

CHAPTER 1

INTRODUCTION

1.1 Background of the study

The Government of Vietnam is well aware that the country is based mainly on agricultural production, of which rice production ranks in the first place. Therefore, promoting its production has an important role not only in food self-sufficiency for people but also earning exchange from export. The progress in rice production assures food security for the country as well as stability for the farmer's life. The success in agriculture and rice sector has laid the foundation for the development of other sectors like industries. Therefore, the Government of Vietnam has given more importance to agriculture in general and rice production in particular (Khiem and Pingali, 1995).

Vietnam has favorable soil and climatic conditions for rice production, which is the most important crop in the country. Rice production is also the traditional occupation of the Vietnamese farmers. The total geographic area of Vietnam is approximately 33 thousand hectares, of which agricultural land in 1998 was about 8 thousand hectares or 24 percent of the total area. Of the agricultural land, area devoted to rice cultivation accounted for 76.9 percent of the annual crop or an equivalence of about 4 thousand hectares (General Statistical Office, 2001).

It is reported that at present 70 percent of households grow rice and 99.9 percent households consume rice. Rice accounts for 68 percent of the total caloric intake of the Vietnamese household (Minot and Goletti, 2000).

During 1980s, Vietnam adopted the economic reform to de-collectivize its agricultural production system. Since 1998, the provision of Resolution No.10 and No.5 carried out an aggressive reform in agriculture. Land was assigned to farming

households for 10 to 15 years, under different forms of contracts or bidding. Farmers were encouraged to invest and manage their production individually.

Due to the renovation policy together with advances in sciences and technologies applied in agriculture, rice production rose to 57 percent between 1985 and 1999 or 4.6 percent per year. Vietnam began exporting rice in 1989 and within a short period of time became the third largest exporting rice country in the world, after Thailand and the United States (Hoang, 1999).

Rice production is affected by many factors, including external factors (natural and social conditions, government policy, and supporting systems) and internal factors (land holding, labor, education, age, experience of farming, and input use). Natural condition is attributed as an un-controllable factors, therefore the improvement of farmer's capacity in production management along with socio-economic conditions play an extremely important role in increasing rice productivity.

1.2 Statement of the problem

Although rice production in Vietnam has many comparative advantages in comparison with other rice producing countries with regard to abundance of labor force and favorable natural conditions, yet it still faces numerous constraints and challenges.

Firstly, the average yield is still low as compared to its potential and those of other counterparts in the region having the same natural conditions like China and Indonesia. In the period 1996-1999, the average rice yield of Vietnam was 4.2 tons/ha while China and Indonesia had 6.3 and 4.5 tons/ha, respectively. Although the Red River Delta is the second biggest rice producing region in Vietnam, with rice yield about 5.4 tons/ha, the highest among the remaining rice producing regions of Vietnam, it is still lower as compared with China's rice yield. In addition, yield gap of rice among households still exists in the Red River Delta, ranging from 60 to 75 kg/sao (1sao=360m²) (Hien, 1998).

Secondly, ensuring food security is the priority of a developing nation like Vietnam, which has a very dense population. Currently, land area for rice production has been reduced by changing in land use to non-farm purposes, due to the process of industrialization and urbanization. The Red River Delta, the second biggest rice producing region in Vietnam, has been losing its agricultural land area about 2000 hectares annually and land area per household is only 0.23 hectares as compared with 0.49 hectares of the whole country.

Although Vietnam has been exporting rice to other countries, it still has several regions that are food-deficit and many groups of the population are food insecure. Food insecurity arises annually from severe natural disasters (drought and flood), leading to many difficulties and the significant loss of agricultural production in the regions. Thus, it is necessary to enhance rice production in the two biggest rice production regions, the Red River Delta and the Mekong River Delta in order to meet the food demand at present and future.

Thirdly, in the Red River Delta and Northern regions hybrid rice has been developed and widely transferred to farmers since 1991, however not many farmers have adopted due to higher requirement of fertilizer application than other varieties. The Vietnamese Government is encouraging farmers to grow hybrid rice in order to meet domestic consumption for the people and livestock. However, low input use and lack of technical knowledge have led to low efficiency in hybrid rice production (Quynh, 2001).

For the above reasons, a study on factors affecting rice yield is necessary.

1.3 Objectives of the study

The objectives of the study are as follows:

1. To describe rice production systems and estimate economic returns
2. To estimate production function, technical efficiency and factors influencing efficiency of both conventional and hybrid rice production
3. To identify possible solutions for improving rice yield.

1.4 Usefulness of the study

The result from this study is expected to be useful for both the micro as well as macro level for issues related to rice production. This study provides information on rice production in representative rice province of the Red River Delta and better understanding of factors affecting rice yield. This also would provide the good basis of information for decision-makers and to come up with appropriate policies, which could improve rice production system. Furthermore, it is expected that the study could serve as a basis for future studies on rice in Vietnam.