

Pornpan Janjang 2006: A Study on Changes in Land Use for Aquaculture Farming after Bangpakong Diversion Dam Construction in Chachoengsao Province using Geographic Information System. Master of Science (Fishery Management), Major Field: Fishery Management, Department of Fishery Management. Thesis Advisor: Assistant Professor Methee Kaewnen, M.S. 78 pages. ISBN 974-16-2363-1

The study on changes in land use and aquaculture farming areas in Bang Khla and Banpho district, Chachoengsao province were conducted using Geographic Information System. Landsat 5 TM imageries data recorded in 1996 and in 2004 were processed using true (RGB543) and false (RGB432) color composite techniques. The processed data were classified into 5 major land use categories, aquaculture farm, forest, mangrove, agriculture and others, and urban. The ground true and land use map of Chachoengsao province in 2001 were also used as associated information for data analysis.

The results showed that most of land use in both districts were agriculture and others which accounted for 76.53 % and 65.21 % of total area in 1996 and in 2004 respectively. The result of comparison on land use in two districts between 1996 and 2004 indicated that aquaculture farm, mangrove and urban areas were increased. Meanwhile, agriculture and other, and forest areas were decreased. Aquaculture farm area in Bang Khla district was increased 83.30 percent which all increased area was changed from agriculture and other area approximately 18,114 rai. Meanwhile, aquaculture farm area in Banpho district was increased 39.57 percent of which 10,372, 613 and 68 rai were changed from agriculture and other, mangrove and forest area, respectively. The results revealed that there were changes in land use and aquaculture farm areas were expanded after Bangpakong diversion dam construction. Therefore, the related agencies should conduct suitable land use planning for its sustainable.

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