# Aquaculture Information Management and Traceability System in Thailand

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Aquaculture development in Thailand has grown consistently for the past 25 years. Sectoral development policies of successive governments were directed towards intensification and expansion of the sector, as clearly evidenced by shrimp aquaculture development in coastal and, subsequently, inland areas. With expansion and growth, problems relating to environmental degradation and losses due to animal health emerged. The TCP-Facility (TCP/THA/3103 – Aquaculture zoning), requested by the Department of Fisheries, Thailand, (DoF Thailand), addressed these issues through creation of decentralized capacity for the DoF Thailand to better manage the environment, aquatic animal health and traceability of aquatic products through a comprehensive aquaculture management information system. The purpose of the FAO support through the TCP-F was threefold: (a) to identify key issues relating to the management of the aquaculture sector which could be resolved by a comprehensive aquaculture zoning and planning policy; (b) to liaise with stakeholders in the aquaculture production sector for their feedback regarding zoning needs and priorities for more effective regulation of the sector; and (c) to develop a project proposal document for FAO TCP support.

A TCP-F mission in February 2008, of the Project Team led by Mr Simon Funge-Smith (RAPI) and supported by Messrs James McDaid Kapetsky (FAO International Consultant), José Aguilar-Manjarrez (FIMA), Jesper Clausen, APO Aquaculture (RAPI), Uscharee Ruangdej, National Consultant (DOF/THA), and Ms. Suttinee Limthammahisorn (DoF Thailand), achieved the following outputs: (a) a national review on sector requirements covering aspects of environment, aquatic animal health, food safety and trade aspects ; (b) a short background study covering requirements for an information system; and (c) a draft TCP project document "Aquaculture traceability and information management system" (Figure 1).

The above proposed project is aimed at improving sustainability and livelihood security of aquaculture stakeholders, improving quality and traceability of aquaculture products, and sustaining or expanding trade in aquaculture products. These goals correspond with a stated vision of DoF Thailand for sustainable aquaculture development.



Figure 1. *Map showing location of Nile tilapia (oreochromis niloticus) farm and many other adjacent tilapia and giant river prawn* (macrobrachium rosenbergii) *farms in Chachoengsao province, Thailand. Dr Kapetsky conducting a Field visit to one of these farms in the centre of the map*

A successful implementation of a full-scale project would lead to improved operational decision-making on aquaculture management and development and enhanced aquaculture planning and policy capabilities. An Aquaculture Management Information System would be operated mainly by provincial and district DoF personnel and research centers, with wider application and participation by personnel at all levels the fisheries department as well as other departments, ministries and NGOs. The system will support the development of tools for increased traceability and improved management of aquaculture information in Thailand.
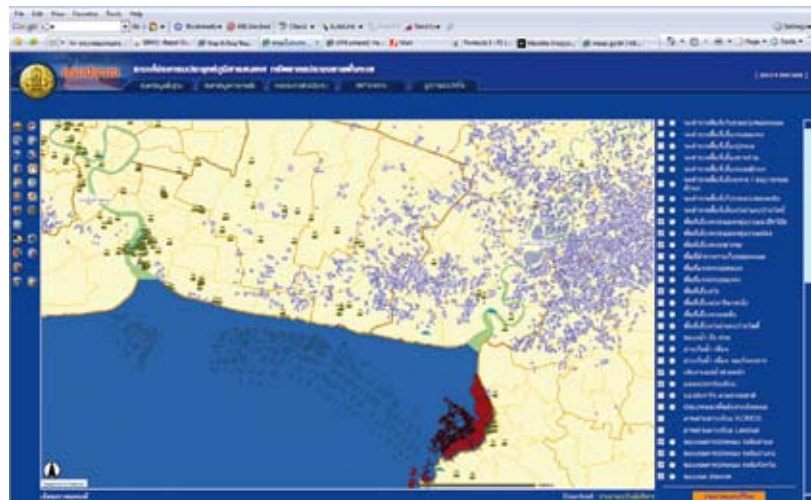


Figure 2. *Map showing coastal aquaculture and fisheries structures (ponds, cages and traps) in Thailand. Source: Fishery Information Technology Center, Department of Fisheries Thailand (http://gis.fisheries.go.th)*

The proposed information system is relatively generic, applicable in other countries with significant aquaculture production systems, and provides an opportunity for utilising an operational GIS to support a comprehensive Aquaculture Management Information System. This is a timely initiative as DoF Thailand is committed to secure/sustain the use of GIS for fisheries and aquaculture at all administrative levels. The Fishery Information Technology Center, well-equipped with skilled manpower and data (Figure 2), could provide strong support to the project.

It is anticipated that some of the key recommendations and concepts that will be developed as a result of this assistance will be implemented under the recently approved FAO TCP/THA/3202 "Certification of small-scale aquaculture in Thailand".

**Expert Workshop for Drafting CWP Handbook on Standards of Aquaculture Statistics**
10-13 November 2009, Viet Nam

Information: Xiaowei.Zhou@fao.org

**Regional Workshop on Capacity Building Needs for Improving Aquaculture Statistics and Data Collection in Asia**
16-18 November 2009, Viet Nam

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**GFCM/CAQ Workshop on Harmonisation Standards for Mediterranean Aquaculture Data Collection**
8 December, Trabzon, Turkey

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