DECISION MAKING IN THE TYPE OF OCCUPATION SELECTION OF STUDENTS IN AGRICULTURE CERTIFICATE LEVEL UNDER THE AGRICULTURAL EDUCATION REFORM FOR A BETTER LIFE PROJECT : COLLEGE OF AGRICULTURE AND TECHNOLOGY IN THE NORTHEASTERN REGION

KESORN CHINDA

A THESIS SUBMITTED IN PARTIAL FULFILLMENT
OF THE REQUIREMENTS FOR
THE DEGREE OF MASTER OF ARTS
(POPULATION EDUCATION)
FACULTY OF GRADUATE STUDIES
MAHIDOL UNIVERSITY
2000

ISBN 974-664-535-8

Thesis

entitled

DECISION MAKING IN THE TYPE OF OCCUPATION SELECTION OF STUDENTS IN AGRICULTURE CERTIFICATE LEVEL UNDER THE AGRICULTURAL EDUCATION REFORM FOR A BETTER LIFE PROJECT : COLLEGE OF AGRICULTURE AND TECHNOLOGY IN THE NORTH EASTERN REGION.

.....

Miss. Kesorn Chinda
Candidate

.....

Lect. Sommai Wansorn,
C.A.S.(Populaion Education)
Major Advisor

.....

Lect. Tongbo Detsongchun,
M.Sc. (Agriculture)
Co-advisor

.....

Prof. Liangchai Limlomwonge, Ph.D.
Dean
Faculty of Graduate Studies

.....

Assoc. Prof. Supavan Phlainoi, Ed.D.
Chairman
Master of Arts Program in Population Education
Faculty of Social Sciences and Humanities

Thesis

entitled

DECISION MAKING IN THE TYPE OF OCCUPATION SELECTION OF STUDENTS IN AGRICULTURE CERTIFICATE LEVEL UNDER THE AGRICULTURAL EDUCATION REFORM FOR A BETTER LIFE PROJECT : COLLEGE OF AGRICULTURE AND TECHNOLOGY IN THE NORTH EASTERN REGION.

was submitted to the Faculty of Graduate Studies, Mahidol University for the degree of Master of Arts (Population Education)

on

August 22, 2000

.....

Miss. Kesorn Chinda
Candidate

.....

Lect. Sommai Wansorn,
C.A.S.(Population Education)
Chairman.

.....

Somchai Sukontasing,
M.Sc. (Horticulture)
Member

.....

Lect. Tongbo Detsongchun,
M.Sc. (Agriculture)
Member

.....

Lect. Kovit Phong-Ngam, Ph.D.
Member

.....

Asst. Prof. Pimonpan Isarabhakdi, Ph.D.
Member

.....

Prof. Liangchai Limlomwonge, Ph.D.
Dean
Faculty of Graduate Studies
Mahidol University.

.....

Assoc. Prof. Suree Kanjanawong,
Ph.D.
Dean
Faculty of Social Sciences and Humanities
Mahidol University

ACKNOWLEDGEMENT

I appriciate with respect, Sincere regards and gratitude a greatdeal Lect. Sommai Wansorn my major advisor, my co-advisor Lect. Tongbo Detsongchun, Lect. Kovit Phong-Ngam, Asst. Prof. Pimonpan Isarabhakdi,and Mr.Somchai Sukontasing. For giving me precious advice and for lecturing valuable and useful experiences.

My special thanks and gratitude goes to the teachers of 6 college of agriculture and technology in the northeastern region for helping and facilitating me to collected relevant concern documents.

Finally, I am heartily most thankful to my government officers, especially Dentist Naiyana Preasrisakul, Director of The Public Relation and Information Office and also Mrs. Ketsanee Yoo-poom, Vice-Director of the Public Relation and Information Office, Ministry of Public Health. For being kindness and facilities making this research until sucessful during making public work.

Kesorn Chinda

4137346 SHPE/M : MAJOR : POPULATION EDUCATION : M.A. (POPULATION EDUCATION)
KEY WORDS : DECISION MAKING / OCCUPATION SELECTION / AGRICULTURAL EDUCATION REFORM FOR A BETTER LIFE PROJECT / COLLEGE OF AGRICULTURE AND TECHNOLOGY / NORTHEASTERN REGION

KESORN CHINDA : DECISION MAKING IN THE TYPE OF OCCUPATION SELECTION OF STUDENTS IN AGRICULTURE CERTIFICATE LEVEL UNDER THE AGRICULTURAL EDUCATION REFORM FOR A BETTER LIFE PROJECT : COLLEGE OF AGRICULTURE AND TECHNOLOGY IN THE NORTHEASTERN REGION. THESIS ADVISORS: SOMMAI VANSORN, C.A.S., TONGBO DETSONGCHUN, M.Sc. 168 p. ISBN 974-664-535-8.

The objective of this research was to study the decision making and factors related to decision making in selecting the type of occupation of third year students with agriculture certificate level, under the agricultural education reform for a better life project in the northeastern region.

The study group used in the research were 574 third year students with agriculture certificate level under the Agricultural Education Reform For A Better Life Project of the 1999 academic year. The devices used in the data collection included questionnaires designed by the researcher, which were varified for their information and infrastructure. The data was analyzed by SPSS program of Windows version 6.5, whereby percentage statistics were used in calculating the average, standard deviation, the minimum and maximum. Also, statistics were used in analyzing Chi-square in varifying the assumption of the research. The results of the research can be conclusively explained as follows:

The students' decision making process in selecting the type of occupation can be described in sequence as: 1. Continue education, 47.7 percent; 2. Select agricultural occupation and continue education, 20.2 percent; 3. Select an occupation outside agriculture and continue further studies, 15.7 percent; 4. Select occupation as agriculturist 8.9 percent; and 5. Select an occupation outside the agricultural sector; 7.5 percent.

Factors related to decision making of students in selecting the occupation can be categorized as :

1. Expectations in being successful with the occupation is an important factor related to the decision making of the students in selecting the type of occupation. It can be statistically described as significant. (P-Value < 0.05)
2. Expectations of parents towards the occupation of the child is an important factor related to the decision making of the students in selecting the type of occupation. It can be statistically described as significant. (P-Value < 0.05)

4137346 SHPE/M: สาขาวิชา: ประชากรศึกษา; ศศ.ม. (ประชากรศึกษา)

เกษร จินดา : การตัดสินใจเลือกประเภทอาชีพ ของนักศึกษาระดับประกาศนียบัตรวิชาชีพเกษตรศาสตร์ ในโครงการปฏิรูปการศึกษาเกษตรเพื่อชีวิต ชั้นปีที่ 3 วิทยาลัยเกษตรและเทคโนโลยีภาคตะวันออกเฉียงเหนือ (DECISION MAKING IN THE TYPE OF OCCUPATION SELECTION OF STUDENTS IN AGRICULTURE CERTIFICATE LEVEL UNDER THE AGRICULTURAL EDUCATION REFORM FOR A BETTER LIFE PROJECT : COLLEGE OF AGRICULTURE AND TECHNOLOGY IN THE NORTH EASTERN REGION) คณะกรรมการควบคุมวิทยานิพนธ์ : สมหมาย วันสอน, C.A.S., ทองบ่อ เดชสองชั้น, วท.ม. (เกษตรศาสตร์). 168 หน้า. ISBN 974-664-535-8

การวิจัยครั้งนี้ มีวัตถุประสงค์เพื่อศึกษาการตัดสินใจเลือกประเภทอาชีพและปัจจัยที่มีความสัมพันธ์กับการตัดสินใจเลือกประเภทอาชีพ ของนักศึกษาระดับประกาศนียบัตรวิชาชีพเกษตรศาสตร์ ในโครงการปฏิรูปการศึกษาเกษตรเพื่อชีวิต ชั้นปีที่ 3 วิทยาลัยเกษตรและเทคโนโลยีภาคตะวันออกเฉียงเหนือ

กลุ่มตัวอย่างที่ใช้ในการวิจัย เป็นนักศึกษาระดับประกาศนียบัตรวิชาชีพเกษตรศาสตร์ในโครงการปฏิรูปการศึกษาเกษตรเพื่อชีวิต ชั้นปีที่ 3 ในปีการศึกษา 2542 จำนวน 574 คน เครื่องมือที่ใช้ในการเก็บรวบรวมข้อมูลครั้งนี้ เป็นแบบสอบถามที่ผู้วิจัยสร้างขึ้น โดยผ่านการตรวจสอบความเที่ยงตรงตามเนื้อหา สาระและเชิงโครงสร้าง วิเคราะห์ข้อมูลด้วยเครื่องคอมพิวเตอร์โปรแกรมสำเร็จรูป SPSS for Windows Version 6.5 โดยใช้สถิติค่าความถี่ ร้อยละ ค่าเฉลี่ย ส่วนเบี่ยงเบนมาตรฐาน ค่าสูงสุด ค่าต่ำสุด และใช้สถิติวิเคราะห์ไค-สแควร์ ในการทดสอบสมมติฐานการวิจัย ผลการวิจัยสรุปได้ดังนี้

นักศึกษามีการตัดสินใจเลือกประเภทอาชีพ ดังนี้ อันดับ 1 การศึกษาต่อ ร้อยละ 47.7 อันดับ 2 เลือกอาชีพเกษตรกรรมและศึกษาต่อ ร้อยละ 20.2 อันดับ 3 เลือกอาชีพนอกภาคเกษตรกรรมและศึกษาต่อร้อยละ 15.7 อันดับ 4 เลือกอาชีพเกษตรกรรม ร้อยละ 8.9 อันดับ 5 เลือกอาชีพนอกภาคเกษตรกรรม ร้อยละ 7.5

ปัจจัยที่มีความสัมพันธ์กับการตัดสินใจเลือกประเภทอาชีพของนักศึกษา จำแนกตามประเภทได้ดังนี้

1. ความคาดหวังต่อความสำเร็จของอาชีพ มีความสัมพันธ์กับการตัดสินใจเลือกประเภทอาชีพอย่างมีนัยสำคัญทางสถิติ ที่ระดับ 0.05

2. ความคาดหวังของบิดามารดาต่ออาชีพบุตร มีความสัมพันธ์กับการตัดสินใจเลือกประเภทอาชีพ อย่างมีนัยสำคัญทางสถิติ ที่ระดับ 0.05

CONTENTS

CONTENTS (Cont.)

LIST OF TABLES

LIST OF TABLES(Cont.)

LIST OF TABLES (cont.)

LIST OF TABLES (cont.)

LIST OF FIGURES

CHAPTER I

INTRODUCTION

1. Background and Significance of Problems

Agriculture is significant and essential in parallel with the human society in every age. It is said "Agriculture is the mother of prosperity". (Chandranao, A. 1983: 1) The one-third land of the earth is for agriculture. (Keating, 1992: 32)

1.1 Value and Significance of Agriculture for Other Activities

Agriculture is the science that is significant and essential for the daily life of the world's populations and has certain roles and influence over the development of economy, society, psychology and national security. The reason is that agriculture is the source of food, clothes, shelters and medicines. The world's populations tend to increase in number by up to 6 billion on October 12th, 1999 (The United Nation, 1999: 4). The expansion of the world's populations definitely results in the higher demand of food. If any country cannot sufficiently produce food for its population, that means the country needs to depend on a food source outside the country. Consequently, necessary resources for developing a country are shared by other countries unable to produce their own food. Meanwhile, in terms of food production, if any country can produce food in a sufficient quantity with good quality, human resources are well developed to attain a good level of life quality. That also brings in good impacts on a nation's development in every area.

In the process of national development, we are not often only interested in the production of any branch, but produce have to be distributed to other sciences/branches which are in need of depending on agriculture in terms of cheap labor. At the same time, the branch of agriculture is as well a market to support produce. (Saengmanee, S. 1989: 1-8) Therefore, agriculture is very significant and essential which needs serious and continued attention.

The significance of agriculture for the development of political society, Chandranao (1983: 2) noted that agriculture makes a gathering of people for self-assistance or assisting each other including protecting benefits for those in the same group, and that makes negotiations stronger, helping the group's members get fair treatments in every problem; such as, buying and selling of fertilizers, pesticides and agricultural produce.

Groups can better deal with such problems than individuals. At the ,the same time, if in any country there are farmers attaining a high level of productive capacity, a level of economic security, wealth of people, political stability and strength is also meant. Further, food is used as a type of factors affecting a political agreement between countries or to support populations in some parts of the world who are facing

food shortages or natural disasters or wars up to a point where they cannot help themselves.

Regarding the issue of health, more particular, in 1998 the World Health Organization (WHO) pointed to earlier changes in several aspects in the world, noting that the fast and more advanced development has put certain effect on the daily life of people i.e. highly depending on advanced technology, the change from the state of non-sedentary living to the state of sedentary living. That means the state that people obtain greater convenience. A tendency towards spending energy or doing exercise becomes less. Such behaviors lead to non-infectious diseases that are harming the health of people at present. Most critical diseases include heart disease, artery and fatness. The fact of these diseases has a relationship with the development of a country. It is expected that in the next 26 years i.e. in the year of 2025 the group of non-infectious diseases is likely to become a health crisis of the world's populations (World Health Organization, 1998: 202-203). According to such facts, it is believed that agriculture will be taking a critical role in protecting oneself from diseases arising as a result of convenience because works in the agriculture sector all are activities relating to doing exercise, spending labor and walking.

In conclusion, if the science of agriculture lacks development or is ignored, resulting effects will arise from the micro level to the macro level.

1.2 Status of Agriculture in 21st Century and Business Economics

As a result of the summit meeting participated by over 150 leaders from countries worldwide (Earth Summit) in June 1992 at Rio De Janero, Brazil.

In the summit meeting, the state of long-term development in agriculture and rural areas of the world in the 21st century, noting that the world is likely to be meeting problems as a result of poverty, starvation, health problem, being illiterate, a gap between richness and poverty and declining natural balance. It is expected that in the year 2020 the world's populations will increase to 8.5 billion people of which 83% are in developing countries. The expansion of the world's populations needs an increase in the production of food. However, the productive capacity in the production of food in many areas on the world are decreasing due to certain problems; such as, soil erosion, salty water, infertile soil, floods, all these problems are arising in every country.

Further, a degree of ultraviolet rays which is increasing as a result of the depletion of ozone layers is also included. That causes the decline in the productive capacity in the agriculture sector. Therefore, to increase the productive capacity in the agriculture sector, every country is required to implement long-term rural area and agricultural development policies, focusing on plant and animal species by means of biochemical technology. That is a sort of combining together traditional knowledge and new technology in order to change species of plants, animals and some smallest forms of plant life so that new types of products expand instead of expanding farming land. Also, the use of chemical substances to control pests is lowered, but biochemical technology is applied together with chemical substances to increase the quality of

agricultural produce, to reduce costs and to maintain the quality of environments (Keating, 1992: 1-51)

According to this commitment, Thailand is necessary to make some adjustments to the development of the agriculture sector as well, more particularly, in terms of human resources in the agriculture sector to meet the same movements of the world.

1.3 Results of The National Development to Thai Agriculture Sector

Thailand covers the area of 320,736,762.51 rai, and its economic background has developed from agriculture. The majority of the country's population is working in the agriculture sector. In 1981, Thailand exported agricultural produce of up to 60,720 million baht, equivalent to 44% of the total value of exports. It can be said that agriculture is the heart of the country's economy in the past. (Chandranao, A. 1983: 1). However, after the National Economic and Social Development Plan was announced in 1960, Thailand underwent certain change in its economic structure, i.e. expansion in industry sector, in services sector and in tourism (Thanapornpan, R. 1973: 290). As a result of that, the significance of the existing production structure and the employment in the agriculture sector has been decreasing. In contrast, other non-agriculture sectors have been gaining greater attention. The comparison of the gross national product (GNP) per head in the agriculture sector and in the non-agriculture sector shows many significant differences. In the 1st National Economic and Social Development Plan (1961-1966), GNP in the agriculture sector only amounted to 1,002 baht a person a year, and in the non-agriculture sector GNP was 6,212 baht a persona a year, or higher than that in the agriculture sector 6.20 times and also increasing. In the 7th National Economic and Social Development Plan (1992-1996) GNP in the non-agriculture sector was higher than that in the agriculture sector by 13.30 times. (Office of Agricultural Economics, 1997: 13) In addition, the immigration of human resources from the agriculture sector into the non-agriculture sector is drastically increasing in number, which results in certain significant change in the population structure in the agriculture sector, also as a result of the different type of development. (Peungboon Na Ayuttaya, P. 1996: 5). It is said that labor in the agriculture sector tends to increase more but to increase in a low rate throughout the year of the 3rd National Economic and Social Development Plan and the 7th National Economic and Social Development Plan from the rate of 69.5% in 1972 to 65.7%. 62.8%, 60.8% and 58.0% respectively. In 1997, the population of Thailand was 60,602,000 million of which the working population equaled to 33,619,000 million (55.48%).

Out of the working population, the employed population made up 31,596,000 million, divided into the number of 15,291,000 million (48.40%) working in the agriculture sector and that of 16,305,000 million (51.60%) working in the non-agriculture sector. (Department of Labor Protection and Welfare, 1997: 4) In 1997, the employment in the agriculture sector was 15,066,900 million or only 48.60% (Department of Labor Protection and Welfare, 1998: 4-5). It is expected that the labor of 19.318 million people in the agriculture sector is equivalent to 53.16% of the

nation's entire labor (Office of Agriculture Economics, 1996: 16) Currently, the first source of the nation's revenue is the exportation of industrial products amounting to 1,280,045.0 million baht, the second one is the exportation of agricultural produce, totaling 257,562.6 million baht (Department of Business Economics, 1998: 11)

Table 1 The structure of labour in the agriculture sector, comparison between 1993 and 1998

Structure of Labour	1993	1994	1995	1996	1997	1998
Total population (person)	58,649,800	59,444,000	59,450,800	60,005,000	60,602,000	61,098,000
Working force	32,845,400	32,582,300	33,001,800	34,407,000	33,619,000	32,169,800
Employed	32,152,600	32,095,000	32,575,000	32,594,000	31,596,000	30,167,800
Working in agriculture sector	18,244,600	17,960,200	16,929,300	16,961,000	15,291,000	15,066,900
Percentage of labor	56.74	55.96	51.97	52.04	48.40	48.60

Source: Ministry of Labor and Social Welfare, 1993: 4, 1994: 4, 1995: 4, 1996: 4, 1997:4, 1998:4

The table 1 shows that at present the proportion of population employed in the agriculture sector tends to minimization. Jobs in exclusion from the agriculture sector are preferred by people from rural areas. Therefore, there is an increasing number of people leaving agricultural occupation and moving to work in cities. The 69% portion of teenagers in rural areas who have already been working in the agriculture sector intend to work in other different occupation; such as, dress maker and beauty parlor (National Educational Development Center of Thailand, 1983: 22) That is an indicator that Thailand's agriculture sector is experiencing a crisis at present and in the future. (Siamwala, A. 1989: 48). As well, Ditsaroejana (1990: 37-56) had studied the change in the structure of occupation in the non-agriculture sector of the economic system of Thailand. Based on the 1980 household registration of populations, the study found that certain types of occupation in the modern economy sector; for example, vocational type, administration and management, clerks/officers and production, is gaining popularity, but certain types of tradition occupation e.g. business, services and transportation are gaining less popularity when the level of city environments is higher.

In addition, city people often look down upon farmers in case they are inferior to people living in a city and considered as old-fashion people. Further, Thai people have bad attitudes towards the profession of agriculture (Kamphusan, P. 1976: 5) Thai people regard agricultural occupation as inferior to other types of occupation and unhonorable. People who concentrate on agricultural occupation are uneducated, poor and disqualified for other types of occupation. That is a reason why people would like to be in other different occupation which are highly convenient and

advanced. Recently, Thai society has placed the profession of agriculture on the medium/high level and the low level of professional pride. Big farmers are placed on the medium/high level of professional pride, and retail farmers on the low/medium level. (Chandravanicha, S. 1991: 157-158)

1.4 Nature of Problems Concerning Quality of Human Resources in Thai Agriculture Sector

Human resources in the agriculture sector is the majority of the population whose significant duty is to produce food for the country's population. However, the process of production by most of Thai farmers does not have well-planning, resulting in low quality and quantity of produce per rai, for instance, Thailand has the average amount of rice at 2,172 kilograms per hectare, meanwhile Australia has about 7,074 kilograms per hectare, the United States of America has an average of 6,609 kilograms per hectare

Japan has an average of 6,540 kilograms per hectare. (Food and Agriculture Organization: FAO, 1997: 64-65) Such productive capacity affects the level of competition in terms of exportation with foreign countries. (Bangkok Metropolitan Bank, 1996: 19) From the past until now, the majority of Thai farmers or 71.4% graduates in primary education or lower. (National Statistical Office, 1998: 24)

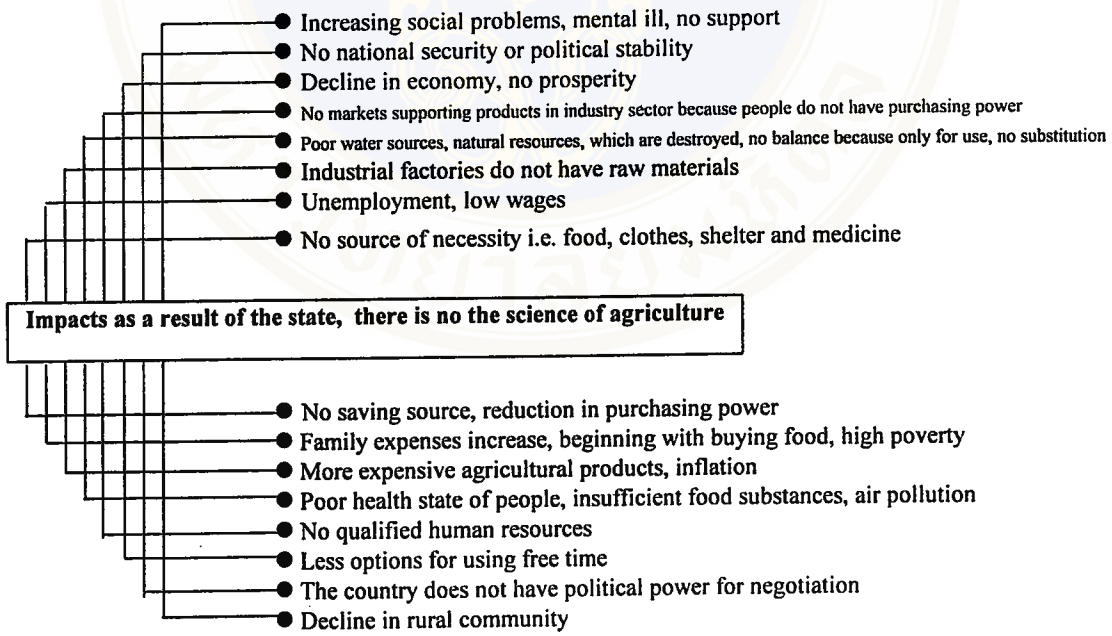


Figure 1 Impacts as a result of the state there is no the science of agriculture

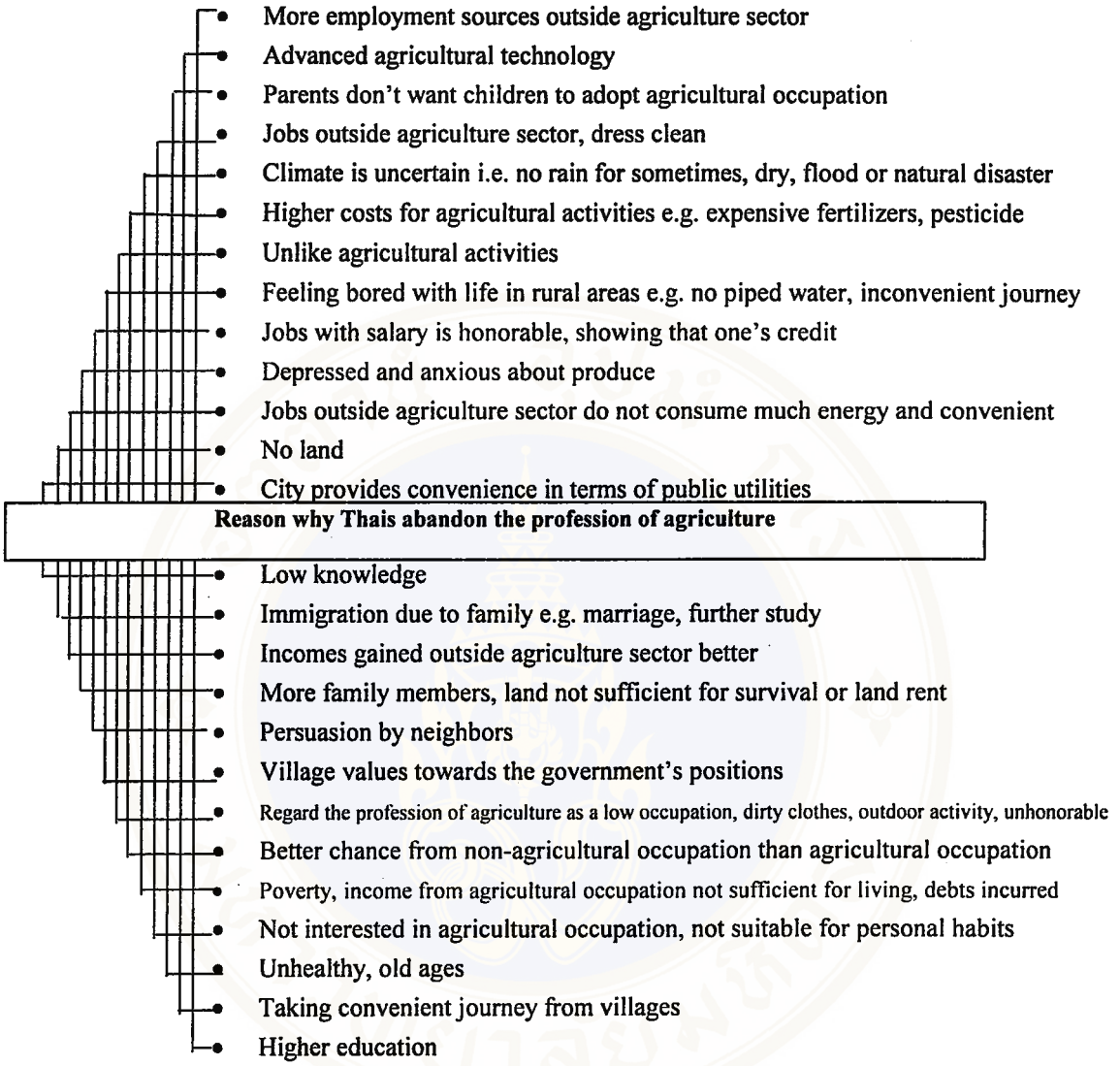


Figure 2 Reason why Thais abandon the profession of agriculture

In the past, the development of the country for advance in several areas has reached the point that every party accepts that the development of human resources is the significant beginning of all types of development. The development of human resources in the agriculture sector at a level of vocation is tackling certain problems as well. Or, a number of teenagers/youths who apply to study in several agricultural colleges is below a target. At the same time, labor in farms or rice fields is attracted to the non-agriculture sector due to higher incomes. Even though for over 60 years Thailand has been making an educational investment in the field of agriculture in order to produce agricultural labor who has knowledge and skills for occupation in the modern agriculture, that is still unsuccessful. It can be said that the field of agriculture has still received less interest (5.98%) from junior high-school students.

Table 2 Number of students graduating from junior high schools nationwide who applies to vocational diploma courses in several branches in vocational colleges, Department of Vocational Education, in the academic year of 1995

High School Graduate (3rd yr.) Nationwide	Applicant for Vocational Diploma Course, Department of Vocational Education	A Number of Applicants for Vocational Diploma Courses		
		Industrial Mechanic	Commercial	Agriculture
657,383	240,386	136,515	89,496	14,375
		(56.79)	(37.23)	(5.98)

Source: Office of National Educational Committee, 1997: 2-31
Department of Vocational Education, 1995: 7
Remark: Figure in a bracket is in percentage

A number of students under the vocational education in agriculture is decreasing continuously i.e. in 1986 the number of students who was studying in the first year, second year and third year of vocational diploma course in agriculture nationwide totaled to 16,138 people, down to 11,631 people in 1995. (Department of Vocational Education, 1997: 2) A group of authorities and teaching staff in educational institutes under Agricultural College Section had mentioned many significant reasons including no the government's positions available, higher tuition fees, no confidence in the profession of agriculture after graduation, guardians unable to support students' education and poor management in terms of teaching and learning. (Department of Vocational Education, 1990: 1) Additionally, regarding the production of human resources for this field of agriculture, there has not yet been real benefits in economic terms because only 12.5% of the students who graduate in a vocational diploma course in agriculture enter the agriculture sector. (Department of Vocational Education, 1990: 37-72), a very few of them begin their own business, or 32-47 people a year only. Details are presented in Table 3.

In addition, a survey on employment and unemployment of manpower at a medium level who completes a vocational diploma course (por vor chor 3) in the academic year of 1996, totaling 160,221 people, found that there were successful graduates of 20,584 people (employed) out of which the 2.5% portion or 51.46% people work in the agriculture sector and in others concerned. (National Statistical Office, 1998: 14) Such data indicates that those who are working in the agricultural sector presently possess a degree of education lower than that of vocational diploma.

Table 3 Occupation of the students who graduate in vocational diploma course in agriculture nationwide in 1994 and in 1995

All Graduates in The Academic Year	No. Graduates Followed	Access to Labor Market			
		Further Study	Private	Personal	Government's Position
1994/1,502 graduates	1,352	1,154	94	47	18
1995/1,500 graduates	1,241	1,043	110	32	10

Source: Department of Vocational Education, 1995: 35, 1996: 40

Table 4 A number of students with vocational diploma in agriculture, 1st-3rd year, in 1986 and in 1995

Year	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995
No. of students	16,138	11,217	8,485	11,673	10,420	10,463	10,236	11,355	11,851	11,631

Source: Department of Vocational Education, Ministry of Education, 1997: 27

1.5 Human Resource Development in Agriculture Sector on The 8th National Economic and Social Development Plan

The 8th National Economic and Social Development Plan (1997-2001) is in the period the world is changing into the 21st century or globalization. In regard to views for problems of Thai agriculture development after 2000, Na Ranong, Viroej. a specialist of Thailand Development Research Institute (TDRI) pointed that "Thailand needs an acceleration in the growth of agriculture for food security and local economic balance because previously we have spent a lot in the industry sector, which does not much help the country. When foreigners withdraw their investments, Thai economy consequently face problems." (Soonthornprapatra, T. 1999: 5)

Since 2000, the agriculture sector becomes more important and the greatest food production source. It is believed that Thailand will be the world's kitchen producing food for sale. The agriculture sector will still be the nation's hope. Development in management and other appropriate mechanisms have to be accelerated particularly an increase in productive capacity. The main point is a focus on development of human resources that work in agricultural areas. (Samutvanicha, C. 1996: 18) They have to be developed into a new generation of farmers with knowledge and potentiality in type of advanced production i.e. added value, new long-term environment protection technology. (Foundation of Private Regional Development, 1998: 16) In part of the agriculture sector in the 8th National Economic

and Social Development Plan (1997-2001), the government has defined a philosophy of development that is "developing life quality, producing for competition, relationship between natural resources and environments". That is a sort of permanent agriculture with an emphasis at farmers' income, economic stability in the agriculture sector and ability to support the growth of the nation's entire economy.

In part of production of human force in the middle level of the agricultural sector, in 1996 Ministry of Education had delivered a new approach i.e. Project of Agricultural Reform in Education for Life. The Project is to enable children of farmers and villagers who earn lower than 50,000 baht a year to continuously obtain education in the 12 years school system. The 12 years school system accepts students completing Mathayom 3 of Educational Opportunity Extension School, Office of National Education Committee, and of general high schools. The students have an opportunity to attend a 3 years vocational diploma course in agriculture at the 45 places of College of Agriculture and Technology nationwide, including vocational diploma courses in non-agriculture as preferred; such as, computer, how to drive a tractor, etc.

The Project's students are exempt from all tuition fees and registration fees for the project's entire courses, including free accommodation. However, all students are assigned to carry out agricultural projects, which are done outside the classroom. The fieldwork will enhance the students' experiences and skills for agricultural occupation. In addition, the students can use products from their agricultural projects for food and sale during their study. The government has supported for materials supplied in those projects with an annual budget of 5,000 baht per student and provided close advice and guidance by teachers and experts. The project has started since 1996 and up to now there are a total of 34,767 students nationwide, dividing into a number of 16,449 in the first year, 8,264 in the second year and 10,054 in the third year. (Department of Vocational Education, 1999: 26)

After graduation in the level of vocational diploma courses (por vor chor), it is a critical period of time due to most of the students are in the age of teenagers. According to certain psychological principles, it is said that teenagers are in the period of time when they face many difficulties, particularly they have to make a choice of future occupation, to plan for further study or to look for a job. All of which are very critical issues in the life of the students. (Ubonpong, C. 1968 cited by Sanansieng, C. 1995: 11)

With regard to making a choice of future occupation, Professor Williams Lowe Bryan, Director of Indiana University (Dickinson, P. 1977: 235-237) said that it is not easy to make a choice of future occupation. When we choose any occupation, that means we choose physical environments and society for life because an occupation exactly indicates where do we work? what type of job do we choose? and who will be our colleagues? Making a choice of occupation has impacts on the way of life. Our clothes, manners, way of speaking, expression of emotion or how we use our hands all definitely depend on our occupation. As seen, occupation do not only refer to money but they mean the way of life. How do we make the best choice? We have to know ourselves first. More important, achievements and security of a nation are partly

due to the nation's occupation of people. Any whose people work in accordance to what they learn, their ability and skills are very successful in terms of economy. In contrast, any has problems regarding people's occupation; such as, unemployed, over-qualification, ability, interest, skills always face economic problems. Taking a occupation means that a right person has a right job. That is considerably important for a country. Generally, after graduation, people spend as long as the one-third of their life span in working or approximately 100,000 hours. (Kachornsilpa, S. 1987: 1-2) Any person who chooses a right occupation for his/herself can quickly develop his/her knowledge and proficiency in occupation and ultimately achieve success.

Therefore, the study should be conducted for the fact that how the students make a decision for selecting a type of occupation after they graduate in the vocational diploma course in agriculture under the project of agricultural reform in education and what significant factors are in relationship with decision making for selecting a type of occupation. The study will be very useful for the planning of the management of vocational diploma course in agriculture in order to meet requirements of the society and the country at present and in the future. In addition, the study will be very useful for the planning of supporting graduates in the vocational diploma course in agriculture to enter the agriculture sector according to their knowledge, potentiality and skills. They will be a type of forces to back up the development and rehabilitation of the agriculture sector in rural areas for advance and strength which will result in the country's real revenue. Finally, the country's investment in education affairs will not be nil, and benefits in economic terms will arise in reality.

2. Objectives of The Research

1. To study how the students make a decision for selecting a type of occupation after they graduate in the vocational diploma course in agriculture (third year) under the project of agricultural reform in education for life at College of Agriculture and Technology in the north eastern region.
2. To study factors which have a relationship with decision making for selecting a type of occupation.

3. Research Questions

1. How the students make a decision for selecting a type of occupation after they graduate in the vocational diploma course in agriculture (third year) under the project of agricultural reform in education for a better life at College of Agriculture and Technology in the north eastern region ?
2. What are factors which are in association with the students' decision making for a choice of occupation ?

4. The Research's Hypotheses

From a study on a number of concepts and theories including a number of researches concerning a decision making process for selecting a type of occupation and factors which have a relationship with decision making, the researcher has set certain hypotheses as follows:

1. Potentiality of Basic Factors of Adopting Agricultural Occupation

1.1 Land has a relationship with decision making for selecting a type of occupation

1.2 Water sources have a relationship with decision making for selecting a type of occupation

1.3 Agricultural technology has a relationship with decision making for selecting a type of occupation

1.4 Professional background of family has a relationship with decision making for selecting a type of occupation

1.5 Transportation has a relationship with decision making for selecting a type of occupation

1.6 Climate have a relationship with decision making for selecting a type of occupation

2. Basic Physical Structure

2.1 Land development has a relationship with decision making for selecting a type of occupation

2.2 Water sources development or irrigation system has a relationship with decision making for selecting a type of occupation

2.3 Main structure of occupation in local areas has a relationship with decision making for selecting a type of occupation

2.4 Existence of markets or industrial factories have a relationship with decision making for selecting a type of occupation

3. Economic Factor

3.1 Capital has a relationship with decision making for selecting a type of occupation

4. Social and Psychological Factors

4.1 Social values towards a type of occupation have a relationship with decision making for selecting a type of occupation

4.2 Friend influence has a relationship with decision making for selecting a type of occupation

4.3 Parents' expectation for children's future occupation has a relationship with decision making for selecting a type of occupation

4.4 Influence of professional models has a relationship with decision making for selecting a type of occupation

5. Individual Factors

5.1 Skills have a relationship with decision making for selecting a type of occupation

5.2 Expectation of professional achievements has a relationship with decision making for selecting a type of occupation

5.3 Knowledge / Skills of agricultural strategy has a relationship with decision making for selecting a type of occupation

5. Initial Agreement of The Research

According to the theory of occupation selection derived from the psychological concept that believes people are different in ability, interest and characteristics. A decision making process for selecting a type of occupation is a sort of logic-based process. A person who works in any occupation is a decision making unit. Therefore, this research regards a decision for selecting a type of occupation is made by the students themselves, and the students are the source of data for this research.

In addition, the acknowledgement of climate, one of many factors in the no.1, refers to only the acknowledgement of three local seasons i.e. rainy, winter and summer. More technical details are not presented; for instance, the concentration of light and various rays with effects on the growth of plants and animals just for the sake of the students' level of knowledge.

6. Scope of The Research

1. This research considers the north eastern region as the area to be studied for the region is the location of the 11 places of College of Agriculture and Technology under Department of Vocational Education, Ministry of Education, in 11 provinces, including Nakonratchasima, Buriram, Srisaket, Ubonratchatani, Chaiyapoom, Yasothorn, Udonthani, Khonkaen, Mahasarakam, Roi-Et and Nokorn panom.

2. This research focuses on the third-year students of the vocational diploma course (por vor chor 3) in agriculture under the project of agricultural reform in education for life, at the 11 places of College of Agriculture and Technology, Department of Vocational Education, Ministry of Education, in the north eastern region in the academic year of 1981. There is a total of 3,943 students studying in the third year.

3. The researcher chooses the north eastern region as the area to be studied because the region is the largest region of the country, and the population of 71.92% concentrate on the profession of agriculture. More important, the level of the immigration of population in this region is the highest i.e. the rate of immigration was 49.3% during 1992 to 1994 and rose to 55.3% during 1995 to 1997. (Sripien, V. 1998: 193). As a result of many factors; such as poverty, infertile and bad soil conditions, the immigration also makes impacts on the development of agriculture, more

particularly, a shortage of working population who possesses knowledge for working in the agriculture sector. With respect to the students under the project of agricultural reform in education for life who are studying in the 45 places of College of Agriculture and Technology, it is found that a number of the students is the highest of the country, saying that in the study year of 1999, there were a total of 14,392 students from the first year to the third year. A number of studies by Agricultural College Section, Department of Vocational Education (1998: 77), about, more particularly, agricultural project for living by the first year students of the vocational diploma course in agriculture, found that at educational institutes in the north eastern region there is a higher number of agricultural projects for living than in other regions.

Also, those agricultural projects account for 35.7% of the total profits made by all projects of the country, which is the highest profit. With capital worth 4,175,348 million baht, those projects can generate a total of 6,306,908 million baht in production value, or the profit is up to 2,131,560 million baht, equivalent to 62.9% of 3,386,644 million baht, which is the total of combined profits of every region. That shows the quality of production, including how agricultural occupation are applied best for area conditions. Therefore, the students have opportunity to make a choice of various occupation after graduation.

7. Definitions in The Research

1. Decision making for selecting a type of occupation refers to a decision making to make a choice of occupation from any group of occupation, which is considered as a way of earning after graduation in a vocational diploma course of agriculture. There are five groups of occupation as follows:

1.1 Agricultural occupation refers to those which are related to plant farming, animal farming, fishery, manufacturing process of agricultural produce and agricultural business according to knowledge, ability, skills and experiences obtained from education.

1.2 Occupation in the non-agricultural sector refers to freelance occupation which are not related to agriculture; such as personal business, services occupation, industrial occupation, officials in government offices not involving in the agriculture sector.

1.3 Further study refers to further study in a level higher than a vocational diploma course in agriculture. Study is divided into two branches i.e. study in agriculture branch and study in non-agriculture branch.

1.4 Agricultural occupation and further study refers to together having any occupation in 1.1 and further study in a level higher than a vocational diploma course in agriculture. Further study is divided into two branches i.e. study in agriculture branch and study in non-agriculture branch.

1.5 Non-agricultural occupation and further education refers to the state in which people have any occupation in 1.2 and, at the same time, carry on further study in a level higher than a vocational diploma course in agriculture. Further study

is divided into two branches i.e. study in agriculture branch and study in non-agriculture branch.

2. Students of the vocational diploma course in agricultural refers to a group of students who are studying in the third year of the 1995 vocational diploma course in agriculture under the project of agricultural reform in education for life at the 11 places of College of Agriculture and Technology in the north eastern region, Department of Vocational Education, Ministry of Education, in 11 provinces i.e. Nakonratchasima, Buriram, Srisaket, Ubonratchatani, Chiayapoom, Yasothon, Khonkaen, Mahasarakam, Roi-Et and Nakonpanom and Udonthani.

3. The project of agricultural reform in education for a Better life refers to a project of vocational education management by Department of Vocational Education, Ministry of Education, for the third year high-school students from educational opportunity extension school under Office of National Primary Education Committee and general high schools. Students are children or grandchildren of farmers and people in rural areas who are poor or earn below 50,000 baht a year.

4. Potentiality of land refers to the acknowledgement of size of land ownership, including landscape, soil structure, characteristics of soil in land owned by the students, appropriateness of soil to each type of agricultural activities i.e. most appropriate, very appropriate, quite appropriate, little appropriate, inappropriate.

5. Potentiality of water sources refers to the acknowledgement of several water sources i.e. rainwater, water in stream, marsh, canal, swamp, water from irrigation i.e. dams, electric water supplying projects, artesian well water, water in pool or pond in the area of the students' land. The acknowledgement consists of two aspects that are the quality of water for agricultural activities, divided into three levels i.e. good, fair and bad, and the quantity of water for agricultural activities in both rainy season and summer, divided into three levels i.e. much sufficient, sufficient/insufficient and insufficient.

6. Potentiality of agricultural technology refers to the level of difficulty and non-difficulty to discover agricultural technology in the area or in the family of students so as to apply such technology to agricultural occupation. Agricultural technology includes agricultural machinery, plant species (good species), animal species (good species), agricultural chemical substances, biochemical/manure, source of knowledge/ institutes providing support, demonstration sources or example of area farmers, dividing into three levels i.e. easiest, quite easy and difficult.

7. Family's professional background refers to a type of occupation which the students' family is adopting, and which can make key incomes from the past until now, dividing into four types of occupation i.e. agricultural, freelance occupation, employed and government officials.

8. Potentiality of climate refers to the acknowledgment of climate in local areas where the students are living in the three seasons i.e. rainy, summer and winter. It is divided into five levels i.e. highest, high, relatively high, low, lowest or no.

9. Potentiality of transportation refers to the perception of how convenient the journey is by several vehicles to the students' land in every season. The

convenience is divided into three levels i.e. convenient, quiet convenient and inconvenient.

10. Land development refers to the perception about land development projects taking place in the students' area with assistance from the government i.e. soil surface erosion protection, soil improvement and nourishment, soil adjustment and soil rehabilitation. The perception is divided into five levels i.e. highest, high, relatively high, low and no.

11. Water source development refers to the acknowledgement of water source development projects in the students' area with assistance from the government i.e. irrigation. The acknowledgement is divided into five levels i.e. highest, high, relatively high, low and no.

12. Main occupation structure in local areas refers to the acknowledgment of type of occupation which most of people in the students' local area are taking. There are five types of occupation i.e. agricultural occupation, freelance cccupation, employed, government officials and further education.

13. The existence of markets or industrial plants in local area refers to the acknowledgement of exchanging sources of agricultural produce.

14. Capital refers to an amount of money the students have been keeping up to now.

15. Social values towards type of occupation refer to a process of perception and ranking a type of occupation preferred by local people in the students' local area, divided into five types i.e. agriculture, freelance occupation, being employed in the government's offices and further study in order from the most preferred to the least preferred.

16. Friend influence refers to a level of acceptance and ranking the significance of persuasion by friends or beloved one in a decision making for selecting a type of occupation. Friend influence is divided into five levels i.e. highest to lowest or no. 1, no. 2, no. 3, no. 4 and no. 5

17. Parents' expectation for children's future occupation refers to the acknowledge of occupation parents really prefer their children to begin. There are five types of occupation i.e. agriculture, freelance, being employed, being employed in the government's offices and further study.

18. Influence from professional models refers to how professional models play a critical role in the students' decision making. There are five degrees of influence i.e. no. 1, no. 2, no. 3, no. 4 and no. 5.

19. Skills refers to a level of skills and capability of the students as a result of training or experiences gained from jobs or occupation. There are five degrees of skills i.e. highest, high, medium, low and lowest.

20. Expectation for professional achievements refers to a level of forecasting results brought in by certain occupation the students choose. Such results consist of five aspects i.e. income/security, wealthy, knowledge/skills, being accepted and praised by society and making community benefits. The expectation is divided into five levels from the highest to the lowest.

21. Knowledge and skills of agricultural strategy refers to a level of knowledge and thinking skills of the students regarding an appropriate type of agricultural activities, marketing, a type of investment, increasing value of produce, depending on technology and agricultural activities not putting effects on environments. Marks consist of "high" (9-12), "medium" (5-8) and "low" (0-4).

8. Concept Framework Used in The Research

The research is done under the concept/theory that a decision-making for selecting a type of occupation is a type of conditions with factors which include basic factors for the profession of agriculture, basic physical structure, economic factors, social and psychological factors and individual factors. Details in the figure below:

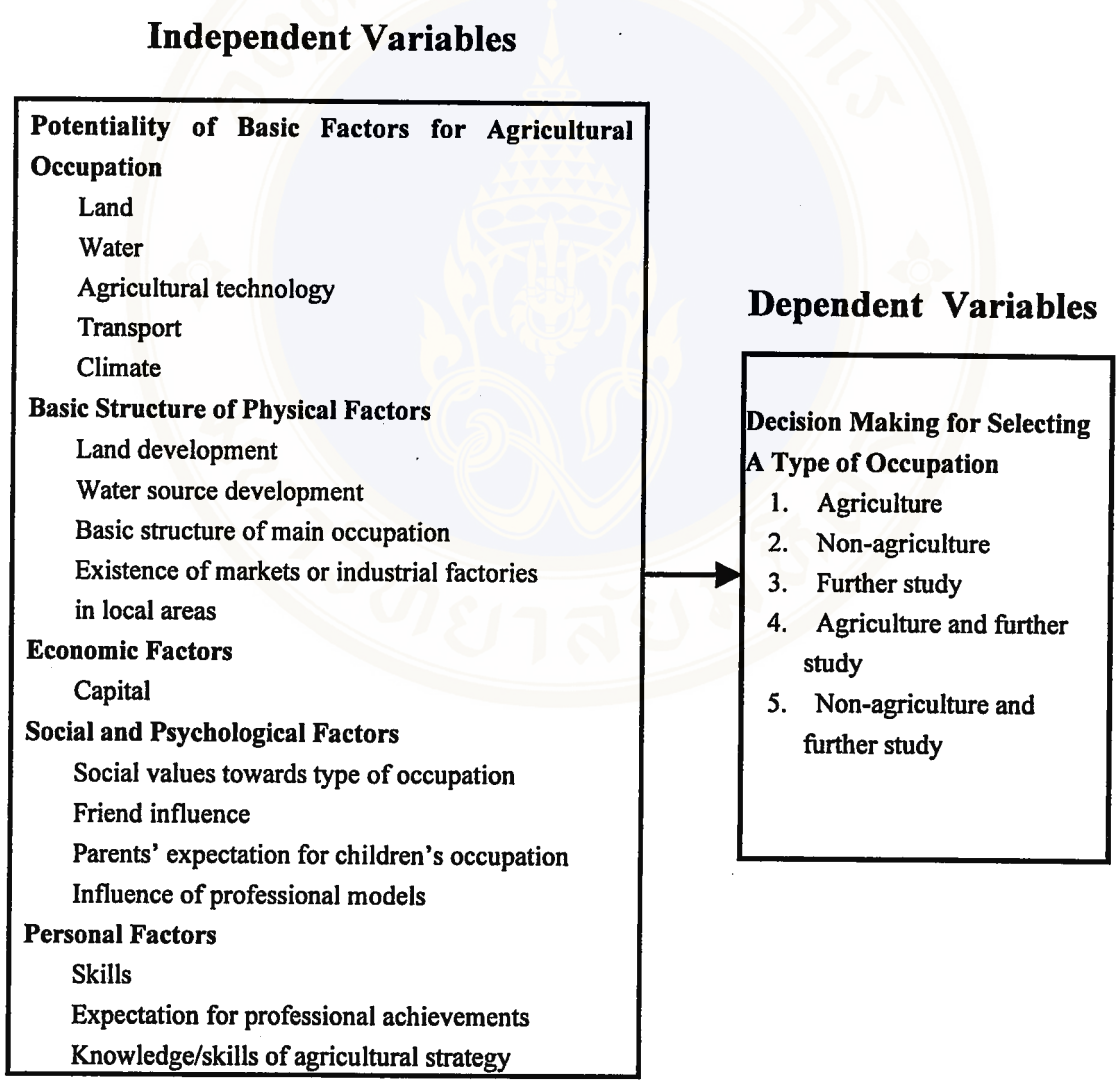


Figure 3 Conceptual framework

9. What Benefits Are from The Research

In the study of how the students make a decision for selecting a type of occupation after they graduate in vocational diploma course in agriculture (third year) under the project of agricultural reform in education for life at College of Agriculture and Technology in the north eastern region, the research expects certain benefits in following issues.

1. The Country's Population Development

Because population is likely increasing in number. The population is the country's capital as a main factor to develop the country's several areas by means of education, more particularly, education systems organized by the government. A main goal is to enhance individual quality and potentiality so that they are sensitive to changes. The management of educational systems has the final goal to enable people to make use of their knowledge, ability and experience in concentrating on a occupation so as to make incomes. Such type of population will be able to be an efficient producer and services provider of the society. Particularly, the national security depends on the efficiency of production by labor and the proportion of labor in the country who are working in a very efficient way. The project of agricultural reform in education for life is regarded as the quality development of youths who are a group of children or grandchildren of farmers and people living in villages in intimate relation to the agriculture sector. Therefore, the last goal is when the students have already completed their course, they are able to work in many occupation, particularly agricultural occupation, according to their knowledge, experience and skills. The result of the research will reflect the picture of how many people at the middle level and in the working age enter the agriculture sector. Which can also reflect the government's policy concerning the investment in the country's human resource development programs.

2. Development of New Generation of Farmers

Though Thailand has the original background of agriculture, but the agriculture has developed in very slow steps. A key problem is the quality of farmers. Agriculture in the future needs technology for higher productive capacity. Farmers have to know how to apply technology, how to think, how to make plans and how to take chance to build up their economy, which will enable Thailand to be one of competitive agricultural producers in the world's market. Therefore, this research will show that at which level of knowledge and skills for modern agriculture the students under the project of agricultural reform in education for life have.

3. Development of Educational Institutes, Including Curriculums / Syllabuses

As a result of the research, the medium level of quality in the production of human resources is reflected. Such human resources refer to people who have agricultural knowledge for occupation.

Educational institutes are the organization that provides knowledge and enhances skills and experiences for agricultural occupation to the students. Further, the result of the research can be taken as a basic for developing curriculums or syllabuses, learning and teaching management, evaluation, educational resources preparation in agreement with both the necessity of teaching and what learners require in order to develop the students' existing skills into certain level for occupation.

4. Project for Agricultural Reform in Education for A Better Life

The project is to extend the education basic of the country's youth to 12 years and to make a teaching and learning approach focusing on fieldwork in different agricultural occupation. The result of this study will be a basic for improvements in order to achieve the project's objective that is to enable the students to adopt an agricultural occupation as a main occupation after their graduation.

CHAPTER II

LITERATURE REVIEW

The researcher has reviewed documents concerned and set a list of studied issues as follows:

1. Agriculture and Agricultural Occupation

Type and mode of agriculture
Development of Thai agriculture

2. Agriculture and Agricultural Occupation

Agricultural education
Development of agricultural education
Revolution project of agricultural education for a better life
Follow-up of revolution project agricultural education for a better life

3. Concept and Theory Related to Decision Making and Occupation Selection

Decision making
Theory and concept related to occupation selection
Analysis of theory and factors used in the research
Factors used in the way of research and the research

1. Agriculture and Agricultural Occupation

1.1 Type of Agriculture

Agriculture is divided into two types (Chandranao, A. 1983: 3-9)
1. Traditional farming
2. Modern farming

Traditional Farming refers to the process of agriculture as a result of the necessity of demand and supply or agriculture for living. Traditional farming is a type of arts, depends on nature, uses natural fertilizers in rivers and no nourishment fertilizers. Plant species are traditional ones which -are used continuously. Simply-made agricultural tools/instrument are used with low efficiency. Labour refers to human beings and animals, therefore the productive capacity is low.

Modern Farming refers to the process of agriculture based on sciences and technology in several subjects. This type of agriculture is so called agriculture for business or agriculture for Industry which has to have high production per area unit, exact production, i.e. production quantity under control without natural independence. Modern agriculture consists of

1. Farm sector refers to direct parts of agricultural activities; such as, land, labour used in agricultural activities, operation, management and how to use several resources for production.
2. Non-farm supply sector refers to indirectly parts of agricultural activities; such as, agricultural machinery, petroleum/fuel, fertilizer, plant seeds, all of which are made from different mechanism.
3. Marketing system refers to transportation system, preservation, packing, delivery of instant products to consumers.
4. Government services refer to agricultural researches/discovery, education and supports, waterworks, investment loans for farmers, laws supporting farmers' benefits, several types of agricultural co-operatives, price-fixing for agricultural products or price insurance, etc.

The main movement of the agricultural system in Thailand at present is new scheme agricultural system, so called conventional agriculture or chemical agricultural) with important qualifications as follows:

1. New technology-based agricultural system
2. Agricultural system with a focus on big-size investment and labour. Operational capital is in term of agricultural tools, machinery, production factors i.e. species of plants and animals, chemical fertilizer, etc.
3. Agricultural system with certain specialty
4. Agricultural system with high consumption of power i.e. petroleum/fuel for direct use of agricultural machinery. Petroleum is consumed as raw material in the

industry of fertilizers, chemical substances, including unseen power hidden in the process of production and transportation.

5. Agricultural system under control of companies carrying on agricultural business in term of factors of production, marketing and transportation.

6. Agricultural system in which the government is playing a key role e.g. price-fixing.

Types of Agriculture or Types of Farming include six types according to production quantity and operation (Petthongkham, M. 1993: 62-64, Pongsakul, V. 1984: 2-3).

1. Subsistence farming only aims at production for family which may refer to vegetable garden, orchard, various types of flowers and crops or animal farming in a small area. This type of agriculture gives poor yields. Farmers of this type do not necessarily have and substantial capital. Simple procedures include agriculture for sale of some small products in order to obtain money to buy factors necessary for further operations.

2. Agribusiness refers to agricultural operation with expectation of business profits i.e. high production and product distribution. This type of agriculture needs big-size land, agricultural machinery, high capital and annual planning of operations / operational planning for the entire year. Farmers or administrators have to have high knowledge of agriculture, ability of plannings and being interested in plannings.

3. Mixed crop and livestock farming makes high productivity per unit and good incomes. This type of farming embraces more than two kinds of agricultural activities at the same time or at the overlapping time or that means the combination of crop farming and livestock farming. Mixed crop and livestock farming can reduce loss as a result of lowering prices of agricultural products. Farmers earn in many different periods of time within one year and can save daily cost of living i.e. farmers are not necessary to buy food from other sources and food they get everyday is fresh and safe.

4. Intensive farming refers to the kind of agriculture which is in need of high productivity both from crop farming and livestock farming. Planning and close attention are vital so as to solve emergency problems immediately. For instance, poultry farming (particularly laying hen), dairy cow farming, vegetable/flower garden and mushroom farming.

5. Extensive farming refers to the kind of agriculture on a large of land. Crops or animals kept on the farm are not taken care closely but make some yields. Therefore, details in the management of extensive farming are simple. For example, meat cow farming, paddy field, garden plants. Some agricultural machinery is used for save on labour. Animals kept on the farm (Cattle Ranch) without plants purposely grown to be their food.

6. Part-time farming and hobby farming refer to the kind of agriculture regarded as a secondary / part-time job in addition to a primary / full-time job. However, income from this kind of agriculture is probably higher than that from a primary / full-time job.

Factors for Agricultural Operation

Pongsakul (1984: 89) noted that there were four factors for the achievement of agricultural operation i.e.

1. Land refers to a sort of land which is convenient for farming with necessary resources; such as, water, appropriately fertile soil, good transportation and good environment.
2. Capital refers to money, credit, tools, instruments, farmhouse, vehicles and cash flow for several expenditures.
3. Labour
4. Skills in agricultural operation refers to that operators have to be able to make the fair combination of three main factors i.e. land, labour and capital in order to have good products, efficient production and profits. That means good management too.

Singha-Kalavanich (1991: 421) stated that factors for agricultural production include land, water, labour, capital and technology. More particularly, there is right application of modern technology for good production. For example, new species of animals and plants which make high production, use of fertilizers and pesticide which are new and good in quality, and new process of production which will enhance production.

1.2 Development of Thai Agriculture

Thailand is the agricultural country. The majority of the population has made a living mainly by agricultural occupation since the ancient time. Agricultural is regarded as the country's main source of jobs and revenue. Through the course of time from the past to the present, the country's agriculture has undergone changes and carried on with development as follows:

Prior to National Economic and Social Development Plan

During the period of time prior to the significant change in authority in 1932, the development of agriculture had taken place under feudalism. Most farmers had not owned right on land but had to pay rent to landlords. Certain significant changes had existed during the reign of King Rama V of Rattanakosin, several modern approaches had been brought to develop the country's agriculture, more particularly in part of paddy fields; for instance, seed rice contest, activity/program to encourage farmers to put chemical fertilizers and to use modern agricultural tools/instruments and innovation of western-styled waterworks scheme.

During the period of time after the significant change in authority in 1932, the relative system of production had changed from feudalism to capitalism. The development of agriculture had focused on improvement on rental systems. Basic factors had been developed in terms of production and waterworks. Another emphasis was to give farmers opportunity to carry on with agriculture and to operate more agriculture-related businesses. The system of agricultural production underlined more commercial purposes when Thailand started international trade and after the end of

the II World War. The development of Thai agriculture was influenced by and in response to the global demand of agriculture products which is rapidly outrunning in quantity and types of products. Thailand's agriculture products has started inclusion of other types of agricultural products in addition to rice.

Development in The Period of National Economic and Social Development Plan

In the period of the 1st to 4th National Economic and Social Development Plan (1961-1981), the development of agriculture had been placing emphasis on expansion of agricultural products. In order to accelerate expansion rate, there were focuses on basic agricultural structure, waterworks, land, road, research and promotion to expose farmers to more agricultural opportunity.

Includingly, marketing standard and the upgrade of agricultural product prices were focused in order to encourage farmers for an increase in agricultural production.

The development of agriculture during the fifth and sixth National Economic and Social Development Plan (1982-1991) emphasized the restructuring of agricultural production for expansion of agricultural production by increasing more productive capacity rather than maximizing agricultural land. Agricultural production in response to the needs of markets was underlined in terms of quantity and quality, including putting production on adequate levels and quality development in accordance with market requirements.

The development of agriculture in the period of the seventh National Economic and Social Development Plan (1992-1996) aimed to increase income levels for farmers, to maximize productivity, to transform agriculture products and improvement of production system with a focus on fishery, livestock farming, forestry including standing timber and highly efficient use of agriculture-related natural resources. Conservation was in parallel with development programs, preventive measures and reduction in pollution and environment concerns. The private sector was supported to do certain researches, development programs and technology transfers for farmers. According to the government sector, many activities were conducted to accelerate the quality development of farmers for higher capacity in the agriculture sector and for more opportunity of labour movement from the agriculture sector to the rapidly expanding non-agriculture sector.

In the period of the eighth National Economic and Social Development Plan, the development of agriculture focused on a raise for farmers, the agriculture sector's economic stability and permanent agriculture i.e. organic agriculture, natural agriculture, mixed agriculture and botanic agriculture. Farmers were developed in potential in order to be able to make production plans and development plans for permanent agriculture, to support the growth of the country's entire economy and to relieve impacts on the agriculture sector as a result of restrictions of natural resources and environments due to certain international agreements; such as, World Trade Organization (WTO), Asean Free Trade Area (AFTA) and North America Free Trade Area (NAFTA).

Table 5 Target of growth rate of the agriculture sector during the eighth national economic and social development plan

Production Branch	Operating Results during 7th National Economic and Social (1992 – 1996)	Target of 8th Plan (1997 –2001)
Agriculture	2.51	2.90
Plants	2.34	2.70
Rice	1.94	1.42
Para rubber	5.12	2.44
Tapioca	-2.15	4.38
Sugarcane	10.49	3.45
Corn	6.44	4.35
Soya bean	-7.01	2.20
Animal farming	2.11	2.80
Fishery	1.37	4.00
Forestry	-12.28	7.70
Services and manufacturing process	4.03	2.70

Source : The Office of Agricultural Economics 1992,1997

Vision of Thai Agriculture

Long-term vision has been set as follows:

1. Thailand will produce various types of good quality products and be the world's leading importer of agricultural products.
2. Thailand will undertake permanent agriculture development schemes and take natural resources concerns.
3. Thailand will take more advantage of agricultural technology to compensate for labour spending
4. Thailand will set up a strong farmers' organizations of farmers.
5. Thai farmers will have better income sources and quality of life. Retail farmers will involve in the ownership of production factors.

Development Strategy

1. Capability for competition
2. Conservation of natural resources and permanent development
3. Development of human resources and agricultural organization

Target group of agricultural development is divided into five groups:

1. Retail group of farmers and hired labour in the agriculture sector there is the support for the basic factors of land reform, including water resources, researches, technology development programs, grouping, learning, information and news regarding production, conversion and marketing. The support is aimed to guarantee them the security of jobs in the permanent agricultural area, the sufficiency of food at the level of farmers' family.

2. Medium group of farmers and farmers' organizations they will be developed for the strength of agricultural occupation. Productive capacity will be increased. Comprehensive marketing management in business type is promoted together with after-harvest technology for development of product quality, including conversion, permanent agricultural system. The establishment of powerful organizations of farmers is to support agricultural occupation in terms of business.

3. Group of agricultural industry and agricultural business underlines business convenience and services which are necessary for agricultural operations so as to reduce obstacles of agricultural operations and to stimulate tax payment.

4. Group of women, juveniles and the aged in the agriculture sector is supported in several types of activities for the development of their quality of life. For instance, vocational training courses, intellectual movements from old people to juveniles who are working in the agriculture sector in order to be an efficient unit of production.

5. Group of government officials related to agriculture the group is provided with training courses, in-the country and international trips, stimulation / research awards, local intellect, more particularly, in regard with permanent agriculture. Government officials will gain skills and capability for the development of agriculture in co-operation with farmers and be able to improve efficiency in accordance with the world's changes.

As mentioned above, the development of Thai agriculture has been influenced by the demands of global markets, therefore the production is to fulfill the demands.

The development of agriculture field in response to situations does not only maintain the growth rate of the country's economy but it also supports the achievement of development programs in rural areas i.e. the upgrade of incomes, relief of poverty.

2. Education and Occupation

Education management at every level in the country focuses on the competence and performance of graduates when they work. Graduates can choose Occupation according to their skills, interest, requirements and qualifications. Sivaluk (1982: 17-18) and Laosunthorn (1969: 101-102) noted that education should be for human beings:

1. Low level of knowledge for living in a society and being able to gain additional knowledge

2. Getting a job for living
3. Being interested in education, being able to learn and understand by themselves.
4. Doing comments and being ready to make benefits to a society
5. Having touched cultures and disciplines as an important result of mankind.

The philosophy of education, Sinlarattana (1982: 82) mentioned the main concept that education has to develop children in every aspect i.e. physical, emotional, social, occupation, intellect, interest and skills. Special characteristics of learners should be in focus and promoted as much as possible. It can be seen that what has concerned education since the past is occupation. Sinkhakalavanicha (1971: 92) said "education is an important basic for general people and every occupation. And, education will cause achievements to people and a type of instruments for people to have an occupation" therefore, education is a direct effect on the productivity of the country, and whether the country can develop or not requires manpower development first. The final target of every type of education is a series of development programs to make sure people have capability in any occupation because occupation are regarded as a significant target of living. People who are well developed by any appropriate education system are the manpower of quality (Chitranan, B. et al., 1978: 47). Particularly, manpower is the middle (medium) level or vocational training level of agriculture is one of many important factors in the development of the country because our country is the country of agriculture. (Srichakavan, S. 1983: 1).

2.1 Agricultural Education

The Definition of Agricultural Education

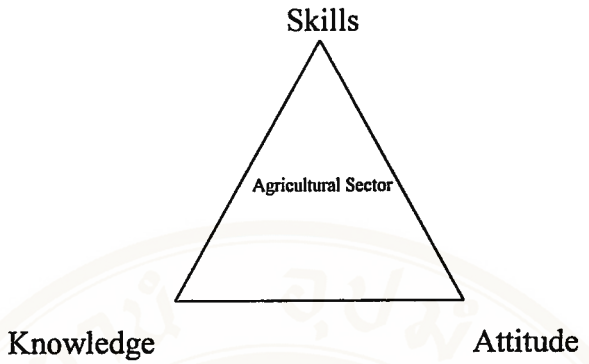
Itiranrattsami (1984: 6) defined that a number of development programs to make people gain knowledge, skills and experiences in regard to agriculture, production, conversion and distribution. Also, people can provide their knowledge, skills and experiences to other people who are interested both in form of school system and non-school system.

Thanapanyaratchavong (1986: 36-37) defined that agricultural education is the process of promoting individual capability in term of knowledge, skills, attitude and several behaviors related to agricultural production i.e. production, conversion, distribution and artistic practice and influence the economic and social development.

In conclusion, agricultural education means the process of education related to teaching and preparing people for several duties or to have understanding of agriculturee science. It can be said that agricultural education aims to train people to have three qualifications as follows:

1. Technical knowledge
2. Technical skills
3. Agricultural attitude

Vocational training courses in agriculture focuses skills in the way as the picture below:



Source : Kerdsomboon, 1995: 133

The importance of vocational training of agricultural education towards the development of the country (Kerdsomboon, S. 1995: 132-133) is summarized as follows:

1. In term of the production of food for the country's population and the world's population
2. In term of the country's economic and social situation for quality

Philosophy of Education

Students of agricultural branch has set an idea, belief related to the philosophy of agricultural education. (Pettongkam, M. 1984: 9) which is very popular both in the country and in foreign countries.

1. Management of agricultural education in the principle "learning by practice" in order to support the needs of local areas.
2. Schools are a community's source of agricultural knowledge.
3. People take part in the management of agricultural education.
4. Agricultural education refers to a type of continuing education for that learners gain knowledge continuously.
5. Agricultural knowledge and code of conduct must be always modern.

Objectives of Agricultural Education

In the early period of the management of agricultural education in 1917 or over 80 years ago, objectives were placed as below:

1. To produce personnel to be employed in government offices i.e. teachers, lecturers, scholars and administrators in the field of agricultural development.
2. To provide training courses to farmers' children or grandchildren in order to encourage them to be farmers of the middle class or the upper class later.

In fact, the production in 1 has produced personnel for employment in government offices rather than for going to business on their own. If the management

of agricultural education at any level still offers graduates opportunity to have right to be employed as government official, that means the investment in terms of agricultural education does not directly receive interest from the economy sector. Probably, there will be the problem of unemployment in the future because no one would like to have private business. Therefore, the first objective above has already been achieved, but the second one has not yet. Further, due to the inadequate development of the situation of agricultural production, a number of products and incomes of farmers tend to decrease. That is not good for the living of agricultural families which consist of the majority of the country's population. Educational policies then have been adjusted. The objective is to produce personnel with knowledge enough for four significant occupation, i.e. (Petthongkam, M. 1984: 10-11)

1. Independent agriculture
2. Teachers, lectures and agricultural educators / scholars
3. Researchers for additional new knowledge or more agricultural tools to accelerate the efficiency of production.
4. Personnel to provide knowledge services or to promote or to publicize more agricultural knowledge to farmers to support the needs of both the government sector and the private sector.

Type of Management of Agricultural Education of Thailand

The management of agricultural education is divided into two types i.e.

1. Formal education in agriculture
2. Non-formal education in agriculture

By details of the research in the topic "occupation decision", formal education in agriculture is discussed only

Formal Education in Agriculture

Thailand has seriously started the concern about agricultural education since 1916, the government has issued the Act of primary school by which Thai children are obligated to enter schools so that Thailand as the agricultural country all learners both girls and boys have chance to learn agricultural subjects at schools and at home. They are trained to use hands while they learn. It is afraid that children may leave and their parents' job. Agricultural education is attached to a number of compulsory educational programs so as to keep attitude of agricultural in the mind of young people at the beginning of their education. Formal education in agriculture can enhance the country's agricultural development

1. When formal education in agriculturee can establish good attitude towards agriculture i.e. once agriculture is mentioned, everybody understand the value and importance of agriculture and praise those who works in the field of occupation.
2. When formal education in agriculture can produce a new generation who possesses knowledge, capability and skills in agriculture. Those aim to hold any of agricultural occupation as the primary occupation, that will become the quick development of agriculture in the country. Because these people are on the adequately good basic of knowledge and capability in agriculture. Appropriate production always

brings in production in high quantity and quality when compared with production by those who do not have the basic mentioned above. When there are knowledge and progress in new technology, they can understand and adopt them in order to improve the efficiency of agriculture of their way.

3. When formal education in agriculture can produce agricultural educators, researchers and promoters who will be the educational leader carrying on the promotion and research of agricultural works. Such work will be very useful for farmers in terms of increase in production and quality of agricultural products.

4. When formal education in agriculture can produce personnel who can initiate new ideas, be creative, have intellect, be smart in solving any problem, be good, honest and responsible.

Formal Education in Agriculture: consists of four levels i.e.

1. Primary education refers to the system of compulsory education that is the 1st - 6th primary education. Office of the National Primary Education Commission, Ministry of Education, both provincial and Bangkok, is responsible for primary education. The subject of agricultural which is prepared for primary education are in the subject of general works and that of basic occupation, which makes general experiences and provides students basic knowledge in agriculture.

2. Secondary education refers to the 1st - 6th secondary education. Those which take responsibility for secondary education include

- Department of General Education is responsible for preparation of agricultural subjects for secondary schools and secondary schools under the project of educational development. The agricultural subjects are attached to the subject of general works and occupation with aim to stimulate learners to have good attitude towards agricultural occupation, to do agricultural works, just basic or at least able to do so, and to understand the value of natural resources.
- Department of Vocational Education is responsible for diploma courses of vocational education in agriculture. Department of Vocational Education focuses the management of agricultural education on how to work in agricultural field. Learners have to be able to work in agricultural field, to have new ideas, to take responsibility in / for agricultural occupation and to be able to go for further study.

3. Technical education is under Department of Vocational Education

4. College or University is under Ministry of University Affairs.

In conclusion, there are different purposes in term of quality for personnel in agriculture at each level. The general education underlines attitude, the vocational education focuses on skills and the university education emphasizes at technical knowledge. (Siriwan, N. 1989: 27)

2.2 The Agricultural Education Development

In the early period of the National Education Scheme 1936, Department of Vocational Education set up the school of agriculture in 1939 and arrange syllabuses in the vocational course in agriculture i.e. beginning, intermediate and advance.

Learning method is on the basis of real experience. Main responsibility of students is farm works at the schools' farm. There are also students' training fields. According to the syllabuses, agricultural practice is an emphasis on the basis of 22 hours a week or the total of 44 hours. The students stay in the schools' hostel and are on duty in syllabuses to prepare food. During a little free time, the students have to work on their own training field under close and strict supervision of teachers or lecturers. This method of teaching/learning emphasizes at practice which is based on theories in order to train learners to have knowledge and skills in agricultural occupation. The students will be ready to act as an agricultural consultant or a farmer in an area. Later, the vocational course in agriculture for senior high schools was announced in accordance with the National Education Scheme 1960, which consists of a number of syllabuses with a main focus on theories. The method of learning and teaching is based on theories which are supported by practice. In the syllabus, there are compulsory subjects which are theoretical subjects of general agriculture and 3 subjects of agricultural relations per week. In addition, a supporting activity is there i.e. agricultural projects under supervision. (Siriwan, N. 1989: 72)

In 1967, the development of the vocational diploma course in agriculture is the system of credits. Department of Vocational Education had borrowed some loans from the World Bank with purposes of establishing building and places, supplying certain agricultural tools to the improvement of teaching and of farming process, developing tools and instruments for waterworks developing farming plannings by schools which produce manpower for the area of teaching project arrangement and teaching planning. Additionally, there is the support for agricultural tools and instruments with a focus on making school farms a source of skills and experience in agricultural farming. There is the arrangement of teaching projects, teaching planning, educational materials preparation e.g. job sheet, information sheet and assignment sheet which are taken in the process of learning and teaching seriously. As a result of many attempts and activities, agricultural education at senior high schools in the country has been developed considerably. Therefore, it is common that graduates of agricultural schools do not willingly desire to work in the agricultural field due to some difficulties i.e. putting knowledge gained into practice and low income. Later, the restructuring of the educational system according to the National Educational Scheme is 1967, Office of the National Education Commission, Office of the Prime Minister, stated that the primary education would be reduced from seven years to six years which was a kind of compulsory education, three years on the junior high school and three years on the senior high school or so called the 6:3:3 system.

The restructuring was aimed to meet certain economic and social changes in the country and the requirements of labour markets and the situation of local areas. Consequently, in 1980 there was a high number of students who graduated in the level of junior high schools. Department of Vocational Education announced the establishment of 10 schools of agricultural science in 1977 and 10 colleges of agricultural science in 1979. Further, the department set the examination to recruit more teachers the government's educational institutes in agriculture and supported them for further study and self-development. There are attempts to work out newly

adjusted strategies to reach the comprehensive management of agricultural education in order to persuade students to enter the scope of independent occupation in the agricultural field after their graduation. The diploma course of vocational education 1981 was announced with the aim of having good attitude towards agricultural works built in students, encouraging students to generate new ideas, to be creative, to be able to build the habit of agricultural concerns, to be responsible for assignments, to have knowledge of management or operations, to have rules or disciplines and to be patient while working in the agricultural field of occupation. Until 1987, Office of the National Education Commission made certain studies and found that vocational diploma courses 1981 had not been able to fully set learners in experiences to gain knowledge, ability, compability and expertise in accordance with the needs of labour markets/employment markets. As a result of that, Department of Vocational Education, Ministry of Education, announced the vocational diploma course of year 1987, in agriculture to provide educational programs which are very necessary for working practice until skills are gained. That also causes the full circle of vocational education which can establish skills, morality and intellect under the support of knowledge sources which are opened wide to students. They are given chance to be accustomed to real practice and to do exercise for more knowledge related to working in the agricultural field in terms of the management of operating places or as independent operator because the learning of agricultural production can be done according to several subjects at educational institutes. However, access to occupation in terms of being employed or operating own business needs to learn from the world outside schools.

Latest, Department of Vocational Education announced the 1995 vocational diploma course after the junior high school. In part of agricultural and technological branch, there is the integration of working into, living, into agricultural practice and into general basic of education on the basis of real practice together with the development of responsibility, disciplines and shared living in a community in order to produce personnel with full knowledge, expertise, experiences, morality and attitudes appropriate for taking any occupation in the agriculture sector and in the non-agriculture sector. (Ministry of Education, 1998: copies) Specific purposes include

1. To have knowledge and skills in the agricultural and technological field of occupation and to supply them confidently.
2. To have the capability of production, consumption, distribution, services and standard management.
3. To have good attitude towards agricultural occupation, to be creative and to be able to integrate appropriate technology into operating process.
4. To be responsible for environments on which the operating process of agriculture may give impacts.
5. To be personnel with morality, responsibility and good health.

Presently, there are 48 educational institutes which are responsible for the management of vocational courses in agriculture and under control of Department of

Vocational Education, Ministry of Education. They are 45 places of College of Agricultural and Technology, 2 places of Fishery College and 1 place of Agricultural Engineering Training Center (Ministry of Education, 1999: 32)

However, the management of agricultural education in the past; particularly the production of personnel at the medium level has been facing many problems i.e. according to the employment condition of graduates in agricultural science of the nationwide system in 1987-1989, it was found that 15.3% of graduates in agriculture science were in the state of unemployment, 27.4% in the state of employment and 57.3% in pursuit of further study. There was only 12.5% of the number of students who were employed in accordance with their qualifications. (Department of Vocational Education, 1990: 37-72). That showed according to the objective of the policy of agricultural education, Department of Vocational Education failed in the production of manpower in the field of agriculture or the department cannot produce manpower in the field of agriculture for the employment market of the agriculture sector as efficiently as deserved. Meanwhile, the fact that general students desire to go on for further study or to take up higher/advance vocational schemes has received little interest from learners and their parents. It was found that only the total of 7,603 students who graduated from junior higher schools for the academic year of 1993 took the vocational diploma course in agriculture at 47 agricultural colleges. That number was below the target of 9,872 people (Department of Vocational Education, 1993: 1-15). At the same time, in the second education zone, (Yala, Satul and Narathivath) there was the total of 7,347 students who graduated from junior high school. It also was found that the only number of 77 students who work in the field of agriculture, and most of the students went on further study. (Department of General Education, 1992: 20). The finding was consistent with the study by Petindra (1994: an abstract) which studied certain components taking part in the decision of students not to choose advance/higher vocational courses of agriculture science at 9 educational institutes in Satul. In the academic year of 1993, it was found that juveniles considered that agricultural occupation consume considerable energy, are hard-working, require a vast piece of land and outdoor activities and are incompatible with students' habits.

The production of manpower for agricultural careers by Department of Vocational Education is incompatible with the objective, which is the analytic result of two courses i.e.

1. Lack of confidence in knowledge gained and agricultural skills The research of National Education Committee (1985: 3-5) reported that any of vocational course of agriculture science has continued to embrace the approach of demonstration in the experimental aspect of learning and teaching methods and the approach of skill training. That may be a reason why learners are not confident of their capability for agricultural occupation. In addition, Department of Vocational Education (1985: 65) done the appraisal of vocational diploma course in agriculture, showing that the

majority of students engaged in the vocational diploma course possessed the intermediate level of knowledge and experiences in agricultural science.

2. Influence of attitude towards agricultural occupation it can be said that learners lack faith in agricultural occupation and do not have the idea to work in the agricultural field. They regard agricultural occupation as high risk and being unacceptable in the society.

Importance of Transmitting Methods of Knowledge and Skills of Agricultural Science in Educational System

Practice and fieldwork are the important methods of transmitting knowledge in the educational system. Through these two methods, students in agricultural colleges gain agricultural experiences and can made a decision on future occupation. In opinions of students and teachers/lecturers, outdoor practice or fieldwork is very suitable. Agriculture practice or fieldwork should be in circulation throughout the year in topics of plants, animals and agricultural workmen. Teachers/lecturers need to clarify objectives before every time's practice or fieldwork. Orientation programs are necessary including seminars/practice which are very useful for the process of learning. Necessary skills include appropriately supplying fertilizers to soil and plants, skills of soil fertilization, skills of soil preparation, skills of chemical substances supply, skills of hormone use in reproduction of plant species, skills of chemical substance use to protect against or to kill plants pests, skills of agricultural tools or instrument use to protect against or to kill plant pests, skill of fruit tress, skills of decoration and skills of reproduction of plant species. The appraisal of agricultural practice of fieldwork is based on the results of practice or fieldwork. (Limvananon, K. 1988: 145-146)

2.3 Project of Agricultural Reform in Education for A Better Life

Policy and Concept

To expand the opportunity of education for children and grandchildren of farmers or local people in rural areas who earn lower than 50,000 baht a year i.e. the government provides 12 years education without any expenses in order that "education" which is the process of individual development in the agriculture sector and rural areas to the full level of potentiality and better quality of life.

That is important force behind the successful development of the country.

Objective of The Project

To provide children and grandchildren of farmers and local people in rural areas who do not have opportunity for further study with the 12 years school system to develop them to the country's individual quality, agricultural producer of good quality.

To provide the 12-years school system to children and grand children of farmers and local people in rural areas who do not have opportunity for further study, to develop them to the country's personnel of quality, agricultural producer of quality

to support the economic development in terms of agriculture and the agricultural industry in the future and to increase individual potentiality in rural areas i.e. to provide them higher education so as to get themselves ready to change. To regard "education" as key strategy to solve problems as a result of farmers and local people's poverty. To encourage them to search for additional knowledge through the course of their lives and to get well adjusted to changes in technology and information. To enable them to get any job both in the agriculture sector and the non-agriculture sector.

Principle

The project of agricultural reform in education for a better life is a type of vocational education which is set for children and grandchildren of farmers and local people in rural areas who earn lower than 50,000 baht a year. The project is for those who graduate from the junior high school level of educational opportunity extension school under Office of the National Primary Education Commission, and from general schools, providing them the vocational diploma course in agriculture at 45 College of Agriculture and Technology, Department of Vocational Education, attached by vocational courses of the non-agriculture sector according to personal interest in order to enhance students' competence. Students are trained to have knowledge and to be expertise in several occupation which will be very useful for them after their graduation.

The government offers free education to every student and others.

Free tuition: to relieve expenses as a result of education

1. To be free from tuition fees and registration fees for all vocational diploma course in agriculture and in other subjects concerned.
2. To be free from expenses in other special training such as driving a car, a tractor or computer courses, etc.

Permanent stay : to relieve accommodation expenses

1. To provide boarding house for students throughout all the academic terms at agricultural and technology colleges. There are eight students per boarding house. The twenty-five boarding houses are formed as the youth village which can contain the total of 200 students. All students regularly stay in the youth village.
2. To build a building for general purposes in the village. The building provides a space for the knowledge center for self-study with assistance of long-distance media and audio-video media. Further, learning and teaching materials are provided and developed for education. There is also a canteen and a space for music performance and rehearsal.
3. To provide public utilities in the youth village "Agriculture for a better life" to support the residence of students, their activities for self-development throughout all academic terms at the project.

Students' project: to bear food expenses throughout all academic terms, therefore, every student is required to do a project i.e.

1. Every student of the project has to carry out an agricultural project which is a kind of practice - with - education to get agricultural produce. The students can use those agricultural produce for food, during studying, occupation development, earning while studying and for direct experiences of agriculture. The government has given materials to be supplied to each agricultural project i.e. each student receives 5,000 baht a year, and teachers/lecturers are available for close advice and guidance.

2. Educational institutes improve and provide agricultural occupation and water sources in a sufficient number for agricultural projects for sustaining life and some for earning during studying for every student of the project/program.

3. Students under the project of agricultural reform in education take joint responsibility for preparing food by agricultural products of agricultural projects as a result of practice by study of every student.

In addition, agricultural and technology colleges have focused the importance on s allocating teachers/lecturers to closely supervise students. A group of teachers / lecturers includes

House master takes responsibility for how students are staying and advice on academic affairs, social affairs and life styles.

Teacher/lecturers and agricultural projects' consultants cooperate with students to make production plans and practice-with education plans in order to achieve the highest success of vocational education and to get good-quality products which are sufficient for sustaining life and earning while students are studying.

Teachers/lecturers in terms of food and nutrition supervise food preparation by students. That is practice - with education i.e. prepare food by agricultural produce obtained .

Objectives

1. To offer opportunity to children and grandchildren of farmers or those who lack opportunity in rural areas to do vocational courses in agriculture at College of Agriculture and Technology, Department of Vocational Education. According to 1995 diploma course, graduates receive the certificate of agricultural science and technology.

2. To provide manpower of the middle level of the agricultural field to have knowledge, skills and good attitude towards production, conversion and operation related to agriculture and in line with agricultural development guidelines as announced.

3. To develop an hold up the education level of agricultural operators so that the population of the agriculture sector can make use of knowledge to the improvement of agricultural occupation for security and more incomes.

4. To develop the potentiality of College of Agriculture and Technology in the management of vocational education in agriculture in order to support a number of students and their agricultural projects for sustaining life, earning while they are studying. That also trains them to be the significant capacity of agricultural production for themselves, community, local areas and the country.

Table 6 Target of students for study under project of agricultural reform in education for a better life 1996-2001

Item	1996	1997	1998	1999	2000	2001
First year students of vocational diploma course	54,000	100,000	100,000	100,000	100,000	100,000
Second year students of vocational diploma course	-	13,000	13,000	100,000	100,000	100,000
Third year students of vocational diploma course	-		13,000	100,000	100,000	100,000
Total	**54,000**	**113,000**	**213,000**	**300,000**	**300,000**	**300,000**

Remark: In 1996, the target number of students nationwide was the total of 59,000 students. However, there were 13,000 applicants.
Source: Ministry of Education, 1997: 6

Table 7 The number of students of vocational diploma course in agriculture (1st year to 3rd year) under project of agricultural reform in education for a better life (1996-1999)

Item	1996	1997	1998	1999
First year students of vocational diploma course	13,000	21,359	12,691	16,449
Second year students of vocational diploma course	-	10,298	11,110	8,264
Third year students of vocational diploma course	-	-	5,226	10,054
Total		**31,657**	**29,027**	**34,767**

Source: Ministry of Education, 1999: 8
Remark: Regional agriculture and technology colleges, 11 in the north, 11 in the north eastern, 12 in the central and in the east.

Table 8 The number of students of vocational diploma course in agriculture (1st year to 3rd year) under project of agricultural reform in education for a better life (1999) was divided according to regions.

Item	North	North eastern	South	Central/East	Total
First year students of vocational diploma course	3,562	7,184	2,824	2,879	16,449
Second year students of vocational diploma course	2,475	3,265	1,119	1,405	8,264
Third year students of vocational diploma course	2,819	3,943	1,660	1,632	10,054
Total	**8,856**	**14,392**	**5,603**	**5,916**	**34,767**

Source: Ministry of Education, 1999: 8

Target

To give admission to farmers' children and those who complete the third year of junior high schools and are fond of agricultural occupation, diligent and patient for entry to 45 College of Agriculture and Technology. In 1996, it was the first year which a target of admission was set at the total of 54,000 people and in the following years, the target of admission increased to 100,000 people a year.

Syllabus of Project of Agricultural Reform in Education for A Better Life

The project of agricultural reform in education for a better life uses the syllabus of the 1995 vocational diploma course in agriculture (revision: 1998), agriculture and technology branch.

1. General principles and purposes : the syllabus of the 1995 vocational diploma course in agriculture (revision: 1998), agriculture and technology branch. That is the course of integration works, living, agricultural training, basic education, focusing on real practice together with responsibility development, discipline and living in a society in order to produce manpower with knowledge, skills and experiences, moral and attitude appropriate for occupation both in the agricultural sector and the non-agricultural sector.
2. Objectives of agriculture and technology branch
   2.1 To provide knowledge and skills in agriculture and technology
   2.2 To enable production, consumption, distribution, services and efficient management with standard quality
   2.3 To build up good attitudes towards agriculture, to be creative, to bring in appropriate technology
   2.4 To be responsible for environment
   2.5 To be a good person with morale and disciplines and responsibility
3. Learning and teaching management

The management of learning and teaching is for boarding school students. The college offers teaching plans and practice programs, including other supplementary activities and activities for living in the village and in the farm in the college, or a small community in which there are roles resembling those in the real society. These are all experiences gained from practice. Further, there are skill training in a real situation throughout all academic terms of the 3 years course at the agriculture and technology college. Teachers/lecturers always give advice on studying, activities and assignments e.g. making a note and daily work. There are analyses and improvements for increasing skills and experiences in management and practice project of writing for financial assistance for agricultural projects which includes steps of consideration similar to those in a business system and also for loans from capital sources. Practice in a practice room or operating places is focuses for students to gain experiences for living in the society. The production of new generation farmers depends on the system of news and information to make

decision in the area of production and farming management. Computer programs are introduced to make agricultural products ready for competition in the global market. Additionally, a limited number of natural resources can be applied to the production and negotiations in markets can also be done.

The students can gain experiences from learning and practice in a real situation throughout a period of time in which the students are studying in College of Agriculture and Technology in a 3-years course. There are teachers and lecturers providing close advice and guidance in terms of learning, activities and assignments; such as, taking a note, daily works, analysis and development for increasing skills and experiences in management. How to write a project in order to ask for loans for agricultural projects. Practice is emphasized in a labouratory or an operating place. To build experience for living in a society. Democracy is in built in the students, a new generation of farmers is generated, decision makings are done on information system, farm management, based on computer system, produce is produced for competition in the global market. In addition, the students are trained to know how to apply a limited number of natural resources to generate produce and to make appropriate negotiations with others.

More particularly, in vocational courses there is the management of integrated and continued education focusing on practice to a theory. The students or educational institutes can choose any one from a group of vocational courses according to their readiness and interest.

They also choose to do their own project of production and manufacturing process in accordance to their education to increase skills, experiences and good attitude towards agricultural occupation. The students can use their agricultural produce for their living and for sale. The students can choose to take work practice or to conduct a business project.

Structure of Education Courses is divided into three categories and activities

1. Basic subjects, totaling 32 credits, consisting of

1.1 Group of language subjects i.e. Thai and English (14 credits)

1.2 Group of social science i.e. the development of Thai society, the development of Thai economy, political science, nation development (6 credits)

1.3 Group of sciences and mathematics i.e. basic sciences, agricultural sciences, basic mathematics and agricultural mathematics (8 credits)

1.4 Group of physical exercise i.e. health and consumption, health for living, sports and athletics (4 credits)

2. Vocational courses, not less than 64 credits

2.1 Basic subjects (totaling 12 credits)

2.1.1 Group of computer science i.e. basic computer, processing, computer words, excel, calculation, database (6 credits)

2.1.2 Group of vehicles i.e. how to drive a car, tractor (6 credits)

2.2 Specific vocational subjects, consisting three groups of subjects, totaling 14 subjects, the students can choose11 subject according to readiness and location (totaling 33 credits) consist of

2.2.1 Group of plant science i.e. skills of vegetables, crops, fruit tree, standing timbre, flower tree, decoration tree and mushroom

2.2.2 Group of animal science i.e. skills of pigs, brief cattle, diary cow, poultry, fish and others.

2.2.3 Group of agricultural industry i.e. skills of agricultural produce, plants, meat, fishery and diary product.

2.3 Options, not less than 5 subjects (not lower than 15 credits) consisting of

2.3.1 Group of production and manufacturing of plants i.e. projects of vegetable farming, flowers, decorating flowers, mushroom farming, crops farming, fruit tree, rice farming, production and manufacturing process of other plants

2.3.2 Group of production and manufacturing of animals i.e. projects of egg hen, cock, pigs, fish, fish breeding, beef cattle, diary cow, shellfish farming, duck, goose, egg duck, other projects.

2.3.3 Group of production and manufacturing related to agricultural industries i.e. projects of plants, animals, fishery, diary products and others.

2.3.4 Job training, projects, vocational project, business project (totaling 4 credits)

3. Free options consist of agricultural and non-agricultural subjects (not less than 20 credits i.e. industrial mechanics, commercial, fine arts, house works or those in other senior high schools

4. Activities consist of

4.1 Activities as defined by Ministry of Education i.e. scouts

4.2 Activities for academic experiences i.e. food preparation, library use and foreign languages

4.3 Activities for developing the quality of life and for experiences i.e. sports, religion, drug, nature save

Evaluation

Evaluation is made due to present environments, reducing the significance of teaching so as to attain behavior development in terms of knowledge, skills and attitude. A file collecting works is taken as a part of the evaluation.

Graduation

1. Pass examinations of each subject indicated for a course
2. Obtain a number of credits as required by the structure of education courses
3. GAP not lower than 2.00
4. Attend activities and pass all evaluation in every subject
5. Must pass an examination for vocational course standards.

Budget

1. Fiscal year of 1996	amounting to	166,818,500 baht
2. Fiscal year of 1997	amounting to	1,228,140,000 baht
3. Fiscal year of 1998	amounting to	540,730,000 baht
4. Fiscal year of 1999	amounting to	332,767,200 baht
Total		2,268,455,700 baht

Qualifications of The Students After graduation "Agriculture for A Better Life"

1. Attain a level of knowledge and capability of the vocational diploma course in agricultural and technology. There the students can choose any other job in addition to the job t she/he is responsible and they can receive two copies of certificates operating
2. Special knowlede i.e able to drive, to use English in communication, able to operate computer, able to drive a tractor, know how to do business.
3. Have extra knowledge in short-term vocational courses provided by educational places e.g. courses by Labour Development Institute
4. Have qualifications as required by the policy of the education reformation i.e.

- Physical and mental healthy
- Capability of thinking and developing work
- Capability of knowledge gaining
- Have academic knowledge according to vocational diploma courses, por vor chor 1, or 2 branches
- Be responsible, honest, well-disciplined, sacrificial, patient and able to work with other people in teamwork
- Be democratic
- Good leadership

Guidelines of occupation for graduates from project of agricultural reform for a better life

1. In the agriculture sector, graduates can be a significant force behind the high-priced agricultural production for consumers with high power of purchase, including the production in line with the standard of exportation and that of industrial factories.

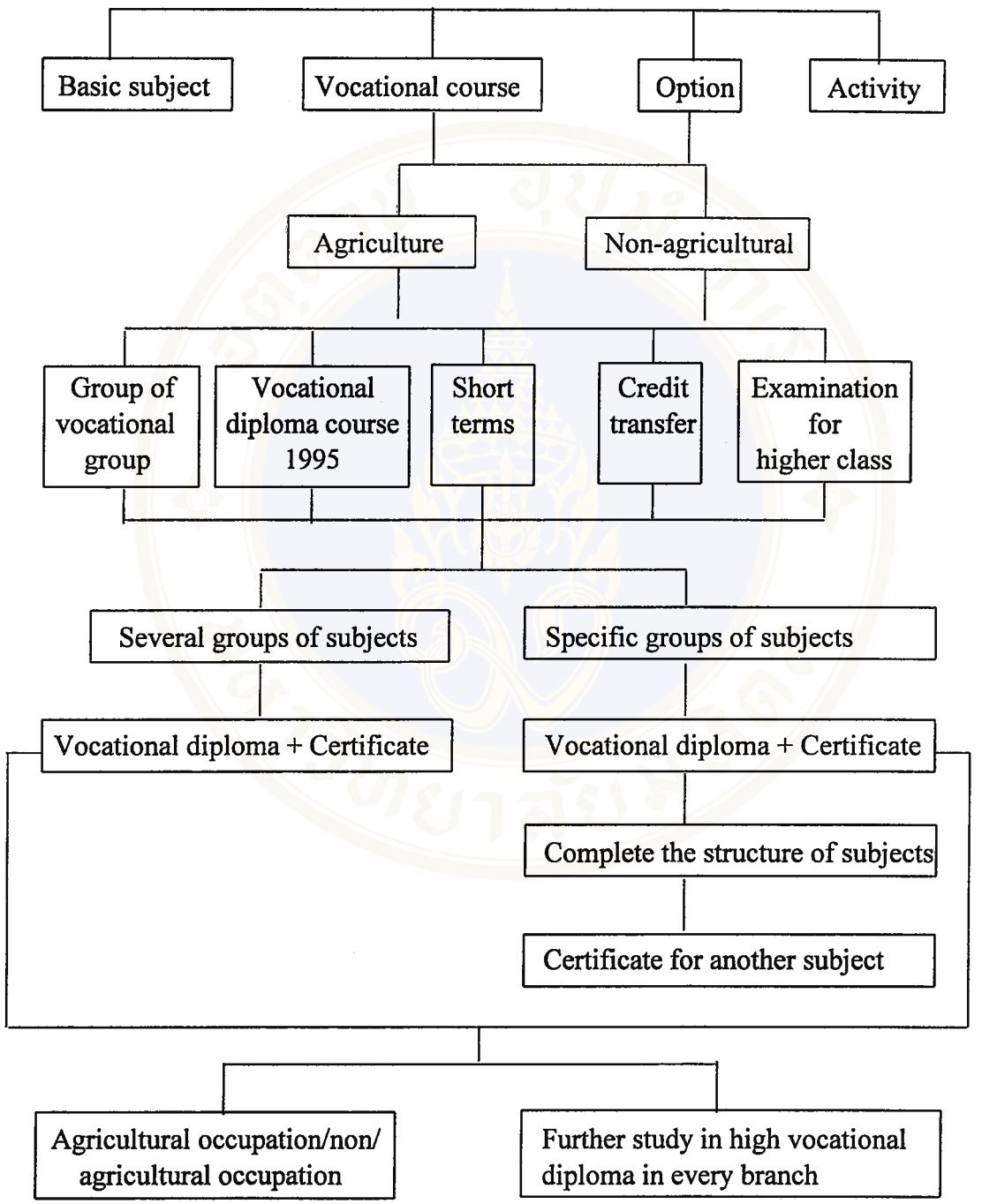


Figure 4 Pattern of educational management, year 1995 vocational diploma course in agriculture, agriculture and technology

2. In the business part of the agricultural sector e.g. business farming which takes place all over the country and is emerging and graduates can support the agricultural and environmental development in the 9th National Economic and Social Development plan 2002 - 2007.

3. In companies which carry on agricultural business in overseas countries or neighboring countries where Thai people aim to establish the base of agricultural production in order to make use of agricultural produce in form of food products for export and graduates can support certain programs to develop Thailand into the base of conversion of agricultural produce for export by making use of raw material bases in neighboring countries.

4. In the business sector and markets of agricultural produce, Thailand is going to be developed to be a leader in food production for the world's populations.

5. In the industry section and services section as desired, graduates can be a significant force with skills, disciplines, responsibility and creativity. Graduates from the program of "Agriculture for a better life" will be labours who have skills and qualities in high-technology based industries.

6. In overseas countries, at present good-quality labour is required by countries which are very advanced in agriculture; such as, Denmark, Israel, etc.

Overall Conclusion of Project of Agricultural Reform in Education for A Better Life

Since the project of agricultural reform in education for a better life started in 1996, the overall conclusion has been divided into several aspects as follows:

Student Interest

It was found that the number of students with the degree of mathayomsuksa III who applied for the project was below than the target i.e.

In 1996, the target was the total of 54,000 students; however, the number of students who entered the project was 13,000, or equivalent to 24.07% of the target.

In 1997, the target was the total of 100,000 students; however, the number of students who entered the project was 21,691, or equivalent to 21.36% of the target.

In 1998, the target was the total of 20,000 students; however, the number of students who entered the project was 12,691, or equivalent to 82.25% of the target.

In 1999, the target was the total of 18,000 students; however, the number of students who entered the project was 16,449, or equivalent to 91.38% of the target.

The number of 16,449 students who entered the project in 1999 is classified according to their regions (from the most to the least) i.e. the number of 7,184 students from the north eastern region, the number of 3,562 students from the northern region, the number of 2,880 students from the central and the eastern region and the number of 2,819 students from the southern region.

According to the initial evaluation by Sector of Agricultural College, Department of Vocational Education (1998), which was done in a group of 2,563 students who were studying in the first academic year of 1996, the details are as below:

Table 9 The number of students in agriculture under the project of agricultural reform in education for a better life who are studying in College of Agriculture and Technology nationwide in the academic year of 1999

No.	Agriculture and Technology College	Students Under Project of Agriculture for A Better Life		
		Por vor chor 1	Por vor chor 2	Por vor chor 3
	South			
1	Satul	100	56	54
2	Narathivath	269	100	192
3	Songkla	215	124	170
4	Suraththani	152	83	101
5	Pattalung	174	72	163
6	Nakonsrithammarath	995	301	492
7	Chumporn	381	72	117
8	Trang	214	110	174
9	Krabi	165	82	97
10	Pangnga	80	72	49
11	Ranong	74	37	50
	Total	**2,819**	**1,109**	**1,659**
	Central and East			
12	Ratburi	310	151	184
13	Petburi	223	135	184
14	Supanburi	271	129	175
15	Kanchanaburi	255	157	170
16	Lopburi	206	45	105
17	Singhaburi	258	100	83
18	Chainat	69	46	50
19	Uthaithani	136	71	74
20	Bang Trai Vocational Center	203	122	62
21	Chacheungsao	185	106	162
22	Chonburi	526	106	146
23	Srakwaen	238	237	237
	Total	**2,880**	**1,405**	**1,632**

Table 9 (cont.)

No.	Agriculture and Technology College	Students Under Project of Agriculture for A Better Life		
		Por vor chor 1	Por vor chor 2	Por vor chor 3
	North			
24	Nakon Sawan	276	101	128
25	Pijit	326	223	357
26	Sukhothai	228	172	204
27	Petchaboon	397	207	170
28	Kampangpet	254	109	201
29	Tak	180	188	101
30	Chiangmai	442	308	502
31	Chiangrai	472	416	421
32	Payao	253	226	260
33	Lumpoon	352	181	189
34	Prae	382	344	286
	Total	**3,562**	**2,475**	**2,819**
	North East			
35	Udon Thani	713	316	237
36	Khon Kaen	847	319	336
37	Ubon Ratchatani	876	438	419
38	Roi et	469	252	362
39	Nakonpanom	518	375	457
40	Yasothorn	387	216	302
41	Mahasarakam	500	205	253
42	Nakorn Rachasima	563	212	443
43	Sri Saket	530	245	462
44	Buriram	975	437	389
45	Chaiyapoom	806	250	283
	Total	**7,184**	**3,265**	**3,943**
	Total for four regions	**16,449**	**8,264**	**10,054**

2.4 Achievement of Project of Agricultural Reform in Education for A Better Life

Referring to the study and follow-up to the project by sector of agricultural college, Department of Vocational Education (1998: 48-88), the details are as follows:

2.4.1 Number of admission the policy of the project by Department of Vocation, Ministry of Education, states the target of admission is 54,000 students i.e. able to accept diploma course students/por vor chor students (agriculture) throughout the academic year of 1996. Education institutes can accept the total of 8,932 students who are really studying, equivalent to 17% of the target only.

It was found that the number of students in education institutes in the north eastern region was greater than in other regions i.e. 2,591 students, followed by the number of 1,692 students in the north, the number of 1,616 students in the south and the number of 1,418 in the central and in the east.

2.4.2 Student qualifications

The policy states that students must be

1. children or grandchildren of farmers
2. needy students in rural areas
3. students who lack opportunity

The result of the study shows that the project of agricultural reform in education for a better life can support the policy in giving farmers' children and grandchildren admission to the project i.e. students come from the four regions, and the parents of 72.5% of the students are farmers, 3.7% are employees in factories, 5.1% are government officials and 18.6% are general employees.

In the 1st term/1996, the project gained most popularity in the group of students from Educational Opportunity Extension School or 33.7%, followed by those who graduate from schools in other districts or amphora of the same province, or 29.85%, by those from general high schools, or 13.74%, those from private schools or local schools, or 13.74% and those from others, or 0.23%.

2.4.3 Resignation during terms

The study found that there was 38% of students who resign during academic terms. Reasons include

- students can enter other schools
- students have to help their parents
- students cannot accept agricultural works
- students do not receive convenience i.e. accommodation and food

Details are as follows:

In the academic year of 1994 or two years before the project of agricultural reform in education for a better life was set up, there were 26.2% of students who resign during academic terms. The most was from the north or 56.4% and the least was from the south or 4.6%.

In the academic year of 1995, there were 23.5% of students who resign during academic terms. The most was from the central and the east or 30.5% and the least was from the south or 15.7%.

In the academic year of 1996, 28.1% of students resign during academic terms. The most was from the central and the east or 52.2% and the least was from the north or 12.6%.

2.4.4 Achievement of learning

The study found that students under the project agricultural reform in education for a better life could gain learning achievements in basis vocational subjects i.e. fishery, basic agricultural mechanics, agricultural industry, agricultural works, general experiences and skills, principles of plant studies, agricultural business management and general principles of animal farming. The learning achievement stays at the average mark of 3.00 and up, which is higher than that from ordinary subjects i.e. Thai, English, Mathematics, Sport/Health Studies, Social Studies, Science and Buddishm which the learning achievement stays at the average mark of 2.00 - 2.50.

2.4.5 Motivation as a result of agricultural project for a better life

The student of 67.9% showed their opinion that after their agricultural project for a better life, they gained knowledge and experiences in agriculture and see ways that they can work in the agricultural field. At the same time, the student of 12.3% said that they found that agricultural occupation are a type of hard works and feel depressed and bored after their agricultural project for a better life.

2.4.6 Expectation and desire of students

96.9% of students intend to complete the third year of the vocational diploma course of (por vor chor III), 0.7% of students intend to find jobs, work and then come back for study and 2.4% of them intend to go for jobs which give them chance for further study.

Regarding desire and expectation of living after graduation, it was found that 67.1% of students from the four regions aim to take further study, 26.4% do not have any future plans yet, only 3.2% desire to work in the agricultural field and 3.3% expect jobs in Bangkok or major provinces; such as Chiangmai, Phisanulok, etc, after their graduation from the project of agricultural reform in education.

For reasons why students do not want to resign during academic terms from the Project of Agricultural Reform in Education for a better life, it was found that 70.4% of students thought that the project gives them opportunity for further study, meanwhile 44.6% gave the opinion that the project provides guidelines concerning agricultural occupation. Additionally, 44.1% of students pointed that training and practice are the main reason why they continue their study with the project.

Achievements of Agricultural Project for A Better Life

1. Efficiency of agricultural projects for a better life

In the academic year of 1996, all students under the project of agricultural reform in education for a better life conducted the total of 378 agricultural projects for a better life. One student can take responsibility for more than one project. Also, the government provides a budget worth 16,320,681 baht. All students can invest this amount of money to deliver 16,320,681 baht in agricultural produce and 3,386,644

baht in profits. The most popular project was the project of plants and vegetables and that of flower trees and decorating trees.

According to the study base on certain economy theories of agricultural projects for a better life, it was found that education institutes in the north eastern region spent the greatest amount of money i.e. 4,175,348 baht or 32.2% on the program of agricultural projects for a better life. The most expensive project was pig farmings which spent the highest operating cost of 1,229,461 baht. However, the project made the highest profit of 705,908 baht. The project of vegetables and plants gardens conducted in educational institutes in the south gained the greatest loss of 81,088baht, followed by the project of flower trees and decorating trees also in educational institutes in the south which experienced the loss of 67,100 baht. Overall, teachers/lecturers in the project of agricultural reform in education for a better life from all regions expressed their opinion that students have good intention and take full responsibility for their agricultural projects very well.

2. Achievements of the project of agricultural reform in education for a better life in terms of reasons why students select agriculture and technology colleges

The study showed that there are 7 reasons why students under the project choose to study in College of Agricultural and Technology as follows:

1. Suggested by consultant teachers
2. Free tuition
3. The college provides student accommodations.
4. Students like agriculture.
5. Follow friends
6. Suggested by parents
7. Choose two of the 6 reasons above

It was found that 63 % of the students' decision depended on more than one reason. 16.2% of the students made the decision by choosing the reason no. 4, 10.9 by the reason no. 1, 5.0% by the reason no. 2, 0.4% by the reason no. 3, 1.6% by the reason no. 5 and 6.6% by the reason no. 6.

Ketradecha, et al. (1996: 35) had studied the students' opinions on environments, learning and teaching, services, student activities at Petchaboon Agriculture Science College, and found that most of students who were studying in Petchaboon Agriculture College, chose to study in agriculture science. 52.36% chose this college because it was the one closest to their house, and other reasons include no other places to study, following close friends and suggested by parents.

Ketradecha, & Jaihao (1996: 34-35) had studied four aspects of opinions of the students taking the vocational diploma course in agriculture at Petchaboon Agriculture College, under the project of agricultural reform in education for a better life.

1. In terms of learning and teaching approach, overall, the approach was good.

2. In terms of training programs and practice to gain agricultural skills and experiences (each class's project), overall, they are good in three points i.e. making use of experiences and skills in daily life, skills and experiences gained from training programs and practice and full participation of all students in training programs and practice.

3. In terms of agricultural projects for a better life (accommodation project), overall, most students realized what they obtained from agricultural projects for a better life which can be later very useful for their daily life.

4. In terms of accommodations and welfare, the way of looking after accommodations was appropriate, students could go along among with friends in accomodations.

In terms of readiness of students who were going to complete their education in the academic year of 1998, the first batch of graduates from the project of agricultural reform in education for a better life, Ketradecha (1997: 1-12) had studied at College of Agriculture and Technology, Petchaboon, the number of 117 students who were studying in the second year and third year of the vocational diploma course or por vor chor II and III, the study found that

A. In terms of special abilities, most of students indicated that their most special ability was sport and some for others e.g. typing, computer skills, driving, music, fixing small mechanic things and propagation of plants.

B. In every academic term, there were differences in average marks of each subject. At the third year of the vocational diploma course (por vor chor III), 33% of students studying in agriculture gained the range of average marks was 2.51 - 3.00, 46% in commercial branch showed the range of average marks at 3.01 - 3.50. Meanwhile, 46% of those studying in the high vocational diploma course in agriculture (por vor sor) gained the range of average marks from 2.00 to 2.50.

C. In terms of students' desire after their graduation, it was found that more than 80% of the students in the third year of the vocational diploma course (por vor chor) and in the second year of the high vocational diploma course desired to study further. The rest would like to work in the agricultural field, in companies, in private business and in government offices respectively.

D. Whether students were confident that they would complete the third year of the vocational diploma course (por vor chor III) and the second year of the vocational diploma course (por vor sor II) in the academic year of 1998 or not, it was found that 82% of the por vor chor III students in commercial branch showed highest confidence, 69% and 60% of those in agriculture and in mechanics respectively showed their confidence that they would complete their course. Reasons why the students lacked of confidence included that they always spent time with activities, their examination results were poor. In addition, 73% of the students in the second year of the vocational diploma course showed that they would definitly complete the course.

According to documents and researches in relevant to the project of agricultural reform in education for a better life, a number of third-year students who graduated from high schools (mathayom suksa III) were still interested in making decision to take agricultural courses. During 1996 to 1999, the average rate was 22.22% of the target set. Parents of most of students, 72.5%, were farmers. When considering in terms of skills gained from training and practice in agricultural projects for a better life, it was found that 67.9% of the first-year students of the vocational diploma course (por vor chor I) had gained knowledge and experiences related to agriculture and that showed them the way to agricultural occupation. In addition, 96.9% of students intended to complete the third year of the vocational diploma course (por vor chor III), 67.1 to go on with further education and 26.4 had not yet planned anything for their future.

3. Concepts and Theories Related to Decision Making

3.1 Decision Making

Decision making is the psychological process which all the time takes a major role in people's daily life because every human behavior has to experience several different options. Decision making for these sometimes can be done easily but sometimes is very difficult and cannot be done by ourselves. It is necessary to ask for other people's opinions before making decision.

Definition of Decision Making

Several scholars had defined "Decision Making" in many ways. Some are as follows:

Shull (1970, cited by Padermchid, N. 1990: 12) defined that decision making is the process of human beings related to individuals and society. Decision making results from discretion which comes from facts and personal value of each person who selects his/her own way considered that it is able to support their aim, wish and desire.

Simon (1960, cited by Chamnong, V. 1980: 3) defined that decision making refers to the process consisting of three principles i.e.

1. Intelligence Activity which means intelligence source staff need to go for news, information about environment.
2. Design Activity which means establishment, development and analyses in many different ways which should be put into practice.
3. Choice Activity which means the choose of appropriate ways which will be put into practice.

The three principles above reflects the nature, which is important, of decision making that the step-by-step process to choose any option and to put that option into practice. Therefore, the principle of decision making does not end at choosing but at practice. (Newman, et al., 1972 cited by Chamnong, C. 1980: 3)

There is a tendency towards the same direction among the three definitions. It can be summarized that decision making means the process of behavior selection or the way of behavior based on many choices.

3.2 Theory and Concept Related to Occupation Selection

That individuals select any behavior depends on what they have as a choice among many choices. Occupation selection is greatly important for the living of humans because occupation do not only support the economic needs of humans but other types of needs also e.g. social and mental needs. Therefore, occupation selection is very important. This time's study of the decision-making process to select occupation has provided many explanations, which are in reference to many theories, about the decision-making process to select occupation. Details are as follows:

1. Hoppock's Composite Theory

Hoppock (1967: 111-112) proposed 10 main principles for occupation selection :

Principle I A person selects an occupation to support his/her needs.

Principle II A person selects an occupation he/she believes that occupation can fulfill his/her needs which are the highest importance for him/her.

Principle III Personal needs influence decision-making to select his/her occupation despite individual understanding of such occupation is not clear.

Principle IV One's occupation development starts when he/she realizes for the first time that occupation can support his/her needs.

Principle V Occupation development and decision-making to select an occupation go on in an appropriate way. If a person can expect how well an occupation will support his/her needs. The ability to make such expectation depends on knowledge or self-recognition, knowledge or occupation recognition and clear thinking power.

Principle VI Personal information of each person will influence decision making to select an occupation because it will help him/her to clearly understand his/her needs and to expect in which way an occupation he/she makes decision to select will make him/her successful.

Principle VII Occupation information will influence each person's decision making to select an occupation because it will help him/her to discover cartain occupation which can fulfill his/her needs and to expect how much an occupation he/she makes decision to select can make him/her satisfied.

Principle VIII Occupation satisfaction of each person is due to the fact that his/her needs are fulfilled as expected.

Principle IX Occupation satisfaction of each person is due to the fact that his/her needs are fulfilled at present and there is a tendency towards future fulfillment.

Principle X Each person's decision making to select an occupation is something changeable if that person believes the change will bring in better fulfillment.

According to the economics, there is a model which explains the phenomenon about the access to the micro level of labour force in a significant labour unit's decision-making to select an occupation i.e. the model presenting factors which influence a decision making to select an occupation.

This model explains about options and factors influencing decision-making of labour units to select an occupation. By the theory, there are a lot of occupation for people, but in fact it was found that there is a limited number of options because of a number of conditions which restrict one's occupation selection. Obvious conditions ;for example, one's economic and social status, health and brain capability , cost spent for information and cost spent for entry to an occupation, are shown in the following model (Jakubauskas & Palomba, 1973: 55)

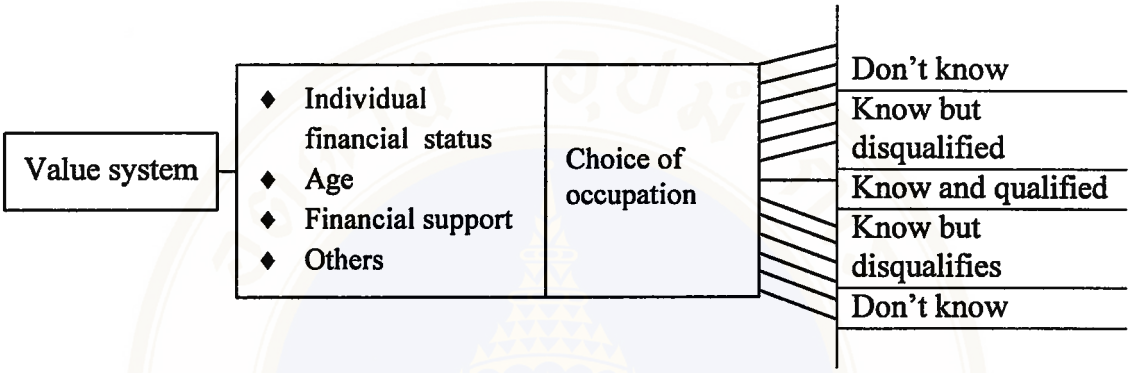


Figure 5 The model presents a number of options and factors which influence the labour unit's decision making to select an occupation.

The model presents a number of different options and factors which influence the labour unit's decision making process to select an occupation. For instance, some occupation/jobs/ works about which job hunters have information and they can work in those occupation, some occupation about which job hunters do not have information and some occupation do not respond to job hunters' qualifications or not be in line with requirements. It can be stated that these options are any of which each labour unit or job hunter needs to make decision to select in the most appropriate way or they need to make decision to select the one which is most appropriate to himself/herself. Therefore, knowledge and understanding about occupation and information seeking cost are very important when one is looking for a job. In addition, the value system in the society and particular characteristics of labour units or job hunters take an important role. Job hunters who have got different characteristics; for instance, women, black people, old people, etc., often make different decision to select an occupation.

Jakubauskas & Palomba concluded that there are four components of the decision-making process to select an occupation by labour units or job hunters i.e.

1. Occupation information i.e. type of jobs, job description, income, required knowledge, competition for admission.

2. Particular characteristics of job hunters and job description i.e. starting income, income security, other benefits in addition to wages in accordance with the

level of the jobs, the social environment of jobs, spending of physical and brain efforts, type of jobs.

3. Cost of expenses i.e. training cost, information seeking cost, cost spent when one wants to change to a new job.

4. Value system in the society i.e. the social value towards any occupation i.e. the society regards that an occupation is honorable or has good welfare, high possibility for one to get promoted and better salary than other occupation.

Due to the fact that this time's study is just about the decision-making process to select an occupation which is a sort of expectation. Therefore, this research considers the factor i.e. personal characteristics, social value and economic status as main variable factors of the research.

2. Vocational Development

Vocational development by Ginzbergs (1966: 47-57) occupation selection is the continuous development and spends more than 10 years. It is a distance of steps which combine each age. Once developed, the process is irreversible. Occupation selection is the process in which individual needs are mixed up. A person will select an occupation which can fulfill his/her interest and most suitable to his/her qualifications, also realizing job opportunity. Job development is influenced by many factors e.g. capability, skills, social opportunity, emotion study and individual value, etc. Job selection is the process which always approaches the future and ends up with the compromise among interest, individual needs and the world's reality. There are three basic knowledge in regard to job selection according to the theory of vocational development i.e.

1. Job selection is the process
2. The process of job selection is irreversible
3. The process of job selection is the compromise among capability, interest and environmental reality

Later, Ginzbergs made change in some details of the theory for the age of infants to the age of over 20 years i.e.

1. The process of vocational choice and development exists throughout the life and opens wide. According to a number of researches about the working life of men and women, Ginzbergs reached the conclusion that a person changes to a new job because it makes him/her satisfied and free as a result of the change of responsibility and pressure or work choices offered by the new job.

2. The process of vocational choice is irreversible. The process in which factors influencing vocational choice are prepared takes more time and inaccurate. About 80% of senior high school students study further for a bachelor's degree and about an half of senior high school students take further educational courses or additional training programs. All of these do not influence the process of decision-making as known before. Ginzbergs noted that what young men and women face while they are teenagers is planning for more opportunities to choose. At least,

planning is there to make sure that they have right for university admission or for good job because a person with high education has a boarder opportunity to choose a job.

3. Job optimization should be compromise; however, Ginzbergs commented that the most appropriate job is the continuous process.

Refer to a number of long-term personnel studies, it was suggested that a person has an attempt to work in order to gain satisfaction or to fulfill his/her needs, and he/she has to get benefits from the job he/she has opportunity to hold by realizing what we have to do.

4. Certain constraints to be considered, Ginzbergs explained that these are low income, family status, attitude and value by parents, low education, feminine status, the minority and the disagreement among education levels, jobs, communities and other institutions.

5. The opportunity structure of the world of work means the importance of opportunity recognition whether a person recognizes his/her opportunity.

6. Value orientation at present, value orientation is very important and taking a major role in the discovery of individual satisfaction. The way of life influences the process of decision-making in terms of jobs. Which is the attempt to achieve the success of the balance established between jobs and other activities.

Ginzbergs has divided individual's vocational choice into three periods i.e

1. Fantasy period is the period of 6-10 years children. The process of vocational choice during this period is fantasy i.e. children think what type of job they will do when they grow up, which is influenced by media without any concern about possibility and their own capabilities. However, the fantasy period is the beginning period that work attitude and value are formed. For instance, a child said "I do not like to work hard", etc.

2. Tentative period is the period of 11-17 years. During this period the process of vocational choice demonstrates individual emotion and thought regarding decision-making for future. The future is the point rather than the present. The process of vocational choice, however, still depends on factors which are personally involved e.g. personal interest, capabilities and value. Other factors are not concerned e.g. the labour market's requirements, specific qualifications which are necessary for certain jobs. The Tentative Period consists of several steps as follows:

2.1 Interest stage, the process of vocational choice depends on interest in jobs. The interest stage is in connection with the fantasy period. The childhood does not consider genuine capabilities.

2.2 Capacity stage the process of vocational choice depends on own capacity on the basis of the fact that capacity and interest together are estimated.

2.3 Value stage, children undergo the process of vocational choice by depending on their own value because children start forming values of various matters when they are going to step in the initial stage of adolescents.

2.4 Transition stage, this period is the transition stage when children are stimulated by thought and desire of their childhood and more understand genuine factors. During this period, girls adjust themselves for future roles i.e. wife role and

mother / maternity role. In addition, they often think about marriage rather than working, meantime boys aim to choose any job.

3. Realistic period is the period of 17 years to adulthood. During the period a person considers his/her own characteristics and job description in addition to reality while the process of vocational choice is operated. The process of vocational choice is the compromise between personal needs and potential opportunity. This period consists of several stages i.e.

3.1 Exploration stage, at this stage, a person attempts to base his/her decision-making on reality by considering his/her own interest and values.

3.2 Crystallization stage, this stage is in the period of about 20 years up. A person accepts own capacity at this stage. Also, he/she regards job objectives very important. It is the last stage of the process of decision-making before access to the period of preparation to get a job in which he/she is interested.

3.3 Specification stage,at this stage, a person makes the scope of selecting any job. The person also takes some training programs and seek knowledge and experiences. If a job chosen cannot make him/her satisfied or the job is inappropriate. That person will take further training programs and seek experiences specific to any job so as to seek new knowledge and experiences.

According to vocational development by Ginzbergs, it can be summarized that the process of vocational choice is the compromise among capacity, interest and environmental reality. Particularly, value is an important variable which takes a major role in the discovery of satisfaction. The way of life which a person has adopted can influence the process of vocational choice. Therefore, the process of decision-making to choose a job which the third-year students of the vocational diploma course (por vor chor III) have to undergo after their graduation certainly depends on expectation of the success of their job.

3. Theory of Vocational Development

Theory of vocational development consists of important issues (Tolbert, 1974: 31-37) as follows:

1. Individual difference is a main issue taken into the concern for education and psychology of vocational consultation. That people are different in capacity, interest and characteristics put certain effects on the process of vocational choice. That means the process of vocational choice takes individual difference into concern.

2. Multi potentiality, each person has got the limited possession of potentialities which help to achieve success in the field of his/her occupation. Comparing a person with another person is inappropriate because each person's capacity is different.

3. Occupation ability patterns each job has the pattern of specifically occupational ability. It can be said that an occupation needs a person who possesses ability, interest and characteristics different from those of another person.

4. Identification and role of models most people, particularly while they are in adolescence, prefer imitating their parents or others they admire due to their occupations. The imitation is the basis on which one's occupation is developed in the

future. Therefore, those who act as the pattern for young people, particularly parents, should have appropriate behaviors as the good patter for children.

5. Continuity of adjustment the process of decision-making to choose a job needs to have the aspect of continuity because surroundings in which a person lives or works together with his/her self-concept definitely undergo the process of being changed by time and experiences gained. Therefore, the process of vocational choice and that of decision-making must be the process of continuity.

6. Life stage, the process of vocational choice is the process of continuity in accordance with individual life stages divided as follows:

6.1 Growth stage, starting from the age of infants until the age of 14. At this stage, children are growing up in terms of physical and emotional.

6.2 Explorative stage during the ages of 15 to 24 years. It is the stage in which a person makes a great effort to understand himself/herself and, at the same time, presents in the role of adults e.g. job selection, match making and selection of social role

6.3 Establishment stage, during the ages between 25 to 44 years. At this stage, a person has his/her own family, social role, firm occupation and residence.

6.4 Maintenance stage, during the ages of 45 to 64. It is the stage in which a person realizes the importance of family and attempts to make himself/herself accepted and recognized by others in the society in addition to seeking occupation progress.

6.5 Decline stage from the age of 65 up. At this stage, the quantity of working is less, including responsibility and social roles.

7. Occupation patterns depend on the social level and economic level and the opportunity of occupation patterns i.e. the low and high level of occupations, occupation change frequency, aspects of certain occupations which cause occupation change frequency, etc.

8. Development can be guided every stage of life in which occupation development takes place should be guided appropriately in order to gain appropriate occupation development which is tested by that person.

9. Development the result of interaction. The environments mentioned are family life, education from schools and social conditions surrounding that person. These take part in the process of knowledge and understating gained about various occupations in which a that person feels interested or has skills. That results in self-understanding and self-concept. It can be said that a person can know his/her interest, skills and ability. More important, a person can combine together ability and the reality of opportunity.

10. The dynamic of occupation patterns depend on a family's social and economic level, intellect, ability and interest all of which have not yet attain stability like individual development in each stage where there is change of some sorts.

11. Job analysis, individual difference status and role a person feels satisfied by his/her occupation if the occupation can be compatible with the way of life and ability. Acting in a role as desired and satisfied depends on a level of self-concept development of each person.

12. Work is a way of life. That a person get satisfied by his/her way of life depends on the fact that he/she can discover a way by which he/she shows his/her ability, interest, characteristics and values and can act in the role chosen.

According to the theory of vocational development, it can be summarized that occupation basics of each person are influenced by imitating parents or people he/she admires due to their occupations.

Further, occupation patterns depend on a family's social and economic level, intellect, ability and interest. Therefore, the process of decision-making to choose an occupation which the third-year students of the vocational diploma course in agricultural science (por vor chor iii) after their graduation have to undergo depends on parent roles. It can be considered by a variable i.e. expectation of children occupations. Additionally, others who can be occupation models and students' qualifications. It can be considered by certain variables i.e. expertise, knowledge and skills in agricultural strategies.

4. Theory of Vocational Choice by Crites

Crites (1971, cited by Kerdpitak, P. 1986: 91-94) suggests the idea that when the process of vocational choice arrives the time,

1. a person needs to have two or more than two occupations to be chosen. If no, the process of vocational choice cannot take place.
2. stimulation in the process of vocational choice i.e. the society's expectation that "everybody should work"
3. a person has to have freedom in the field of occupation chosen. If that person is limited to certain extent of his/her occupation, he/she will not be able to choose an occupation.

In addition, Crites has made the summary of concepts about the process of vocational choice in order to reach a basic on which the theory of vocational choice will be established according to a number of his researches.

The process of vocational choice refers to any occupation one said that he/she will choose. In practice, the process of vocational choice refers to the intention expressed by a person to work in the field of certain occupation. That is an individual's decision-making to choose an occupation.

Concepts related to the process of vocational choice by Crites include

1. The selection of certain occupation depends on the basic of reality at the most. That a person thinks what type of occupations he/she will take has to be shown.
2. Occupation preference means individual intention or desire to take any occupation.
3. Occupation interest is similar to occupation preference in general, but more realistic because occupation interest has some relations with entry to membership of an occupation or access to the field of that occupation. These two concepts are independent but in some extent of continued relationship.

General aspects of vocational choice by Crites are

1. Vocational choice refers to the well-organized behavior, not behaviors of some sorts which occur accidentally ?. However, people are different in the process of vocational choice.

2. The process of vocational choice is implicitly associated with variables i.e.

2.1 Stimulus variables i.e

2.1.1 Culture which can put effects on the process of vocational choice, but certain cultural effects can make inconsistently different patterns of the process of vocational choice because of not involving with different classes in another side of the society.

2.1.2 Social classes are related to other free variables which concern the process of vocational choice e.g. culture, intellect, etc.

2.1.3 Race influences the process of vocational choice.

2.1.4 Geographical areas It was found that the process of vocational choice taking placed in rural areas and in cities are considerably different.

2.1.5 Communities, friends and code of ethics of occupation groups It has not yet been in a conclusion whether all of which influence the process of vocational choice.

2.1.6 Family, father's occupation and the process of vocational choice all are in the extent of relationship.

2.1.7 Schools information related to the relationship between experiences gained in education and the process of vocational choice is limited to some extent. However, there is a suggestion that schools may be an important middleman for the process of vocational choice.

2.2 Response variables are

2.2.1 General skills and brainpower are not only in relation to the process of vocational choice, but also to preference and desire or occupation expectation.

2.2.2 Interest is in relation to the process of vocational choice.

2.2.3 Characteristics there are some evidences showing that self-reflection is in relation with the process of vocational choice which also supports the theory of vocational development. In addition, some researches have studied about self-estimation, risk benefits, values and life target in order to find out whether all of which are in relation to the process of vocation choice.

3. The process of vocational choice

Some significant extracts from the theory of vocational choice by Crites help deliver a conclusion that that an individual chooses any occupation depends on some factors i.e. personal characteristics, environments and others' influence. Therefore, the process of decision-making to choose an occupation which the third-year students of the vocational diploma course in agricultural science have to undergo after their graduation depends on the factor i.e. personal characteristics which are considered in terms of expertise?, knowledge and skills in agricultural strategies. The factor of physical infrastructure is considered by variables for land development, waterworks, the existence of markets or factories in area, the main structure of agriculture in area

and others' influence which is considered by variables i.e. friends, parents' expectation of children occupation, influence from occupation models and social value towards certain type of occupations. Thought the theory of vocational choice by Crites has not yet made an explicit conclusion whether society and friends can influence the process of vocational choice, this time's research has taken these variables into study due to the limit of decision making units this research has placed at the period of adolescence and the state under Thai society and culture.

3.3 Analysis of Theories and Variables of The Research

According to all the theories and concepts presented, there are certain predominant and appropriate features which will be applied to the research. Features as predominant and appropriate of each theory are integrated as a sort of variable by which the study of the process of decision making to choose an occupation will become more comprehensive. The process of decision making is undergone by the third-year students of the vocational diploma course in agricultural science (por vor chor iii). The researchers have considered variables from five theories and summarized in the following table:

Table 10 Summary of key variables related to the process of decision making to choose an occupation

Theory and Concept	Key Factor
1. Hoppock's theory of choice of profession	1. Expectation of professional Achievements 2. Potentiality and skills
2. Economic model by Jakubauskas & Palomba related to entry to micro level of labour market	1. Social values towards occupation 2. Knowledge and skill 3. Economics and social status
3. Theory of vocational development	1. Parents'attitudes and values 2. Individual values towards occupation 3. Personal characteristics
4. Theory of vocational development	1. Personal characteristics 2. Identification psychology
5. Theory of choice of profession by Crites	1. Personal characteristics 2. Environments 3. Others' influence

3.4 Factors in The Research About The Process of Decision Making to Choose An Occupation by Third-Year Students of The Vocational Diploma Course in Agricultural Under The Project of Agricultural Reform in Education for A better life When Graduation.

By the consideration of certain concepts of theories related to the process of decision-making to choose an occupation which the third-year students of the vocational diploma course in agricultural science when graduation, the researcher has established a variable from these concepts in order to test on information, except concepts concerning the cost of expenditures and job descriptions as referred in the theory of economic models by Jakubauskas and Palomba in connection with the process of decision-making to choose an occupation, because this time's study is only the study of the process of decision-making to choose an occupation which is the sort of future expectation only. Therefore, the cost of expenditures and job descriptions are ignored. Details of free variables imposed for this research are as follows:

Potentiality of Basic Factors for Agricultural Occupation

Agricultural production theories start from the concept that there are use of land, labour management and capital management in various types at any time in order to obtain most substantial agricultural produce. That is the relation between production factors and produce. (Sangkharatsami, S. 1986: 270). Factors of the new agricultural production scheme include land, water, labour, capital and technology (Singhavanicha, D. 1991: 421). The new agricultural production scheme will enhance the efficiency of the production. Factors which are necessary and important for the development of agriculture include markets for agricultural produce, technological innovations including agricultural tools and instruments, stimuli of agricultural production and transportation. (Saengmanee, K. 1989: 66-67) However, Harwood (1979: 2975) has proposed many factors which are the limites to the food production of retail farmers e.g. smaller size of land, shortage of labour, etc. Soil is regarded as the first limit i.e. infertile soil, terrible climate, low-quality seeds, shortage of production factors, marketing problems. What should be considered in the analysis of agricultural production includes soil condition, climate, water, soil structure and fertility of soil. Potentiality of basis factors for agricultural occupation in this research include land, water source, agricultural technology, occupation basic of family, climate and transportation. Details are as follows:

1. Land and The Process of Decision Making to Choose An Occupation by Third-Year Students of The Vocational Diploma Course in Agricultural Under The Project of Agricultural Reform in Education for A Better Life When Graduation.

Land is an important factor in agricultural production. The ownership of land is a basic factor important to the development of agricultural production because the fertility of soil is affected, including investment of agricultural production (World Bank, 1983 cited by Anukulamphai, A. et al., 1983: 36-48). Soil is a sort of natural

resources which is very important to the country's economy and society. Agricultural occupation unavoidably have to make use of soil. (Moncharoen, L. 1999: 142)

The ownership of land is considered as key factor in the development of agriculture. If farmers own land, they do not the burder of land rental. Consequently, that cause a decrease in operating cost. Farmers are also enthusiastic about farming. In addition, the ownership of land is another important factor that affects the event that farmers will make decision whether they need expensive technologies because they have a small land or do not have land (i.e. need to hire land), production costs are higher. Consequently, farmers may not have capital enough for agricultural technologies. (Boonreong, T. 1992: 150), Ministry of Labour and Social Welfare (1963: 39-72) also found that shortage of land and infertility of soil are also key reasons why there are labour transfer in some developing countries and the immigration of populations from rural areas in Thailand. However, according to the research by Krumkiang (1988: a summary), it was found that the size of farming land does not concern the process of decision making to take further study or to work for students of senior high schools, agriculture program. The study of land and decision-making to do farming is divided into three aspects i.e. number and ownership of land, soil quality and location or geographical areas in details as follows:

Chimthai (1993: a summary) studied factors which affect the decision-making of farmers for comprehensive / intensive / mixed agricultural programs in the area of irrigation area, Mahasarakam, finding that there were a lot of pieces of land owned by farmers, and those are an economic factor that affects the decision making for comprehensive/intensive/ mixed agricultural programs.

Wongsiriwat (1993: 80) studied factors concerning the process of decision-making to choose an occupation by students of vocational diploma courses (1990) in the lower part of the north eastern region, find that the ownership of land or appropriate location, meeting people who achieve occupation goals and study excursion are external stimuli which are quite important and concern the process of decision making to choose an occupation by the students.

Soil Quality

Soil is synonymous with the food warehouse of plants, the shelter of bacteria, the pole of plants and the source very necessary for the growth of plants. A quantity of water soil can restore / keep for plants depends on physical qualifications of soils. (Department of Soil Development, 1982: 85)

Nakviboonwong, et al. (1990: a summary) found that factors concerning the change of right in land include the infertility of soil, the shortage of water sources for agriculture in area, which showed the condition of soil unfavorable to agriculture and affected economic status as a result of agricultural activities.

Geographical Characteristics

Geographical characteristics are also regarded very essential for agricultural production. They reflects soil conditions. (J-reeratana, N. 1983: 80-81) Geographical characteristics concerns the fertility of soil and the humidity of soil.

Mana-Kasetrakorn (1992: 64) studied factors that affect the decision-making to leave land obtained from the project of land reform for agriculture at Bann Sub-Pa-Phu, Amphur Lan-Sak, Uthaithani. It was found that geographical characteristics i.e. geographical aspects of and e.g. height, low, all of which do not influence land leaving.

2. Water Source and The Process of Decision Making to Choose An Occupation by Third-Year Students of The Vocational Diploma Course in Agricultural Under The Project of Agricultural Reform in Education for A Better Life When Graduation.

Water is an essential natural resource for the agriculture sector of Thailand. Water is a key factor that affects plant growth because plants need water throught out a course of growth. Therefore, land selection for farming needs to think about water sources with full capacity to supply water to plants throughout seasons.

There should also be water sources nearby farming areas due to convenience. Good water sources are river, canal, swamp, marsh, pond, artesian well and rainwater. Farming areas in which there is the fulll of water sources not only enhance the full growth of plants but also reduce production costs. There are 2 issues concerning water sources and agriculture i.e. capacity and quality of water.

Department of Labour (1963: 39-72) studied certain facts regarding population immigration in Thailand, finding that the state of no rain is a factor that causes labour movement due to the state unfavourable to agricultural activities.

Quality of Water Sources

The quality of water is an important thing. How well water sources benefit agricultural activities is a key factor that is in need of consideration before making decision to carry on any agricultural program. Therefore, for this time's research the researcher has taken the potentiality of water sources as variable into study because of the belief that water sources are in relation to the process of decision-making to choose an occupation.

3. Agricultural Technology and The Process of Decision Making to Choose An Occupation by Third-Year Students of The Vocational Diploma Course in Agricultural Under The Project of Agricultural Reform in Education for A Better Life When Graduation.

Technology is very essential for the development of agriculture of Thailand. The involvement of technologies in agricultural production will save costs or enhance production efficiency. (Wanchanatchariya, S. 1896: 148) For new agricultural programs or at present, it is necessary that technologies are required to increase

agricultural produce due to an increasing number of populations. That causes smaller sizes of agricultural areas. Agricultural technologies here mean farming tools or instruments, fertilizers, seeds, pesticide, medicine and food for farming animals, use of new spicies of plant seeds and animals, artificial breeding and various energy sources which are applied in a very appropriate way. Tradition agriculture refers to original plants or animals, no improvement or nourishment of soil or plant seeds, use of traditional agricultural ways, no way to fully increase agricultural produce.

The introduction of technologies to the process of production in the agriculture sector, Jiemsamai, Sila., the former student of College of Agriculture, Udonthani, in 1973 and started his sugar-cane farm in 1975 until successful, said that to select sugar-cane spicies that are suitable for geographical areas is very essential in order to gain high produce. (Department of Vocational Education, 1989: 56-57)

Vechpat (1990: a summary) reported about the growing of African plant with aim to increase the quantity of rice produced in areas of Ubonratchathani of which soil lacks nutritious substances and infertile. Normally, the quantity of rice produced in these areas was about 20 buckets per rai. However, before the African plant were grown in paddy fields, the quantity of rice increased to about 47 kilograms per rai or about 21%. If paddy fields normally have fertile soil, the existing quantity of rice from 40 buckets per rai increased to another 25 kilograms per rai after the African plant were grown before harvesting.

4. Professional Background of Family and The Process of Decision Making to Choose An Occupation by Third-Year Students of The Vocational Diploma Course in Agricultural Under The Project of Agricultural Reform in Education for A Better Life When Graduation.

Occupations of parents or families take a major role as a part of encouragement to children to like or to feel interested in any occupation because parents are closest to students. Achievement or failure of family or parents occupations certainly result in discouragement to children when they have to choose their own occupation in the future. There is a number of researcher regarding this issue:

Lyon (1959, cited by Chailuksananon, S. 1999: 61) studied factors in terms of experiences, motivation and characteristics that are in connection with the process of vocational choice by the first-year students of Stanford University of who 82 had already decided which occupation they would choose and the remaining of 87 had not yet made any decision. It is very interesting that the group of first-year students who had already decided on their future occupation were very accustomed to their parents and desired to work in the field of their parents' occupation when compared with the other group of those who had not yet been able to make a decision.

5. Climate and The Process of Decision Making to Choose An Occupation by Third-Year Students of The Vocational Diploma Course in Agricultural Under The Project of Agricultural Reform in Education for A Better Life When Graduation.

Climate is a geographical component which is very essential because it is a thing to make the classification of agricultural activities. Climate includes different aspects i.e. temperature, humidity, wind. (Thunpasuthi, T. 1987 cited by Boonreung, T. 1992: 17) Aspects of climate influence occupations and the lives of people living in rural areas because of the fact that the majority of people in rural areas work in the field of agriculture, depending on rain. Any year there is a lot of rain, agriculture returns good produce. Consequently, their economic status is better.

Samutvanicha (1989 cited by Boonreung, T. 1992: 17) noted that physical environments including climatic aspects put both direct and indirect effects on agricultural production. Communities located nearby basins and low plains where there are the rains certainly have environments favorable to rice growing, compared with plateaus that require soil improvement, much considerable labour for growing than spent on low plains. Therefore, physical environments, climate and natural resources are essential basis factors to earn one's living.

Petthongkam (1993: 93) stated that agricultural operators should depend on following principles when selecting agricultural areas i.e. climate including temperature, humidity, rainfall and wind that affect plant growth, flowering, fruiting and quality. Different types of plants require different weather conditions. Regarding selection of agricultural areas, operators need to know which type of plants to be grown and to select agricultural areas with appropriate climate to growth of those plants.

Singhakalavanich (1991: 404-405) noted that climate or local climate refers to the regular pattern of weather conditions in any area/region by considering main components; such as, amount and season of rain, temperature, wind and sunshine. Climate influence the determination of plant types and their growth either by natural or by humans, the control of the growth of wild animals including farming animals because many plants and animals need different environments. In addition, plants and animals cannot adjust themselves as well and fast as human beings.

6. Transport and The Process of Decision Making to Choose An Occupation by Third-Year Students of The Vocational Diploma Course in Agricultural Under The Project of Agricultural Reform in Education for A Better Life When Graduation.

Transportation is another factor for the development of agriculture because it is a means of agriculture produce distribution from production sources to consumption sources.

In addition, transportation provides a channel by which agricultural tools/instruments and necessities are delivering to production sources. (Sangmanee, S. 1989: 100) More important, agricultural goods are quite different from other general goods because they can get spoiled in a short period of time, particularly fresh goods. In the process of selecting agricultural areas, transportation should be considered particularly. If transportation is convenient and safe, necessities and agricultural produce can be delivered very fast. In addition, there is a decrease in transportation expenses, and the possibility that agricultural goods will get spoiled is also less. Consequently, that means a reduction in production costs and a rise in profits as a result of distribution. (Petthongkam, M. 1993: 95)

Basic Structure of Physical Factors

A basic structure of physical factors refers to structural conditions in general which are necessary and favorable to agricultural activities and the development of the agriculture sector in order to enhance the efficiency of agricultural production. Harwood (1979: 29-75) stated that a number of limits to agricultural production includes infertile condition of soil, shortage of water, marketing problems. Harwood also proposed certain ideas to be concerned while carrying out analyses of agricultural production i.e. soil conditions and information regarding production of plants and animals in area. Physical factors that affect agricultural production include water for agriculture, soil structure, fertility of soil and markets, and physical infrastructure-related factors include land development, water source development, main agricultural structure in area and existence of markets or industrial factories in area. Details are as follows:

1. Land Development and Process of Decision Making to Choose An Occupation by Students of Diploma Course of Vocational Program of Agriculture

Land can be developed and improved for higher efficiency to expand agricultural produce and to increase income level of farmers. Land development is a sort of assistance according to the government' s policy with aim to make use of natural resources for production at the most to provide farmers land for the purpose of agricultural activities and residence and to promote farmers' economic status. Many programs include the examination of soil and soil capacity, the allocation of land for residence, agricultural areas and social center, the planning of basic infrastructure e.g. road construction, official places into which farmers were selected, farmer services e.g. providing water sources, electricity and health care center. (Varid, S. 1995: 233-234) The development of land was the part of the land reform project which covers occupation development, production system management, distribution, provision of public utilities which help farmers gain a better level of living and social welfare. (Kinnprathum, T. 1975: 1). According to the connection between land development and agricultural development, the researcher has taken this variable into the study. It is expected that students who own land in the boundary of land development will possibly make decision on agricultural occupation.

2. Water Source Development and Process of Decision Making to Choose An Occupation by Students of Diploma Course of Vocational Program of Agriculture

The development of water sources or waterworks is a sort of water management by appropriate methods which is supported by the government sector so as to make highest use of water from natural sources e.g. river, stream, etc. Waterworks is very important and essential for agricultural occupation of farmers in each region. Any farming land that has a good system of waterworks always supplies water to plants when there is no rain and when plants need water and is not necessary to depend on rainwater only. Therefore, waterworks is very useful to farmers in the zone of waterworks project, which is a guarantee of no shortage of water during cultivation seasons and of the possibility that farming does not have to depend on the nature only. (Jindasakwan, L. 1991: 26) It can be said that waterworks helps relieve unfertile and fertilizes soil for producing good agricultural produce. Waterworks that develops the field of agriculture includes dam, water-supplying canal, electric water supplying station. (Na Chiangmai, A. 1973: 4)A number of research studying water source development and agriculture are as follows:

Vudhisorn (1989: a summary) made the comparative study between the electric water supplying station at Ta Bor, Nongkrai, and that at Ta Krum, Nokorn panom, finding that farmers in the area of the electric water suppying station at Ta Bor accepted there were positive changes in terms of every aspect of economy and society. Meanwhile, those in the area of that at Ta Krum accepted that the project of electric water supplying station participating in causing specific positive changes i.e social, living, income of farmers.

3. Basic Structure of Main Occupation in Local Areas and Process of Decision Making to Choose An Occupation by Students of Diploma Course of Vocational Program of Agriculture

Natural environments either in physical term or in biophysical term of agricultural communities are climate, soil characteristics, circle of water, plants and animals. These natural environments have area-related specific characteristics and are favorable to growth of plants and animal of certain area. Naturally, environments tend to maintain the balance in the course of natural change that is not disturbed by those outside the system of the nature. Most of people of rural areas in Thailand work in the field of agriculture and all are the same; such as, in the south there are a lot of rubber gardens and the surrounding areas there are also rubber gardens. (Laola, C. 1989: 20)

Traimongkol (1991: 47) studies the change in the agricultural system at Amphur Sai Ylok, Kanchanaburi, at present, finding that the change was that certain main crop farming i.e. corn were decreased in their importance. It was also expected that in 1995 the main system of production would possibly be the growing of standing timbres, in particular fruit trees, and the subordinate systems of production were crops, vegetable gardening and beef cattle farming in the area of Amphur Si Ylok.

4. Existence of Markets and Industrial Factories and Process of Decision Making to Choose An Occupation by Students of Diploma Course of Vocational Program of Agriculture

Markets are a place of exchange, buying and selling, and have physical duties i.e. good storage , transportation, transformation, providing convenience by setting the standard of goods, lending source and marketing information. (Taveekulwat, T. 1986: 82-85) At the same time, industrial factories are very important in terms of economy because they are a sort of activities which bring in prosperity and have influence on employment.

Senanarong (1973: 271) stated that industrial factories are the necessary factor of economic prosperity and always support agricultural activities for agricultural produce to supply to industrial factories and for labour employment. It can be seen If any area has adequate supplies of raw agricultural materials for establishment of industrial factories, there are industrial factories set up in that area. That industrial factories need raw agricultural materials in areas causes economic development in neighboring areas. When there are industrial factories set up in rural areas, the first impact is change in social structure and income growth, which is also a force behind economic growth.

Economic Factors

Capital and The Process of Decision Making to Choose An Occupation by Students of The Vocational Diploma Course in Agriculture

Capital is a type of necessities for operations. Any operation cannot continue without such necessity because capital is spent on agricultural materials and instruments for production e.g. plant seeds, fertilizers, pesticide, medicine and food for animals, agricultural tools. fuel and wage. For independent occupation, that requires one's own investment and operation. Further, independent occupation have more risks of operating loss than employed or government officials. (Kannasutra, S. et al., 1978: 103) According to the research by Pattana (1985: 74-78) studied many factors which pave the way for the decision making on agricultural occupations by students of senior diploma courses of vocational programs in agriculture. The study found that capital is the most important factor that affects the decision making on occupations. In addition, the study by Vatthanawasin (1978: a summary) found that the reason why students of high vocational diploma course in agricultural (por vor sor 2) decided to take up certain government positions i.e. agriculture promotion officials and agriculture officials was the fact they did have capital for other occupation.

Poldee (1989: a summary) studies conditions and factors that affect the process of decision making on production of various styles taken by rice farmers in the irrigation area of Supanburi. The study found that the reason why the farmers grew only rice was a lack of capitals which followed expertises and land conditions.

Ongkanon (1990: 82) studied attitudes of students of Sri Nakharintravirot University that affect independent occupations by making a number of analyses to

seek components and aspects of independent occupations. The study found that independent operators should have two aspects i.e. mental aspect and knowledge background including marketing knowledge, appropriate selection of location/land, setting and sufficient captials.

Social and Psychological Factors

Social and psychological factors are regarded as a group of external factors or environmental factors which are always taken into concern. According to the explanation of reasons for the process of vocational choice and to support individuals' vocational choice (Herr & Cramer, 1979 cited by Kajonsilpa, S. 1987: 94) The group of social and psychological factors includes acknowledgement of social values towards certain type of occupations, friend influence, parent expectation of children occupations and influence of occupation models. Details are as follows:

1. Acknowledgement of Social Values Towards Certain Type of Occupation and Decision Making to Choose An Occupation by Students of The Vocational Diploma Course in Agriculture

Value is what people are interested in, what people desire to get and to be, what people admire and what people desire to own. Social value is the way of behavior patterns very meaningful to individuals and the origin of thoughts with the deep-root in Thai society as the code of practice. (Luktham, L. 1990: 72)

Occupations of Thai people are influenced by cultures and beliefs. Occupational value and certain way people are grown up to work all result in occupation behaviors different in each society and each culture.

Anthropologists believe that at present people are working for their survival. An important motivation is value. Therefore, value is in relation to working and occupations very much. Value is synonymous with the main root of entry to occupational fields and unemployment problems at present. According to a number of studies by scholars, it was found that culture imposes different occupational value in society. Each society is so different in culture that occupational value in each society is not the same.

Kwakpet (1984: 140) studies variables which relate to the pursuit of further study of students who graduated in the primary education (prathom six) from schools in provinces along the southern boundary. The study found that most of students who went for further study were from communities which regarded education necessary.

Yampayontra (1988: 47, 85) studied the social prestige of certain occupations in rural areas, finding that Thai country people regarded the group of authorities / executives highest honor and the group of service labour lowest honor. The range of occupations from the highest honor to the lowest honor includes executives, soldiers-polices, educators, other occupation, clerks/office operators, trade operators, farmers, manufacturers, staff, employees and service labour. In opinions of country people, agricultural occupations were ranked middle and quite low. Aspects

of occupations very much influence the rating. It was found that knowledge-based occupations, power-gaining occupations, property-holding occupations and high-paid occupations were rated much higher. The most important reasons that motivated country people to rate the social prestige of occupations include that they regarded certain occupation highly honorable, respectable, smart, well-known (good reputation) and acceptable. In addition, they though that certain occupations are high-paid, and they preferred such occupations.

Theerasaswat, et al. (1992: 43-76) studied the change in the opinion related occupations of i-san people in major outskirts communities, and the study had started since these communities were established until now. The study was done with three communities, totaling 368 people, in three provinces i.e. (1) Ban Kok, Tumbon Ban Ped, Amphur Muang, Khonkaen, (2) Ban Don Traud, Tumbon Ko Kruad, Amphur Muang, Nakornratchasima, (3) Ban Non Kamin, Tumbon Nong Bua, Amphur Muang, Udonthani. The research mentioned that as a result of economic changes, agricultural occupation as the original one of the communities became the minorities' Occupation in these communities at present. Currently, 55.21% - 71.59% of the people in these communities were working in the non-agriculture sector. Regarding the social value towards occupations, at the beginning villagers considered that government officials were for "Master" and for who were highly educated. Most villagers were not so highly educated that they could work in government offices. However, a number of government officials in villages were increasing, some were born in the communities. The social value towards government occupation had still been remained in terms that villagers in every community and every social class wanted their children to work as government officials. The reason was that government officials gain not only the dominating/masterful level in the society but also the status of security with good welfare, hospital indemnities, pensions/annuities. Further, some villagers wanted their children to work in any occupation just for regular salary because they thought that people who are paid regular salary are granted credit to buy goods. Some preferred any honest and well-paid occupation. The original occupation of every community was the group of agricultural occupation. Few villagers preferred their children to take up any agriculture occupation.

Those from Bankok, up to 70% - 80%, have the professional value for children, expecting them to work as high-ranked government officials. 1.49% - 5.00% of them preferred agricultural occupation. Those from Ban Traud or 33.51% expected their children to be government officials and 2.85% - 3.84% preferred agricultural occupation. From Ban Non Kamin those of up to 80% - 100% desired their children to work as government officials. None of them preferred their children to take up agricultural occupation. That showed the professional value towards agricultural occupation were considerably decreasing.

2. Friend Influence and Decision Making to Choose An Occupation by Students of The Vocational Diploma Course in Agriculture

A group of friends is another group of people who can influence behaviors of teenagers very much. Isarapreecha (1980: 178) commented that members of the primary group i.e. family, friends, playing friends and close people always have same attitudes towards common things. Every of them often have the same behaviors. As well, Lewin (1947 cited by Taraphod, T. 1983: 74) studied in the topic of social psychology and found that the group norm can influence an individual to make decision to change the attitudes in either way. Due to the force of the group which pushes and influences the group members and also can force an individual to go on with a pattern of cultures and traditions. Therefore, a group of friends can influence the process of vocational choice.

Noapradid (1984: 75) studied the process of decision-making on fishery occupation after the compulsory education plan. Study case was fishermen's children living in Amphur Hua Sai, Nokornratchasima. The study found that a group of friends has influence on the decision-making process to choose fishery occupation. Most of fishermen's children thought that their friends would take up fishery occupation after their graduation in the compulsory education plan, and that made them decide to do so. This study is consistent with that by Sutracharn (1991: 93) finding that girl students whose friends chose any from the field of engineering decided to do so.

Eaddy (1969 cited by Julagerm, S. 1997: 39) studied and made an analysis of factors affecting the process of vocational choice carried on by a number of 751 agricultural students in Louis Sieana. The result was that parents, friends, models in the field of occupation chosen, relatives, individuals in the school and priests can influence their vocational choice in different levels respectively.

Jiemsamai, Sila. who was the previous student of College of Agriculture, Udonthani, in 1973, decided to have his own sugar-cane field in 1975 until he was successful in his occupation due to the advice of his elder brother's friend. (Department of Vocational Education, 1989: 56-57)

Kwakpet (1984: a summary) studied of variables in relation to further study of students who graduate in 6 th class of primary education in southern provinces along border and Jindanukul (1989: a summary) etudied of needs and junior high school educational services: Comparative case high schools in amphur where further study rate is high and low in Ayuttaya, Lopburi and Saraburi both found if a group of close friends expected to continue further study, students would do so. Or, if friends have any education plan, students would prefer that education plan. Meanwhile, the research by Archasuwan (1989: a summary) found that a group of friends could not have any effect on further study of students.

Office of the National Education Commission (1992: 88) studied a number of factors that affect further study and students' way of life. The study found if friends study further, students would do so.

Vongsiriwat (1993: 81) studied a number of factors related to the decision-making process to choose an occupation undertaken by diploma students of vocational programs in 1990 in the lower part of the north eastern region. The study found that individual-related factors in the process of learning and teaching include advice from specialist, group teachers and advice and persuasion from students' friends which were rated medium in importance.

Chuchom (1997: a summary) made an analysis of factors related to the decision-making process on education and occupation carried on by senior high school students. The analysis demonstrated that in the process of education-occupation selection, the students of 6% wanted advice and suggestions from their friends.

3. Parent's Expectation for Children's Occupation and Decision-Making to Choose An Occupation by Students of The Vocational Diploma Course in Agriculture

The economic and social status of an individual is imposed by occupation. Chandravanicha (1991: 1) stated that occupation is the best indicator of social status e.g. rank, position and authority. The promotion of an individual's social status to a higher level has to depend on the process of social training from the family level to the level of education institutions.

Particularly, the family institution is regarded as the beginning human resource that affects the promotion of social status of children or the achievement of occupational succession. Individuals from families with different economic and social backgrounds have different opportunities for the promotion of social status. Parents are the ones who can have influence on the imposition of future educational and occupational matters for children. Generally, parents have good wished for children and want them to have opportunities parents themselves have never had before in order to compensate themselves for what they needed but not able to receive or impossible.

Hurlock (1973: 188) noted that parents has drawn pictures or dreams of what they want their children to be since their children has not yet been born. What parents wish will be the mould into which parents' hope on their children is poured thought out the lives of children. Certain parents will make decision in advance on in which level of education their children should graduate and which type of profession their children should get. However, though some parents want their children to get education, they cannot provide that to them due to certain factors concerned i.e. economic background and social background. The analysis by Kandal and Lesser

(1969 cited by Archasuwan, S. 1988: 91) found that parents' expectation is directly in relation to children education and profession. Also, parents have much more influence than that from friends and economic status. Details are in the research as below;

Petpud, et al. (1977:74) studied the influence of social institutions on how Buddhist children and Muslim children are grown up in Nakornsithammarat. The research found that the group of examples, both Buddhist Thais and Muslim Thais, wants children to carry on the same profession as their parents by fifty-fifty because they have already go through some training.

Khamkieng (1978: a summary) studied on the tendency towards profession which senior high-school students in agriculture program has. The study results in the fact that most of the students prefer further study due to their parents' need.

Kongked (1980: a summary) studied the result of parents' attitude towards degree of education occupation and parent income affecting the occupation selections of 3rd class junior high school students in Bangkok. found parents or guardians' attitude does not have any effect on the students' choice of profession. The majority of parents give their children chance to do any job desired. In addition, most of the parents want their children to work in high position or with higher honor than family's job at present, including the belief that their children can make their own decision and solve any problem concerning their occupation selection.

Rasikiengkai (1980: a summary) studied on parents' aim regarding children's education and occupations. The study used certain information from the follow-up project and the estimation of educational area division in Bangkok under the supervision of planning sector, office of permanent secretary of ministry of education. This research obtained information from parents of the group of 868 students who were studying in high schools and those of the group of 456 students in Sathit Schools, Department of University Affairs. The research found that the majority of the parents of the students from the two groups aimed the education of their children at, first, bachelor's degrees or higher and, second, vocational degrees. In addition, most of the parents of the students from the two groups expected their children to adopt specific occupation.

Yamsarura (1981: 278) studied the choice of profession in a group of fifth-year senior high school students in the fifth educational area, finding that most of the students choose occupation according to their parents' expectation.

National Education Development Center of Thailand (1983: 21) made a survey of farmers' expectation of their children's profession. The survey showed that 24% of the farmers had an intention that their children will do agricultural works as well, 27% of them showed disagreement, and another 5% want their children to work in the agricultural field along with in other fields. Regarding the tendency that they

want their children to work in other non-agricultural fields, it is found that is the general attitude in every region of the country i.e. 50% in the north, the least, but in the north east, the east, the central and the south, the three-fourth of farmers have such idea.

Uparamai, et al. (1991: 52) studied vocation development of students in sukhothai thammathirat open University : acknowledgement and interest in occupation and found that the first factor that affects the interest in occupation and the expectation on the choice of profession in the future. more than 10% up of students indicated that the factor is their parents and profession security.

Chansuksri (1992: 52) studied certain factors that put certain effects on the attitude towards high school students' earning through independent occupation in Pattani. The study was done in a group of third-year junior high school students in agriculture programs showing that the expectation of parents or job security.

Wongsiriwat (1993: 81) studied some factors regarding the decision-making process on the choice of profession carried on by diploma course students in the vocational program of agriculture 1990 in the lower part of the northeastern region. It is found that those who stay outside the process of learning and teaching i.e. parents give advice, parents select and parents want them to work in the same field of occupation as parents. Guardians are important for the decision-making process of the choice of profession at the medium level.

Akksornwong (1993: 40) studied the expectation of vocational capabilities of sixth-year senior high school students in Ubonratchatani. The study found that the parents of the students expected them to work as a teacher, equivalent to 19.9%, to be employed in the government's offices, 18.9%, and to be whatever as desired by 14.6%, which corresponds to occupation chosen by the students. It can be noted that the no.1 occupation the students mostly prefer is teacher, equivalent to 15.9% and nurse or 9.7%. In conclusion, the occupation the students preferred corresponds to what their parents expect them to take.

4. Influence of Profession Model and Decision Making to Choose An Occupation by Students of The Vocational Diploma Course in Agriculture

Referring to the theory of profession development by Tolbert, the explanation regarding this theory is that the profession development starts from identification and role of models. Most of people like to imitate their parents or others they admired due to profession, particularly in the age of teenagers. The imitation will become the basic of profession for those people in the future. There is a number of researches regarding the choice of profession under influence from others as follows:

Martin (1948 cited by Wanthanavasin, S. 1978: 14) studies about the choice of profession carried on by last-year high school students in North Carolina. The

study showed that the choice of profession made by most of the students was influenced by people they know and who are successful because of their own-selected profession.

Uzzel (1961: 666-669) made a survey regarding who has influence over the choice of profession made by the number of 301 Nigro men studying in the last year at the group fo 14 high schools in Eastern North Carolina. The survey was done by interview and questionnaire. It is found that 70% of the students replied that they knew people who were working in certain occupation they will take, and 77% of them accepted that people they know have influence over their own choice of profession. Most of these students prefer the choice of car mechanic, teacher, bricklayer, hair dresser and dress maker.

Tipton (1966: 425-435) made the study about vocational identification in the group of 217 students who select education science as major subject. The result is these students who want to work as a teacher had a close relationship with teachers they praise and admire, compared with others who prefer other subjects. Moreover, most of the students accept that teachers they praise had influence over the choice of their profession.

Eaddy (1969 cited by Thathong, T. 1986: 15) studied certain factors that are influential in selecting occupation for a group of agricultural students in Louis Siana. The study showed that father, mother, friend and models in their own chosen occupation, relatives, people in the school and priest all have influence over the choice of profession for these students, much or less in order.

Ranprai, Payak., the former student of College of Agriculture, Petburi, (por vor chor/por vor sor in plant science) is successful in diary cow farming and supplying milk to houses in Ampur Ta Yang, Petburi, said that the motivation that drive him into the field of diary cow farming was that he wanted to become rich because he saw several farmers who did diary cow farming were successful, had big houses and beautiful cars. (Department of Vocational Education, 1989: 50-53)

Personal Factors

Personal factors are a group of factors always considered as a main factor for a debate into which a decision making for selecting a type of occupation is taken. That is because selecting any occupation often depends on a student. Students in the vocational diploma course in agriculture are regarded as those who enter the first step of vocational education. According to the philosophy or the goal of vocational education, focusing on three aspects i.e. making students have agricultural knowledge, making students have good attitudes towards agricultural occupation and making students have agricultural skills, it can be regarded these qualifications are a kind of students' personal qualifications. Students can take any of them into the process of decision making for selecting a type of occupation so that they can have an occupation

in accordance with their qualification. The group of personal factors consists of skills, expectation for professional achievements, knowledge/skills of agricultural strategy as following details:

1. Skills and Decision Making for Selecting A Type of Occupation by Students of Vocational Diploma Course in Agriculture

Skills are one's personal innate abilities. Skills consist of a learner's basic knowledge due to the fact that environments are very influential in learning. Therefore, the evaluation of skills is the 888 of all learnings as a result of social environments. That causes a different way of living among people (Jiravorapong, P. 1982: 34-35) Skills is an important reason for a decision making for selecting a type of occupation. The process of occupational development is essential for the totally abstract development about oneself. Also, it is the process of the combination, as a result of the relationship between skills, transferred from experiences, and the enhancement of 888, which is consistent with the theory of vocational choice by Hoppock (1976: 111-112). The theory states that capability and skills of an individual have effects on the choice of occupation because the individual is driven to realize of requirements, and such capability and skills also make one able to estimate how much a choice of occupation chosen can fulfill his/her need. Super (1957, cited by Angkanurukpan, R. 1990: 186) made a research about one's interest in occupation. The research concludes that the interest is a very significant factor that determines a choice of educational plans and occupation. Additionally, interest may determine a direction of attempts and activities, and skills determine the level of interest.

Regarding a choice of education and occupation, it is considered as a decision to adopt an occupation that is consistent with requirements, skills and interest. When one makes a right decision, he/she will be happy while working. Further, the opportunity that one will be successful in an occupation is often high too. Paorohid (1985: 7) As well, Jutikul (1967: 2) noted that the choice of occupation is one of the most important matter taken into the process of decision making in life because that reflects one and his/her family's happiness and the country's prosperity. In the choice of occupation, one needs to study about his/her requirements, capabilities, skills, interest, characters, values and economic status. There are some researches concerning skills and the choice of occupation as follow:

Ammaranan, Pansak., the former student of Uttaradith Technic College, construction Program, who was very successful in his occupation i.e. construction and presently is a member of the Council of Uttaradith, said those who complete vocational diploma courses though taking any occupation, must consider the fact he/she loves and feels interested in that occupation. (Department of Vocational Education, 1989 : 50-53)

Chiayavong (1989: 181) studied certain factors favourable to the adoption/taking of freelance occupations by people who complete a short-term vocational diploma course. The study was specifically done in the north. According to the study, there are two factors taken into the process of decision making for a choice

of freelance occupation i.e. preference for any occupation one is skillful in and being accepted and supported in terms of economy, investment and appropriateness in a community to business expansion of that occupation.

Vongsiriwat (1993: 80) studied factors concerning a decision making for a choice of occupations by 1990 vocational diploma course students in the lower area of the northeaster region. The study found that skills, habits and the level of intelligence and ability are a type of internal motivation with relative importance.

2. Expectation for Professional Achievements and Decision Making for Selecting A Type of Occupation by Students of Vocational Diploma Course in Agriculture

According to the theory by Hoppock (1967: 111-112), the occupational satisfaction refers to any occupation that gives what one expects. If that occupation fulfill our physical and psychological needs, the one will feel satisfied and understand that we will feel satisfied with a present job or next job and do not have idea to find a new job if the present job or next job can make the one feel proud, satisfied, highly self-respect, have high social status and more opportunity. However, what one expects from an occupation does not mean only income, salary or return of the economic terms only but also include feeling while working and its value in others' eyes. There are other factors that build pride; for example, uniform, position, social status when compared with others. When work satisfaction becomes less, people begin thinking about job change to other job that is believed to be able to better fulfill needs. There is a number of researches regarding the expectation for professional achievements as follows:

Vongsiriwat (1993: 74) studies some factors concerning a decision making for selecting a type of occupations by the students of 1990 vocational diploma course in the lower part of the northeaster region. The study found that the students pay considerable attention on the analysis of activities. The continuity and expansion of activities are very important for this group of the students when they make a decision for selecting a type of occupations, including good income, easy to do in other areas and able to do self-investment.

3. Knowledge/Skills of Agricultural Strategy and Decision Making for Selecting A Type of Occupation by Students of Vocational Diploma Course in Agriculture

Knowledge and skills of agricultural strategy is the main target of the philosophy of agricultural education. Knowledge and skills of agricultural strategy can enable learners to work in the agricultural. Knowledge is one's personal qualification and a type of qualities. However, agriculture currently places emphasis on technological science and management (Intensive Agriculture) rather that the expansion of farming areas.

Agricultural skills are a type of abilities in terms of practice by using tools or instruments in a right, safe and disciplined way of working. Often practice causes expertise. Agricultural skills are an indicator of right and efficient abilities in several agricultural areas i.e. plants, animals, soil, fertilizer and agricultural works. It is said that skills are the result of self development (On-koksug, C. 1979: 105)

At present, agricultural operators mush have knowledge and skills of agricultural technology. Overall, they need to know how to appropriately use agricultural strategies to meet conditions of an area, including efficiency in land use and capital too. Such agricultural strategies show the efficiency of knowledge and planning for the future. There is no any research seriously studying in this area, however, there are some studying the surroundings of the area.

Buripakdee (1986: 23-25) made a survey throughout the country, finding that reasons why youths choose a freelance occupation include their own knowledge and abilities, family environments favorable to that freelance occupation, good economic returns and good attitudes toward the occupation.

Ongkanon (1990: 82) studied attitudes of the students of Sri Nakharinvirot Prasanmitra University towards freelance occupations. The study shows two qualifications for freelance occupations i.e. mental qualifications, knowledge, experiences, marketing knowledge, proper location, good setting, sufficient funds and investment knowledge.

Jetsadabuddit (1992: a summary) made a comparative study about basic factors necessary for the entry to freelance occupations among students in agriculture including a group of the students who want to take freelance agricultural occupations, to be employed in the government's offices and to be employed in the private sector. The students were in the 7th educational zone, Department of Vocational Education. The study found that the greatest proportion of 57.03% of the students want to take freelance occupation in the agricultural sector, the 26.56% to be employed in the government's offices and the 16.41% to be employed in the private sector.

Chuchom, et al. (1997: 39) made the analysis of factors concerning the process of decision making for selecting a type of occupations for high school students. The analysis shows that the first priority the 55.4% portion of the students consider is knowledge, ability, desire and interest. The 3.8% proportion depends on parents' requirements.

Ossachan, chana., the former student of Agricultural College in Nakornsawan and the one who is very successful in mushroom farming in Nakornsawan and selected as an exemplary student of 1989, said that he had decided to study in agriculture because he loves agriculture. Further, he is blind in his left eye, so a job opportunity is so less. Therefore, he decided to study in the field of agriculture. He chose to do angle mushroom farming because he had done before in

the first year of the course. He also saw and took it as his occupational chance when he had experiences in delivering vegetables. In Nokornsawan, there are a few who do angle mushroom farming. In addition, angle mushroom farming uses low costs. (Department of Vocational Education, 1989: 33-35)

Komsan, Chatree., the former student of Agricultural College in Chonburi. studying in agriculture and passed the short-term training course in the production of beef cattles in Kasetsart University in 1983, presently is the owner of East Farm in Kanchanaburi. He said that he chose to study in agriculture regarding how to do beef cattle farming because he loves this occupation i.e. beef cattle farming and gets experiences while he was studying. He once applied to work in the diary farming section of the College, so he is now making use of his experiences. (Department of Vocational Eduation, 1988: 38-39)

Kongkalai, Thongchai., the former student of Agricultural College in Songkla, studying in agriculture (vocational diploma course) and the former student of Rajamongkol Institute of Technology, Bang Pra, Chonburi, (a bachalor's agricultural degree), presently is the owner of Chaiyapreuk Farm in Nakornnayok. He said that the achievement of occupations must have all types of farming knowledge and marketing skills because agriculture is very challenging. (Department of Vocational Education, 1988: 44-46)

CHAPTER III

METHODOLOGY

The research's objective is to study the process of decision making for selecting a type of occupation after graduation and factors which have relationship with the process. The study is conducted with the third-year vocational diploma course students in agriculture under the project of agricultural reform in education for life at College of Agriculture and Technology in the north eastern region.

1. Population

Population in the research is a group of vocational diploma course students in agriculture under the project of agricultural reform in education for life. The students are studying in the third academic year of 1999 at the 11 places of Colleges of Agriculture and Technology, Department of Vocational Education, in the northeastern region, including Udonthani, Ubonratchathani, Roi-et, Nakornpanom Yasotorn, Mahasarakam, Nakornrachasima, Sri saket, Burirum and Chaiyaphum. There is the total of 3,943 students.

2. Sample Size

The group of samples for this research is a group of vocational diploma course students in agriculture under the Project of Agricultural Reform for Life. These students are studying in the third academic year of 1999. The research uses the systematic method of sampling according to probability sampling by taking a group of samples according to the list of districts. There are 3 districts i.e. 9th district, 10th district and 11st district. For the 9th district, a group of samples is from College of Agriculture and Technology in Udonthani, for the 10th district, groups of samples are from College of Agriculture and Technology in Nakornpanom, Ubonratchathani and Mahasarakam, for the 11th district, groups of samples are from Burirum and Nakornratchasima, totaling 2,198 students. The size of the group is set in accordance with Cohen & Cohen's principle that is a group of samples taken into analysis to find the relation between primary variables and following variables should have at least 10 times of the primary variables (Traimongkolkul, P. 1998: 84) Therefore, to make this research suitable, the size of sample groups is set at 33 times of the primary variables, totaling 18 primary variables. The sample group is the total of 594 students as in details as follows:

Table 11 Group of population studied

College of Agriculture and Technology in The Education Zone	Total of Population	Population Sample
9th Zone		
Udonthani	237	64
10th Zone		
Nakornpanom	457	124
Ubonratchathani	419	113
Mahasarakam	253	68
11st Zone		
Nakornrachasima	443	120
Buriram	389	105
Total	**2,198**	**594**

3. Instrument for This Research

The instrument used to collect the data is a sort of questionnaires the researcher designed in accordance with concepts, theory and researches, including advice and review by a party of advisors and scholars. The questionnaire is divided into three parts as follows:

Part 1: General basic information including agriculture that is a group of independent variables used in this study, there are totally 13 sections i.e. location, study place, an amount of land where the students' family occupies and the students' personal savings. Basic family occupations.The students' participation in helping their family carry on family occupations.Groups of occupations the students must take, occupations their parents prefer them to take and occupations the society prefers. The structure of main occupations in local areas. Level of skills, ability for specific areas. The potentiality of land as a type of basic factors for agricultural occupations. The inclusion is the appropriateness of soil to a type of occupations.The potentiality of water sources for agricultural occupations.A level of difficulty/not difficulty in providing agricultural technology which exists in local areas or in family.Climate in local areas focusing on climate in each season i.e. rainy, winter and summer. Transportation in local area. Land and water sources developing. Having/no having market/ industry in local area. Knowledge and skills of agricultural strategy.

Part 2:About dependent variables is decision making for selecting the type of occupations of the student i.e.Agriculture, non agriculture, further study, agriculture and further study, non agriculture and further study.

Part 3: About detail of each occupation i.e.Influence on decision making. Expectation of students'professional achievements.

4. Test of Instrument

1. Consulting several documents/researches concerned as a guideline to design the instrument

2. When the researcher had completed the preparation of the questionnaire, the questionnaire was submitted to the party of highly qualified advisors who have experiences and involve with agriculture for examining the consistency of the content and for appropriate revision.

3. Test the newly revised questionnaire on the 50 diploma course students of the vocational program in agriculture under the project of agricultural education reform for life who are studying in the third academic year at College of Agriculture and Technology, Roi-et. The result was taken into the process to find the value of reliability of the questionnaire in several parts i.e. 4, 5, 6.4, 7, 8, 10, 11, 12, according to Cronbach Alpha Coefficient. (Taweerat, P. 1997: 125) For the 13th part, KR-20 was applied. (Taweerat, P. 1997: 123) The value of reliability is as follows:

4th part (questions regarding the structure of main professions in local areas), the value of reliability is equivalent to .7923

5th part (questions regarding the skills of the students), the value of reliability is equivalent to .8774

6.4th part (questions regarding the proper conditions of soil for types of agricultural activities), the value of reliability is equivalent to .8027

7th part (questions regarding quality and sufficiency of water resources), the value of reliability is equivalent to .7882

8th part (questions regarding level of difficulty and easiness in providing agricultural technology), the value of reliability is equivalent to .7022

10th part (questions regarding the condition of transport), the value of reliability is equivalent to .7275

11st part (questions regarding water resources and land development projects), the value of reliability is equivalent to .8030

12nd part (questions regarding exchange sources of agricultural produce in local areas), the value of reliability is equivalent to .7205

13rd part (questions regarding knowledge and skills of agricultural strategy), the value of reliability is equivalent to .7180

The value of reliability in terms of influences affecting a decision making for selecting a type of occupations is equal to .9123 and that in terms of the expectation of professional achievements in each type of occupations is equal to .9274.

4. Take the tested questionnaire into consideration and revision by approval from advisors, then use it as the instrument for collecting information further.

5. Data Collection

1. The researcher has requested a recommendation letter from Mahidol University in order to use the letter to ask for assistance and cooperation from Department of Vocational Education for conducting the research at the 6 places of College of Agriculture and Technology.

2. The researcher has collected data by explaining the guideline for how to answer the questionnaire to a team of researching and evaluating teachers at the 6 place of College of Agriculture and Technology. These teachers are the research's coordinators and distributors of the questionnaire to the students according to their student number, starting from no. 1 and taking every gap between four students in each college. The research was conducted during November 18th, 1999 to December 10th, 1999. The data was the total of 574 copies of the questionnaire, or 96.6%

6. Data Analysis

The researcher made the data analysis by the SPSS program for windows version 6.5. The statistics consist of

1. Frequency distribution, percentage, minimum, maximum, mean and standard deviation

2. The statistics used to test the hypotheses is chi-square

Analytic and Evaluating Measure

1. For level of knowledge/skills of agricultural strategy, the analytic measures include

Marks between 9-12 mean the high level of knowledge/skills of agricultural strategy

Marks between 5-8 mean the relatively high level of knowledge/skills of agricultural strategy

Marks between 0-4 mean the low level of knowledge/skills of agricultural strategy

2. Presentation of significance of level of occupations

"Level 1" shows an occupation which gains high popularity

"Level 2" shows an occupation which gains relative popularity

"Level 3" shows an occupation which gain low popularity

3. Presentation of weight of influences affecting decision making for selecting type of occupations, the analytic measures include

"Level 1" shows the weight "highest" meaning that a factor is highest influential

"Level 2" shows the weight "high" meaning that a factor is highly influential

"Level 3" shows the weight "relative" meaning that a factor is relatively influential

"Level 4" shows the weight "low" meaning that a factor is lowly influential

"Level 5" shows the weight "very low" meaning that a factor is very lowly influential

4. Expectation for professional achievements, the analytic measures include

"Level 1" shows the weight "highest" meaning that the students have the expectation for that type of professional achievements at the most and taken as the destination

"Level 2" shows the weight "high" meaning that the students have the expectation for that type of professional achievements at the most and taken as the destination

"Level 3" shows the weight "relative" meaning that the students have the expectation for that type of professional achievements at the most and taken as the destination

"Level 4" shows the weight "low" meaning that the students have the expectation for that type of professional achievements at the most and taken as the destination

"Level 5" shows the weight "lowest" meaning that the students have the expectation for that type of professional achievements at the most and taken as the destination

CHAPTER IV

RESULTS

In the analysis of the data concerning the process of decision making done by the third-year students of vocational diploma in agriculture under the program of agricultural reform in education for a better life, the total sample group of 574 students are from the six samples of College of Agriculture and Technology in the northeastern region. The result of the data analysis is presented in four parts as follows:

1. Decision making for selecting the type of occupations of the students
2. General characteristics of independent variables
3. The relationship between independent variables and a decision making for selecting a type of occupations.
4. Hypothesis testing

1. Decision Making for Selecting A Type of Occupation

The students of vocational diploma in agriculture under the program of agricultural reform in education for a better life made decision to choose an occupation . See details in Table 12 as below:

Table 12 The decision making for selecting a type of occupation by the students of vocational diploma in agriculture

Type of Occupation	Quantity(person)	%
1. Agriculture	51	8.9
2. Non-agriculture	43	7.5
3. Further study	274	47.7
4. Agriculture and further study	116	20.2
5. Non-agriculture and further study	90	15.7
Total	**574**	**100.0**

According to table 12, after graduation in the third year of vocational diploma in agriculture, the 83.6% proportion of the students chooses to take further study. Almost half of them intends to study only, and the rest will begin an occupation along with further study. A few students, not up to 10%, make decision to work in the agriculture sector and in the non-agriculture sector only. Details of each type of occupation are as follows:

1. Further Study

Table 13 The further study is classified into groups i.e. further study only, beginning an agricultural occupation along with further study and beginning a non-agricultural along with further study

Education	Further Study Only		Agricultural+ Further Study		Non-agricultural+ Further study		Quantity (person)	%
	Quantity (person)	%	Quantity (person)	%	Quantity (person)	%		
1. vocational course chosen for further study	**271**	**100.0**	**113**	**100.0**	**87**	**100.0**	**471**	100.0
- Agriculture	150	55.3	77	68.1	27	31.0	254	53.9
- Non- agriculture	121	44.7	36	31.9	60	69.0	217	46.1
2. Educational levels of vocational course in agriculture	**142**	**100.0**	**86**	**100.0**	**25**	**100.0**	**253**	**100.0**
- High vocational diploma	84	59.1	52	60.5	16	64.0	152	60.1
- Bachelor's degree	58	40.9	34	39.5	9	36.0	101	39.9
3. Educational levels of vocational courses in non-agriculture	**155**	**100.0**	**20**	**100.0**	**40**	**100.0**	**175**	**100.0**
- High vocational diploma	57	49.6	16	80.0	9	22.5	82	46.9
- Bachelor's degree	58	50.4	4	20.0	31	77.5	93	53.1
4. Location of education institutes in case further study	**266**	**100.0**	**113**	**100.0**	**87**	**100.0**	**466**	**100.0**
- Within local area	17	6.4	19	16.8	5	5.8	41	8.8
- In district area	153	57.5	66	58.4	46	52.9	265	56.9
- In provincial area	83	31.2	26	23.0	35	40.2	144	30.9
- Other provinces	13	4.9	2	1.8	1	1.1	16	3.4
5. Aspects of further study	**261**	**100.0**	**110**	**100.0**	**83**	**100.0**	**454**	**100.0**
- Vocational education for development of rural area	7	2.7	24	21.8	15	18.1	46	10.1
- Vocational education	172	65.9	56	50.9	31	37.3	259	57.1
- Open university	42	16.1	21	19.1	13	15.7	76	16.7
- Rajabhat Institute	40	15.3	9	8.2	24	28.9	73	16.1

According to table 13, over half of the students who aim to take further study on higher levels, overall, desires to enter the vocational education of agriculture rather than the vocational education of non-agriculture occupation or in the proportion 54:46. Also, this group mostly desire to continue up to the level of high vocational diploma rather than a bachelor's degrees. The group who chooses to study in the vocational education of non-agriculture is totally different. Over 90% of the students will carry on with further study in educational institutes in their provinces, more particularly institutes under vocational education.

2. Investment in Occupation of Students

Table 14 The size of projects and investments is classified according to a type of occupation

Project	Type of Occupation									
	Agricultural		Non-agricultural		Further Study		Agricultural + Further Study		Non-agricultural+ Further Study	
	Quantity (person)	%	Quantity (person)	%	Quantity (person)	%	Quantity (person)	%	Quantity (person)	%
1. Size of business operation										
- Very small	1	2.0	4	21.0	-	-	8	7.8	3	12.5
- Small	13	26.0	8	42.1	-	-	34	33.3	14	58.3
- Medium	36	72.0	6	31.6	-	-	57	55.9	6	25.0
- Quiet big	0	0.0	1	5.3	-	-	3	3.0	1	4.2
- Big	0	0.0	0	0.0	-	-	0	0.0	0	0.0
Total	**50**	**100.0**	**19**	**100.0**	-	-	**102**	**100.0**	**24**	**100.0**
2.Investment (Baht)										
500 - 50,000	41	82.0	13	81.3	-	-	99	85.3	18	81.8
50,001 - 100,000	8	16.0	2	12.5	-	-	12	10.3	4	18.2
100,001 - 200,000	1	2.0	1	6.3	-	-	3	2.6	0	0.0
200,001 - 300,000	0	0.0	0	0.0	-	-	0	0.0	0	0.0
300,001 - 400,000	0	0.0	0	0.0	-	-	0	0.0	0	0.0
400,001 - 500,000	0	0.0	0	0.0	-	-	0	0.0	0	0.0
More than 500,000 up	0	0.0	0	0.0	-	-	2	1.7	0	0.0
Total	**50**	**100.0**	**16**	**100.0**	-	-	**116**	**100.0**	**22**	**100.0**
	Min = 2,000 baht Max = 200,000 baht		Min = 1,500 baht Max = 200,000 baht		____		Min = 1,000 baht Max = 5,000,000 baht		Min = 500 baht Max = 100,000 baht	

According to table 14, all the students who choose every type of occupation, except further study, will start their business operation from a small size to a medium size. Most of them estimate an amount of investment between 500 – 50,000 baht.

3. Proportion of Investment Funds Supported by Family/Relatives

Table 15 The proportion of investment funds supported by family/relatives is classified according to a type of occupation

Type of Occupation	Proportion of Investment Fund Supported by Family/Relatives							
	High (70-100%)		Medium (40-69%)		Low (70-39%)		Total	
	Quantity (person)	%	Quantity (person)	%	Quantity (person)	%	Quantity (person)	%
1. Agricultural	6	12.0	9	18.0	35	70.0	50	16.8
2. Non- agricultural	1	2.4	5	11.9	36	85.7	42	14.1
3. Further study	-	-	-	-	-	-	-	-
4. Agricultural and further study	21	18.1	19	16.4	76	65.5	116	38.9
5. Non- agricultural and further study	2	2.2	5	5.6	83	92.2	90	30.2
Total	**30**	**10.1**	**38**	**12.7**	**230**	**77.2**	**298**	**100.0**

According to table 15, about two-third of the students can be supported by their family and relatives by lower than 40% of a project's investment fund. There is only one-tenth of them can be financially supported by their family/relatives with a considerable amount of money.

4. Occupation of Students who Decide on The Agriculture Sector and The Non-agriculture Sector, according to the table as follows:

Table 16 The occupation by the students who decide on the agriculture sector is classified according to a type of agricultural activities

Agricultural Activity	Quantity (person)	%	Type of Plants/Animals
1. Rice farming	35	20.5	Rice
2. Garden	25	14.6	Garden Vegetable/mango
3. Crops farming	18	10.5	Tapioca/sugar-cane
4. Animal farming	30	17.5	Chicken/cattle
5. Fish farming	29	17.0	Catfish/nile tilapia
6. Shellfish farming	1	0.6	-
7. Manufacturing process of plants/animal	3	1.7	Mango/suasage/ preserved fruits
8. New theory-based mixed agriculture	15	8.8	-
9. Propagation of plants/animals	6	3.5	Mango/fighting cock
10. Agricultural business	1	0.6	Potted vegetable/selling preserved fruits
11. Employed in agriculture sector	1	0.6	-
12. The government's positions related to agriculture	7	4.1	-
Total	**171**	**100.0**	

According to table 16, the type of agricultural activities gaining most popularity is rice farming, fish farming e.g. catfish, nile tilapia and animal farming e.g. chicken, pigs, cattle, etc. Only 8.8% of the students desire to do new theory-based mixed agriculture.

5. Occupation by Students who Decide on The Non-agriculture Sector

Table 17 The occupation by the students who decide on the non-agriculture sector is classified according to a type of occupation and operating places

Type of Occupation	Quantity (person)	%
1. Type of occupation		
- Skilled craftsman	16	12.4
- Private business	25	19.4
- Employed in the services business sector	33	25.6
- Employed in the industry sector	34	26.3
- The government's positions not related to agriculture	21	16.3
Total	**129**	**100.0**
2. Operating place		
- In students' family	8	6.5
- In local areas the students live	29	23.4
- In districts the students live	14	11.3
- In provinces the students live	37	29.8
- Other provinces	6	29.0
Total	**124**	**100.0**

According to table 17, The fifty-fifty proportion of the students who choose either non-agricultural occupation or non-agricultural occupation along with further study chooses to be employed in the services business sector and in the industry sector. About one-tenth desires to be employed in the government's offices on the basis of regular incomes. Another one-tenth chooses to be a skilled craftsman and to have personal business. The majority i.e. about two-third desires to work in their province, and the rest wants to work in other provinces.

2. General Characteristics of Independent Variables

1. Land

Table 18 Land and general characteristics of land

Characteristics	Quantity (person)	%	$\bar{X}$	SD
1. Size of land ownership	**574**	**100.0**	**19.78**	**21.75**
- No land	40	7.0		
- 1-40 rai	491	85.5		
- 41-80 rai	38	6.6		
- 81-120 rai	2	0.4		
- More than 120 rai	3	0.5		
2. Location	**568**	**100.0**		
- Plain	212	37.3		
- Low land	127	22.4		
- Sloping land	34	5.9		
- High land	169	29.8		
- Others	26	4.6		
3. Land structure	**567**	**100.1**		
- Friable soil	90	15.9		
- Sandy soil	30	5.3		
- Clay	25	4.4		
- Laterite soil	13	2.3		
- Sandy loam	320	56.4		
- Sandy clay	76	13.4		
- Others	13	2.3		
4. Soil quality	**566**	**100.0**		
- Normal	409	72.3		
- Sour soil	25	4.4		
- Salty soil	58	10.2		
- Depleted soil	61	10.8		
- Others	13	2.3		

$\bar{X}$ = 19.78 rai , Min = 0 rai Max =300 rai

According to table 18, the students who have the land ownership of 19.78 rai, on average, own 1 – 40 rai of land, and 7% do not have their own land. Regarding location, 59.7% are plain land and low land. Sloping land is as less as 5.9%. In terms of land structure, more than 50% are sandy loam, and 2.3% are laterite soil. About two-third are normal soil. The rest i.e. about one-fourth is poor-conditioned soil e.g. sour soil, salty soil and depleted soil which needs a significant improvement to certain condition suitable for agricultural activities.

2. Acknowledgement About Level of Suitability of Land for Agriculture

Table 19 Suitability level of land is classified according to the type of agricultural activities

Type of Agricultural Activity	Suitability Level of Land													
	Most Suitable (5 marks)		Very Suitable (4 marks)		Quite Suitable (3 marks)		Little Suitable (2 marks)		Not Suitable (1 mark)		Total	%	$\overline{X}$	SD
	Quantity	%	Quantity	%	Quantity	%	Quantity	%	Quantity	%				
1. Rice farming	215	38.5	170	30.4	127	22.7	23	4.1	24	4.3	559	100.0	3.95	1.1
2. Garden	48	8.6	182	32.6	242	43.3	60	10.7	27	4.8	559	100.0	3.29	0.9
3. Crops farming	67	12.0	175	31.3	191	34.2	84	15.0	42	7.5	559	100.0	3.25	1.1
4. Animal farming	73	13.1	203	36.3	173	30.9	76	13.6	34	6.1	559	100.0	3.37	1.1
5. Fish farming	44	7.9	116	20.8	195	34.9	117	20.9	87	15.6	559	100.0	2.84	1.2
6. Shellfish farming	8	1.4	30	5.4	80	14.3	153	27.4	288	51.5	559	100.0	1.78	1.0
7. Manufacturing process plants/animals	18	3.2	47	8.4	171	30.6	185	33.1	138	24.7	559	100.0	2.32	1.0
8. Propagation of plants/animals	16	2.9	105	18.8	209	37.4	131	23.4	98	17.5	559	100.0	2.66	1.1
9. New theory-based mixed agriculture	79	14.1	171	30.6	174	31.1	67	12.0	68	12.2	559	100.0	3.23	1.2
10. Agriculture business	21	3.8	78	14.0	178	31.9	140	25.1	141	25.2	558	100.0	2.46	1.1
11. Others	3	23.0	1	7.7	5	38.5	0	0.0	4	30.8	13	100.0	2.92	1.6

According to table 19, the students acknowledge that most of their land are suitable for agricultural activities as indicated in the "quite suitable". Refer to the classification of agricultural activities, it is found that the students' land is most suitable for rice farming, then animal farming, garden and crops farming respectively. Shellfish is the type of agricultural activities not suitable for the nature of the land.

3. Acknowledgement of Quality of Water Sources

Table 20 Quality level of water for agricultural activities is classified according to water sources

Water Source	Quality level of water								
	Good (3 marks)		Fair (2 marks)		Not Good (1 mark)		Total	%	$\bar{X}$
	Quantity (person)	%	Quantity (person)	%	Quantity (person)	%			
1. Rainwater	213	37.7	315	55.9	36	6.4	564	100.0	2.3
2. Water in canal, stream, swamp, marsh	160	29.7	295	54.8	83	15.4	538	100.0	2.1
3. Water supplied by irrigation (reservoir, dam electricity water supply project)	115	24.3	186	39.2	173	36.5	474	100.0	1.9
4. Artesian well water	71	14.2	242	48.4	187	37.4	500	100.0	1.8
5. Water in well, pond in the student's land	125	24.0	292	56.0	104	20.0	521	100.0	2.0
6. Others.....(piped water)	1	100.0	0	0.0	0	0.0	1	100.0	3.0

According to table 20, the quality of water from different sources i.e. water from the sky, water on land surface and underground water for agricultural use. The majority of the students acknowledges that the quality of water is fair. Between the fair level and the good level is rainwater.

4. Adequate Quantity of Water Sources for Agricultural Activities in Rainy and Dry Season

Table 21 Level of adequate quantity of water for agricultural activities in rainy and dry season is classified by water sources

Water Source	Level of Adequate Quantity of Water in Rainy Season								
	Adequate (3 marks)		Adequate/ Unadequate (2 marks)		Unadequate (1 mark)		Total	%	$\bar{X}$
	Quantity (person)	%	Quantity (person)	%	Quantity (person)	%			
1. Rainy season									
- Rainwater	245	46.8	257	49.0	22	4.2	524	100.0	2.4
- Water in canal, stream, swamp, marsh	249	48.7	195	38.2	67	13.1	511	100.0	2.4
- Water supplied by irrigation (reservoir, dam, electricity water supply project)	165	36.1	147	32.2	145	31.7	457	100.0	2.0
- Artesian well water	147	32.0	168	36.5	145	31.5	460	100.0	2.0
- Water in well, pond in the land of the students	195	38.6	214	42.4	96	19.0	505	100.0	2.2
- Others..(piped water)	1	100.0	0	0.0	0	0.0	1	100.0	3.0
2. Dry season									
- Rainwater	49	9.4	236	45.5	234	45.1	519	100.0	10.6
- Water in canal, stream, swamp, marsh	77	15.5	217	43.8	202	40.7	496	100.0	1.6
- Water supplied by irrigation (reservoir, dam, electricity water supply project)	76	17.0	178	39.8	193	43.2	447	100.0	1.7
- Artesian well water	58	12.5	193	41.8	211	45.7	462	100.0	1.7
- Water in well, pond in the land of the students	70	14.1	224	45.2	202	40.7	496	100.0	1.7
- Others..(piped water)	1	100.0	0	0.0	0	0.0	1	100.0	3.0

According to table 21, the quantity of water in every source for agricultural activities in rainy season is in the level of adequate/unadequate on average. In summer or dry season , the students acknowledge that the quantity of water from every source, except piped water, is in the level of adequate/unadequate, more particularly, quiet unadequate.

5. Capacity Level in Providing Agricultural Technology

Table 22 Capacity level in providing agricultural technology in local area is classified according to type of technology

Technology	Capacity Level								$\overline{X}$
	Easiest (3 marks)		Relatively Easy (2 marks)		Difficult (1 mark)		Total		
	Quantity (person)	%	Quantity (person)	%	Quantity (person)	%	Quantity (person)	%	
1. Agricultural machinery	69	12.2	393	69.6	103	18.2	565	100.0	1.9
2. Plant spicies (good spicies)	83	14.7	376	66.7	105	18.6	564	100.0	2.0
3. Animal spicies (good spicies)	36	6.4	362	64.6	162	29.0	560	100.0	1.8
4. Agricultural chemical substances	91	16.2	336	60.0	134	23.8	561	100.0	1.9
5. Biochemical substances/manure	213	38.0	292	52.0	56	10.0	561	100.0	2.3
6. Intelligence sources from organizations/supporting institutes	33	5.9	256	46.1	266	48.0	555	100.0	1.6
7. Demonstration sources or exemplary farmers in local areas	33	5.9	244	43.9	279	50.2	556	100.0	1.6

According to table 22, overall the capacity level in providing agricultural technology is in the "relatively easy" level. Biochemical technology/manure are the easiest to be provided in the students' local area, followed by good spicies of plants and agricultural machinery. Demonstration sources or exemplary farmers are the most difficult to be provided, including intelligence sources from organizations / institutes providing support.

6. Professional Background of Family (Main Occupation of family)

Table 23 Main occupation of family is classified according to a type of occupation

Type of Occupation	Quantity of selection		Total	
	Quantity (person)	%	Quantity (person)	%
1. Agriculture occupation i.e.	547	100.0	547	96.1
- Rice farming	434	79.3		
- Garden	17	3.1		
- Crops farming	50	9.1		
- Animal farming	7	1.3		
- Fishery	2	0.4		
- Employed in agriculture sector	18	3.3		
- Mixed agriculture	6	1.1		
- Exchange/manufacturing process of agricultural produce/ agriculture technology	6	1.1		
- Others(mushroom farming)	7	1.3		
2. Independent occupation	6	100.0	6	1.1
- Craftsman	2	33.3		
- Personal business in the non agriculture sector	4	66.7		
3. Employment	9	100.0	9	1.6
- Service business sector	4	44.4		
- Industry sector	5	55.6		
4. Government's positions	7	100.0	7	1.2
- Government offices	7	100.0		
- State-owned enterprise	0	0.0		
Total	**569**	**100.0**	**569**	**100.0**

According to table 23, the main professional background of family of the majority of the students, 96.1%, is in the agriculture sector i.e. rice farming, crops farming and garden followed by being employed. Only 1.2% of them show the main professional background is being employed in the government sector.

7. Participation of Students in Helping Their Family to Work

Table 24 Level of participation in helping their family is classified according to a type of main occupation

Type of Main Occupation	Level of Participation								
	Vary Often (3 marks)		Sometimes (2 marks)		Not Often/Not (1 mark)		Total		$\bar{X}$
	Quantity (person)	%	Quantity (person)	%	Quantity (person)	%	Quantity (person)	%	
1. Agriculture Career									
- Rice farming	163	32.0	334	65.6	12	2.4	509	100.0	2.3
- Garden	22	8.9	193	77.8	33	13.3	248	100.0	2.0
- Crops farming	47	18.4	179	70.2	29	11.4	255	100.0	2.1
- Animal farming	11	19.3	35	61.4	11	19.3	57	100.0	2.0
- Fishery	4	17.4	12	52.2	7	30.4	23	100.0	1.9
- Employed in agriculture sector	14	8.0	124	70.9	37	21.1	175	100.0	1.9
- Mixed agriculture	7	22.6	19	61.3	5	16.1	31	100.0	2.1
- Exchange/manufacturing process of agricultural produce/agriculture technology	1	5.0	15	75.0	4	20.0	20	100.0	1.9
- Others(mushroom farming)	2	20.0	3	30.0	5	50.0	10	100.0	1.7
2. Independent occupation									
- Craftsman	4	15.4	14	53.8	8	30.8	26	100.0	1.9
- Personal business in the non-agriculture sector	7	21.2	15	45.5	11	33.3	33	100.0	1.9
3. Employment									
- Service business sector	0	0.0	6	46.2	7	53.86	13	100.0	1.5
- Industry sector	2	7.3	13	40.6	17	53.1	32	100.0	1.5
4. Government's positions									
- Government offices	0	0.0	2	14.3	12	85.7	14	100.0	1.1
- State-owned enterprise	0	0.0	0	0.0	0	0.0	0	100.0	0.0

According to table 24, the participation of the students in helping their family to work in many occupation, on average, is between the "not often" level and the "sometimes" level. More particularly, for the group of agricultural occupation, which are the main occupation of family, the students sometimes show the participation. The agricultural activity the students show the highest participation is rice farming, crops farming and garden respectively.

8. Climate

Table 25 Climate in local areas acknowledged by the students is classified according to seasons

Rainy			winter			Summer		
Rainfall	**Quantity (person)**	**%**	**Level of Coldness**	**Quantity (person)**	**%**	**Level of Hotness**	**Quantity (person)**	**%**
Heavy rainfall	51	8.9	Very cold	32	5.6	Very hot	151	26.6
Abundant rainfall	144	25.3	Cold	198	34.7	Hot	229	40.2
Constant rainfall	272	47.8	Relatively cold	261	45.8	Relatively hot	143	25.1
A little rainfall	94	16.5	A little cold	78	13.7	A little hot	36	6.3
Little rainfall	8	1.5	Not cold	1	0.2	Not hot	10	1.8
Total	**569**	**100.0**	**Total**	**570**	**100.0**	**Total**	**569**	**100.0**

According to table 25, in rainy season the amount of rain is between "constant rainfall" and "abundant rainfall". About one-fifth of the students is living in the "a little rainfall" zone or the "little rainfall" zone, both of which are a type of restrictions on agricultural activities. In summer, more than 50% of the students are living in the "hot" zone to the "very hot" zone. In winter, most of the students are living in the "relatively cold" zone to the "cold" zone.

9. Transport in Local Areas

Table 26 Level of convenience in transport into land every season is classified according to type of vehicles

Type of Vehicle	Level of Convenience in Transport								$\bar{X}$
	Very convenient (3 marks)		Relatively convenient (2 marks)		Not convenient (1 mark)		Total		
	Quantity (person)	%	Quantity (person)	%	Quantity (person)	%	Quantity (person)	%	
1. Human / Animal	89	15.8	308	54.8	186	29.4	562	100.0	1.9
2. Agricultural car / I-tan	208	37.1	313	55.8	230	7.1	561	100.0	2.3
3. Truck	215	39.2	250	45.5	224	15.3	549	100.0	2.2
4. Medium and big sized carrier	176	32.5	235	43.4	208	24.1	542	100.0	2.1

According to table 26, the condition of transport in most of the students' local area throughout the year is relatively convenient. Four-wheel cars or more than can enter agricultural areas. That shows roads provide convenience in the transport of agricultural produce. About one-fourth of students is living in some areas where there are no roads. That means a type of restrictions on the transport of agricultural produce is there.

10. Land / Water Source Development

Table 27 Level of benefits gained from projects of soil / water source development in local areas is classified by different projects

Type of Project	Level of Benefit Gained from Project											
	Highest (5 marks)		High (4 marks)		Medium (3 marks)		Low (2 marks)		No (1 mark)		To-tal	$\bar{X}$
	Quantity (person)	%	Quantity (person)	%	Quantity (person)	%	Quantity (person)	%	Quantity (person)	%	(per son)	
1. Land Development Project												
- Soil improvement project(e.g. soil surface covering plant, use of fertilizers/compost)	22	4.0	62	10.8	196	34.0	182	31.7	112	19.5	574	2.5
- Soil erosion protection project (e.g. soil barrier, growing of elephant grass)	4	0.7	64	11.1	137	23.9	205	35.7	164	28.6	574	2.2
- pH value balancing project(e.g. use of white cement, cement, shell nut, furrow digging, fertilizing of manure, compost, ploughing)	12	2.1	65	11.3	157	27.4	186	32.4	154	26.8	574	2.3
- Soil restoration project by circulation of plants	14	2.4	84	14.6	198	34.5	175	30.5	103	18.0	574	2.5
2. Water Development Project												
- Water management project in irrigation system from agricul-ture (e.g. dam, reservoir, water supplying canal, electric water supplying project)	31	5.4	94	16.4	204	35.5	142	24.7	103	18.0	574	2.7
- pH value balancing project i.e. growing of water – hyacinth, lotus, water lettuce, curly leaf pondweed.	8	1.4	32	5.6	94	16.4	208	36.3	231	40.3	573	1.9
- Water resource establishment project by means of drilling (e.g. artesian well for agriculture)	12	2.1	84	14.7	193	33.7	182	31.8	101	17.7	572	2.5
- Improvement of shallow area of natural water resources (e.g. digging & cleaning of canal, pond, swamp)	51	9.0	121	21.1	205	35.8	130	22.7	65	11.4	572	2.9

According to table 27, on average, soil development for agricultural activities in local areas is on a low level. The project which is on the highest level of development is soil conditioning by means of the circulation of plants.

Regarding water source development for agricultural activities in the students' local area, on average, is on a medium level. The project which is on the highest level of development is improvement on a shallow area of natural water sources i.e. digging and cleaning canals, swamps, marshes and by means of irrigation. The project which is on the lowest level of development in local areas is improvement on the acid-base condition of water.

11. Main Occupation Structure in Local Areas

Table 28 Occupation of local people in the students' areas is classified according to a type of occupation

Type	Quantity (person)	%	% of each type of occupation
1. Agriculture occupation i.e.			
1.1 Farming (rice)	207	49.6	
1.2 Garden (garden vegetable)	31	7.4	
1.3 Crops (tapioca)	95	22.8	
1.4 Animal farming (cattle)	17	4.1	
1.5 Fish farming (catfish)	7	1.7	
1.6 Employed in agriculture sector	40	9.6	
1.7 Mixed agriculture	6	1.4	
1.8 Exchange/ manufacturing process of agricultural produce/ agricultural technology	13	3.1	
1.9 Mushroom farming	2	0.5	
Total	**417**	**100.0**	**72.8**
2. Independent occupation			
2.1 Craftsman	21	65.6	
2.2 Personal business in the non-agriculture sector	11	34.4	
Total	**32**	**100.0**	**5.6**
3. Employment			
3.1 Service business sector	5	18.5	
3.2 Industry sector	22	81.5	
Total	**27**	**100.0**	**4.7**
4. The Government's position			
4.1 Government office	11	78.6	
4.2 State-owned enterprises	3	21.4	
Total	**14**	**100.0**	**2.4**
5. Further study			
5.1 Agriculture	19	22.9	
5.2 Non- agricultural	64	77.1	
Total	**83**	**100.0**	**14.5**
Total of all types of occupations	**573**	**100.0**	**100.0**

According to table 28, the majority of people in the students' local area is working in the agriculture sector. It shows that the structure of main occupation in local areas is the farming of economic plants including rice, tapioca, garden vegetables, and economic animals including cattle. The farming of catfish is the most popular type of fish farming.

12. Markets or Industrial Factories Purchasing Agricultural Produce

Table 29 Acknowledgement of sources purchasing agricultural product and purchasing capacity is classified according to a type of market

Type of Markets	Seen Situation						Purchasing Capacity							
	Yes		No		Total	$\overline{X}$	High (3 marks)		Medium (2 marks)		Low (1 mark)		Total	$\overline{X}$
	Quantity (person)	%	Quantity (person)	%			Quantity (person)	%	Quantity (person)	%	Quantity (person)	%		
1. Local market in area/nearby	500	87.1	74	12.9	574	0.87	64	13.8	340	73.8	57	12.4	461	2.02
2. Factories in local area/ nearby	336	58.5	238	41.5	574	0.59	90	28.4	178	56.2	49	15.4	317	2.13
3. Middleman purchasing	466	81.2	108	18.8	574	0.81	84	19.5	293	68.1	53	12.3	430	2.07
4. Local agricultural cooperatives	405	70.6	169	29.4	574	0.71	59	15.8	254	68.3	59	15.9	372	2.00

According to table 29, there are markets to purchase agricultural produce in most of the students' local areas. However, a number of industrial factories is the least. On average, the purchasing capacity is on a medium level. By the initial analysis, that markets cannot purchase the whole amount of agricultural produce is due to the fact that the same type of agricultural produce is produced in a large quantity. That is a type of restrictions on agricultural production. Meanwhile, a variety of markets in the students' local area is expanding as well.

13. Skills of Students

Table 30 Levels of skills / capability of the students is classified according to a type of occupation

Type of occupation	Level of Skill/Capabilities of Students										Total	%	$\bar{X}$
	Highest (5 marks)		High (4 mark)		Medium (3 marks)		Low (2 marks)		Lowest (1 mark)				
	Quantity (person)	%	Quantity (person)	%	Quantity (person)	%	Quantity (person)	%	Quantity (person)	%			
1. agriculture occupation i.e.													
- Rice farming	173	30.1	145	25.3	179	31.2	49	8.5	28	4.9	574	100.0	3.7
- Garden	22	3.8	134	23.3	270	47.0	98	17.1	50	8.7	574	100.0	3.0
- Crops farming	40	7.0	108	18.8	240	41.8	112	19.5	74	12.9	574	100.0	2.9
- Animal farming	13	2.3	52	9.1	178	31.0	202	35.2	129	22.5	574	100.0	2.3
- Fishery	12	2.1	56	9.8	193	33.6	184	32.0	129	22.5	574	100.0	2.4
- Employed in agriculture sector	24	4.2	90	15.7	212	36.9	128	22.3	120	20.9	574	100.0	2.6
- Exchange of agricultural produce	8	1.4	58	10.1	200	34.8	157	27.4	151	26.3	574	100.0	2.3
- New theory-based mixed agriculture	27	4.7	63	11.0	178	31.0	146	25.4	160	27.9	574	100.0	2.4
- Manufacturing process of agricultural produce	8	1.4	39	6.8	165	28.7	200	34.8	162	28.2	574	100.0	2.2
- Exchange of agricultural technology	2	0.3	26	4.5	127	22.1	160	27.6	258	44.9	573	100.0	1.9
- Others (mushroom farming)	2	11.0	5	27.8	5	27.8	3	16.7	3	16.7	18	100.0	0.1
2. Independent Occupation													
- Craftsman	11	1.9	57	9.9	158	27.5	149	26.0	199	34.7	574	100.0	2.2
- Personal business in the non-agriculture sector	7	1.2	40	7.0	142	24.7	169	29.4	216	37.7	574	100.0	2.1
3. Employment													
- Service business sector	3	0.5	26	4.5	139	24.2	164	28.6	24.2	42.2	574	100.0	1.9
- Industry sector	10	1.7	70	12.2	181	31.5	147	25.6	29.0	28.9	573	100.0	2.3
4. Government's positions													
- Government offices	14	2.4	44	7.7	130	22.7	143	25.0	242	42.2	573	100.0	2.0
- State-owned enterprise	7	1.2	28	4.9	102	17.9	148	25.9	286	50.1	571	100.0	1.8

According to table 30, the level of the students' agricultural skills and capability in the main four groups of occupation is medium, overall. The skills and capability to do rice farming are higher than others. Over 50% of the students accept their level of skills or capability is "low" and "lowest" to do certain types of agriculture i.e. animal farming, fish farming, exchange of agricultural produce, new

theory-based mixed agriculture, manufacturing process of agricultural produce, exchange of agricultural technology and other non-agricultural occupation.

14 Knowledge and Skills of Agricultural Strategy

There are totally 12 questions each of which means one mark. For those whose answers on the standard of positive appropriateness will get the total of 12 marks. Detailed answers are presented in table 31 and table 32.

Table 31 Knowledge and skills of agricultural strategy suitable for Thai society at present

Detail	Suitability for Thai Society	Quantity (person)	%
1. Type of development idea		**574**	**100.0**
- No land	+	80	14.0
- Have land but soil not good	-	39	6.8
- Have land but no water	-	141	24.6
- Have land but no have fund	-	298	51.9
- No problem	+	16	2.8
2. Type of agricultural activity suitable for Thai society		**574**	**100.0**
- Only one type of plant or animal farming	-	22	3.8
- Several types of plant farming on the principle that they are naturally dependent	+	109	19.0
- Plant/animal farming for basic family needs first	+	374	65.1
- Do a lot of agricultural business	-	69	12.0
3. Investment guideline		**574**	**100.0**
- Start with small-size projects to expansion later	+	562	97.9
- Start with big-size projects based on knowledge for sure	-	12	2.1

Table 31 Knowledge and skills of agricultural strategy suitable for Thai society at present (cont.)

Detail	Suitability for Thai Society	Quantity (Person)	%
4. Investment method		**574**	**100.0**
- Consider one's own financial strength first, then financial assistance from family or relatives but not in type of borrowing	+	360	62.7
- Consider how much a project needs, if one's own financial strength or financial assistance from family are not sufficient, then asking for loans from lending sources or financial institutions in an amount as much as required by the project's target	-	214	37.3
5. Target of agricultural produce		**574**	**100.0**
- Good quality and safety more focused than quantity	+	235	44.1
- Quantity only	-	38	6.6
- Quantity and quality	+	283	49.3
6. Market target for distribution		**574**	**100.0**
- Local markets	+	323	56.3
- Distribution through co-operatives	+	110	19.2
- Distribution through middle markets	-	119	20.7
- Distribution through international markets	-	22	3.8
7. Production pattern		**565**	**100.0**
- Non-seasonal production and planning of different production	+	227	40.2
- Production in the same way as others i.e. any gets good price for any produce, follow them	-	51	9.0
- Production of other things with belief that it is possible though nobody has done before in area.	+	287	50.8

Table 31 Knowledge and skills of agricultural strategy suitable for Thai society at present (cont.)

Detail	Suitability for Thai Society	Quantity (Person)	%
8. To reduce exploitation from middlemen		**574**	**100.0**
- Gather farmers as many as possible into a group	+	454	79.1
- Make negotiation by depending on capability, knowledge and intellegence which are higher than villagers	-	120	20.9
9. Approach to add value to agricultural produce		**574**	**100.0**
- Manufacturing process	+	451	78.6
- Fast selling but use catalyst to accelerate productive capacity in order to sell faster than others	-	72	12.5
- Storage if during that time, price is not good	+	51	8.9
10. **Agricultural method development** focusing on use of biochemical technology, how much that will solve environmental pollutions and health problems of people who are facing		**574**	**100.0**
- Very practical because in the past agricultural activities aim at earnings regardless of deforestation and loss of natural balance as a result of use of chemical substances in the agriculture sector	+	81	66.4
- Not practical because farmers are not the maker of problems	-	143	24.9
- Farmers do not have duty to solve such problems, but those who should solve 02 them are the government offices concerned.	-	50	8.7

Table 31 Knowledge and skills of agricultural strategy suitable for Thai society at present(cont.)

Detail	Suitability for Thai Society	Quantity (Person)	%
11. Type of substances for agricultural use		**574**	**100.0**
- Herbal substances available to save costs	+	215	37.5
- Biochemical substances made by oneself to save costs	+	122	21.3
- Agricultural chemical substances due to fast results	-	29	5.0
- Use of agricultural chemical substances, herbale substances and biochemical substances	-	208	36.2
12. Method to create naturally environmental balance		**574**	**100.0**
- Soil conditioning e.g. circulation of plants, soil surface covering plants	+	491	85.5
- Exchange of plant spicies / animal spicies from different areas	-	75	13.1
- Burn weeds or dead plants after harvesting	-	8	1.4

Table 32 A number of the students who are considered possessing positive knowledge and skills of agricultural strategy is classified according to each level of marks totally obtained

Level of Total Marks	Quantity (person)	%
0	2	0.3
1	4	0.7
2	6	1.1
3	15	2.6
4	36	6.3
5	93	16.2
6	116	20.2
7	140	24.4
8	94	16.4
9	50	8.7
10	14	2.4
11	4	0.7
12	0	0.0
Total	**574**	**100.0**

X =6.52 Marks, SD = 1.74, Min = 0 Mark, Max = 11 Marks

According to table 31 and table 32, it can be stated that the students' average level of knowledge and skills related to agricultural strategy is on the "medium" level on average. However, there are certain points that will probably cause negative results or obstacles against the development of the agriculture sector in the future. Firstly, only 15% of the students aim to work in the field of agriculture despite certain problems in terms of land, investment funds, water source are there. The rest, or 85% of them, is waiting for the time when they are ready in terms of those mentioned above. Secondly, about one-third of the students has not yet considered or realized the significance of permanent agriculture that does not put any impact on environments. For inclusion of chemical substance use in agricultural activities, the use of biochemical substances is fifty-fifty in proportion. In addition, about one-fifth of the students does not make use of the means of being a group to reduce exploitation from middlemen.

15. Expectation of Students' Professional Achievements

Table 33 Level of expectation of the students' professional achievements is classified according to a type of expectation

Type of Expectation	Level of Expectation Chosen by Students											
	No.1 (5 marks)		No.2 (4 marks)		No.3 (3 marks)		No.4 (2 marks)		No.5 (1 mark)		Marks Total	Level
	Quantity (person)	%	Quantity	%	Quantity	%	Quantity	%	Quantity	%		
1. Good income and security	243	42.3	106	18.5	77	13.4	51	8.9	30	5.2	2,002	1
2. Become rich	60	10.5	115	20.0	106	18.5	115	20.0	95	16.6	1,403	3
3. Increase knowledge and expertise	142	24.7	126	22.0	147	25.6	52	9.1	30	5.2	1,789	2
4. Attain level of honor and be accepted by a society	27	4.7	36	6.3	67	11.7	144	25.1	210	36.6	978	5
5. Extend benefits to local society	62	10.8	104	18.1	94	16.4	119	20.7	115	20.0	1,361	4

According to table 33, the no. 1 professional achievement the students expect is that they will obtain high income and security from their occupation. That shows the fact that the students want certain occupation which provides security and makes them afford themselves. The next professional achievements are an increase in knowledge and expertise and becoming rich.

16. Students' Personal Savings

Table 34 A number of the students is classified according to the size of savings

Amount of Savings	Quantity (person)	%
No savings	396	69.0
1 – 4,500 Baht	151	26.3
4,501 – 9,000 Baht	18	3.1
9,001 – 15,000 Baht	9	1.6
Total	**574**	**100.0**

X = 697.42 Baht, Min = 0 Baht, Max = 15,000 Baht

According to table 34, it is found that the students have the average savings of 697.42 baht, and about two-third does not have savings.

17. Social Values Towards Type of Occupation

Table 35 Social values towards a type of occupation with respect to the students, parents, local people, which type of occupations they prefer most, according to a type of occupation

Type of Occupation	Students		Father-Mother		Local People	
	Quantity (person)	%	Quantity (person)	%	Quantity (person)	%
1. Agricultural activity	213	43.0	135	28.5	235	49.7
2. Independent occupation	49	9.9	45	9.5	22	4.7
3. Employed	22	4.4	30	6.3	51	10.8
4. Employed in the government 's positions	89	18.0	173	36.6	100	21.1
5. Further study	122	24.7	90	19.0	65	13.7
Total	**495**	**100.0**	**473**	**100.0**	**473**	**100.0**

According to table 35, details are presented in the groups as follows:

Student Group The type of occupation which the students mostly prefer include agriculture, further study in vocational courses and the government's positions respectively.

Father-Mother Group The type of occupation father and mother mostly prefer their children to take include the government's positions, agriculture and further study in vocational courses respectively.

Local People Group The type of occupation local people mostly prefer their children or grandchildren to take include agriculture, the government's positions and further study in vocational courses respectively.

18. Influences on Decision Making

Table 36 Level of type of influences on the students' decision making for selecting a type of occupation is classified according to a type of influence

Type of Influence	Level Selected					Marks Total	Level
	No.1 (5 marks	No.2 (4 marks	No.3 (3 marks	No.4 (2 marks	No.5 (1 mark)		
1. Preference/skill	370	85	37	22	22	2,367	1
2. Parent support	96	240	120	44	16	1,904	2
3. Preference of local people	23	59	110	210	93	1,194	4
4. Persuasion by friend or boy/girlfriend	15	18	61	109	285	833	5
5. Professional model	59	94	164	103	78	1,447	3

According to table 36, it is found that the no. 1 influence on the students' decision making for selecting a type of occupation is preference/skills, followed by parent support and professional models respectively. The influence that is the least important is persuasion by friends or boy/girlfriend. Qualifications of professional models whose influence is on the students' decision making for selecting a type of occupation are showing in table 37.

19. Qualification of Professional Models

Table 37 Qualifications of professional models are classified according to a type of predominant occupation

Predominant Occupation	Quantity	%	No.
1. Determined, serious, not easy to surrender	31	57.4	1
2. Having ideas different from others and systematic thinking	2	3.7	4
3. Planning at the beginning	8	14.8	3
4. Diligence	13	24.1	2
Total	**54**	**100.0**	

According to table 37, it is found that the no.1 qualification of professional models the students consider first is the qualification of being determined and serious, followed by diligence and planning at the beginning respectively.

3.The Relationship Between Independent Variables and Decision Making for Selecting A Type of Occupation Analyzed by The χ^2 Value

In the analysis of the relationship between independent variables and a type of occupation, there are three types of occupation i.e. agriculture, non-agriculture and further study, to reduce the value of expected count less than 5 into 0%

1. The relationship between a size of land ownership and a type of occupation the students make decision to choose

Table 38 The relationship between a size of land ownership and a decision making for selecting an occupation, including the χ^2 value (particularly for those who own land, compared with the average value of ownership i.e. 19.78 rai)

Average level of land ownership	Type of Occupation Chosen							
	Agricultural		Non-agricultural		Further study		Total	
	Quantity (person)	%	Quantity (person)	%	Quantity (person)	%	Quantity (person)	%
Above average	74	28.4	55	21.1	132	50.6	100.0	261
Below average	93	29.7	78	24.9	142	45.4	100.0	313
Total	**167**	**29.1**	**133**	**23.2**	**274**	**47.7**	**100.0**	**574**

χ^2 = 1.808, d.f.= 2, P-Value =.405

According to table 38, it shows that the size of land ownership, particularly for those who own land, results in the fact that the students' decision making for selecting a type of occupation is not different. The students who own land, regardless above or below the average of 19.78 rai, will decide to take further study, then to choose an occupation in agriculture and to choose a occupation in non-agriculture.

2. The relationship between sufficiency of water sources for agricultural activities in rainy season and a type of occupation the students make decide to choose

Table 39 The relationship between sufficiency of water in rainy season and a decision making for selecting a type of occupation, including the χ^2 value

Sufficiency	Type of Occupation Chosen						%	Quantity
	Agricultural		Non-agricultural		Further Study			
	Quantity (person)	%	Quantity (person)	%	Quantity (person)	%		
Very sufficient	64	26.0	66	26.8	116	47.2	100.0	246
Sufficient	81	31.6	51	19.9	124	48.4	100.0	256
Sometimes sufficient								
Insufficient	11	25.6	10	23.2	22	51.1	100.0	43
Total	**156**	**28.6**	**127**	**23.3**	**262**	**48.1**	**100.0**	**255**

χ^2 = 4.242, d.f.= 4, P-Value= .374

According to table 39, the sufficiency of water sources for agricultural activities in rainy season does not affect a decision making for selecting a type of occupation. However, it can be seen that the majority of the students is from areas where the quantity of water for agricultural activities in rainy season sometimes is sufficient and sometimes not. If the quantity of water is insufficient, the tendency towards agricultural occupation will be lower, and that towards further study will be higher.

3. The relationship between agricultural technology and type of occupation the students make decide to choose

Table 40 The relationship between a level of difficulty/easiness in providing agricultural technology to decision making for selecting a type of occupation, including the χ^2 value

Level of Difficulty/Easiness In Providing Technology	Type of Occupation Chosen							
	Agricultural		Non-agricultural		Further Study		Total	
	Quantity (person)	%	Quantity (person)	%	Quantity (person)	%	%	Quantity (person)
Difficult	5	26.3	4	21.1	10	52.6	100.0	19
Quite difficult	146	28.5	120	23.4	246	48.1	100.0	512
Easiest	13	37.1	9	25.7	13	37.2	100.0	35
Total	**164**	**29.0**	**133**	**23.5**	**269**	**47.5**	**100.0**	**566**

χ^2 = 1.939, d.f.= 4, P-Value= .747

According to table 40, the difficulty and easiness in providing agricultural technology in local areas do not put any effect on the students' decision making for selecting a type of occupation. However, in certain areas where there are some difficulties in providing technology, the students tend to take further study. Meanwhile, they mostly choose to do agriculture activities in areas where technology is easy to be provided. However, overall, most of the students are from areas where technology is easy to be provided.

4. The relation between professional background of family and a type of occupation chosen

Table 41 The relationship between professional background of family to a decision making for selecting a type of occupation, including the χ^2 value

Family Occupation	Type of Occupation Chosen							
	Agricultural		Non-Agricultural		Further Study		Total	
	Quantity (person)	%	Quantity (person)	%	Quantity (person)	%	%	Quantity (person)
Agricultural	142	28.8	117	23.7	234	47.5	100.0	493
Independent	14	35.0	8	20.0	18	45.0	100.0	40
Employed	7	28.0	6	24.0	12	48.0	100.0	25
Government's positions	1	11.1	1	11.1	7	77.8	100.0	9
Total	**164**	**28.9**	**132**	**23.3**	**271**	**47.8**	**100.0**	**567**

χ^2 = 4.084, d.f.= 6, P-Value= .665

According to table 41, the main professional background of family does not affect a decision making for selecting a type of occupation. However, the students whose family concentrates on agricultural occupation tend to take further study. The students whose family is employed as government officials have little tendency towards agriculture occupation and non-agricultural occupation. They will choose further study.

5. The relationship between transport and a type of occupation chosen

Table 42 The relationship between transport and decision making for selecting a type of occupation, including the χ^2 value

Transport	Type of occupation Chosen							
	Agricultural		Non-agricultural		Further Study		Total	
	Quantity (person)	%	Quantity (person)	%	Quantity (person)	%	%	Quantity (person)
Convenient	63	25.8	58	23.8	123	50.4	100.0	244
Relatively convenient	96	31.5	71	23.3	138	45.2	100.0	305
Inconvenient	5	27.8	3	16.6	10	55.6	100.0	18
Total	**164**	**28.9**	**132**	**23.3**	**271**	**47.8**	**100.0**	**567**

χ^2 = 2.861, d.f.= 4, P-Value= .581

According to table 42, it is found that local transport does not affect a decision making for selecting a type of occupation. Overall, local transport is relatively convenient. However, in certain areas in which transport is inconvenient the students have a tendency to choose further study. At the same time, a occupation in agriculture is chosen by a smaller number of the students for local transport is inconvenient.

6. The relationship between seasonal climate and decision making for selecting a type of occupation

Table 43 The relationship between rainfall in rainy season and decision making for selecting a type of occupation, including the χ^2 value

Rainfall	Type of occupation Chosen							
	Agricultural		Non-Agricultural		Further Study		Total	
	Quantity (person)	%	Quantity (person)	%	Quantity (person)	%	%	Quantity (person)
Heavy rain	56	28.7	42	21.5	97	49.8	100.0	195
Constant rain	76	27.9	63	23.2	133	48.9	100.0	272
No rain	34	33.3	26	25.5	42	41.2	100.0	18
Total	**166**	**29.2**	**131**	**23.0**	**272**	**47.8**	**100.0**	**567**

χ^2 = 2.378, d.f.=4, P-Value =.667

According to table 43, rainfall does not impact on a decision making for selecting a type of occupation. However, the students in local areas in which there is heavy rain in rainy season tend to continue with further study.

7. The relationship between land development and decision making for selecting a type of occupation

Table 44 The relationship between land development and a decision making for selecting a type of occupation, including the χ^2 value

Level of Land Development	Type of Occupation Chosen							
	Agricultural		Non-Agricultural		Further Study		Total	
	Quantity (person)	%	Quantity (person)	%	Quantity (person)	%	%	Quantity (person)
High	9	24.4	11	29.7	17	45.9	100.0	37
Medium	100	27.0	87	23.4	184	49.6	100.0	371
Low	58	34.9	35	21.1	73	44.0	100.0	166
Total	**167**	**29.1**	**133**	**23.2**	**274**	**47.7**	**100.0**	**574**

χ^2 = 4.620, d.f.=4, P-Value =.329

According to table 44, it is found that the level of land development in local areas does not impact on a decision making for selecting a type of occupation. However, in local areas where the level of land development is high the students have a tendency towards further study and non-agricultural occupation. For certain areas with the low level of land development, the students prefer to work in the agriculture sector.

8. The relationship between water sources development and decision making for selecting a type of occupation

Table 45 The relationship between level of water sources development and decision making for selecting a type of occupation, including the χ^2 value

Level of Water Sources Development	Type of Occupation Chosen							
	Agricultural		Non-aricultural		Further study		Total	
	Quantity (person)	%	Quantity (person)	%	Quantity (person)	%	%	Quantity (person)
High	11	24.4	13	28.9	21	46.7	100.0	45
Medium	110	28.1	89	22.7	193	49.2	100.0	392
Low	46	33.6	31	22.6	60	43.8	100.0	137
Total	**167**	**29.1**	**133**	**23.2**	**274**	**47.7**	**100.0**	**574**

χ^2 = 2.754, d.f.=4, P-Value =.600

According to table 45, the level of water sources development does not put any effect on a decision making for selecting a type of occupation. However, overall, it is found that in local areas of the majority of the students there is the development of water sources on the medium level. The students living in local areas in which the level of water sources development is high would choose the profession of non-agriculture. By contrast, those in certain local areas with the low level of water sources development prefer to work in the agricultural field.

9. The relationship between structure of main profession in local areas and decision making for selecting a type of occupation

Table 46 The relationship between structure of main profession in local area and decision making for selecting a type of occupation, including the χ^2 value

Main Occupation in Local Areas	Type of occupation Chosen							
	Agricultural		Non-agricultural		Further Study		Total	
	Quantity (person)	%	Quantity (person)	%	Quantity (person)	%	%	Quantity (person)
1.Agriculture	64	27.7	50	21.6	117	50.6	100.0	231
2.Independent	28	32.6	23	26.7	35	40.7	100.0	86
3.Employed	28	36.8	15	19.7	33	43.4	100.0	76
4.Government positions	9	25.0	9	25.0	18	50.0	100.0	36
5.Further study	38	26.4	36	25.0	70	48.6	100.0	144
Total	**167**	**29.1**	**133**	**23.2**	**273**	**47.6**	**100.0**	**573**

χ^2 = 5.654, d.f.=8, P-Value =.686

According to table 46, the structure of main occupation in local areas have effects on a decision-making for selecting a type of occupation, which is quite different. In local areas where agricultural occupation are regarded as the main occupation the students tend to choose to continue with further study and to work in the field of agriculture. The students decide on further study in local areas in which independent occupation are mainly preferred. For local areas of which most people are employed in the government's offices, the fifty-fifty proportion of the students decide on further study.

10. The relationship between having/do not having markets/ industrial factories and decision making for selecting a type of occupation

Table 47 The relationship between having/do not having markets/industrial factories and decision making for selecting a type of occupation, including the χ^2 value

Markets/ Industrial Factories	Type of Occupation Chosen							
	Agricultural		Non-agricultural		Further Study		Total	
	Quantity (person)	%	Quantity (person)	%	Quantity (person)	%	%	Quantity (person)
Have	162	29.0	131	23.4	266	47.6	100.0	559
Do not have	5	33.3	2	13.3	8	53.4	100.0	15
Total	**167**	**29.1**	**133**	**23.2**	**274**	**47.7**	**100.0**	**574**

χ^2 = .840, d.f.=2, P-Value =.657

According to table 47, the existence of markets/industrial factories does not impact on a decision making for selecting a type of occupation. In certain local areas where there are and there are no markets/industrial factories, the students would choose further study and agricultural occupation.

11. The relationship between amount of savings and decision making for selecting a type of occupation

Table 48 The relationship between students' amount of savings and decision making for selecting a type of occupation, including the χ^2 value (particularly, for those who have keep savings by comparing with the average amount of savings i.e. 697.42 baht)

Level of savings on average	Type of Occupation Chosen							
	Agricultural		Non-agricultural		Further Study		Total	
	Quantity (person)	%	Quantity (person)	%	Quantity (person)	%	%	Quantity (person)
Higher	41	31.1	26	19.7	65	49.2	100.0	132
Lower	126	28.5	107	24.2	209	473	100.0	442
Total	**167**	**29.1**	**133**	**23.2**	**274**	**47.7**	**100.0**	**574**

χ^2 = 1.202, d.f.=2, P-Value= .548

According to table 48, an amount of savings does not put any effect on a decision making for selecting a type of occupation. It can be said that either the students have savings higher than 697.42 baht or lower than that, they prefer the choice of further study. The choice of agricultural occupation and of non-agricultural occupation are following respectively.

12. The relationship between skills and decision making for selecting a type of occupation

Table 49 The relationship between skills in various groups of occupation and decision making for selecting a type of occupation, including the χ^2 value

Skills in Occupation	Type of Occupation Chosen							
	Agricultural		Non-agricultural		Further Study		Total	
	Quantity (person)	%	Quantity (person)	%	Quantity (person)	%	%	Quantity (person)
Agricultural	94	31.6	60	20.2	143	48.1	100.0	297
Independent	41	29.4	36	26.1	61	44.2	100.0	138
Employed	32	23.0	37	26.6	70	50.4	100.0	139
Total	**167**	**29.1**	**133**	**23.2**	**274**	**47.7**	**100.0**	**574**

χ^2 = 5.368, d.f.=4, P-Value= .252

According to table 49, the availability of skills in occupation does not affect a decision making for selecting a type of occupation. However, the students who have skills in agriculture tend to prefer the choice of agricultural occupation and of further study. The others who are skillful in employed occupation would make decision to take further study and non-agricultural occupation.

13. The relationship between expectation of professional achievements and decision making for selecting a type of occupation

Table 50 The relationship between expectation of professional achievements and decision making for selecting a type of occupation, including the χ^2 value

Expectation of Professional	Type of Occupation Chosen							
	Agricultural		Non-agricultural		Further Study		Total	
	Quantity (person)	%	Quantity (person)	%	Quantity (person)	%	%	Quantity (person)
1. Good income/security	79	32.2	74	30.2	92	37.6	100.0	245
2. Wealth	17	27.9	19	31.1	25	41.0	100.0	61
3. Knowledge and expertise	35	25.4	21	15.2	82	59.4	100.0	138
4. Accepted by society	7	25.0	4	14.3	17	60.7	100.0	28
5. Making community benefits	19	31.0	6	10.0	36	59.0	100.0	61
Total	**157**	**29.5**	**124**	**23.3**	**252**	**47.3**	**100.0**	**533**

χ^2 = 30.537, d.f.=8, P-Value= .000

According to table 50, the expectation of professional achievements affects a decision making for selecting a type of occupation. Those who prefer good income take the choice of further study. Who like wealth take the choice of further study and of non-agricultural occupation. The students expecting to gain knowledge and skills will choose that of further study and then agricultural occupation. And, those who expect to be accepted by a society and to make community benefits would make decision on further study, not non-agricultural occupation.

14. The relationship between knowledge/skills of agricultural strategy and decision making for selecting a type of occupation

Table 51 The relationship between level of scores in terms of knowledge and skills of agricultural strategy and decision making for selecting a type of occupation, including the χ^2 value (comparison of average score = 6.50)

Level of knowledge/ skills compared	Type of Occupation Chosen							
	Agricultural		Non-agricultural		Further Study		Total	
	Quantity (person)	%	Quantity (person)	%	Quantity (person)	%	%	Quantity (person)
More than	86	28.5	76	25.2	140	46.4	100	302
Less than	81	29.8	57	21.0	134	49.3	100	272
Total	**167**	**29.1**	**133**	**23.2**	**274**	**47.7**	**100.0**	**574**

χ^2 = .1431, d.f.=2, P-Value= .489

According to table 51, a level of knowledge/skills of agricultural strategy, when compared with the average value, affects a decision making for selecting a type of occupation, that is not different. The majority of the students prefers the choice of further study, followed by agricultural and non-agricultural occupation, regardless marks higher than or lower than the average marks.

15. The relationship between social values towards type of occupation and decision making for selecting a type of occupation

Table 52 The relationship between level of social values towards type of occupation of local people and decision making for selecting a type of occupation, including the χ^2 value

Social Value Towards Type of Occupation	Type of Occupation Chosen							
	Agricultural		Non-agricultural		Further Study		Total	
	Quantity (person)	%	Quantity (person)	%	Quantity (person)	%	%	Quantity (person)
1. Agricultural	79	29.2	63	23.2	129	47.6	100.0	271
2. Independent	5	18.5	5	18.5	17	63.0	100.0	27
3. Employed	12	24.0	15	30.0	23	46.0	100.0	50
4. Government's positions	24	28.9	17	20.5	42	50.6	100.0	83
5. Further study	21	37.5	13	23.2	22	39.3	100.0	56
Total	**141**	**29.0**	**113**	**23.2**	**233**	**47.8**	**100.0**	**487**

χ^2 = 6.690, d.f.=8, P-Value= .570

According to table 52, social values towards a type of occupation affects a decision making for selecting a type of occupation, that is not different. The students would prefer the choice of further study regardless of social values in their local area. However, for those who choose the choice of non-agricultural occupation, it is found that there is social values towards employment in their local area.

16. The relationship between parents' expectation for children's occupation and decision making for selecting a type of occupation

Table 53 The relationship between children's occupation expected by parents and decision making for selecting a type of occupation, including the χ^2 value

Type of Children's Occupation	Type of Occupation Chosen							
	Agricultural		Non-agricultural		Further Study		Total	
	Quantity (person)	%	Quantity (person)	%	Quantity (person)	%	%	Quantity (person)
1. Government's positions	18	18.8	12	12.5	66	68.8	100.0	96
2 Agricultural	72	30.3	56	23.5	110	46.2	100.0	238
3. Further study	35	29.2	32	26.7	53	44.2	100.0	120
4. Independent	20	45.5	10	22.7	14	31.8	100.0	44
5. Occupation Employed	2	18.2	3	27.3	6	54.5	100.0	11
Total	**147**	**28.9**	**113**	**22.2**	**249**	**48.9**	**100.0**	**509**

χ^2 = 24.988, d.f.=8, P-Value= .002

According to table 53, it is found that parents' expectation of children's occupation affects a decision making for selecting a type of occupation. If parents want children to be employed in the government's offices, the students mostly prefer the choice of further study to that of agriculture and non-agriculture. If parents want children to do agricultural works, the proportion of students who choose to do agricultural works is higher than those of who choose to do non-agricultural works. As well as the group of the "further study" choosing students, if parents want them to work in the field of independent occupation, the proportion of those who choose the choice of further study and of agricultural occupation is relatively high. In case that parents want the students to be employed, it is found that the students make decision on further study and non-agricultural occupation. That is easy to find occupation sources.

17. The relationship between friend influence and and decision making for selecting a type of occupation chosen

Table 54 The relationship between friend influence and decision making for selecting a type of occupation, including the χ^2 value

Level of Friend Influence	Type of Occupation Chosen							
	Agricultural		Non-agricultural		Further Study		Total	
	Quantity (person)	%	Quantity (person)	%	Quantity (person)	%	%	Quantity (person)
No. 1	24	8.5	18	6.4	241	85.2	100.0	283
No. 2	7	6.5	10	9.3	91	84.3	100.0	108
No. 3	4	6.6	4	6.6	53	86.9	100.0	61
รวม	**35**	**7.8**	**32**	**7.0**	**385**	**85.2**	**100.0**	**452**

χ^2 = 6.165, d.f.=8, P-Value= .629

According to table 54, it is found that friend influence affects a decision making for selecting a type of occupation. However, the students who make decision on further study tend to be influenced by friends, when compared with those who choose the other two choices.

18. The relationship between influence from professional models and decision making for selecting a type of occupation chosen

Table 55 The relationship between level of influence from professional models and decision making for selecting a type of occupation, including the χ^2 value

Level of Influence From Professional Model	Type of Occupation Chosen							
	Agricultural		Non-agricultural		Further Study		Total	
	Quantity (person)	%	Quantity (person)	%	Quantity (person)	%	%	Quantity (person)
No. 1	24	31.2	19	24.7	34	44.2	100.0	77
No. 2	30	29.4	24	23.5	48	47.1	100.0	102
No. 3	46	28.4	36	22.2	80	49.4	100.0	162
No. 4	27	28.4	21	22.1	47	49.5	100.0	95
No. 5	15	25.0	15	25.0	30	50.0	100.0	60
Total	**142**	**28.6**	**115**	**23.2**	**239**	**48.2**	**100.0**	**496**

χ^2 = 1.161, d.f.=8, P-Value= .997

According to table 55, it is found that professional models put certain effects on a decision making for selecting a type of occupation. However, the students who make decision on agriculture are influenced by professional models rather than those who prefer non-agriculture.

4. Hypothesis Testing

In the study of decision makings for selecting a type of occupation done by the third-year students of vocational diploma course in agriculture under the project of agricultural reform in education for life at College of Agriculture and Technology in North Eastern, there are certain hypotheses and facts put forward as follows:

First Hypothesis; Land has a relationship with decision making for selecting a type of occupation

According to table 38, the majority of the students, equivalent to 50.6%, who shows the ownership of land more than 19.78 rai chooses to have further study. Only 28.4% prefer agricultural occupation, and the rest chooses non-agricultural occupation. Meanwhile, those who show the ownership of land less than 19.78 rai choose a occupation in the same way. When the relationship between a size of land ownership and a decision making for selecting a type of occupation is taken into consideration, the χ^2 value is 1.806 with 2 degree of freedom (d.f. = 2). The χ^2 value is compared to the table=5.99 at the reliability of 95%. There is no difference. It can be said that the students' decision making for selecting a type of occupation does not depend on a size of land ownership. Therefore, the hypothesis is rejected.

Second Hypothesis; Water source has a relationship with decision making for selecting a type of occupation

According to table 39, whether water sources are sufficient for agricultural activities in rainy season or not, the majority of the students prefers the choice of further study. When the sufficiency of water sources for agricultural activities in rainy season is considered in relation to a decision making for selecting a type of occupation, the χ^2 value of 4.242 is with 4 degree of freedom (d.f. = 4). The χ^2 value is compared to the table=9.49 at the reliability of 95%. In conclusion, both of the variables are independent with each other. The hypothesis is rejected.

Third Hypothesis; Agricultural technology has a relationship with decision making for selecting a type of occupation

According to table 40, whether it is difficult or not to provide agricultural technology, the students will make decision to study further. The second decision is to begin agricultural occupation. When the relationship between the state of it is difficult/easy to provide agricultural technology and a decision making for selecting a type of occupation is taken into consideration, the χ^2 value of 1.939 has 4 degree of freedom (d.f. = 4). The χ^2 value is compared to the table=9.49 at the reliability of 95%. The evidence has led to the conclusion that these two variables are independent with each other. The hypothesis is rejected.

Fourth Hypothesis; Professional background of family has a relationship with decision making for selecting a type of occupation

According to table 41, though the students' family concentrates on agricultural occupation or independent occupation or the government's positions, the majority of the students prefers the choice of further study. They also select agricultural occupation and non-agricultural occupation in similar proportion. When the relationship between professional background of family and a decision making for selecting a type of occupation is considered, the χ^2 value of 4.084 has 6 degree of freedom (d.f. = 6). The χ^2 value is compared to the table=12.59 at the reliability of 95%. Therefore, the two variables are independent with each other or have no connection. The hypothesis is rejected.

Fifth Hypothesis; Transport has a relationship with decision making for selecting a type of occupation

According to table 42, it is found regardless which type of condition transport is, most of the students prefer the choice of further study, followed by agricultural occupation and non-agricultural occupation. When the relationship between transport and a decision making for selecting a type of occupation is in consideration, the χ^2 value is 2.861 with 4 degree of freedom (d.f. = 4). The χ^2 value is compared to with the table=9.49 at the reliability of 95%. In summary, the two variables are independent with each other or have no connection. The hypothesis is rejected.

Sixth Hypothesis; Climate has a relationship with decision making for selecting a type of occupation

According to table 43, it is found regardless which type of condition the rainfall is, most of the students aim to continue with further study first, then to begin agricultural occupation and non-agricultural occupation in a similar proportion respectively. When the relationship between climate and a decision making for selecting a type of occupation is taken into consideration, the χ^2 value of 2.378 has 4 degree of freedom (df 4). The χ^2 value is compared to the table=9.49 at the reliability of 95%. In conclusion, these two variables are independent with each other or have no connection. The hypothesis is rejected.

Seventh Hypothesis; Land development has a relationship with decision making for selecting a type of occupation

According to table 44, regardless land development is on a high or medium or low level, the majority of the students decides to select the choice of further study. More particularly, in local areas where land development is on a low level, about 34.9% of the students choose agricultural occupation, and the portion of 21.1% prefers the choice of non-agricultural occupation. When the relationship between land development and a decision making for selecting a type of occupation is considered, the χ^2 value of 4.620 has 4 degree of freedom (df 4). The χ^2 value is compared to the table=9.49 at the reliability of 95%. The evidence has led to the conclusion that these two variables are independent with each other or do not affect a decision making for selecting a type of occupation. Therefore, the hypothesis is rejected.

Eighth Hypothesis; Water source development has a relationship with decision making for selecting a type of occupation

According to table 45, regardless the level of water source development in local areas, most of the students aim to study further. More particularly, in local areas where water source development is on a low level, the 33.6% portion of the students selects agricultural occupation, and 22.6% choose non-agricultural occupation. When the development of water sources stays on a high level, the students in the proportion of 24.4% choose agricultural occupation, and the portion of 28.9% prefers the choice of non-agriculture occupation. When the relationship between water source development and a decision making for selecting a type of occupation is taken into consideration, the χ^2 value is 2.754 with 4 degree of freedom (d.f. = 4). The χ^2 value is compared to the table=9.49 at the reliability of 95%. This evidence have led to the conclusion that the two variables are independent with each other. The hypothesis is rejected.

Ninth Hypothesis; Structure of main occupation in local area has a relationship with decision making for selecting a type of occupation

According to table 46, regardless the main occupation in the students' local areas, most of them aim to take further study. More particularly, when the main occupation of local areas is agriculture, about 27.7% of the students select agricultural

occupation, 21.6% choose non-agricultural occupation, and the rest prefers the choice of further study. When the relationship between the structure of main occupation in local areas and a decision making on choice of occupation is considered, the χ^2 value is 5.654 with 8 degree of freedom (d.f. = 8). The χ^2 value is compared to the table=15.51 at the reliability of 95%. The summary is these two variables are independent with each other, that means a structure of main occupation does not have effects on a decision making for selecting a type of occupation. The hypothesis is rejected.

Tenth Hypothesis; Existence of markets or industrial factories has a relationship with decision making for selecting a type of occupation

According to table 47, whether there are markets or industrial factories in local areas or not, the majority of the students prefers the choice of further study. However, for those who come from some local areas where there are no markets or industrial factories, about 33.3% of them prefer the choice of agricultural occupation, 53.4% prefer the choice of further study, and the rest prefers the choice of non-agricultural occupation. When the relationship between existence of markets or industrial factories and a decision making for selecting a type of occupation is taken into consideration, the χ^2 value is .840 with 2 degree of freedom (d.f. = 2). The χ^2 value is compared to the table=5.99 at the reliability of 95%. This evidence has led to the conclusion that the two variables are independent with each other i.e. they do not affect a decision making for selecting a type of occupation. The hypothesis is rejected.

Eleventh Hypothesis; Amount of savings has a relationship with decision making for selecting a type of occupation

According to table 48, most of the students who have savings higher or lower than the average of 697.42 baht choose to take further study. The rest prefers the choice of agricultural occupation and non-agricultural occupation respectively. When the relationship between an amount of savings and a decision making for selecting a type of occupation is taken into consideration, the χ^2 value is 1.202 with 2 degree of freedom (d.f. = 2). The χ^2 value is compared to the table=5.99 at the reliability of 95%. This evidence can conclude that the two variables are independent with each other i.e. a decision making does not depend on an amount of savings. The hypothesis is rejected.

Twelfth Hypothesis; Skills have a relationship with decision making for selecting a type of occupation

According to table 49, about 48.1% of the students with agricultural skills prefer the choice of further study, the portion of 31.6% selects agricultural occupation, and the rest of 20.2% prefers non-agricultural occupation. About 23.0% of the students with skills in employed works go for agricultural occupation, 23.2% prefer the choice of non-agricultural occupation, and the rest of 50.4% choose further study. When the relationship between the availability of skills and a decision making for selecting a type of occupation is taken into consideration, the χ^2 value is 5.368 with 4

degree of freedom (d.f. = 4). The χ^2 value is compared to the table=9.49 at the reliability of 95%. This evidence has led to the conclusion that the two variables are independent with each other. The hypothesis is rejected.

Thirteenth Hypothesis; Expectation of professional achievements has a relationship with decision making for selecting a type of occupation

According to table 50, about 37.6% of the students who have the expectation of professional achievements in terms of good incomes and security prefer the choice of further study. The portion of 32.2% selects agricultural occupation, and the rest of 30.2% prefers non-agricultural occupation. In terms of knowledge and skills, the students of 59.4% prefer the choice of further study, the portion of 25.4% prefers agricultural, and the students of 15.2% choose non-agricultural occupation. In terms of being recognized by a society, the proportion of 60.7% chooses the choice of further study, and the rest of 25.0% chooses agricultural occupation. When the relationship between the expectation of professional achievements and a decision making for selecting a type of occupation is taken into consideration, the χ^2 value is 30.537 with 8 degree of freedom (d.f. = 8). The χ^2 value is compared to the table=15.51 at the reliability of 95%. There are implicitly statistical differences. The hypothesis is accepted. A decision making for selecting a type of occupation depends on the expectation of professional achievements.

Fourteenth Hypothesis; Knowledge/skills of agricultural strategy have a relationship with decision making for selecting a type of occupation

According to table 51, regardless the students obtain marks showing a higher or lower level of knowledge/skills of agricultural strategy than the average of 6.50 marks, most of the students aim to have further study and to work in the field of agriculture respectively. When the relationship between knowledge/skills of agricultural strategy and a decision making for selecting a type of occupation is taken into consideration, the χ^2 value is 1.431 with 2 degree of freedom (d.f. = 2). The χ^2 value is compared to the table=5.99 with the reliability of 95%. The evidence have led to the conclusion that a decision making is independent from a level of knowledge/skills of agricultural strategy. The hypothesis is rejected.

Fifteenth Hypothesis; Social values towards a type of occupation have a relationship with decision making for selecting a type of occupation

According to table 52, whether there are social values towards agricultural occupation, independent occupation, being employed, being employed in the government's offices and further study in local areas or not, most of the students choose further study. If there are positive social values towards agricultural occupation in local areas, the proportion of 47.6% chooses to study further, 29.2% choose agricultural occupation and 23.2% choose non-agricultural occupation. If there are positive social values towards further study, the 39.3% proportion of the students chooses further study, 37.5% choose agricultural occupation and 23.2% choose non-agricultural occupation respectively. When the relationship between social values

towards a type of occupation and a decision-making for selecting a type of occupation is taken into consideration, the χ^2 value is 6.690 with 8 degree of freedom (d.f. = 8). The χ^2 value is compared to the table=15.51 with the reliability of 95%. The evidence has led to the conclusion that a decision making for selecting a type of occupation and social values towards a type of occupation are independent with each other. The hypothesis is rejected.

Sixteenth Hypothesis; Parents' expectation for children's future occupation has a relationship with decision making for selecting a type of occupation

According to table 53, if parents expect the students to be employed in the government's offices, most of the students, equivalent to 68.8%, choose to study further. Only 18.8% choose to do agricultural works, and about 12.5% choose to do non-agricultural works. For those whose parents expect to do independent works, about 45.5% of them prefer agricultural occupation. The proportion of 22.7% will prefer non-agricultural occupation, and that of 31.8% prefer further study. If parents expect the students to enter the agriculture sector, about 30.3% of them choose agricultural occupation. The proportion of 46.2% choose further study, and the rest choose non-agricultural occupation. When the relationship between parents' expectation for children's future occupation and a decision making for selecting a type of occupation is taken into consideration, the χ^2 value is 24.988 with 8 degree of freedom (d.f. = 8). The χ^2 value is compared to the table=15.51 with the reliability of 95%. There are implicitly statistical differences, or the students' decision making for selecting a type of occupation depend on parents' expectation. The hypothesis is accepted.

Seventeenth Hypothesis; Friend influence has a relationship with decision making for selecting a type of occupation

According to table 54, the students in the proportion of 85.2% accept that friend influence is most influential, ranked as no.1, in their decision making for selecting a type of occupation. Consequently, they prefer the choice of further study. However, the 8.5% portion of them chooses agricultural occupation, and that of 6.4% chooses non-agricultural occupation. When the relationship between friend influence and a decision making for selecting a type of occupation is taken into consideration, the χ^2 value is 6.165 with 8 degree of freedom (d.f. = 8). The χ^2 value is compared to the table=15.51 with the reliability of 95%. The evidence has led to the conclusion that friend influence and a decision making for selecting a type of occupation are independent with each other. The students' selection of occupation does not depend on friend influence. The hypothesis is rejected.

Eighteenth Hypothesis; Influence of professional models has a relationship with decision making for selecting a type of occupation

According to table 55, for the students who accept influence of profession models is the strongest, most of them, or 31.2%, prefer the choice of , about 24.7%

agricultural occupation prefer the choice of non-agricultural occupation, and the proportion of 44.2% prefers the choice of further study. When the relationship between influence of professional models and a decision making for selecting a type of occupation is taken into consideration, the χ^2 value is 1.616 with 8 degree of freedom (d.f. = 8). The χ^2 value is compared to the table=15.51 with the reliability of 95%. The conclusion is that influence of professional models and a decision making for selecting a type of occupation are independent with each other. The students' selection of occupation does not depend on influence of professional models. The hypothesis is rejected.

CHAPTER V

DISCUSSION

This research has the objective to study a decision making process for selecting a type of occupation which is done by a number of students in the diploma course in the vocational program of agriculture under the project of agricultural reforms in education for life at College of Agriculture and Technology in North East. The research is also to study factors in relation to decision makings for selecting a type of occupation. Those factors include potentiality of basic factors for agricultural occupation - i.e. land, water sources, agricultural technology, professional background of family, transport and climate - basic physical structure - i.e. land development, water sources development, structure of main occupation in local areas, existence of markets or industrial factories in local areas - economic factors - i.e. investment funds - social and psychological factors - i.e. social values towards type of occupation, friend influence, parents' expectations for children's future occupation and influence of professional models - personal factors - i.e. skills, expectations of professional achievements and knowledge/skills of agricultural strategy. The demonstration of the result of this research is divided into three significant issues as follows:

1. A decision making for selecting a type of occupation after graduating in vocational diploma courses (por vor chor III).
2. General characteristics of group of independent variables
3. Factors in relation to the students' decision making for selecting a type of occupation according to hypotheses.

1. A Decision Making for Selecting A Type of Occupation After Graduating in Vocational Diploma Courses (por vor chor III)

The majority of the students, over 80%, decides on the choice of further study. Up to 35.9% of them will study further together with working. The 16.4% of the students in total decide to work only either in the sector of agriculture or non-agriculture.

For those who choose to study further in the vocational field of agriculture or there is a number of about 254 students (53.9%), the 60.1% portion of them aims to study up to the level of high vocational diploma courses (por vor sor). The rest of 39.9% will continue to a bachelor's agricultural degree. Meanwhile, a number of 217 students (46.1%) aims to study in the vocational field of non-agriculture. The portion of 53.1% aims at a bachelor's degrees, and the rest aims at the level of high vocational diploma courses (por vor sor).

Most of educational institutes the students would like to enter are those of vocational education, equivalent to 67.2% (including vocational projects of education

for development of rural areas), open universities or 16.7% and Rajabhat Institutes or 16.1%.

The majority of the students, more than 90%, intends to take further study at educational institutes in their province, showing that the students love their local area and take expenses possibly incurred during education into concern.

For those who choose agricultural occupation and non-agricultural occupation, over 80% of them do not have any idea to start business operations in a big size but in a small size to a medium size first with a range of investment funds between 500 to 50,000 baht. In addition, that is a type of occupation based on real practice-by-learning. In case of mistakes, there are no serious effects.

However, the students are well supported by their family/relatives. About 77% of them obtain low financial support i.e. lower than 40% of investment funds previously set, which may cause certain problems while running business operations.

Regarding agricultural types, the students are interested in splitting up agriculture into a variety of agricultural types in addition to farming, gardening or crops farming done in the past. More particularly, about 8.8% of the students explicitly show their interest in new theory-based mixed agriculture that means a management process in a small piece of land in order to obtain highest benefits and a steady flow of cash. More important, the students have a few ideas about manufacturing process of agricultural produce, only 1.7%. That reflects a picture that most of distribution focus on fresh agricultural produce. However, that is likely to cause some pricing problems because agriculture produce is very easy to get spoilt. In addition, it is found that the students mostly depend on the availability of technology i.e. only 3.5% have the idea to propagate plants / to breed animals by themselves.

For the students who choose non-agricultural occupation, it is found that over 50% of them prefer to be employed in the services business sector and the industry sector which are a source of a variety of jobs. However, more than 70% prefer to work in local provinces, showing that the students still love their local area.

Decision makings for selecting a type of occupation which are done by the students under the project of agricultural reforms in education for life at College of Agriculture and Technology in North East is consistent with the research by Department of Vocational Education (1998: 40). The research studied what a target of life after graduation is for a group of the students who were studying in the first year of vocational diploma course under this project in the four regions. The portion of 67.1% of the students aimed to take further study. The portion of 26.4% had not yet made any future plan. About 3.2% intended to turn back to agricultural occupation, and the portion of 3.3% had thought that when they graduated, they would find a job in Bangkok or major provinces; such as, Chiang Mai, Phisanuloke, etc. However, the research also found that the students of 67.9% noted that they really gained a significant motivation from agricultural projects for life which required the students' ideas and efforts for producing agricultural produce for food and sale during studying. This group of the students also thought they gained agricultural knowledge and experiences from those agricultural projects for life and viewed their chance of agricultural occupation too. At the same time, another 12.3% portion of the students

considered that agricultural occupation consumed a lot of energy. and that made them feel depressed and bored. In addition, this research found that regarding the students' selection of occupation, when economic results are taken into consideration, a number of the students entering into the agriculture sector was in a higher proportion. That referred to the survey by The National Statistical Office in 1998 regarding the employment and unemployment in the group of medium-level manpower completing the third year of vocational diploma courses. Only 2.5% of them were working in the agriculture sector and other sectors concerned. Further, Department of Vocational Education (1995: 42, 1996: 45) investigated the state of employment of the students completing the vocational diploma course in agriculture nationwide in the academic year 1994 and 1995. The investigation showed that the 84.7% of the students pursued higher study, and the rest entered into the labour market i.e. 7.9% in the private sector, 3.1% carrying on private business probably including agricultural occupation and non-agricultural occupation. The 1.2% of the students were employed in the government's offices.

However, the government is presently expanding more opportunities in the educational system for students who complete the third year of vocational diploma courses to more choices after their graduation. Students can study and work at the same time. In this research, there are five types of occupation as a result of the detailed classification of decision makings for selecting a type of occupation i.e. agriculture (8.9%), non-agriculture (7.5%), further study (47.7%), agriculture and further study (20.2%) and non-agriculture and further study (15.7%). That shows certain changes in a decision-making process of the students. Some of the students directly enter into education system, but not higher than the half, and the rest, lower than one-tenth, directly enters into various fields of occupation. About one-fifth enters into various fields of occupation together with higher education.

Regarding the entry into higher levels of education, the research found that the students will continue their further study in the vocational field of agriculture rather than in the vocational field of non-agriculture in the proportion of 54:46. In the vocational field of agriculture, the students will study up to the level of high vocational diplomas rather than that of a bachelor's degrees in the proportion 60:40. By contrast, those who choose the vocational field of non-agriculture prefer a bachelor's degrees to high vocational diplomas in the proportion 53:47. A reason is the fact that at present most of people or business operators often take educational degrees (certificates) into consideration as an important part of the employment process. People who complete in higher degrees than vocational diploma courses are easier to get a job and better pay. Institutes the students mostly want to enter include those of vocational education, open universities and Rajabhat Institutes. Or, more than 90% of the students desire to take further study at institutes in their local area.

Regarding occupation in the non-agriculture sector, the research found that the no.1 occupation of the non-agricultural sector highly preferred by most of the students in the vocational diploma course in agriculture is being employed in the industry sector, followed by in the services business sector , in the personal business, in the government's offices and in the craftsmanship sector. It is very remarkable that

the first two occupation gain popularity is due to the fact that the students do not do own investments, and operating places where these two occupation being carried on are in big cities and advanced places. In addition, though the main occupation background of the students' family is rice farming, followed by crops farming and gardening, it is found that the average of 71.2% of the students is "sometimes participating" in their family's main occupation, the only portion of 19.7% is "often participating" and the portion of 9% is "rarely participating or never". Therefore, it is likely that this group of the students does not have experiences or have a few experiences in agriculture. Ultimately, they choose non-agricultural occupation.

2. General Characteristics of Independent Variables Groups

1. **Land**; land is a significant factor in a process of agricultural production. The research found that each of the students represent the average land ownership of 19.78 rai. The majority, or 85.2%, of them own land of between 1-40 rai, that is regarded as retail management of agriculture. The portion of 7.0% does not have land for agricultural activities. Only 2.3% own. The one-fourth is soil of poor quality i.e. sour soil, salty soil and depleted soil. It can be seen that insufficient land and low-quality soil affect agricultural produce in quantity and quality. They are considered as the first restriction of agricultural production. The result of the study supports the statement by Khamkiang (1979: 29-75) mentioning several restrictions in food production of retail farmers i.e. insufficient land for agricultural activities. There is inclusion of technology-based production i.e. plant spices, production method, production process and production pattern i.e. single plant farming by low quality technology that results in less agricultural produce and poorer conditions. By contrast, if land is insufficient but production process and agricultural technology are fair, there is plenty of agricultural produce on the basis of small production. Generally, soil is the first restriction i.e. soil is poor in quality.

2. **Water Source**; water source is a significant sort of natural resources for the agriculture sector in Thailand. It is important for the growth of plants. The research found that quality of water from several sources, that are categorized into three main types i.e. rain, soil-surface water and underground water, is relatively fair. When considering sufficiency of water from several sources supplied for agricultural activities carried on by the students' family both in rainy season and dry season, the sufficiency of water in the rainy season by nature is on the average level of sometimes sufficiency/sometime insufficient, more particularly, water from an irrigation system. The one-fourth of the students acknowledges the insufficient amount of water for agricultural activities. In summer or dry season, most water sources, especially irrigation systems or those particularly built to reserve water, sometimes can provide sufficient water but sometimes not. More often, they cannot provide water in sufficient amount required. The estimation is that water sources are a type of restrictions for agricultural activities throughout a year. Therefore, a way to do agricultural activities is to select a type of agricultural activities appropriate to land

conditions. In addition, new water sources should be established for higher efficiency of water reserves due to the worsening of existing water sources.

3. Agricultural Technology; agricultural technology is very essential or the development of agriculture in Thailand. The research found the agricultural technology that is the easiest to be found in a local area is biochemical substances/manure, agricultural chemical substances and good spicie of plants respectively. Demonstration sources or exemplary farmers are the most difficult type of agricultural technology to be found in a local area, equivalent to 50.2%, including intelligence sources from organizations/institutes which provide support, or 48.0%. Initially, the research shows that the performance of agricultural activities in the students' local areas depends on low-quality technology that is a sort of traditional agriculture due to the lack of support and transfer of knowledge to farmers. There are a few areas that are well supported in terms of agricultural knowledge, or the portion of 5.9% only found by the research. The availablity of good spicie of plants and animals is only 14.7 % and 6.4% respectively. To solve all these problems, farmers need to depend on knowledge sources by the government offices concerned. Further, the government's offices concerned are to enhance the capacity of farmers by providing intensive training programs and supervision to replace self-assistance.

4. Main Professional Background of Family; the research found that main types of occupation of the students' family include agriculture, equivalent to 96.1%, i.e. rice farming, crops farming and being employed in the agriculture sector. A few number of the students come from family of which main occupation is being employed in the government's offices, or 1.2%, in the services business sector and industry sector, or 1.6%. Independent occupation are craftsmen, personal business in the non-agriculture sector, or 1.0%. When considering the students' taking participation in main occupation of their family, that reflects the acquisition of experiences and practice in certain occupation as a result of knowledge acquisition from family, it is found that the majority of the students sometimes help their family, of which main occupation is of the agricultural sector. More particularly for rice farming, the no.1 main occupation of family, it is found that only 32.0% of the students who told that they always help their family. Another 2.4% of them told that they sometimes help and never help. The data indicates at initial that most responsibilities are still with the students' family members. That also makes a limit of the students' experiences and patience for doing agricultural works before they enter educational institutes to take agricultural courses. The data also supports the study by Department of Vocational Education (1998: 34) regarding the student's leaving institutes during academic terms. It can be found the portion of 38%. One of three reasons why the students under the project of agricultural reform in education leave institutes during academic terms is that they cannot handle with agricultural works.

5. Climate; the research found that climate by nature consists of rainy season, winter and summer. The majority of the students indicates that during rainy season there is "constant rainfall" to "abundant rainfall". About 18.0% of the student's local area is in the "little rainfall" zone to the "no rain" zone. Most of the students indicate that weather in their local area is "quite cold" to "cold" in winter. In summer, most of the students (91.9%) are living in the zone of "hot" to "very hot". Climate is a significant geographical component. More particularly, in rainy season rainfall in some local areas where the students are living is a type of restrictions on agricultural activities; more particularly, rice farming in the north eastern region that mainly depends on rainfall. However, climate is not often taken into consideration in terms of its relationship with occupation. It can be seen that most of the students' family does plant farming and animal farming of the same pattern. Petthongkam (1993: 93) and Singhakalavanicha (1991: 404-405) suggest that operators in the agriculture sector should select farming land by taking the matter of soil and climate, that affect growth and quality of plants, into concern. Regarding selection of farming land, operators need to know first which type of plants/animals to grow, then look for land suitable for the growth of such type of plants/animals because plants and animals require different environments, and they cannot adjust themselves well and with the same speed as human beings.

6. Transport; the research found that throughout a year the condition of transport in the students' local areas is relatively fair i.e. four-wheel trucks or more than can enter the students' land. Only 29.4% of the students whose land is under poor transport; such as, no roads, transport by walk or animals, etc. The condition of public utilities in rural areas of the north eastern region at the moment is being developed. That means transport by car to villages is mostly possible.

7. Land Development; the research found that there is assistance not very adequate and sometimes adequate in terms of land development for agricultural activities in the students' local area. Regarding land development in order to attain a level of fertilization; such as soil surface planting and use of fertilizers. There are some projects for soil erosion protection e.g. growing of elephant grass and establishing of soil barriers. There is a little support, on a low level, for certain projects; such as, pH value balancing and soil conditioning by means of the circulation of plants. The support on the "high" level to the "highest" level is only in the proportion of 9.2%. There is no any support for such types of projects in the proportion of 19.5%. Which reflects the fact that the government has not provided full supports for the development of agricultural production. About one-fourth of agricultural land in these local areas consists of acid/base soil and depleted soil. In conclusion, most of agricultural activities in the students' local area are still lacking soil improvement that needs cooperation both from the government sector and the private sector. The government takes responsibility in demonstrating the standard of soil improvement to people, that would encourage them to do soil improvement by themselves.

8. Water Sources Development; the research found that in the students' local area there are assistances received from the government for water sources development, most of the assistances are on a medium level. There are projects to be considered; such as, water supplying projects in irrigation system for agriculture i.e. dam, reservoir, water supplying canal and electric water supplying project. The 42.7% proportion of the students said that there are a few of such projects or none in their local area. The 21.8% noted that there are a lot of projects in their local area or more than. There are a few projects to establish water sources by means of digging; such as, artsian well in order to supply water to agricultural activities. The students in the proportion of 49.5% said that in their local area, there are no such projects. Projects in local areas which are mostly supported are projects for improving and protecting natural water sources from being shallow i.e. digging and cleaning canal, pond and marsh. These projects obtain great or greatest assistance of 30%. It can be said that agricultural activities in the students' local area still mostly depend on water sources according to seasons. Low guarantee is given to make sure that there is no shortage of water during cultivation. A solution is that farmers should establish water sources in their agricultural land by themselves.

9. Main Occupation Project in Areas; the research found that most people in the students' local area concentrate on agricultural occupation. Refer to the classification of occupation, it is found that rice farming is the most popular type of agricultural occupation, followed by tapioca farming and being employed in the agricultural sector. That shows the students are living in the environment of agriculture, supporting the study by Laola (1980: 20) stating that most of villagers concentrate on agricultural occupation in the same pattern and even in neighbouring areas. The main occupation project result in a level of use of instruments and agricultural technology or tools as well. Regarding the question of how difficult or easy to provide agricultural technology in local areas, it is found that biochemical substances/manure are the easiest type of agricultural technology to be found, followed by agricultural chemical substances. That shows more use of such technology in local areas. The same occupation in the same local area results in a lack of innovations, differences and successful examples of agriculture. People of such local area do have visions. Therefore, a solution is to spark new ideas by means of work trips in other areas.

10. Markets Purchasing Agricultural Produce; the research found that in the students' local areas, on average, there are sources purchasing agricultural produce, either markets or industrial factories, equivalent to 97.4%. It is found that a number of local markets is the highest, more than that of middlemen purchasing agricultural produce. Overall, the capacity of local markets in purchasing all agricultural produce is equivalent to 12.8% only and 46.3% purchasing some. From this data, that local markets cannot purchase all agricultural produce is likely due to the fact that the same type of agricultural produce is produced in a large quantity. Also, a type of distribution focuses on fresh agricultural produce, that causes the state

of oversupply. Therefore, groups or cooperatives are essential so that planning for production and control of marketing mechanism.

11. Savings; the research found that each of the students has the average of 697.42 baht in savings. The 69.0 portion of the students does not have savings. The rest of the students have savings of between 1-4,500 baht. It can be considered that the students under the project of agricultural reform in education for life come from poor family, and their parents have incomes of lower than 50,000 baht a year. That makes life quite difficult in terms of spending while these students are studying. At the same time, farmers who are rich do not like their children to study in the vocational field of agriculture. The necessity of dependence on financial institutions still exists.

12. Skills; the research found that the students' skill in agriculture is on the medium level on average. The skill in rice farming is quite high or highest, compared with other types of agriculture. At the same time, the 13.4% portion of the students is less or least skillful in rice farming. One reason is that the students obtain a little experience in rice farming from their family i.e. the students in the proportion of 65.6% accept that they sometimes help their family in rice farming, the 2.4% of them rarely help or never help. That means the students do not feel interested in this type of agriculture or do not love it from the beginning, supporting the statement by Jiravorapongse (1992: 34-35) that skill is a quality inherent in each individual. Skill consists of a learner's basic knowledge. Due to environments considerably necessary for learning, a way to measure one's skill is to evaluate all learnings resulting from society and environments. That makes one's life different from others.

13. Expectation for Professional Achievement; the research found that a sort of professional achievements the students mostly expect is income/security, followed by knowledge/skills and richness respectively. Moreover, there are community investments and being accepted or praised by a society. The research initially indicates that the first professional achievement is that the students have a definite income and job security due to the fact that the students under the project of agricultural reform in education come from poor families of which the main occupation is a type of traditional agriculture i.e. mostly depending on nature. That causes uncertainty in terms of income and job security. Further, the expectation of professional achievements is probably not clear because there is no a professional model who is successful in agriculture. Or have a little intention to face existing problems, which the students with such intention may come to a decision to select an occupation in the non-agricultural sector.

14. Knowledge and Skill Strategy; in a type of agricultural occupations appropriate to the condition of Thai society, the research found that most of the students choose plant farming and animal farming just for family needs first. That shows a type of sufficient agriculture. The 15.8% portion of the students thinks about only one type of plant farming or animal farming and doing a lot of agricultural

business. All the data indicate that the students begin to understand a pattern of agriculture which is possible in terms of capitals and of continuous inflow of cash rather than uncontinuous inflow of cash.

Regarding investment, the students in the proportion of 97.9% begin an idea to make a small investment and an expansion later. That indicates the students consider risks of getting lost. A small investment takes less business risks than a big investment. The two-third portion of the students considers their investment capacity the first priority, followed by family/relative assistance but not in type of loans. Another one-third portion of the students replies that if money is not enough, they will borrow from lending sources or financial institutes. That shows agricultural investment by the latter group of the students still depends on lending and incurring debts by hoping for agricultural produce, or the only one direction most of Thai farmers are going at present.

In terms of production targets, only 6.6 % of the students aim at quantity. Most of them said their focus is on both quality and quantity. That shows the students are a type of moral producers i.e. regarding consumer safety.

In terms of market targets for distribution, only 74.5% of the students regard a decrease in costs of maintainence and transport. Production is for local distribution and throught the system of cooperatives. The rest of the students has the target to sell agricultural produce at a central market and foreign market. This approach of distribution needs higher maintainence and more expenses on transport. However, a proportion of profits becomes less. It is also quite impossible in terms of practice even though the country has very advanced transport.

In terms of production patterns and increase in value of agricultural produce, the 91.0% portion of the students use a type of non-seasonal pattern of production, including producing other different types of agricultural produce no one has even done before. Such production is totally different from others in the same area, that makes a variety of agricultural produce. However, there must be a group and interdependence so as to go to a type of perfect, permanent and networked agriculture, increasing value in agricultural produce.

In addition, most of the students think that the manufacturing process or storage of agricultural produce in case prices at that time are not so good, instead of using catalyst to accelerate agricultural produce for better prices, which may cause impacts on health of consumers. This method in addition to a type of agricultural development in local areas and a type of increasing a variety of produce causes prices in different and freshness to fulfill consumers'needs. However, the manufacturing process must be under control in terms of quality and group administration together.

In terms of reducing advantage-taking by middlemen, the proportion of 79.1% of the students gather farmers into a group so as to increase negotiation power as a way to reduce operating costs. Meanwhile, that is a type of pricing mechanism for agricultural produce in appropriateness and in consistent with a way the society is developing to build up strength in the agriculture sector.

In terms of permanent agricultural development, particularly quality of environments and health of consumers, the research found that the students who

supply biochemical substances and herbal substances and those who supply agricultural chemical substances only or together with biochemical substances are in the similar proportions i.e. 59:41. That shows agricultural in the students' consideration still depends on agricultural chemical substances in an opposite way of consumption requiring non-chemical substances. Further, 63.4% of the students noted that the use of biochemical technology can relieve environmental pollutions and others concerning consumer health. The rest of 33.6% did not support that, citing that farmers are not those who create problems so not necessary to solve such problems. The data shows the students still take environmental pollution and other problems into their concerns.

15. Social Values Towards Type of Occupation; the research found that people in the students' local areas mostly prefer their children to work in the agriculture sector, ranked no. 1, which contrasts with the research by Chandravanicha (1991: 157-158) that big farmers are in the high level of professional pride and small farmers are in the low level of professional pride. Most farmers in the students' local areas are small farmers because they are poor. The research also contrasts with that by Kampusaeng (1966: 5) stating that Thai people still have bad attitudes towards the profession of agriculture, regarding as low class occupation and unhonorable. Those who take this type of occupations are uneducated, poor or cannot do other works. Besides, the occupation of agriculture does not have as security as the government's positions due to agriculture depends on nature, capital, labor and market. It is also a type of occupations which always face many problems i.e. communicating diseases by insects, floods.

16. Friend Influence; the research found that there are 5 types of influences i.e. preference/skills, parents' support, local preference. persuasion by friends or boy/girlfriends and professional models. The research also found that friend influence have a few effects on a decision making for selecting a type of occupations or does not have any effect at all. Such solution is consistent with the research by Vongsiriwat (1973: 81) studying factors concerning a decision making for selecting a type of occupations by the students who complete a vocational diploma course in the southern part of the northeast region. The research found that advice from specialists, group teachers and persuasion by friends are on the medium level of significance. This research is also in agreement with the research by Chuchom (1997: an abstract), finding that only 6.6% of the students ask for advice or suggestions from friends, which is different from Naopradith (1974: 75). Eaddy (1969 cited by Julagerm, S. 1997: 39), Boonthanatham (1988: 139), Kwaenpet (1974: an abstract) and Jindanukul (1989: an abstract), discovering that friends are influential in selecting fishery as an occupation, in a choice of occupations by students in Louis Seiana in USA and in the decision to take further study.

17. Parents' Expectation for Children's Occupations; the research found that the no.1 occupation parents mostly prefer their children to take is being employed in the government's offices, the no. 2 is going agricultural activities, the no. 3 is further study in vocational courses, the no. 4 is freelance occupations and the last one is being employed in general. Meanwhile, a main occupation of the students' parents is farming. The research is going along with the research by Theerasasawat, et al. (1992: 43-76) noting a reason why people in Bann Kok, Khon Kaen, in Bann Don Kwaen, Nakorn Rachasima and Bann Non Kamin, Udon Thani, prefer their children to be employed in the government's offices is the belief that the government's officers are like a boss and security. Moreover, the research also supports that by Yampayon (1988: 47, 85) finding that Thai villagers consider administrators, soldiers, polices and educators as high ranked officers in the government. They can depend on these people. At the same time, a group of farmers who are the produce, including a group of services providers as the lowest class of occupation. That parents want their children to be employed in the government's offices together with to take further study is probably because of social and economic status being determined by a type of occupations. Chandravanicha (1991: 1) said that an occupation is the best indicator of status and also of economic returns i.e. wage, salary and income. It is also the indicator of social status i.e rank, position and occupation too. Generally, parents have a good wish for children and desire them to have opportunities they have never had before in to replace what they lack. This research supports that by Kongketra (1980: an abstract) which found that most of parents desire children to take any other occupation with high rank or being honorable than existing one the family is taking now. In the research by Rasikiengkrai (1980: an abstract), parents' expectation for children's occupations was on study as well, particularly the children are those who were studying in high schools under Department of National General Education and Department of University Affairs, and the research found that most of the parents wanted the students to complete a bachalor's degrees or higher. Secondly, they wanted the children to complete a vocational diploma course in any branch, focusing on their children's vocational capability. National Education Development Center of Thailand (1983: 21) made a survey about farmers' idea about expectation for children's occupations, finding that farmers intended not to allow their children to take the profession of agriculture as well as them in the proportion of 71%. The 5% portion wanted them to take the profession of agriculture and others at the same time. That farmers want their children to take other occupations in the non-agriculture sector is a general tendency found in every region of the country. However, there is only 50% in the north, but the three-fourth of the farmers in the north east, the east, the central and the south have such idea. In 1993, Aksornvong (1993: 40) as well studied about parents' expectation for children's occupation, particularly the children are those who were studying in high schools in Ubon ratchatani, finding that parents mostly preferred their children to study in a teacher training course, followed by being employed in the government's offices. However, though parents want their children to take any occupation, but for some cases it is impossible due to certain factors i.e. economy and social background.

18. Influence by Professional Models; the research found that influence by professional models is on the medium level of strength on a decision making for selecting a type of occupations, following preference/skills and parent support. Being determined, serious and not easy to surrender are the most predominant qualifications of professional models accepted by the students. Further, being diligent and aware of importance of planning : how to start business are the second predominant qualifications, and the last is abstract identification which is different from others and careful thinking. The research's result is consistent with that in 51 years ago by Martin (1948, cited by Vanthanavasin, S. 1978: 14). The said research found that the chioce of occupation by last year students from high schools in North Carolina was mostly affected by

Most of the students were affected by those they knew , and they were very successful in their occupation chosen. As well, Uzzel (1961: 666-669) studied about people who were influential in the process of decision making for selecting a type of occupations done by Negro men who were studying in the last year in 14 high schools in Eastern North Carolina. The study found that the 77% proportion of the students accepted that people they knew are influential in their decision making for selecting a type of occupations. According to the research by Eddy (1969 cited by Thathong, T. 1986: 15), influences over a decision making for selecting a type of occupations done by agricultural students in Louis Seiana were taken into study. The research found that influence of parents, friends, people in occupation the students choose, relatives and people in the school and priests are different in degree. In addition, the research is consistent with that by Ranpai, Payak. (Department of Education, 1989: 50-53). Payak is the former student of Agricultural College in Petburi and the one who is very successful in diary farming and milk manufacturing for home. He said that he chose to do diary farming because he wants to be rich and he saw many diary farmers were rich, had a big house and car. About this type of professional identity , Tolbert (1974: 31-37) noted that the development of occupation results from identification and roles of models. Most people, particularly teenagers, like to imitate their parents or others they admire in terms of occupation. The imitation is a basic in the one's occupation in the future too.

3. Factors which Have Relationship with Decision Making for Selecting A Type of Occupations Done by Students.

There are five groups of independent variables classified into each hypothesis as follows:

1. Land does not have relationship with decision making for selecting a type of occupation. Due to land is a type of important factors for occupation of life. According to the research, the students in the 7% proportion come from family without land for agricultural activities, the 85.5% are retail farmers i.e. with land ownership of between 41-80 rai. However, having land does not mean a type of determination of occupations. There are other factors i.e. climate and water sources for agriculture. Due to the fact that the social and economic development at present is approaching liberalization, a variety of employment is an option for new graduates.

The research's result contrasts with that by Vongsiriwat (1993: 80) that studied factors that affect a decision making for selecting a type of occupations done by 1990 vocational diploma course students in the lower part of the northeastern region. The study found that land or appropriate location is a type of external motivation with relative effects on the process of decision making.

2. Water source does not have relationship with decision making for selecting a type of occupation. due to the fact that agricultural activities at present do not depend on an amount of rain or rainy season. At present, there are various types of agricultural activities to be chosen, some plants are very durable in the dry, and some in the wet. There are also other factors either in terms of individuals or in terms of external factors. Therefore, a decision making for selecting a type of occupations does not depend on a sufficient amount of water in rainy season.

3. Agricultural technology does not have relationship with decision making for selecting a type of occupation. Due to the fact that agricultural technology is both knowledge and a type of tools or instruments used in the agriculture sector, including the use of good plant species or good animal species. However, the students come from local areas where there are similarities in agricultural environment i.e. rain-depending agriculture and it is difficult to provide technology in those local areas. Almost 50% of the students indicate that such agricultural technology includes a demonstration source or an exemplary farmer and an intelligence source from organizations or institutes that can provide such type of support. Therefore, agricultural technology does not have any effect on their decision making.

4. Occupational background of family does not have relationship with decision making for selecting a type of occupation. The research found that more than 96% of the students come from the family taking agriculture as a main occupation. The 1.2% come from the family being employed in the government's offices, the 1.1% come from the family mainly taking freelance occupations. Therefore, the students are in local areas where there are similarities in environment. Regarding the students' participation in helping their family work, on average they sometimes help and sometimes do not help regardless of whatever their family take as a main occupation. Therefore, experiences the students gain from their family in terms of family occupation are not different. Also, income as a result of their family occupation is not too attractive to make the students carry on with such occupation. Therefore, occupation background of family does not have relationship with a decision making for selecting a type of occupations.

5. Transport does not have relationship with decision making for selecting a type of occupation. The research found that there are similarities in the condition of transport in the students' local areas i.e. relatively convenient. Most have roads. The most favorite vehicle is a type of agricultural cars or I-Tan that is very

common in the northeastern region. Therefore, there are no differences in the condition of transport and the students' decision making for selecting a type of occupations is not different.

6. Climate does not have relationship with decision making for selecting a type of occupation. Though climate is a type of environmental factors for the growth of plants and animals, the students' acknowledgement of climate is very similar. Therefore, climate does not affect a decision making for selecting a type of occupations.

7. Land development does not have relationship with decision making for selecting a type of occupation. The reason is that land development projects provided by the government in order to deliver the full capacity of agricultural production are still on a medium level. That is the fact that the projects are available for some local areas, and the rest without the government support is still carrying on nature-depending agriculture with limits on agricultural production every season.

8. Water source does not have relationship with decision making for selecting a type of occupation. The research found that most of the students' local areas are supported in terms of water management for agricultural activities throughout a year but on a medium level as well as the level of land development. The type of problems is something boring for people in those local areas. Therefore, there are no differences.

9. Structure of main occupations in local areas does not have relationship with decision making for selecting a type of occupation. According to the research, the structure of main occupations in local areas is agriculture. Main economic plant is rice, that shows the fact that the students are living in similar environments. Laola (1980: 20) noted that most of Thai villagers are doing agricultural activities and in the same way. Therefore, there are no differences in terms of agricultural environments. The students do not show any difference in their decision making for selecting a type of occupations.

10. Existence of markets and industrial factories does not have relationship with decision making for selecting a type of occupation. The research found that in most of the students' local areas i.e. more than 70% there are markets, middlemen to purchase agricultural produce in local areas and agricultural cooperatives. However, about 58.5% of the students' local areas shows the existence of industrial factories to purchase agricultural produce, including surrounding areas. The average of 17.37% can purchase the whole amount of agricultural produce. The rest purchases only some or a few. Therefore, there are no differences in terms of this factor.

11. Savings do not have relationship with decision making for selecting

a type of occupation. About two-third of the students do not have savings, and one-fourth have savings of between 1-4,500 baht only. In addition, the students of the project of agricultural reform in education For a better life come from poor agricultural families with incomes lower than 50,000 baht a year. Therefore, there are no differences in terms of financial status and an amount of savings, and no effects are there on their decision making.

12. Social values towards type of occupations does not have relationship with decision making for selecting a type of occupation. The research found that people in the students' local areas prefer the occupation of agriculture, ranked no. 1, equivalent to 49.7% of them. Secondly, the 21.1% portion prefers to be employed in the government's offices. The 13.7% prefer further study in vocational courses and only 4.7% prefer freelance occupations. There is the high level of social values towards agriculture which is probably due to the fact that it is a type of freelance occupations and regarded as a main occupation of family. Though it cannot make them rich, but it can make them survive in the areas. Therefore, it is not necessary for their children to find out other jobs in other areas. In part of the students, they are accustomed to their area's way of living i.e. no difference in financial status. The students select a type of occupation due to the no. 1 reason that they like that occupation and have skills. Therefore, what the research found contrasts with the hypothesis and the concept by Jakubauskas & Palomba (1973: 55) that concludes that social values i.e. value towards a type of occupations take a major role in the labor unit's process of decision making for selecting a type of occupations. The research by Theerasawat, et al. (1992: 43-76) studied community values towards the state of being employed in the government's offices in three provinces of the northeaster region i.e. Khon Kaen, Udonthani and Nakornratchasima. The research found that the villagers mostly want their children to be employed in the government's offices, but lower than 5% prefer agriculture.

13. Friend influence does not have relationship with decision making for selecting a type of occupation. The research contrasts with the hypothesis. The research indicates that friend influence is the last one that affects the process of decision making i.e friend influence has few effects. Which is consistent with the theory of Crites (1971, cited by Kerdpitak, P. 1986: 91-94). It has not yet been concluded whether friends can affect a decision making for selecting a type of occupations. As well, Archasuwan (1989: a summary) found that a group of friends does not have effects on the choice of further study. Meanwhile, Chuchom (1997: a summary) made an analysis about factors concerning a decision making for selecting a type of further study or occupations done by high school students. The analysis found that friends give a little advice i.e. 6%, which contrasts with the research by Eaddy (1969, cited by Julgerm, S. 1997: 39). The research by Eaddy found that friend influence is ranked the second importance on a decision making for selecting a type of occupations done by agricultural students in Louis Seiana, following parent influence. The researches by Kwaenpet (1984: an abstract) and Chindanukul (1989: an abstract)

found that a group of close friends has effects on the choice of further study. The research by Sutracharn (1991: 93) found that friends have effects on the choice of engineering for female students. However, this research found that friends do not have influence on a decision making for selecting a type of occupations because they consider their preference and skills as the first while they are making a decision to choose a type of occupations. Each student has different skills according to the theory by Ginbergs (1969: 47-57), saying that children of 17 years up to adulthood will consider the choice of occupations according to their qualifications, aspects of occupations and reality.

14. Parents' expectation for children's occupations has relationship with decision making for selecting a type of occupation. The research is consistent by Kandal & Lesser (1969, cited by Archasuwan, S. 1988: 91), finding that parents' expectation has a direct relationship with children's education and occupation. That contrasts with the research by Kongked (1980: an abstract) finding that parents's attitude or guardians' does not have effects on the students' choice of occupations. Hurlock (1973: 188) said that parents have had a picture of a dream of what their children should be since they were not born. What parents expect is a mould of parents' hope towards children. Some parents make decision which degree of education their children should complete and what type of occupations they should take. But, some parents, including those in this research, prefer their children to be employed in the government's offices though they also want their children to take further study. However, they cannot do so because of certain factors i.e. social background, economic background, financial background.

15. Influence of professional models does not have relationship with decision making for selecting a type of occupation. The research found that the influence of professional model is ranked as the third importance, behind preference/skills and parents' expectation, on the students' decision making for selecting a type of occupations. That is in accordance with the theory by Tolbert (1974: 31-37) stating that most people like to imitate their parents or those they admire in terms of occupations, particularly teenagers. The imitation is a basic for their future occupation. The research is consistent with the study by Martin (1948, cited by Vantana, S. 1978: 14) and Uzzel (1961: 666-669) and Tipton (1966: 425-435) and the study by Eaddy (1969, cited by Thathong, T. 1986: 15), which found that influence of professional models is on a decision making for selecting a type of occupations. This research, however, found that the students decide to choose an occupation according to their skills and preference, regarded as the first importance. It is also possible that the students have little chance to learn or study with those who are successful in certain occupations or not have due to their local areas where there are no successful professional models even their parents. Therefore, the motivation is not too strong to make the students to decide on certain occupations.

16. Skills do not have relationship with decision making for selecting a

type of occupation. The research found that the level of occupational skills i.e. agricultural skills is medium. The students have skills in freelance occupations or employment at a low level. Though they gain more experiences during studying but they still lack confidence. So, there are no clear difference in the choice of occupation. The research, however, contrasts with the theory by Hoppock (1976: 116-112) that ability and skills are influential in the choice of occupation because they make people realize of what they want. They also encourage people to estimate that how much an occupation they choose can fulfill their needs. That is in agreement with the statement by the exemplary vocational student i.e. Amranan, Prasittara. (Department of Vocational Education, 1989: 26-27) that for those who complete a vocational diploma course in any branch, what is important is an occupation they love and they feel interested.

17. Expectation of occupational achievement has relationship with a decision making for selecting a type of occupation. The research found that the students have clearly different expectations of occupational achievement. Most of them aim at firm incomes due to most of the students' economic background is poor and most of them have a few experiences in occupations. It is believed that an occupation chosen can lead them to certain expectations, which is consistent with the research by Buripakdee (1986: 23-25). That research studied the tendency towards occupations of Thai youths in 1983. It found that the reason why Thai youths choose freelance occupations is that they have good attitude towards that occupation and see that his occupation is bright by explaining that produce increases every year, capital expands, showing occupational security and continuous incomes.

18. Knowledge and skills of agricultural strategy does not have relationship with decision making for selecting a type of occupation. It is possible that knowledge and skills of agricultural strategy is a type of evaluation in terms of systematic planning by the students, not like skills or preference which put major effects on their decision making for selecting a type of occupations. Besides, knowledge and skills of agricultural strategy are what the students or Thai people have not realized or considered much. Therefore, there are no clear differences between the level of knowledge and skills of agricultural strategy.

CHAPTER VI

SUMMARY AND RECOMMENDATIONS

Besides the changing of socio-economic of Thailand, it's effected from using the national socio-economic plan and also influence of globalization. Thailand had changed in economic structure continually such as: the distribution of industrial sector, service sector and traveling sector. The distribution have been effected to the agriculture. It was reduced the potential. In 1992 to 1996 the entrepreneur' benefits in outer the agriculture are higher than the sector of agriculture 10.3 one hundred percent too. The benefits' different was sent the result to migrant from the agriculture labour force into the industrial and service sector. And to send the effect to the agriculture' education system such as it made the young person have low level appreciate in education of agriculture certificate. The graduated person have low level in occupation of agriculture. While as Thailand has meet to depreciate environment of ecology problem and reduced the field in agriculture problem.

In the solving, the government has adjust the strategies to develop the quality of population and to develop the new person of agriculture by education system. In 1995, the agriculture education reform for a better life project was established. The criteria to apply for the students in this project such as: they have study in secondary school or mattayom 3, they are the descendants of farmer, family' income has less than 50,000 baths / year. They are studies in 45 College of Agriculture and Technology belong to Department of Vocational Education. The objective in this project is develop the population to the quality of producer. This project was began from 1996. The whole budget are approximately 2.2 million thousand baths. So the researcher interests to study how the student in this project have a decision making in the type of occupation selection. The objective of the study are:

1. To study a decision making in selecting the type of occupation of third year students with agriculture certificate level, under the agriculture education reform for a better life project. Under the agricultural education reform for a better life project in the northeastern region
2. To study the factor related to decision making in selecting the type of occupation of third year students with agriculture certificate level, under the agriculture education reform for a better life project. Under the agricultural education reform for a better life project in the northeastern region

The study group used in the research were 574 third year students with agriculture certificate level under the Agriculture Education Reform For A Better Life Project of the 1999 academic year. They studies in the College of Agriculture and Technology belong to Department of Vocational Education. The researcher select the sample in 6 the college from the education region 3

such as: Mahasarakham, Udonthani, Nakhonphanom, Ubonratchathani , Buri Ram and Nakhonratchasima by the systematic random sampling. The data collecting use by questionnaire. The questionnaire was test the validity and reliability from the qualified person and my major-advisor. The data collecting was spend the time in 3 weeks. To analyzed data by SPSS (Statistical Package of Social Sciences) for window program. The statistical in analysis such as: frequency, percentage, mean, standard deviation, max-min and chi-square.

The Results

1. The decision making in selecting the type of occupation .

The results found that the student in agriculture certificate level 3 under the agriculture education reform for a better life project have a decision making in the type of occupation selection as follow:

priority 1: to educate continually	47.7 %
priority 2: to make agriculture and to educate continually	20.2 %
priority 3: out from the agriculture and to educate continually	15.7 %
priority 4: to make agriculture	8.9 %
priority 5: out from the agriculture	7.5 %

To provide in 3 categories as follow:

priority 1: to educate continually	47.7 %
priority 2: to make agriculture	29.1 %
priority 3: out from the agriculture	23.2 %

The group of students who educate continually had provided in detail as follow:

A. The type of occupation educate continually

1. agriculture occupation	53.9 %
2. out of agriculture occupation	46.1 %

B. Level of education had provided as follow:

1. agriculture occupation: diploma in agriculture 60.1 %, bachelor' s degree 39.9 %.
2. out of agriculture occupation: diploma in agriculture 46.9 %, bachelor' s degree 53.1 %.

C. Characteristic of educate continually

1. vocational education system	67.2 %
2. opened university system	16.7 %
3. institute of education	16.1 %

D. Location of institute where students educated continually

1. within province	96.6 %
2. without province	3.4 %

2. Characteristics of independent variables

Basic agriculture occupation factors

2.1 Land

From the results found that students who have the land of agriculture average in each 19.78 plantation per family. Most of them have the land between 1-40 plantation. None the land are 7.0 %. Characteristics of the land are low-land and high-land. Most of the soil are sand soil. One-fourth of soil have low quality. It have a problem about the acid soil and salt soil. In the efficiency of the land, most of students assess that the land have medium level appropriate in agriculture.

2.2 Water source

From the results found that in each of the source of water such as: rain water, face soil water and underground water, most of students have fairly assess in quality of water. The source of water that a good fairly to the best is the rain water that in past use to make agriculture through season. In rainy season, one-fourth students assess in the resource of water from irrigation system and water from artesian wells have not enough to use in agriculture. In warm or dry season, all of source of water without the water supply have almost not enough to use in agriculture.

2.3 Agricultural technology

From the results found that the summary of making agriculture in locality have use low technology and use the chemical substances too much. The simple of technology is easy to fine in local such as: the manure and the agriculture chemicals. The hard of technology to fine in local such as: source of demonstration or agriculture precedent and the source of knowledge from the organization.

2.4 Main professional background of family

From the results found that most of family have agriculture occupation (96.1 %). They have non-work in the government service. The students help their family in sometimes. The occupation that the students help their family such as: to farm grain crops, to grow plant crops and to do gardening.

2.5 Climate

From the results found that in the rainy season, most of student (73.1 %) stay in rainy area. At least of them (1.5 %) stay in dry area. In the warming season, half of them stay in warm area and warmer area. In the cold season, almost of them (80.5 %) stay in rather cold and cold area .

2.6 Transport

From the results found that the condition of land transport in locality where it was cut a path into the land is in satisfactory. One-fourth of student stay in non-convenience area.

Physical basic structure factors

2.7 Land development

From the results found that the student have a low to medium in summary of development the land in locality. One-fifth of students know that non

the project of development the land such as: method to maintain the soil, protection to fall to the ground of soil, solving the acid-base of soil problem.

2.8 Water sources development

From the results found that the student have a medium level in the source of water development in local. 18 % of group told that locality don't have preparation of irrigation project such as: the dam, reservoir. 40.3 % of group told that locality don't have the solving the acid-base of water project. 17.7 % of group told that locality don't have the construction of source of water by drilling an artesian well. 11.4 % of group told that locality don't receive the helping readjust to protect shallow of resource of water .

2.9 Main occupation project in area

From the results found that most of the occupation (72.8 %) make a plant agriculture occupation such as: rice, tapioca farming, vegetables. The animal-economic is a bulls. The admire of fishery occupation is feed the catfishes. The alike occupation is go to work in the government service (2.4 %).

2.10 Market purchasing agricultural produce

From the results found that most of the students' locality have a local market. The middleman and the agriculture cooperative receive to buy the agriculture product. The local factories have a power to buy agriculture product on occasionally .

Individual factors

2.11 Student' skillful have provide in 3 occupation such as: to make skillful agriculture, to work independent occupation and to work as employee.

The making agriculture of skillful level have average in medium level. Then the researcher provides in each occupation found that the student have to do paddy farming skillful higher than another occupation . Most of the students accept that they have a skillful such as: to feed the cattle, fishery, to buy and sell the agriculture product, applied the new theory in agriculture, to change the agriculture product, to buy and sell the agriculture technology. They have a low level skillful to work independent occupation and to work as employee.

2.12 Knowledge and agriculture strategies skillful

From the results found that the students have a medium level about knowledge and agriculture strategies skillful. Only 15 % of students have a skillful about creative to develop the land . 15.8 % of students think about to make agriculture don' t appropriate in social status. It means they think to make a single agriculture. In protection the environment and to care a customer health, one-fourth of students think about the agriculturist don' t to make a problem and they don' t responsibility to solve it.

2.13 Expectation for professional achievement

From the results found that the students occupation successful of expectation has provide in 3 priority such as: incomes and security part, knowledge and skillful part and capable to make higher status.

2.14 Savings

From the results found that the students have saving money average 697.42 bath. Two-third students don't have a saving money.

Socio-psychology factors

2.15 Value social to the type of occupation selection

From the results found that the 5 priority of admire about occupation selection in local such as: to make agriculture, to work in the government service , to educate occupation continually, to work independent occupation and t work as the employee.

2.16 The parent expectation to the son's occupation

From the results found that the 5 priority of the parent expectation to the son' occupation such as: to work in the government service, to make agriculture, to educate occupation continually, to work independent occupation and to work as the employee.

2.17 Friend's influence

From the results found that the friend's influence have at least to decide about the type of occupation selection.

2.18 The model person in occupation's influence

From the results found that the model person in occupation have a medium level influence to decide about the type of occupation selection. The qualification of the model person who the students hold on the pattern such as: to be determined and to be intention, to be sedulous and he has a creative thinking about occupation .

3. The result of analysis factors related with decision making the type of occupation selection of the students have provide in 5 independent groups as follow:

The groups of basic agriculture occupation factors such as: the land, the source of water, agriculture technology, the family' basic occupation, the condition of the weather in various season and the communication in local.

The groups of physical basic structure factors such as: land development , the source of water development, occupation structure in local and the market.

The economic factors is the saving money.

The groups of socio-psychology factors such as: the value social to the type of occupation selection, the parent expectation to the son' occupation selection and the model person in occupation's influence.

The groups of individual factors such as: skillful, occupation successful expectation, knowledge and agriculture strategies skillful.

From the results found that the factors related with decision in the type of occupation selection of students in agriculture certificate level 3 under agricultural education reform for a better life project were:

1. The parent expectation to the son's occupation selection has related with decision making in the type of occupation selection at significance level 0.05.

2. Occupation successful of expectation has related with decision making in the type of occupation selection at significance level 0.05.

Recommendation

1. In development to the occupation of population is a product power to develop economic of the country. The results found that the students in agriculture certificate level 3 under agricultural education reform for a better life project after graduated was a decision making to educate continually 47.7 %, into agriculture section 29.1% more than the past, into out of agriculture occupation 23.2 %. Besides of the curriculum structure is open wide to the students who can select to educate in their interest and they can use the certificate upgrade for higher education. That' s a positively direction. It don't pass the effect to the agriculture development. Because they will receive the vary occupation and experience. To give positive feed back in along time when the students who studies in agriculture certificate level 3 under agricultural education reform for a better life project, who are farmer' descendents and have occupation in agriculture. Some student don' t really love in agriculture occupation. Education in agriculture maybe receive from motivation in another parts such as: free in education services fee. From the result found that students have a medium level in experience to make agriculture. The frequency to help their parent is on occasions and somebody no help their parent. Besides the student have a medium level in skillful to make agriculture and they loss the experience to make agriculture too. It's an obstacle to personal development. The researcher has a recommendation as follow:

1.1 Should considerate the qualification to select the student into the educate agriculture occupation such as: the skillful, interest, really love in agriculture. It' s bring to the efficiency in curriculum, maybe to happen of innovation in agriculture from the creative thinking of the students who really love in agriculture.

1.2 Should give an opportunity to another young' descendent. It' s bring to make to return in value in agriculture occupation.

1.3 Should give the participate to the parent by the group process will help the way to develop the agricultural.

1.4 Should applied the curriculum to the local.

2. In the way to develop the agriculturist, the institute of education should add the potential curriculum as follow:

2.1 The institute of education should add the skill about strategies to make agriculture. Between the students should have to exchange the experience and use the group process to solve the problem.

2.2 Should make the saving system for the students through 3 years.

2.3 Should bring the model person to be a pattern to learn in agriculture.

This study is applied from another researches. In specially of population variables, the researcher has recognize in equal rights of sex. The result can brings to the basic develop the curriculum in education agriculture occupation. It has a reflect to the image of the agriculture and the policy in development agriculture in the north eastern region. The data collection may be error in the perception of knowledge of the students.

Recommendation for Further Study

1. Because of the limited in studied, the researcher only collected in the students of the college of agriculture of technology in the north eastern region . It have a likely of qualification of the sample. So in the next study, should be study compare a decision making to the type of occupation selection of the students between the region .

2. Should bring the other variables in the next study such as: the teacher counselor, the efficiency of a agriculture education for a better life project between study for the reforming the curriculum agriculture education for a better life project in higher appropriate.

3. Should be careful in designed the questionnaires, don' t aim too many detail. It may be hard to the interpreting data too.

Bibliography

Food and Agriculture Organization. (1998). Production 1997. FAO statistic series (vol. 51: pp.64-65). Food and Agriculture Organization of the United Nations, Rome.

Ginzberg, E. (1966). The development of human resources. New York: McGraw-Hill book company, inc.

Harwood, R.R.(1979). Small farm development. Colorado: Westview press, Inc.

Hoppock, Robert. (1967). Occupation information. 3rd ed New York: McGraw-Hill book company.

Hurlock, Elizabeth B. (1964). Development psychology. New York: McGraw-Hill book company.

Jakubauskas, Edward B. & Neil A., Palomba. (1973). Manpower economics. Philippines: Addison Wesley publishing company.

Keating,M. (1992). Agenda for change, the earth summit's, a plain language version of agenda 21 and the other rio agreement, published by the centre for our common future: Jeneva, Switzerland.

Mosher, Arthur T. (1966). Getting agriculture moving essential for development and modernization. New York: Frederic A. Pracger. Publisher.

Tipton, M.R. (1966). Vocational identification and academic achievement. Journal of counseling psychology. 13 (4), pp.425-435.

Tolbert, E.L. (1974). Counselling for occupation development. Boston: Houhgton Mifflin company.

Uzzell, O. (1961). Influences of occupational choice. The personal guidance journal. 39(8). 666-669.

World Health Organization. (1998). Life in the 21st century a vision for all. The World Health report: Jeneva.

Aksornvongse, R. (1993). Expectation of professional capacity of 6th class senior high-school students in Ubonratchathani. M.S. Thesis in Educational Psychology, Faculty of Graduate Studies, Khon Kaen University.

Anukulampai, A. (1983). Analysis study of agricultural development and continuing activities policy (part III) policy of the use of land, water and forestry. The National Research Council of Thailand.

Archasuwan, S. (1989). Factors that concern further study and entry into labour market of graduates in primary education curriculum of 1986 academic year, Samut Sakhon. M.S. Thesis in Primary Education Teaching, Faculty of Graduate Studies, Chulalongkorn University.

Bangkok Metropolitan Bank. (1996). Competition. economic journals, 7 (2), pp.12-15.

Boonreung, T. (1992). Comparative study on geographical factors, personal factors and methods of getting labour news affecting decision making to work in middle east in Amphur Muang, Kampaengphet. M.S. Thesis in Geography, Faculty of Graduate Studies, Srinakharinwirot Prasanmitr University.

Buripakdee, C. (1987). Study of Thai and Chinese culture. Bangkok: Silpakorn University.

Chaiyaluksananonta, S. (1999). Variables related to value in choice of occupation of 3rd class students of junior high schools under department of general education, uttaradit. M.S. Thesis in Counselling Psychology, Faculty of Graduate Studies Srinakharinwirot Prasanmitr University.

Chaiyawongse, S. (1989). Conditions favourable to independent occupation of short-term vocational course graduates particularly for non formal education center for northern provinces: M.S. Thesis in Adult Education and Continuing Education, Faculty of Graduate Studies, Silpakorn University.

Chandrasuksri, T. (1992). Certain factors that affect attitude on independent occupation of vocational students in agriculture at high schools, Pattani. M.S. Thesis in Agricultural Teacher Science, Faculty of Graduate Studies, Kasetsart University.

Chantana-o, A. (1983). Present and future agriculture. Bangkok: Kasetsart University.

Chantavanich, S. (1991). Social rank arrangement: occupation pride in Thai society. Bangkok: textbook project of Social Research Institute, Chulalongkorn University.

Chimthai, S. (1993). Factors affecting decision making on farmers of mixed farming in irrigation area in Mahasarakram. M.S. Thesis in Agricultural Promotion, Faculty of Graduate Studies, Khon Kaen University.

Chuchom, O. (1997). Analysis of factors related to decision making on education and occupation of senior high-school students. Bangkok. Behavioural Science Research Institute, Srinakharinwirot Prasanmitr University.

Department of Agricultural Extension. Planning section. (1997). Provincial agricultural information 1998. Bangkok: Ministry of Agriculture and Cooperatives.

Department of Business Economics. (1998). Trade statistics and indicator of Thai economy. Bangkok: Ministry of Commerce.

Department of General Education. (1992). Vocational education scheme for senior high-school students of 1992 academic year. Bangkok. Unpublished manuscript.

Department of Land Development. (1982). Handbook of water supply system planning for farms and relationship between soil, plants and water. (3rd Edition). Bangkok: Bumrungnukulkij press.

Department of Labour Protection and Welfare. (1994). Labour statisitcs 1993. Bangkok: Thammasat University press.

_____. (1995). Labour statistics 1994. Bangkok: Thammasat University press.

_____. (1996). Labour statistics 1995. Bangkok: Borpith press.

_____. (1997). Labour statistics 1996. Bangkok: Borpith press.

_____. (1998). Labour statistics 1997. Bangkok: Borpith press.

_____. (1999). Labour statistics 1998. Bangkok: Borpith press.

Department of Vocational Education. (1995). Report of entry of graduates in vocational education of 1983 academic year into labour market in 1984. Bangkok. Unpublished manuscript.

_____. (1989). Vocational example. Bangkok: Akksornthanesua.

_____. Agricultural College Section. (1990). Survey project of economic status of students of vocational agricultural program of 1990 academic year.Bangkok. Unpublished manuscript.

_____. (1990). Employment of vocational graduates of 1989 academic year. Bangkok: War Veterans Organization press.

_____. (1993). Data analysis of students of 1993 academic year. Bangkok. Unpublished manuscript.

_____. Agricultural College Section. (1995). Summary of present circumstance in education management in agricultural college of 1995 academic year. Bangkok. Unpublished manuscript.

_____. (1997). Project of agricultural reform in education for life. Bangkok. Unpublished manuscript.

_____. (1993). Data analysis of students of 1993 academic year. Bangkok. Unpublished manuscript.

_____. Agricultural College Section. (1998). Project of educational and development for project of agricultural reform in education for a better life. Bangkok. Unpublished manuscript.

_____. Agricultural College Section. (1995). Policy and target of 1999 fiscal year performance. Bangkok. Unpublished manuscript.

_____. (1999). Project of agricultural reform in education for a better life. Bangkok. Unpublished manuscript.

_____. (1998). Diploma course of vocational program of 1995 (addition, 1998) agriculture, agriculture and technology course. Bangkok. Unpublished manuscript.

Dickinson, P. (1977). Adolescents, fast age, development age, developmental psychology. Bangkok: Praepittaya press international partnerships.

Dissarojana, S. (1990). Unofficial labour in economic sector of Bangkok in documents for academic meeting "life quality of city people" during March 19th - 21st, 1990. (pp. 37-56).

Dolsamure, A. (1995). Factors affecting land leave of village members of Pa Mai Village, Tumbol Ta Chang, Amphur Chakrat, Nokornratchasrima. M.S. Thesis in Forestry Mangement, Faculty of Graduate Studies, Kasetsart University.

Hiranyarassami, P. (1984). Agricultural education and agricultural promotion in teaching materials of agriculture and cooperatives promotion branch (1st volume. 4th Edition, pp. 6-8). Sukhothaithammathirat Open University: people company.

_____. (1989). Agricultural education and agricultural occupation promotion. Bangkok: people promotion press.

Issarapreecha, P. (1980). Teaching & learning psychology. Bangkok: graphic art press.

Jaereeratana, N. (1983). Agricultural resources economics. Bangkok: Ramkhamhaeng University.

Jamnong, V. (1980). Decision making behaviour. Bangkok: Baramee press.

Jedsadabundit, P. (1992). Comparative study on basis factors for independent occupation in agriculture of agricultural students between those who want to enter to field of independent occupation in agriculture and those who want to be employed in government organizations and in private organizations in the 7th education zone under Department of Vocational Education. M.S. Thesis in Agriculture, Faculty of Graduate Studies, Kasetsart University.

Jindanukul, A. (1989). Study of needs and junior high school educational services: comparative case high schools in amphur where further study rate is high and low in Ayuttaya, Lopburi and Saraburi. M.S. Thesis in Educational Development, Faculty of Graduate Studies, Srinakarinwirot Prasanmitr University.

Jindasa-nguan, L. (1991). Development of Water Sources. On the occasion of 89years of Royal Irrigation Department, Ministry of Agriculture and Cooperatives on June 13rd, 1991 (pp. 26). Ministry of Agriculture and Cooperatives: community press, agricultural cooperatives of Thailand.

Jiravorapongse, P. (1982). Techniques of training on educational technology. Bangkok: Amorn press.

Jitra-ananta, B. & Klewmorakod, S. (1978). Principle of vocational education. Bangkok: Vocational Science. Educational Science, Kasetsart University.

Jitra-ananta, B. (1997). Agricultural promotion. (2nd Edition). Bangkok: Chuanpim press.

Julajerm, S. (1997). Motivation in choice of occupation of senior diploma course students of vocational program (por.vor.sor) of commercial college, Department of Vocational Education, in Bangkok. M.S. Thesis in Population Edcation, Faculty of Graduate Studies, Mahidol University.

Juntanonta, S. (1976). Independent occupation studies. Bangkok. M.S. Thesis in Science of Educational Development, Faculty of Graduate Studies, Srinakharinwirot Prasanmitr University.

Jutikul, S. (1967). Choice of occupation. Bangkok: Chulalongkorn University.

Kajornsilpa, S. (1987). Occupation counselling in high school. (2nd edition). Faculty of Educational Science Faculty, Kasetsart University: Silpakorn University Press.

Kannasutra, S., & Buasri, S. (1978). Education for work and occupation. Bangkok:

Kerdpitak, P. (1986). Theory of vocational development in supplementary teaching materials 515 (1st volume, 2nd edition, pp. 91-94). Bangkok of Department of the Study of Psychological Consultation., Srinakharinwirot Prasanmitr University.

Kerdsomboon, S. (1995). estimation of agricultural projects by college of agriculture students, Pattalung, of 1995 academic year. In document for academic meeting and result of vocational education in southern region research during August 8th -10th, 1995. Phuket: Sintawee hotel.

Ketdeja, S. (1996). Opinion of students towards environment, teaching and learning management and student activity service management in Petchabun College of Agriculture. Petchabun. Unpublished manuscript.

_____. (1997). Problems of students who leave during academic term of project of agricultural reform in education for life in Petchabun College of Agriculture and Technology. Petchabun. Unpublished manuscript.

Ketdeja, S., & Jaihao, T. (1996). Study of opinion of 1st year diploma course students of vocational program in agriculture under project of agricultural reform in education in college of agriculture and technology in Petchabun. Department of Vocational Education. Unpublished manuscript.

Khamkiang, P. (1979). Trend towards agricultural occupation of senior high-school students in agriculture division. M.S. Thesis in Community Development, Faculty of Graduate Studies, Kasetsart University.

Khampusan, P. (1976). Principle of agriculture. Bangkok: Fleungn-aksorn press.

Klewpet, P. (1984). Study of variables in relation to further study of students who graduate in 6th class of primary education in southern provinces along borders. M.S. Thesis in Education Administration, Faculty of Graduate Studies, Chulalongkorn University.

Klinprathum, T. (1975). Land reform for agriculture. Bangkok: community - sale and purchase cooperatives of Thailand Co., Ltd press.

Kongket, M. (1980). Result of parents' attitude towards degree of education, occupation and parents' income affecting the occupation selection of 3rd class junior high-school students in Bangkok. M.A. Thesis in Psychology, Faculty of Graduate Studies, Chulalongkorn University.

Koomaprawat, N. (1973). Aim of parents in thai rural areas regarding children education. M.S. Thesis in Society, Faculty of Graduate Studies, Chulalongkorn University.

Labour Department (1963). Fact study about immigrations in Thailand. Bangkok: Thai paper press.

Laolar, C. (1980). Rural sociology. (3rd Edition). Bangkok: Akasornsarn press.

Laosoonthorn, S. (1969). Understanding of education. Bangkok: Kled Thai.

Limvananonda, K. (1988). agricultural training in plants of senior diploma course of vocational program, 1986 in attitude of students, teachers, lecturers, college of agriculture in central region, Department of Vocational Education. M.S. Thesis in Agricultural Teacher Science, Faculty of Graduate Studies, Kasetsart University.

Manakasetthara, N. (1992). Abandonment from land reform area of agricultural zone: specific study with farmers in land reform project on the right side of Pa Thub Sela, Bann Subpapul, Moo 6, Tumbol Pa-or, Amphur Lansak, Uthaithani. M.A. Thesis in Social Development, Faculty of Graduate Studies, Kasetsart University.

Mornchareon, L. (1996). technological needs for national agricultural development in the next decade: soil and land use in report of phase II of technological needs for national agricultural development in next decade research (pp. 142). The National Research Council of Thailand.

Na Chiang Mai, A. (1973). Irrigation and agricultural development in the plough developing (Page 4).: Office of Promotion and Training, Kasetsart University.

Naowapradith, N. (1984). Decision making for selection of fishery after graduation from compulsory education: case study of children of fishermen, Amphur Hua Sai, Nakhon Srithammarat. M.S. Thesis in Social Welfare, Faculty of Graduate Studies, Thammasat University.

National Education Development Center of Thailand. (1983). Trend towards employement nationwide of Thai youths. Bangkok: Sukhothaithammathirat Open University press.

Nonthaburi: Publication due to world population day on July 11th, 1999.

Office of the National Statistics. (1993). Agricultural registration 1993. Nationwide. Bangkok: The Office of Prime Minister.

_____. (1996). Annual statistics of Thailand. Bangkok: The Office of Prime Minister.

Office of National Education Committee. (1985). Education and occupation: effects from vocational education management. Bangkok. Office of the Prime Minister: Chareonpol.

_____. (1990). Study of relationship between economic and social factors and educaion in comminity in industrial area: specific study, moo 5, Tumbol Nongkam, Amphur Sriracha, Chonburi. Bangkok: Pab Pim.

_____. (1992). Components affecting further study and selecting a way of life of students. Bangkok: Pab Pim.

_____. (1992). Study of occupation constant of vocational education graduates. The Office of Prime Minister.

_____. (1997). National educational information of 1994-1996 academic year. Bangkok: the teachers' council of Thailand press, Ladprow.

Office of the National Statistics. (1998). Survey of state of employment of population nationwide: 3rd round as of August 1998. Bangkok. The Office of Prime Minister.

On-Chandra, T. (1987). Agricultural economics. (3rd edition). Bangkok: Thai Wattana Panich limited press.

Ongkhanonta, Y. (1990). Attitude of Srinakharinwirot Prasanmitr University students towards independent occupation. M.S. Thesis in Psychology of Counselling, Faculty of Graduate Studies, Srinakharinwirot Prasanmitr University.

Ong-neknanta, N. (1991). Factors affecting attitude on independent occupation of 4th year students of Kasetsart University. M.A. Thesis in Psychology in Education and Consultation, Faculty of Graduate Studies, Kasetsart University.

On-Koksoong, C. (1979). Psychological education. (2nd edition). Bangkok: Thai Wattana Panicha.

Padermchid, N. (1990). Decision making on selection of goal and opportunity for crime committing of wrongdoers relating to properties in Bangkok Area. M.S. Thesis in Criminology and Justice Affairs, Faculty of Graduate Studies, Mahidol University.

Paorohidtaya, N. (1985). Vocational development. Bangkok: Ramkhamhaeng University.

Pattana, S. (1985). Trends in selection of occupation by senior diploma course student in central region. M.S. Thesis in Agricultural Teaching, Faculty of Graduate Studies, Kasetsart University.

Petthongkham, M. (1984). Agricultural education and agricultural occupation promotion. In teaching materials of agriculture and cooperatives promotion (1st volume, 2nd edition, pp. 10-11). Sukhothaithammathirat Open University: People company limited.

_____. (1993). Basic agriculture. (10th edition). Bangkok: Chuan Pim press.

Pet-indra, P. (1994). Factors that make students not to choose advance agricultural studies of 3rd class junior high-school students in Satun Province. M.S. Thesis in Agricultural , Faculty of Graduate Studies, Kasetsart University.

Petpud, A., et al. (1977). Influence of social institutions on Thai-Buddhist and Thai-Muslim children support in Nokhon Srithammarat. Psychology. Faculty of Social Science. Kasetsart University.

Phasutharachart, S. (1993). Basic agriculture. (2nd edition). Bangkok: Chuan Pim press.

Pholdee, T. (1989). Conditions and factors affecting decision making for production in a variety of types: case study of rice farmers in irrigation area, Suphanburi. M.S. Thesis in Agricultural Economics, Faculty of Graduate Studies, Kasetsart University.

Poonsuwan, J. (1984). Factors changing farmers who previously had their own land to farmers who hire land from others. M.S. Thesis in Social Development, Faculty of Graduate Studies, Kasetsart University.

Poorpongsakorn, N. & Suzuki, P. (1992). Change of labour into shortage of labour. research and development institute of Thailand. Bangkok. Unpublished manuscript.

Poungboon Na Ayutthaya, P. (1996). Reporting statement in opening ceremony of seminar under topic "human resources development in agriculture sector in globalization " on May 24th, 1996. Bangkok: Asia hotel.

Punpiumrat, K. (1991). Agriculture and natural resources. Descriptive document for administrators in several ranks of department of agriculture, April 21st, 1991. Songkla: Center of Rubber Research.

Rasrikriengkrai, C. (1980). Aim of parents at education and occupation of children: comparative study between high-school students in department of general education, and schools under control of university. M.S. Thesis in Sociology and Anthropology, Faculty of Graduate Studies, Chulalongkorn University.

Region Development Private Foundation. (1998). Vision on future of Thailand. Bangkok: S.R. printing mass products limited.

Ruktham, A. (1990). Behaviours in government system. (2nd edition). Public Administration Science Faculty, National Institute of Development Administration.

Saeng-aroon, V. (1983). Skill of agriculture required by junior high-school students at high schools in Ratchaburi. M.S. Thesis in Agriculture Teaching, Faculty of Graduate Studies, Kasetsart University.

Saengmanee, K. (1989). Development of agriculture and industry education for life. Bangkok: Klingchan press.

Saengrassami, S. (1987). Agricultural business. Bangkok. School of agricultural business administration, agricultural technology, King Mongkut's Institute of Technology.

Saengsawang, P. (1979). Occupation studies and occupation counselling. Bangkok: Tame press.

Samutvanicha, C. (1989). Administration and development of rural areas. Bangkok: Sukhothaithammathirat Open University.

_____. (1996). Human resources developments in agriculture sector in globalization. in summary document of seminar in topic: human resources development in agriculture sector in globalization on May 24th (page 18). Bangkok: Asia Hotel.

Sanansieng, C. (1995). Choices and factors in relation to education and occupation of junior high-school students. M.S. Thesis in Population Education , Faculty of Graduate Studies, Mahidol University.

Sayamwala, A. (1989). Future of agriculture in Thailand : How to set question. Parliament journals, 37 (9), 48.

_____ (1996). Future of Thai farmers in the next two decades. in Thailand in 2017.Bangkok: H.N. group limited.

Senanarong, S. (1973). Geography of Thailand. Bangkok: Thai Wattana Panich.

Sinlarattana, P. (1979). Philosophy of basic education. Bangkok: Chulalongkorn University press.

Singkalavanicha, T. (1971). Agriculture and development. Kasetsart University. Bangkok. Unpublished manuscript.

_____. (1975). Agricultural views. Bangkok: Ruam Mitr Thai press.

_____. (1991). Rural development. (7th edition). Teaching materials of agriculture and cooperatives promotion branch, Sukhothaithammathirat Open University: Aroon press.

Siriwan, N. (1989). Farming works: key strategy of agricultural education. Bangkok: Polachai press center.

Sivaluksana, S. (1982). Philosophy of education. Bangkok: Thai Wattana Panich.

Soonthornprapasara, T. (August 9th, 1999). Thai farmers after year 2000.Daily News. Page 5.

Soontrajarn, P. (1991). Factors affecting selection of engineering of girl students. M.S.Thesis in Sociology, Faculty of Graduate Studies, Thammasat University.

Sripien, V. (1998). Economic crisis: effects on labour movement into Bangkok (case study during the beginning period of the crisis). In document of academic meeting of national population science during November 19th -20th, 1998 (pp. 193). Bangkok: Chulalongkorn University.

Srirath, W., & Waiyalee, C. (1986). Settlement geography. Bangkok: Ramkhamhaeng University.

Suwana-aksorn, S. (1989). Occupation riddle. Bangkok: O.S. printing house.

Tanthavutho, V., & Phupare, O. (1995). Report of agricultural knowledge transfer culture in Thai society research. The School of Vocational Education, Educational Science, Kasetsart University.

Taweekulawattana, T. (1986). Price and market of agricultural sector. Bangkok: Chulalongkorn University press.

Taweerattana, P. (1997). Method of behavioural science and sociology research (7th edition). Bangkok: Srinakharinwirot Prasanmitr University. Thai Wattana Panich.

Thanapanyarachavongse, J. (1986). Principle of agriculture. Faculty of agricultural development and natural resources, Prince of Songkla University, Hat Yai Campus.

Thanapornpun, R. (1973). Agricultural economics. Bangkok: Kled Thai press.

Thathong, T. (1986). Certain factors affecting decision making on agricultural study of senior high-school students at schools under control of university, Srisaket. M.S. Thesis in Agriculture, Faculty of Graduate Studies, Kasetsart University.

The National Education Committee. (1985). Policy outline of development in agricultural education. Bangkok: Chareonpol.

The Office of Agricultural Economics. (1985). Agricultural facts of Thailand. Bangkok: Chuan Pim press.

_____. (1992). Agriculture of Thailand. Bangkok: Chuan Pim press.

_____. (1996). Estimation of agricultural and non-agriculture labour population of Thailand During the 8th National Economic and Social Development Plan (1997-2001). Bangkok: Ministry of Agriculture and Cooperatives.

_____. (1997). Operational plan of Ministry of Agriculture and Cooperatives during the 8th national economic and social development plan (1997-2001).

1st amendment according to agreement of the cabinet on March 18th, 1997. Bangkok: Ministry of Agriculture and Cooperatives.

Theerasasawat, S., & Deesuankhok, C. (1992). Change in occupation of i-san people in outskirt communities since established until now. Khon Kaen: History and Archaeology, Anthropology and Sociology, Khon Kaen University.

Tinnimitr, P. (1984). Principle of agriculture. Bangkok: Krung Siam press.

Traimmongkolkul, P. (1998). Research design (2nd edition). Bangkok: people company limited.

Traimmongkolkul, P., et al., (1991). Case study: change in agricultural system in Amphur Sai Yok, Kanchanaburi. In approach of analysis of change in agricultural system in community: importance of income from farms and non-farms (pp. 37-54). Unpublished manuscript.

Ung-khanurakpunth, R. (1990). Measurement of basic attitude. In teaching materials, educational science (1st volume, 1st edition, pp. 186). Burapa University.

United Nation. (1999). World population day. (Health Department; translate). Unpublished manuscript.

Uporamai, P., et al., (1991). Vocational development of students in brain demonstration , Sukhothaithammathirat Open University: acknowledgement and interest in occupation. Bangkok: Sukhothaithammathirat Open University.

Varid, S. (1985). Principle of land reform. Chiang Mai: school of economics and agricultural cooperatives, Maejo Institute of Agricultural Technology.

Vechapath, J. (1990). Development of use of fertilizer for rainy rice farming in north eastern region. documents for 7th meeting of farming system research during March 26th- 27th, 1990. Suratthani: Wong Tai hotel.

Vudhisorn, P. (1989). Comparative study of electric water supply project of Bann Ta Bor station, Nong Khai, and Bann Nam Kam station, Nokornpanom. M.S. Thesis in Agricultural Economics, Faculty of Graduate Studies, Kasetsart University.

Wanthanutchariya, S. (1996). Technological needs for natural agricultural development in the next decade : agricultural economics. The National Research Council of Thailand.

Watanavasin, S. (1978). Occupation expectation of senior diploma course students of vocational program in agriculture (por vor sor in agriculture) in Thailand in 1975. M.S. Thesis in Agriculture Promotion, Faculty of Graduate Studies, Kasetsart University.

Wongsakul, W. (1984). Principle of agriculture. Plant science, Faculty of Agriculture, Khon Kaen University.

Wongsesiriwattana, V. (1996). Factors relating to decision making for occupation selection by 1993 diploma course students of vocational program in lower

area of north eastern region. M.S. Thesis in Adult Education, Faculty of Graduate Studies, Kasetsart University.

Yampayonta, A. (1988). Occupation pride in rural area. M.S. Thesis in Anthropology, Faculty of Graduate Studies, Chulalongkorn University.

Yamsaruan, N. (1981). Choice of occupation of 5th class senior high-school students in 5th education zone. Bangkok. Psychology of Consultation, Educational Science, Silpakorn University.

BIOGRAPHY

NAME	Miss Kesorn Chinda
DATE OF BIRTH	13 January 1961
PLACE OF BIRTH	Chantaburi Province, Thailand
INSTITUTION ATTENED	Boromratchonni Salpasittiprasong Nursing College, 1986-1988: Certificate in Nursing Mahidol University, 1998-2000: Master of Arts (population Education)
FELLOWSHIP/RESEARCHGRANT	–
POSITION & OFFICE	1991-Present, The Office of Information and Public Relation, Ministry of Public Health. Nonthaburi, Thailand. Position: Professional Nurse, Level 7