

CHAPTER 3

Methodology

The populations in this study are chief officers and staffs of the Royal Project Center, farmers in the Royal Project Center, staffs of the Extended Project and farmers in the Extended Project.

3.1 Sample of the study

3.1.1 From the Royal Project Development Center 38 centers/stations consists of;

- 1) All Chief Officer of the Royal Project Development Center total 38 people and Purposive Sample of staffs by selection from staffs who can answer the questions about the operation model of the Royal Project successful developments in the highland area 38 people. Total is 76 people.
- 2) Farmers in the Royal Project area, the researchers specified 2 people for each center by Accidental Selection from a similarly sample with total 76 people.
- 3) Chief Officer of the Royal Project Development Center for the focus group meeting for 8 people by snow ball selection from who can answer the questions.

3.1.2 From the Extended Project 29 places as following;

- 1) All staff of the Extended Project 29 people totally.
- 2) Farmers in the Extended Project, the researchers specified 2 people for each center by Accidental Selection from a similarly sample with total 58 people.
- 3) Staff of the Extended Project for the focus group meeting for 8 people by snow ball selection from who can answer the questions.

Thus, there are the population samples of the Royal Project Development Center for 152 people and the Extended Project 87 people, total of 239 people. And

population sample for the focus group of the Royal Project Development Center 8 people and the Extended Project 8 people. The details are shown in Table 3.1 and Table 3.2 as follows.

Table 3.1 Samples of the Royal Project in 38 centers/stations

Number	The Royal Project	Chief Officer of the Royal Project Center (select all)	Staffs of the Royal Project Center (Purposive sampling)	Farmers in the Royal Project area (Accidental election)	Total
1.	Huay Pong	1	1	2	4
2.	Huay Nam Rin	1	1	2	4
3.	Mae Poon Lung	1	1	2	4
4.	Huay Lang	1	1	2	4
5.	Pa Tung	1	1	2	4
6.	Huay Nam Khun	1	1	2	4
7.	Sa Gho	1	1	2	4
8.	Mok Jam	1	1	2	4
9.	Pa Muang	1	1	2	4
10.	Mea Tao	1	1	2	4
11.	Ang Khang	1	1	2	4
12.	Mae Tha Nuea	1	1	2	4
13.	Teen Tok	1	1	2	4
14.	Huay Luk	1	1	2	4
15.	Kae Noi	1	1	2	4
16.	Nong Khiaw	1	1	2	4
17.	Thung Raeung	1	1	2	4
18.	Huay siew	1	1	2	4
19.	Thung Roa	1	1	2	4
20.	Pang Da	1	1	2	4
21.	Mae Pae	1	1	2	4
22.	Mae Lord	1	1	2	4
23.	Mon Ngo	1	1	2	4
24.	Wat Jan	1	1	2	4
25.	Pang Ung	1	1	2	4
26.	Mae Hae	1	1	2	4
27.	Nong Hoi	1	1	2	4
28.	Mae Sa Mai	1	1	2	4
29.	Inthanon	1	1	2	4
30.	Huai Som Poi	1	1	2	4
31.	Khun Pae	1	1	2	4
32.	Thung Luang	1	1	2	4
33.	Khunwang	1	1	2	4
34.	Mae Sa Pok	1	1	2	4
35.	Mae La Noi	1	1	2	4
36.	mae sa reang	1	1	2	4
37.	Phrabat Huai Tom	1	1	2	4
38.	Pungka	1	1	2	4
	38 centers	38	38	76	152

Table 3.2 Sample of the Extended Project in 29 places

Number	The Extended Project	Staffs of the Extended Project (select all)	Farmers in the Extended Project (Accidental Selection)	Total
1.	Pa Kluay	1	2	3
2.	Long Kod	1	2	3
3.	Doi Pui	1	2	3
4.	Sob Khong	1	2	3
5.	Pha Thak	1	2	3
6.	Pa Pae	1	2	3
7.	Mae Malo	1	2	3
8.	Pang Hin Fon	1	2	3
9.	Pang Ma O	1	2	3
10.	Pang Daeng Nai	1	2	3
11.	Huai Poa	1	2	3
12.	Wawee	1	2	3
13.	Mae Salong	1	2	3
14.	Sob Meay	1	2	3
15.	Mae Sam Laep	1	2	3
16.	Pong Kum	1	2	3
17.	Sa Nuan	1	2	3
18.	Pang Yang	1	2	3
19.	Khun Sathan	1	2	3
20.	Nam Pang	1	2	3
21.	Mae Jarim	1	2	3
22.	Nam Kwang	1	2	3
23.	Nam Keum	1	2	3
24.	Tum Wiang Gang	1	2	3
25.	Wang Pai	1	2	3
26.	Klong Lan	1	2	3
27.	Huai Kha Yeng	1	2	3
28.	Mae Song	1	2	3
29.	Boklua	1	2	3
	29 places	29	58	87

3.2 Instrumentation for data collecting

3.2.1 The instrumentation used in this study is an interview with the close-ended question open-ended question. There are 4 sets as follows.

- 1) Interviews for Chief Officers and staffs of the Royal Project Development Center.
- 2) Interview for the farmers in the Royal Project area.
- 3) Interviewed for the staffs of the Extended Project.
- 4) Interview for the farmers in the Extended Project.

3.2.2 The focus group to survey for the opinion of the Royal Project staffs 8 people and the Extended Project staffs 8 people by using the questions about the lessons learning of the success of the implementation of the Royal Projects,

implementation model of the Royal Projects, Factors affecting successful of the Royal Projects, the criteria used for selecting the lessons learning of the Royal Projects for implemented in the Extended area and How about the problems, obstacles and suggestions derived from its implementation within the Extended Project areas.

In addition, it was used sound recorder to avoid a discrepancy of the meeting. The short note is used to record during focus group meeting and then compiled to the expanded message for more clearly and understand. And a camera is used to store pictures as evidence and demonstrate the integrity of the activity.

3.2.3 Research instrument development

- 1) Review of the literature related to that research to study the concepts, theories and researches to serve as a framework for research.
- 2) Set the frame of content and question in accordance with concept of the research.
- 3) Propose of the built instrument to the dissertation advisor to examine the comments. Then, improve the instrument according to the comments and suggestions by advisors.

3.2.4 Detail of research instrument

- 1) The research instrument is an interview. They are 4 sets as follows.

- (1) Interviews for Chiefs Officer and staffs of the Royal Project Development Center.

Part 1 Question about background information including gender, age, education, experience and the Royal project's success lesson.

Part 2 Question about the successful of highland development by the Royal Project that can be taken as a lesson in the development of other high areas divided into 2 parts; 2-article of the open-ended question and the interviews submitted with each issue of the authorities at any level.

Part 3 Question about the implementation of the Royal Project success to the Extended Project by using the open-ended interviews.

(2) Interview for the farmers in the Royal Project area.

Part 1 Question about background information including age, number of the farmers in household, number of children, career, income, dept, assets and the land holding.

Part 2 Question about the operation model in promoting the knowledge to the farmers in the Royal Project Development Center. It is the interviews submitted with each issue of the farmers.

Part 3 Question about the knowledge that farmers are receiving by the supporting from the Royal Project Development Center. The interviews submitted with each issue of farmers.

Part 4 Question about the operation of the Royal Project Development Center for the farmers divided into 2 parts; 3-article of Open-ended Question and the interviews submitted with each issue of farmers.

(3) Interviewed for the staffs of the Extended Project.

Part 1 Question about background information including gender, age, education, working experience.

Part 2 Question about the implementation of the Royal Project's success lesson to the Extend of the Royal Project divided into 2 parts; 4-article Open-ended Question and 3-article check-list.

Part 3 Question about the progressive of the implementation of the Royal Project's success lesson to the Extended Project. It is the interviews submitted with each issue of the Extended Project.

Part 4 Question about the problem, obstacles and suggestions on the implementation of the Royal Project's success lesson to the Extended Project which is the open-ended interviews.

(4) Interview for the farmers in the Extended Project

Part 1 Question about background information including gender, age, number of the farmers in household, number of children, career, income, dept, assets and the land holdings.

Part 2 Question about the operation model in promoting the knowledge to the farmers in the Extended Project. It is the interviews submitted with each issue of the farmers.

Part 3 Question about the knowledge that farmers are receiving by the promoting from the Extended Project. The interviews submitted with each issue of farmers.

Part 4 Question about the operation result of the Extended Project for the farmers divided into 2 parts; 3-article of Open-ended Question and the interviews submitted with each issue of farmers.

2) Focus Group Question as follows:

(1) Focus Group Question of the Chief Officers of the Royal Project Center.

(1.1) What is the success lesson of the Royal Project ?

(1.2) How about the implementation model of the Royal Project ?

(1.3) What is the factor affecting the implementation successful of the Royal Project?

(1.4) Can be used the success lessons of the Royal Project to the Extended project?

(1.5) How about the suggestion if adaptation the success lessons of the Royal Project in other high land?

(2) Focus Group Question of the Staffs of the Extended Project.

- (2.1) What is the meaning of the success lessons of the Royal Project?
- (2.2) Can be used the implementation model of the Royal Project to development in other high land?
- (2.3) What is the success lesson of the Royal Project ?
- (2.4) What are the criteria for the selection of the lessons of successful from the Royal Projects implemented in The Extended Project?
- (2.5) Do you think the Extended Project is implemented the lessons of success from the Royal Project for your areas?
- (2.6) For development The Extended Project, What is the success lessons of the Royal Project used to apply in The Extended Project?
- (2.7) How about The impact, when did you apply the success lessons of the Royal Project to The Extended Project? (economic, social, environmental and other issues)
- (2.8) What are the problems, obstacles and suggestions from apply the success lessons of the Royal Project to The Extended Project?

3.3 Content validity and reliability of research instrument

3.3.1 Content Validity

The researchers propose an interview and the topic for focus group meeting to consult with the Advisory Committee to verify the accuracy of the contents and the appropriateness of the language used and improves the interview to be corrected and appropriated with content needed in an interview before the actual data collection.

3.3.2 Reliability

The researcher created 4 sets of an interview with an adjustment according to the recommendations of the Advisory Committee to determine a reliability by structured interview to pre-test with a population closely to the 4-group sample with 10 sets of each as follows.

- 1) Interview for Chief Officer and staff of the Royal Project, test with staff of Watershed Conservation Project (an initiate by Her Majesty Queen) 10 people because of they are similar highland farmers and get the help from external agencies.
- 2) Interview for farmers of the Royal Project, test with farmers in Watershed Conservation Project (an initiate by Her Majesty Queen) of 10 farmers because of they are similar highland farmers and get the help from external agencies.
- 3) Interview for the staffs of the Extended Project, test with staff of the Extended Project for sustainable solutions of opium cultivation for 10 people because of the nature and operation model are similar.
- 4) Interview for the farmers of the Extended Project, test with farmers of the Extended Project for sustainable solutions of opium cultivation for 10 people because of they are similar highland farmers and get the help from external agencies.

To check the question can be interpreted to meet the requirements, appropriation and difficulty. Then use test the confidence of the interview for the Reliability Coefficient by SPSS PC program. To find the confidence, it is using coefficient formula of the Cronbach's Alpha with Alpha Coefficient criteria. The Alpha Coefficient of each interview and each section are as follows.

- 1) Interviews for Chief Officer and staff of the Royal Project center

Part 2 Question about the successful of highland development by the Royal Project that can be taken as a lesson in the development of other high areas has $\alpha = .9377$.

- 2) Interview for the farmers in the Royal Project area

Part 2 Question about the operation model in promoting the knowledge to the farmers in the Royal Project Development Center has $\alpha = .9130$.

Part 3 Question about the knowledge that farmers are receiving by the supporting from the Royal Project Development Center, the interviews submitted with each issue of farmers' level of comment has $\alpha = .9271$.

Part 4 Question about the operation of the Royal Project Development Center for the farmers has $\alpha = .9673$.

3) Interviewed for the staff of the Extended Project

Part 3 Question about the progressive of the implementation of the Royal Project's success lesson to the Extended Project has $\alpha = .9218$.

4) Interview for the farmers in the Extended Project

Part 2 Question about the operation model in promoting the knowledge to the farmers in the Extended Project has $\alpha = .9381$.

Part 3 Question about the knowledge that farmers are receiving by the promoting from the Extended Project has $\alpha = 0.8711$.

Part 4 Question about the operation result of the Extended Project for the farmers has $\alpha = 0.8563$.

3.4 Data collection

In the process of data collection, the researchers collected the data form open-ended question and focus group meeting for the Royal Project staffs and the Extended Project staffs. The short note is used to record during focus group meeting and then compiled to the expanded message for more clearly and understand. And camera is used to store pictures as evidence and demonstrate the integrity of the activity.

3.5 Data analysis

For data analysis, the researcher was analyzing with following process.

3.5.1 Close-ended Question

- 1) Descriptive analysis is to explain the detailed information about personal characteristics such as gender, education, age, working experience and operating activities in the area. The data then were analyzed using computer with statistical program for social research (SPSS for Window) and presented in table included frequency, percentage, mean, maximum, minimum and standard deviation.

- 2) An interview for operation format and operation result of Royal Project and the Extended Project are interview for opinion survey in each issue with 5-level of Likert scale as following.

Very high	is equal to	5	points
High	is equal to	4	points
Moderate	is equal to	3	points
Low	is equal to	2	points
Very Low	is equal to	1	point

An opinion level interpreting is using the Weight Mean Score method for each subject comparing to following criteria.

Very high	is equal to	4.21 - 5.00	points
High	is equal to	3.41 - 4.20	points
Moderate	is equal to	2.61 - 3.40	points
Low	is equal to	1.81 - 2.60	points
Very Low	is equal to	1.00 - 1.80	points

- 3) Multiple Regression Analysis is to test the relationship between several independent variables and the dependent variables.

3.5.2 Open-ended question and focus group meeting, the data is classified and forming the data (Typology and Taxonomy) and then bring the inductive analysis summary (Analytic Induction) and content analysis (content analysis) for the interview. Then, the analysis of the causes (Cause and Effect Analysis) is using data from the interviews. Data from a literature review of relevant documents is the data analyzed the result that from the cause.

3.6 Place of operation

38 centers / stations of the Royal Project in 21 districts, 5 provinces in Upper North, they are Chiang Mai province, Chiang Rai province, Mae Hong Son province, Lamphun province and Phayao province. And the Extended Project by 29 offices in 23 districts, 7 provinces in the northern and central regions including Chiang Mai province, Chiang Rai province, Mae Hong Son province, Kampanget province, Kanchanaburi province, Nan province and Tak province.