

Thesis Title	A Feasibility Study of Contracted Silk Thread Production	
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### ABSTRACT

Thai silk is not only a cultural image of Thailand but also an important commercial sector making more than 1 billion baht a year from both domestic and export revenue. It is also create job opportunity and income distribution to more than 400,000 families in the rural areas. Nevertheless, silk production has faced with an important problem caused by shortage of silk thread for years. Particularly, "silk yarn" must be imported in a very high volume with value of many 100 million baht a year. Though, mulberry plantation and sericulture have been promoted as agricultural development since the 3rd National Social and Economic Development Plan (1972 - 1976) till the present, during the 7th Plan (1992-1996), but shortage of silk thread situation still occurs.

The objective of this study aims to activate the promotion of silk thread production in order to subsidize imported raw material by means of feasibility study on contracted silk yarn production project. The project is consisted of 4 related sectors which are government,

private, financial institute and agriculturists. The sampled groups of agriculturists and community heads had been studied in irrigated area of Lumprapleung irrigation project and silk product businessmen in Pakthongchai district, Nakhonratchasima province and also including other investors in Nakornratchasima and Bangkok.

The results of this study showed that the total irrigated area Lumprapleung is 108,110 rai, while the required area for mulberry planting is only 1,200 rai. There was an average rain fall of 1,090 mm<sup>3</sup> per year, probability of rain fall 80-120 days per year which was sufficient for planting. The average income per family per year is higher upto 5,705 baht per year when comparing to former habits. Attitudes and comments of all these studied population is positively agreed with this project.

The financial feasibility study of agriculturists in mulberry plantation phase showed that benefit-cost ratio (B/C) equals to 1.18 with discount factor 12% and internal rate of return (IRR) 43.43%, highly feasible and pay back period is 4 years. With regard to unaccounted land and labor costs, pay back period could be reduced to the first year with net present value (NPV) 19,233 baht per rai. Regarding silk worm feeding phase, benefit-cost ration (B/C) is 1.2 with discount factor 12%, internal rate of return (IRR) 40.35% and 4 years of pay back period. However, pay back period could be much shorter than this, in case that land and labor costs are unaccounted. It is shown that agriculturist\$ or members of the project can recieve high benefit which could be held as major occupation.

Regarding silk yarn production phase, the financial feasibility study showed that under the criterion of 16 years for the project lifetime and 12% of discount factor, net present value (NPV) is 34,858,132 baht, internal rate of return (IRR) 70.21%, benefit-cost analysis (B/C) 1.23 and pay back period within 3 years, thus, these project indicators showed highly feasible.