INTRODUCTION

Research Institute for Humanity and Nature (RIHN) program,

Component 5 Activities:

Activity1: Developing the new data collection equipments and analysis systems of acoustic survey at coastal areas
Activity2: Field test of the developed equipments and system
Activity3: On-site-Training on new acoustic survey equipments and systems
Activity4: Publication of the research protocol guidelines for acoustic survey in coastal areas

Development and improvement of acoustic equipments and systems for shallow area

This study was carried out as part of the RIHN project on "Coastal area-capability enhancement in Southeast Asia". This project was aimed at investigating the linkage between livelihoods and ecosystem health in the Southeast Asian coastal areas to fully understand its complexity and consequent vulnerability, particularly from the human-related viewpoints through collaborative holistic researches with local peoples. The acoustic data collection system including equipment modification was conducted for coastal area survey around the set-net fishing ground in Rayong Province, Thailand. An analytical methodology was also developed and used as a tool for acoustic survey methodology and education for young scientists. Since, the depth of the target research area is about 15 meters, the searching range is too narrow for using scientific echo sounder available in the market, the project therefore modified the acoustic device which is composed of GPS Plotter Fish-Finder (FURUNO GP1670F), Interface box and personal computer (PC), in order that this could be used as acoustic data collection equipment in coastal areas.

Objectives

1) To develop new acoustic data collection system for shallow waters,
2) To study the fisheries resources distribution around set-net fishing ground in Rayong Province, Thailand,
3) To estimate the amount of fisheries resources using acoustic data and the fish catch data of set-net fishing operation, and
4) To conduct human resource development activities on the new acoustic survey equipment and system through on-site training and publication of guidelines for acoustic survey in coastal areas.