

Control of water pollution: a solution for restoration of the Mae Kha Canal, City of Chiang Mai, Thailand

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(a) Purpose of study or research hypothesis

Chiang Mai city is a well-known tourism destination, but restoration of Mae Kha water quality to an acceptable level on sustained basis is still a big challenge. The city is hard pressed to come up with an investment in a new treatment facility yet to be fully designed and operation and maintenance principle for which is to be understood and supported by the public. The status quo is far from socially optimal in the sense that firstly recent dredging is a temporary measure and cannot be sustained because the canal is disconnected with natural water source and secondly without city investing its own storage for flushing purpose, the water is drawn from irrigation canal. The social cost of water is deemed too high and a wrong signal is being sent as polluting households do not bear responsibility in pollution restoration.

Purpose of the paper is to propose a solution concept that restore Mae Kha Canal water quality and through capital investment in wastewater treatment facilities and operation and maintenance to be paid off by polluting households and beneficiaries of the city ambient restoration.

(b) Key issue(s) or problem(s) addressed

firstly, description of the context of current condition, environmental historical account and series of interventions that has happened until recently. Second, it discusses investment in treatment facility and cost sharing for operation. third, it discusses stakeholders' engagement based on experience from Japan.

(c) Methodology or approach used

built on an economics masters thesis and an engineering research paper and stakeholders analysis and an data collection from primary and secondary sources, literature review and interviews.

(d) Results or conclusions derived from the project

public understanding and joint actions are the keys to successful restoration of the Mae Kha canal and turning it into an attraction for the city of Chiang Mai.

(e) Implications of the project relevant to congress themes

Fresh example to inform the audience.

Keywords : water pollution solution, Chiang Mai, stakeholders analysis, polluters pay, social cost of water