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ABSTRACT

The objective of this research was to study socio-economics through 1) the ways that farmers manage water, land, labor, capital resources and profits, and 2) the way they cope with problems and obstacles.

The study comprised 34 farmers in two groups 1 (12) and 2 (22). Group 1 fully implemented the project and supported the cooperative (representing 30% of the area), while Group 2 used the new network theory of agricultural, albeit not cooperative based. Group 2 represents the *status quo* management system. The research was conducted using an interview schedule.

Most of the farmers in the project were male averaging, in Groups 1 and 2, 52 and 54 years of age, respectively. In both groups agricultural labor predominated over non-agricultural labor. Farms in Groups 1 vs. 2 averaged 31.52 vs. 43.52 rai and allocated 15.31 vs. 14.97 rai to the new theory, respectively. Agricultural income in Groups 1 and 2 averaged 9,518.31 and 7,240.66 Baht/rai, respectively. Most assets were for agricultural purposes. The proportional partitioning of expenditures for agriculture between groups was similar, but Group 1 expenditures were overall 1.69 times greater those of Group 2. Group 1 had an average household debt less than Group 2, and both borrowed from the Agricultural and Cooperative Bank.

The results of the study indicated that the method of resource and profit management between the two groups was similar. There was satisfactory management of water, capital goods and profits, but only fair management of land and labor. After implementing the project, however, both groups decreased the ratio of their on-farm debt to investment and increased their assets. The farmers were better informed and skilled, and had improved family relationships, environmental conservation, government relations and quality of life.

The problems and obstacles faced by farmers in the project included: 1) 'not paying attention', 2) old-age, 3) no children to take over the farm, 4) no electricity, 5) too deep a dug-out, 6) non-fertile sub-soil from dug-out excavation being used for top soil, 7) insufficient water for crops, 8) little or no dry season water management practiced, 9) inattention to accounting, 10) non-functional or non-cooperative network group, 11) lack of investment plan, 12) undervalued agricultural goods, 13) natural disasters and 14) theft.

Suitable water management began with the analysis and selection of a suitable place for excavating a dug-out. The dug-out was prepared by filling it with water and adding manure to develop the natural suite of microorganisms. Various cultivars of grass were planted in order to avoid soil erosion and pipe and/or drop irrigation were used.

Important soil management techniques included: 1) removing the topsoil prior to dug-out excavation; 2) participating in soil management training; 3) planting legumes to increase soil nitrogen and organic matter; 4) spreading animal manure and reducing the use of chemical fertilizers (to suppress unwanted flora and insects); and, 5) reducing seasonal burn-off and learning to use biological methods to control pests instead..

Labor management was improved by training farmers in marketing, finances and accounting, career development, and knowledgeable family participation. The latter helped to inculcate a love of agriculture in the younger generations; thereby providing some hope of family-farm continuity.

For improved capital goods management training should be provided in investment planning, market surveys, pricing, efficiency, on-farm safety, equipment maintenance, and reduced chemical use.

Improved profit management requires a controlled division of profits for re-investment in agricultural activity vs. other home and capital investments, expenditures, debt repayment.