

**THE SOCIO-ENVIRONMENTAL IMPACTS OF WATER RESOURCE RESTORATION
PROJECTS TAKEN AT SOME LOCAL AREAS IN THAILAND UNDER
DECENTRALIZED MANAGEMENT**

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This study explored the socio-environmental impacts of water resources restoration projects taken at Dong Bang and Pla Kho subdistricts, Amnatcharoen province, Thailand. The objective of this project is to improve the capability of coping with flood volume and water deficit of Si To canal which is the main water source for agriculture and community use. The authority and responsibility for canal improvement is transferred to the local administrative units under the separately decentralized management. Consequently, a 2-kilometer section of the Si To canal in Dong Bang and Pla Kho subdistricts was first restored and redesigned to increase the flow capacity and to supply water during agricultural seasons. The results of the field survey and questionnaire showed that after this restoration project was done, the canal discharge had been likely increased over the year to satisfy the agricultural needs and could also reduce the flood peak especially during high flow period. However, the soil erosion became a serious problem specifically at the joint of restored and unrestored sections of canal. Moreover, the biodiversity of the aquatic and terrestrial ecosystems such as big trees, valuable herbs, edible plants, aquatic animals and plants was rapidly decreased in numbers and species. As the result of emphasizing this impact, nearly 15% of the villagers disagreed to expand this water resource restoration project in the future and participatory approach was also recommended.

Key words: Socio-Environmental Impacts, Water Resource Restoration Projects, Decentralized Management