

Provisional Prospectus
The Distance Seminar
The 2018 Collaborative Research Survey on Marine Fisheries Resources and
Environment in the Gulf of Thailand by M.V. SEAFDEC 2

Introduction

Currently, attempts of countries in Southeast Asia have increasingly focused to expand their fishing activities to the offshore areas in their Exclusive Economic Zones (EEZs) where fishery resources are still under-utilized as alternative marine fisheries resources. With the Resolution and Plan of Action No. 18 describes that *“Investigate the potential of under-utilized fisheries resources and promote their exploitation in a precautionary manner based upon analysis of the best available scientific information”*, SEAFDEC has duties to provide technical support to the Member Countries to explore these under-utilized offshore fisheries resources through various programs, e.g. Technical meetings, Workshops, and Training course concerning to fisheries resource exploration, fisheries abundance, as well as stock assessment.

To fulfill the needs of the SEAFDEC Member Countries on the exploitation of marine fisheries resources and study on the marine environment in the specific offshore areas, the SEAFDEC Training Department (SEAFDEC/TD) works in close collaboration with these Member Countries and other relevant partners at national, sub-regional, and regional levels, to conduct marine fisheries resources and study on the marine environment by utilizing SEAFDEC research vessels, M.V. SEAFDEC and M.V. SEAFDEC 2 with two (2) major-specific areas: (i) Fisheries research and oceanographic survey; (ii) Human resource development on fisheries and oceanographic research survey, onboard navigation, and marine engineering training. Since 2004, SEAFDEC has technically supported Member Countries on the utilization of M.V. SEAFDEC 2 for the survey of the fishery resources in EEZs of these Member Countries. The outputs from the survey include cruise reports of the survey, technical documents related to fisheries, marine environment, and other specific requirements.

In 2017, the Fortieth Program Committee Meeting of SEAFDEC has adopted the Survey on Marine Fisheries Resources and Marine Environment in the Gulf of Thailand under the SEAFDEC Project entitled “Offshore Fisheries Resources Exploration in Southeast Asia” with the support from the Government of Japan through the Japanese Trust Fund (JTF) for SEAFDEC. The Technical Consultation, Regional Technical Meetings, and cruise survey on marine fisheries resources and marine environment have been developed by SEAFDEC/TD in close collaboration with the relevant SEAFDEC Member Countries (MCs), e.g. Cambodia, Thailand, and Viet Nam. The overall objectives of collaborative research survey are to support SEAFDEC Member Countries to conduct marine fisheries and environmental data and information collected by the research vessel, and to promote the offshore fisheries resources exploration through the research and human resources capacity by utilization of SEAFDEC’s Training and Research Vessel, M.V. SEAFDEC 2. The major envisage outputs of the survey are (i) Baseline data on marine fisheries resources and marine environmental situation for scientific reference as well as the status of marine fisheries resources in the Gulf of Thailand, (ii) Increasing number of experienced researchers on marine fisheries resources and marine environment of SEAFDEC Member Countries, (iii) Strengthening the network of fisheries and oceanography scientist/researcher in Southeast Asia, and (iv) Maximizing the efficiencies and benefit

of the SEAFDEC research vessel, research equipment to support on marine fisheries resources and marine environment survey of SEAFDEC Member Countries.

In the year 2018, SEAFDEC/TD has closely collaborated with the Research Institute for Marine Fisheries Research of the Directorate of Fisheries of Viet Nam, Fisheries Administration of Cambodia, and the Department of Fisheries of Thailand, together with representatives from relevant national academic institutions and agencies in Thailand to conduct the Collaborative Research Survey on Marine Fishery Resources and Marine Environment in the Gulf of Thailand from 17 August to 18 October 2018 which made use of the research vessel M.V. SEAFDEC 2. A total of Seventy-three (73) survey stations were conducted, *i.e.* forty-nine (49) stations in the waters of Thailand, and twenty-four (24) stations in the waters of Cambodia.

The demersal fisheries resources survey was conducted using a bottom trawl. The Oceanographic survey used iCTD to collect relevant oceanographic parameters, *e.g.* conductivity, temperature, and depth by using rosette sampler to collect the seawater. The marine debris survey was conducted by visual observation to determine the debris situation on the sea surface. The bottom sediment sample was collected by grab and core. Other surveys included activities to determine the radiation dose and to assess the radiation risk in marine biota, as well as investigated the source of aerosol in the Gulf of Thailand. The baseline data on the status of the marine fisheries resources and marine environmental situations in the Gulf of Thailand were then compiled and used as scientific references. The collaborative surveys have also enhanced the research and training capabilities of the participating countries and strengthened technical cooperation among the ASEAN Member States (AMSs) to achieve the effective management of fisheries and the marine environment in the region.

As a result of the survey samplings and analysis in 2020, there were thirty-one(31) research topics which have been completely analyzed and undergone on processing, and expected to report at the Seventh Marine Science Conference, Bangkok, Thailand, tentatively scheduled from 24 to 26 June 2020. To provide technical support on the human resources capacity building and strengthening network of fisheries and oceanography scientists/researchers in marine fisheries resources and marine environmental scientists in Southeast Asia, the SEAFDEC/TD planned to invite Member Countries' representatives to participate in the Seventh Marine Science Conference. Due to the situation of the Coronavirus pandemic, the Seventh Marine Science Conference has been postponed to the year 2021. To maintain the technical support to SEAFDEC MCs and disseminate the result of the collaborative research survey, and establishing the researcher network, SEAFDEC/TD will alternatively organize a Distance Seminar entitled, "The 2018 Collaborative Research Survey on Marine Fisheries Resources and Environment in the Gulf of Thailand by M.V. SEAFDEC 2" through SEAFDEC's online platform, from September to October 2020.

OBJECTIVES

1. Capacity building for the researchers of SEAFDEC MCs on the sampling gear design for fisheries resource survey;
2. Disseminate research study from the 2018 Collaborative Research Survey on Marine Fisheries Resources and Environment in the Gulf of Thailand by M.V. SEAFDEC 2;
3. Establishing the fisheries resources research survey researcher network in the Southeast Asian region.

EXPECTED OUTPUTS

1. Participants of SEAFDEC MCs improve their knowledge on the sampling gear design;
2. VDO Clip Presentations (Research Topics) as materials of the Information Extension and Communication of the Collaborative Research Survey on Marine Fisheries Resources and Environment in the Gulf of Thailand by M.V. SEAFDEC 2;
3. A Collection of Abstracts of the research study from the 2018 Collaborative Research Survey on Marine Fisheries Resources and Environment in the Gulf of Thailand by M.V. SEAFDEC 2;
4. List of researchers as fisheries resources research survey network in the Southeast Asian region

DATE AND VENUE

The Distance Seminar on the 2018 Collaborative Research Survey on Marine Fisheries Resources and Environment in the Gulf of Thailand by M.V. SEAFDEC2 will be tentatively disseminated to participants from September to October 2020 through SEAFDEC's online platform with limited grant access.

RESPONSIBLE AGENCIES

The Distance Seminar will be organized by the Research and Development Division, Training Department of Southeast Asian Fisheries Development Center (SEAFDEC/TD) in cooperation with SEAFDEC Member Countries under budgetary support from the Government of Japan through the Japanese Trust Fund on Project "Sustainable Utilization of Fisheries Resources and Resources Enhancement in Southeast Asia."

COLLABORATIVE AGENCIES

The Collaborative Research Survey on Marine Fisheries Resources and Marine Environment in the Gulf of Thailand was carried out by the SEAFDEC/TD in cooperation with concerned Government Authorities and academic institutions as follows:

1. Department of Fisheries, Thailand
2. Research Institute for Marine Fisheries, Viet Nam
3. Fisheries Administration, Cambodia
4. Department of Marine and Coastal Resources, Thailand
5. Office of Atoms for Peace, Thailand
6. Burapha University, Thailand
7. Chulalongkorn University, Thailand
8. Kasetsart University, Thailand
9. Ubon Ratchathani University

PARTICIPANTS:

Thirty (30) participants of eleven (11) SEAFDEC Member Countries and expected fifty (50) researchers who participated in the Collaborative Research Survey on Marine Fisheries Resources and Environment in the Gulf of Thailand by M.V. SEAFDEC 2 applied to participate the Distance Seminar.

TENTATIVE PROGRAM

Tentative Date	Program activity	Remark
30 Jun. 2020 (Preparation phase)	Verify the Research Topics of Distance Seminar on the 2018 Collaborative Research Survey on Marine Fisheries Resources and Environment in the Gulf of Thailand by M.V. SEAFDEC 2	Expected 31 Research Topics SEAFDEC will send requisition letters to all researchers to produce the clip presentations. Expected reply from researchers within 31 July 2020
31 Jul. 2020	Sending invitation letters to SEAFDEC MCs	
15 Aug. 2020	Disseminate the seminar curriculum Announcement for the online logistics	Include logistics information
31 Aug. 2020	Expected 31 clip presentations will be delivered from researchers to SEAFDEC	
10-30 Sep. 2020	Clip presentations will be disseminated to participants through SEAFDEC's online platform	The dissemination details of clip presentations will be announced and informed by the end of August 2020
7 Oct. 2020	Distance Seminar Report	

BUDGET REQUIREMENT

Budget: USD 5,000

Honorarium (Researchers who produce the ppt presentation)

31 researchers x 32.5 USD = USD 1000

Training Material: = USD 1,000

Souvenirs (Researchers and Participants: 100 Polo Shirts x USD 10) = USD 1,000

Miscellaneous = USD 2,000

Remark

The budget will be disbursed under the JTF Project on “Sustainable Utilization of Fisheries Resources and Resources Enhancement in Southeast Asia”, Activity 2.2: Participation of SEAFDEC staff or/and Member Countries’ researchers in a regional/international meeting on fisheries resources and stock assessment.

CONTACT PERSONS

Head of Technical Coordinator	Mr. Isara Chanrachkij
Coordinator teams	Dr. Taweekeit Amornpiyakrit Mr. Sukchai Arnupapboon Dr. Nopporn Manajit Ms. Siriporn Pangsorn Ms. Pontipa Luadnakrob Mr. Rakkiet Punsri Mr. Santiphong Putsa Mr. Nakaret Yasuk Mr. Tanapat Sorragittayamate
Logistics manager	Mr. Kongpathai Saraphaivanich
Logistics Team	To be decided by Training and Information Section To be approved by Training and Research Support Division
Administrative Officer	Ms. Nathacha Sornvaree

LIST OF RESEARCH TOPICS

1. Sustained Utilization of SEAFDEC Vessel through Collaborative Research Surveys: Marine Resources Survey of the Gulf of Thailand using the M.V. SEAFDEC 2
2. Fisheries Resource Survey in the Gulf of Thailand off Thailand and Cambodia by Using Bottom Trawl
3. Water column conditions: Their roles to the environment in the Gulf of Thailand
4. Three-dimensional water circulation in the Gulf of Thailand during the southwest monsoon
5. Distribution of CDOM in Surface Water and Sub-surface Chlorophyll Maxima Depth around the Gulf of Thailand
6. Vertical texture and organic carbon in four short core sediments of the Gulf of Thailand
7. Vertical variation of mercury contamination in four short core sediments of the Gulf of Thailand
8. Mapping of underwater habitat from low-cost sonar imagery and Geographic Information System
9. Accumulation of Microplastics in waters and sediments in the Gulf of Thailand
10. Mercury contamination in surface sediment of the Gulf of Thailand
11. Sediment texture and organic carbon in surface sediment of the Gulf of Thailand
12. Total Petroleum Hydrocarbons (TPHs) in Surface Seawater in the Gulf of Thailand
13. Mercury level and health risk through the consumption of Threadfin bream (*Nemipterus* spp.) from the Gulf of Thailand
14. Natural and Artificial Radionuclides in Sediment and Seawater from the Gulf of Thailand
15. The Study of Sediment Distribution Coefficients (K_d (for Radionuclides in the Gulf of Thailand
16. Carbon dioxide fluxes and chlorophyll-a distribution in the Gulf of Thailand during 2018 Southwest Monsoon
17. Macronutrient distribution in the Gulf of Thailand during the 2018 southwest monsoon
18. Seasonal Change of Water Exchange System between the Gulf of Thailand and South China Sea Composition and abundance of zooplankton in the Gulf of Thailand
19. Distribution of Phytoplankton in the Gulf of Thailand
20. Species and Distribution of Cephalopod in the Gulf of Thailand surveyed by M.V. SEAFDEC 2
21. Species and Distribution of Cephalopod Paralarvae in the Gulf of Thailand surveyed by M.V. SEAFDEC 2
22. Fish Larvae Distribution and Abundance of Families Scombridae and Engraulidae in the Gulf of Thailand
23. Preliminary study on age and growth of Brownbanded bambooshark (*Chiloscyllium punctatum* in the Gulf of Thailand :comparison between hard parts and length-frequency data
24. Preliminary assessing the impacts of fishing on aquatic animal assemblages in the Gulf of Thailand using the abundance- biomass curves
25. Occurrence of ectoparasite in the brown-banded bamboo shark (*Chiloscyllium punctatum*) from the Gulf of Thailand
26. A survey of external parasites in marine fishes from the Gulf of Thailand
27. A preliminary study of species diversity of Amphipods and micromollusks from the Gulf of Thailand
28. Distribution of bottom debris in the Gulf of Thailand
29. Metal composition of aerosol over the Gulf of Thailand during 2018 Southwest Monsoon
30. Aerosol Optical Thickness in the atmosphere of the Gulf of Thailand measured by Handheld sun photometer