Maturos Siripraphaphan 2007: Transformation Processes of Rice Farming with Sustainable Agriculture Perspectives Tambon Ta-ngam, Amphoe Muang, Changwat Prachin Buri. Master of Science (Sustainable Land Use and Natural Resource Management), Major Field: Sustainable Land Use and Natural Resource Management, Interdisciplinary Graduated Program. Thesis Advisor: Mrs. Thippawal Srijantr, Dr.Ing. 170 pages.

The objectives of this study on the transformation processes of rice farming with sustainable agriculture perspectives in Tambon Ta-ngam, Amphoe Muang, Changwat Prachinburi" were: 1) to analyze development of the agriculture system and socio-economic situation in Tambon Ta-ngam, and 2) to facilitate the learning processes in sustainable rice farming of the farmers' group. This study also aimed to strengthen public policy processes in agriculture at the Tambon level. A participatory action research approach with questionnaire, in-depth interview and participatory observation was employed. Twenty-one farmers from all 12 villages of Ta-ngam participated in the learning processes through practical activities and site visits.

The research found 3 periods of agriculture in Ta-ngam. The 1st period, 1924-1971, had traditional rice culture that used man- and animal-based technology such as rice transplanting and dryseed broadcasting with ploughing by buffalo, and still had food and environmental richness in the rice fields. The 2nd period, 1972-2000, had modern rice farming that initiated use of small machines, germinated-seed broadcasting, chemical inputs, decaded environment and excessive household expenditure. The 3rd period, 2001-2006, was also modern rice farming that resulted in severely deteriorating the way of life of farmers in Ta-ngam. Thus, the learning processes emphasized on issues relevant to the farmer's way of life, area-based problems, and appropriate knowledge and technology, for example, selecting and developing local rice varieties, using organic inputs and methods for insect pest management and soil improvement.

The research showed that the learning development of farmer's was in 3 levels: 1) Interested group - farmers were interested in learning but did not transform it into self-reliance; 2) Developed group - farmers could adopt knowledge into practice but did not clearly use it in their field, and 3) Progressive group - farmers showed clear transformation because they could produce safe food and organic inputs, i.e. bio-extract and herb-extract. The local public policy process used farmer's participation to identify topics and manage the learning process in order for them to understand concepts and practices about sustainable agriculture in their community.

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