

ATSEA

N E W S L E T T E R

Embracing a Unified
Vision for the
Sustainable Seas Ahead

PROMOTING SUSTAINABLE PRACTICES TOWARDS RESILIENT COASTAL COMMUNITIES

ATSEA-2 Annual Report 2022
Promoting Sustainable Practices Towards Resilient Coastal Communities

ACHIEVEMENTS NUMBERS

347.22km
Coastline covered by Integrated Coastal Management (ICM) Program under ATSEA-2:

- 334.4km Rote Ndao, Indonesia
- 12.82km Barique, Timor-Leste



147 Technical Publications released

Total hectare of Marine Protected Area (MPA) coverage

- Support to existing MPAs: Southeast Aru, Indonesia covers **114,000ha**, and Nino Konis Santana, Timor-Leste **55,660ha**
- New MPA established in Kolepom, Indonesia: **356,337.90ha**
- New MPA to be established in Manufahi, Timor-Leste: **~51,000ha**

5 local regulations issued

- 3 in Indonesia
- 2 in Timor-Leste

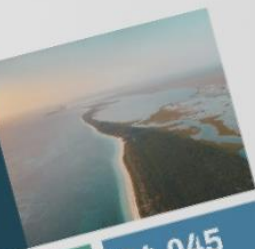
in support of ICM, pollution management, MPA establishment, IUU fishing

816 individuals benefited from livelihood-related trainings:

- 373 Men
- 334 Women



200 Events organised or co-hosted (2019-2022) to share ATS information, initiatives and enrich learning on coastal and marine management



2,329 individuals benefited from trainings/capacity building activities:

- 1,134 Indonesia
- 45 Papua New Guinea
- 850 Timor-Leste

54,045 individuals

- 31.6% Women
- 56.39% Men

of stakeholders engaged in various activities (2019-2022)



Co-Financing Commitment mobilised from 4 ATS countries and key partners (as of 2022):

- A. GRANT: **US\$ 3,976,028**
- B. IN-KIND: **US\$ 23,158,713**



5,205.92km Extent of coastline implementing Ecosystem Approach to Fisheries Management (EAFM) under ATSEA-2:

- 4 EAFM Plans in place (3 EAFM Plans in Indonesia for Red Snapper, Shrimp and Barramundi; 1 EAFM Plan for South Coast Timor-Leste); EAFM Plans applied in Aru and Merauke of Indonesia, South Coast communities of Timor-Leste, and 1 draft Artisanal Fishery Management Plan for final validation in South Fly District of Papua New Guinea



WELCOME

Welcome to the third edition of the ATSEA newsletter in 2023.

We're thrilled to take you on a journey through the exciting initiatives and events of the third quarter of this year. In this edition, you can explore highlights from our recent ATSEA Plenary Session at the 4th International Conference of Integrated Coastal Management and Marine Biotechnology (ICMMBT), where global leaders, academics and students united to shape sustainable marine resources management.

In Indonesia, we're excited about launching South Papua Province's first Marine Protected Area (MPA) on Kolepom Island and working to improve marine conservation in the Aru Archipelago, support local businesses in Rote Ndao, and revitalise the Women Customary Group in Lutur Village while exploring sustainable fisheries in Merauke. In Papua New Guinea, we showcase the milestone of adopting customary rules into the Local Level Government in South Fly, reinforcing indigenous conservation practices. While Timor-Leste takes centre stage as we dive into heartwarming sea turtle releases and the significance of the Tara Bandu tradition.

On a regional scale, we guide you through key moments from our Intersessional Meeting, Strategic Action Program (SAP) workshops, and a Regional Exchange on Sea Turtle Conservation, where collaboration and knowledge sharing shine. We also offer insights from our participation in the Large Marine Ecosystems (LMEs) meeting in Paris.

We hope you find this 2023 newsletter engaging and informative. Join us on this inspiring journey throughout the year.

Stay well,

The ATSEA-2 Team

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Talk to us

✉ 3rd Floor Annex Building of Tuna Research Center, MMAF
Jl. Mertasari No. 140, Sidakarya,
Denpasar 80224 Bali, Indonesia

P: +62 361 4484 147
E: infoatsea2@pemsea.org
W: atsea-program.com





IPB University
Bogor Indonesia

CCMRS-IPB
CENTER FOR COASTAL AND MARINE RESOURCES STUDIES
BOGOR AGRICULTURAL UNIVERSITY



Archipelagic
& Island States
Forum

DAAD

Deutscher Akademischer Austauschdienst
German Academic Exchange Service

Co-Host:

THP Department of Aquatic Product Technology
Faculty of Fisheries and Marine Sciences



Department of Aquatic Resources Management ARM
Faculty of Fisheries and Marine Sciences



The 4th International Conference on Integrated Coastal Management & Marine Biotechnology

Good Practices and Innovations Towards Blue Economy

Bali, Indonesia
12-13 September 2023





Good Practices and Innovations: ATSEA-2 Presents its Findings to International ICM and Biotechnology Conference in Bali

By Stella Yovita Arya Puteri and Casandra Tania

The 4th International Conference on Integrated Coastal Management & Marine Biotechnology (ICMMBT) organised on 12 and 13 September 2023 in Bali, Indonesia. The conference provided a global platform for the exchange of practical solutions, innovative approaches and cutting-edge research in coastal and ocean management and governance.

The 4th ICMMBT convened experts and thought leaders committed to advancing sustainable blue economies and achieving the Sustainable Development Goals (SDGs). A key feature of the event was the ATSEA-2 Plenary Session, which highlighted some of the Project's key achievements to date, such as implementing the current Strategic Action Program (SAP), updating the Transboundary Diagnostic Analysis (TDA), drafting the second SAP for the next decade and establishing a Regional Governance Mechanism (RGM).



(right) Dr Handoko Adi Susanto, ATSEA-2 Regional Project Manager, handing over the TDA for the ATS region and ATS Atlas to (left) Expedito Roberto Maria Belo, a National Project Coordinator of Timor-Leste, representing of the Ministry of Agriculture and Fisheries (MAF)



ATSEA-2 speakers (left to right): Cassandra Tania, Dr Handoko Adi Susanto and Cristine Ingrid Narcise

The Plenary Session provided an opportunity to present the TDA for the Arafura and Timor Seas (ATS) region and a new ATS Atlas, while also exploring ongoing contributions to governance and biodiversity in the region and the role of science in policy making. This session aimed to introduce ATSEA-2 initiatives, showcase progress in SAP implementation and gather insights from ATS countries into the region's future beyond 2024.

Actions Firmly Grounded in Scientific Insights

Speakers at the discussion included Regional Biodiversity Specialist Cassandra Tania and Policy and Results-based Management Specialist Cristine Ingrid Narcise, who detailed how the interface between science and governance contributes to strengthening ATS ecosystem carrying capacity. From a biodiversity perspective, Tania noted that the ATS region “continues to face serious challenges, including unsustainable fishing practices, pollution from both land and sea, habitat deterioration, the loss of key species, and the impacts of climate change.”

She also noted that recent findings from ATSEA-2 studies have “played a pivotal role in shaping regional and local strategies, and contributed to

the ongoing update of the TDA and SAP, thereby ensuring our management plans and actions are firmly grounded in scientific insights.”

Narcise highlighted the importance of an RGM to regional collaboration, referring to ATS countries’ recent adoption of this mechanism as “a crucial step towards shifting from a project-centric strategy to a sustainable, nation-driven regional partnership.” This model will be formally adopted by the countries through a ministerial forum scheduled to take place in 2024.

The final session was presented by Dr Susanto, who illustrated how ATSEA-2 initiatives have helped connect science to policies through the TDA-SAP process. Focusing on three priority transboundary issues and 11 fundamental concerns identified in the updated TDA, the draft updated SAP addresses four key transboundary issues: marine plastic pollution, oil spills, small-scale IUU fishing, and ETP species and critical habitats. He noted that the TDA-SAP process, combined with the RGM as undertaken by ATSEA-2, “provides an example of how science interfaces with governance to ensure a more holistic approach in setting clear and targeted collaborations and interventions.”

Teamwork, Creativity and a Shared Commitment

To conclude the ATSEA-2 Plenary Session, Dr Aprilia from UNDP Indonesia delivered the closing remarks, highlighting the crucial connections between three key aspects of the ATSEA-2 Project. "We must recognise the importance of having current scientific knowledge, a strategic action plan and a governance mechanism working together," said Dr Aprilia, who stressed that these elements are foundational for future ATS collaborations.

She also emphasised the significance of community involvement and ATS countries' dedication to long-term collaboration, before calling for teamwork, creativity and a shared commitment to ensure a sustainable and prosperous future for the ATS region. In closing, she thanked all participants, organisers and contributors for their dedication to preserving the region's oceans and coasts.

The ATSEA-2 Plenary Session at the 4th ICMMBT International Conference served as a platform for knowledge sharing, collaboration and the strengthening of existing partnerships. It highlighted the vital connection between scientific



Aimee Gonzales, the Executive Director of Partnerships in Environmental Management for the Seas of East Asia (PEMSEA), delivers opening remarks during ATSEA-2 Plenary Session

assessments and policymaking, while also focusing on a number of key milestones on the road to sustainability and prosperity; collective efforts that are helping to preserve marine resources and promote sustainable coastal management in the ATS region. This journey continues, toward a more sustainable and resilient future.



Celebrating the Launch: the 4th ICMMBT Opening in Bali, 12 September 2023. Prof Dr Arif Satria, Rector of IPB University, leading the inaugural ceremony with distinguished speakers



ATSEA-2 Hosts Regional Exchange on Sea Turtle Conservation in Bali

By Chris Alexander

The Arafura and Timor Seas Ecosystem Action Phase II (ATSEA-2) Project hosted a Regional Exchange on Sea Turtle Conservation in Bali, from 14-16 September 2023. The event that was organised in collaboration with Turtle Conservation and Education Center (TCEC), gathered together teams of local community members and government representatives from Indonesia, Timor-Leste and Papua New Guinea in order to share experience, develop knowledge and coordinate sea turtle conservation activities across the Arafura Timor Seas (ATS) region.

A delegation of 16 participants joined the regional exchange, comprising three representatives from Papua New Guinea, seven from Timor-Leste and six from Indonesia. The group was hosted and accompanied by members of the ATSEA-2 Project Regional Project Management Unit (RPMU).

Over three days, participants developed the skills and solutions they need to improve conservation efforts in their respective locations, while also establishing the collaborative regional networks and partnerships necessary for the resolution of transboundary issues.



A warm welcome to the TCEC for members of the ATSEA-2 Regional Exchange

Turtle Conservation in Action at the TCEC

Day one of the regional exchange began with a trip to TCEC, a multi-purpose breeding, rehabilitation and edu-tourism facility in Serangan, Bali. Founded in 2006, TCEC is staffed by members of the local community and supported by a team of conservation experts, veterinarians, student interns and volunteers. At the time of the regional exchange, these volunteers answered delegates' questions about the various species in their care, which included olive ridley, green and hawksbill turtles.

Following a series of welcome speeches, the first educational sharing session was delivered by local vet and sea turtle expert, I Made Jaya Ratha. Entitled 'Sea Turtle 101', this seminar helped participants develop a more comprehensive understanding of sea turtles, including their conservation status, their morphology and habitat, while also revealing how to accurately identify different species.

After a brief coffee break, the second session provided an introduction to sea turtle conservation, including the threats these animals face, the principles of protection, and how individuals and communities can contribute to these efforts. Upon completion of the day's activities, the participants journeyed to Jimbaran, where they shared a seafood dinner together at sunset on the beach.



Members of the Timor-Leste delegation prepare for their group presentation on day three



I Made Jaya Ratha, a veterinarian and sea turtle expert as the key resource person of the Regional Exchange

Developing Knowledge, Gaining Experience

Day two began at Serangan Port, where the delegation embarked on a visit to a known turtle feeding site off the coast of Sanur. They collected seaweed samples, inspected the condition of the feeding grounds and then returned to the centre, where they joined the daily tank cleaning activities. This provided them with hands-on experience of the centre's facilities, helping them develop a clearer understanding of the essential principles and practices involved in maintaining pools or tanks for sea turtles, thereby ensuring the health and well-being of animals recuperating in captivity.

After that, the group returned to the seminar room, where I Made Jaya Ratha delivered an in-depth presentation on monitoring, data collection and the protocols for rescuing or relocating sea turtles. Next, I Made Sukanta from the TCEC provided an introduction to the history of the centre, including

its infrastructure, operations and management structure, while also providing insights into how it operates as a hub for edutourism and conservation partnerships.

Finally, in the evening the group proceeded to Biaung Beach on the north-eastern coast of Denpasar, where they joined a sea turtle monitoring activity with members of the TCEC. Here they inspected nesting sites, learned about the requirements for successful laying, and even released a group of 100 olive ridley hatchlings into the sea.



Vagi Leke Rei (left) from Papua New Guinea and Lucas Monteiro (right) from Timor-Leste help to clean the TCEC sea turtle tanks on day two



Regional exchange participants from Indonesia, Timor-Leste and Papua New Guinea with members of the TCEC team



Formulating Plans and Developing Best Practices

The third and final day of the regional exchange took place at the Mercure Hotel in Kuta. Here, the groups took part in a series of case studies, presentations and plenary sessions. All participants completed a post-event test to assess their knowledge, before sharing lessons learned and outlining the ways in which the experience will benefit their respective conservation projects.

The regional exchange provided participants with a deeper understanding of sea turtle species found in the ATS region, while also providing them with the technical knowledge and the practical experience they need to establish and extend their own conservation efforts. Most importantly, the event helped to bridge the distances between each delegation, helping them to share knowledge, formulate best practices and forge bonds that will support regional conservation efforts in the long term.



ATSEA-2 Shares Lessons Learned on Ocean Governance in Paris

By Stella Yovita Arya Puteri

United Nations Educational, Scientific and Cultural Organization (UNESCO) organised the 22nd Annual Consultative Meeting on Large Marine Ecosystems and Coastal Partners (LME22) was held at the UNESCO Headquarter in Paris, France. Taking place from 11 - 13 July 2023, the overarching objective of this consultative meeting was to strengthen LME partnerships, address new challenges and enhance impacts.

LME22 provided a global forum for projects funded by Global Environment Facility (GEF) and other marine and coastal practitioners, partner organisations and institutions to share their experience and lessons learned with respect to ecosystem-based ocean governance and management. Attendees included representatives from a variety of regional seas organisations and fisheries management bodies, international NGOs and local communities.

One of the speakers at LME22 was Dr Handoko Adi Susanto, the Regional Project Manager of the Arafura and Timor Seas Ecosystem Action Phase II

(ATSEA-2) Project. Dr Susanto provided an insight into the Project's journey and recent progress. He confirmed that, following 15 months of meticulous work, the Transboundary Diagnostic Analysis (TDA) update has been endorsed by the participating countries (Indonesia, Papua New Guinea and Timor-Leste). Simultaneously, the Strategic Action Program (SAP) updating process (currently in its fifth month) is progressing steadily, with the first draft reviewed during an Intersessional RSC Meeting.

Dr Susanto also conveyed several crucial lessons learned and approaches developed during the extensive TDA and SAP updating process. He noted that "a clear roadmap, close coordination, good relationships with project stakeholders and adaptive management are vital to coordinating inter-governmental and multi-stakeholder initiatives effectively." These elements have proved to be the foundation of successful collaboration.

Despite the efficiency of virtual meetings, Dr Susanto stressed the indispensable nature of personal interactions, especially in negotiating collaborative priorities among neighbouring nations and stakeholders. He noted, "optimised online platforms, complemented with face-to-face regional workshops, allow us to identify priority transboundary issues and negotiate effectively."

"Participatory and transparent processes are crucial to gathering wide stakeholder feedback, generating support, nurturing ownership of results, and cultivating commitments for the way forward," elaborated Dr Susanto, before adding that the engagement of National and Regional Working Groups (NWGs and RWGs) and specialists from both national and regional levels played a pivotal role in this regard.

Dr Susanto explained where the ATSEA-2 Project gets its data, including assessments, reports, and ecosystem studies. These provide the basis for updates to the TDA. Recommendations from previous TDA processes and progress in management plans also influenced the updated SAP.

Collaboration is a key part of the TDA-SAP process. Dr Susanto praised various contributors, including working groups, project directors, and facilitators, for their roles in gathering input and ensuring a smooth process. Facilitators were especially important for handling sensitive issues during SAP updates.

Regarding organisational aspects contributing to TDA-SAP effectiveness, the ATSEA-2 Project has noted a number of critical factors. Firstly, a well-structured work plan and clear timeline have helped to maintain progress; secondly, workshops have been thoughtfully designed and characterised by clearly defined objectives, guidelines and templates to ensure efficiency. Dr Susanto added that achieving a balance between online and face-to-face meetings has improved discussions and negotiations.



Dr Susanto (middle) engages in a discussion about incorporating Marine Spatial Planning (MSP) into Large Marine Ecosystem (LME) management

During LME22, the ATSEA-2 Project was able to share knowledge and lessons learned from program implementation in the ATS region, while also developing a broader understanding of ocean governance based on the experiences of others present. The process of updating the TDA and SAP has demonstrated that strong partnerships, clear processes, and a clear plan can deliver positive results. The ATSEA-2 Project remains focused on improving the effectiveness of management in the ATS region, by working together with regional neighbours. The LME22 event helped to underline the importance of collaboration to this process, and the future for our oceans.

Present Impact, Future Plans: ATSEA-2 at the Intersessional Regional Steering Committee Meeting

By Stella Yovita Arya Puteri and Kathrine Rose Gallardo-Aguiling



On 11 July 2023, members of the Arafura and Timor Sea Ecosystem Action Phase II (ATSEA-2) Project's Regional Steering Committee (RSC) met online, in preparation for project completion in 2024. The RSC, which is responsible for making key project decisions, gathered to assess mid-year progress and discuss pending tasks. Participants included government representatives from Australia, Indonesia, Papua New Guinea and Timor-Leste, along with members of the United Nations Development Programme (UNDP), Partnerships in Environmental Management for the Seas of East Asia (PEMSEA), National Coordinating Units (NCUs) and the Regional Project Management Unit (RPMU). International consultants were also invited to share their expertise.

Discussions at the meeting centred on three topics: (a) assessment of the need for project extension; (b) finalisation of the consensus-building process on the ATS Regional Governance Mechanism (RGM) model and initial discussion on supporting operational and financing documents; and (c) a review of the first draft of the updated ATS regional Strategic Action Program (SAP). The meeting also featured further updates from the national focal point of Australia with regards to their assessment of the regional Ecosystem Approach to Fisheries Management (EAFM) Action Plan for Red Snappers.

ATSEA-2 Project Extension

Following recommendations in 2022 emanating from the Project Midterm Review, and the fourth RSC Meeting held in November of that year, the Project's work plan and budget were re-evaluated to support a proposed project extension. The extension will accommodate the completion of various governance targets which require additional time, and are expected to be met in time for the second ATS Ministerial Forum in 2024. The RSC members unanimously endorsed the proposed extension, representing 11 months for Indonesia, nine months for Timor-Leste, and six months for the regional and Papua New Guinea components.

Regional Governance Mechanism: Achieving Consensus and Sustainable Financing

After three years of deliberation, the RSC has reached a consensus on the final RGM model for the ATS region. This decision followed a Cost-Benefit Analysis (CBA) of the RGM model options, which supported the decision-making process. The meeting also provided initial insights and guidance on the draft Terms of Reference (TOR) for different RGM elements, as well as the Draft Transition Plan for establishing and operationalising the RGM at the regional and national levels. The envisioned shift toward an operational RGM is a significant milestone, transitioning from a project-based arrangement to a long-term, country-owned collaborative mechanism.

To support the operationalisation of the RGM, the draft Investment and Financing Strategy and Plan was presented. It outlines various funding options and possible phases for execution. The country members of the RSC agreed to conduct in-country consultations to determine the best financing modality. The goal is to finalise the Investment and Financing Strategy and Plan by November 2023.

Updated Strategic Action Program

The meeting acknowledged the successful completion and adoption of the updated Transboundary Diagnostic Analysis (TDA), which provides a scientific basis for the SAP updating process, particularly in relation to the status of key transboundary issues in the ATS region. The first full draft of the updated SAP was presented, and the RSC provided input for further refinement. The RSC expressed support for finalising SAP 2024-2033, aiming to endorse it along with its Financing Plan at the fifth RSC in November 2023. This 10-year SAP is vital for sustaining regional collaborations, supporting commitments to the Blue Economy and achieving Sustainable Development Goals (SDGs).

Regional EAFM Plan for Red Snappers

The meeting also featured updates from Australia regarding their review of the Regional EAFM Plan for Red Snappers. While Indonesia, Papua New Guinea and Timor-Leste endorsed the plan during the fourth RSC Meeting in November 2022, Australia requested more time for internal review and consultations. Noting the ongoing development of the Sustainable Ocean Plan and integrated ocean governance arrangements as part of Australia's commitment to the High-level Panel for a Sustainable Ocean Economy, Australia suggested the Regional EAFM Plan should be re-tabled once the ATS RGM has been formally adopted (i.e., following the ATS Ministerial Declaration expected in 2024).

The Intersessional RSC Meeting highlighted significant progress made by the ATSEA-2 Project, with the extension approved, the RGM model agreed upon and commitments made to complete the strategic plans for governance and funding. The Project continues to advance towards its goals of protecting and sustainably developing the ATS ecosystem, with strong support from participating countries and partner organisations.

Strengthening Regional Collaboration by Developing the ATS Strategic Action Program

By Stella Yovita Arya Puteri and Cristine Ingrid Narcise



In 2023, a series of workshops and consultations focused on refining the Strategic Action Program (SAP) for the Arafura and Timor Seas (ATS) marine ecosystem. These collaborative efforts represent an integral component of the Arafura and Timor Seas Ecosystem Action Phase II (ATSEA-2) Project and its ongoing commitment to foster and facilitate cooperation between Australia, Indonesia, Papua New Guinea and Timor-Leste.

The ATS-SAP updating process is a continuous and collaborative endeavour, which aims to secure the protection and sustainable management of the ATS. Over two semesters in 2023, which were characterised by regional cooperation and the meticulous updating of the SAP framework, ATSEA-2 has been working to build a healthier marine environment in this vital region.

On 11 July 2023, a first draft of the updated SAP ('Version 1' or V1) was presented at the Intersessional Regional Steering Committee (RSC) Meeting. In the meeting, member states provided

feedback and recommendations to the Regional Project Management Unit (RPMU), leading to the creation of a SAP 'Version 2' (V2) by the Transboundary Diagnostic Analysis (TDA)/SAP Specialist.

Then, in August 2023, national consultations provided a detailed review of the V2 draft, particularly the key targets for the SAP, and generated 'project concepts' to support SAP initiation and implementation in 2024. National consultation workshops involving multi-sectoral TDA-SAP National Working Groups (NWGs) and key stakeholders were held in Timor-Leste, Papua New Guinea and Indonesia on 18, 24 and 25 August 2023, respectively. Written feedback from key agencies in Australia were sent to the RPMU by the National Focal Point (NFP).

On 8 September 2023, the ATSEA-2 Project conducted a Regional SAP Review Workshop with the TDA-SAP Regional Working Group (RWG). The workshop provided updates to RWG members and

National Project Directors (NPD)/NFP on inputs gathered during the August round of national consultations, and discussed potential refinements to the draft updated SAP. The discussions highlighted the importance of baseline information, along with a monitoring and evaluation framework, and an adaptive management approach in response to future changes and developments.

In addition, the workshop provided valuable recommendations on the SAP targets and draft 'project concepts', for consideration in developing the 'Version 3' draft updated SAP. The workshop also agreed on the process for finalising the draft SAP through another round of country reviews and a pre-RSC meeting to review V3 prior to submitting the final draft updated SAP for endorsement at the fifth RSC Meeting, to be held in November 2023.

The ATSEA-2 Project initiated this journey with a regional workshop back in February 2023. This gathering brought together experts from the four participating countries, ATS NPDs, NFP, NWGs and RWG members. Its objectives included the completion of an updated TDA and the launch of the SAP renewal process.

During this workshop, consensus was reached on four key issues for the updated SAP: marine plastic pollution, including abandoned, lost, or discarded fishing gear; oil spills; endangered species; and illegal, unreported and unregulated (IUU) fishing. The workshop culminated in the collaborative development of a proposed SAP framework for 2024-2033, which incorporated a revised vision, component goals and operational objectives for these key issues.

In April and May 2023, momentum generated by the Regional Workshop continued with National Strategic Thinking and Strategic Planning Workshops, held in Indonesia, Papua New Guinea and Timor-Leste. These sessions allowed each participating country to conduct detailed reviews and provide feedback on the draft SAP framework, component goals, operational objectives, priority actions and targets. The inputs gathered were consolidated and reviewed by the RPMU, resulting in a revised draft of the SAP framework.



Vision and mission of the updated SAP

In May 2023, the Regional SAP Strategic Planning Workshop was convened to further refine the SAP framework. This two-day workshop brought together NPDs from Indonesia, Papua New Guinea and Timor-Leste, along with the NFP for Australia, to address SAP cross-cutting issues such as climate change, gender equality and governance. Following the workshop, an SAP 'Version 1' document was shared with the RPMU and RWG for review.

Throughout 2023, the process of updating the SAP framework has helped to secure protection for the ATS region and improve the sustainable management of its natural resources. During this process, ATSEA-2 has facilitated important dialogues, fostered cooperation and reiterated the commitments of Australia, Indonesia, Papua New Guinea and Timor-Leste to safeguarding their shared natural heritage for generations to come.





Ready to Drive Sustainable Livelihoods for Communities: Kolepom Island MPA Officially Launched

By Stella Yovita Arya Puteri

South Papua Province officially launched its first Marine Protected Area (MPA) on 4 July 2023, in Merauke on Kolepom Island, established in January 2023 under the authority of Minister of Marine Affairs and Fisheries Decree No. 5 of 2023. This significant decision was the result of a collaborative effort involving various partners, including the Indonesian Ministry of Marine Affairs and Fisheries (MMAF), UNDP Indonesia, and local governments, with the aim of supporting Indonesia's Blue Economy strategy.

More than 300 people attended the launch event, including representatives from MMAF, UNDP Indonesia, local government officials, academics, community members, and local fishermen. This event was part of the Fisheries Exhibition Week in South Papua Province, held at the Fisheries Department Office in Merauke District.



Agus Dermawan of the Indonesian Ministry of Marine Affairs and Fisheries (MMAF) expresses appreciation to Romanus Mbaraka, Head of Merauke District, during the opening ceremony

The event aimed to raise awareness about sustainable marine resource conservation, especially among small-scale fishermen and those involved in fisheries in Merauke District. It also highlighted how designating Kolepom Island as an MPA aligns with Indonesia's commitment to establish 30 million hectares of marine conservation areas by 2030, as set by the South Papua Province Government.

The launch event began with a welcoming address from Agustinus Joko Guritno, First Assistant to the Secretary of South Papua Province, by emphasising their vision of "Papua's rise, independence, and prosperity." He shared their mission to strengthen the local economy through sustainable development, particularly in maritime and marine sectors. Agustinus noted, "The collaboration between MMAF and UNDP Indonesia through the ATSEA-2 Project has been supporting marine and fisheries governance in Merauke since 2019."

He also mentioned that various parties, including local governments and research institutions, worked together to establish a conservation area. Their main goal was to preserve fish stocks, reduce environmental impact, and promote sustainable fisheries. Agustinus explained, "The designated conservation area covers a total of 356,337 hectares, divided into three zones: the core zone covering 35,458 hectares, the limited utilisation zone covering 286,572 hectares, and other designated zones covering 34,307 hectares."

From MMAF, Agus Dermawan, as the principal expert in managing marine and coastal ecosystems, emphasised that effective conservation area management and good governance can improve the quality of resources targeted for conservation as well as the economy and living standards of the communities around the area. "The designation will also regulate the use of the popular white snapper fishery among the communities, ensuring its sustainability," he added.

Romanus Mbaraka, the Head of Merauke District, expressed the local government's support for managing the Kolepom MPA and stressed the need for continuous involvement of the local community. He highlighted that Merauke has a significant part of the Arafura Sea with abundant shrimp and fish resources, emphasising the importance of sustainable management for the people of Merauke. He also hoped that the local community would work together with the protected area for better conservation. Given Merauke's remote location, Romanus called for support from various parties like the Directorate General of Surveillance and Enforcement-MMAF, the Indonesian Navy, Marine Police, Customs, Marine and Fisheries Patrol, and the South Papua Provincial Government to help supervise the conservation area and its surroundings. Romanus emphasised, "To ensure maximum benefits for the people of Merauke, sustainable management needs to be encouraged."

Iwan Kurniawan, representing the ATSEA-2 Project, thanked MMAF, the Government of Papua Province, and the Government of South Papua Province for making Kolepom Island's waters an MPA. He emphasised that their commitment goes beyond this, with the next important step being to realise the benefits of this conservation area. Iwan stressed that conservation should not hinder improving the well-being of local communities, and he highlighted the importance of using local knowledge for sustainable development. He invited everyone to collaborate in sharing knowledge, innovation, technology, practices, and wisdom to demonstrate how Kolepom waters can be an example of Indonesia's blue economic development.

Fisheries Exhibition to Support Fisherfolk and the Fisheries Sector

In addition to launching the Kolepom MPA, the



Fisherfolk are encouraged to register at the Maritime and Fisheries Business Player Card (Kartu Pelaku Usaha Bidang Kelautan dan Perikanan/KUSUKA) counter

event also featured a Fisheries Exhibition showcasing fishery-related products and innovations. This allowed fishery entrepreneurs to network, showcase their top products, and stay updated on industry developments. The event also offered services for fishing permits, including registration counters for e-passes and Fisheries Vessel Register (*Tanda Daftar Kapal Perikanan/TDKP*), as well as the Card for Maritime and Fisheries Business Players (*Kartu Pelaku Usaha Bidang Kelautan dan Perikanan/KUSUKA*) counter. These services aim to help Merauke's fishery entrepreneurs gain official recognition for their businesses and easier access to fisheries subsidies.

As part of the event, there was a talk show focused on Sustainable Development Goal 14: Life Below Water. This talk show aimed to increase understanding and awareness of the importance of conserving marine resources sustainably and discuss the steps needed to achieve this goal. By taking these steps, it is anticipated that the Government of South Papua Province's management of the conservation area will benefit both people and nature in the Arafura and Timor Seas. Furthermore, establishing institutional arrangements and management plans, including capacity-building programs for local communities and practitioners, is crucial to bring the benefits of sustainable livelihoods to communities throughout the ATS region.



Iwan Kurniawan, the Program Manager for Natural Resources Management of UNDP Indonesia, representing the ATSEA-2 Project, delivers opening remarks

Bridging Marine Conservation Gaps in the Aru Archipelago

By Iriansyah



Apara Village and Karey Village, located within the Southeast Aru Marine Protected Area (MPA), hold administrative and cultural significance. These communities primarily comprise fisherfolks whose livelihoods revolve around the MPA. As a result, there is a distinct correlation between community activities and the effectiveness of conservation efforts.

Recognising the pivotal role of these villages, the ATSEA-2 Project has embarked on a series of community outreach initiatives aimed at enhancing management effectiveness in the Southeast Aru MPA. Conducted from August to September 2023 and involving 268 beneficiaries, the initiatives included various government officials at the village and subdistrict level, along with community-led surveillance groups (*Kelompok Masyarakat Pengawas/Pokmaswas*) and local communities.

These initiatives involve the creation and distribution of educational materials like calendars, posters and banners; materials which are strategically placed in villages and shared with relevant agencies to ensure accessibility, reaching both local communities and government entities engaged in community interactions. Additionally, the ATSEA-2 Project conducted focus group discussions (FGD) and persuasive dialogues with various community groups, using these materials to convey vital information and gather insights into local activities within the Southeast Aru MPA.

Challenges in Sea Turtle Conservation

These discussions have revealed a concerning reality in these villages. In Karey Village, some individuals continue to capture sea turtles for meat consumption and sea turtle egg harvesting,

employing methods like netting and manual capture when sea turtles approach their vessels at sea. Unfavourable weather conditions often lead to villagers collecting sea turtle eggs for survival.

Similarly, in Apará Village, people catch sea turtles for personal consumption and resale, using nets and spears, and even killing sea turtles aboard their boats for meat to sell in the village. These activities persist due to inadequate surveillance, a lack of education about the consequences of sea turtle consumption, ineffective communication of regulations against sea turtle catching and egg collection, and the lack of a government presence – some elements of the existing security forces have even been implicated in the sea turtle trade.

Raising Awareness and Securing Community Commitment

The ATSEA-2 Project's outreach initiatives are yielding encouraging results. Villagers of all ages are becoming increasingly aware of the consequences of sea turtle consumption. Importantly, they are beginning to adhere to regulations that prohibit such activities. "I have just learned that consuming sea turtles is unhealthy," said Samaila, the head of the Village Consultative Body (*Badan Permasyarakatan Desa/BPD*) and a member of *Pokmaswas Bintang Timur*. "It's crucial to prevent the harmful practice of sea turtle consumption in Karey Village from affecting the health of our families, including the children."

This improved awareness is evident in the villagers' dedication to reporting sea turtle-related activities to the authorities. In both villages, a notable change in behaviour has been observed, with communities promptly informing *Pokmaswas* about instances of bycatch or illegal sea turtle catches. This represents a positive transition towards adopting sustainable practices and enhancing conservation efforts.



Communication media banners installed at one of Apará Village's strategic points

Empowering the Next Generation for Conservation

Engaging with children is a crucial aspect of conservation efforts. In Apará Village, children participated in a creative sea turtle-themed colouring competition, using materials provided by the Project, which was combined with direct verbal education. Similar activities were held in Karey Village, where the ATSEA-2 Project engaged with students at Karey Christian Elementary School.

Thalib, a representative of *Pokmaswas Bintang Timur* from Karey Village, highlighted the pivotal role of the younger generation in preserving the marine environment. He stated, "you are the future generation of Karey Village, you must preserve the marine environment, especially *marnam* and *kalabo* (Karey Village's local language for green and hawksbill turtles)".

The efforts of the ATSEA-2 Project have been instrumental in raising awareness in Apará Village and Karey Village. Nevertheless, continued support and collaboration with government agencies will be essential to ensuring long-term success in turtle conservation around the Southeast Aru MPA.

Coastal Treasures of Merauke: A Journey of Sustainability and Innovation

By Avicenna Wijayanto (TAKA Foundation)



Merauke, situated at the easternmost tip of Indonesia in Papua Province, is more than just a hub for plantation sectors like coconut, palm oil, rubber and forest products. According to the Audit Board of the Republic of Indonesia, its expansive coastline, stretching over 846.36 km and encompassing a marine area of 6,269.86 km², holds immense potential in the realm of marine resources and fisheries, with approximately 232,500 tonnes of catch available each year.

The ATSEA-2 Project recently conducted a journey to Merauke together with the TAKA Foundation – a non-profit organisation working in the field of marine conservation, to support the 'Community Development of Fishery Processing Businesses' program. This collaborative effort is dedicated to fostering lasting, positive changes within local communities, with a primary focus on the fisheries sector. The program, rooted in local economic development and natural resource conservation,

aims to forge sustainable economic avenues, catalyse the expansion of micro and small enterprises, and empower coastal communities to achieve greater prosperity.

Lampu Satu Community Creations

The ATSEA-2 Project and TAKA Foundation began this journey in one of the sub districts in Merauke, renowned for its picturesque coastline and a multitude of fisheries-related activities. Lampu Satu Beach, named after a single lighthouse on its coast, is located just 2 km from the district centre and is a popular tourist destination among the local community.

The local community in Lampu Satu is mainly fisherfolk and fish processors. They catch various types of fish, including milkfish, mackerel and snapper. Many also catch moonfish (or *belanak*) and threadfins or *kuro* fish.

Siti Hasniyah and Rukiyah are members of the local community. They use mackerel and snapper to make fish meatballs and salted fish. Since Lampu Satu Beach is a tourist hotspot, these women set up fish meatball stalls to earn some extra income. There is also a fish processing group called the *Samudra Anim-Ha Community Group*, known for making dried fish products like fish crackers, fish floss and dried shrimp. Hasnah, their leader, also showed off other goodies they can whip up, including shrimp paste, fish meatballs, fishcakes, *pempek* (Indonesian fishcake) and nuggets.

"We'd love more training in fish processing, but getting proper equipment for processing would be a game-changer. It'd help us get product permits and market our stuff more easily," said Hasnah.

Crossing the River to Reach Kumbe Village

The team's next destination was Kumbe Village, accessible by both land and river travel. They embarked on a journey that transitioned from well-paved roads to rugged sands, spanning a 2-3 hour overland trip. This was followed by a brief 10-minute boat crossing to reach the opposite side of Kumbe Village.

Upon arrival, they received a warm welcome from Eka, a shopkeeper who also specialises in crafting fish meatballs. Eka and her family fish along the banks of the Kumbe River using nets, later selling salted fish and frozen varieties in their shop. The team then encountered Sugi, a shrimp paste (*terasi udang*) artisan in Kumbe, who faithfully continues her father-in-law's recipe. In 2017, the 'Terasi Asli Kumbe' product from the Terasaku Group received recognition from the Fisheries Department at the Kumbe Village fisheries product fair in Malind District.

Sugi explained, "one of the main challenges in shrimp paste production is the weather; when it rains, we can't sun-dry the shrimp. Additionally, the shrimp season also affects our production."

A short distance from Sugi's residence, the team came across Fatmawati, a small-scale smoked fish producer in Kumbe Village. Utilising traditional methods involving bamboo sticks, coconut husks and coconut shells, Fatma prepares smoked fish from moonfish.



Fish products produced by the women community in Lampu Satu Village



Shrimp paste as one of the creations produced by women in Kumbe Village

The journey through the Lampu Satu District and Kumbe Village in Merauke not only provided profound insights into the lives of coastal communities reliant on the sea for their livelihoods but also unveiled their creativity and determination in harnessing the region's abundant natural resources. From salted fish to fish meatballs, and from smoked fish to shrimp paste, each product signifies a cultural legacy and knowledge handed down from one generation to the next.

With support from various entities such as the ATSEA-2 Project, stakeholders and others, these communities can hopefully continue to thrive and gain improved access to broaden their product markets. In doing so, they can create sustainable economic opportunities and enhance the well-being of coastal communities in Indonesia, particularly in Merauke.

First Line of Defence: Empowering Communities in the Fight Against Oil Spills

By Khaifin

In 2009, an oil spill struck Rote Ndao District in Indonesia's East Nusa Tenggara (Nusa Tenggara Timur/NTT) Province, impacting coastal areas where many local communities rely on the sea for their livelihoods. Today, the threat of a recurrence continues to loom large. Now, important steps are being taken to build awareness, take action and improve preparedness in both the prevention and handling of oil spills.

On 21 and 22 August 2023, the Secretariat of the Marine Pollution Task Force in NTT Province, working in collaboration with the ATSEA-2 Project, conducted a socialisation and simulation of the Oil Spill Early Warning System for three villages in Rote Ndao: Landu Ti'i, Oeseli and Bo'a. A total of 82 people attended the event, comprising 50 men and 32 women, and representing 13 institutions; a mix of government and non-government agencies, along with community groups from the three villages. The primary objective of this initiative was to empower local communities with the knowledge and skills needed to effectively report and respond to marine environmental disasters at the Emergency Operations Centre (*Pusat Pengendalian Operasi Penanggulangan Bencana/Pusdalops PB*).

The need for environmental awareness and community involvement in protecting the waters of NTT Province has never been more pronounced. Koresyn R. R. Hau, Head of the Environmental Analysis and Information Division at the Housing, Settlements and Environment Office of Rote Ndao District, emphasised this point during the event. She noted that “learning from the catastrophe in 2009, it is crucial for communities to be aware of the early signs of marine pollution and immediately report them to the government for a swift response.”

The Government of NTT Province is actively involved in promoting environmental awareness and disaster mitigation. Gaspar N. L. Manisa, Head



The handover of disaster reporting centre posters to the Oeseli Village representative

of the Logistics and Emergency Division at the Provincial Disaster Management Agency (*Badan Penanggulangan Bencana Daerah/BPBD*) of NTT Province, provided important insights into disaster mitigation policies in the province. He stressed the significance of a Penta Helix collaboration in addressing various types of disasters, including oil spills. Penta Helix is a cooperative framework that involves five key stakeholders – academics as drafters, businessmen as enablers, communities as accelerators, government as regulators and media as expanders – working together to enhance waste management efforts.



Group picture of the participants involved during the early warning system simulation

Maria A.A.F. Manteiro, an Environmental Impact Analyst at the Department of Environment and Forestry in NTT Province, introduced the Marine Pollution Task Force team, outlining its tasks and responsibilities. She also highlighted various initiatives, including training on data collection and management related to marine pollution, the development of guidelines for data collection, emergency communication training for oil spills, shoreline clean-up techniques, early warning system simulations and regional exchanges under the ATSEA-2 Project, all aimed at enhancing oil spill preparedness and response capabilities. Furthermore, she underscored the team's reliance on community support to efficiently respond to oil spill incidents through Pusdalops PB.

During the exercise, the communities were guided to simulate the procedures for reporting to the Pusdalops PB in NTT Province. Anton Rangga, a representative of the Landu Tii Village community, played a key role in this simulation, guided by Yoakim D. Masan, an Operator from Pusdalops PB. During the simulation, Rangga successfully compiled a comprehensive report with photos that encompassed important aspects (Who, Where, When, What, Why, How) through the WhatsApp messaging application.

Additionally, the ATSEA-2 team provided posters to be placed/distributed as reminders of the crucial role the community plays in disaster management efforts. Participants actively engaged in discussion sessions where key questions emerged. These questions included the recognition of signs indicating sea pollution from unidentified oil spills, the types of disasters necessitating reporting, and the procedures for reporting incidents beyond oil spills, such as damage to seaweed cultivation caused by high waves.

This training and simulation of the Oil Spill Early Warning System for three villages in Rote Ndao represented a tangible step towards community awareness and readiness in the face of potential oil spills at sea, and other future environmental disasters in NTT Province. Following this briefing, the Marine Pollution Task Force will organise a capacity-building program for Pusdalop PB, focusing on how to handle community reports. Both Pusdalop PB and the Marine Pollution Task Force will also engage in discussions to prepare for future environmental challenges.



Building for the Future: Supporting Small Businesses and Women's Groups in Rote Ndao

By Mikael Leuape

The Arafura and Timor Seas Ecosystem Action Phase II (ATSEA-2) Project is committed to ensuring equal participation between women and men, aligned with the Gender Equality and Social Inclusion (GESI) strategies, guidelines and standards advocated by United Nations Development Programme (UNDP) and Global Environment Facility (GEF). In Rote Ndao, the project has teamed up with local government and financial institutions to help women achieve greater financial agency, with the creation of small businesses that can also help build community economic resilience.

Following a baseline gender assessment from June-August 2021, relevant gender action plans were designed to improve women's access to development and encourage their active participation in formal and strategic forums, such as village development planning meetings

(*musrenbangdes*). Implementation in Rote Ndao District then began with a series of gender mainstreaming activities and gender discussions, held in June and July 2022.

The latest activities have focused on providing alternative livelihoods for women's groups and strengthening their participation in strategic forums. These initiatives have been supported by an agreement between the Rote Ndao district government and the regional bank (Bank NTT) to support home-based production by women's groups (specifically for the Ita Esa Community Group in Oeseli Village) and the provision of technical assistance for improved financial literacy.

A crucial aspect of development is the marketing of products created by the women and Ministry of Cooperatives and Small and Medium-sized Enterprises (MSMEs) of Rote Ndao. Many of these



Participants engage in a discussion during the meeting

groups have the enthusiasm to engage in business, but struggle to market their products due to a lack of market access. From 25-28 June 2023, ATSEA-2 provided training in seaweed processing and fish packaging, to help them bridge this gap and reach new market segments.

In July 2023, training on Halal certification was provided for all MSME actors, including the four villages targeted by the ATSEA-2 Project in Rote Ndao. This activity forms part of a Memorandum of Understanding (MoU) that was signed between the Rote Ndao District Government and the Ministry of Cooperatives and Small and Medium-sized Enterprises (MSME), which aims to ensure that processed products from each MSME group meet the requirements for access to both local and national markets.

To date, the ATSEA-2 project has successfully initiated collaborations between women's groups engaged in seaweed processing in Landu Ti'i and Daiama. Members of the Ina Landu Group were identified as recipients of initial funding from Bank NTT in May 2023, as part of their Corporate Social Responsibility (CSR) programs. They will receive

this funding by the end of the year. In March and April, Bank NTT also provided financial literacy training to communities in four villages.

ATSEA-2 continues to work on enhancing knowledge and skills in processing seaweed into products such as sticks and coffee, as well as in packaging dried fish. The aim is to increase the added value of these products and provide women with better access and ownership of businesses, enabling them to manage potential resources and play a more meaningful role in decision-making processes related to the management of marine and fisheries resources.

Following the conclusion of the latest training in June and July 2023, the Rote Ndao District Government, through the Ministry of Cooperatives and MSME, reiterated their commitment to continuously support and oversee all these efforts; to help facilitate alternative sources of income for the community, in order to help them withstand the impacts of climate change in Rote Ndao District. Through partnerships, funding and knowledge support, ATSEA-2 is helping to make this possible.

Pollution Solutions: Coordination Meeting Helps Develop an Action Plan for East Nusa Tenggara

By Khaifin



The waters surrounding Rote Ndao in East Nusa Tenggara (NTT) Province are increasingly at risk from pollution, due to a combination of oil and gas exploration and maritime traffic. Pollution associated with these issues can have a devastating impact on marine organisms, while also impacting coastal ecosystems and the local communities who rely on natural resources for their livelihoods.

In an effort to safeguard the marine environment, the Secretariat of the Marine Pollution Task Force in NTT Province, with support from the ATSEA-2 Project, organised a regional coordination meeting on 25 August 2023. This meeting set out to develop the 2023-2024 Action Plan, with an emphasis on creating an early warning system that could mitigate the impacts of future oil spills in the region.

The meeting brought together 58 members of the Marine Pollution Task Force in NTT Province. Comprising 39 men and 19 women, this group of meeting attendees also collectively represented 23 institutions at both the provincial and national

levels. The meeting served as an opportunity, not only to discuss the upcoming action plan, but to review the success of its predecessor, the 2022-2023 Action Plan.

The meeting began with an opening address by Rudi Lismono, Head of the Development Division at the NTT Provincial Environment and Forestry Office. In his remarks, he emphasised the importance of creating a plan that would work in practice. He highlighted that this coordination meeting provided the ideal platform for team members to collaborate and devise the most effective action plan.

Sulastri H. I. Rasyid, the Head of the NTT Provincial Maritime and Fisheries Office, who also serves as the Deputy Chief Executive of the Marine Pollution Task Force in NTT Province, presented the outcomes of the 2022-2023 Action Plan and posited a number of suggestions for its successor, the 2023-2024 Action Plan. During her presentation, she confirmed that all activities scheduled for the 2022-2023 period had been successfully carried out.



Participants of the coordination meeting held in NTT Province, Indonesia

She also highlighted the active participation of task force team members and their role in the implementation process.

Activities in the previous plan included simulating an early warning system in Rote Ndao District. The team also conducted training on oil spill modelling at sea, monitored and sampled oil spills, and employed techniques for cleaning and assessing coastlines affected by oil spills. The ATSEA-2 Project was instrumental in providing funding support and expertise for these training sessions and the development of guidelines. One significant challenge faced by the team was limitations in funding support from the provincial government; to address this challenge and achieve better outcomes, the team utilised the funding available from the ATSEA-2 Project in order to support their efforts to combat marine pollution.

The above actions constituted part of the detailed implementation of five out of six objectives and 24 activities aimed at combating marine pollution in NTT Province, covering a period from 2021 to 2023. The Government of NTT Province, in collaboration with the Legal Bureau, continues to work on the sixth objective, which focuses on enhancing regulations concerning marine pollution control activities within the province.

During the meeting, team members were divided into several working groups, which discussed the 2023-2024 action plan and relevant programs for combating marine pollution in NTT Province. Working groups proposed measures that included regulations for preparedness, expanding the oil spill early warning system, conducting rapid response simulations, organising biannual pollution mitigation webinars and providing oil pollution response training across all 22 districts in NTT Province. These inputs were then summarised and documented in the minutes of the meeting, which were signed by all participants.

The finalised 2023-2024 Action Plan will be presented to the Chairperson of the Marine Pollution Task Force in the first week of October 2023. The ultimate goal is for the NTT Provincial Government to independently implement all proposed activities outlined therein. This self-reliance is particularly crucial, as additional support from the ATSEA-2 Project is nearing its conclusion.



‘The Eyes of the Government’: Building Community Surveillance Capacity in the Aru Archipelago

By Sila Kartika Sari and Iriansyah

The Aru Archipelago is home to some of the richest fishing grounds in Indonesia. Last year, the Ministry of Marine Affairs and Fisheries (MMAF) estimated that around 876,722 tonnes of demersal fish can be found in these waters, making them a hotspot for commercial fisheries. But this abundance also makes the region vulnerable to overexploitation in the form of Illegal, Unregulated and Unreported (IUU) fishing. In response, joint monitoring and surveillance efforts in the Southeast Aru Marine Protected Area (MPA) represent a critical element of ongoing community engagement in marine and fisheries resource management.



Departure from Dobo Port on 22 August 2023: The ATSEA-2 team, joined by the Ministry of Marine Affairs and Fisheries (MMAF) and the National Marine Conservation Agency of Kupang, Dobo Unit

From 22-24 August 2023, the ATSEA-2 Project conducted a three-day intensive training session with community surveillance groups (known in Indonesia as *kelompok masyarakat pengawas*, or *pokmaswas*) in order to build these groups' capacity in MPA surveillance and reporting, and raise community awareness of the important role they play in conservation.

The training was set up in collaboration with Indonesia's Ministry of Marine Affairs and Fisheries (MMAF) and the National Marine Conservation Agency of Kupang, Dobo Unit. Participants came from various surveillance groups in Apar Village (known as *Pokmaswas Gwer Katabar*) and Karey Village (known as *Pokmaswas Bintang Timur*).

On 22 August 2023, a team of 11 individuals from the ATSEA-2 Project, National Marine Conservation Agency of Kupang, Tual Fisheries and Marine Resource Surveillance, Ambon Fisheries Extension and Training Agency and the Maluku Fisheries and Marine Provincial Agency travelled from Dobo to Apar village, where a meeting was held in the village hall. The gathering included around 29 attendees, comprising *pokmaswas*, local community members, non-commissioned law enforcement personnel and other, similar organisations.



Journey from Dobo to Southeast Aru Marine Protected Area (MPA), passing through a mangrove-filled river



Members of Pokmaswas Gwer Kataba, Apar Village

The event began with an opening speech by the village secretary, followed by remarks from Irwan Maulana, Sub-Coordinator of Operations at Tual Fisheries and Marine Resource Surveillance. Prior to the main presentation, ATSEA-2 Village Outreach Consultant, Iriansyah, conducted a game to illustrate the impact of sustainable fishing gear on local fisheries resources, underscoring the importance of such gear.

Respaty Yudha, Coordinator of the Southeast Aru MPA, then presented information and gathered perspectives on participants' knowledge and current issues. Rita Garapara, the community welfare officer of the Village Consultative Body, expressed concerns about large boats entering the MPA, mainly for squid and fish, and impacting small-scale fishers. Yudha clarified that larger boats (>10 gross tonnage) can pass through MPAs, but any sign of illegal fishing or prohibited gear use should be reported to authorities like the Directorate-General of Surveillance and Control of Marine and Fishery Resources (PSDKP).



Discussion session with Respaty Yudha, Coordinator of the Southeast Aru MPA about the MPA and mapping its issues



Sea turtle carapace found in Kelapa Island. Sila (NCU ATSEA-2) and Chris (BKKPN Kupang Satker Dobo) measuring and collecting the data.

Aldy Malok, head of the Maluku Fisheries and Marine Provincial Agency, explained the provincial-level authority behind the establishment of *pokmaswas*, offered guidance on reporting mechanisms, highlighted key aspects to note during surveillance, provided some dos and don'ts during patrols, and gave some tips on surveillance form completion.

“Reporting is key when violations are identified, whether reported by *pokmaswas* or the local community,” noted Irwan Maulana from the Tual Fisheries and Marine Resource Surveillance. “Our primary role is to act as an extended 'eye' of the government, particularly in overseeing potential violations within the Southeast Aru MPA,” he added.



Rudy Masuswo from BPPSDM KP provides guidance on the safe handling and live release of sea turtle bycatch using a sea turtle dummy/doll

Rudy Masuswo, a fisheries extension officer from the Marine and Fisheries Human Resources Development and Extension Agency, provided a demonstration on the safe handling of bycatch, particularly Endangered, Threatened and Protected (ETP) species. He emphasised the necessary steps when handling sea turtles, such as measuring carapace length, identifying the species and taking photos.

On the second day, Pokmaswas Gwer Katabar led a joint surveillance activity in the vicinity of Apar village, as part of ongoing data collection, monitoring and oversight. During these activities, inspections were carried out on several fishing vessels anchored in the waters around Apar and Karey. It was discovered that some of these vessels lacked the required documentation, indicating potential violations related to IUU fishing.

On 24 August 2023, similar technical guidance was conducted among Pokmaswas Bintang Timur and Karey village stakeholders. As many as 33 participants were involved in this event but, due to adverse weather and unfavourable tidal conditions, the team was not able to perform joint surveillance. Nevertheless, all the necessary information and materials were delivered in a timely manner.

“I am grateful to receive training and mentoring from the ATSEA-2 team and the government,” said a pokmaswas member from Apar Village. “It’s a crucial initiative, especially for remote communities like ours; it strengthens our ability to protect the marine ecosystem, particularly in the Southeast Aru MPA.” Samaila from Karey Village added, “the government’s presence and training in Karey Village marks the start of collaboration with pokmaswas. I hope this training will enhance our effort to preserve our marine environment.”



Irwan Maulana (right) from the Tual Fisheries and Marine Resource Surveillance conducts an investigation, checking a fish collector boat permit letter

Working Together to Overcome Economic Hardships: The Story of Lutur Village

By Shela Herlita dan Dian Yanuardy (Sajogyo Institute)

Located in the South Aru sub-district of Indonesia's Aru Archipelago, Lutur Village (known locally as Nata Lutur) is approximately 3-4 hours by boat from Dobo. En route to the village, coconut trees line the coastal roads and fill the villagers' gardens. These trees, and the coconuts they produce, are a similarly prominent feature in the local economic landscape.

Coconuts here are typically processed into copra, with most of the work done by women. In the past, processing was more difficult and time-consuming; coconuts still attached to their shells were burned, sun-dried and then scraped to extract the copra. Today, with the help of a large copra dryer, copra processing has become faster and less labour-intensive. In times of economic hardship, particularly when the sea no longer provides, copra sales provide the villagers with much-needed economic stability.

Working with various partners, the ATSEA-2 Project has been helping the women of Lutur Village develop and process coconuts into Virgin Coconut Oil (VCO), as part of the Project's Gender Action Plan for the Aru Archipelago, which aims to strengthen women's customary institutions in sustainable fisheries and local resource management for livelihood improvement.

Ecological Diversity

Lutur Village is home to coastal areas comprising mangroves, rivers, gardens and forest. These areas provide local people with food and daily necessities, as Mama Ena, one of the women from the village explains: "if we want to cook, we get vegetables from the nearby forest, fish and clams from the river; if a child is sick with a fever, we get medicine from the forest."

Most people in Lutur Village make their living from farming and fishing, growing vegetables and processing coconuts into copra. Women tend to care for the plantations and the household, while the men focus on fishing, bringing in mackerel, red snapper, moonfish, shrimp, lobster, squid and sea cucumbers.



Above the landscape of Lutur Village that is filled with coconut trees

Escalating Expenses, Declining Income

Although natural marine resources appear abundant, income from fishing is uncertain and highly dependent on the season and wind patterns. During the west monsoon, when the wind blows from Asia to Australia, fishermen cannot go to sea at all. Similarly, during the transition from dry to rainy season between August and September, the marine harvest is not profitable. "During these changing seasons, the sea is cold and there are many jellyfish, (but) no fish," complains Lando, a fisherfolk of this fishing community.

Meanwhile, the cost of living is on the rise. Lutur fisherfolk lament the continuously increasing price of fuel, while daily essentials – rice, flour, cooking oil, sugar, coffee, etc. – are becoming more expensive. Another significant expense is the cost



Freshly extracted coconut milk, a key ingredient in the production of Virgin Coconut Oil (VCO)



Women community group in Lujur Village learn how to produce Virgin Coconut Oil (VCO)



The Virgin Coconut Oil (VCO) products produced from the

of education for their children, especially if they send them outside the village or to other islands for higher education.

The increasing cost of living has led many in the community to become trapped in debt. For example, fisherfolk often borrow fuel from container ships, which in return also purchase the fish caught by the fishers. Borrowing money from local stores and relatives is also a common solution for meeting daily consumption needs.

Mitigating Income Challenges

Working together with the Sajogyo Institute (the ATSEA-2 Project's implementation partner in the Aru Archipelago), ATSEA-2 has teamed up with a women's collective (*Pengurus Harian Komunitas/PHKom*) called *Perempuan AMAN* in Lujur Village to begin developing VCO products. Utilising abundant local coconuts in this way is helping to stabilise family finances that are otherwise prone to seasonal fluctuations in the providence of fisheries resources.

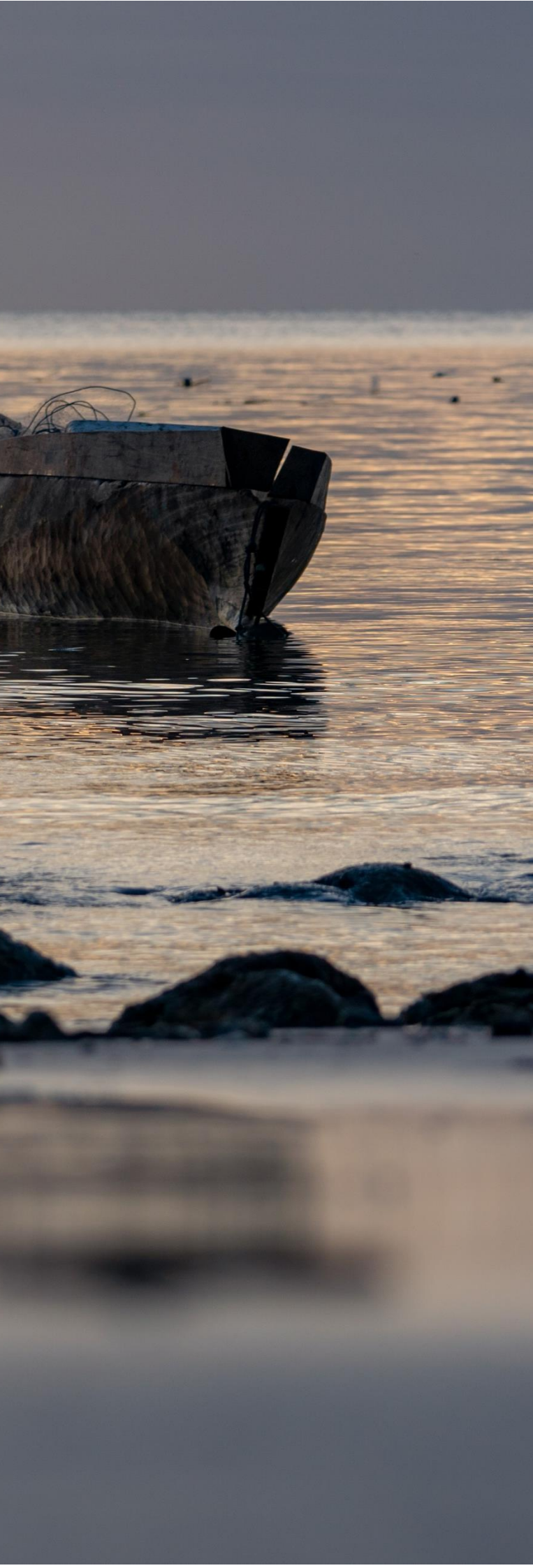
To date, four production groups have been formed, each consisting of 8-10 people who work as a team to process and develop the VCO. There

are plans in place to provide additional training for these groups, focusing on areas such as improvements in packaging, determining competitive selling prices, effective marketing strategies and proper sales record keeping. These skills are expected to support the people of Lujur Village in utilising the abundant coconut resources throughout the year.

"We have plenty of coconuts here, but (until recently) we didn't know what to do with them – we just made copra," says Mama Yaken, one member of *Perempuan AMAN*. Making VCO has helped to add value to their product. "Hopefully, we can sell it and make extra income," she adds.

With support from ATSEA-2 and its partners, local businesses and women's cooperatives in the Aru Archipelago such as *Perempuan Aman* will be able to face the uncertainty of the future with improved resilience and the knowledge they need to overcome challenges. With further training planned, these groups are ready for the next step in their journey together.





Recognised by Law: Customary Practices the Key to Conservation in South Fly District

By Joe Kiningi and Kenneth Yhuanje

South Fly District, in the Western Province of Papua New Guinea, is renowned for its abundant marine resources. For generations, local people have maintained the delicate balance of utilisation and conservation of the natural world through the implementation of customary laws. Recognising the importance of preserving marine resources, and the value of local knowledge to this process, the Arafura and Timor Seas Ecosystem Action Phase II (ATSEA-2) project is helping communities in South Fly to gain formal recognition of their customary laws and integrate them into local-level government legislation.

Customary practices are determined by the observations and beliefs of local communities, who notice when there are fluctuations in specific marine resources and then take the appropriate action to arrest the decline. According to customary law, those who do not own land or fishing rights cannot fish within certain areas; outsiders seeking to do so must first obtain permission from the legal owners, who grant them access on the condition of compliance with particular stipulations.



Engaging with Kaitatai Village's fishing community as part of the Fore-coast Artisanal Fisheries Management Plan (FAFMP) Bill drafting and introduction process

In addition, the whole region regularly observes "Sabi," a no-take area or period, during which fishing is prohibited. This allows fish stocks time to recover, especially in preparation for planned feasts or festivals. These practices have helped maintain ecosystem health for centuries. However, although deeply ingrained in local culture, these practices are yet to receive formal, legal recognition.

To initiate the legalisation process, ATSEA-2 has engaged the services of a legal consultant, who has developed a comprehensive guide to the law-making process and presented it to Local-Level Government (LLG) members. This preparatory step equips them for the legislative journey, which involves vetting the proposed law by the Department of Provincial and Local-level Government Affairs (DPLGA). Subsequently, the LLG will table the bill in the Assembly, engaging in debates and voting procedures. Upon successful passage within the LLG Assembly, the law will be forwarded to the DPLGA for final approval and formal gazettal. The specific goals of LLG Law are to adopt the existing customary practised rules. Provisions for *Sabi* should also be considered vital in the LLG Law.

From 19-22 July 2023, another significant step was taken when the project team from the National Fisheries Authority (NFA), along with various marine scientists, visited South Fly District in order to

discuss the drafting of the Fore-coast Artisanal Fisheries Management Plan (FAFMP) Bill.

A stakeholder consultation was held on 20 July 2023, bringing together key figures such as the Provincial Government, South Fly District Administration, LLG representatives and other relevant stakeholders. Discussions during the stakeholder consultation focused on protecting marine resources from overexploitation. Data and information were collected in regards to the fishing gear used and the types of fish harvested, along with market proximity for the trade of fisheries products.

The Western Provincial Government has been a supporter of the ATSEA-2 project's efforts to incorporate locally practised rules into local-level government laws. Rupert Tabua, Deputy Provincial Administrator (Natural Resources), has emphasised the importance of addressing illegal fishing activities that threaten reef ecosystems. The Western Provincial Government has supported the effort by providing conference facilities and working with hotels to accommodate the many stakeholders involved in this process.



Gathering at South Fly District Office on 19 July 2023, with Western Provincial Deputy Administrator (Natural Resources) Rupert Tabua (seated first from the left) and South Fly District Administrator Tawa Gebia (seated next), along with the Legal Consultant, discussing the bill drafting process

Looking ahead, the FAFMP Bill, when passed, will represent an historic milestone for the coastal communities of Papua New Guinea. They will become pioneers in the adoption of local-level government laws concerning marine environment conservation and ecosystem management, led by traditional customs. This monumental achievement is eagerly anticipated by stakeholders, who envision far-reaching impacts stemming from the bill's implementation at the grassroots village level.

Nevertheless, while significant progress has been made, several critical steps remain in the bill's journey towards enactment. The Bill is currently undergoing rigorous vetting procedures and awaits consideration for passage by the LLG. It must then be approved and formally gazetted by the DPLGA. One notable challenge on this path is the pace at which governmental process tends to move – a factor beyond the control of project stakeholders. To address potential obstacles and ensure the bill's successful realisation, workshops are planned to conclude the bill drafting process, helping to navigate the complexities of government bureaucracy and expedite its transformative impact on marine conservation and community management practices.



Fisherfolk in South Fly District gearing up for a catch



Artisanal Fisheries Under Threat from Illegal, Unreported and Unregulated Fishing in South Fly

By Joe Kiningi

Small-scale Illegal, unreported and unregulated (IUU) fishing continues to cast a shadow over artisanal fisheries and the users of ecosystem services in the South Fly District of Western Province, Papua New Guinea. The exploitation of marine resources in this manner remains an urgent issue, underscoring the need for support to empower local fisherfolk in their quest for sustainable fishing practices.

The Arafura and Timor Seas Ecosystem Action Phase II (ATSEA-2) Project working together with the National Fisheries Authority (NAF) of Papua New Guinea, has taken proactive steps to address small-scale IUU fishing, while simultaneously managing artisanal fisheries through the Fore Coast Artisanal Fishery Management Plan (FAFMP). Moreover, the issue of small-scale IUU fishing has been integrated into the ATSEA-2 National Action Plan (NAP), with a focus on local and regional strategies as part of the broader Strategic Action Program (SAP).

The issue of IUU fishing in South Fly District stems from increased demand for fishery products, which is directly correlated with increased exploitation. Additionally, the unregulated trade of these products has lowered commodity prices, driving fisherfolk to catch more, thereby placing additional stress on natural resources. Illegal traders have exacerbated this problem by encouraging harvesting during closed seasons and providing prohibited fishing gear to fishers.

In response, the NAF, working in partnership with provincial fisheries, conducts regular monitoring, control and surveillance (MCS) patrols along border areas, which have resulted in a number of arrests. In addition, various organisations, including the Climate Change & Development Authority and Conservation & Environment Protection Authority, have collaborated closely with provincial authorities to raise awareness about the impacts of climate change and its mitigation.



Various fishing gears laying on the Buzi Bier fishing camp ground

To manage their fishing activities more sustainably, improved awareness of established fishing regulations is needed among local fisherfolk so they can fully understand the law, the rationale behind it and the importance of compliance. New regulations in response to IUU fishing are also needed to curb exploitation and curtail the unregulated, market-driven demand for fishery products.

The FAFMP has been developed by ATSEA-2 in order to create appropriate management measures and implement a community-based MCS system. This system empowers community members to perform MCS activities. In the event of suspected international IUU fishing, villages can contact the authorities using the provided contacts, while local non-compliance with the management plan can be prosecuted through the village court system.

Modern fishing gear, such as gill nets and motorised boats, have both positive and negative impacts on local fisherfolk. While these tools enable fishers to catch more fish and transport them easily to markets, they can also lead to overharvesting, especially when prohibited gear is used on fish breeding stocks.

During a data collection mission in early 2023, the ATSEA-2 team gathered important information for managing artisanal fisheries in South Fly. Scaly croaker and black spotted croaker were identified as the most valuable species for fish maw, earning

an average of US\$158 and US\$120 per kilogram, respectively. Additionally, approximately 12% of this fish maw is sold in Merauke, Indonesia, highlighting the prevalence of cross-border trade. The data also revealed that 35% of the fishing nets used are of a size that is prohibited.

The advent of technology, including motorised boats and mobile phones, has made it easier for illegal fishing and trading to proliferate. Coordination of cross-border trades has become more accessible and rapid movement enables traders to evade detection more effectively. Integrating modern fishing rules into local laws will empower village courts to enforce regulations and impose fines, creating a strong deterrent to non-compliance and helping to support more sustainable fishing practices.

Creating a regulated fish trade area near the Papua New Guinea-Indonesia border is expected to enhance MCS efforts, ensuring compliance with fishing regulations. This will also facilitate fair trade and benefit all stakeholders in the fishery sector. While plans for community-based MCS are yet to be fully implemented, ongoing training and awareness efforts have raised awareness of fisheries management and highlighted the need to report violations. With the implementation of the FAFMP, success stories in combating IUU fishing and improved fisheries management may soon become more commonplace.





Celebrating a Conservation Milestone: The Release of Baby Sea Turtles at Com Beach

By Dominica Paula Jeronimo Guterres

Timor-Leste, with its stunning 747-kilometre coastline and a vast ocean expanse covering 75,000 square kilometres, is part of the Coral Triangle – a global hotspot for marine life, home to numerous corals, fish and whale sharks, to name just a few species. Among these treasures are three of the world's seven endangered sea turtles.

However, sea turtles in Timor-Leste, like in many other coastal regions, face a number of significant challenges. They are hunted for food, their habitats are being subjected to environmental destruction, and they also become trapped in fishing gear as the result of unintended bycatch. To make matters worse, the impacts of climate change – such as rising sea levels and increases in ground temperatures – are destabilising turtle nesting sites.



Participants join the journey as baby sea turtles make their way to the ocean at Com Beach

Sea turtles are vital to ocean health, as they nurture seagrass and coral ecosystems, provide refuge for other marine species and help balance the marine food chain. As their numbers dwindle, these critical ecological roles come under threat.

In places like Com in the Lautem Municipality of Timor-Leste, sea turtles often nest on the shores. Sadly, many of their eggs are collected and eaten, particularly around Muapitin Village. This activity poses a significant threat to the turtle population, necessitating urgent action to safeguard these remarkable creatures and aid in their recovery.

Nino Konis Santana National Park (NKSNP) holds a unique distinction as the only national park in Timor-Leste. Established in 2007 under Government Resolution No. 8/2007, this vast park spans 1,236 km² and encompasses both marine and terrestrial ecosystems across six villages: Com, Lore I, Bauro, Mehara, Muapitin and Bauro. This ambitious initiative aims to preserve the rich biodiversity of the region, with a particular emphasis on protecting endangered species like sea turtles. Additionally, the park honours the memory of Nino Konis Santana, a national hero of the independence movement.

Sea Turtle Conservation in Com

The Arafura and Timor Seas Ecosystem Action Phase II (ATSEA-2) Project, in collaboration with local NGO called Programa Spesifiku fo Prioridade ba Ema Kiak (PROSPEK), has been instrumental in supporting turtle conservation groups in Com. The project's multifaceted contributions include conducting training sessions on value chains, business management and conservation related to turtle protection.

This partnership has built a turtle protection fence, installed clean water supply connections, established turtle ponds, rehabilitated training and meeting centres, provided seawater supply and connections for the turtle ponds, engaged in handcraft activities to promote local *tais* (woven textiles) and accessories, established a fishpond and planted trees around the turtle conservation area for reforestation purposes.

As part of the conservation plan, Com Beach was chosen as the venue for a heartwarming sea turtle release event. The event symbolised the community's commitment to conserving these marine creatures and the ocean ecosystem.

A number of distinguished guests attended the event, including H.E. Mr. Domingos dos Santos, State Secretary for Fisheries; Domingos Savio, Administrator of Lautem Municipality; and Acacio Guterres, former Director-General of Fisheries, Aquaculture and Marine Resources. Representatives from the Ministry of Agriculture, Livestock, Fisheries and Forestry at the municipal level; the Maritime Police Unit; local authorities; and members of local communities were also present. In total, 44 participants, comprising 32 males and 12 females, celebrated this remarkable event.

Baby Sea Turtles Release Program

The highlight of the day was the release of 200 baby sea turtles into the ocean. H.E. Mr. Domingos dos Santos, the newly appointed State Secretary for Fisheries, emphasised that this event could serve as a pivotal reference point for the government's plans over the next five years. He highlighted the significance of this conservation initiative within the broader framework of government policies and sustainable environmental practices.

This event is expected to influence future government plans and environmental policies, particularly those of the Ministry of Agriculture, Livestock, Fisheries and Forestry, as it demonstrates the community's commitment to conservation. This heartening event has significantly heightened local community awareness regarding sea turtle conservation and environmental protection. Local communities have agreed to actively participate in continuing this conservation project, with various groups in Com now refraining from hunting sea turtle eggs.

The next steps for sea turtle conservation in Com Beach and NKSNP will involve designing a handbook/SOP for the turtle conservation group in Com, ensuring the continuation of conservation efforts. Although specific data on improvements in sea turtle populations are currently unavailable,



Baby sea turtles taking their first steps into the ocean at Com Beach

the collective commitment to safeguarding vulnerable turtle eggs through conscientious and dedicated actions is making a meaningful impact.

For those interested in supporting these vital conservation initiatives, getting involved in efforts to protect vulnerable sea turtle eggs can make a world of difference. Your dedication can help ensure the continued existence of these magnificent sea turtles and the preservation of Timor-Leste's marine treasures for generations to come.



Tara Bandu: From Customary Law to Food Security and Coastal Ecosystem Conservation

By Stella Yovita Arya Puteri

Throughout generations, coastal and marine resources have been a lifeline for local communities, who have consistently employed sustainable and wise practices. This can be witnessed in Viqueque, Timor-Leste, one of the Arafura and Timor Seas Ecosystem Action Phase II (ATSEA-2) Project's working areas. Their collective mission involved an in-depth exploration of the methods employed by these communities to balance nature conservation and cultural preservation while upholding local food security. For the many coastal communities whose livelihoods are intricately tied to the sea and coastal regions, the solution often lies in a well-established customary law known as *Tara Bandu*.

Rooted in generations of tradition, *Tara Bandu* is central to food security and the preservation of coastal ecosystems in Timor-Leste. This customary law was established through consensus between

three sub-districts (*sucos*) located in the Lake We Ai-Foun area: Suco Bahalarawain, Suco Uma Uain Craic and Suco Uma Quic. This practice determines the timing of harvesting activities to protect the lake's resources (including milkfish and shrimp) and maintain the ecological balance.

As part of *Tara Bandu*, it is forbidden to cut down any of the trees that surround the lake, as they help to prevent erosion. This measure is crucial for safeguarding the long-term sustainability of the area and the preservation of the coastal ecosystem. To ensure compliance with these regulations, monitoring and enforcement activities are carried out by a team that has been selected by the respective Suco leaders in Bahalarawain, Uma Uain Craic and Uma Quic.

Before *Tara Bandu* can be officially instated, a ceremonial event is held, during which pigs, buffaloes and chickens are sacrificed. After approximately three years, the harvesting activities are initiated, taking into account the collective observation and assessment of the lake's resources. Responsibility for the lake and the implementation of *Tara Bandu* practices is shared equally among the ten villages within the three sucos, which include Bahalarawain, Uma Uain Craic, and Uma Quic.

Local communities in these sucos recognise the potential risks associated with exploiting natural resources, referred to locally as *karma*. This understanding reinforces their commitment to the principles of *Tara Bandu*, in order to maintain the sustainability of the lake and its surrounding ecosystem.

Prohibition periods are determined by heads of the community, who assess local ecosystem health to determine the appropriate duration of fallow periods and decide when the time is right to lift the restrictions. The community members conduct visual observations to set timings for opening the *Tara Bandu* harvesting. If there is a significant decline in the lake's resources, the Suco leaders are informed to reconsider opening the harvesting activities.

During the harvesting period, communities focus on catching mud crabs and shrimps for daily consumption rather than commercial purposes. Depending on the skills of the individuals involved, the harvest can sustain households in Bahalarawain, Uma Uain Craic, Uma Quic and other nearby villages for up to three months. Typically, the harvesting period lasts for one week, with activities taking place throughout the day.

To support the local fisherfolk communities, organisations like the Ministry of Agriculture and Fisheries (MAF) of Timor-Leste, through the Arafura and Timor Seas Ecosystem Action Phase II (ATSEA-2) Project, have provided training in fishing gear and boat-marking; activities that help fisherfolk comply with regulations and gain official identification of their vessels. Once the boat is registered, they can access the necessary government support more easily. These training programs are designed to raise awareness among fisherfolk about the benefits of registering their boats and obtaining licenses.



Fisherfolk gather around the lake where *Tara Bandu* is applied

The residents of Bahalarawain, Uma Uain Craic, Uma Quic and surrounding areas, such as Joao Pinto, rely on fishing, livestock farming and agriculture as their primary source of livelihoods. The training and capacity-building efforts provided by ATSEA-2 have not only improved their knowledge and skills, but also helped protect their interests and secure necessary licenses. As a result of the training, fisherfolk in these sucos have become more actively involved in the boat-marking program.

Tara Bandu is an important cultural and environmental practice in Timor-Leste. By promoting sustainable harvesting practices, these customary regulations support food security and contribute to the conservation of natural resources in and around Lake We Ai-Foun. Through training programs and collaborative efforts with government entities, the implementation of *Tara Bandu* has been further strengthened. Ultimately, this approach has contributed to the well-being of residents in these areas and the health of their surrounding environment.



ATSEA-2 Regional Project Management Unit

3rd Floor Annex Building of Tuna Research Center, MMAF
Jl. Mertasari No.140 Sidakarya,
Denpasar 80224, Bali, Indonesia

P: +62 361 448 4147

E: infoatsea2@pemsea.org

W: <https://atsea-program.com/>