

A STUDY ON CHALLENGES FACED BY THE AGRICULTURAL PRODUCTION AND CULTIVATION SYSTEM

Submitted in partial fulfillment of the requirements for the award of

Bachelors of Business Administration

by

**CHITRA .R
38280032**



SCHOOL OF BUSINESS ADMINISTRATION

SATHYABAMA

**INSTITUTE OF SCIENCE AND TECHNOLOGY
(DEEMED TO BE UNIVERSITY)**

**Accredited with Grade "A" by NAAC | 12B Status by UGC | Approved by AICTE
Jeppiaar Nagar, RAJIV GANDHI SALAI, CHENNAI - 600 119**

April 2021



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SCHOOL OF BUSINESS ADMINISTRATION

BONAFIDE CERTIFICATE

This is to certify that this Project Report is the bonafide work of **CHITRA .R (38280032)** who have done the Project work entitled “**A STUDY ON CHALLENGES FACED BY THE AGRICULTURAL PRODUCTION AND CULTIVATION SYSTEM HOSTEL STUDENTS**” under my supervision from January 2021 to March 2021

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CHITRA .R

DECLARATION

I **CHITRA .R (38280032)** hereby declare that the Project Report entitled “**A STUDY ON CHALLENGES FACED BY THE AGRICULTURAL PRODUCTION AND CULTIVATION SYSTEM HOSTEL STUDENTS**” done by me under the guidance of **DR. MATHAN .N** is submitted in partial fulfillment of the requirements for the award of Bachelors of Business Administration degree.

DATE:

PLACE:

CHITRA .R

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Abstract

Increasing population and related food demand always remain the most imperative challenges for the developing world. It could only be attained by an increased agricultural production based on external input like mineral fertilizers and pesticides during the twentieth century. The green revolution-based modern agricultural practices have resulted in the substantial increase in grain yield at the cost of natural resource degradation. The externalisation of agriculture led to a considerable decline in soil fertility and environmental resilience. It calls for a different approach which should educate the farmers to utilise their traditional knowledge to produce more grains using less external inputs. This approach is known as sustainable agriculture which is the need of the hour, at present.

The sustainable agriculture practices are derived from the amalgamation of traditionally adapted healthy practices with a modern development of agricultural systems. Thus, sustainable agricultural practices are supposed to be resource-conservative and resilient to the present climate change scenario. Moreover, a higher proportion of traditional inputs either in the form of resources or the knowledge may encompass the socio-economic balance among different societies. In this review, a brief insight has been given on the concept of sustainable agriculture, its need in the present scenario and a critical assessment in terms of challenges and opportunities for overall sustainability in developing nations by considering India as a model country. How the integration of traditional knowledge and modern agriculture practices will improve the agricultural productivity, soil quality and health as well as socio-economic balance, has also been discussed in terms of research opportunities.'

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CHAPTER - I

1.1 Introduction

Agriculture, the sole provider of human food, is the world's largest industry and major land-use with a global spread on ~ 40% available land (Ramankutty et al. Chel and Kaushik Foley et al. Sah and Devakumar. Agriculture plays a central role in the economic development of a country, Moreover, the crop-based food products constitute ~ 78% of the average per capita energy needs worldwide, whereas other food sources such as milk, eggs and meat constitute another 20%. Thus, the dietary demand of growing population is the basic need and it can only be achieved by increasing agricultural production. As per the Ministry of Statistics and Programme Implementation, Government of India, agriculture and its allied sectors contribute ~ 17% to the gross domestic product (GDP, for the years 2009 and 2017). Moreover, it provides about two-thirds of the employment in India (Directorate of Economics and Statistics. Agriculture is the principal livelihood option for over 58% of rural households in India (Food and Agriculture Organization, FAO. These dimensions of agriculture are depicted in Fig. 1. Thus, growth in the agriculture sector is directly linked with the employment generation and poverty eradication in developing economies. Further, this industry faces a number of challenges and is developing continuously by adapting several measures to cope up with diverse challenges.

The population of India is expected to reach 1.5 billion by 2050 with a current decadal growth rate of ~ 18%. The increasing population accelerated the pressure on natural resources throughout the world, but more specifically in India which has only 2.2% of world geographical area and supports 15 and 18% of livestock and human population, respectively. Of the total land area in India, only 46% is available as cultivable land. Cereal (mostly rice–wheat cropping)

cultivation accounts for ~ 75% of the cultivable land. To increase the agricultural production during the latter half of the twentieth century, green revolution was introduced in India. It was originally based on three principles, i.e., people need to eat,

land resources are limited, and thereby increasing the yield through external inputs was a necessity. Since the introduction of green revolution, the area under cereals has decreased from 38 Mha (million hectares, in 1950–51) to 31 Mha (in 2003–04), while the production increased more than two times [from 15 MT (in 1950–51) to 38 MT (in 2003–04)] during the same time interval due to yield improvement from 408 to 1228 kg ha⁻¹ (Ramakrishna and Rao 2008). Therefore, green revolution led self-sufficiency in food production in India was taken a role model for several developing countries for reducing hunger and increasing rural prosperity (Bose and Mondal 2013). Though agricultural management based on green revolution practices led to substantial increase in food production, the later consequences in terms of undesirable environmental degradation resulted in the critical scrutiny of these agricultural practices. Thus, an urgent need of ecological agriculture or sustainable agriculture has been suggested by the policy makers (Srivastava et al. 2016). This review has been developed to provide a thorough understanding on the agricultural sustainability by discussing the challenges to the agriculture (after green revolution) sector and the measures to overcome those challenges (opportunities) under climate change scenario with special emphasis on Indian agriculture.

1.2 Industry Profile

The agriculture industry in India reached a value of INR 63,506 Billion in 2020. The agriculture industry represents an important component of the Indian economy both in terms of its contribution to the GDP as well as a source of employment to the majority of the country's population. This sector is currently showing immense opportunities, with India presently being one of the world's largest agricultural producers by value. A number of transformations have taken place in this sector over the past few decades. These include - rising penetration of the organized sector, growth in contract farming, agriculture becoming more mechanized, easy loan facilities, rise of exports, use of agrochemicals and high yielding seeds, and an increasing role of the private sector in processing, branding

and marketing, etc. Looking forward, IMARC Group expects the agriculture industry in India to reach a value of INR 125,350 Billion by 2026, exhibiting a CAGR of 12% during 2021-2026.

India is the second-largest populated country accounting for 18% of the total world population. With an increase in the population, the need for various agricultural products has increased significantly. This rise has prompted the farmers to adopt enhanced technologies and methods in dairy, fisheries and livestock in order to meet the diversified food needs of the people. Additionally, more than 50% of India's population is dependent on agricultural products which is further promoting the growth of the market.

This new report from IMARC Group entitled "Agriculture Industry in India: Growth and Opportunities" provides an exhaustive insight into the Indian agriculture industry along with its various segments and sub-segments. This report has divided the Agriculture Industry in India into 17 segments and has provided a thorough analysis for each segment such as current and historical market trends, drivers, challenges, market structure, competitive landscape, market forecast, etc. This study is a must-read for investors, manufacturers, consultants, researchers, marketing strategists and anyone who wants to get a deeper insight into the agriculture industry in India.

Rallies India Limited

A subsidiary of the Tata Group, Rallies India Limited was founded in 1815 and is one of the foremost agrochemical companies. It deals in agricultural products ranging from fertilisers and pesticides to seeds and treated seed chemicals. A research and development wing of Rallies India, involved in product development, is also situated in Bangalore.

Nuziveedu Seeds Limited

Nuziveedu Seeds Limited deals in agricultural seeds, as the name of the company suggests. The largest producer of BT cotton seed in India, Nuziveedu Seeds Ltd. was founded in 1973. It has its corporate and head office in Hyderabad, Telangana. The company offers seeds for a wide range of crops: cotton, vegetable, mustard, sorghum, pearl millet, sunflower, maize and paddy seeds. NSL group, an Indian conglomerate, is the parent company of the Nuziveedu Seeds Limited.

Lemken India Agro Equipments Private Limited

Lemken India was operationalised in 2010 and its headquarters in Nagpur, Maharashtra. It is a recognised manufacturer of machinery needed for soil cultivation, sowing and plant protection, It has its manufacturing plant in Nagpur, Maharashtra. Lemken has spread its business in 45 countries around the world. Lemken India is one of the leaders in producing plough, cultivator, and Power Harrow and other agricultural implements.

Advanta Limited

Established in 1994, Advanta Limited is active in the seeds business. It is a plant genetics company. Its corporate office and headquarters are in Hyderabad, Telangana. Advanta is amongst the leaders in the agricultural industry having its presence in six continents. Advanta is a world leader as far as forages and grain are concerned.

Monsanto India

Monsanto India is the Indian subsidiary of the American agricultural giant, which was founded in 1901 in Missouri, USA. Monsanto India's prime business includes production of pesticides and seeds. Monsanto India is headquartered at Mumbai, Maharashtra and is rated amongst the top agricultural companies in India.

Poabs Organic Estates

Based in Tiruvalla, Kerala, Poabs Organic Estates was set up in 1889. It is a multi-crop plantation company. Poabs Organic Estates dominates the agro-based product market as far as coffee, tea, white pepper and black pepper are concerned. The company has won many accolades nationally and internationally in the coffee and tea segments.

National Agro Industry

National Agro Industry was established in 1970 and is based in Ludhiana, Punjab. National Agro Industry is involved in manufacturing of agricultural equipment and enjoys a considerable market share in the concerned sector in India. Some of the notable products of the company include ridge planter, crop planter, paddy grain planter, seed drill, maize sower, and vegetable seed extractor.

Godrej Agrovet Limited

This subsidiary of Godrej group came into existence in 1990. The company deals in agro-based products and is one of the top agricultural entities in India. The company is known for providing bird feeds, animal feeds, agro chemicals, poultry-based products and palm oil plantation.

Rasi Seeds

As the name suggests, Rasi Seeds is involved in the agricultural seeds production. It was founded in 1973. Seeds for pearl millet, maize and cotton are produced by Rasi Seeds. It is one of the best biotech companies of India and has won many awards for offering best quality seed and expertise in farming.

CHAPTER 2

REVIEW OF LITERATURE

2.1 INTRODUCTION

Review of research report is done to what research works have already been done on this and related topics or fields, the methodology adopted by them, the findings and conclusions, the listed scope for further research and so on. Below an attempt is made to review the available literature related to the topic of this research.

List of review

Binswanger et al. 1995. processing could render smaller farms less competitive (Binswanger et al. 1995). In addition, recent technology advances, such as zero tillage, render the supervision cost advantages of smallholders irrelevant. If smallholder disadvantages are based on market failures (and not diseconomies), an effort can be made to eliminate such biases against small farmers to reinforce their competitiveness in the market (Byerlee de Janvry and Sadoulet 2010).

Eastwood et al. 2010 New developments in the agri-business and food sector might shift the competitive advantage to large-scale producers and make it difficult for smallholders to participate actively in food markets. Two developments are of special importance: the supermarket revolution, and standards and certification. The wave of new supermarkets in developing countries has led to new procurement systems (Eastwood et al. 2010)

Reardon et al. (2009) Supermarkets usually demand standardized products in large quantities, which can put small farmers at a competitive disadvantage. Indeed, as reviewed in Reardon et al. (2009), supermarkets seem to favor large over small suppliers if they have the choice between them. However, some supermarkets prefer to source from small farmers as large farms have more market options and are perceived

to be more risky suppliers than smaller farms. If the latter are included in the supermarket chain, however, non-land assets, such as irrigation or access to transportation infrastructure, are usually a prerequisite

Hazell et al. 2006. Where supermarkets can only source from small farms, they have also provided resources such as equipment and technical assistance to contracted farmers. Hence, vertical coordination can also be beneficial for smallholders. In addition, new private standards for products and processes put small farmers at a disadvantage, as validation and certification of have economies of scale (Hazell et al. 2006). In order to help smallholders face these new challenges and include them in modern value chains, coordination among participants has to be improved. This could be initiated by the public sector as well as by the private sector through producer cooperatives, for example. Foster and Rosenzweig (2010b) propose a different solution. They suggest that in the light of today's mechanization of production, Indian farmers are too small to be competitive and land consolidation paired with increased employment opportunities in the rural non-farm sector – an issue addressed in more detail below – are necessary to increase incomes from agriculture.

In Asia and Latin America, tenancy usually reduces farm size (Eastwood et al. 2010). Mearns (1999) shows that in India plot fragmentation is reduced, which increases productivity by reducing costs of production. In terms of tenancy reforms that try to strengthen tenants' rights, Besley and Burgess (2000) find that in India such tenancy reform is negatively related to agricultural productivity. However, Ghatak and Roy (2007) disaggregate the analysis to the regional level in India and conclude that in West Bengal, where the reform was implemented rigorously, there has been a positive relation between tenancy and productivity. They do not, however, find any effect on land distribution. Despite such positive findings, tenancy regulation in favor of tenants can also lead to eviction of tenants and self-cultivation by less efficient landlords (Eastwood et al. 2010).

Binswanger et al. 1995 How have land tenure reforms that have been pursued in many developing countries affected both farm size and productivity? The success of land reforms in the past has been mixed, for both economic and political reasons (de Janvry 1981). Binswanger et al. (1995) argue that land reforms can redistribute land from large, less efficient units to smaller, more productive farmers, and that fixed-rent or shared tenancy contracts should be preferred to large farms. Titling of land can increase productivity in the agricultural sector if it increases investment incentives or relaxes credit constraints for landholders. Feder (1993) shows that in Thailand titled land has been more productive than untitled land; but Place and Hazell (1993) do not find a positive relation between rights and productivity among four African countries.

Ghatak and Roy (2007) many redistribution efforts in Latin America left land mostly unreformed due to lack of proper implementation. Even where land was redistributed, it might not have had a positive effect on productivity. Mearns (1999) explains that ceilings in India have redistributed land to the poor, but Ghatak and Roy (2007) find the effect on productivity of this redistribution to be negative. They suggest that this is the case because redistribution leads to inefficient fragmentation of plots.

Hazell et al. 2006 The discussion so far has focused on the efficiency of small farms and the role the latter can play in agricultural development. The social contribution that small farms can make is a separate issue. Hazell et al. (2006)—in a long tradition that goes back at least to Jefferson— argue that small farms can be an alternative for rural households until they can fully exit the agricultural sector and work in non-farm activities. And, related to the issue of food security, small farms can guarantee subsistence in rural areas, an issue that is addressed below.

Barrett et al. 2010 The rural non-farm sector, perceived to be unproductive and of negligible importance, had in the past received much less attention from governments in the past than, say, the issue of urban bias (Lanjouw and Lanjouw 1995, 2001). Recent contributions point out that the rural nonfarm sector can serve as a bridge between agricultural-based livelihoods and industrial ones (Barrett et al. 2010), thereby playing

an important role in a country's structural transformation. As pointed out above, further agricultural growth will have to come from capital-led intensification of production, which will limit the capacity of agriculture to employ a constantly growing rural labor force. Hence, rural and peri-urban sectors will play an important part in absorbing additional labor in the future. Employment in those sectors is stimulated by agriculture growth through the production and consumption linkages described above, and is an important complement to agriculture for rural poverty reduction (de Janvry and Sadoulet 2009b).

Lanjouw and Lanjouw 1995, 2001 The rural non-farm sector—comprising, for example, home production of clothing as well as wage employment in rural factories—is heterogeneous. Of particular interest when studying this sector is the emergence of rural towns. As they offer a larger market compared with rural settlements, they allow rural enterprises to benefit from economies of scale and higher profits (Hazell and Haggblade 1993). Empirical evidence suggests that such towns have the potential to generate economic growth. China's Township and Village Enterprises are a leading example of this phenomenon (Lanjouw and Lanjouw 1995, 2001).

Lanjouw and Lanjouw 1995, 2001 Due to seasonal variations in returns to labor in farm activities, individuals might work temporarily in the non-farm sector. Some household members might work off-farm if there are diminishing returns to labor in agricultural production. Simultaneous income generation from both farm and non-farm sectors can be a strategy to cope with income risk if appropriate insurance markets are not available. Engaging in activities independent from agriculture such as manufactures can counter farm-related risk. Households in Burkina Faso that diversified their income into non-farm activities were more able to cope with droughts during the 1980s (Webb and Reardon 1992). Being able to hedge against risk in this way may enable farmers to increase the adoption of more risky high-return crops (Lanjouw and Lanjouw 1995, 2001). Other market failures can also explain income diversification. If capital markets do not exist, households investing in farm equipment will engage in non-farm activities to raise the required capital. Nonfarm income in Burkina Faso increased farm productivity by stimulating the adoption of animal traction (Savadogo, Reardon and

Pietola 1998).¹¹ Missing land markets might prevent individuals whose comparative advantage is in non-farm employment from fully specializing in these activities

Agricultural education is a constantly changing industry, which due to unpredictable climate change and the related impact to global food production, has reached a critically important stage (**Dodd, 2011; Williams & Dollisso 1998**). There will be impacts on the quantity, quality and location of the food we produce, with the need to rapidly increase food production to keep up with global demand (Cribb, 2010; Miller, 2017). Furthermore, due to the increasing demand of the world's projected 9.7 billion in 2050, the Food and Agriculture Organization of the United Nations [FAO] (2013) has reported that the world's population will need twice as much food, and 30% more drinking water by 2050. Additionally, some studies have also claimed that climate change will contribute to a 10-15% decrease in the world's agricultural production. In Thailand, the agricultural sector is also of strategic importance to the Thai economy as 40% of the population is involved in agriculture (Thailand Board of Investment, 2018). Additionally, Win (2016) has reported that in Thailand, agriculture accounts for 50% of the nation's core economy, which according to the national policy, also plays a role in the social and economic development. Thailand's agricultural sector has always been a stable and prosperous component of the economy, which has been additionally blessed with an abundance of natural resources, and when combined with significant investments in technology, food safety, and research and development (R&D), have helped contribute to Thailand being labeled as "Kitchen of the World" (**Wipatayotin, 2017; Yaklai, Suwunnamek, & Srinuan, 2018**). There has never been a greater demand for sustainable food resources, nor has innovation and education ever been so important to safeguarding our food systems

CHAPTER 3

Research Methodology

3.1 Need for study

It also includes the study on wildlife, how to sustain and get the most out of it through effective methods of production. It educates you not only in the use of insecticides/pesticides but also gives a basic knowledge of the business and the financial side of running an agricultural business.

3.2 Scope of study

country rich in cultural diversity, climate, wildlife but still in the process of developing, I can say that such economies are a great place to start up a new business with new ideas that could revolutionise the agricultural sector.

There is still a gap in the agricultural market in developing nations and international students can study more on Agricultural science and become pioneers by introducing innovative ideas and by using relevant modern technologies that could increase production and the quality.

Significance of the study

For decades, agriculture has been associated with the production of essential food crops. At present, agriculture above and beyond farming includes forestry, dairy, fruit cultivation, poultry, beekeeping, mushroom, arbitrary, etc. Today, processing, marketing, and distribution of crops and **livestock** products, etc. Are all acknowledged as part of current agriculture? Thus, agriculture could be referred to as the production, processing, promotion, and distribution of agricultural products. Agriculture plays a critical role in the entire life of a given economy. Agriculture is the backbone of the economic system of a given country. In addition to providing food and raw material,

agriculture also provides employment opportunities to a very large percentage of the population. Go Through This Article to Know More About the [Agriculture Important](#).

Agricultural products like sugar, tea, rice, spices, tobacco, coffee, etc. constitute the major items of exports of countries that rely on agriculture. If there is a smooth development practice of agriculture, imports are reduced while export increases considerably. This helps to reduce countries' unfavorable balance of payments as well as saving foreign exchange. This amount may be well used to import other essential inputs, [machinery](#), raw material, and other infrastructure that is helpful for the support of the country's economic development.

The bulk of agricultural products are transported by railways and roadways from farms to factories. Mostly, internal trade is in agricultural products. Moreover, the revenue of the government, to a larger extent, relies on the success of the agricultural sector.

3.3 Objectives of the study:

This project is designed mainly to identify and evaluate the farmers to increase the agriculture area.

3.3.1 Primary objective:

This research focuses on increasing agriculture area for farmers.

3.3.2 Secondary objective:

1. Formulation and implementation of policies and programmes aimed at achieving rapid agricultural growth through optimum utilization of land, water, soil and plant resources of the State.
2. Implementation of beneficiary oriented schemes for economics upliftment of farming community.

3. Establishing farmer-department coordination in implementing and providing technological know-how to the farming community through agricultural extension services.
4. Undertaking all possible measures to ensure timely and adequate supply of quality inputs and services such as fertilizers, seeds, pesticides, agricultural implements, etc.
5. Creating assured irrigation facilities to the farmers through minor irrigation schemes so as to obtain maximum returns from their land.

3.4 RESEARCH DESIGN

3.4.1 Descriptive Research Design

Descriptive research is a study designed to depict the participants in an accurate way. More simply put, descriptive research is all about describing people who take part in the study.

3.5 SOURCES OF DATA

Data collection is the term used to describe a process of preparing and collecting data.

Primary Data – Questionnaire given to 150 respondents

Secondary Data - Websites and online journals, Published reports & Review of literature from published articles

3.6 STRUCTURE OF QUESTIONNAIRE

Questionnaire was divided into two sections. First part was designed to know the general information about farmers and the second part contained the respondent 's opinions about evaluate agriculture.

3.7 SAMPLING TECHNIQUE

3.7.1 Convenience sampling method

A convenience sample is one of the main types of non-probability sampling methods. A convenience sample is made up of people who are easy to reach.

3.8 PERIOD OF STUDY

The duration of study is from DECEMBER 2020 to March 2021 which is a three month of study.

3.9 Limitation of study

The study was confined only to the hostel students of University so the study may not be generalized in a broader perspective. The study is restricted to only teenagers so in order to make more generalized, reliable and signification conclusions a study employing larger sample size is needed. Time-constraint has also been one of the limitations.

CHAPTER - IV

DATA ANALYSIS AND INTERPRETATION

4.1 PERCENTAGE ANALYSIS

Table 4.1.1: Gender

S.NO	Particulars	No.of Respondents	Percentage
1	Male	102	68
2	Female	48	32
Total		150	100.00

Source: Primary data.

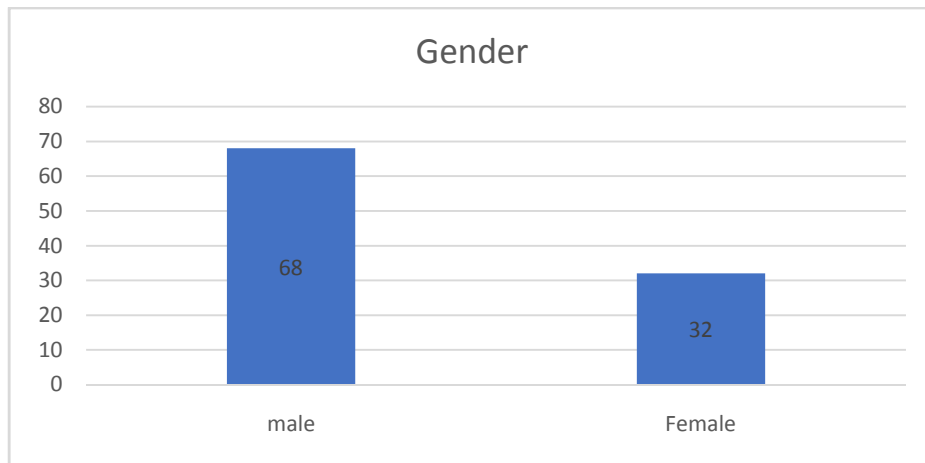


Table 4.1.1: Gender**Interpretation:**

From the above tables it is interpreted that the number of male respondents 68% and female respondent is 32%.

Inference:

Majority (68%) of the respondents are Male.

Table 4.1.2: Marital status of the respondents

S.NO	Particulars	No. of Respondents	Percentage
1	Married	27	17.3
2	Unmarried	123	82.7
Total		150	100.00

Source: Primary data

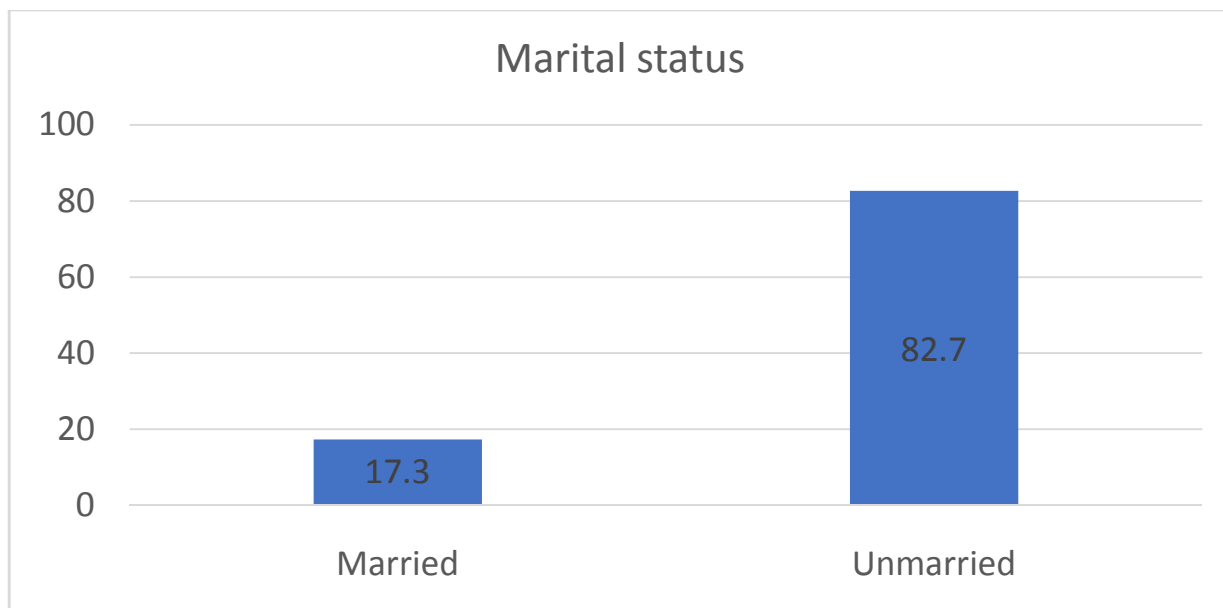


Table 4.1.2: Marital status of the respondents

Interpretation

From the above table it is interpreted that the number of respondents were 17.3% in married, 82.7% in Unmarried.

Inference

Majority (82.7%) of the respondents are Unmarried.

Table 4.1.3: Age of the respondents

S. NO	Particulars	No. of Respondents	Percentage
1	18-24	65	43.3
2	25-30	84	56
3	31-35	1	0.7
4	36-40	0	0.00
Total		150	100.00

Source: Primary data

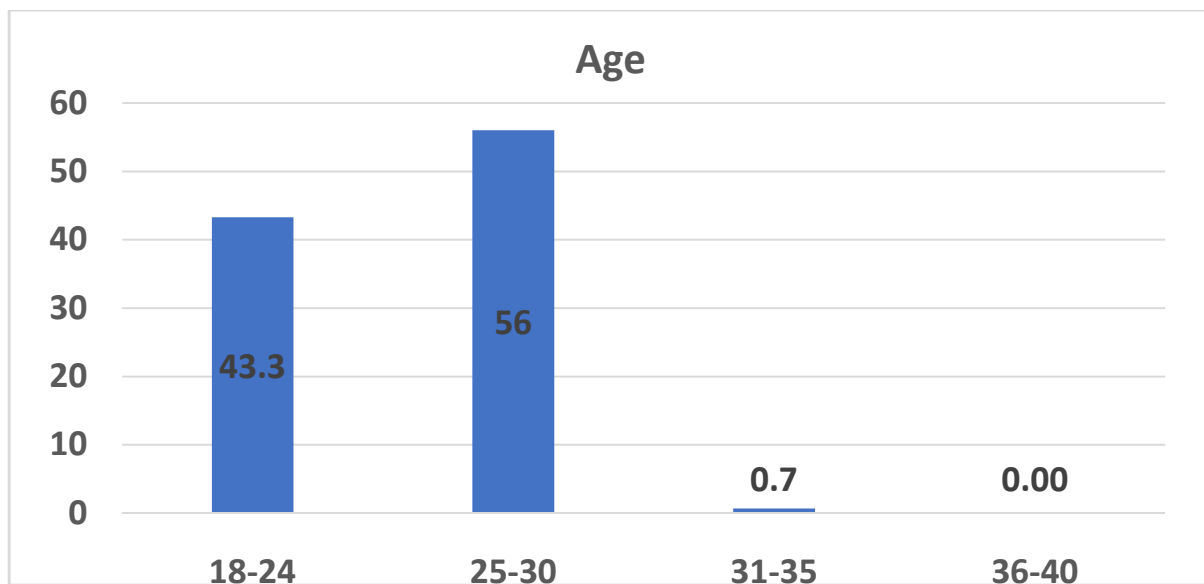


Table 4.1.3: Age of the respondents

Interpretation

From the above table it is interpreted that the number of respondents between 18 to 24 age of respondents are 43.3%, between 25 to 30 age of respondents are 56%, between 31 to 35 age of respondents are 0.7%, 36 to 40 above age of respondents are 0.00.

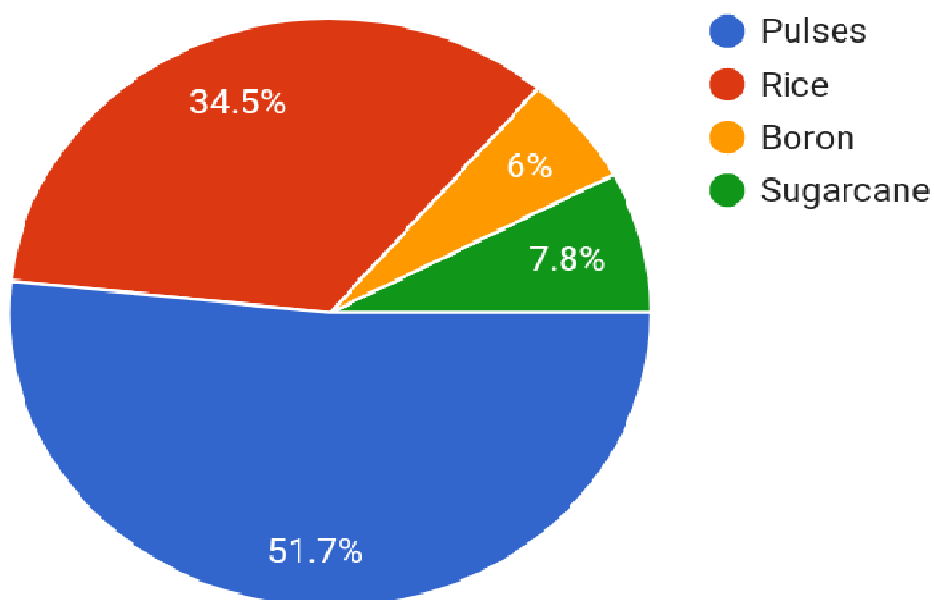
Inference

Majority (56%) of the respondents are age between 25 to 30 years.

Table 4.1.4 : Nitrogen Fixing Bacteria Make Combination with calls of the roots.

S. NO	Particulars	No. of Respondents	Percentage
1	Pulses	50	51.7%
2	Rice	50	34.5%
3	Boron	25	6%
4	Sugar cane	25	7.8%
Total		150	100.00

Source: Primary data



Interpretation

From the above table it is interpreted that the number of respondents between pulses respondents are 51.7%, between rice of respondents are 34.5%, between Boron of respondents are of 6%, Sugarcane respondents are 7.8%

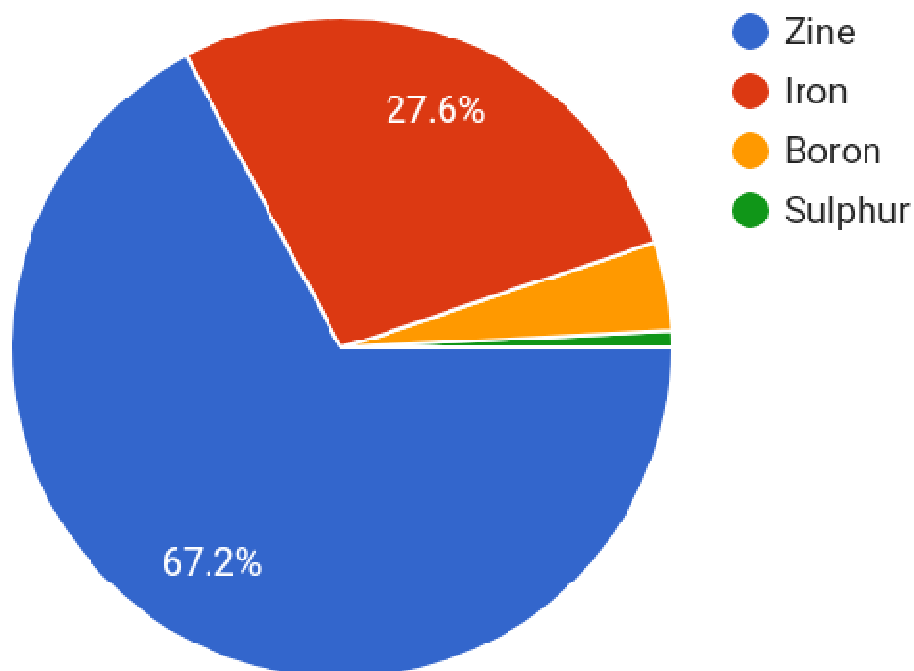
Inference

Majority (51.7%) of the respondents are Pulses

Table 4.1.5: Foruit cracking disease in pomegranate is caused due to the deficiency

S. NO	Particulars	No. of Respondents	Percentage
1	Zine	25	67.2%
2	Iron	71	27.6%
3	Boron	31	0%
4	Sulphur	15	0%
Total		150	100%

Source: Primary data



Interpretation

From the above table it is interpreted that the number of respondents between Zine respondents are 67.2%, between iron of respondents are 27.6%, between Boron of respondents are of 0%, Sulphur respondents are 0%

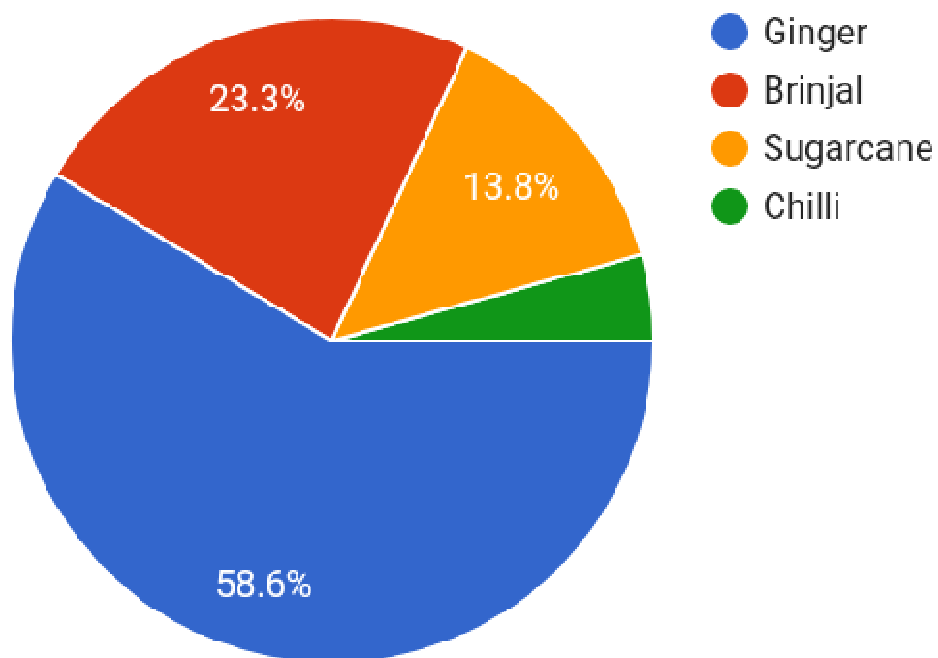
Inference

Majority (67.2%) of the respondents are Zine

Table 4.1.6: Suprabha and surbhi are varieties

S. NO	Particulars	No. of Respondents	Percentage
1	Ginger	48	58.6%
2	Brinjal	51	23.3%
3	Sugarcane	31	13.8%
4	Chilli	20	4.3%
Total		150	100%

Source: Primary data



Interpretation

From the above table it is interpreted that the number of respondents between Ginger respondents are 58.6%, between Brinjal of respondents are 23.3%, between Sugarcane of respondents are of 13.8%,Chilli respondents are 4.3%

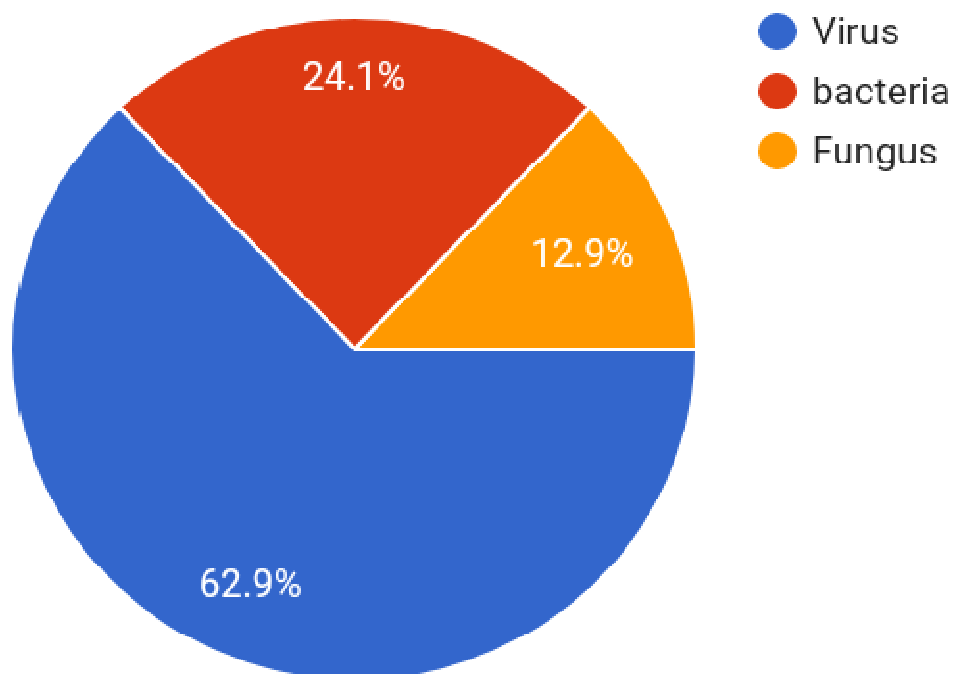
Inference

Majority (58.6%) of the respondents are Ginger

Table 4.1.7: Dwarfness in sugarcane is caused

S. NO	Particulars	No. of Respondents	Percentage
1	Virus	50	62.9%
2	Bacteria	50	24.1%
3	Fungus	50	12.9%
Total		150	100%

Source: Primary data



Interpretation

From the above table it is interpreted that the number of respondents between Virus respondents are 62.9%, between Bacteria of respondents are 24.1%, between Fungus of respondents are of 12.9%.

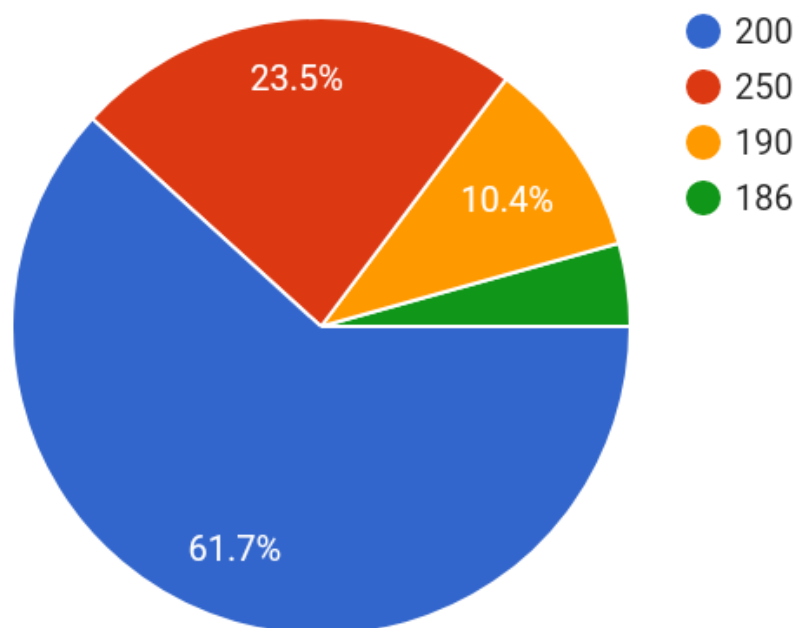
Inference

Majority (69.2%) of the respondents are Virus

Table 4.1.8: How many laboratory for agr products testing have been recently set up by agriculture products export development

S. NO	Particulars	No. of Respondents	Percentage
1	200	55	61.7%
2	250	80	23.5%
3	190	10	10.4%
4	186	5	4.4%
Total		150	100%

Source: Primary data



Interpretation

From the above table it is interpreted that the number of respondents between 200 respondents are 61.7%, between 250 of respondents are 23.5%, between 190 of respondents are of 10.4%. 186 respondents are 4.4%

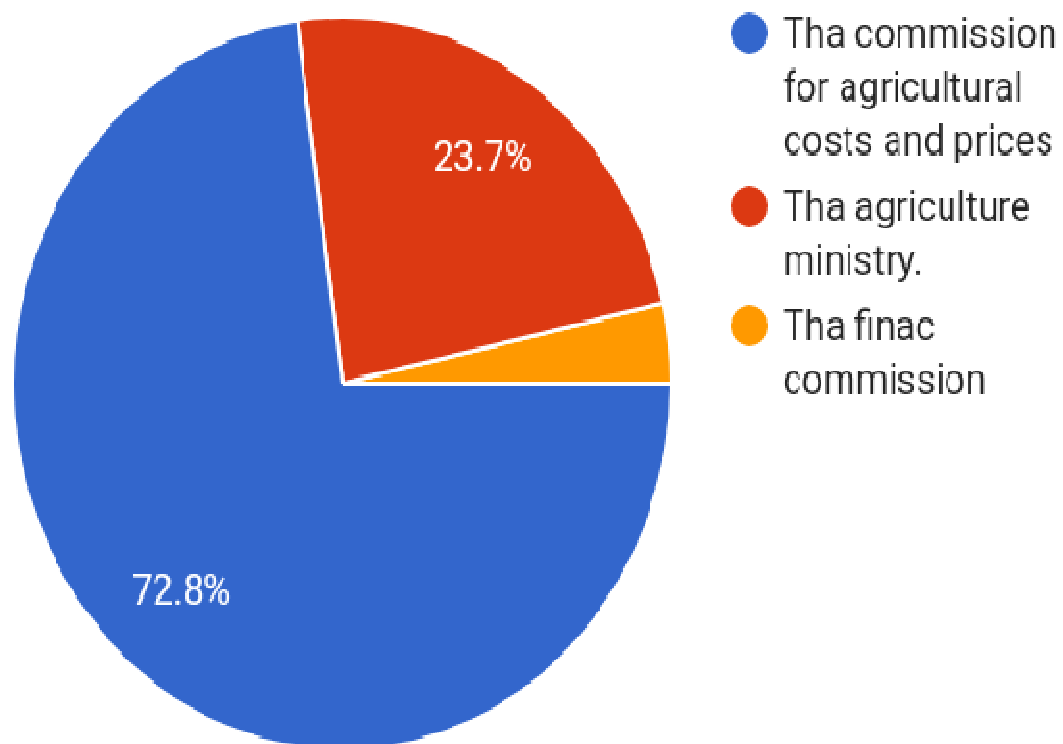
Inference

Majority (61.7%) of the respondents are 200

Table 4.1.9: Who determines the minimum support price in India.

S. NO	Particulars	No. of Respondents	Percentage
1	The Commission for agricultural costs and prices	22	72.8%
2	The agriculture ministry	115	23.7%
3	The finance commission	13	3.5%
Total		150	100%

Source: Primary data



Interpretation

From the above table it is interpreted that the number of respondents between The commission of Agricultural costs and prices respondents are 72.8%, between The Agricultural Ministry of respondents are 23.7%, between The Finance Commission of respondents are of 3.5%.

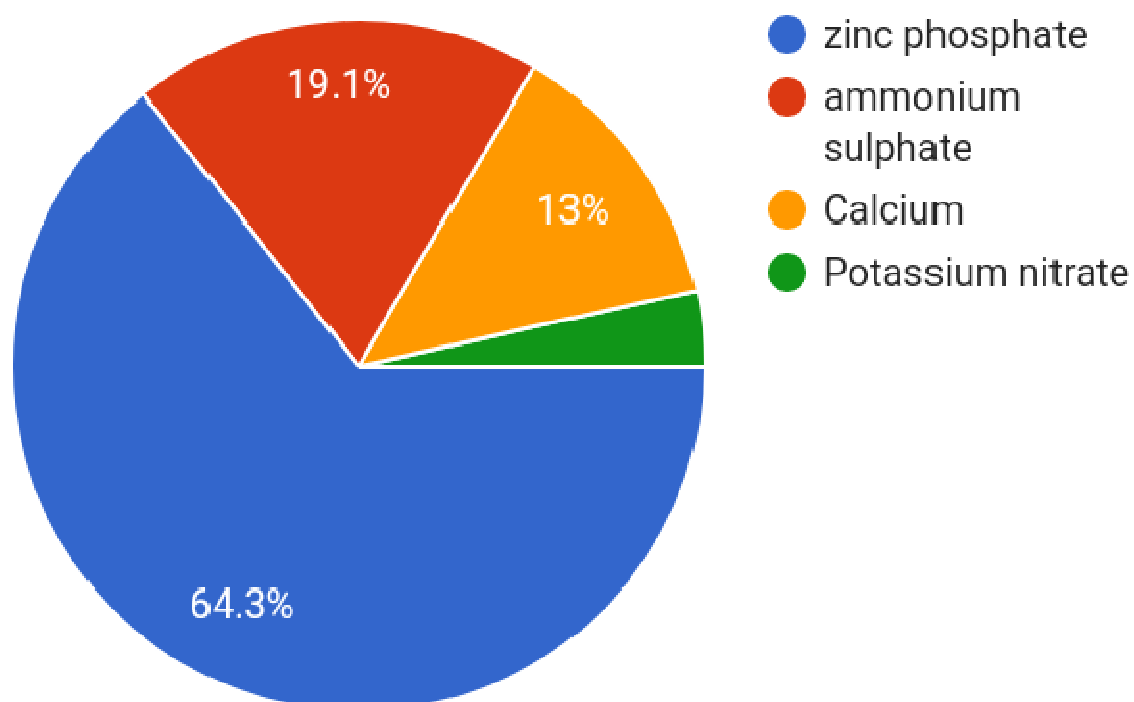
Inference

Majority (72.8%) of the respondents are The commission of Agricultural costs and prices.

Table 4.1.10: Which type of n-fertilizer is suitable for water – logged soil

S. NO	Particulars	No. of Respondents	Percentage
1	The Commission for agricultural costs and prices	22	72.8%
2	The agriculture ministry	115	23.7%
3	The finance commission	13	3.5\$
Total		150	100%

Source: Primary data



Interpretation

From the above table it is interpreted that the number of respondents between Zinc phosphate respondents are 64.3%, between ammonium Sulphate of respondents are 19.1%, between Calcium of respondents are of 13%. Pottasium nitrate respondents are 3.6%

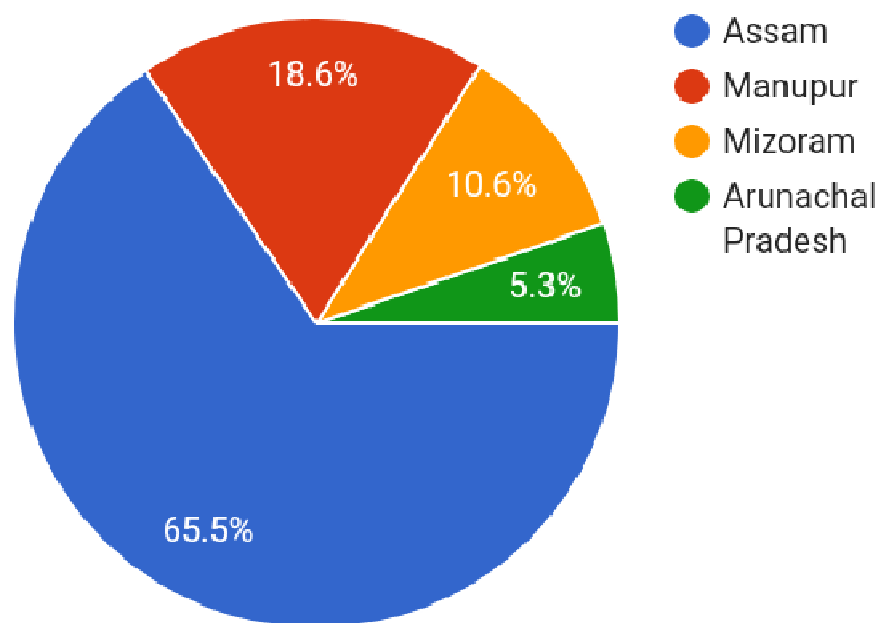
Inference

Majority (64.3%) of the respondents are Zinc Phosphate.

Table 4.1.11: Mask dance and war dsnce are popular follow dance.

S. NO	Particulars	No. of Respondents	Percentage
1	Assam	48	65.5%
2	Manupur	79	18.6%
3	Mizoram	11	10.5%
4	Arunachal Pradesh	12	5.3%
Total		150	100%

Source: Primary data



Interpretation

From the above table it is interpreted that the number of respondents between Assam respondents are 65.5%, between Manupur of respondents are 18.6%, between Mizoram of respondents are of 10.6%. Arunachal Pradesh respondents are 5.3%

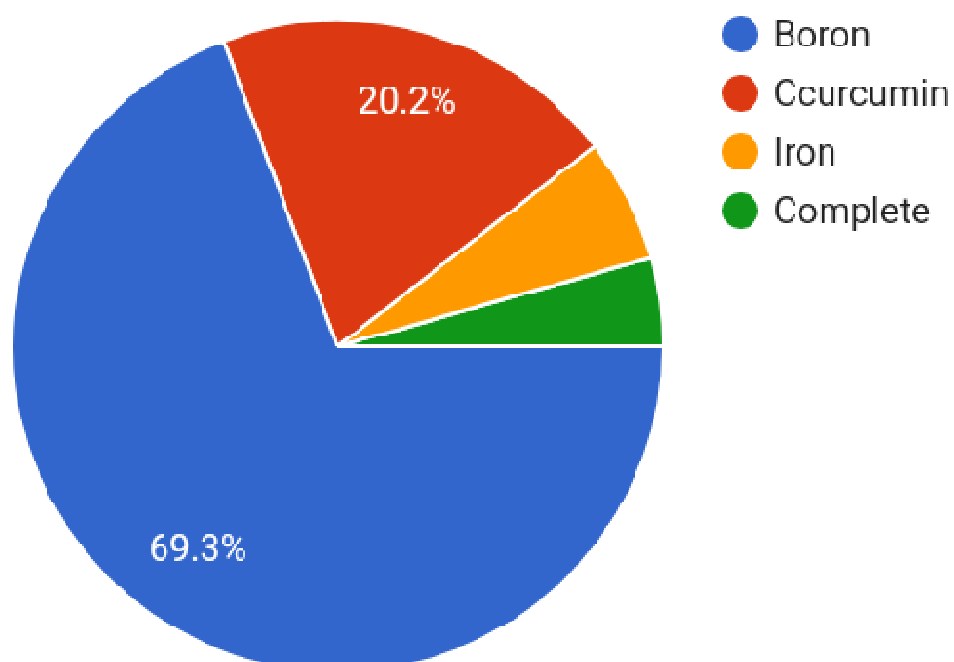
Inference

Majority (65.5%) of the respondents are Assam

Table 4.1.12: Yellow Colour in turmeric is caused due to the presence.

S. NO	Particulars	No. of Respondents	Percentage
1	Boron	75	69.3%
2	Ccurcumin	75	20.2%
3	Iron	0	0.0%
4	Complete	0	0.0%
Total		150	100%

Source: Primary data



Interpretation

From the above table it is interpreted that the number of respondents between Boron respondents are 69.3%, between Ccurcumin of respondents are 20.2%, between Iron of respondents are of %. Complete respondents are %

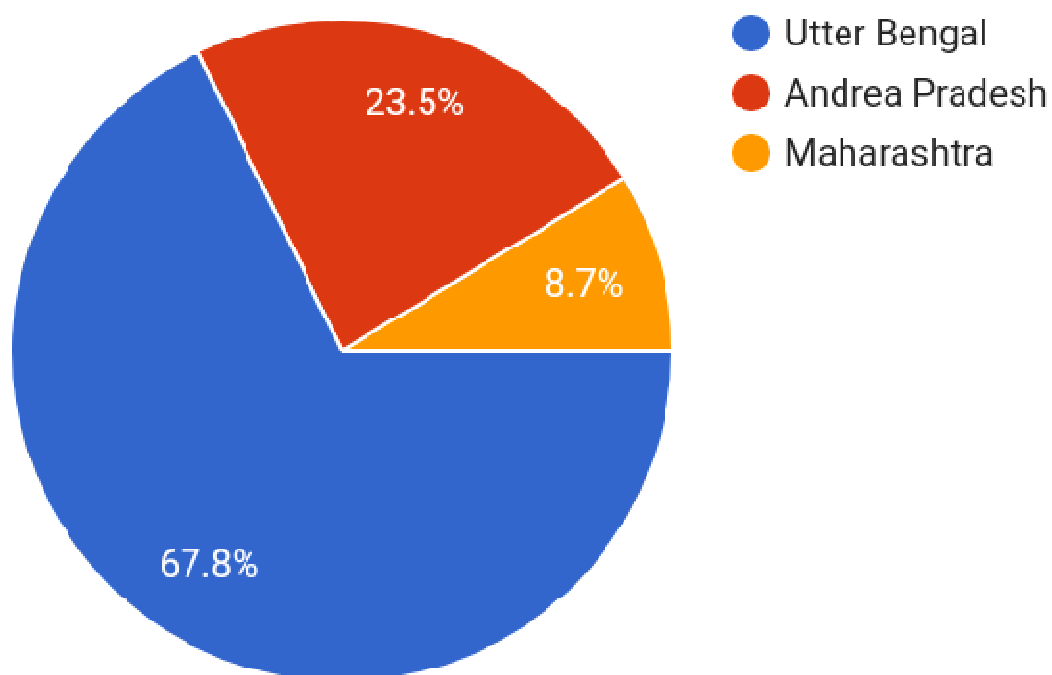
Inference

Majority (69.3%) of the respondents are Boron.

Table 4.1.13: Yellow Colour in turmeric is caused due to the presence.

S. NO	Particulars	No. of Respondents	Percentage
1	Utter Bengal	55	67.8%
2	Andera Pradesh	80	23.5%
3	Maharashtra	15	8.7%
Total		150	100%

Source: Primary data



Interpretation

From the above table it is interpreted that the number of respondents between Utter Bengal respondents are 67.8%, between Andra Pradesh of respondents are 23.5%, between Naharastra of respondents are of 8.7%.

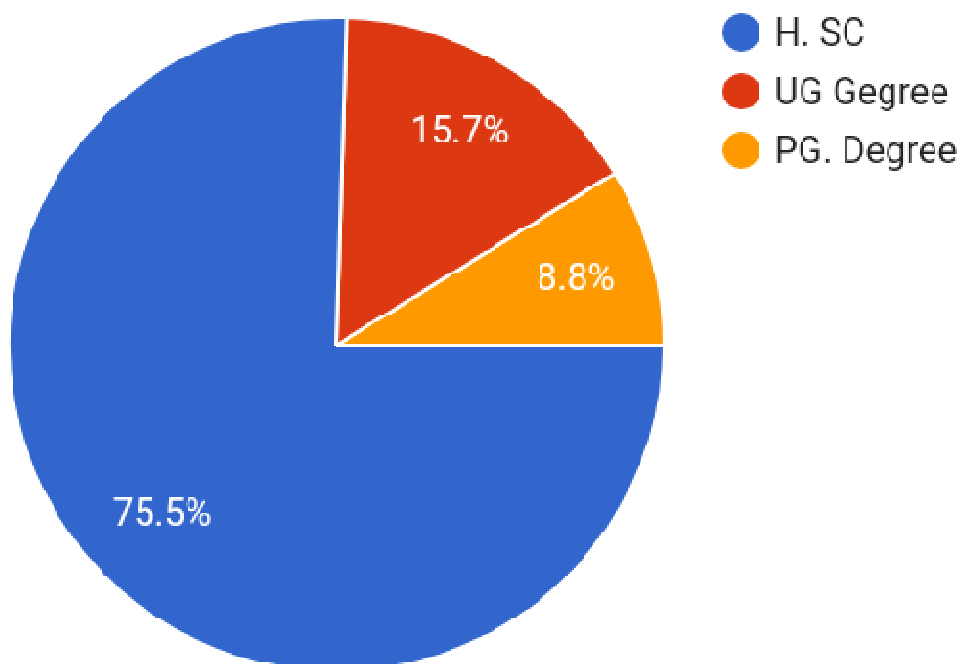
Inference

Majority (67.8%) of the respondents are Utter Bengal.

Table 4.1.14: Yellow Colour in turmeric is caused due to the presence.

S. NO	Particulars	No. of Respondents	Percentage
1	H.SC	74	75.5%
2	UG Degree	55	15.7%
3	P.G.Degree	21	8.8%
Total		150	100%

Source: Primary data



Interpretation

From the above table it is interpreted that the number of respondents between HSC respondents are 75.5%, between UG Degree of respondents are 15.7%, between PG Degree of respondents are of 8.8%.

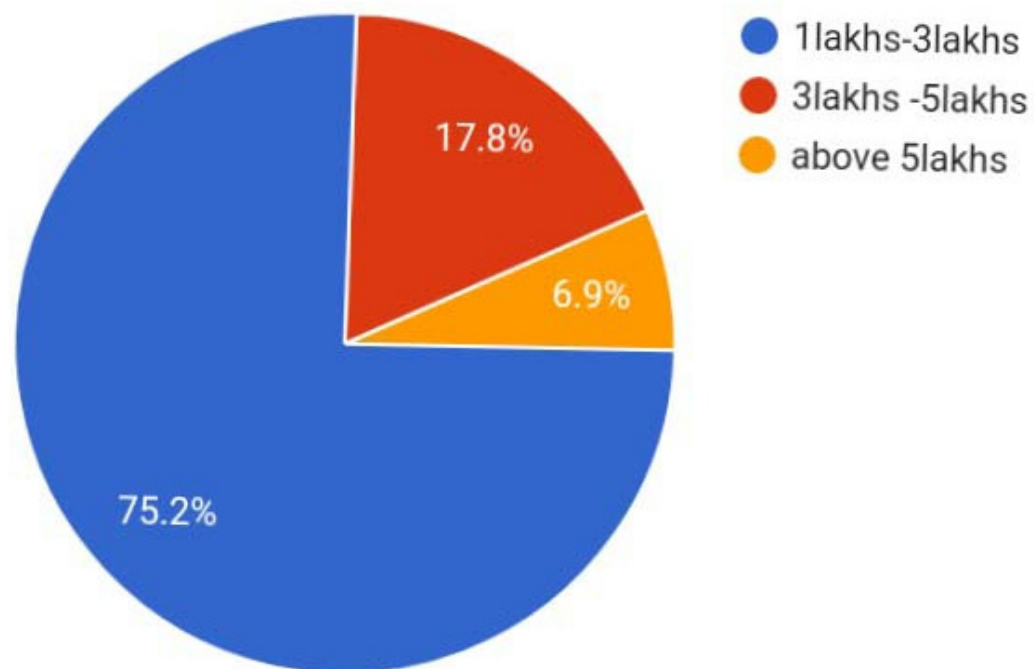
Inference

Majority (75.5%) of the respondents are HSC.

Table 4.1.15: Annual turnover less than 1 Lakhs

S. NO	Particulars	No. of Respondents	Percentage
1	1 Lakhs - 3 Lakhs	28	75.2%
2	3 Lakhs - 5 Lakhs	99	17.8%
3	Above 5 Lakhs	23	6.9%
Total		150	100%

Source: Primary data



Interpretation

From the above table it is interpreted that the number of respondents between 1 Lakhs – 3 lakhs respondents are 75.2%, between 3 Lakhs – 5 Lakhs of respondents 17.8%, between above 5 Lakhs of respondents are of 6.9%.

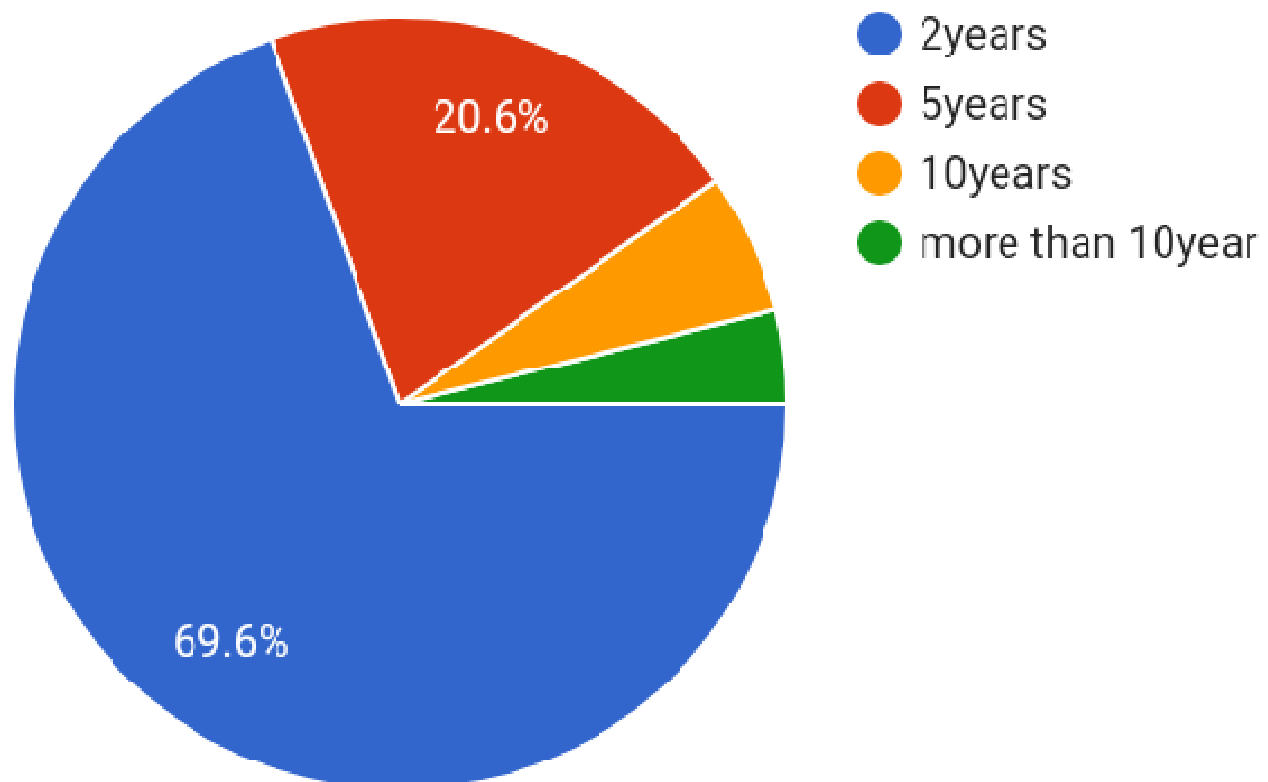
Inference

Majority (75.2%) of the respondents are 1 Lakhs – 3 Lakhs.

Table 4.1.16: Experience in this find less than 2 Years

S. NO	Particulars	No. of Respondents	Percentage
1	2 years	60	69.6%
2	5 years	54	20.6%
3	10 years	21	0.0%
4	More than 10 years	15	0.0%
Total		150	

Source: Primary data



Interpretation

From the above table it is interpreted that the number of respondents between 2 Years respondents are 69.6%, between 5 Years of respondents 20.6%, between above 10 Years of respondents are of %. More than 10 Years respondents %.

Inference

Majority (69.6%) of the respondents are 2 Years.

CHAPTER 5

5.1 FINDINGS

1. Majority (51.7%) of the respondents are Pulses
2. Majority (67.2%) of the respondents are Zine
3. Majority (58.6%) of the respondents are Ginger
4. Majority (69.2%) of the respondents are Virus
5. Majority (61.7%) of the respondents are 200
6. Majority (72.8%) of the respondents are The commission of Agricultural costs and prices.
7. Majority (64.3%) of the respondents are Zinc Phosphate.
8. Majority (65.5%) of the respondents are Assam
9. Majority (69.3%) of the respondents are Boron.
10. Majority (67.8%) of the respondents are Utter Bengal.
11. Majority (75.5%) of the respondents are HSC
12. Majority (75.2%) of the respondents are 1 Lakhs – 3 Lakhs.
13. Majority (69.6%) of the respondents are 2 Years.

5.2 SUGGESTION

The overall experience index from the study reveals that the agricultural uses of most of bacteria combine roots of pulses, and then majority of peoples are using fertilizers and to avoid the fruit cracking are stopped, and the laboratory are used in agriculture to produce export development. The Indian government are support the price of agriculture product of hold price given the The commission for agriculture. Variable good fertilizer are used for most

ares, the product are produce to all state in largest products in north and south side, education level minimum HSC. The annual turnover very less than amount are get the farmers.

5.3 Conclusion

This study brings to the light some of the hidden reasons why young people in rural Thailand have little to no passion for education or careers in agriculture, though agriculture plays a major role in Thailand's socioeconomic development. One of the most serious problems identified that the development of the performance of agricultural teachers in secondary schools showed that many teachers did not graduate in agriculture who were assigned to teach the subject. Additionally, not only did they lack academic knowledge, they also lacked practical, hands-on skills as well. While the Thai basic education institution curriculum requires students to study agricultural subject matter for basic occupational work, the teachers assigned lack learning management skills

APPENDIX – 1 (Questionnaire)

1. Nitrogen fixing bacteria make combination with roots of the roots of.

1. Pulses
2. Rice
3. Boron
4. Sugarcane

2. Fruit cracking disease in pomegranate is caused due to the deficiency of.

1. Zinc

- 2.Iron
- 3.Boron
- 4.Sulphur

3.suprabha and surbhi are varieties of.

- 1.Ginger
- 2.Brinjal
- 3.Sugarcane
- 4.Chilli

4.Dwarfness in sugarcane is caused by.

- 1.Virus
- 2.bacteria
- 3.Fungus

5. How many laboratory for agr products testing have been recently set up by agriculture products export development.

- 1.200
- 2.250
- 3.190
- 4.186

6. Who determines the minimum support price in India.

- 1.The commission for agricultural costs and prices

2. Tha agriculture ministry.

3. Tha finac commission

7. which type of n-fertilizer is suitable for water - logged soil..

1. zinc phosphate

2. ammonium sulphate

3. Calcium

4. Potassium nitrate

8. Mask Dance and war dsnce are popular follow dance of.

1. Assam

2. Manupur

3. Mizoram

4. Arunachal Pradesh

9. Yellow colour in turmeric is caused due to the presence of?

1. Boron

2. Ccurcumin

3. Iron

4. complete

10. Which state of India is the largest producer of chillies and turmeric

1. Utter Bengal

2. Andrea Pradesh

3. Maharashtra

11.Education qualifications less than ssLc

- 1.H. SC
- 2.UG Gegree
- 3.PG. Degree

12.annual turnover less than 1 lakhs.

1. 1lakhs-3lakhs
2. 3lakhs -5lakhs
3. above 5lakhs

13.Experience in this find less than 2yers

1. 2years
2. 5years
3. 10years
4. more than 10year

References

Bandura, A. (1997). Self-efficacy: the exercise of control. New York, NY: W.H. Freeman and Company.

Cannon, J. G., Broyles, T. W., Seibel, G. A., & Anderson, R. (2006). Summer enrichment

programs: Providing agricultural literacy and career exploration to gifted and talented students.

Journal of Agricultural Education, 47(4), 27-38. Retrieved from: <https://tinyurl.com/y5baon3p>

Changwong, K., Sukkamart, A., & Sisan, B. (2018). critical thinking skill development: Analysis of

a new learning management model for Thai high schools. *Journal of International Studies*, 11(2),

37-48. <https://doi.org/10.14254/2071-8330.2018/11-2/3>

Cribb, J., (2008). Tackling the global farm crisis. Agri-Food National Conference:

'It's all about skills', 25-26 September 2008. Retrieved from: <https://tinyurl.com/y3hm55uj>

Cribb, J., (2010). *The Coming Famine: The global food crisis and what we can do to avoid it*.

Collingwood, Australia: CSIRO Publishing.

Council of the European Union and European Commission. (2015). 2015 joint report of the council

and commission on the implementation of strategic framework for European cooperation in

education and training (ET 2020): New priorities for European cooperation in education and

training. Retrieved from <http://tinyurl.com/zctcbre>

Dodd, J. (2011). *Sustaining agriculture in NSW high schools: an assessment of the use of*

examples from alternative agriculture and investigation into the role of high school agriculture in

meeting the future needs of the industry. (Doctoral thesis). Retrieved from:

<https://tinyurl.com/y4mgp7mp>

Dodd, J. (2011, October 21). *Sustaining agricultural education – Where does secondary education*

stand? Retrieved from: <https://tinyurl.com/y63nowu3>

Dudin, M. N., Lyasnikov, N. V., Makarov, O. N., Maslennikova, O. A., & Grebennikov, V. V. (2017).

Agriculture specialists as a pedagogical Issue. Revista Espacios, 38(40), 10 – 15.

Retrieved from: <https://tinyurl.com/y5jp6pgp>

Food and Agriculture Organization of the United Nations (FAO). (2013). *How to Feed the World in*

2050. Retrieved from: <https://tinyurl.com/5ranufw>

Geiger, R. L. (2004). Knowledge and money: Research universities and the paradox of the

marketplace. Redwood City, CA: Stanford University Press.

Hurlstone Enterprise Advisory Board. (2012). Draft master plan for Hurlstone farm and residential

facilities Retrieved from <https://tinyurl.com/y59afbyz>

Keengwe, J., & Onchwari, G. (2015). Handbook of research on active learning and the flipped

classroom model in the digital age. IGI Global Publishers.

Lara, V. (2018). Tailoring education for the 21st century: Perspectives from educators. Economist

Intelligence Unit. Retrieved from: <https://tinyurl.com/y8cwdbte>.

Manning, L. (2016, December 1). Agriculture: Putting the Steam in STEM degrees at US

universities. AFN. Retrieved from: <https://tinyurl.com/y5lgqu4v>

Miller, S. G. (2017, February 16). Climate change is transforming the world's food supply. Live

Science. Retrieved from: <https://tinyurl.com/y2xt2cok>

Ministry of Foreign Affairs. (2017). Sufficiency economy philosophy: Thailand's path towards

sustainable development goals. Retrieved from: <https://tinyurl.com/y6lno3uq>

Mongsawad, P. (2012). The Philosophy of Sufficiency Economy: a contribution to the theory of

development. Asia-Pacific Journal of Rural Development, 17(1):123-143.

<https://doi.org/10.18356/02bd5fb3-en>

Nacaskul, P. (2015). Sufficiency Economy Philosophy: Conceptual background & introduction.

SSRN Electronic Journal. <http://dx.doi.org/10.2139/ssrn.2625967>

Reeve, E. M. (2016). 21st-century skills needed by students in technical and vocational education

and training (TVET). *Asian International Journal of Social Sciences*, 16(4), 65 - 82.

<https://doi.org/10.29139/aijss.20160404>

Santhuenkeaw, T., Tontiwongwanich, S., & Pimdee, P. (2019). Improving Thai student's digital

media skills: An exploratory learning model. *Revista Espacios*, 40(15), 21 – 27.
Retrieved from:

<https://tinyurl.com/y3sbdsd5>

Seehamat, L., Sarnrattana, U., Tungkasamit, A., & Srisawasdi, N (2014). Needs assessment for

school curriculum development about water resources management: A case study of Nam Phong

Basin. *Procedia - Social and Behavioral Sciences*, 116, 1763-1765.

<https://doi.org/10.1016/j.sbspro.2014.01.469>

BIBLIOGRAPHY

Alcorn, J. 1990. Indigenous agroforestry strategies meeting farmers' needs. In *Alternatives to deforestation: Steps towards sustainable use of the Amazon Rain Forest*, ed. A. B. Anderson, 141-48. New York: Columbia University Press. Bouwman, A. F. 1990. Exchange of greenhouse gases between terrestrial ecosystems and the atmosphere. In *Soils and the greenhouse effect*, ed. A. F. Bouwman, 61-127. New York: John Wiley. International Union for the Conservation of Nature and Natural Resources (IUCN). 1980. *World Conservation Strategy*. Gland, Switzerland: International Union for the Conservation of Nature and Natural Resources. United Nations Food and Agriculture Organization. 1987. *1948-1985 World crop and livestock statistics*. Rome: United Nations Food and Agriculture Organization. Warren, D. M., D. Brokensha, L. J. Slikkerveer, eds. 1993. *Indigenous knowledge systems: Cultural dimensions of development*. London: Intermediate Technology Publications. World Commission on

Environment and Development. 1987. *Our common future*. Oxford, England: Oxford University Press.