PROVISIONAL PROSPECTUS

Regional Training Course on The Basics of Fisheries Acoustics and Practical Survey by Quantitative Echosounder (EK80)
14 - 22 July 2026

Introduction

The quantitative echo sounder is an essential acoustics tool that has been widely used to assess fishery resources to improve the precision, accuracy, efficiency, and timeliness of scientific information over the past decades. According to recognizing the benefits and efficiency of echo sounders, the EK80, an updated echosounder system with 3 difference frequency of transducer has been installed on the research vessel M.V. SEAFDEC 2 to provide benefits for SEAFDEC member countries. Thus, the collection of fisheries acoustics data is necessary for further appropriate analysis and management to gain the maximum benefit for processing the echosounder data.

Even though the effective survey planning and data collection for data analysis is important for statistically evaluated, the utilization of scientific echosounders for fishery resource surveys still requires capacity building. This includes the fundamentals, survey planning, data collection, as well as the analysis and synthesis of the obtained data.

To enhance the capacity of human resources to improve deep understanding and experience in applying acoustics with fisheries resource surveys. This training course would be an on-site lecture class at SEAFDEC/TD and practical onboard M.V. SEAFDEC 2. A data analysis program will be introduced in this training course for the principal data analysis collected from the survey. The participants are expected to be representatives from SEAFDEC member countries and SEAFDEC Departments who are currently or will further work related to the fisheries acoustics.

Objectives

- Capability building of researchers in effectively implementing fisheries acoustics surveys, and data collection for further analysis and interpretation

Expected outputs

- Participants comprehensively understand the complete process of the fisheries acoustics survey
- Participants gain practical experience and technical skills that can be applied in future fisheries acoustics survey projects.
- Training course report on The Basics of Fisheries Acoustics and Practical Survey by Quantitative Echosounder (EK80)
- Understanding the basics of data analysis and general use

Date, Venue, and Accommodation

The training course will be organized for 9 days from 14 – 22 July 2026 at SEAFDEC/TD Samut Prakan, Thailand, divided into;

- 2 days of pre-survey at SEAFDEC/TD
- 4 days of practical survey onboard M.V. SEAFDEC 2
- 3 days of basic process post-survey at SEAFDEC/TD

Participants

1. Ten (10) Fishery Officers from the SEAFDEC Member Countries
   - One (1) from Brunei Darussalam
   - One (1) from Indonesia
   - One (1) from Lao PDR
   - Two (2) from Malaysia
   - One (1) from Myanmar
   - One (1) from the Philippines
   - Two (2) from Thailand
   - One (1) from Viet Nam
2. Two (2) Fishery Officers from the SEAFDEC Department
   - One (1) from IFRDMD
   - One (1) from MFRDMD
3. Five (5) Researchers from SEAFDEC/TD

Instructors

Two (2) resource persons from the Japan Fisheries Research and Education Agency (FRA)
One (1) resource person and one (1) assistant from Hokkaido University

Course Curriculum

- Pre-survey process (lecture and discussion)
  - Principle of acoustic survey, concepts and acoustic equipment
  - Survey methods and designs
- Survey process (onboard M.V. SEAFDEC 2)
  - Equipment calibration
  - Noise measurement
  - Data collection for fish abundance
  - Biological Sampling
  - EK80 Error Diagnosis and Troubleshooting Procedures
- Basic post-survey processes (lecture and discussion)
  - EK80 operation software and calibration data
  - Structure and basics of data analysis
  - Acoustic Technology Applications for Marine Fisheries Resources

Tentative timetable

Date and time	Activity/topic
14 July 2026 (day 1)	
0830-0900	Registration
0900-0930	Opening session and group photo
0930-1000	Coffee break
1000-1600	Pre-survey process • Principle of acoustic surveys, concepts and acoustic equipment
15 July 2026 (day 2)	
0900-1600	Pre-survey process • Survey methods and designs
16 July 2026 (day 3) Field Survey onboard M.V. SEAFDEC 2	
0700	Leave SEAFDEC/TD to the EK80 calibration area (Nearby Khram Island, Chonburi)
0900-1000	**Brief onboard** Calibration equipment and method
1300-1700	**Practice** on EK80 calibration for 38 kHz, 120 kHz, and 200 kHz • CTD • EK80 Calibration
17 July 2026 (day 4) Field Survey onboard M.V. SEAFDEC 2	
0800-0900	**Brief** daily activities • Calibration (continuous) • Noise Measurement
0900-1600	**Practice on** EK80 calibration for 38 kHz, 120 kHz, and 200 kHz (continuous)
1900-2100	**Practice on** Noise Measurement
18 July 2026 (day 5) Field Survey onboard M.V. SEAFDEC 2	
0830-0900	**Brief** daily activities • Acoustic survey
0900-0000	**Practice on** Fisheries Acoustics surveys • CTD • Data collection • Biological sampling using bottom trawl
19 July 2026 (day 6) Field Survey onboard M.V. SEAFDEC 2	
0000-1200	**Practice on** Fisheries Acoustics surveys (continuous)

Date and time	Activity/topic
1300	EK80 Error Diagnosis and Troubleshooting Procedures
1300	Return to SEAFDEC/TD
20 July 2026 (day 7)	
0900-1015	Survey Recap
1015-1030	Coffee break
1030-1600	Basic post-survey processes • Structure and basics of data analysis • Software installation • EK80 and Echoview software use • Practical data analysis
21 July 2026 (day 8)	
0900-1600	Basic post-survey processes (continuous)
22 July 2026 (day 9)	
0900-1100	Basic post-survey processes (continuous)
1100-1200	Discussion on the results
1200-1300	Lunch
1300-1400	Acoustic Technology Applications for Marine Fisheries Resources
1400-1515	Sharing the Acoustic application for fisheries resource assessment in SEA
1515-1600	Evaluation and closing

Contact Persons

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