

Jarurat Jaikaew 2011: Cost-Benefit Analysis of Economic, Social and Environmental Dimensions from Rujjaprabha Dam Project, Surat Thani Province. Master of Science (Resource Management), Major Field: Resource Management, Interdisciplinary Graduate Program. Thesis Advisor: Assistant Professor Thanwa Jitsanguan, Ph.D. 194 pages.

The main objective of this research is study to the details of Rujjaprabha Dam in Surat Thani Province both in the past and in the future, covering the duration between 1980-2036. Compared from economic, social and environmental dimensions, the involved households will be investigated before and after the dam project. Financial and economic cost-benefit analyses are then applied to reveal the on-going evaluation using both a survey data set of 62 sampled households through questionnaires and an intensive interview of various related government agencies. The fundamental statistic tools used for data analysis are frequency analysis, trend prediction, percentage, mean, t-test and sign test. The key indicators for cost-benefit analysis include are Net Present Value (NPV), Benefit-Cost Ratio (BCR) and Internal Rate of Return (IRR). Selected non-market valuation techniques are also employed to put the value on qualitative impacts of the project.

The study results finally show the better off in life quality among immigrant households before and after the project. In terms of economic, social and environmental indicators, the test of differences are found with statistically significant at the .05 level. Seen from the quantitative and qualitative values of economic, social and environment dimensions at 4 percent discount rate, key indicators including NPV, BCR and IRR are respectively 7,779.67 million baht, 1.28 and 7.93 percent. The overall analysis can then be concluded that the Rujjaprabha Dam Project has been successful so far in the middle life of the project which is basically set at 50 years.

However, it is still suggested that the Rujjaprabha Dam Project can yield even the better and more sustainable impacts to the immigrant households and the involved society. The related agencies in dam management should find ways to support the solid community development around the dam areas to conserve better environment, to strengthen household network and to plan for more sustainable tourism. Promotion in efficient farm and non-farm occupations leading to higher household income is the main source of activity in the area which can be influenced by the dam project. In addition, there should be the consistent monitoring and evaluation system throughout the dam project life to ensure the real success.

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Thesis Advisor's signature