

**PROSPECT AND CHALLENGES OF OIL PALM GROWERS  
IN M. KAWNPUI**

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Submitted by  
Lalrinchhungi  
BSW V Semester  
Roll No ; 2123BSW009  
Registration No : 2107357

Supervisor  
Rebecca LP Lalnunhlui

DEPARTMENT OF SOCIAL WORK  
HIGHER AND TECHNICAL INSTITUTE, MIZORAM  
KAWMZAWL, LUNGLEI - 796691

## **CERTIFICATE**

This is to certify that the research in '**Prospect and Challenges of oilpalm growers**' submitted by Lalrinchhungi for the partial fulfilment of the Bachelor of Social Work is carried out under my guidance and incorporates the student's bonafide research and this has not been submitted for any award for any degree in this or any other university or institution of learning.

Date: 2<sup>nd</sup> November, 2023

Place : Lunglei



**(R. LALLIANZELA)**  
Head of Department  
Higher and Technical Institute, Mizoram



**(REBECCA LP LALNUNHLUI)**  
Supervisor  
Department of Social Work  
Higher and Technical Institute, Mizoram

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(LALRINCHHUNGI KHENGLAWT)

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# CHAPTER I

## INTRODUCTION

The study tries to comprehend the prospects and challenges of Oil Palm growers in the context of M. Kawnpui, Lawngtlai, Mizoram.

### 1.1 Oil Palm

Oil palm, scientific name *Elaeis guineensis*, is one of the most important global oil crops, accounting for over 40% of all sold vegetable oil. Palm oils are major dietary components ingested daily by nearly three billion people, primarily in Asia, and have a variety of important non-food applications, including cleaning and sanitizing goods.

It originated in the tropical rainforest region of West Africa. It has roughly 56% edible oil that is free of recognized contaminants. High concentrations of volatile chemicals, such as tocopherols (27%) and tocotrienols (73%), are found in oil palms. The primary production regions for them were America, Southeast Asia, and Africa. It is a monoecious crop that produces both male and female blooms on the same tree. The blooms are produced in tight clusters, with three sepals and three petals on each little flower. Young and adult plants have rather rough trunks because of the fronds that cover them. Aside from the marks left by the fronds that have wilted and fallen off, the older trees have smoother trunks. A solitary, very oil-rich seed called the kernel is attached to the fleshy, pericarp, or mesocarp outer layer of each fruitlet. Between the time of pollination and fruit maturity, five to six months pass.

The ideal climate for oil palm crop growth is found in subtropical and tropical latitudes, which are home to oil palm plantations. Oil palm is widely grown and produced in Nigeria, India, Ecuador, Guatemala, Papua New Guinea, Colombia, Thailand, and other places. The largest suppliers to the global market are Malaysia's extensive oil palm plantations, followed by Indonesia. Planting oil palms will not yield immediate benefits, but in terms of yield capacity, it is the best oil-containing crop. Tree species, soil type, climate, oil palm plantation management, and cultivation techniques all affect the crop's productivity.

Plantations flourish in fifteen Indian states, including Goa, West Bengal, Assam, Karnataka, Kerala, Gujarat, and Andhra Pradesh, among others. About 50,000 hectares are used for the cultivation of oil palm trees in India, which gives the locals a source of domestic vegetable oil and jobs.

## **1.2 Prospects of Oil Palm Plantation**

In terms of its prospects as a versatile global oil crop, oil palm is currently at a historic crossroads. Recently, there has been an exceptional surge in prices in the oil palm sector due to the flourishing worldwide demand and significant production rates primarily fuelled by the economic advancements in major Asian nations like India and China. The tremendous larger part of palm oil is as of now utilized for edible products, especially within the creating markets of Asia. Even the high-lauric bit oil, most of which is utilized in non-edible applications such as cleansers, is progressively utilized in such consumable applications as high-energy sports drinks and newborn child formulations.

Oil Palm as an important crop produced thirty percent of the vegetable oil worldwide. Additionally, it helps tropical nations develop economically. The extracted oil palm is used to make food, household goods, and biodiesel, among other things.

Kerala hosted the first oil palm plantation in India in 1977. It continues to spread to other southern Indian states, including West Bengal, Tamil Nadu, Andhra Pradesh, and Karnataka. In northeastern India, Oil palm plantations began to appear in Mizoram in 2005 in its seven districts—Aizawl, Mamit, Kolasib, Serchhip, Saiha, Lawngtlai, and Lunglei district.

The state of Mizoram has the potential to cultivate 101,000 hectares of land. Oil palm plantations are a promising industry with room for growth in terms of both GDP and income. Smallholdings are the main characteristic of Mizoram's oil palm plantations, which have led to the replacement of traditional Jhum lands. Through its new land use policy, the state government has started creative programs for agricultural development, and one of its goals is to establish oil palm plantations.

## **1.3 Challenges of Oil Palm Plantation**

The trend toward palm oil production is not without its challenges and difficulties, though, as evidenced by the long gestation period, reliance on groundwater, and low benefits for small and marginal farmers. The effects of oil palm monoculture on the environment are a concern on a global scale as well. The production of palm oil is linked to the destruction of tropical forest ecosystems, which are home to over half of all plant and animal species on Earth.

In Southeast Asia, haze and fires caused by peatlands that were drained for the production of palm oil have harmed biomes, the climate, and human health. Within the oil palm supply chain, labor disputes and hostilities with nearby communities are also pervasive. Incorporate

smallholders, whose livelihoods are susceptible to environmental and economic fluctuations and who provide slightly less than half of the world's palm fruit.

Regarding the difficulties involved in oil palm cultivation, land was the main constraint. A few farmers encountered financial difficulties, while the remainder faced challenges related to the weather. Most of the Oil palm cultivators from Mizoram claimed that they had not received government support or the necessary knowledge and information to cultivate oil palm. The ownership of the land is collective, this caused the land to shrink and made it impossible for oil palm to grow. Only food and annual crops may be grown by the tenants. Because they have to work so hard, entrepreneurs have a negative attitude. Parents left behind the majority of the beneficiaries. Farmers face challenges due to the extended maturation and fruiting period. They have difficulty growing new plants or crops because the land was inherited. The farmers were also faced with a crisis within the community. None of the farmers use a hand press or a power mill to process their fruits. Because of their poverty, the majority were unable to purchase this machine.

Another significant challenge is being a landowner. Regarding a widely recognized land tenure, there was ambiguity and disagreement. At times, this also descended into violence. Companies and the government even resolve disputes and conflicts in ways other than through the legal system. Furthermore, smallholders are unable to obtain loans because, according to the terms and specifications established by the funding organizations, they are not eligible.

Furthermore, genuine information about price policy, market opportunity, site management, technical aspects, and rights and alternatives under national law or formal agreements was difficult for smallholder farmers to obtain. There is also the issue of balancing cash crops with food security. Due to price fluctuations, independent smallholders are also exposed to risk in the market system. The primary issue at hand is how to disseminate and exchange best practices widely.

#### **1.4 Statement of the Problem**

The present study attempts to explore the prospects and challenges of oil palm growers in M. Kawnpui village in the Lawngtlai district of Mizoram. There is a need for scientific study in this area as the majority of people in M. Kawnpui are oil palm planters and oil palm growers have not traditionally conducted studies in the region. Research is required as we need to learn more about oil palm, including how they manage their plantations and how oil palm plantations benefit their financial resources. The findings of the study will be useful for policymakers, planners, voluntary organizations as well and social workers working with multilevel interested in the development of village communities. It will benefit them by providing relevant

information for designing appropriate intervention strategies at multilevel to promote oil palm plantations and development in Mizoram.

### **1.5 Chapter Scheme:**

The following is the chapter scheme of the study:

1. Chapter I: Introduction
2. Chapter II: Review of Literature
3. Chapter III: Methodology
4. Chapter IV: Results and Discussions
5. Chapter V: Conclusion



## **CHAPTER II**

### **REVIEW OF LITERATURE**

Review of literature is a crucial part of any research project as it helps the researcher comprehend the theoretical and methodological facets of the subject under investigation. Moreover, it makes it easier for the researcher to pinpoint the conceptual, theoretical, substantive, and methodological gaps in their work.

#### **2.1 Studies Relating to prospects and Challenges of Oil Palm Plantations**

Land disputes, particularly in areas that were taken by force under the Soeharto dictatorship, highlighted the importance of properly consulting owners and obtaining their consent before purchasing land. There were also issues with estate security, including significant crop losses and ongoing increases in security expenditures. The future of Indonesian oil palm and its competitiveness in global markets appear bright despite these developments and issues. If existing issues can be resolved and performance is improved, the industry is likely to restart its expansion and become the top supplier of palm oil on the global market. (C Barlow, Z Zen 2003)

Palm oil, as opposed to other oil crops, also has the most sustainability certification programs. A non-profit group named the Roundtable on Sustainable Palm Oil (RSPO) was established in 2004. As a major certifier, the RSPO has created a set of social and environmental standards for the production of certified sustainable palm oil (CSPO). In other words, the level of scrutiny around palm oil sustainability is unparalleled. Because of this, the expansion of agriculture by deforestation is now prohibited in many nations, and urban development is reducing the amount of productive land. To satisfy the rising demand, numerous research organizations started working to increase oil yield on the existing land bank. The breeding cycle for perennial palm oil takes roughly 12 years per generation, although selective breeding for high-yielding, stress-tolerant materials is also crucial in the long run. As a result, boosting oil palm yield by traditional breeding takes time, and just increasing production through area is not sustainable. Programmes for breeding oil palm trees would greatly benefit from the application of current biotechnology's diagnostic and analytical capabilities. The labor required for maintaining and recording attributes is significant. The costs of breeding programs are significant as a result of all these considerations. It is obvious that biotechnology provides hitherto unimaginable chances to enhance plant breeding. The use

of biotechnologies by researchers provides them with fresh perspectives and equipment that boosts their productivity. This reduces the heterozygous hybrids' wide phenotypic variability, producing recognizable cultivars of palm trees with dependable features. We shall be able to meet our food needs sustainably with the limited resources that are currently available thanks to the use of molecular tools and transgenic crops. For the continuous improvement in oil yield and the overall quality of the oil produced, as well as the production of market-responsive varieties, which are essential for long-term agricultural sustainability, the development of biotechnological tools to maximize the progression of genomic resources in oil palm is essential. (JEROME JAYAKUMAR JOHN MARTIN AND RAJESH YARRA et.al)

The supply and demand equilibrium for oils and fats on a global scale will continue to favor palm oil. Other characteristics of palm oil will accelerate its spread in addition to its intrinsic strength as a food product, which has seen its proportion in the production of oils and fats increase from 7.9% in 1980 to 18.9% in 2000. The potential of palm oil to sequester carbon, its appropriateness as a green fuel, its freedom from GMO connotations, and its trans-free feature are the minor components that can be commercialized as therapeutic goods. The fact that palm oil is competitively priced and well-positioned to fulfill the expanding demand for oils and fats on the global market is essential. (Y.Basiron 2002)

Future difficulties to oil palm crop development include new dangers from climate change as well as pests and illnesses. Because climate change is inevitable, more efficient global cooperation is needed to stop it. Improvements such as much higher producing types, superior oil profiles, increased disease resistance, and more climate resilience are promised by new breeding and management techniques. (DENIS J.MUROHY AND KRISTIE GOGGINAND et.al)

In West Africa, where it first appeared, oil palm is still a significant crop that is well-integrated into the culture and agricultural practices of the region. It has developed into a hugely significant, extremely productive industrial crop during the past century, notably in SE Asia. Both major plantation businesses and smallholders in rural areas farm it; these populations frequently rely heavily on the crop for their survival. Due to the loss of primary and secondary forests for the construction of oil palm plantations and its accelerated expansion rate over the past three decades, palm oil is now quickly developing a bad reputation. (HJW MUTSAERS).

## **CHAPTER III**

### **METHODOLOGY**

In this chapter, an attempt has been made to present the setting, objectives, and methodological aspects of the study.

#### **3.1 The Setting: Profile of Study Village**

Name of the Community: M.

Kawnpui Population            1260

Total No of Household    280

Primary Occupation        :

Agriculture Governmental

Agencies: 1

Health Centre: 1

Educational

Institutions: 7 Church: 7

The majority of the community members in M.kawnpui were farmers, labourers, dailyworkers, and so on. Oilpalm planting began in M.kawnpui in 2010 under Rachi Soya Industry. According to the research findings, 45 households are currently planting oilpalm for financial gain, but the company is not paying the planters a fair price.

#### **3.2 Objectives**

The following are the objectives of the present study

1. To probe into the social and economic structural bases of Oil Palm growers.
2. To understand the pattern of Oil Palm Plantations and maintenance of Oil palm growers.
3. To assess the prospects and production chain of Oil Palm Plantations.
4. To identify the challenges faced by Oil palm growers in Oil Palm Plantations.

#### **3.3 Research Methodology**

**3.3.1. Universe of the Study:** Oil Palm growers residing in M. Kawnpui Village.

**3.3.2. Research Design:** The study is exploratory in design.

**3.3.3. Sampling:** Stratified Random Sampling was used and 40 respondents were drawn from the universe.

**3.3.4 Methods of Data Collection:** For the collection of primary data, a questionnaire and interview schedule are employed to collect qualitative data. For the gathering of secondary data, articles and journals were collected.

**3.3.5 Data Processing and Analysis:** The data collected are computed with the help of MS Excel and the analysis was done with the help of SPSS.

## **CHAPTER IV**

### **RESULTS AND DISCUSSIONS**

#### **4.1 DEMOGRAPHIC PROFILE OF RESPONDENTS**

##### **4.1.1 Gender of respondents**

The first variable taken to understand the profile of the respondents is the gender of the respondent. The gender of the respondents in the present study is classified into two such as male and female. The majority of the respondents (90 %) belongs to male and 10 % belongs to female gender.

##### **4.1.2 Age of respondents**

The second variable taken to understand the profile of respondents in the present study is the age group of respondents. The age of respondents is classified into three groups such as 20 – 35 years, 36 – 50 years, and 51 – 65 years. A greater number of the respondents (45 %) in the study is 36 – 50 years which is followed by 51 – 65 years with 52. 5 % and 2.5 % with the age group of 20 – 35 years.

##### **4.1.3 Marital Status of Respondents**

The third variable is the marital status of the respondents. The marital status of the respondents is classified into three viz., married, unmarried, and divorced. The findings show that more than half of the respondents (67. 5 %) are married, 20.0 % are unmarried and the remaining 12. 5 % are divorced.

##### **4.1.4 Educational status of the respondents**

The educational qualifications of the respondents were classified into four categories Middle school section, HSLC, HSSLC, and Graduate section. 75 % of the respondents are in the standard of Middle school section, 15.0 % of the respondents are in the standard of HSLC, 7.5 % of the respondents have the qualification of HSSLC and the remaining 2.5 % are in the graduate level.

#### **4.1.5 Types of Family**

The fifth variable is the type of family. Types of family are classified into two categories viz., Joint and Nuclear. The majority of the respondents (85.0 %) are joint family in types while the remaining 15.0 % are nuclear in family types.

#### **4.1.6 Forms of Family**

The sixth characteristic in the structural bases of the respondents is forms of family. The forms of the family are classified into stable and broken. Greater of the respondents 85.0 % are stable in the form of the family while 15.0 % are broken in the form of the family.

#### **4.1.7 Size of Family**

Most of the respondents (57.5 %) are between 1- and 5 family members in size and the remaining 43.5 % are between 6-10 size in members.

### **4.2 SOCIAL BACKGROUND OF THE RESPONDENTS**

#### **4.2.1 Religion**

The first social characteristic of the respondents is religion. All the respondents are Christian in religion. The reason for this could be the study is conducted in a state where Christianity takes the majority in religion.

#### **4.2.2 Denomination**

The second characteristic of the respondent's social background is denomination. 57.5% of the respondents are Baptist Church of Mizoram in denomination, followed by LIKKBK with 22.5 %, 7.55 % with UPC MZ, and 7.5 % with EFCI, Presbyterian Church of India with 2.5 % and Pentecostal Church of Northeast India with 2.5 %.

#### **4.2.3 Primary Occupation**

The third social characteristic of the respondents is Primary Occupation. More than half of the respondents (62 %) are engaged with settled agriculture in occupation, followed by Government service with 12.5 %. Business petty trade contributed 8.0 %, skilled labor contributed 5.0 % and the remaining 2.5 % contributed by the respondents who practice large business for their primary occupation.

#### **4.2.4 Secondary Occupation**

The secondary occupation of the respondents is as shown in Table 4.2.4; 70.00 % of the respondents are engaged in settled agriculture as a secondary occupation. 22.5 % of the respondents with agriculture labor, petty business contributed 2.5 %, and the remaining 2.5 % contributed by large business.

#### **4.2.5 Socio-Economic Category**

The socio-economic category is categorized into three; APL, BPL, and AAY. Findings from Table 4.2.5- 47.5 % of the respondents are from the BPL category, while 30.00 % are from the AAY category, and the remaining 22.5 % are contributed by the APL family.

#### **4.2.6 Housing**

In terms of housing, the respondents' housing is classified into three categories such as Kutcha, Semi- Pucca and Pucca houses. More than half of the respondents (65.00 %) live in Kutcha houses, 27.5 % live in semi-pucca houses and another 7.5 % live in Pucca houses.

### **4.3 HOUSEHOLD INCOME**

The sources of the household income of the respondents are classified into agriculture, livestock farming, government service/ pension, skilled labor, business/ petty trade, agriculture labor, and oil palm plantation.

#### **4.3.1 Agriculture**

55.0 % of the respondents did not have income from agriculture, 42.5% family had a monthly income below 20000, 2.5 % had income between Rs 20001 and Rs 30000.

#### **4.3.2 Livestock farming**

All of the respondents did not have financial resources or an income from livestock farming.

#### **4.3.3 Government Service/Pension**

90% of the respondents did not have a source of income from the government.

#### **4.3.4 Skilled labour**

97.5 % did not have income from skilled labor, 2.5% had income between Rs 2001-Rs5000.

#### **4.3.5 Bussiness/Petty trade**

85.0% did not have an income from business/Petty trade and 10.0% had an income from Business/Petty trade.

#### **4.3.6 Agriculture Labour**

97.5% did not have an income from agriculture and 2.5% had an income from agriculture.

#### **4.3.7 Oil palm plantation**

All of the respondents have an income from oil palm plantation, 35.0 % have an income below Rs10000, 52.5% have an income between Rs 10001-Rs30000, and 12.5% have an income between Rs30001-Rs50000.

### **4.4 OIL PALM PLANTATION AND MAINTENANCE**

According to the field assistant's interview, oil palms should be planted between 25 and 25 feet apart because they are more susceptible to harm if planted lower. The majority of the population planted oil palms to make money, but the government did not adequately compensate them

#### **4.4.1 Seedings**

It was evident that all the respondents of the oil palm growers did not face problems in seeding.

#### **4.4.2 Transportation**

All the respondents of the oil palm growers did not face problems in transportation.

#### **4.4.3 Marketing**

95.0% which means 30 respondents of oilpalm growers are facing problems in selling and 5.0% which means 2 respondents of oilpalm growers were facing problems in selling oilpalm.



#### **4.4.4 Lack of technical assistance**

All the respondents of oil palm growers did not face problems with technical assistance.

#### **4.4.5 Pest infection**

72.5 % which means 29 respondents of oil palm growers had faced problems in pest infection, and 27.5% which means 11 respondents did not face problems in pest infection.

#### **4.4.6 Seedings**

It was evident that all the respondents of the oil palm growers did not face problems in seeding.

#### **4.4.7 Transportation**

All the respondents of the oil palm growers did not face problems in transportation.

#### **4.4.8 Marketing**

95.0% which means 30 respondents of oil palm growers are facing problems in selling and 5.0% which means 2 respondents of oil palm growers were facing problems in selling oil palm.

#### **4.4.9 Lack of technical assistance**

All the respondents of oil palm growers did not face problems with technical assistance.

#### **4.4.10 Pest infection**

72.5 % which means 29 respondents of oil palm growers had faced problems with pest infection, and 27.5% which means 11 respondents did not face problems with pest infection.

#### **4.4.11 Area of Oil Palm Plantation**

52.5 % of respondents had planted oil palm in 1 hecter,40.0 % planted in 2 hecter, and 7.5 % planted oil palm in 3 hecter.

#### **4.4.12 The initial year of cultivating oil palm**

47.5 % of respondents had planted oil palm in the year between 2010-2015, followed by 30.0 % had also planted in the year between 2016-2020 and 22.5 % had also planted oil palm from 2021-2023.

#### **4.4.13 Sources of first plantation**

It was evident that all the respondent of the oil palm plantation had their first plantation sources on Patanjali Foods Limited.

#### **4.4.14 No.of seeds planted**

30.0 % of respondents had planted between 50-100 seeds,32.5 % had planted 101-150 seeds, and followed by 37.5 % had also planted 151-200 seeds.

#### **4.4.15 No. of mature plants**

50-100 seeds (52.5%) which means 21 respondents' seeds are matured to be sold in the company,101-200 seeds (17.5%) which means 7 respondent seeds are also matured to be sold out and followed by 201-300 seeds (30.0%) are also matured to sold in the company.

#### **4.4.16 Land suitability for oil palm cultivation**

12.5 % which means 7 respondent land are not appropriate for oil palm cultivation,10.0 % which means 4 respondent land are somehow appropriate,45.0 % means 18 respondent land are appropriate for cultivating oil palm and 32.5 % which means 13 respondent land are better to plant oil palm in their land.

#### **4.4.17 Oilpalm plant spacing**

22.5% which means 9 respondents had planted oil palm in between 15-20 meters,25.0% which means 10 respondents had also planted in between 21-25 meters, and 52.5% which means 21 respondents had planted oil palm in between 26-30 meters.

#### **4.4.18 Do you apply fertilizers**

2.5% which means 1 respondent did not apply fertilizers in the oil palm area but 97.5 % which means 39 respondents had applied fertilizers in their oil palm area.

#### **4.4.19 Do you apply pesticides**

All of the respondents had applied pesticides to their oil palm area which comes to 100.0 %.

#### **4.4.20 Registration under government/company**

All of the respondents of oil palm planters are registered under the company that comes into 100.0 %.

#### **4.4.21 If yes name**

All the respondents of oil palm growers had registered under the company of Patanjali Foods Limited.

#### **4.4.22 How many times the government official visited your field**

The government officials had visited their field quarterly.

#### **4.4.23 Have you attended training**

All the oil palm growers had attended training which comes to 100.0 %.

#### **4.4.24 If yes (how many times)**

30.0 % which means 12 respondents had attended training between 1-3 times, 52.5 % which means 21 respondents had also attended training between 4-7 times and followed by 17.5 % which means 7 respondents had attended between 8-10 times.

#### **4.4.25 Have you received sanction from the government/company**

All of the oil palm growers had received sanction from the company which means 100.05

#### **4.4.26 If yes kind/cash**

10.0 % which means 4 respondents had received sanction in kind (fertilizers and pesticides), 7.5 % which means 3 respondents had received sanction in cash, and 82.5 % which means 33 respondents had received sanction in both kind and cash.

#### **4.4.27 If yes cash**

62.5 % which means 25 respondents had received money less than Rs20000, 62.5 % which means 10 respondents had also received sanction money between Rs20001-Rs30000, 12.5 % which means 5 respondents had received money between Rs30001-Rs50000.

### **4.5 PRODUCT CHAIN**

How oil palm growers prepared for and cared for their oil palm plantations is included in this product chain. and also how they care for their oil palm after harvesting the fruits, as well as how they sell their oil palm.

#### **4.5.1 Land preparation**

All of the respondents of oil palm growers had prepared their land by working terrace between 30 feet between each oil palm which means 100.0%

#### **4.5.2 Expenditure on labour wage**

82.5 % which means 33 respondents of oil palm growers did expand money for their oil palm plantation, 15.0 % which means 6 respondent had expended their money below

Rs2000, and followed by 2.5 % which means 1 respondent had expended his/her money for oil palm plantation in between Rs32001-Rs3000.

#### **4.5.3 Expenditure on pesticides/fertilizers**

The company had supplied fertilizers and pesticides to the respondents of oil palm growers. so, the oil palm growers did not expand their money on fertilizers and pesticides.

#### **4.5.4expenditured on motor hired**

All the respondent of oil palm growers did not expand their money for oil palm plantation and while selling the oil palm as well(100.0%).

#### **4.5.5 How do you sell out**

All the oil palm growers had sold oil palm to the company (100.0%).

#### **4.5.6 Market price in Kg**

In market price, oil palm is Rs10.73 in 1Kg.

#### **4.5.7 How do you process**

Oil palm is a benefit for financial resources.

#### **4.5.8 Did you sell out oil palm processing**

Oil palm is sold only in the company.

### **4.6 CHALLENGES FACED BY OILPALM GROWERS**

Oil palm growers did not encounter any significant issues with their plantation throughout the interview. The Ruchi employees visited their field at the scheduled time and conducted an interview. The company also supplies pesticides and fertilizers.

#### **4.6.1 Seedings**

It was evident that all the respondents of the oil palm growers did not face problems in seeding.

#### **4.6.2 Transportation**

All the respondents of the oil palm growers did not face problems in transportation.

#### **4.6.3 Marketing**

95.0% which means 30 respondents of oil palm growers are facing problems in selling and 5.0% which means 2 respondents of oil palm growers were facing problems in selling oil palm.

#### **4.6.4 Lack of technical assistance**

All the respondents of oil palm growers did not face problems with technical assistance.

#### **4.6.5 Pest infection**

72.5 % which means 29 respondents of oil palm growers had faced problems with pest infection, and 27.5% which means 11 respondents did not face problems with pest infection.

**CHAPTER 4**

**RESULTS AND DISCUSSIONS**

TABLE NO 4.1    DEMOGRAPHIC PROFILE OF THE RESPONDENTS				
			Frequency	Percent
1	GENDER	Male	36	90.0
		Female	4	10.0
		Total	40	100.0
2	AGE	20-35	1	2.5
		36-50	18	45.0
		51-65	21	52.5
		Total	40	100.0
3	MARITAL STATUS	Married	27	67.5
		Unmarried	8	20.0
		Divorce	5	12.5
		Total	40	100.0
4	EDUCATION	belowHSLC	30	75.0
		HSLC	6	15.0
		HSSLC	3	7.5
		Graduate	1	2.5
		Total	40	100.0
5	TYPE OF FAMILY	Joint	34	85.0
		Nuclear	6	15.0
		Total	40	100.0
6	FORMS OF FAMILY	Stable	34	85.0
		Broken	6	15.0
		Total	40	100.0
7	SIZE OF FAMILY	1-5	23	57.5
		6-10	17	43.5
		Total	40	100.0

TABLE 4.2 SOCIAL BACKGROUND			
		Frequency	Percent
RELIGION	christianity	37	92.5
	hinduism	3	7.5
	Total	40	100.0
DENOMINATION	BCM	23	57.5
	PCI	1	2.5
	UPC NEI	1	2.5
	UPC MZ	3	7.5
	LIKBK	9	22.5
	EFCI	3	7.5
	Total	40	100.0
PRIMARY OCCUPATION			
	settled agriculture	25	62.0
	agriculture labour	4	10.0
	petty bussiness	3	8.0
	large bussiness	1	2.5
	skilled labour	2	5.0
	government service	5	12.5
	Total	40	100.0
SECONDARY OCCUPATION	shifting cultivation	1	2.5
	settled agriculture	28	70.0
	agriculture labour	9	22.5
	petty bussiness	1	2.5
	large bussiness	1	2.5
	Total	40	100.0
SOCIO- ECONOMIC CATEGORY	AAY	12	30.0
	BPL	19	47.5
	APL	9	22.5
	Total	40	100.0
HOUSING	Kutcha	26	65.0
	Semi-pucca	11	27.5
	pucca	3	7.5
	Total	40	100.0

TABLE NO 4.3 HOUSEHOLD INCOME				
			Frequency	Percent
1	AGRICULTURE	Nil	22	55.0
		Below Rs 2000	17	42.5
		Rs2001-Rs 3000	1	2.5
		Total	40	100.0
	LIVESTOCK FARMING	Nil	40	100.0
2	GOVERNMENT SERVICE/PENSION	Nil	36	90.0
		Below Rs20000	3	7.5
		Rs20001-Rs150000	1	2.5
		Total	40	100.0
3	SKILLED LABOUR	Nil	39	97.5
		Rs2001-Rs5000	1	2.5
		Total	40	100.0
4	BUSSINESS/PETTY TRADE	Nil	34	85.0
		Rs10001-Rs 20000	4	10.0
		Rs10001-Rs50000	2	5.0
		Total	40	100.0
5	AGRICULTURE LABOUR	Nil	39	97.5
		Below Rs2000	1	2.5
		Total	40	100.0
6	OIL PALM PLANTATION	Below Rs10000	14	35.0
		Rs10001-Rs 30000	21	52.5
		Rs30001-Rs50000	5	12.5
		Total	40	100.0



4.4 OILPALM PLANTATION AND MAINTENANCE				
			Frequency	Percent
1	AREA OF OILPALM CULTIVATION	1 hecter	21	52.5
		2 hecter	16	40.0
		3 hecter	3	7.5
		Total	40	100.0
2	THE INITIAL YEAR OF CULTIVATING OIL PALM	2010-15	19	47.5
		2016-20	12	30.0
		2021-23	9	22.5
		Total	40	100.0
3	SOURCES OF FIRST PLANTATION	Patanjali Foods limited	40	100.0
		Total	40	100.0
4	NO. OF SEEDS PLANTED	50-100	12	30.0
		100-150	13	32.5
		150-200	15	37.5
		Total	40	100.0
5	NO. OF MATURED PLANTS	50-100	21	52.5
		101-200	7	17.5
		201-300	12	30.0
		Total	40	100.0
6	LAND SUITABILITY FOR OILPALM CULTIVATION	Not appropriate	5	12.5
		Somehow appropriate	4	10.0
		Appropriate	18	45.0
		Very much appropriate	13	32.5
		Total	40	100.0
7	OILPALM PLANT SPACING	15-20	9	22.5
		21-25	10	25.0
		26-30	21	52.5
		Total	40	100.0

8	DO YOU APPLY FERTILIZERS	yes	39	97.5
		no	1	2.5
		Total	40	100.0
9	DO YOU APPLY PESTICIDES	yes	40	100.0
10	REGISTRATION UNDER GOVERNMENT	yes	40	100.0
11	IF YES(NAME)	Patanjali Foods Limited	40	100.0
12	HOW MANY TIMES THE GOVERNMENT OFFICIALS VISITED YOUR FIELD	quarterly	40	100.0
13	HAVE YOU ATTEND TRAINING	yes	40	100.0
14	IF YES (HOW MANY TIMES)	1-3	12	30.0
		4-7	21	52.5
		8-10	7	17.5
		Total	40	100.0
15	HAVE YOU RECEIVE SANCTIONS FROM GOVERNMENT	yes	40	100.0
16	IF YES KIND/CASH	kind(fertilizers and pesticides)	4	10.0
		cash	3	7.5
		Both	33	82.5
		Total	40	100.0
17	IF CASH	Below Rs 20000	25	62.5
		Rs 20001-Rs 30000	10	25.0
		Rs 30001-Rs 50000	5	12.5
		Total	40	100.0

<b>TABLE NO 4.5 PRODUCT CHAIN</b>				
			Frequency	Percent
<b>1</b>	<b>LAND PREPARATION</b>	Terrace are working with 30 feet between each oil palm	40	100.0
<b>2</b>	<b>EXPENDITURE ON LABOUR WAGE</b>	Nil	33	82.5
		Below Rs 2000	6	15.0
		Rs2001-Rs3000	1	2.5
		Total	40	100.0
<b>3</b>	<b>EXPENDITURE ON FERTILIZERS/PESTICIDES</b>	From company	40	100.0
<b>4</b>	<b>EXPENDITURE ON MOTOR HIRED</b>	Nil	40	100.0
<b>5</b>	<b>HOW DO YOU SELL OUT</b>	government/company	40	100.0
<b>6</b>	<b>MARKET PRICE(IN KG)</b>	Rs10.73	40	100.0
<b>7</b>	<b>HOW DO YOU PROCESS</b>	Its benifit for financial resources	40	100.0
<b>8</b>	<b>DID YOU SELL OUT OIL PALM PROCESSING</b>	no	40	100.0

<b>TABLE NO 4.6 CHALLENGES FACED BY OIL PALM GROWERS</b>				
<b>1</b>	<b>SEEDINGS</b>	No	40	100.0
<b>2</b>	<b>TRANSPORTATION</b>	No	40	100.0
<b>3</b>	<b>MARKETING</b>	Yes	38	95.0
		No	2	5.0
		Total	40	100.0
<b>4</b>	<b>LACK OF TECHNICAL ASSISTANCE</b>	No	40	100.0
<b>5</b>	<b>PEST INFECTIONS</b>	Yes	29	72.5
		No	11	27.5
		Total	40	100.0

## **CHAPTER- 5**

### **CONCLUSION**

#### **5.1 MAJOR FINDINGS**

##### **5.1.1 DEMOGRAPHIC PROFILE**

From the study, it could be concluded a greater number of the respondents (90%) are male in gender, and the average age group of the respondents is 51-65 years (52.5%). In terms of marital status, 67.5 % are married while the educational qualification comes up to 75 % of the respondents, which means most of the respondents are in the standard middle school section. The majority of the respondents (85.0%) are joint families and (85.0%) are stable in the form of a family with a size of 1-5 family members (57.5%).

##### **5.1.2 SOCIAL BACKGROUND**

Socially, the entire respondent is Christian in religion with a major denomination of BCM (57.5%). For primary occupation, they were mainly engaged with settled agriculture (62 %) while they practiced agriculture labor (22. 5%) as a secondary occupation. In terms of socioeconomic, the respondents mostly belong to the BPL category (47. 5 %), majority of the respondents lived in kutchha houses (65.00%).

##### **5.1.3 HOUSEHOLD INCOME**

The majority of the respondents (55.0%) did not have an income from agriculture, all the respondents were not engaged in livestock farming. Among the respondent (90%) of the respondent did not have a source of income from the government and (97.5%) of the respondent were not engaged in skilled labor and agricultural labor as well. (52.5%) respondents have higher income in oil palm between Rs10001- Rs30000.

##### **5.1.4 OIL PALM PLANTATION AND MAINTENANCE**

In terms of plantation in the area, 52.5% had planted oil palm in 1 hectare, and 47.5% had started their plantation in the year between 2010-2015. It was found that the sources of all the respondents had their first plantation from Patanjali Foods Limited and had planted 151-200 (37.5%) seeds. From the first seeds plantation 50-100 (52.5%) seeds were matured. The spacing of oil palm plantations is mainly between 26-30 meters.

97.5% had fertilized their oilpalm area while all the respondents had applied pesticides. It was also found that all the respondents are registered under Patanjali Foods Limited received a sanction and attended training from the company. The government had visited their plantation area or field quarterly.

### **5.1.5 PRODUCTION CHAIN**

All of the respondents of oil palm growers had prepared their land by working terrace between 30 feet between each oil palm which means 100.0%. And 82.5% which means 33 respondents of oil palm growers did expand money for their oil palm plantation in labor wage. The company had supplied fertilizers and pesticides to the respondents of oil palm growers. So, the oil palm growers did not expand their money on pesticides/fertilizers. All the respondent of oil palm growers did not expand their money on motor hired. An oil palm is Rs10.73 per 1kg in market price, oil palm is beneficial for financial resources, and oil palm is sold only in the company.

### **5.1.6 CHALLENGES FACED BY OILPALM GROWERS**

It was evident that all the respondents of the oil palm growers did not face problems with seedlings, transportation, and technical assistance. (95.0%) which means 30 of the respondents are facing problems in selling oil palm, and 72.5% which means 29 respondents of oil palm growers had faced problems in pest infection. The analysis shows that oil palm plantations has been grown more extensively than any other crop in the M.kawnpui Lawngtlai district. Local farmers have carried out all oil palm Plantation on a local scale. It is also clear that oil palm plantation increases farmer income and helps many farmers' economies grow. The majority of respondents' sources of income are OPP alone, however, some also work in other supplemental occupations. From 2010 to 2011, some farmers (50%) began an oil palm crop. 90% of oil palm proprietors did not work for the government and did not earn large amounts of money from their jobs. If the corporation pays right away, Oilpalm will be available and benefit from their financial resources

The corporation visits them and provides them with instructions, and they execute their jobs properly, yet they underpay them when they purchase oil palm fruits. The oil palm growers thus had marketing issues.

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# Study of Socio-Economic Condition of Oil Palm Growers In M. Kawnpui

**Lalrinchhungi**  
V Semester  
Department of Social Work  
HATIM

**Rebecca LP Lalnunhlui**  
Asst. Professor  
Department of Social Work  
HATIM

## Interview Schedule (Confidential and for Research Purposes only)

### A. Demographic Profile

1	Name	
2	Gender	Male/ Female
3	Age	
4	Marital Status	Married/ Unmarried
5	Education	
6	Type of Family	Joint/ Nuclear
7	Form of Family	Stable/ Broken/ Reconstituted
8	Size of family	

### B. Social Background

1	Religion	Christianity/ Hinduism/ Buddhism/ Islam
2	Denomination	BCM/ PCI/ UPC NEI/ UPC MZ/ LIKBK/ others (specify)
3	Primary Occupation	None/ Shifting cultivation/ Settled Agriculture/ Agricultural labour/ Petty business/ Large Business/ Skilled labour/ Government service/ others (Specify).
4	Secondary Occupation	None/ Shifting cultivation/ Settled Agriculture/ Agricultural labour/ Petty business/ Large Business/ Skilled labour/ Government service/ others (Specify).
5	Socio-Economic Category	1.AAy 2.BPL 3.APL
6	Housing	1. Kutcha 2. Semi-pucca 3. Pucca

### C. Household Income

Sl.No	Sources	Monthly (Rs)
1	Agriculture	
2	Livestock farming	
3	Government Service/Pension	
4	Skilled labour	
5	Business/Petty Trade	
6	Agricultural Labour	
7	Oil Palm Plantation	



**D. Oil Palm Plantation and Maintenance**

1	Area of Oil Palm Cultivation (land)	
2	The initial year of cultivating oil palm	
3	Sources of first plantation	NLUP/ seeds from the market/ others (Specify)
4	No. of seeds planted	
5	No. of mature plants	
6	Land suitability for oil palm cultivation	Not appropriate/ somehow appropriate/ appropriate/ very much appropriate.
7	Oil Palm plant spacing (distance in metres)	
8	Do you apply fertilizers	
9	Do you apply pesticides	
10	Registrations under government/ company	Yes/ No
11	If Yes (name)	
12	How many times the government/ company officials visited your field?	Monthly/ quarterly/ yearly
	Have You attend training	Yes/ No
	If yes (how many times)	
13	Have you received sanctions from the government/ company?	Yes/ No
14	If Yes	Kind/ cash (if kind name them)
15	If cash	

**E. Product chain**

1	Land Preparation	
2	Expenditure on labour wage	
3	Expenditure on fertilizers/ pesticides	
4	Expenditure on motor hired	
5	How do you sell out	
		Individual/ Government or Company
	Market price (in Kg)	
6	How do you process	
	Did you sell out the oil palm processing (oil refine)	

**F. Challenges faced by oil palm growers:**

1	Seedlings	
2	Transportation	
3	Marketing	
4	Lack of technical assistance	
5	Pest Infections	