



Provisional Prospectus

Technical Workshop to Develop the Draft Working Handbook for PSA and VA for Southeast Asia

28-30 April 2025

SEAFDEC/Training Department, Thailand

Introduction

Climate change is an important issue addressed in this modern day as it can have a large effect on various ecosystems, especially marine ecosystems (Barange et al., 2018; Gennip et al., 2016; Stewart-Sinclair et al., 2020). Due to changes in ocean temperature and pH, many marine resources can have varying negative effects depending on their trophic level and habitat (Gutt et al., 2015; Mycoo and Donoso, 2017).

Southeast Asia is known for the richness of marine resources in terms of quantity and biodiversity, which contribute a significant role in the social and economic system within the region and across neighbouring areas (Letchumanan, 2010; SEAFDEC, 2023). Therefore, climate change can have a significant impact, not only on natural resources but also on the economic systems on various scales (Brander et al., 2012). However, the high biodiversity and fishing methods resulted from the complexity of the fishery management as one managed species can have whether positive or negative impact on the others and vice versa. To come up with proper management, the priority species with high vulnerability levels and the ability to be the representative of the ecosystem should be identified. Therefore, identifying the proper tools for stock prioritization, which involves various factors from both fishery and environmental perspectives, is necessary.

Since 2024, SEAFDEC has initiated activities related to climate change and its impact on fishery resources. A five-year project plan was developed with the primary objective of assessing fishery resources in response to climate change and was utilized from the inception meeting conducted in 2024. This assessment utilizes productivity-susceptibility analysis (PSA) and Vulnerability Analysis (VA), while also introducing these concepts to Southeast Asian countries. The PSA and VA originally served as a tool for identifying the vulnerable fishery resource species against the fishery impact. However, the concept contained a possibility to be modified for assessing the impact of various perspectives. The assessment serves as a precautionary approach to identify target species at varying risk levels due to climate change. Additionally, the understanding of PSA and VA is expected to lead to an increase in scientific research on the impact of climate

change on fishery resources, providing sufficient data for policymakers to develop management plans to mitigate the effects of climate change on fishery resources.

For Southeast Asia, it is known to be one of the fishery data-limited regions. Thus, in this initiating phase of the implementation of PSA and VA, the area with data available within the region should be considered. For this condition, the three countries were selected as the pilot sites namely Indonesia, Malaysia, and Thailand based on the amount of publications available and the connected area with the similar biome to ensure the same species composition across the regions.

In this regard, the five-year activity with financial support from the Japanese Trust Fund (JTF) decided to be carried out from 2025 to 2029. In 2025, SEAFDEC will organize a technical workshop to develop a draft working handbook for PSA and VA tailored to Southeast Asia. The workshop aims to modify the indicators of PSA and VA for use in the Southeast Asian region, with the first draft of the working handbook serving as a reference guide to assess the impact of climate change on fishery resources. It is expected to provide and finalize the first draft handbook of the PSA and VA with the opinions of the resource persons and invited experts from SEAFDEC member countries and utilized as an idea for future activity.

The objectives of the activity

- 1) To modify the indicators for PSA and VA for Southeast Asia
- 2) To prepare the first draft of the working handbook.

Expected output

- 1) The finalized indicators for PSA to be used in the SEA.
- 2) The first draft of the working handbook.

Methods

1. The activity was aimed to be a physical meeting at the SEAFDEC/TD facility
2. The target participants will be SEAFDEC personnel from TD (Thailand), MFRDMD (Malaysia), and IFRDMD (Indonesia)
3. The resource persons, who aim to be experts from FAO, Hokkaido University, Kasetsart University, and Burapha University.
4. The first draft of the PSA and VA working handbook will be proposed to the WS as the WS material.
5. The WS report with improved indicators will be used as activity indicators.

Date and venue

28-30 April 2025.

Participants and observers

The target participants aimed for

- 1) Dr. Rishi Sharma, FAO, as a resource person
- 2) Prof. MATSUIISHI Takashi Fritz, Hokkaido University, as a resource person
- 3) Assoc. Prof. Jitraporn Phaksopha, Kasetsart University, as a resource person
- 4) Assoc. Prof. Wirote Laongmanee, Burapha University, as a resource person
- 5) Dr. Ivonne Ortiz, NOAA, as a resource person
- 6) 1 representative from SEAFDEC/MFRDMD
- 7) 1 representative from SEAFDEC/IFRDMD
- 8) 3 representatives from SEAFDEC/TD

Timetable

Date: 28-30 April 2025.

Venue: SEAFDEC/TD, Samutprakan, Thailand.

The technical meeting was decided to be three (3) days in total for introduction and discussions on the modified PSA and VA indicators.

Date	Time	Topics	Remarks
28/04/2025	0830-0800	Registration	SEAFDEC/TD
	0830-0900	Opening ceremony	SEAFDEC/TD
	0900-0930	Report on the year zero meeting	SEAFDEC/TD
	0930-1030	Presentation on the indicators related to PSA and VSA	Resource persons and SEAFDEC/TD
	1030-1045	Coffee Break	SEAFDEC/TD
	1045-1200	Presentation on the indicators related to PSA and VSA (cont.)	SEAFDEC/TD
	1200-1330	Lunch break	SEAFDEC/TD
	1330-1430	Presentation on the indicators related to PSA and VSA (cont.)	Resource persons and SEAFDEC/TD
	1430-1445	Coffee Break	SEAFDEC/TD
	1445-1615	Introduction on the basic biological concept for consideration before using the indicators	Resource persons and SEAFDEC/TD
	1615-1630	Wrap up day 1	SEAFDEC/TD
	1800-	Welcome Dinner	SEAFDEC/TD
29/04/2025	0900-0915	Wrap up the outcome from day 1	SEAFDEC/TD
	0915-0930	Introduction to the draft of the modified indicators for PSA	SEAFDEC/TD
	0930-0945	Coffee Break	SEAFDEC/TD
	0945-1130	Introduction to the draft of the modified indicators for PSA (cont.)	SEAFDEC/TD
	1130-1200	Discussions with participants	Resource persons, SEAFDEC/TD and participants
	1200-1330	Lunch break	SEAFDEC/TD
	1330-1430	Introduction to the draft of the modified indicators for VSA	SEAFDEC/TD
	1430-1445	Coffee Break	SEAFDEC/TD
	1445-1530	Introduction to the draft of the modified indicators for VSA (cont.)	SEAFDEC/TD

30/04/2025	1530-1615	Discussions with participants	SEAFDEC/TD
	1615-1630	Wrap up day 1	SEAFDEC/TD
	0900-0915	Wrap up the outcome from day 2	SEAFDEC/TD
	0915-1030	The introduction of draft handbook to be further used in pilot study	Resource persons, SEAFDEC/TD and participants
	1030-1045	Coffee Break	SEAFDEC/TD
	1045-1200	Discussions on the draft handbook	Resource persons, SEAFDEC/TD and participants
	1200-1330	Lunch Break	SEAFDEC/TD
	1330-1430	Discussions on the way forward on applying the indicators to the pilot countries - The activities - The results validation - The publications	SEAFDEC/TD
	1430-1445	Coffee Break	SEAFDEC/TD
	1445~	Closing Ceremony	SEAFDEC/TD

References

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