

Unfolding the Development Process of JTF 7 Projects to Address Fisheries and Aquaculture Issues in the Southeast Asian Region

Tomoko Nakazato

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As the Deputy Secretary-General of SEAFDEC and Japanese Trust Fund (JTF) Manager, I had the responsibility of leading the project planning under the JTF Phase 7 (JTF 7) from June 2022 to May 2025. The JTF 7 projects, scheduled for implementation between 2025 and 2029, were approved during the 46th Meeting of the SEAFDEC Program Committee (PCM) in 2023 and endorsed by the SEAFDEC Council during its 56th meeting in 2024. In this article, I am sharing my experiences and involvement in developing these projects. The process was quite challenging, and I felt anxious about the implementation due to various difficulties, including budgetary constraints. However, my worries turned out to be unfounded, and I am truly delighted to see each JTF 7 project proceeding well, as reflected in the progress highlighted on SEAFDEC publications, websites and social media posts. I extend my sincere thanks to the dedicated SEAFDEC staff who collaborated on these plans with me, as well as to our many partners, friends and colleagues across the SEAFDEC Member Countries. It is my hope that this article serves as an encouragement to all concerned SEAFDEC staff who continue to work diligently to implement these projects.

The JTF 7 Planning Stage

Through the Japanese Trust Fund (JTF), the Fisheries Agency of Japan has been supporting SEAFDEC since 1998 in implementing projects across Southeast Asia. For JTF 6, projects were implemented from 2015 to 2019. Subsequently, it was decided to continue the projects under the same concept for another five years (2020–2024) as the second phase of the sixth cycle of JTF known as JTF6-2.

In February 2022, my predecessor, *Mr. Koichi Honda* (then Deputy Secretary-General of SEAFDEC), and *Mr. Takatsugu Kudoh* (Assistant Trust Fund Manager [ATFM]) held a kickoff meeting to review the implementation status of JTF 6-2 projects. They discussed potential JTF 7 projects in consultation with the SEAFDEC Secretariat and the Training Department (TD), Aquaculture Department (AQD), Marine Fishery Resources Development and Management Department (MFRDMD), and Inland Fishery Resources Development and Management Department (IFRDMD). However, the Marine Fisheries Research Department (MFRD) was not consulted directly at the time due to restrictions imposed by the COVID-19 pandemic.

When I started to develop JTF 7 in June 2022, I was required to submit an overall project outline for the 2022 Program Committee Meeting (PCM) to formally request funding support from the Government of Japan. In August 2022, I had online meetings with the Deputy Chiefs of SEAFDEC Departments—*Dr. Sayaka Ito* (AQD), *Dr. Masahito Hirota* (MFRDMD), and *Mr. Tomohito Shimizu* (IFRDMD)—alongside SEAFDEC Special Adviser *Mr. Masanami Izumi* and *Mr. Kudoh* to discuss the future direction of JTF 7. Over the ten-year span of JTF 6 and JTF 6-2 starting in 2015, the fisheries landscape in the region has changed significantly. Therefore, we believed that new initiatives were necessary for the next five years to make it suitable for JTF 7.

Deliberating the JTF 7 Theme

During a series of consultations, the discussions branched out into many new ideas regarding which core areas to pursue, which initiatives to continue, practicability of implementation, and so on. Eventually, we settled on the main theme of JTF 7 around “*Enhanced Capability of Fisheries and Aquaculture in Southeast-Asia*” stemming from the belief that basic capabilities are essential for disseminating fisheries technology. We also considered incorporating training programs in Japan within the project, including establishing connections with Japanese universities and research institutions. Furthermore, we identified two fields that SEAFDEC should particularly focus on: “*Improvement of the reliability of fishery stock assessment of each AMS though sharing good practices and methods in collaboration with SEAFDEC Departments and AMSs*” and “*Dissemination of updated aquaculture technology in collaboration with SEAFDEC Departments and AMSs*.”

The SEAFDEC Member Countries recognized the importance of fishery resource assessments. Although some Member Countries expressed high interest and possess advanced knowledge and technical capabilities, others showed greater interest in resource enhancement technologies such as artificial reefs.

On the other hand, all countries expressed a high level of interest in countering IUU (illegal, unreported, and unregulated) fishing. This may be influenced by pressure from

trading partners such as the European Union (EU), alongside international political factors, given that IUU fishing remains a matter of global concern. However, we emphasized that resource assessment is essential for these efforts; without fishery stock assessments, stock management would be inadequate, and without effective stock management, there would be no technical basis for implementing such countermeasures.

Regarding aquaculture technology, while Member Countries expressed strong enthusiasm, it was also noted that promoting technologies that minimize environmental impacts is necessary to sustain productivity.

Formulating JTF 7 Projects

In September 2022, I visited MFRD in Singapore with the ATFM, where I had the opportunity to talk to *Mr. Lim Huan Sein* (Alternative Council Director to Singapore) and *Mr. Ong Yihang* (Chief of MFRD). This meeting marked the first time MFRD expressed an intention to implement an aquaculture-related project. While I thought that it might be necessary for MFRD to coordinate with AQD, I also considered whether MFRD would propose projects centered on aquaculture traceability or eco-labeling to avoid overlapping with AQD’s mandate. However, MFRD submitted a project proposal for JTF 7 focused on aquaculture technology dealing with global warming. I realized that it was beyond my coordination scope. Subsequently, at the 2024 SEAFDEC Council Meeting, a proposal emerged to pivot MFRD’s terms of reference toward aquaculture technology. As we had to await formal approval for this change, the opportunity to allocate a budget for JTF 7 projects for MFRD was unfortunately missed.

At the 2022 PCM, the JTF 7 framework comprised four pillars in accordance with the central theme, and two priorities were approved. Subsequently, the SEAFDEC Secretary-General issued an official letter to the Council Member for Japan to formally request support from the Government of Japan. Finally, the JTF7 outline was recomposed into three pillars (**Box 1**) and was approved during the 56th Council Meeting in 2024.

Looking back, I didn’t have extensive experience at that stage and could not fully understand the projects that were underway. My understanding of the fisheries landscape in Thailand (where I was assigned at the time) and other Southeast Asian countries was still developing. Yet somehow, I managed to draft the overall outline thanks to the SEAFDEC staff around me. I am particularly grateful to *Mr. Kudoh*, who served as the ATFM at the time, for thoroughly explaining the situation to me, sometimes even taking me into the field to understand the operations firsthand. It was also thanks to all the JTF co-managers serving as Deputy Chiefs of the respective SEAFDEC Departments, who communicated with

their colleagues and consolidated information. *Mr. Izumi*, in his role as the Special Advisor of SEAFDEC, constantly provided valuable guidance and assisted me in drafting the English text.

Box 1. Three (3) Pillars and prospective subjects of JTF 7 projects	
Pillar 1. Strengthened collaboration and capacity building on common issues in Southeast Asia	- Enhancement of regional cooperation and human resource development to eliminate IUU fishing - Digital transformation of regional fisheries and enhanced utilization of fishery statistics and information - Research and dissemination of sustainable fishing technology - Enhancing regional responses to emerging international fisheries-related issues
Pillar 2. Enhanced national and regional research capacities to manage fisheries resources including small scale fisheries	- System design and construction of bio-research for good marine fishery resources (small pelagic/neritic tuna) - Capacity building for the monitoring of marine environmental changes and the estimation of impacts on fishery resources - Capacity building for estimation of fishery biomass with scientific hydroacoustic survey - Research capacities for sustainable utilization and management of sharks and rays - Research capacities for sustainable utilization and management of eel and other inland fisheries resources - Improving fisher’s livelihood and fisheries co-management in inland and coastal small-scale fisheries
Pillar 3. Improved sustainability and productivity in aquaculture	- Promotion of aquaculture technologies for emerging species through good aquaculture practices (GAqP) - Capacity building on the utilization of certification schemas for aquaculture seafood safety

Over the next two years (2023–2025), the JTF team worked together to develop projects year by year, taking into account the status of ongoing projects and current fisheries conditions in each Member Country. I had to prioritize projects based on the limited budget and available human resources.

Regarding the project on reliable fishery stock assessment and management, *Dr. Hirota* of MFRDMD requested applying biological data to their assessments because incorporating catch volumes, age (through otolith analysis) and size is essential for understanding annual growth rates. He emphasized that for Member Countries to ensure the reliability of their stock assessments, they must incorporate more real biological data alongside mathematical analysis. He also highlighted the need to conducting experiments on the cultivation of target fish species to observe their life cycles.



There was high interest among the Member Countries in conducting scientific acoustic surveys and integrating acoustic data into stock assessments. While the research vessel M.V. SEAFDEC 2 is equipped with a SIMRAD EK80 scientific echosounder, researchers within TD initially had limited knowledge and skills in operating the equipment. Consequently, *Ms. Malinee Smithrithee*, the Secretary-General of SEAFDEC at the time, asked me to request the Fishery Agency of Japan to send an expert on acoustic surveys to support TD. The Government of Japan granted this request and sent *Dr. Koki Abe*, a researcher from the Japan Fisheries Research and Education Agency. With *Dr. Abe* serving as Senior Adviser, SEAFDEC successfully explored advanced resource assessment techniques, such as estimating stock abundance by analyzing echoes from sound waves reflected by fish swim bladders. This method is also popular among researchers in the Member Countries.

Regarding inland fisheries, the Deputy Chiefs of IFRDMD—initially *Mr. Shimizu* and later *Mr. Shimoda*—faced challenges in developing JTF 7 projects. Because inland fisheries in the region are mostly operated by local communities, they recognized that supporting community-based livelihoods would be more beneficial rather than embarking solely on fishery resource assessments and management. Given the diversity of inland fish species, the tropical eel survey for stock structure analysis has made outstanding progress,

which is expected to contribute to upcoming discussions within Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES). Under JTF 7, the project will expand these survey methods and data analysis techniques not only to Indonesia, which hosts IFRDMD, but also to other Member Countries.

Regarding aquaculture technology, *Dr. Ito*, the Deputy Chief of the AQD, prioritized improving rearing techniques for economically high-demand species such as the kawakawa (a kind of tuna species). Furthermore, he emphasized the necessity of implementing environmentally friendly farming methods such as integrated aquaculture systems. *Dr. Ito* reiterated the importance of updating the skills and knowledge of researchers, which led to the organization of relevant training activities under JTF 7.

Evaluating the Implementation of JTF 7 Projects

Another pivotal event occurred while developing the JTF 7 project plan. At the 2023 PCM, SEAFDEC was requested to clearly demonstrate project achievements. Internally, there had been ongoing discussions about clearly defining the project's five-year goals and presenting their annual progress. *Dr. Sheila Villamor Chumchuen*, a technical writer/editor at the Secretariat, made significant contributions to this effort and suggested a format for the project plan based on her expertise, outlining how to set outcomes and outputs and how to present them effectively.

Applying the Results-Based Management (RBM) approach introduced by *Dr. Villamor Chumchuen*, establishing baselines for key performance indicators proved to be quite challenging, considering the baseline data limitations. While some might criticize us for implementing projects without first assessing the current situation, standardized statistical data for baseline assessment are not uniformly available across all countries. For example, when setting a target such as “raising the income of small-scale fishers in Southeast Asia by 30 percent,” it is necessary to determine whether this should be based on the average across Member Countries or the figures for a specific country. Where statistical data is unavailable, baseline surveys must first be conducted. Moreover, even if indicators of the fisheries situation in Member Countries are used, it is likely that factors beyond the JTF 7 project—such as various policies and environmental factors—may contribute to increases in fishers' incomes. This makes it difficult to directly isolate and demonstrate the effectiveness of the project.

After extensive discussions within the SEAFDEC Secretariat, I decided to develop achievable targets for each project and evaluation criteria for measurable outcomes. Fortunately, *Mr. Fumiya Takahashi*, who was the ATFM at the time, managed to do this challenging formulation based on his previous

experiences. Because JTF 7 projects primarily target fisheries officers and researchers from the Member Countries, we defined the project outcomes based on how large the impact on them is. To evaluate project effectiveness, the baseline was set to zero. Examples of these project outcome criteria include the number of fisheries officers in Member Countries who gained new knowledge and the extent of the skills they have acquired; the number of policies or systems inspired or improved by the project outputs; and the volume of scientific papers published by the researchers.

An online internal workshop on the formulation of JTF 7 projects was organized in June 2024. Officials and relevant staff from the Secretariat and Technical Departments were briefed on the updated Project Document format for JTF 7. The workshop served as a venue for reviewing the RBM concept to guide the Lead Technical Officers (LTOs) in developing their respective projects. I highly appreciate the project LTOs for their dedication to establishing these outcomes within a short timeframe, especially given how these new evaluation criteria differed from the approaches used in the previous JTF 6-2 project cycle.

Dr. Suttinee Limthammahisorn, the Secretary-General of SEAFDEC at that time, supervised the drafting of the JTF 7 projects. Through this process, I realized that setting outcomes ahead of implementing the five-year plan is the best



approach. It is my hope that JTF can establish better project evaluation criteria moving forward. In any case, this marks an important first step in project evaluation, and I am grateful to the SEAFDEC Member Countries and the Secretariat for contributing such valuable insights.

Promoting Collaboration Among SEAFDEC Departments

Another important issue was collaboration. During the JTF 7 project planning discussions, the Deputy Chiefs emphasized that projects should be designed to foster stronger cooperation among SEAFDEC Departments. Thus, the budget for projects was allocated to the respective Departments, which then implemented projects according to their mandates. However, real-world fisheries are inherently more comprehensive. Fishing gear technology, fishing methods, and fishery stock assessment are expected to yield greater effectiveness when implemented collaboratively.

To address this, JTF 7 established joint projects between TD and MFRDMD on stock assessment. Under this arrangement, TD operates the M.V. SEAFDEC 2 to collect data on the marine environment and acoustic data using the SIMRAD EK80 scientific echosounder, while MFRDMD concurrently collects data on spawning stock biomass and larvae on the same cruise. This way, fishery officers from the Member Countries can also learn more precise stock assessment methodologies. For the tropical eel project, survey insights obtained by IFRDMD can be applied by AQD to advance eel farming technologies. Looking ahead, I expect more collaborative efforts between TD and IFRDMD in supporting small-scale coastal and inland fisheries. I was very pleased to learn that TD and MFRDMD jointly conducted a pelagic fish stock survey aboard the M.V. SEAFDEC 2 in October 2025.

Of course, not everything will proceed exactly as planned, but I believe that the essential elements of the project plan we discussed and developed back then are still alive.

Although I am no longer directly involved, I sincerely hope that the implementation of JTF 7 projects will continue to enhance the basic capabilities of fisheries managers across the Member Countries, improve the technical skills of SEAFDEC staff, and foster even stronger inter-departmental collaboration.

About the Author

Dr. Tomoko Nakazato (tomoko_nakazato010@maff.go.jp, hiratakuwa32@gmail.com) served as the SEAFDEC Deputy Secretary-General, Deputy Chief of the SEAFDEC Training Department, and Japanese Trust Fund Program Manager from June 2022 to May 2025. She has since returned to the Fisheries Agency of Japan in Tokyo.