

Wiratchanok Sangkaew 2007: A Study on the Impacts of Water Pollution and Factors Affecting Participation in Conservation of Phasicharoen Canal, Krathum Baen District, Samut Sakhon Province. Master of Science (Resource Management), Major Field: Resource Management, Interdisciplinary Graduate Program. Thesis Advisor: Assistant Professor Thanwa Jitsahngaun, Ph.D. 153 pages.

Phasicharoen canal in Samut Sakhon Province has long been facing the water pollution problem which is much related to quality of life of the people resided along both sides of the canal. According to such situation, this study aims to analyze the socio - economic status of those population, utilization of water resource, impacts of water pollution and factors affecting participation in conservation of the canal. Interview was employed during 2006 for 224 of sampled households from 2,506 total households locating within the proximity of 150 meters from the canal. Economic valuation of selected impacts in terms of illness cost and opportunity cost methods were used to estimate health and water consumption impacts. The logit model was also applied to identify key factors influencing participation in water conservation.

Results from the survey data showed that the majority sampled households were females more than males with an average age of 47 years old and settled in this area since the past 39 years. Estimation of total health impact in community was at 154,022 baht per year or 61.5 baht per household while that of total water consumption impact was at 5,216,239 baht per year or 2,081.50 baht per household. In general, the total economic impact from water pollution in the community was then 5,370,261 baht per year or 2,143 baht per household. In searching for the solution to mitigate the water pollution problem, key factors affecting participation in water conservation were found for property ownership, membership of water conservation group, health impact and water consumption impact.

The study thus suggests the increase in awareness of the involved stakeholders in order to participate more effectively in the conservation and sustainable use of the canal.

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Thesis Advisor's signature

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