



Book Review :

Readings in Thailand Rice Economy : A Collection Book in Honor of Associate Professor Somporn Isvilanond

reviewed by **Direk Patmasiriwat**¹

Readings in Thailand Rice Economy : A Collection Book in Honor of Associate Professor Somporn Isvilanond, ed. by Ruangrai Tokrisana et.al. Department of Agricultural Economics and Resource Economics, Faculty of Economics, Kasetsart University, 2009, 150pp.

I.

It's well known fact that rice economy has long been the mainstay for Thai economy since historical times—the future of rice economy is, however, less clear. Some analysts cast pessimistic future of rice economy and a worry that new generations do not want to become farmer any more—yet, another camp anticipates that Thailand's rice supply will continue to increase and thanks go to advancement in production, in seed technology and irrigation, these factors had led to an increase in productivity over the past three decades. Another view foresees a strong demand for good quality rice varieties such as jasmine rice, if Thailand could maintain comparative advantage in the production of high-quality rice, then the rice economy can maintain its importance in Thai economy in years

to come. To predict the future of rice economy requires serious and careful studies in quantitative as well as qualitative dimension. It is a good news for Thai economic profession that there are still a small group of Thai researchers who have devoted their works to study transformation of rice economy for long time and have shared their knowledge in books and journal articles —among this group is Associate Professor Somporn Isvilanond of Kasetsart University. This book, which is a collection of 8 articles that Somporn Isvilanond contributed by himself or coauthored with other researchers, deserves a credit and a warm welcome for Thai literature in agricultural economics. And thanks go to Kasetsart University for supporting the publication and the editors, Dr.Ruangrai Tokrisans and others, for an admirable editorial work.

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II.

The first article entitled "Thai household's rice consumption and its demand elasticity" analyzed household expenditure and estimated demand elasticities for rice based on the National Statistical Office (NSO)'s household survey conducted in 2002 and an econometric model. The survey which comprised 34,785 sampled households nationwide. The average food share accounted for 34 percent in the monthly household expenditures (with an average of 14,361 baht per month per household). Food expenditures were disaggregated into 5 items, namely, rice and cereal, meat and fish, milk, cooking oil and sugar, vegetables and fruits, and others. This survey, was special in the sense that data on food expenditure and food quantity were both reported (normally, NSO surveyed food expenditure only). The authors made use from this unique dataset to infer about price and income elasticities, and cared to think of an implicit demand for rice quality. The average rice consumption per household was found to be 101 kg/person/year in 2002, compared to 119 kg/person/year in 1990, implied a long-term decrease in rice per capita consumption. Expenditure elasticity for rice was found to be inelastic but still show positive sign, i.e., as household income increases, an expenditure for rice continued to increase—however, small in the magnitude (0.082). One of the explanations was that the demand for

higher rice quality increased as household income increased. Price elasticity was found to be negative, -0.392, which is not surprising. The sampled households were grouped by income classes (low, medium, and high) and by community types (urban, semi-urban, and rural) and the authors were careful to note variations in rice consumption behaviors. The authors (Ajarn Somporn who co-authored with Weerasak Kongrith) foresaw the future of rice economy in the areas of: i) being a supplier of high-quality rice varieties, ii) an improvement in post-harvest handling and processing, and iii) an upgrading higher grain quality.

The next three articles focus on an analysis of rice supply. From 1960s to present, Thailand's rice economy had experienced structural and transformation changes that took shape in many forms, notably, crop diversification, technological advancement in seed technology as new rice varieties had been introduced, an intensive use of chemical fertilizer, agricultural mechanization, irrigation development, labor migration out of agricultural sector, land diversion away from agriculture, taxation (rice export tax), paddy price support program, input prices support intervention, government supported R&D program, etc. The second article provides useful information and an insight to understand a change over 1971-2000. The author documented the high growth of dry cropping and an irrigation development. Both led to an intensive use of farmland and chemical fertilizer as factor input. Agricultural- and rice-

labor force increased slightly in mid 1970s due to high rice prices but later dropped in response to industrialization and urbanization as workers migrated out of farmland. The 1980s was the period of big transition toward industry as Thailand had entered the “NICs” status (the newly industrialized countries). The use of farm tractors and power tiller (as labor-saving device) in the period were dramatic with figures illustrated and, in effect, have raised labor productivity.

The third article entitled “Recent changes in Thailand’s rural economy: a case study of six villages,” provided insight into the microeconomics of farmers based on 3 villages in Northeast and 3 villages in Central Plain, Where the first survey was conducted in 1987 and the second survey in 1998. This research provides useful information such as farmer age, education of farmer, income remittance from non-agriculture, and tenancy arrangement (e.g., fixed-rent and shared cropping). Of note and perhaps worth a serious discussion is an increase in average age of farmer. This confirms to a worry that new generations do not want to be a farmer. Who will tend farm in the future, say, 10-20 years from now? The author cared to compare regional difference between the Northeast and the Central Plain and between irrigated- and rainfed-areas and their explanations as to similarity or dissimilarity. Poverty incidence among farmers was another topic of interest of Ajarn Somporn. This paper reports a significant drop in poverty incidence between 1987 and 1998 in both irrigated villages and rainfed villages. Poverty incidences

(with the head-count measure) were found to be high , i.e., 20.8% in 1998 and 55.8% in 1987 for irrigated and rainfed villages respectively. Ajarn Somporn uses the probit regression to test which variables appeared to be statistically significant as determinants of poverty. According to this paper, irrigation and technological development in agriculture were among the government policy measures that helped reduce poverty incidence.

The fourth article, in which Ajarn Somporn co-authored with Sarun Wattanutchariya and Keijiro Otsuka, focuses on modern rice varieties (MVs) and regional and environmental differences. MVs and rice technology in “favorable production environment” were observed and empirically tested based on farm survey data and econometric model. They hypothesized that MVs and rice technological advancement raised “factor prices”, namely, wage, land rent, and farm tractor/thresher rent. This implies that MVs was at least effective in promoting productivities and farmers’ income. However, the impacts varied across regions due to favorable- and unfavorable-production environment—and this has further implication to analyzing regional wage differentials. Regional wage differential was observed in this paper, however the magnitude was not large. Returns to land varied widely across areas, which is understandably as land is fixed asset and immobile. Higher productivity raised wages for agricultural workers too – but the regional difference in wages was found to be smaller, which is not surprising as workers are mobile factor input. This

piece of study lends support to theoretical conjecture that income inequality exists even among farmer groups across regions. The authors briefly discuss policy implication in which they recommend redistribute tax (land taxation) and the budget policy to invest in infrastructure improvement in less favorable areas.

The sixth article entitled "Development trend and farmers' benefit in wet-seasoned rice adoption in Thailand" focuses on adaptation of farming technique. The so-called wet-seasoned rice (WSR) which is an adoption of pre-germinated direct seedling was first introduced in late 1970s. Before that the dry-seeding rice (DSR) or the broadcasting method was commonly practiced in deepwater rice area, mainly in the Central Plain. The advantage of the new method lied in labor time-saving in the process of seedbed preparation and the shortening crop period that accompanied with an adoption of MVs. This study documented farmers' benefit from WSR adoption through production cost (mainly the reduction in labor costs), yielding of WSR especially for dry-season cropping. Another aspect is the change in factor uses (an intensive use of seed, herbicide and pesticide, fertilizer). The author concluded "As a consequence of its adoption, it created a decline in labor use for crop establishment and a reduction in variable and total costs per area. It also enhanced the farmers net return in comparison to the transplanting method."

The reviewer is of an opinion that Ajarn Somporn might have forgotten that by an intensive utilization of chemical such as herbicide, pesticide, and fertilizer, there were negative externalities to our environment. Accordingly the net financial return to farmers (from MVs and change of farming technique) should be somewhat discounted. The reviewer supports an idea of environmental tax; in this case, a high tax rate should be levied on herbicide, pesticide and chemical fertilizer and the tax revenue be earmarked to promote biological practice in rice farming.

III.

The rest of articles (numbers 5, 7 and 8) discussed the future outlook and contraints for Thai rice economy, export potentials and global competitiveness of rice market, in which Thailand among the top rice supplying countries. Ajarn Somporn raised a concern that the existing modern rice varieties and the tendency to produce inferior quality might depress rice prices; the challenge lies in area of research for higher grain quality and technological advancement in pest resistance and plant pathology. Jasmine rice was highlighted in Article #7 with a closed look at the major provinces that produced jasmine rice (largely in the Northeast and Lower-North regions). Ajarn Somporn and Fukui Seiichi examined

wholesale price for Jasmine- and Non-Jasmine over the period 1990-2003. They reported the F.O.B. export prices that showed: non-jasmine rice prices decline in real term at 1.18% per annum, and attributed to strong competition in international market; regarding the jasmine rice, they found the real wholesale jasmine rice rose at 3.88% per annum. They projected the potential in jasmine rice trade as demand for aromatic rice from neighboring countries would continue to increase. At the same time, they cast a worrying concerns over increasing production as our irrigation had reached the peak and difficult to raise further. They point to the potential in R&D in rainfed ecosystem, and seed technology to breed new varieties with drought and submergence tolerance and resistance to brown plant hopper. The last paper in which Ajarn Somporn coauthored with Seiichi Fukui analyzed global competitiveness with respect to rice market, before and after the currency crisis (in 1997) with the tool DRC (domestic resource cost) to evaluate comparative advantage. Remind that: DRC is a measure of the value of domestic resource needed to earn a unit of foreign exchange through exports, the lower the DRC is the better in terms of competitiveness and vice versa. Four sites of rice production were their case studies (Suphanburi, Petchburi, Surin, and Khonkaen). Of the four producing provinces, Suphanburi and Petchburi were found to be the lowest DRC coefficients, about 0.5 to 0.6, in comparison to

1.0 to 1.25 in cases of Surin and Khonkaen. They noted that: “.. the rice production in the northeast might have already lost a comparative advantage over rice in the world market.” (p.147). This is an interesting note, and important one, as most Thai people and perhaps including Thai policy makers make took a wrong and static view that Thai as the major rice supplying country is the most competitive. The reviewer is not a rice expert and hence not able to evaluate this statement very clearly.

IV.

Overall, the reviewer is of an opinion that this collected articles in book form on the special occasion of Ajarn Somporn retired from the Kasetsart University, after nearly 40 years of intensive work as researcher in area of agricultural economics, and particularly in rice economy worth a credit and the major contribution. The readers, graduate students, and researchers can all learn much from these articles. Past development in Thai rice economy between 1970 – the present were very well documented in tables and the major statistics noted and discussed including farmland expansion, crop diversification, irrigation development, technological advancement in many forms. The author(s) cared to discuss the future trend in rice production, prices, and export potentiality and pointed to areas where there should be policy improvement, especially in R&D. If there is

any weaknesses in these articles, the reviewer would like to mention negative externalities that are largely associated with chemical uses in fertilizer, pest control, herbicide, and others but were not adequately addressed in their studies, and the global warming which is the major concern over the world. Ajarn Somporn who is now retired from Kasetsart University, but he still continues to work as a researcher (with the new learning organization—based on mobile-phone discussion as long-time friend), the reviewer wishes Ajarn Somporn well in health as well as in new work; and we all hope he and his students and fellow researchers keep producing new articles or new books for us to learn from. His long-lifetime works -- a great contribution to our economic knowledge and great readings. His working lifestyle, a model that many students and friends would like to follow. 