | The Development of OTOP and Activities |
|-------------|--|
| 2001 | <ul style="list-style-type: none"> • Government announced as an urgent policy • Established OTOP administration board • Placed under Community Development Department, Ministry of Interior • Village Development Fund established for OTOP and many community groups |
| 2002 | <ul style="list-style-type: none"> • Rating system for OTOP products given one to five stars • Integrated: Ministry of Interior, Ministry of Industry, Ministry of Agriculture and Cooperatives and Ministry of Commerce |
| 2003 | <ul style="list-style-type: none"> • Quality Chosen for OTOP Product Champion (OPC): Local Link Global Reach • Community Development Department, support to link OTOP network to product development on Tambon level, District level, Provincial level, and Central government level |
| 2004 | <ul style="list-style-type: none"> • Enacted “Village Fund and Urban Community Act” • OTOP groups registered with Department of Agricultural Extension, Ministry of Agriculture and Cooperatives for fund engagement. • 29,385 OTOP products registered for grading (one to five stars) and 7,967 products were selected. |
| 2005 | <ul style="list-style-type: none"> • Established Small Medium Large Government Budget (SML Fund) • Enacted “Small and Micro Community Enterprise Promotion Act” • OTOP groups obtained support from the Tambon Administration Organization, the Community Development Department, and other government agencies. • Ministry of Commerce announced that the export value of OTOP goods reaches USD 1 billion (40 billion baht). |
| 2006 | <ul style="list-style-type: none"> • Search for OTOP Village Champion (OVC) • Highlighted OVC as a mechanism to promote and support development of Thai OTOP products • Five stars: 812 products selected |
| 2007 | <ul style="list-style-type: none"> • Knowledge-based OTOP activity |
| 2008 | <ul style="list-style-type: none"> • Entrepreneur promotion activity |
| 2009 | <ul style="list-style-type: none"> • OTOP Tourism Village activity |
| 2010 | <ul style="list-style-type: none"> • Sustainability of OTOP activity • OTOP producers registered under OTOP: 33,228 • Community-based enterprises = 66.8% • Single-owner enterprises = 31.1% • Small and medium-sized enterprises = 2.2% |
| 2014 | <ul style="list-style-type: none"> • Market movement both domestic and international market • Business matching project |

Source: Suindramedhi (2015)

The government helps communicate modern knowledge and manage to introduce the products to the domestic and international markets through chain stores and outlets. Thai government aims to strengthen local communities to be self-dependent and create jobs and income to the community members. The local knowledge and resources have been employed to develop quality products and service with their own advantages and value added. While maintaining Thai culture and way of life, the products also meet the needs of the domestic and international markets.

Unlike OVOP from Japan, OTOP is adopted as a national policy under the control of Ministry of Interior. OTOP was implemented by three administrative levels. One Tambon One Product (OTOP) Project is one of the government's urgent policies encouraging Thai communities to make use of Thai wisdom. OTOP is said to be a successful project as it was integrated with the Eighth National Economic and Social Development Plan (1997-2001) of Thailand through promoting sustainable development by using strategies to improve the quality of life, develop human resources and focus on people's participation in strengthening community organizations (Royal Thai Embassy, 2014).

The entire OTOP product cycle comes under the supervision of a National OTOP Committee, with regional and provincial level committees to assist in identifying, developing and grading OTOP products. First level is the local level, where local product is initiated by local sub-committee-Tambon Administration Organization (TAO). The second level is the provincial and district level. The provincial and district OTOP Committee headed by governor and district mayor will integrate it into provincial plan and budget lines and developing product quality (JICA 2003). Finally, the OTOP office and "National One Tambon One Product Administrative Committee" is responsible for planning strategy, setting the standards, and engaging the participation of local government (Kurokawa, et al., 2010).

Rural Development Initiatives in Indonesia

In this 21st Century, the renowned rural development project implemented in Indonesia is the National Programme for Community Empowerment or Program Nasional Pemberdayaan Masyarakat (PNPM). It was launched with the collaboration of the World Bank to reduce the negative impacts of the Asian Financial Crises occurred in 1996-97 and to reduce poverty, to ensure equity and inclusiveness in most part of Indonesia. The project was initiated in 2006.

In fact, the PNPM is based on the successful experience with the Kecamatan Development Programme (KDP) and the Urban Poverty Project (UPP) that were launched in past 10 years. The PNPM not only include urban poverty reduction, also takes into account rural area in accordance with a community-driven development (CDD) approach and with technical and financial assistance from the International Bank for Reconstruction and Development (IBRD, World Bank) At present, the PNPM becomes a national programme covering all rural and urban areas in the country. Table (2.4) illustrates the time line of PNPM Project and its development.

Table (2.4) Development of PNPM Project

| Year | Development and Initiatives |
|-------------|--|
| 2006 | <ul style="list-style-type: none"> Revealed a new plan to combine the KDP and other community-based poverty reduction programmes into the PNPM Mandiri. Especially for rural areas, the programme operated under the name PNPM Rural |
| 2007 | <ul style="list-style-type: none"> The Indonesian government, the World Bank, and other partners established the PNPM Support Facility (PSF) to provide operational and financial support Indonesian government piloted PNPM Generasi [Generation] in 1,605 villages and 5 provinces |
| 2008 | <ul style="list-style-type: none"> PNPM Green was established to adapt the PNPM Rural model to address environmental sustainability |
| 2009 | <ul style="list-style-type: none"> 106 high school graduates were trained as technical facilitators in the region of Papua in the second phase of barefoot engineers |
| 2011 | <ul style="list-style-type: none"> The PNPM Peduli pilot project was initiated and grant agreements between the PSF and three national civil society organizations were signed |
| 2012 | <ul style="list-style-type: none"> The PNPM Rural impact evaluation found that, from 2007 to 2010, the program raised household consumption by poor families by almost USD4 per person per month |

Source: Irigoyen (2017)

At the end of the project, positive results were achieved in reducing poverty and improving the living conditions. In particular, the project helped reducing poverty, improved local governance, able to invest more in community infrastructure and microcredits, and upgrade education and health among citizens.

2.5 Reviews on Previous Studies

In this section, reviews are divided into two groups, international studies and previous researches, including Post Graduate Theses related with the study area.

2.5.1 Previous International Studies

Barham (2007) studied the assessment on planned change initiatives to improve the marketing performance of smallholder farmer groups in Northern Tanzania. Aims of this study are to identify and understand the underlying factors that enable smallholder farmer groups to improve their market situation. This study assessed a government-led program in Tanzania in promoting smallholder farmers' incomes and food security through a market-oriented intervention. Group interviews and survey were conducted and the study found that more mature farmers' groups with strong internal institutions, functioning group activities, and a good asset base of natural capital are more likely to improve their market situation. Community leaders and ties to external service providers mainly affect group's ability to access new resources yet ethnicity, age, education, religion were not significant in a group's ability to improve its market condition.

Ghib and Berriet-Sollic (2010) explored the transition of small farming to rural, non-agricultural work in Romania based on three measures of the rural development programme. Among the members of European Union, Romanian rural areas have the highest level of agricultural workers. Consequently, it faced challenge of stimulating non-agricultural employment in most parts of the country. This study uses policy evaluation approach to assess the influence of 3 measures the Common Agricultural Policy (CAP). This study explores whether the public intervention facilitate a transition from the agricultural sector to the non-agricultural sector, what are the major policies that support this transition, and who are the targeted populations. The study found that the targeted population was under estimated for one of the semi-subsistence schemes. The choice of off-farm economic activities from tourism to small businesses is open to the rural society that leads to enhanced competition among people. Yet, co-financing can be met by owners of strong capital in the rural areas of Romania.

Boateng (2011) studied the Agriculture in Sustainable Rural Development Effects of the Growth and Poverty Reduction Strategy II (GPRS II) on Livelihoods and Coping Strategies of Smallholder Farming Households in Ejisu-Juaben Municipality in the Ashanti Region of Ghana. This study focuses on the second PRS – that is the

Growth and Poverty Reduction Strategy II (GPRS II). GPRS II aims to improve agricultural productivity and livelihoods of poor/ vulnerable groups including farmers. This study aims to fill the gap by analyzing the effects of GPRS II on smallholder farmers' ability to develop sustainable livelihoods. Analycentric method is used to analyze policy, focusing on the micro-scale of typically farming communities in the study area. The findings showed that although many of the interventions in the municipality's action plan seemed to conform to the most critical empirical needs of local farmers for resilient livelihood development, the GPRS II has not accordingly promoted most of the poor farmers in the municipality and generated slow in its poverty reduction processes.

Chamicha (2015) studied the off-farm activities and rural livelihood in Tanzania, particularly for the case of Njombe District. The study examined the relationship between off-farm activities and rural livelihood in Tanzania as well as the determining factors that enable the rural household to participate in the off-farm activities, the link between farm and off-farm activities and identified the importance of off-farm activities. Based on the Key Informant Interviews and survey, the study found that the household's decision to engage in off-farm activities largely influenced by push and pull factors. The push factors include low income from farming activities, insufficiency of land, seasonal nature of farming and reducing risks from poor farm outputs. Pull factors include greater opportunities in off-farm sector, growth of timber industry, relationship between farm and off-farm sector in the flow of capital and consumption. The results meant that the income earned from farming were used as a start-up capital in off-farm activities and the income from off-farm activities were used to finance farm activities and to purchase household durables and necessities such as purchases of nonfarm inputs, paying school fees, buying food, consumer consumption, buying home assets, paying house rent and health expenses. This study concluded that rural nonfarm activities are significant livelihood strategy for the rural households.

Studying rural socio-economic development resulting from sustainable agriculture with the use of regional resources was studied by Su-Indramedhi (2017). In this study, comparative analysis was made on Thailand and Japan. In particular, the study focuses on the future of Thai farmers. Based on the study of Japanese success stories in improving rural society, this study aims to examine the utilization of local resources to revitalize rural areas in Japan and Thailand based on key factors available to them. Realization of smart village was the important option for Thailand to achieve

rural socioeconomic development in 21st century. The study suggested that there are six major factors affecting the success of smart villages. These include farmers' aggregation, the use of modern technology, and relationship with community members, innovation and creativity, implementation of modern agricultural development, and application of community based scheme.

Razak (et. al.) (2013) explored the development of smart village implementation plan for agriculture, which is a pioneer project in Malaysia. This study aimed to examine the Malaysian Smart Village project in a rural community. In this study, major issues faced by farmers and Smart Village indicators were identified and stated a strategic plan for the Smart Village implementation. Findings showed that the major issues faced by the farmers are limited involvement of human capital in agricultural activities, the small size of land and limited knowledge of using technologies and innovative techniques to enhance the agricultural processing and production. Moreover, Micro Small Medium Entrepreneurs (SMMEs) in Kg Besting also faced shortage of raw materials and crops, in sufficient machinery, limited knowledge and lack of advice and networking to realize mass production and marketing at the regional and global levels. Thus, the study emphasizes the importance of meeting the community's needs in Kg Besting and offers several useful recommendations.

2.5.2 Previous Myanmar Studies

Thuzar Naing Oo (2017) studied an assessment on the livelihood activities of rural households in Magway Township, which aimed to investigate the current socio-economic conditions, livelihood diversification and its determinants and constraints. A total of 150 sample households were interviewed based on purposive random sampling method from five villages in Magway Township. In this study, descriptive analysis, Simpson income diversification index (SDI) and regression model were used. The study found that more than half of farms and landless households were diversified at different levels. Based on the average value of SDI, the sample households were low level of income diversification index. Livelihood diversification was positively and significantly affected by household size and participation in organizations but negatively influenced by farm size. High wage rate of agricultural labor and low crop price were major problems mentioned by majority of farm households and lack of capital investment was major constraint faced by landless households in the study area. Rural small and medium enterprises (SMEs) should be encouraged and supported for

better job opportunities. Landless households should be encouraged to cooperate in local organizations to create employment opportunities.

Chit Su Win (2018) studied the production of farming sector, mainly paddy production in Myanmar between 2007- 2008 and 2016- 2017. This study aims to analyze the sufficient condition of paddy production in Myanmar based on descriptive method. The study found that delta regions in Myanmar have the large area of paddy cultivation due to its favorable natural resources and climatic condition. Although the sown acreage and production of paddy is reduced, Myanmar still can produce the sufficient amount of paddy for domestic consumption and even for exports. Paddy production has the potential for rapid growth by using high yielding varieties such as adoption of Good Agricultural Practice (GAP), use of good quality high-yielding seeds, application of agricultural inputs and promotion of farm machineries utilization as technology intervention. Developing and maintaining capable human resources and implementing appropriate policies are needed to improve paddy production in Myanmar.

Wai Phyo Thein (2019) explored the obstacles of small-scale paddy farmers In Dry Zone of Myanmar, particularly in Taungtha Township. Descriptive method and is cross-sectional study is used to reach the objective. The study emphasized on farmers in the Taungtha Township, who possess five acres of farm land maximum and cultivated the paddy since last three years at least, to explore their major obstacles via the questionnaire. The main obstacles found in this study include labour shortage, lack of finance, limited distribution channels and high input prices and resulting undesirable consequences in turn affect the farmers in negative ways. It suggested that farmer groups should be formed to share their knowledge and experiences, and gaining bargaining power. In addition, spending on supporting for development of agricultural sector is needed. Moreover, encouraging private sector participation in agricultural sector is also essential, mainly for realizing contract farming, etc.

Moe Shwe Zin Aung (2019) studied non-farm economic activities in selected villages in Hlegu Township. Usually, rural households depend on farming sector for their livelihoods as a main source of income and employment. This study aims to analyze the way non-farm businesses affect income and socio-economic conditions of the respondents. 167 sample households were selected from two villages to ask structured questionnaire. The study found that non-farm businesses are important for rural households and provide additional income that enables households to spend more

on their basic needs including food, education and health care. This study suggests that non-farm economic activities are important for farmers to invest for solving challenges faced due to poor market performances in farming sector.

CHAPTER III

RURAL DEVELOPMENT EFFORTS AND CONCEPT OF MODEL VILLAGE IN MYANMAR

3.1 Rural Development Programs in Myanmar between 1988 and 2011

Myanmar's rural development efforts have initiated with the development of border area and national races program in 1989 with the view that border areas are lagged behind the development due to the prevalence of insurgencies. The efforts cover infrastructure and economic sector transport and communication, education, health, electric power and agriculture and livestock breeding.

In Myanmar, integrated rural development has been entered within the nation's third five year plan 2001-02 to 2005-06 comprising five segments, construction of roads between villages in rural areas and to link with urban areas, provide access to water for people as well as for cultivation, improve and upgrade school buildings and furniture; to uplift the education standard, improve the quality of teachers; to enable the children of school going age to attend class and to make them literate, uplift the rural health care system and bring about the economic growth of the rural populace.

Integrated rural development has been conducted with the objective of improvement of the status and wellbeing of rural populace comprising 70 percent of total population. The others designated for rural area development include housing plan for the rural areas and plan for establishing model villages. In collaboration with Ministry of Forestry, Ministry for the Progress of Border Areas and National Races has completed 2772 houses in 2005-06 fiscal years. The low cost houses are sold at reasonable price but the demand is rare. Top down approach, decided only by the authorities what the local people need has skewed from the desirable results. This fact reveals that the concept of rural development should include the participation of poor people to avoid the undesirable results and to empower poor people themselves.

A 20 year plan for model villages development has been set up in 2001-02 after 3 year pilot project (1998-99 to 2000-01). The number of model villages has not reached the targets and the plan period is again revised in 2005-06. Lack of reference data and

information on model villages and timely availability of the materials needed for building model villages are stated as major constraints for the rapid growth of model villages. A new 20 year plan (2006-07 to 2026-27) for model villages has prescribed the standard requirements in establishing model villages. There are 15 standard requirements are in line with government's five principles for rural development. In short, these five principles, which are aimed at promoting the living standards in the rural are providing better transportation, providing water supply for agricultural purposes and ensuring potable water, raising the education standard, providing better health care services and developing agriculture and livestock-breeding activities. To facilitate the development of rural areas, two principals were added providing rural libraries for educational support and providing rural electrification.

During 1990s, General Administration Department has prescribed the required 15-criteria which are laid down to establish the model village are as follow.

- (1) Village Peace and Development Council Office and Rural Library
- (2) Playground and Rural Common Field
- (3) School
- (4) Rural dispensary and Rural Health Centre
- (5) Road transportation (Village to town Road, Village to Village Road)
- (6) Water Supply
- (7) Electrical Power
- (8) Pagodas, Monasteries, Lake an Religious Buildings
- (9) Village Fence, House Fences
- (10) Formation Rurl Fire-force, People's Militia and Safety Organizations
- (11) Shady trees, Fire-wood Plantation
- (12) Formation the Non-government Organization such as Women's Affair Association, Maternal and Child Welfare Association, fire-force, Red-cross force and War Veteran's Organization
- (13) Rural Market Place
- (14) Use the Fly-proof Latrines
- (15) Rural Graveyard

These 15 standard requirements are encompassed in three groups; (1) constructing basic infrastructure such as roads, bridges, libraries, water supply, electricity, communication facilities, religious buildings, market places, playground

etc. (2) upgrading the standard of education for local people, (3) upgrading the health standard of rural people.

In addition to the standard criteria, the criteria for the establishment of a model village are as follows by General Administration Department:

- (1) To improve village roads
- (2) To improve village-to-village roads
- (3) To improve village-to-town roads
- (4) To have the availability of sufficient drinking water for rural people and enough water for cultivation
- (5) Keeping village hall
- (6) To improve schools
- (7) Village dispensary
- (8) Playground and park
- (9) Environment cleanliness and rubbish dump
- (10) Construction of fly-proof latrines
- (11) Shady trees and firewood plantation and nursery
- (12) Village gate, village fencing and house fencing
- (13) Graveyard
- (14) Village administration office and library
- (15) Organizing security unit and fire watch
- (16) To improve pagodas and religious buildings
- (17) Planting the signboard of model village and signboard expressing facts and figures of the village
- (18) Power supply
- (19) Systematic establishment of village bazaar and plot of market place
- (20) Non-Governmental organizations, and
- (21) Telephone service

Under all programs of rural development in Myanmar, the component of each has covered five main areas: rural infrastructure mainly for transportation, rural water supply, education, health, and developing rural economy. Improvement in roads and bridges for transportation has been started since 1989 all over the country. The transportation in rural areas particularly for border areas has been beneficial under the programs. Other infrastructures, rural communication and electrification, important

determinants of rural public services, are still slow in progress. The percentage of villages with electric lighting is 22.4 percent only in 2004 and most villages are out of reach from electrification. The business operations of villagers such as water pumping, machinery for farming have to be carried out by costly fuels.

Rural communication program has been implemented since 2001 and there are 233 rural telephone exchanges in 2006. Telephone lines per one thousand people have increased from 2.12 in 1990 to 12.1 in 2006 but Myanmar communication is at extremely low status within the ASEAN context. Another important infrastructure particularly for the central part of Myanmar is water supply for agriculture and drinking water. Dams, reservoirs, water pumps have been built on numerous scales all over the country spending a lot of funds. A significant contribution of international donors and local well-wishers have brought about the quick completion of drinking water supply tasks under 10 year plan for development of rural water supply. However there is inefficient maintenance program far from the sustainable track as the result of inadequate community development plans since the beginning of the project and other difficulties such as shortage of electricity, inefficiency of machines prevail.

For social infrastructure, schools have been established in rural areas to upgrade the education standard of rural people. During that period, post primary school project is implemented to get more access to lower secondary education in villages. The children in villages could approach the secondary education without the need for going away from their homes by promoting the primary schools in their villages to post primary school. The net enrollment ration in secondary ratio, however, is only 38 percent while that of primary level reaches 91 percent in 2006 as a consequence of traditional monastic education. This illustrates that not even half of the students completing primary schools continue with their education. This is the lowest one among ASEAN countries where the second lowest Lao PDR possesses the secondary ratio of 41 percent (UNICEF, 2008). Not only constructing the school buildings and physical materials but also other special programs such as stipends, scholarship programs, night schooling etc are essential to improve rural education. The secondary level children in rural areas usually have to contribute to their family livelihood as paid or unpaid laborers.

Another social development effort in rural area was provision of rural health care centers, training schools for basic health staffs. The tasks of immunization, prevention and curing of important diseases like tuberculosis, malaria, measles and

HIV/AIDS have been carried out with the cooperative contribution of INGOs and NGOs. However, the proportion vaccination of one year old children against measles is 80.4 percent which is less than the required level to stop transmission of the virus, 90 percent (IHLCA, 2010). The cost sharing system of present public health services has excluded the poor to access adequate health services. A free service for clients that cannot afford payment to get adequate services is weak with the limited budget. When comparing to other developing Asian countries, life expectancy of CLMV group was 60 years, 56 years, 60 years and 72 years respectively. Myanmar became the lowest status for life expectancy, 61 years, in 2006 UNICEF (2008).

3.2 Current Rural Development Efforts in Myanmar after 2011

Rural development efforts in Myanmar were initiated with the poverty reduction campaign in 2011. New civilian Government of Myanmar started to prioritize rural development in line with the MDGs and poverty reduction efforts in all parts of Myanmar. The initial attempt of rural development was begin with the establishment of Rural Development and Poverty Alleviation Central Committee in June 2011. The Central Committee set eight tasks to implement for rural development and poverty alleviation in Myanmar. They are

- (a) Development of agricultural production sector
- (b) Development of rural productivity and cottage industries
- (c) Development of micro saving and credit enterprises
- (d) Development of rural cooperative tasks
- (e) Development of rural socio-economy
- (f) Development of rural energy and
- (g) Environmental conservation.

According to all round surveys of living conditions of households, jointly conducted by UNDP and the Ministry of National Planning and Economic Development, the poverty rate of Myanmar has decreased from 32% to 26%. Yet, to be in line with the Goal 1 of the Millennium Development Goal (MDG), Myanmar's poverty rate should be reduced to 16% by 2014- 2015.

In order to implement these tasks effectively, the Union level central committee, work committee and region/state level work committees have been formed. The central committee will adopt and supervise policies. For the Union level work committee,

Union Ministers will take charge of a task each and support the region and state level rural development and poverty alleviation work committees, which will have to take practical measures.

For the State and Regional level, Region and State Rural Development and Poverty Alleviation Work Committees are organized to reach 330 townships and 82 sub-townships and accomplish the above mentioned tasks in cooperation with the rural people who really want to work in their own and public interests. With the Development and Poverty Alleviation in rural areas of Myanmar, ensuring rural security and the rule of law by means of education, warning and taking action in order to implement the tasks more effectively have been conducted.

In 2012, the Government of Myanmar published the Framework for Economic and Social Reforms, which intended to carry out broad set of policy reforms to rapidly liberalize the economy, improve regulations, and invest in infrastructure in rural and urban areas. In August 2013 the Government formed the Ministry for Livestock, Fisheries, and Rural Development to carry out rural development and poverty reduction in all parts of the country.

Rural development can be seen as critical triangle of growth, poverty alleviation and sustainability. A country cannot achieve rural poverty alleviation without robust rural economic growth that is broad-based, which includes poor. The most successful rural development experiences in Asia have had 3 Beneficial Characteristics, broad based, strongly linked via value chains to markets that have growing demand, urban and export markets and with rural households climbing the value ladder. To achieve these benefits, introducing and practicing local Community Driven Development (CDD) and even local zone investment is essential. Moreover, producing higher quality and highly value adding products can enhance higher income opportunities for the rural people.

As rural development initiatives in Myanmar were only in their early stage, challenges were waiting ahead. These challenges include

1. Promoting the local enabling context, which appears best to combine actions over related Ministries to put together CDD, electricity and roads and wholesale markets at zones, urban and ports, setting rural development policy and agricultural policy to provide property rights and free markets to incentivize investments, etc.

2. Focus in on sequencing and putting in place needed investments to build villages links to rural-urban value chains and growing sources of demand to feed rural development, picking winners by the Government from rural and urban areas in terms of key product categories with strong demand potential (such as fish, pulses, chicken, fruit/vegetables, and differentiated qualities of rice) and market winners (regional market is key, town/city market) that they have to link to. The overall enabling environment is key but there is also a need to adapt investment plans to short-term high opportunity products/value chains that can achieve rural development
3. Differentiation of RD strategy by different types of zones is also indispensable. One way to think of this is to divide districts/zones by economic-distance from market and by agro climatic performance/potential of the area. There are many poor in all divisions and states/regions of Myanmar. There are opportunities to alleviate poverty massively.
4. Getting enough new empirical data and building capacity for analysis is crucial: It is key to build capacity in various interlinked dimensions such as capacity for dialogue about rural and market conditions; capacity as a long term asset to analyze and observe rural and market conditions via surveys, research, analysis, and outreach from those to policymakers, capacity of the private sector and capacity of local and regional governments.

Between 2011 and 2015, both long term (20 years) and short term (5 years) rural development plans were set by the Ministry of Livestock, Fisheries, and Rural Development, together with the other Ministries in Myanmar and International Communities. During the period, major projects include rural infrastructure development projects, provision of water supply and sanitation, rural electrification, rural housing projects and rural livelihood improvement projects. With the Ministry of Livestock, Fisheries, and Rural Development as focal Ministry, other Ministries are collaborated for rural development of Myanmar. These Ministries are: -

1. Ministry of Agriculture and Irrigation
2. Ministry of National Planning and Economic Development
3. Ministry of Finance
4. Cooperative Ministry
5. Ministry of Industry and
6. Ministry of Environmental Conservation and Forestry.

In addition, the Government of Myanmar is collaborated through bilateral and multilateral agreements as well as international organizations in implementation, decentralization, land security, micro finance facilities, carrying out right based approaches, enhancing SMEs, developing community based organizations, etc. Key international organizations that collaborate with the Government of Myanmar in conducting rural development processes are the United Nations and its affiliated organizations, World Bank, IMF, ADB, GMS, JICA, KOICA, BAI, USAID, etc.

Setting and implementing rural development strategic framework of Myanmar not only include setting priority programs, allocation of budget and capacity building, also take into account environmental conservation and sustainability, gender equality, evaluation of supports, output and outcomes of the projects and programs, etc. However, there still have low levels of rural entrepreneurship development initiatives, capacity building, supports for capacity building, mitigating the effects of disasters and climate change, financial access, marketing of agriculture products and pricing for rural people.

After 2015, rural development programs in Myanmar gained five years' experience. Therefore, sophisticated and more appropriate measures can be arranged for the future. Under the new democratic Government, the Ministry of Livestock, Fishery and Rural Development have reorganized as the Ministry of Agriculture, Livestock and Irrigation. Under the Ministry, the Department of Rural Development (DRD) becomes key public stakeholder for implementing rural development efforts.

DRD is mandated to construct rural road and bridge, rural water supply and sanitation, rural electrification and rural housing and to enhance livelihood and income generation. At present, DRD has already appointed 5802 staffs, in which 831 seniors and 4971 junior staff. DRD has vision of carrying out in accordance with the Sustainable Development Goals (SDGs), and to improve the socioeconomic development of rural populace in Myanmar.

DRD is taking responsible to carry out at least one major road used for all seasons will be constructed in each village in 2030. Moreover rural productive roads and bridges development strategy will be development and implemented. DRD is also responsible to implement the availability of rural drinking water plans which will bring about benefits to locality. DRD will transfer technology and give to access to knowledge in regard with the availability of purified drinking water.

Other major tasks are to provide rural electrification regard with the availability of purified drinking water based on National Electrification Plan, cooperation with private sector in rural electrification activities, establishing improvement of mini grid, provision of rural housing and latrines damaged by emergency situation and natural disaster will be reconstructed for rural community, facilitating social infrastructure to improve in rural area by practice in people centered approach community driven approach, enhancing livelihoods and Incomes generation activities of rural people by establishing the revolving fund. (Ever Greed Project), conducting vocational training to support enhancing livelihood and income generation and implementing plans for the development of human resource, technology and research. At present, DRD is carrying out Ever Green Village Development Project (Mya Sein Yaung Project), National Community Driven Development Project (NCDD), Enhancing Rural Livelihoods and Income Project (ERLIP) and others at the national level.

3.3 Background of the Meiktila Township

Meiktila Township is located in Meiktila District, Mandalay Region which belongs to the Central Dry Zone of Myanmar. It is situated on 750 feet above the sea level with some small hills within the Township. The Township has total area of 475.36 square miles, which is organized with 14 Wards, 58 Village-Tracts and 380 villages.

Eastern part of the Meiktila Township is adjacent to Tharsi Township while Southern part is bordered with Pyaw Bwe Township. Western border is adjacent to Kyaut Pa Taung Township while Wundwin Township is located on the north. Meiktila Township lies between North latitude 20.40° and 21.53° and East Latitude between 95.30° and 96°. As it is located in Central Dry Zone, the weather is dry and hot within the range of 12.2 °C and 37.5 °C. The rainfall is around 60 inches with the 60 to 70 raining days.

Location and gender distribution of population within the Township is shown in following table.

Table (3.1) Gender Distribution of Population in Meiktila Township

| Location | Male | | Female | | Total | |
|--------------|---------------|------------|---------------|------------|---------------|-------------|
| | Number | Percent | Number | Percent | Number | Percent |
| Urban | 51067 | 16% | 60455 | 20% | 111522 | 36% |
| Rural | 91720 | 30% | 106421 | 34% | 198141 | 64% |
| Total | 142787 | 46% | 166876 | 54% | 309663 | 100% |

Source: DOP Myanmar (2014)

According to the 2014 Census, total population is 309663 numbers. Among them, female contributes 54%, which is higher than that of male counterparts (46%). In Meiktila Township, majority of the population (64%) are residing in rural areas while the rest (36%) lives in wards from urban area. Total number of household is 54377 numbers (GAD, 2019). Within the Township, majority of the population are Bamar (95%) followed by other ethnic groups, few Chinese and Indian, which totaled only 5% of population.

Majority of livelihood in the rural area is farming main crops of the township comprises rice, pulses and beans, sorghum, sesame, cotton, horticulture products, etc. Paddy cultivation has declined in recent years from 16604 acres in 2017-18 to 12614 acres in 2019-2020 due to reducing access to irrigated water. Pulses and beans, sesamum and onion play as major cash crops within the Township whereas chili, sunflower, and horticulture products are also grown in rural areas. Total cultivated area for other major crops include 88150 acres of rainy season sesamum, 2825 acres of rainy season sunflower, 3675 acres of winter sunflower, 25000 acres of pigeon pea, 6850 acres of rainy green gram, 1700 acres of winter green gram, 22670 acres of cotton, 8012 acres of vegetables, 4688 acres of chili and 1305 acres of onion within the Township. In some villages, livestock breeding is still carrying out for draught animals and dairy products although majority of the cultivation are semi-mechanized. Production and manufacturing firms are located in Meiktila Industrial Zone. Table (3.2) shows the total number of small and medium sized factories established in Meiktila Industrial Zone.

Table (3.2) Total Number of Factories in Meiktila Township

| Types of Factories within the zone | Number of Factories | Number of Workers |
|---|----------------------------|--------------------------|
| Food and Beverages | 122 | 734 |
| Apparel | 131 | 868 |
| Construction Materials | 22 | 84 |
| Consumer Goods | 1 | 7 |
| Household Appliances | 1 | 7 |
| Raw Materials | 5 | 17 |
| Minerals | 13 | 112 |
| Agricultural Goods | 1 | 5 |
| Transport Goods | 3 | 64 |
| Miscellaneous | 54 | 274 |
| Total | 353 | 2172 |

Source: GAD (2019)

Apart from farming, textile manufacturing is a renowned business in Meiktila Township which contributes 131 numbers out of 353 firms within the Zone. Production of some necessity goods, trading of electrical equipment, construction materials, farming equipment and tools, cloths and other necessities were most of the livelihood in the urban areas.

Adult literacy rate is 91.4% for male and 87% for female. Economically active group in terms of their engaged sectors and other groups with age above 15 years are shown in table below.

Table (3.3) Activity Status of Population above 15 Years of Age

| Activity Status | Number | Percent |
|------------------------------------|----------------|----------------|
| Employee (government) | 19,676 | 8 |
| Employee (private) | 39,208 | 15 |
| Employer | 5,410 | 2 |
| Own account worker | 50,721 | 20 |
| Unpaid family worker | 15,646 | 6 |
| Sought work | 5,534 | 2 |
| Did not seek work | 1,369 | 1 |
| Full time student | 41,320 | 16 |
| Household worker | 52,532 | 20 |
| Pensioner, retired, elderly | 19,135 | 7 |
| Ill, disabled | 1,785 | 1 |
| Other | 4,780 | 2 |
| Total | 257,116 | 100 |

Source: DOP, 2014

According to the Census (2014), majority of the population age above 15 years are engaging as own account workers and household workers (20%) each followed by 16% fulltime students and 15% of private sector employees. Government staffs contributed 8% of the total followed by 7% of retired and elderly people.

CHAPTER IV

EMPIRICAL ANALYSIS ON FARM AND OFF-FARM ACTIVITIES OF MODEL VILLAGES IN MEIKTILA TOWNSHIP

4.1 Survey Profile

To examine the rural farm and nonfarm activities among people residing in previously announced model village of the Meiktila Township of the Mandalay Region, primary data was collected to 200 respondents from 4 selected villages. Selected villages are Hta Naung Kan, Taw Ma, Lain Taw and Sutkhin Pauk, which are chosen based on convenience to conduct phone and local interviews. Although survey was initially planned to conduct larger number of respondents from 10 model villages, the numbers were reduced due to limitations for interviewing and contacting large numbers of rural people by phone during the outbreak of global pandemic, Covid-19 in Myanmar.

Interviews are carried out by phone and local interviewers to explore villagers' backgrounds, reasons and current engagements in farm and off- farm economic activities, challenges and opportunities of their economic activities in normal and pandemic period. Particularly, interviews were conducted by researcher mainly via phone to respondents while some of the questionnaires were asked by local interviewers from the Meiktila City and send back by email or by Facebook Messenger respectively. Interviews were carried out between the months of June and November, 2020 in 4 selected villages. The details are shown in following table.

Table (4.1) Number of Households and Interviewees from Selected Villages

| No | Model Village Name | No of Households | No of Sample households |
|----|--------------------|------------------|-------------------------|
| 1 | Htanaung Kan | 871 | 85 |
| 2 | Taw Ma | 379 | 45 |
| 3 | Lain Taw | 145 | 32 |
| 4 | Sutkhin Pauk | 165 | 38 |
| | Total | 1560 | 200 |

Source: GAD, Meiktila Township (2020)

A total of 200 respondents were included in this study to examine their socioeconomic backgrounds, condition of the farming and non-farm economic activities, opportunities and challenges in normal and pandemic period. Convenience sampling method is used for the survey. When conducting phone and local interviews, semi-structured questionnaire was used that include brief socio demographic background, information concerning economic activities, challenges and opportunities faced in normal period and pandemic period. In questionnaire, open-ended questions were included to explore their real condition of past and present periods.

In the first part of the questionnaire, socio demographic background, gender, age and educational qualification of the respondents are asked. For the questions concerning economic activities, their main activities: farm or nonfarm, specific type of economic activities (e.g. types of crops for farmers and types of business: agro-base finished goods processing, weaving and apparel, machineries and tools production, handicrafts other than weaving, wholesale and retail, transportation, other service businesses and others), the main reasons for doing current economic activities, year of starting respective economic activities, ownership of assets, number of fulltime employees, motivation of doing the current economic activities, and about the secondary economic activities (if respondents have) were asked.

Then, their inspiration in engaging current economic activities was asked through five Likert Scale. These include

- 1) Whether the respondents willing to work 50 hours or more per week or not
- 2) Willing to accept both financial and operational risks when necessary
- 3) Experiencing more financial success by operating current economic activities
- 4) Feeling a great deal of pride when a project is complete successfully.

- 5) Having strong desire to achieve success even when additional efforts are needed.
- 6) Having good understanding in current economic activities.
- 7) Believe to handle well even in crisis.
- 8) Parents/ spouse/ family members were doing current economic activities
- 9) Possessing needed abilities and skills than other in currently operating market
- 10) Having good network of friends, professionals, and business contacts.

Questions concerning operation of the main economic activities among respondents are asked. This section includes the choice of production techniques, current level of market for the products/ services, ways to access new market distribution channels of your firm, source of finance, source of labor, source of raw materials, access to trainings and the reasons. Finally, open ended questions had asked concerning the three major challenges and opportunities of their economic activities, For normal period, major economic changes are asked based on open-ended questions. Then, challenges faced by the villagers in functioning economic activities are also asked. Opportunities of their currently engaged economic activities in normal period and during the time of the outbreak of Covid 19 are included.

4.2 Socio Demographic Condition of the Respondents

Initially, socio demographic condition questions are asked to respondents from 200 households. According to the phone interview results with household heads, their gender, age and educational qualification are shown in Table (4.2).

Table (4.2) Socio Demographic Background of the Respondents

| Categories | Male | | Female | | Total | |
|---------------------------|---------------|----------------|---------------|----------------|---------------|----------------|
| | Fre quency | Percent (%) | Fre quency | Percent (%) | Fre quency | Percent (%) |
| Gender | 168 | 84 | 32 | 16 | 100 | 100 |
| Age Group (Yrs) | | | | | | |
| 18 – 30 | 28 | 14 | 3 | 1.5 | 31 | 15.5 |
| 31 – 40 | 37 | 18.5 | 8 | 4 | 45 | 22.5 |
| 41 – 50 | 48 | 24 | 9 | 4.5 | 57 | 28.5 |
| 51 – 60 | 32 | 16 | 7 | 3.5 | 39 | 19.5 |
| Above 60 | 23 | 11.5 | 5 | 2.5 | 28 | 14 |
| Education | | | | | | |
| Basic 3Rs | 19 | 9.5 | 3 | 1.5 | 22 | 11 |
| Primary Level | 30 | 15 | 5 | 2.5 | 35 | 17.5 |
| Middle School | 46 | 23 | 7 | 3.5 | 53 | 26.5 |
| High School | 43 | 21.5 | 12 | 6 | 55 | 27.5 |
| Bachelor Degree | 24 | 12 | 4 | 2 | 28 | 14 |
| Master & above | 6 | 3 | 1 | 0.5 | 7 | 3.5 |

Source: Survey Data (2020)

84% of the respondents are male. Age group of the respondents is ordered into five groups as 18 to 30 years, 31 to 40 years, 41 to 50 years, 51 to 60 years and 60 years and above. Among the respondents, majority of them are age between 41 and 50 years, which contributes 28.5% of the total respondents. Educational qualifications of the respondents is categorized into six groups; Basic 3Rs, Primary Level, Middle School, High School, Bachelor and Master and above. Among the respondents, majority have high school level education (27.5%) followed by middle school (26.5%). University graduates and above is 18% of the total. Those with Basic 3Rs contribute 11% of the respondents.

4.3 Economic Activities of the Respondents

Main economic activities in this study are divided into 2 main groups, farm and non-farm. Under this sub topic, economic activities that respondents mainly engaged in, their specific fields of work or products/ services, experiences in this current economic activity, number of full-time employees, reasons of respondents in doing current works and type of secondary business (if any). Farming group is asked about the types of crops they grow while non-farm economic activities are classified as Agro base (oil mill, food processing, etc.), weaving and fabric, machineries and tools production, handicraft business, and services. Table (4.3) describes the interview results concerning economic conditions of the respondents.

Table (4.3) Economic Conditions of the Respondents

| Category | | | |
|---|-------------|-----------------|--------------|
| Main Economic Activity | Farm | Non-farm | Total |
| Number of Respondents | 142 | 58 | 200 |
| Experience in Current Work | | | |
| Less than 10 years | 15 | 21 | 36 |
| 11 – 20 years | 47 | 11 | 58 |
| 21 – 30 years | 47 | 16 | 63 |
| Above 30 years | 33 | 10 | 44 |
| Number of Full-Time Employees | | | |
| Family Labor | 111 | 8 | 119 |
| Less than 10 employees | 26 | 16 | 42 |
| 11-20 employees | 5 | 23 | 28 |
| Above 20 employees | 0 | 11 | 11 |
| Reasons for Doing Current Business | | | |
| Family Business | 134 | 4 | 138 |
| Interested in this field | 3 | 16 | 19 |
| Have specialized skill | 4 | 20 | 24 |
| Want to produce new product | 1 | 18 | 19 |
| Having Secondary Income Sources | | | |
| Yes | 9 | 39 | 48 |
| No | 133 | 19 | 152 |

Source: Survey Data (2020)

From the survey, it is found that 142 number of the respondents are mainly engaged in farming sector, growing rice, pulses and beans, sesame, onion, fruits (mainly mango, dragon fruits, grapes and vegetables, seasonal flowers, chili, maize and sun flower. The choice of crops depends of weather condition, access to irrigation facilities, extension services, etc. Non- farm economic activities (58 number engaged in) include agro based business (preserved fruits and processed foods), weaving, apparel and

fabric, motor vehicle and motor bike workshops, food stalls, beauty salons, tailoring shops, groceries, transportation, etc.

For the question concerning work experience, majority have more than 20 years of experiences. This is due mainly to engaging in economic activities of their ancestors rather than starting new or innovative businesses or activities. Therefore, this is related to the next question, reasons for engaging in these main economic activities. Only 48 number of the respondents have secondary businesses, like livestock, informal jobs, work in public and private sectors and NGOs.

When asking about their secondary sources of income, some respondents answered due to having not enough income from major economic activity, to realize their hobby and established by other family members. Therefore, 152 number of the respondents are relying on their current economic activities. Sustaining and developing current economic activities and nurturing secondary source of work is important for rural people as if they have face natural or manmade risks or other challenges, their livelihoods will collapse.

Table (4.4) Operation of the Major Economic Activities

| Category | Farm | Non-Farm | Total |
|---|-------------|-----------------|--------------|
| Production Techniques | | | |
| Traditional ways | 141 | 33 | 174 |
| Use of modern Technology | 0 | 12 | 12 |
| Innovative and Creative Approaches | 1 | 13 | 14 |
| Current Market for Products/Services | | | |
| Township/ District | 138 | 39 | 177 |
| Region/ States | 4 | 19 | 23 |
| Access to New Market | | | |
| Not at all | 106 | 20 | 126 |
| With Friends and Relatives | 18 | 17 | 35 |
| With previous Business Contacts | 16 | 11 | 27 |
| Social Media | 1 | 6 | 7 |
| By self-exploration to other regions | 1 | 4 | 5 |
| Distribution Channels | | | |
| Direct selling to consumers | 6 | 27 | 33 |
| Selling through intermediaries | 87 | 10 | 97 |
| Dual distribution | 44 | 20 | 64 |
| Value-Added Reseller (VAR) | 5 | 1 | 6 |

Source: Survey Data (2020)

Production techniques of respondents are asked based on three choices; whether they use traditional ways, modern approach or creative and innovative approaches. 174 number of the respondents use traditional approach in carrying out their farm and non-farm economic activities. There were insignificant shares of using modern and innovative approaches by responding villagers, i.e. 12 and 14 number respectively.

Majority of the respondents are connected to local market, mainly township level (177 number) in the form of selling their farm and non-farm products at wholesalers, retailers, brokers and consumers within the Township. For service providers such as motor bike workshops, transport and rental services, and tailors also reach customers within the Meiktila Township and District (which include nearby Townships). 23 number of the villagers engaging in farm and non-farm economic

activities could reach other States and Regions. These businesses include horticulture products like mango, some Myanmar traditional snacks and weaving products.

When asking whether the respondents have access to new market or not, 126 number answered No. This means that they only rely on old market and content with their status quo. However, 35 number linked with their friends and relatives to get their new market while 27 number linked with their current business contacts to launch new products within the market for new customers. The use of social media and self-efforts to access to new and sophisticated market is still very low among villagers. Most of them are reluctant to use modern technology as a medium of business expansion although they use smart phone, internet and social media for communicating each other. Afterward, 5 Likert Scale questions were asked to explore their intention and prospects on their current economic activities. These questions are asked to assess the respondents' current economic condition and efforts to achieve future success. Table (4.5) describes the intentions and prospects on economic and social activities of respondents.

Table (4.5) Intention and Prospects on Economic and Social Activities of Respondents

| Sr. | Intention and Prospects | Mean(Farm) | Mean(Non-Farm) |
|------------|---|-------------------|-----------------------|
| 1 | Respondents willing to work 50 hours or more/ week | 4.5 | 4.5 |
| 2 | Willing to accept financial and operational risks when necessary | 3.0 | 3.0 |
| 3 | Experiencing financial success due to current economic activities | 3.8 | 4.5 |
| 4 | Feeling satisfy when a work is done successfully | 4.5 | 4.5 |
| 5 | Having strong desire to achieve success even when additional efforts are needed | 3.1 | 3.3 |
| 6 | Having good understanding in current economic activities. | 4.0 | 3.9 |
| 7 | Believe to handle well even in crisis. | 2.6 | 2.4 |
| 8 | Access to inputs is easy for current economic activity | 3.8 | 3.6 |
| 9 | Possessing skills to expand currently operating market | 3.0 | 3.1 |
| 10 | Having good network of friends, professionals, and business contacts. | 4.2 | 4.2 |

Source: Survey Data (2020)

By observing the mean value of each answer, both respondents feel somewhat satisfy on their current economic activity. This can be found in questions like willing to work 50 hours or more/ week, experiencing financial success due to current economic activities, feeling satisfy when a work is done successfully, and having good understanding in current economic activities, where getting greater scores.

In contrast, respondents are worried about taking risks to invest more expand their businesses as most of the respondents are typical rural people. Regarding for the experiencing financial success due to the current economic activities the mean value of the non-farm respondents are 4.5 and farm respondents are 3.8. Especially for those from farming sector, changing climatic condition, unstable demand and prices of crops,

exploitation and manipulation of middlemen (brokers, dealers, wholesalers, etc.), lack of voices and bargaining power among farmers lead to risk averters, rather than risk lovers to make investment and expansion. As a result, mean value of the question like “believe to handle well even in crisis” is only 2.6 for farm respondents and 2.4 for non-farm respondents. This means farm respondents are able to handle well even in crisis. Situation for non-farm respondents like weavers also afraid of taking risks and expand new and sophisticated market. The respondents are content with their current business environment and market conditions. As a result, they answered that they have certain level of business contacts for their business, with mean score of 4.2 for both farm and non-farm respondents.

Finally, assess to economic activities of farm and non-farm sectors among villagers are concluded with presenting their challenges and opportunities faced in normal period and current global pandemic period. This question is asked with open ended question due to different nature of economic activities. Due to conducting phone interviews, each respondent is asked about their major problems faced in normal time and pandemic period as well as major opportunities.

4.4 Challenges and Opportunities faced in farm and off-farm respondents

From the interviews, it was found that climate change (mainly drought within the Township) is the top problem faced by farmers and growers of fruits and vegetables. In some villages, declining access to irrigation water generate changes in types of crop cultivation, which led to reduce incomes of the farmers in some years. Access to climate resilient techniques and seeds are still poor. Extension services are low in some villages so that villagers ask needed information from commercial pesticides companies' staffs. As these staffs suggested mainly motivating farmers to buy their products, soil degradation problems occurred. Also, farmers grow crops that have larger prices in previous year or only crops demanded by middlemen, such as wholesalers and brokers. Therefore, these middlemen can also manipulate prices when a large number of supplies harvested by the farmers.

During pandemic, the situation has changed and top 3 challenges become uncertain demand for some crops (e.g. vegetables, chili, fruits and flowers), limited transportation services to sell crops and access to inputs and irrigation water. Demand uncertainty occurred due to the severity of the Covid and resulting actions made by the various levels of Government in States and Regions. Consequently, transportations also face delays and barriers, which generate key challenges perishable farming produces. With these problems, access to needed inputs such as chemical fertilizers and pesticides, farm equipment, seeds, even labor and others become more difficult than normal period.

Opportunities for farmers in normal time are having comparatively stable market than other businesses, ability to access inputs excluding labor and capable to make communication in person, which include holding meetings and gathering among farmers to discuss about cultivation, marketing, sharing production techniques, and so forth. In contrast, there are also opportunities for farmers due to Covid-19. These are higher demand for staples (e.g. paddy, onion, etc.) and pulses, improvement in ability to use Information Technology by farmers to communicate each other and increasing interest on farming by youths due to greater challenges faced in other economic sectors. It can be summarized by table (4.6).

Table (4.6) Challenges and Opportunities of Farm Respondents

| Challenges | | | |
|----------------------|---|---|--|
| 1 | Climate change and its impacts on farming | 4 | Uncertain demand for some crops (e.g. vegetables, chili, fruits) |
| 2 | Access to extension service and innovative approach in farming | 5 | Limited transportation services to sell crops |
| 3 | Limited crop choice due to manipulation of middlemen | 6 | Limited Access to inputs and irrigation |
| Opportunities | | | |
| 1 | Have stable market (by selling to wholesalers within the township or nearby townships) | 4 | Demand for staples (e.g. paddy, onion) and pulses are high |
| 2 | Able to access inputs for farming | 5 | Improvement in ability to use ICT to communicate each other |
| 3 | Able to make communication in person (for discussion, marketing, sharing production techniques, etc.) | 6 | Most of the people (mainly youths) interested in farming sector |

Source: Survey Data (2020)

For the non-farm respondents from the villages, access to needed labor, using modern techniques in production of goods and services, access to trainings and government supports for development of local MSMEs is still low. Therefore, some respondents attend trainings from the large cities with very high prices while other still use old techniques. Government provision of tax exemption and other supports are still lack. During pandemic, main challenges become alteration of consumers' preferences, declining demand, and low access to financial resources, i.e. mainly from informal market (friends, relatives and informal lenders).

Opportunities for the non-farm sector are lower than challenges. As most of the non-farm businesses are self-owned and operated or family businesses, they have no special opportunities in addition to increase some incomes. Opportunities for non-farm businesses in normal time include predictable market demand and confident to expand their businesses while access to increase labor supply and greater use of social media for their businesses. It can be summarized by table (4.7).

Table (4.7) Challenges and Opportunities of Non- Farm Respondents

| Challenges | | | |
|----------------------|--|---|---|
| 1 | Getting needed labor | 4 | Changing consumers' preference |
| 2 | Access to modern techniques and needed trainings | 5 | Sharp decline in demand |
| 3 | Government Supports | 6 | Low access to financial resources |
| Opportunities | | | |
| 1 | Predictable market demand | 3 | Greater use of social media for economic activities |
| 2 | Confident to expand business | 4 | Increase access to labor |

Source: Survey Data (2020)

CHAPTER V

CONCLUSION

5.1 Findings

From this study, it was found that majority of the respondents are male and those engaging in farming sector contributes larger than non-farm counterparts. Majority of the respondents have high school and middle school levels. Respondents engaged in farming sector mainly grow staples such as rice and other crops including pulses and beans, sesame, onion, fruits (mainly mango, dragon fruits, grapes and vegetables, seasonal flowers, chili, maize and sun flower. The choice of crops depends of weather condition, access to irrigation facilities, extension services, etc.

Non-farm economic activities include agro based business such as preserved fruits and processed foods, weaving, apparel and fabric, motor vehicle and motor bike workshops, food stalls, beauty salons, tailoring shops, groceries, transportation, etc. Most of the respondents have 20 and 30 years of experiences as they are engaging in economic activities of their family members. Only one fourth of the respondents have secondary businesses, like livestock, informal jobs, work in public and private sectors and NGOs as a result of having not enough income from major economic activity, to realize their hobby and established by other family members.

Production techniques of respondents are mainly traditional approach in both farm and non-farm economic activities. There were only few respondents using modern and innovative approaches. Main market is the local market, i.e. township level to trade their products. Only one tenth of the respondents engaging in farm and non-farm economic activities could reach other States and Regions. These businesses include

horticulture products like mango, some Myanmar traditional snacks and apparels and fabrics.

Access to new market and sophisticated market is low as they depend mainly on current market and satisfied with their present circumstances. To current economic condition and efforts to achieve future success, 10 Likert Scale questions were asked. By observing the mean of each answer, respondents feel rather please on their present economic conditions. This can be said as respondents' willingness to work 50 hours or more/ week, experiencing financial success due to current economic activities, feeling satisfy when a work is done successfully, and having good understanding in current economic activities, where getting greater scores. Yet, respondents are worried about taking risks to invest more expand their businesses. Those from farming sector worried about climate change and its impacts, unbalanced demand and price fluctuations, mistreatment of brokers, dealers, wholesalers, lack of bargaining power among farmers.

When exploring challenges and opportunities of the economic activities among villagers from selected model villages, farmers mostly afraid of climate change followed by low access to irrigation and poor access to climate resilient techniques and seeds. In this pandemic period, farmers face such challenges as uncertain demand for vegetables, chili, fruits and flowers, limited transportation and logistics services and low access to inputs and irrigation water than normal period.

For the respondents from farming sector, stable market with ability to access non-labor inputs and capable to enlarge their communication network within the local market are main opportunities. During pandemic, opportunities for farmers are higher demand for staples (e.g. paddy, onion, etc.) and pulses but not for other growers, improvement in ability to use social media and phone to link with market and increa in interest on farming by youths.

For the respondents from non-farm sector, access to labor, access to modern techniques, trainings and government supports are main challenges in normal time. In pandemic period, main challenges include changing consumers' preferences, deteriorating demand for most products and services and low access to financial resources become the most challenging issues. For them, opportunities in normal time include anticipated demand and confident to expand their businesses. Yet, easily access to labor supply and greater use of social media for their businesses is the opportunities in pandemic period.

In other countries mentioned in literature review, most of them have impressive and successful rural non-farm business development in past decades. In Myanmar,

government departments are mainly responsible for development of infrastructure in rural areas and only some NGOs and INGOs work on rural non-farm development. Initiatives for entrepreneurship in rural areas are still low and production of high value added products for high-end export markets is still unreachable.

To sum up, the respondents mainly sustain their status quo as residing in model villages. As the economic initiative is not the main part in recognizing model village, economic activities of the respondents changed steadily for some respondents or no changes took place by most of the villagers, who engaging in farming sector. Those engaged in non-farm sector started their businesses on their own and content with their current improvement, that mainly covers Township level. As these villages were recognized as model villages and possess fertile land, they rarely get government supports and other programs initiatives from NGOs and INGOs except some nationwide infrastructure development projects.

5.2 Suggestions

Until now, these model villages have advantages of clean and tidy environment, offices, social infrastructures such as schools, village libraries, green resources, water supply and safe sanitation facilities, etc. Therefore, combining these good aspects with economic potentials, these villages can become important. Most of the rural people in Myanmar are still in need of knowledge and information for promoting their economic activities followed by other inputs.

For the farming and non-farm sector in rural areas to gain greater and sustainable opportunities in new normal, it is important to take into account the current challenges and opportunities with regional and national level rural development policies and initiatives. In farming sector, continuous assessment of the implementation of current policies and challenges faced by farmers in different locations and situations are needed. Without examining the current situation of farmers in reality, implementation of policy will become useless as it cannot match with the genuine needs of farmers.

To achieve rural economic development, public sector in Myanmar needs to consider the effective policies and implementation measures. This means that rural business initiatives should be take into account in current government initiatives. Moreover, staffs from public sector should be trained to retrain rural farmers and businessmen to be on right track of using innovative approaches in their respective economic activities. In addition, effective collaboration among various stakeholders,

ministries, and local and international NGOs and community to achieve desired goals are indispensable.

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APPENDIX I

Questionnaire

A Study On Farm And Off-farm Activities In Rural Development: Case Study
Of Model Villages In Meiktila Township

Survey Questionnaire

Date _____ Model Village Name _____

I. Socio Demographic Background of Household Head

1. Gender (1) Male (2) Female
2. Age (1) 18 – 30 (2) 31 – 40 (3) 41 – 50
(4) 51 – 60 (5) Above 60
3. Educational Qualification
- (1) Basic 3Rs (2) Primary Level
- (3) Middle School (4) High School
- (5) University Graduate (6) Master and above

II. Information Relating to Economic Activities

4. Type of the main economic activity of your household
- (1) Farm (2) Off-farm , please specify _____
5. Experience in current economic activities
- (1) Less than 10 years (2) 11 – 20 years
- (3) 21 – 30 years (4) Above 30 years
6. Number of full-time employees
- (1) Family Labor (2) Less than 10 employees
- (3) 11-20 employees (4) Above 20 employees
7. Reasons for Doing Current Business
- (1) Family Business (2) Interested in this field
- (3) Have specialized skill (4) Want to produce new product

8. Having Secondary Income Sources (1) Yes (2) No

If "Yes" give reason _____

9. Currently Used Production Techniques

(1) Traditional ways (2) Modern Technology

(3) Innovative/ Creative Ways

10. Current Market for Products/Services

(1) Village (2) Township/ District (3) Region/ States

(4) National (5) Export

11. Access to New Market

(1) Not at all (2) With Friends and Relatives

(3) With previous Business Contacts (4) Social Media

(5) By self-exploration to other regions

12. Distribution Channels

(1) Direct selling to consumers (2) Selling through intermediaries

(3) Dual distribution (4) Value-Added Reseller (VAR)

13. Respondents' inspiration in engaging current economic activities was asked through five Likert Scale.

| | | | | |
|----------------|-------|----------------|----------|-------------------|
| Strongly Agree | Agree | Somewhat Agree | Disagree | Strongly Disagree |
| 5 | 4 | 3 | 2 | 1 |

| No. | Particulars | 5 | 4 | 3 | 2 | 1 | Reason |
|-----|--|---|---|---|---|---|--------|
| 1 | I am willing to work 50 hours or more per week regularly | | | | | | |
| 2 | Willing to accept both financial and operational risks when necessary | | | | | | |
| 3 | Experiencing more financial success by operating current economic activities | | | | | | |
| 4 | Feeling a great deal of pride when a project is complete successfully. | | | | | | |
| 5 | Having strong desire to achieve success even when additional efforts are needed. | | | | | | |
| 6 | Having good understanding in current economic activities. | | | | | | |
| 7 | Believe to handle well even in crisis. | | | | | | |
| 8 | Parents/ spouse/ family members were doing current economic activities | | | | | | |
| 9 | Possessing needed abilities and skills than other in currently operating market | | | | | | |
| 10 | Having good network of friends, professionals, and business contacts. | | | | | | |

14. Top Three Challenges Faced in Normal Time

15. Top Three Challenges Faced in Pandemic Time

16. Top Three Opportunities Faced in Normal Time

17. Top Three Opportunities Faced in Pandemic Time

18. Additional Comments

Thank you So Much for your Kind Participation!