

# ATSEA

## NEWSLETTER

From Awareness to Action:  
Tackling Transboundary Issues and  
Securing Sustainability



# Together, Better, Stronger

ATS Stakeholders:  
Shaping the Future  
of the ATS Region



ATSEA-2 Annual Report 2021:  
Together, Better, Stronger

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Together, Better, Stronger



## Implementing CCA strategies in Oeseli Village, Rote Ndao

Located at the southernmost point of Indonesia's East Nusa Tenggara (NTT) Province, Oeseli Village was once a military base, but is now better known for its initiatives to protect vulnerable species and habitats. Home to around 2,000 residents, the village was the subject of two research methodologies implemented by the ATSEA-2 Project in 2021: community immersion and focus group discussions (FGDs).

The Project set out to build rapport with, observe and listen to the community and share emerging findings with them. The project also involved underwater observation of coral reefs, fishing and participatory mapping to identify the location of the fish and their habitats.

**“The weather at sea is growing more unpredictable and the seaweed gets damaged, turning mushy, like porridge. It didn't used to be like this, but now the weather is more temperamental.”**

- Me  
a seaweed farmer from Oeseli Vill

The FGDs provided more detail on the main challenges experienced in Oeseli Village. For example, the quantity of fish is in decline, especially for seafish, lobster and snail. Moreover, many families rely on income generated from seaweed production, but quality and quantity are also deteriorating. Discussions with local stakeholders confirmed that the reefs are being destroyed, that illicit hunting of turtles continues, and potassium and other poisons remain prevalent in fishing. Mangroves and seaweed beds are not viewed as alternative sources of income, although economic

In the same FGDs, community members identified local adaptive actions and based on a series of criteria, including their perceived effectiveness and community acceptance, along with cost and feasibility. The group members then voted to of the identified actions would result in the most positive impacts for the community.

An action plan for climate change adaptation in Oeseli Community was developed and submitted to the local government for consideration in the ICM action plan of the District of NTT Province.

# WELCOME

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

We are delighted to present you with a comprehensive overview of the project's initiatives during the second quarter of this year.

In this edition, we invite you to embark on a captivating journey through Indonesia, where we will delve into the fascinating tale of salted fish production by the coastal community in Aru Archipelago. Additionally, we will explore the distinctive fishing zone known as the *sabi* area in Papua New Guinea, where local communities passionately adhere to traditional customs in order to safeguard fish sustainability.

We will also venture to Viqueque, Timor-Leste, where fisherfolk face challenges in accessing crucial equipment and infrastructure, yet persistently strive to preserve marine ecosystems.

At the regional level, our focus is on the enlightening lessons gleaned from Darwin, Australia following an exchange program on Rights-based Fisheries Management, which seeks to recognise indigenous rights to natural resources.

We hope that you find this issue of the 2023 newsletter engaging and informative, and we invite you to continue accompanying us on this remarkable journey throughout the year.

Take care and stay well,  
The ATSEA-2 team

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### Talk to us

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# From Awareness to Action: Tackling Transboundary Issues and Securing Sustainability

By Stella Yovita Arya Puteri

The International Day for the Fight against Illegal, Unreported and Unregulated (IUU) Fishing was celebrated on 5 June 2023. This was followed by World Ocean Day on 8 June 2023. These two important events helped to bring the importance of our work into focus, highlighting the need for collaboration in safeguarding our oceans, while also reiterating the critical challenges these efforts continue to face.

International cooperation is essential to effective ocean conservation. Countries in the Arafura and Timor Seas (ATS) region, including Australia, Indonesia, Papua New Guinea and Timor-Leste, have joined forces through the ATSEA-2 Project and are working to combat IUU fishing, protect valuable fisheries resources and mitigate marine pollution.



*A fisher from Merauke showcases his Barramundi catches*

The ATSEA-2 Project, in collaboration with the Regional Plan of Action to promote responsible fishing practices, including combating IUU Fishing (RPOA-IUU), plays a leading role in addressing the urgent issue of illegal fishing in the ATS region. Immediate action is needed to prevent further depletion of fish stocks and ensure the long-term sustainability of fisheries. Managing shared resources and overlapping maritime boundaries poses a challenge to effective fisheries management and enforcement; a problem exacerbated by illegal fishing activities that disregard regulations and hinder regional cooperation.

In addressing these challenges, the ATSEA-2 Project and the RPOA-IUU place an emphasis on collaboration, information sharing and capacity building in regard to the monitoring and control of illegal fishing. Together, we aim to strengthen governance, promote responsible fishing practices and ensure sustainable resource management. Illegal fishing not only affects the environment, but also has socio-economic impacts on coastal communities that rely on fisheries. By tackling illegal fishing in the ATS region, we can also protect the marine environment, preserve biodiversity and promote sustainable economic development.

Addressing marine pollution, particularly from abandoned fishing gear, is a crucial part of the work undertaken by the ATSEA-2 Project and our partners. By implementing effective waste management systems, raising awareness about the issue and promoting proper waste disposal, we are taking steps to combat plastic pollution and moving towards the realisation of a more circular economy for maritime industries and fisheries activities.

Another major threat to the ATS region is oil spills, which can have severe consequences for the marine environment. By improving regional coordination, implementing best practices and raising awareness about oil spill prevention and response, the region can reduce the ecological impacts of such incidents. Collaborative efforts among nations in the region will build their capacity to prevent and effectively respond to oil spills, thereby minimising the impact of these disasters on marine life and coastal communities.

In addition, it is crucial to prioritise the conservation of endangered, threatened and protected (ETP) species and establish Marine Protected Areas (MPAs) in the ATS region. Once again, in managing the transboundary or migratory



*Engaging discussions between the ATSEA-2 Project team and fishers in Merauke*

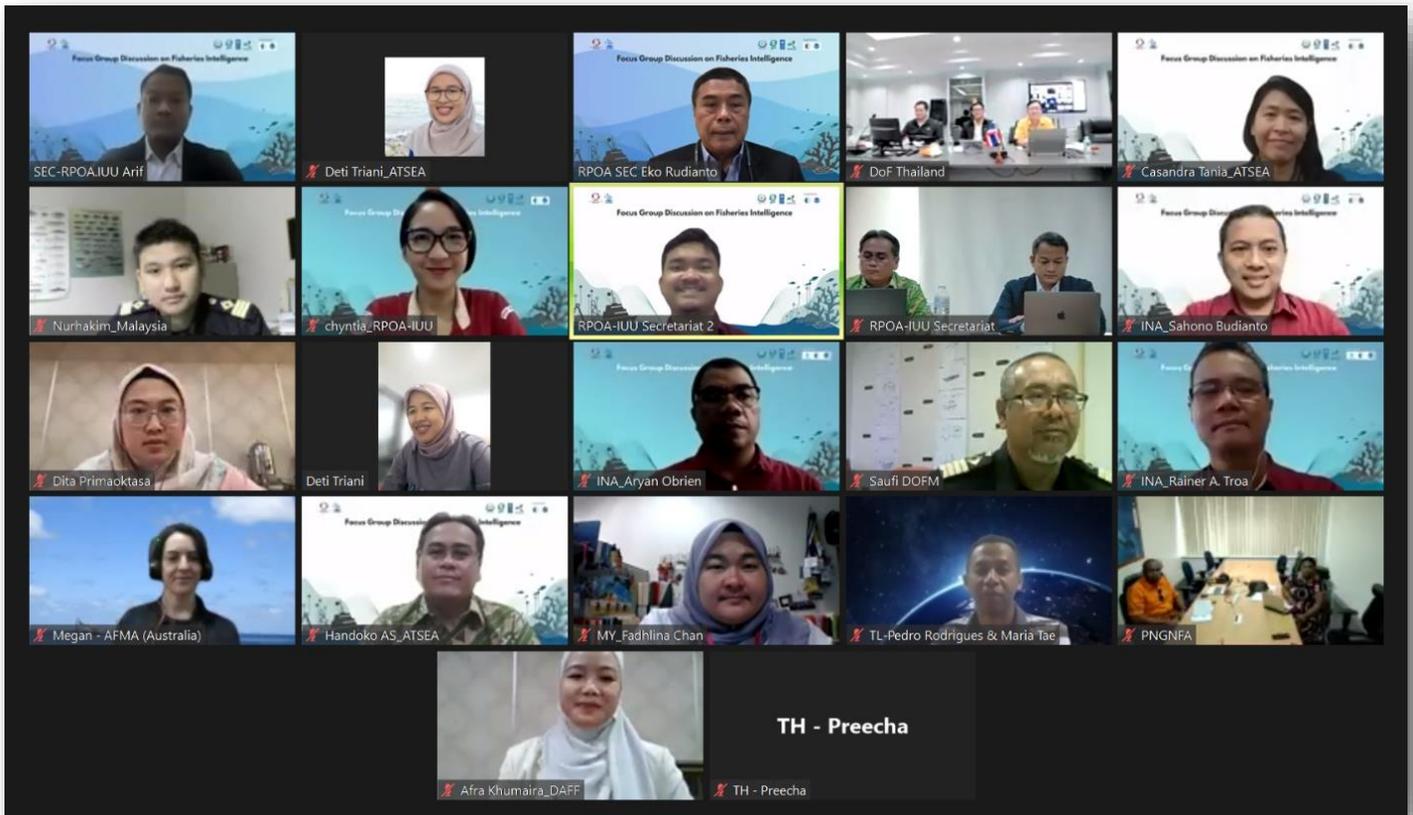
populations of ETP species and implementing agreed-upon plans effectively, regional cooperation is vital. With clearly designated and properly managed MPAs, the ATS region can create protected areas that safeguard biodiversity and critical habitats, while also supporting the continued productivity of sustainable fisheries.

The ATSEA-2 Project's mission in the ATS region is focused on transboundary collaboration; catalysing social, ecological and economic progress through partnerships centred around the blue economy. These efforts acknowledge the inseparable linkages between a healthy marine environment and human well-being; by promoting responsible fisheries, tourism and renewable energy, ATSEA-2 supports the livelihoods of coastal communities, while also ensuring the long-term sustainability of marine resources.

Finally, mainstreaming Gender Equality and Social Inclusion (GESI) is needed to ensure women and men participate in and benefit from conservation efforts equally. Empowering coastal communities, including Indigenous groups, to be actively involved in marine conservation initiatives ensures

that diverse perspectives and traditional knowledge are taken into account in decision-making processes. By addressing the specific challenges faced by women and marginalised groups in the ATS region, the ATSEA-2 Project strives to create a fairer and more sustainable future for everyone.

It is clear that the ATS region continues to face a number of pressing transboundary issues, each of which will demand collaborative efforts from various stakeholders and government bodies. The ATSEA-2 Project, in collaboration with the RPOA-IUU, is taking the lead in combating IUU fishing and marine pollution. By fostering collaboration, supporting the expansion of MPAs, embracing regional partnerships and promoting GESI, ATSEA-2 continues working to tackle these challenges. Ultimately, through collaboration and tireless commitment to our cause, these efforts will help to ensure sustainable resource management, and preserve the health and vitality of our oceans for generations to come.



# Bridging the Gap: Fostering Cooperation in Fisheries Intelligence

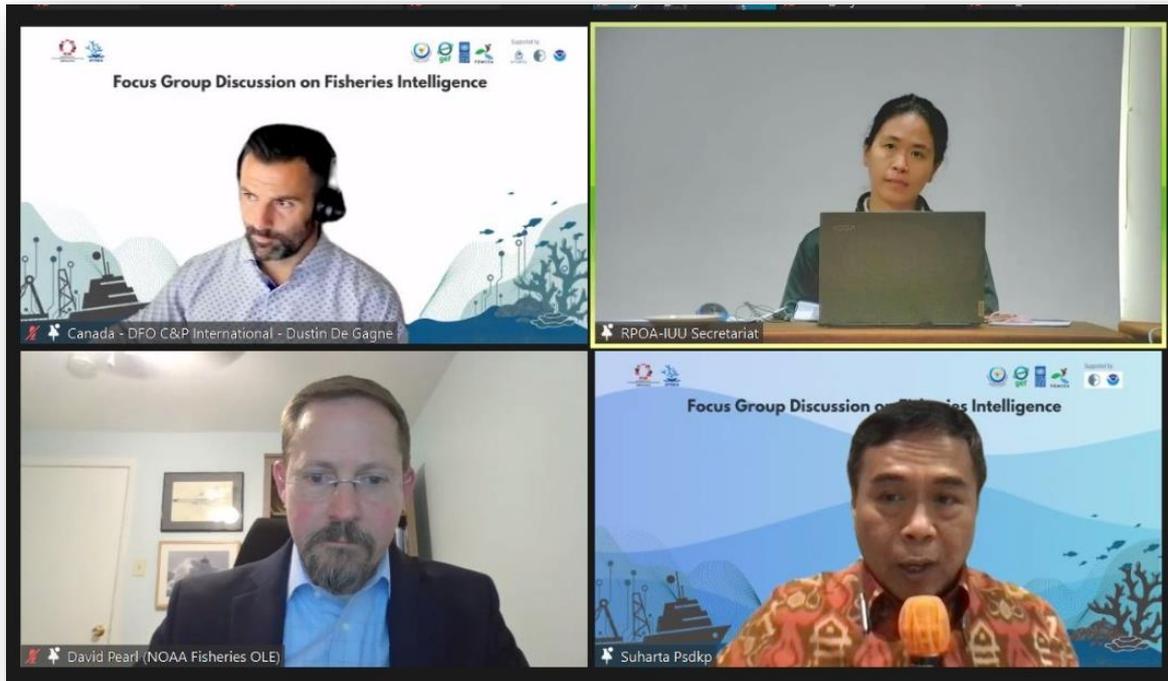
By Casandra Tania

On 15 and 16 June 2023, the Regional Plan of Action to combat Illegal, Unreported and Unregulated Fishing (RPOA-IUU) and the ATSEA-2 Project organised a hybrid Focus Group Discussion (FGD) on fisheries intelligence. The FGD brought together representatives from seven RPOA-IUU-participating countries: Australia, Cambodia, Indonesia, Malaysia, Papua New Guinea, Thailand and Timor-Leste. It served as a follow-up to the previous fisheries intelligence training, conducted in April 2022, when a recommendation to explore the establishment of a Fisheries Intelligence Network (FIN) by the participating countries was put forward.

The primary objective of the most recent FGD was to facilitate knowledge sharing among the participating nations regarding the acquisition and management of fisheries information and intelligence. Furthermore, the attendees had a

valuable opportunity to learn from esteemed experts hailing from renowned institutions like INTERPOL, Canada's Fisheries and Oceans and the National Oceanic and Atmospheric Administration Fisheries Office of Law Enforcement Fisheries Office of Law Enforcement (NOAA OLE).

The FGD emphasised there is a clear distinction between information and intelligence. Jamie Tawara Bailey, the Criminal Intelligence Officer of INTERPOL, reiterated that intelligence is information plus analysis; information is openly available, while intelligence is not. Information is presented raw and as such it is not reliable or actionable until it has been properly assessed. Therefore, in-depth analysis is key to converting information into actionable intelligence based on broader context and an awareness of the overarching narrative, which can then form the basis for decision-making and law enforcement.



Discussion with between representatives of ATSEA-2 (right), Dustin de Gagne (top left) from Canada's Fisheries and Oceans and David Pearl (bottom left) from NOAA OLE

Dustin de Gagne, Senior Program Officer of Canada's Fisheries and Oceans, emphasised the need for fisheries intelligence cooperation among neighbouring countries, in response to the many perpetrators of illegal, elaborate and industrial-scale fishing activities operating transnationally and across multiple jurisdictions. Each country and/or regional organisation should establish governance mechanisms tailored to their available resources, membership distribution, objectives and scope. Capacity-building activities to advance fisheries intelligence implementation should include business planning, specialised training (e.g., Open Source Intelligence, information-handling, etc.), quality control, security frameworks and partnerships.

David Pearl, Investigative Analyst of NOAA OLE, further underscored the importance of sharing fisheries intelligence and outlined the means to achieve it. He highlighted the significance of intelligence-sharing agreements, such as Memorandums of Understanding (MoU) and cooperative agreements between departments within countries (internal) or among countries (external). These agreements are expected to outline the parameters for sharing intelligence, including the parties involved, conditions and motivations. The process of

establishing such agreements can involve specific agencies or partners who have the capability to facilitate sharing.

It was also observed that most RPOA-IUU countries already employ various technologies and systems to gather fisheries information, including Vessel Monitoring Systems (VMS), Automatic Identification Systems (AIS), radar and remote sensing. Regardless, further work is needed to optimise these systems and deliver the requisite intelligence. Only Australia has already differentiated fisheries information and intelligence by having two separate units (known as the fisheries information and intelligence units). It was concluded that each of the countries are currently at different stages of utilising and implementing fisheries intelligence.

Following the FGD, the RPOA-IUU Secretariat will facilitate another FGD to develop a strategic plan for fisheries intelligence for RPOA-IUU-participating countries, organise capacity-building activities through training and officer exchange, facilitate a gap analysis of intelligence implementation in every country, and establish a fisheries intelligence working group. ATSEA-2 will support the RPOA-IUU Secretariat by organising another training session on fisheries intelligence, to be held in August 2023.

# Protecting Migratory Species and Achieving Global Conservation Goals: ATSEA-2 Project Presents Findings to International Workshop

By Stella Yovita Arya Puteri & Deti Triani



Image credit: Randy Harwood

From 15-17 May 2023, the ATSEA-2 Project participated in a workshop entitled “Protecting Marine Migratory Species and Achieving the 30x30 Target” in Manado, Indonesia. This three-day event, organised by the European Union Ocean Governance project and the Marine Protected Area (MPA) Working Group of the Coral Triangle Initiative on Coral Reefs, Fisheries and Food Security (CTI-CFF), set out to safeguard marine biodiversity and contribute to global conservation goals.

The workshop emphasised the importance of transboundary conservation measures in protecting migratory species and maintaining ecological balance. It addressed the movement of migratory marine mammals across national boundaries, with an emphasis on promoting transnational cooperation. Aligned with the Kunming-Montreal Global Biodiversity Framework, the workshop focused on establishing well-connected and equitable systems of protected areas to achieve effective conservation and management.

The ATSEA-2 Project, represented by Deti Triani (Marine Technical Officer), shared key insights related to the development of MPA networks in the Arafura and Timor Seas (ATS) region. She provided a profile of the region and outlined the current status of sea turtles, while also presenting the project’s regional sea turtle action plan and MPA network design proposal.

“The ATS region is home to diverse marine life,” explained Deti during her presentation. “In addition to the Coral Triangle, the region [is home to] large mangrove areas and is extremely rich in non-living natural resources, including oil and gas reserves,” she added. She also highlighted that the economic value of the ATS region is currently estimated at around US\$ 7.3 billion per year.

Following a Transboundary Diagnostic Analysis (TDA) that was conducted in the first phase of the project, several major threats to the ATS region

have been identified. As Deti explained during her presentation, these include unsustainable fisheries, habitat modification and degradation, pollution, the decline of threatened and migratory species, and the impacts of climate change.

To address these challenges, ATSEA-2 is focusing on implementing a Strategic Action Plan (SAP) to improve the carrying capacity of the Large Marine Ecosystem (LME), thereby helping to support ecosystem services and conserve coastal and marine biodiversity.

In regards to migratory species, sea turtles are particularly vulnerable to threats such as bycatch in fisheries, entanglement and ingestion of discarded fishing gear, along with predation, poaching and climate change. Legal infrastructure is crucial to sea turtle protection, involving national provisions and relevant international conventions and initiatives, fisheries management and management by Indigenous communities.

Deti continued by sharing information related to ATSEA-2's Regional Sea Turtle Action Plan for the ATS, which focuses on reducing the impact of discarded fishing gear, establishing a funding mechanism, reducing sea turtle bycatch in Arafura Sea prawn fisheries (Indonesia) and enhancing sea turtle conservation along the southern coast of Timor-Leste, the Aru Archipelago and Papua New Guinea.

"I think we all agree the best way to protect sea turtles is by making a network of MPAs," explained Deti, before revealing that the ATSEA-2 Project has already designed an MPA network for the ATS region, comprising 93 existing and proposed MPAs and covering a total area of 271,406 km<sup>2</sup>.

"Additionally, there are 18 Areas of Interest (AOI) totaling 29,467 km<sup>2</sup>, including contributions from the previous and post-design phases – if all these AOI are followed up as a single MPA or OECM, it could expand protected areas in ATS region by an additional 10 percent," Deti added.

To support this process of expansion, ATSEA-2 has been influential in the establishment of two new MPAs, located in Kolepom Island, South Papua and Manufahi Municipality, Timor-Leste. Moreover, support for existing MPAs, such as Nino Konis Santana in Timor-Leste and Southeast Aru MPA in Maluku, has been provided, particularly in regard to



*Deti Triani, ATSEA-2 Marine Technical Officer, provides valuable insights into the development of Marine Protected Area (MPA) networks in the Arafura and Timor Seas (ATS) region*

improvements in management effectiveness, updates to management plans and the development of a financial sustainability plan.

The Project's MPA network and Regional Action Plan for sea turtles could not have been developed without continuous support from the ATSEA-2 Regional Steering Committee during an ongoing process of national and regional consultation. In addition, collaborators such as CTC, YKAN, Dr Nicolas Pilcher from Marine Research Foundation and other experts such as Dr Alison Green and Dr Kiki Dethmers, have each played their part in the analysis and refinement process, while a data sharing agreement with WWF-Indonesia has been invaluable to conservation efforts.

Work completed thus far by the ATSEA-2 Project and its network of partners, combined with lessons learned from interventions in the ATS region, underscore the importance of international cooperation and effective conservation strategies in protecting migratory species and preserving marine ecosystems. Looking to the future, these collaborative networks will be key to achieving the 30x30 target, thereby helping to protect species in the ATS region and beyond.

# Regional Strategic Planning Workshop Sets Path for Resilient Arafura and Timor Seas Ecosystems

By Ni Luh Putu Yulia Dewi



In an effort to promote sustainable development and address pressing regional challenges, a Regional Strategic Planning Workshop was held in Bali, Indonesia on 30 and 31 May 2023. The offline workshop brought together approximately 35 key stakeholders, including ATSEA-2 National Project Directors, members of the Regional Working Group, representatives from the United Nations Development Programme (UNDP) Indonesia, the Executive Director of PEMSEA, regional consultants for Strategic Action Plan (SAP) Updating and SAP Financial Planning, as well as members of the ATSEA-2 regional and national project teams. The workshop aimed to refine activities and establish a regional consensus on the SAP framework, with the ultimate goal of paving the way to a more sustainable future.

The Regional Strategic Planning Workshop in Bali had three main objectives: first, refining the draft SAP framework and content; second, securing agreement on the SAP format and presentation; and third, the completion and endorsement

process. Throughout the workshop, participants engaged in meaningful discussions and collaborated to achieve these objectives.

“In our discussions, I hope we can keep in mind our long-term vision of a healthy, resilient and productive ATS that supports human well-being and nature”, said Aimee Gonzales, the Executive Director of PEMSEA, in her opening remarks at the workshop. She went on to reiterate that the meeting should focus on the “key targets, actions and activities (intended for inclusion in) the 10-year SAP that will bring us closer to this vision.”

Iwan Kurniawan, the permanent project representative from UNDP Indonesia, drew participants' attention to a number of key milestones on the horizon that are connected to the SAP. As he explained, “I look forward with great anticipation to the completion of the updated SAP draft, its review during the RSC Intersessional Meeting in July 2023, its finalisation

and endorsement in the 5th RSC Meeting in November 2023, and its formal adoption through a new Ministerial Declaration in 2024."

Yayan Hikmayani, National Project Director of Indonesia, highlighted the country's commitment to meeting these goals, while emphasizing the significance of aligning strategic issues and priority actions with national concerns and strategic programs. "By harmonising these aspects," Hikmayani explained, "we can strengthen our country's dedication to implementing the SAP and National Action Program (NAP) in future initiatives, demonstrating our unified commitment to sustainable development."

"We look forward to refining and validating our national inputs on the SAP framework and content," added Noan Pakop, National Project Director of Papua New Guinea, who also looked ahead to the workshop activities with a sense of optimism. "This collective endeavour will ensure a more comprehensive and effective plan that resonates with the diverse needs of our region," he added.

Acacio Guterres is the National Project Director of Timor-Leste. He also conveyed his country's resolute stance on embracing the SAP and the mechanisms for progress outlined therein. "In our forthcoming role as the host of the Ministerial Forum," Guterres declared, "we have already strategised to adopt the SAP, NAP, and RGM; despite many challenges, we are committed to convincing and inspiring our government and partners to join us in this transformative journey toward sustainability."

One of the workshop's highlights was the generation of additional inputs and consensus on the draft SAP Framework. This involved the creation of a revised, simplified and focused framework, which identified key components, operational objectives and priority actions. Furthermore, participants provided valuable inputs on the SAP structure format, style and presentation, including a dedicated section on cross-cutting issues.

An important suggestion emerged from the workshop, calling for the development of an information package that could serve as a link between the SAP, Regional Governance Mechanism (RGM) and financing. This would offer



*Iwan Kurniawan, the permanent project representative from UNDP Indonesia delivers his welcome remarks*

a valuable resource to governments, by providing guidance and reference points in their sustainability efforts.

To ensure the successful completion of the updated SAP, participants reached an agreement on the remaining steps, timelines and the roles and responsibilities of various stakeholders. This forward-looking approach was utilised in order to maintain momentum and facilitate the timely implementation of the SAP.

Following the workshop, the Regional Working Group and the Regional Project Management Unit are set to review the updated SAP exposure draft. This critical review process will ensure the document aligns with the collective vision established during the workshop. Subsequently, the completion of the first Draft Updated SAP will mark an important milestone in the progress of sustainable development for the ATS region. Finally, the first draft of the SAP will be presented to the Regional Steering Committee (RSC) during an inter-sessional meeting in July 2023, further solidifying their commitment to regional sustainability.



## Scaling Up Rights-based Fisheries Management in the Arafura and Timor Seas

By Casandra Tania

In many countries, ‘open access’ arrangements are the status quo, providing all fishers within a defined jurisdiction (e.g., national) the same rights to access fisheries resources. This free-for-all approach results in increasing numbers of fishers competing for finite resources. Unsurprisingly, this puts strain on fish stocks and can dramatically impact ecosystem health.

Conversely, Rights-based Fisheries Management (RBFM) approaches intend to overcome these challenges by granting access to resources to those with recognised rights (for example, based on fishers’ place of domicile, their ethnicity or traditional practices) and promoting stewardship of those resources by the rights holder. This approach is deemed compatible with the Arafura and Timor Seas (ATS) region, where remote areas have limited access and are inhabited mainly by local communities who rely heavily on coastal and marine resources.

The ATSEA-2 Project aims to promote RBFM practices for the ATS, acknowledging local communities' authority to manage and use their coastal and marine resources. To do so, ATSEA-2 has developed a strategy to scale up RBFM in the ATS and encourage customary groups to participate in fisheries management by recognising and adopting local customary practices (Fox et al., 2021).

One example of such practices can be found in Aru, Indonesia. Here, customary laws known as *sasi* involve placing temporary prohibitions on the harvesting of marine resources, imposed voluntarily by the community themselves. Elsewhere, in the South Fly District of Papua New Guinea, similar approaches are being implemented via the Treaty Villages initiative; and in Viqueque, Timor-Leste, through *tara bandu*. Each of these measures, imposed by and for the local community, are designed to support the prudent and sustainable management of marine resources.



David Ciaravalo, CEO of AFANT (Amateur Fishing Association - NT Recreational Fishing Peak Body) shared a presentation on recreational fishing

## Building capacity through regional exchange in Darwin, Australia

From 20-23 June 2023, the ATSEA-2 Project organised a regional exchange on RBFM in Darwin, Australia. Presented in collaboration with Melbourne-based Fishwell Consulting, the event was attended by 15 participants from Indonesia, Papua New Guinea and Timor-Leste. The main objective of the exchange was to enhance participants' understanding of the Australian fisheries context, particularly in regards to the ongoing implementation of RBFM. It provided a platform for participants to discuss lessons learned and challenges faced in managing both commercial and artisanal/community-based fisheries. Furthermore, the exchange aimed to identify opportunities for adapting and replicating best practices and lessons learned from Australia in other areas of the ATS region.

The exchange covered a range of activities, including presentations, discussions and field visits, which ensured a comprehensive learning experience for the participants. A total of eight speakers – representing esteemed Australian agencies such as Marine Parks, Northern Territory (NT) Seafood Council, Aboriginal Sea Company, Amateur Fishing Association of the NT (AFANT), Charles Darwin University, NT Fisheries and the Australian Fisheries Management Authority – engaged with the participants. These speakers provided valuable insights into Australia's management of commercial, recreational and aboriginal/community-based fisheries. Through these presentations, participants gained a deeper understanding of how Australia effectively balances the various facets of fisheries. The exchange facilitated a dynamic exchange of knowledge and expertise, enabling fruitful discussions on the various strategies employed by Australia to achieve sustainable fisheries management.

“During the Regional Exchange I developed my knowledge of RBFM in the Arafura and Timor Seas,” explained Siti Amania Raydesyana from the MMAF. “We share the same ocean, so the characteristics of the problems in each country are very similar,” she added. Siti went on to underscore the importance of working together to resolve existing issues affecting ocean sustainability. As she explains, “big things can always be achieved by starting with a small step.”



*Memorable group capture featuring enthusiastic participants of the regional exchange on Rights-based Fisheries Management in Darwin, Australia*

### **Recognising Indigenous rights to natural resources**

Steps to recognise Aboriginal rights have recently been taken by the Australian government, specifically in the Northern Territory (NT). As explained by Dr Ian Knuckey of Fishwell Consulting, the NT is at the forefront of this movement, recognising that Aboriginal people hold ownership over 85% of the coastline up to the intertidal zone. This has significant implications for commercial fishers, who not only require fishing licenses but also need permission from the Traditional Owners (TOs). This also applies to recreational fishing – a major industry and source of income for the territory.

In line with this approach, Dr Rachel Groom from Charles Darwin University (CDU) shared insights into how the Barra Project has attempted to incorporate Aboriginal perspectives into the fishery management review processes of NT barramundi fisheries, which supply the territory’s main commodity. Barramundi fisheries are socially, culturally and economically important; to manage them effectively, the Barramundi Fishery Management Advisory Committee (BFMAC) has been established.

CDU has been working to connect NT Fisheries and the Northern Land Council by bringing more voices from the TOs to the BFMAC. In addition, there has been an initiative to ensure TOs can reap economic benefits from fisheries through Aboriginal Coastal Licenses (ACL), whereby TOs can operate in closed areas with no competition from commercial fishers, provided they submit a business plan. The ACL quota is 5,000 tonnes/year/license.



*Dr Rachel Groom shares information related to the Barra Project*

### Practical experience, valuable insights

During the RBFM exchange, participants had the opportunity to visit Darwin Aquaculture Centre and Duck Pond – the local name for the Frances Bay Mooring Basin. At the aquaculture centre, they learned how the centre not only focuses on research into barramundi, jewfish, black-lipped oysters and other important commodities, but also how results of this research are used to support Aboriginal mariculture (black-lipped oysters) and restocking programs (barramundi).

At the Duck Pond, participants saw various types of fishing vessels utilising different fishing gear (e.g., trawls and traps) and observed the offloading of tropical snapper before they were sent out to the largest cities of Australia, such as Sydney, Melbourne and Brisbane. In addition to traps, the use of trawls in the tropical snapper fishery is permitted in designated spaces, with only a few licenses and after a strict environmental risk assessment – as explained at the exchange by Ms. Melanie Brenton from NT Fisheries.



Dr Ian Knuckey demonstrates the quality of red snapper caught



Black-lipped oyster - one species being cultivated at the Darwin Aquaculture Centre

The RBFM exchange in Darwin provided participants with valuable insights into how Australia strives to manage its fisheries while also recognising the rights of Aboriginal people. It emphasised the importance of acknowledging the rights of local communities, fostering community ownership and delivering greater economic benefits at the grassroots level. Although much work remains to be done in the ATS region, significant progress has already been made towards recognising and implementing RBFM practices.

Kiram Parr is a South Fly Fisheries Officer in PNG who found the exchange to be very informative, particularly in terms of how the NT Government are able to manage their fisheries resources with Indigenous rights incorporated into fisheries-based management. He had a number of valuable takeaways from the event: “I look forward to working with my communities, merging key things I noted during the workshop into my activity plan and working closely with the ATSEA-2 Project; I truly appreciate (this opportunity) and thank you very much.”

# Sharing the ATSEA-2 Project's Journey to Raise Awareness and Build Networking in China and Indonesia

By Stella Yovita Arya Puteri

The ATSEA-2 Project is focused on protecting the Arafura and Timor Seas (ATS) region for the benefit of people and nature. Central to this approach is raising awareness of the issues facing the region, while forging sustainable partnerships that can support long-term conservation efforts. With that in mind, the ATSEA-2 Project recently travelled to China, to share knowledge of the ATS with potential new partners.

From 22-25 May 2023, Dr Handoko Adi Susanto, the ATSEA-2 Regional Project Manager, visited the Fujian Institute for Sustainable Oceans (FISO) at Xiamen University. The visit, following an invitation from Prof. Xiongzhi Xue, the Dean of FISO, focused on exploring Marine Spatial Planning (MSP) and its significance for managing large marine ecosystems (LMEs). Xiamen University provided an ideal backdrop for this symposium, given its location in the vibrant coastal city of Xiamen and its history of groundbreaking advancements in integrated coastal and marine resources management.

## Highlighting success, understanding challenges

The visit focused on four key areas of discussion: the implementation and development of MSP in Indonesia; initiatives and strategies employed by the ATSEA-2 Project; insights and experiences gained from these experiences; and an overview of the challenges encountered in the application of MSP principles thus far, along with several success stories from project implementation.

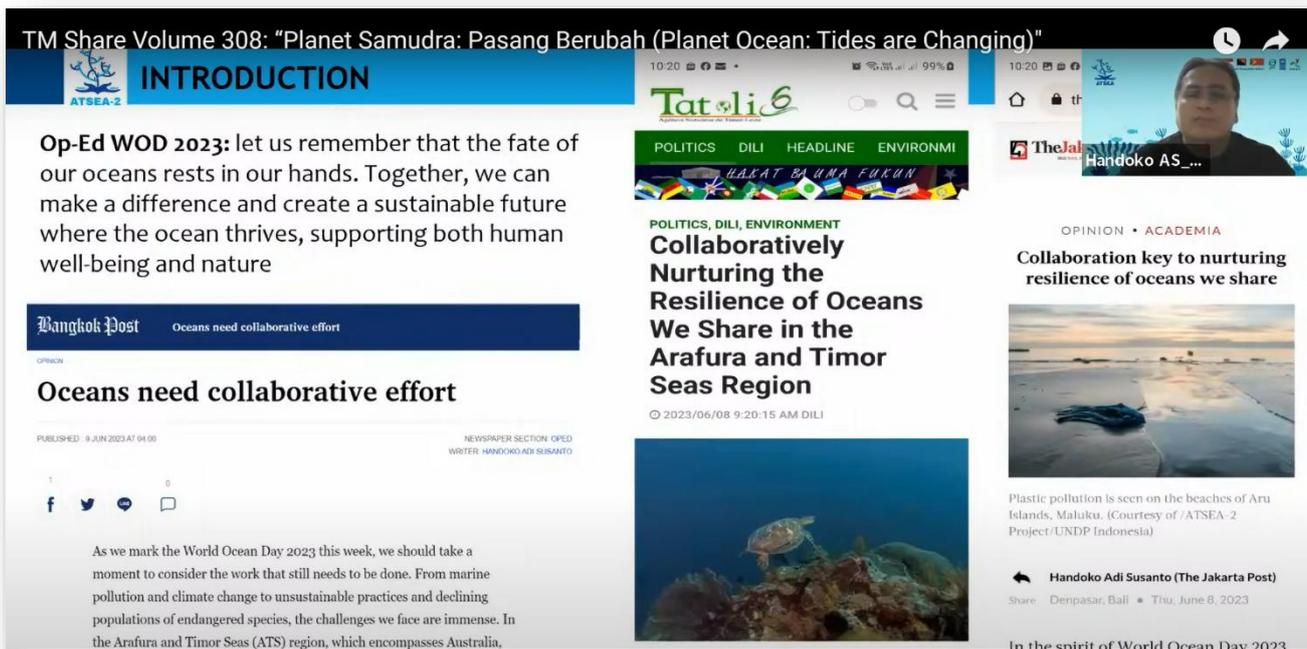
“Involving stakeholders at all levels is important for a successful MSP,” stated Dr Susanto in his opening remarks. “By considering their input, MSP can make better decisions and achieve positive outcomes; this collaborative approach ensures that the needs of all stakeholders are addressed, leading to the protection of marine ecosystems and maximising benefits for everyone,” he added.



*Dr Susanto presents good practices on provincial Marine Spatial Planning (MSP) development in Indonesia*

The visit was also intended to forge new collaborative links between Chinese partners and the various stakeholders in Indonesia, including the Indonesian Ministry of Marine Affairs and Fisheries (MMAF), the IPB University, Gajah Mada University (UGM), and the ATSEA-2 Project, with a view to developing potential new MSP pilot sites in Indonesia.

Various presentations focused on innovative approaches to sustainable ocean management, preserving marine ecosystems and ensuring the sustainable use of resources. Additionally, the academic exchange explored best practices in achieving a balance between environmental protection and socioeconomic development for sustainable ocean and coastal development.



Dr Susanto shares key takeaways on the ATSEA-2 Project's efforts to protect and preserve the oceans in the ATS region

In the spirit of partnership and sharing, fellow participants from Xiamen University will soon be joining the 4th International Conference on Integrated Coastal Management & Marine Biotechnology (ICMMBT), entitled "Good Practices and Innovations Towards Blue Economy" and organised by IPB University's Center for Coastal and Marine Resources Studies (CCMRS) in collaboration with the ATSEA-2 Project and the Archipelagic Island States (AIS) Forum as co-organisers.

### Commemorating World Ocean Day 2023

Shortly after returning from China, on 10 June 2023, Dr Susanto was also involved in the Teras Muda (TM) Share webinar, timed to coincide with World Oceans Day. Again, he highlighted the ATSEA-2 Project's dedication to ocean conservation in the ATS region and, as a key contributor to the event, presented valuable insights during the discussions. "We have been implementing various measures to address the transboundary challenges posed by climate change, overfishing and pollution that occur throughout the ATS region, including Australia, Indonesia, Papua New Guinea and Timor-Leste, where the ATSEA-2 Project works," explained Dr Susanto.

He added that collaboration with local communities has allowed the Project to develop sustainable fishing practices, establish marine protected areas (MPAs) and conduct effective awareness campaigns. The success of the ATSEA-2 Project can be attributed to collaborations with

relevant stakeholders, including governments, community organisations and NGOs; these partnerships have enabled initiatives to positively impact the marine environment and benefit local communities.

During the TM Share webinar, Dr Susanto shared best practices and lessons from the ATSEA-2 Project's work in the ATS region. Challenges, solutions and positive impacts were discussed, inspiring participants to contribute to ocean conservation. The project's commitment to preserving the ATS region's oceans was highlighted, with significant progress in protecting marine ecosystems and promoting sustainability through initiatives and collaborations. As in China, the aim was to inspire others to join in creating a healthier and more sustainable future for our oceans.

"Let us remember that the fate of our oceans rests in our hands," said Dr Susanto. "Together, we can create a sustainable future where the ocean thrives, benefiting both human well-being and nature," he added.

A full version of the public webinar can be accessed here: [bit.ly/TMshare-WOD](https://bit.ly/TMshare-WOD)







# Aru Archipelago's Hidden Gem: Apará Village and the Art of Salted *Balobo* Fish

By Iriansyah and Stella Yovita Arya Puteri

Tucked away in the Aru Archipelago in Indonesia's Maluku district, Apará Village is home to captivating traditions and a way of life unique to this remote corner of the world. Located on Workai Island, the village is blessed with access to the Southeastern Aru Conservation Area and the surrounding sea. The journey to get here is not an easy one, with limited access and few transportation options available. But despite these challenges, the community of Apará Village have been able to survive and thrive by relying on fishing and sea-related activities for their livelihoods.



Fisherfolks clean freshly caught balobo fish at the bustling wharf



Dried salted balobo fish is prepared for sale

## The Art of Fishing

Apara Village is home to skilled fisherfolk who employ a variety of techniques, showcasing their profound understanding and connection to the sea. From circular nets to longline fishing and diving for pearl shells and sea cucumbers, their expertise is diverse and varied. Their primary focus lies in capturing the halfbeak or ‘balobo’ fish (*Hemiramphus brasiliensis*), which is abundant in the shallow waters and coral reefs surrounding the village. This prized catch holds a special place within the community.

Once the *balobo* are caught, the fisherfolk of Apara Village demonstrate their skill in transforming them into salted fish, a delicacy highly regarded locally and further afield. They also sell live and dead fish to nearby companies, thereby expanding their reach and diversifying their sources of income. The production of salted *balobo* provides a dependable alternative for the community, ensuring they have the funds to meet their daily needs.

Developing raw *balobo* into salted fish is a labour-intensive process, primarily managed by the women of Apara Village. After returning from their one-day fishing operations, the fisherfolk meticulously clean the fish, carefully removing the internal organs and preserving only the body. The women then mix the cleaned fish with coarse salt, allowing it to rest overnight before brushing and drying it under the sun. This traditional method, influenced by weather conditions, typically takes at least two days in favourable weather and slightly longer during rainy periods.



### The process of making salted *balobo* fish

- 1 Catch fresh *balobo* fish
- 2 Remove the head upon arrival at the wharf
- 3 Clean and soak the *balobo* fish with salt
- 4 Dry the fish in the sun for one day, resulting in salted *balobo*
- 5 Process the salted *balobo* fish for sale



### Market Opportunities and Challenges

While Aparā Village boasts a rich tradition of salted *balobo* fish production, the marketing network remains limited, with sales generally not reaching beyond the district level. However, there are high hopes that the local government will play a role in improving producer capacity, enhancing product quality and opening up opportunities for wider networking in the market. These efforts would not only benefit the community of Aparā Village, but also reveal their wonders to a broader audience.

Aparā Village's dedication to the art of salted *balobo* fish is a testament to the resilience and ingenuity of its community. In the face of limited access and challenging weather conditions, the villagers of Aparā persist in their pursuit of this unique craft, not only sustaining their livelihoods but also preserving their cultural heritage. As the local government works towards expanding opportunities and creating a wider market network, Aparā Village stands poised to share its enchanting traditions and delectable salted *balobo* fish with the world, inviting others to discover the hidden gem in the Aru Archipelago.

# Capacity Building on Marine Stewardship Council Certification for Shrimp Industry

By Sila Kartika Sari

The ATSEA-2 Project recently teamed up with the Coral Reef Rehabilitation and Management Project-Coral Triangle Initiative (COREMAP-CTI) to organise a comprehensive two-day capacity building program for the Marine Stewardship Council (MSC). The event took place from 26-27 June 2023 in Bali, Indonesia.

The main objective of the training was to enhance the knowledge and skills of shrimp fisheries business actors and policy makers in Indonesia. By focusing on MSC fishery standards and chain of custody, the program aimed to facilitate and expedite improvements to shrimp fisheries management on a national scale.

In total, 50 participants attended the program, representing various institutions. These included Indonesia's shrimp companies, the Ministry of National Development Planning, the Bali Fisheries and Marine Agency, the West Nusa Tenggara Fisheries and Marine Agency, the Maluku Fisheries and Marine Agency, the Aru Archipelago Fisheries Agency, the Association of Indonesia Shrimp Entrepreneurs (*Himpunan Pengusaha Penangkapan Udang Indonesia/HPPI*), the Association of Tuna Longline Indonesia (ATLI), the Association of Demersal Indonesia (ADI), the FIP Asia Pacific Indonesia region, as well as fisheries practitioners and researchers from universities.

Sri Yanti, the Marine and Fisheries Director of the Ministry of National Development Planning (Bappenas), delivered an opening speech on the first day of the event. In her address, she highlighted the importance of increasing the value of Indonesian seafood in the international trade market, particularly within the shrimp category. Sri Yanti also emphasised the obligation to sustain ecological services by obtaining eco-label certification.



Opening speech by Sri Yanti, the Marine and Fisheries Director of the Ministry of National Development Planning (Bappenas)

During the first day, a total of six speakers shared their insights and experience of fisheries improvements related to various fisheries commodities. They covered a range of topics, from policy measures supporting the program to success stories of shrimp industry players who have successfully obtained eco-label certification.

During the first session, Aris Budiarto from the Directorate of Fish Resources at the Ministry of Marine Affairs and Fisheries (MMAF) and Jaya Wijaya from the Directorate of Marketing at the Directorate General of National Export Development provided an overview of the Indonesian government's current efforts and

policies in supporting the shrimp fisheries improvement program. These initiatives aim to align with global market values while ensuring the sustainable management of marine commodities.

Wijaya highlighted that in 2022 Indonesia's shrimp exports to the global market were valued at USD 2.16 billion, making it the country's top fisheries export product. Notably, the export volume of processed frozen shrimp increased by 16.13% from 2019. Given this context, the Indonesian government plays a crucial role in facilitating and expanding access to both domestic and international markets. This includes strengthening the logistics of the raw material supply chain, promoting and developing branding initiatives, and facilitating trade missions and business meetings between national shrimp companies and international buyers.

During the second session of the event, Martin Purves, the Managing Director of the International Pole and Line Foundation (IPNLF), and Annie Jarrett, the CEO of The Northern Prawn Fishery Industry Pty (NPF), participated virtually and shared their experiences in obtaining MSC certification for tuna fisheries in Indonesia (IPNLF) and shrimp fisheries in Australia (NPF). Since completing the seven-year journey to obtain MSC certification, IPNLF has experienced a range of benefits, including access to new markets, an enhanced profile for Indonesia's tuna fisheries and incentivised improvements.

Djoko Kusyanto from HPPI provided insights into the shrimp fishery profile in Arafura during the training session. It was revealed that at least eight members of HPPI, representing shrimp companies, operated in the Arafura seas – primarily in Fisheries Management Area (FMA) 718.

To provide participants with a better perspective on assessing product eligibility for eco-labeling based on the three MSC principles (i.e., sustainable stock, environmental impact and effective management/governance), trainers conducted an interactive exercise in which participants were encouraged to roleplay the work of MSC Assessors.

In 2020, the Aru Archipelago Shrimp Fisheries Initial Pre-Assessment and Gap Analysis Report highlighted that shrimp fisheries in Aru did not meet the global standards set by MSC and required immediate improvements through a Fishery



*Shrimp commodity in Aru Archipelago*

Improvement Project (FIP) and a specific action plan. However, it is noteworthy that the production of wild-caught shrimp in FMA 718 has grown exponentially in recent years, becoming the highest area of growth among the ten FMAs in Indonesia. According to MMAF, production has increased nearly threefold, from 3,465 tonnes in 2018 to 9,321 tonnes in 2021.

Considering that shrimp is a commodity that has been prioritised for sustainable management in FMA 718 under the Fisheries Management Plan, efforts from both the industry and officials are crucial to achieving ideal conditions for sustainable management and utilisation in shrimp fisheries. Therefore, this event served as a platform to promote and implement an FIP through eco-label certification for shrimp fisheries in FMA 718.

During the event, commitments were made by HPPI members, especially the eight shrimp companies that operate in FMA 718, agreeing to join the FIP and register for MSC eco-label certification. Moving forward, collaboration among stakeholders will be crucial to this process. It will involve sharing resources, knowledge, and co-financing that will help to expedite the process of fisheries industry improvements, informed by past experience and lessons learned from other commodities.



# Community-led Conservation for Kolepom MPA: Empowering Local Communities in Marine Management

By Stella Yovita Arya Puteri

The Ministry of Maritime Affairs and Fisheries (MMAF), through the Directorate General of Marine Spatial Management (Ditjen PRL) has made a commitment to maintaining the sustainability of Indonesia's marine ecosystems. One of the major efforts undertaken is to increase Marine Protected Areas (MPAs) coverage to 32.5 million hectares, or approximately 10 percent of Indonesian waters, by 2030.

This includes the Kolepom Island MPA, which is located in Merauke Regency, South Papua Province. Here, the first steps to increase MPA coverage were carried out by the South Papua Provincial government, specifically with the establishment of institutions, planning documents and management plans designed to ensure fishing activities proceed in accordance with regulations.

Following establishment of the Kolepom Island MPA in South Papua earlier this year, the MMAF,

working in collaboration with the ATSEA-2 Project, held a number of village outreach activities and socialised the MPA management plan for Kolepom in Waan District, including technical guidance and assistance in efforts to monitor and manage these waters sustainably.

## **Tackling common challenges with monitoring and development**

Fisheries Management Area (FMA) or known as *Wilayah Pengelolaan Perikanan* (WPP) 718, which includes the Waan Subdistrict, faces issues of excessive fishing exploitation. As a result, the marine environment in this area has experienced degradation and decline, due to a combination of illegal, unreported and unregulated (IUU) fishing, habitat destruction, climate change, and pollution from land and sea. The Kolepom MPA, which borders WPP 718, also faces similar challenges. Fish stocks in the Arafura Sea have decreased due to overfishing and illegal fishing;



Returning from fishing, a local fisherman in Waan District brings home fishing gear



The ATSEA-2 Project team engages in village outreach, fostering meaningful discussions with the local community in Waan District

addressing these issues is crucial to maintaining the sustainability of fishery resources and protecting the marine environment in the Kolepom MPA.

Technical guidance is intended to enhance the knowledge, understanding and motivation of community-based surveillance groups (*kelompok masyarakat pengawas/Pokmaswas*) in their role as fisheries monitors. One aspect of this technical guidance focuses on reporting mechanisms and community-based surveillance information systems. This activity was carried out recently through face-to-face meetings with stakeholders from the Merauke Surveillance and Enforcement Unit, where the materials were presented during a discussion session.

In addition, mentoring activities also include routine monitoring facilitation by Pokmaswas, aimed at enabling them to effectively monitor water conditions and marine and fishery resources. Pokmaswas will conduct patrols in the waters around Kolepom MPA according to an agreed route. Through this routine monitoring, it is hoped that more effective control over waters and marine resources can be achieved.

### Next steps: scaling up engagement and deepening involvement

Moving forward, the ATSEA-2 Project will focus on identifying potential economic development opportunities for coastal communities within the Kolepom conservation area. As part of the management plan for the Kolepom MPA, communities will become progressively more involved in determining the rules and regulations for zoning.

Through these additional actions, the Project aims to support the economic well-being of coastal communities, while also ensuring effective conservation measures remain in place. Ultimately, by involving communities in decision-making processes, local perspectives and knowledge can contribute to the successful management and long-term sustainability of the Kolepom MPA.

By actively involving the community through technical guidance and assistance, ATSEA-2 intends to facilitate meaningful and lasting participation by local people in supervision and management efforts taking place in the waters of Waan District.

# Multi-stakeholder Partnerships and Funding Opportunities for Island Communities

By Mikael Leuape and Chris Alexander



Since 2019, the ATSEA-2 Project has been focusing on coastal and inland communities in Rote Ndao District, with a particular emphasis on four target villages: Daiama Village in Landu Leko Sub-district, Oeseli Village in Southwest Rote Sub-district, Bo'a Village in West Rote Sub-district and Landu Tii Village in Southwest Rote Sub-district. The program's activities aim to build the capacity and resilience of local communities and vulnerable groups in facing the impacts of climate change.

Among the four villages supported by the ATSEA-2 Project, Landu Tii Village is located on a separate island, far removed from facilities and

infrastructure – all necessities must be brought from the main island of Rote via a 10-15 minute boat ride. However, with project assistance, the community has begun to benefit from group capacity building and improved access to financing through partnerships established with the village government and financial institutions.

According to Mama Jeremi Haning, who is the Ina Landu community group leader, the ATSEA-2 Project has provided a bridge between members of the Landu Tii Village community and outside organisations such as Bank NTT, thereby



*Bank account opening service for members of the Ina Landu group to access interest-free loan, named Merdeka Loans*

facilitating access to banking services. Mama Jermi has also been encouraging other group members to utilise these services, to provide the stimulus for household business products such as seaweed sticks and dried fish packaging.

Support from the ATSEA-2 Project has enabled the community to obtain interest-free loans and, through links to local development banks (*Bank Pembangunan Daerah/ BPD*), facilitated centralised interbank transactions in the village. Additionally, the community can engage in direct dialogue and consultation to obtain information about procedures for education and retirement savings accounts.

Iskandar Mesah is the Village Head in Landu. He recognises this support as being an essential catalyst for the growth of local businesses. “Thanks to the collaboration between ATSEA-2, we’ve found it much easier to register with NTT bank.” With financing secured, these groups are free to focus on their work. As Iskandar puts it, “they just have to do it.”

Developments on Landu Island provide a valuable lesson in relation to the benefits of partnerships; they have the capacity to enhance quality and

improve sustainability, while also providing a range of social benefits and development opportunities for partnering institutions. Furthermore, partnerships offer learning opportunities for others to understand the working patterns and systems between partner institutions, promoting beneficial outcomes for coastal communities in general and vulnerable groups in particular.

By facilitating effective multi-stakeholder partnership models, the ATSEA-2 Project is helping to open doors for communities in remote corners of the ATS region, while also creating opportunities for individuals within those communities who are traditionally marginalised. Via the implementation of these collaborative networks, the importance of gender equality within families and communities can be emphasised and realised. From funding and development to gender roles and climate change resilience, collaboration is the key to success.

# Quantifying Marine Protected Area Management Effectiveness in Southeast Aru

By Sila Kartika Sari

On 28 March 2023, the ATSEA-2 Project organised a meeting at the Marine and Fisheries Research and Human Resources Agency to evaluate the management effectiveness of the Southeast Aru Marine Protected Area (MPA). The meeting aimed to assess the MPA's effectiveness using two tools: a new evaluation tool for the management effectiveness of marine conservation areas, known as EVIKA; and the Management Effectiveness Tracking Tool (METT).

Attendees included a range of stakeholders: the Directorate General of Marine Spatial Management, the sub-directorate general of Marine Conservation and Biodiversity and the Fisheries Research Centre from the Ministry of Marine Affairs and Fisheries (MMAF); the Southeast Aru MPA Work Unit; the Directorate of Conservation Management of the Ministry of Forestry and Environment (MoEF); the National Coordinator Unit of ATSEA-2 Indonesia; and an EVIKA tool analyst.

## A closer look at METT and EVIKA

**METT** is widely utilised globally, covering over 2,500 protected areas in more than 127 countries, with a total area exceeding 4.2 million square kilometer. Initially developed by the World Bank/WWF Alliance for Forest Conservation and Sustainable Use, it was first published in 2002.

**EVIKA** is a tool developed by the MMAF in Indonesia, specifically for measuring the management effectiveness of MPAs. In order to align with the ATSEA-2 project's requirements and enhance comparability with other countries, MMAF has incorporated EVIKA results into METT.



Sea turtle, a cherished species safeguarded within the protective boundaries of the Marine Protected Area

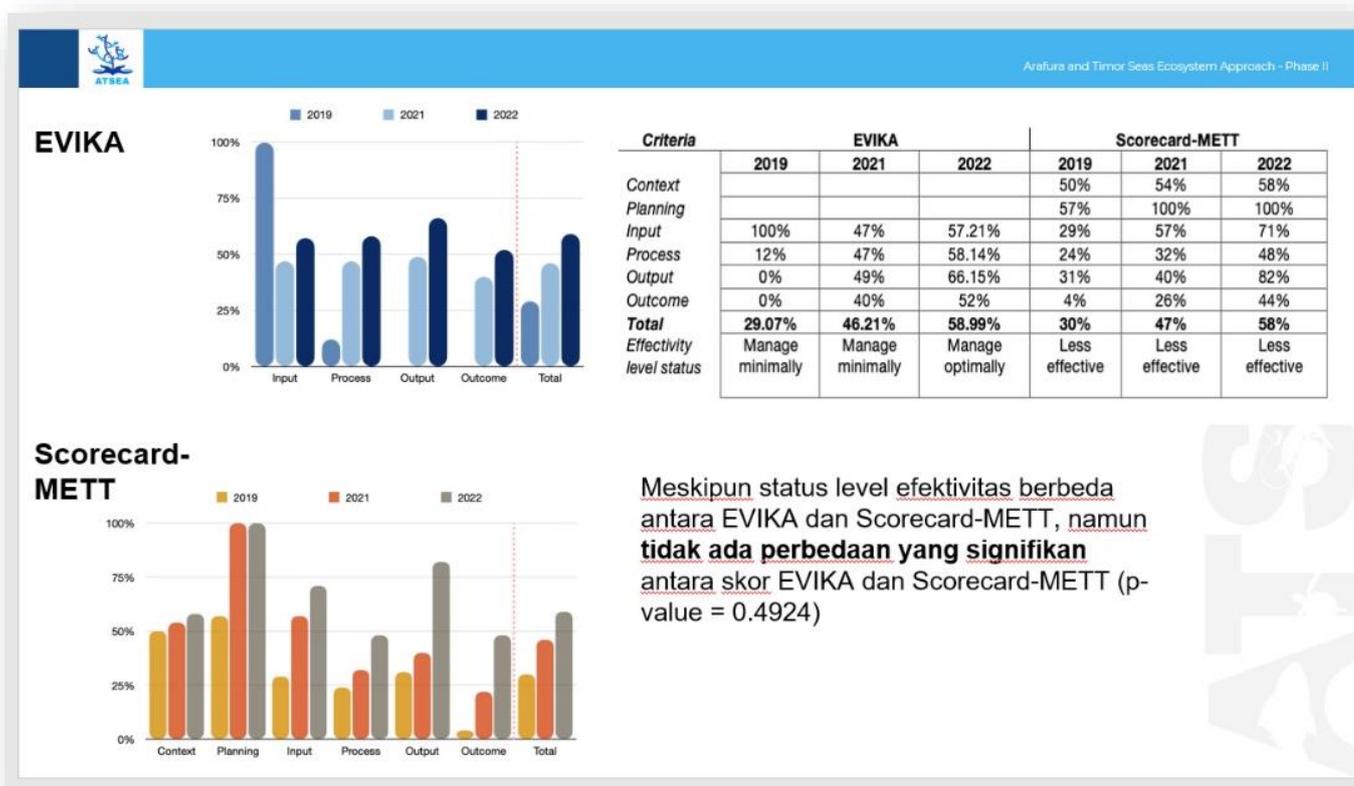
The aim of the meeting was to facilitate the exchange of information and knowledge among the stakeholders involved. A key focus was to compare effectiveness via scores produced by METT and EVIKA – both of which provide standardised assessment criteria for evaluating MPAs.

During the discussion, it was established that converting EVIKA results into METT would be feasible, due to a number of fundamental aspects shared by both tools. Both EVIKA and METT employ

a scoring system for assessment, albeit with some variations in the evaluation process. In EVIKA, the evaluation initially involves self-assessment conducted by the assessment team; stakeholders, including the local community, then participate in the verification stage. On the other hand, the METT process emphasises stakeholder involvement right from the beginning of the assessment process, employing a participatory approach.

In three of the last four years, the Southeast Aru MPA has completed assessments using EVIKA, yielding results of 29%, 46% and 59% in 2019, 2021 and 2022, respectively. After combining EVIKA data with METT results, the scores became: 30% (2019), 47% (2021) and 58% (2022); there were no significant differences between the evaluation scores obtained from EVIKA and Scorecard-METT. Minor variations in effectiveness levels between the two tools can be attributed to the different terminologies used by the respective ministries involved; regardless, the overall management effectiveness levels remained consistent.

Based on EVIKA-METT assessment, several challenges have been identified for enhancing the management effectiveness of the Southeast Aru MPA. These challenges include improving efforts to communicate MPA boundary demarcation, raising stakeholder awareness and involvement, expediting updates to MPA management practices, strengthening stakeholder engagement and participation, encouraging local community involvement in MPA management activities, enhancing human resources capacity, developing outreach strategies that incorporate local context and target specific populations, and identifying sustainable financing mechanisms to support Southeast Aru MPA management. As these indicators are interconnected, interventions aimed at improving one indicator can have a positive impact on others, leading to overall enhancement of the Southeast Aru MPA's management effectiveness.



A comparative analysis between EVIKA and METT score results





# ***Sabi* Areas and Sustainable Fisheries in South Fly District**

By Kenneth Yhuanje

Exploring the Fore Coast in South Fly district is an enchanting experience. Navigating the tranquil intertidal waters, visitors discover pristine beaches and mangroves. The outboard motor hums continuously, as we pass by anglers in their canoes and vigilant boat spotters, who ensure their skipper steers clear of fishing nets. The ATSEA-2 team has had the privilege of traversing this coastline multiple times, collecting valuable data and raising awareness. Nevertheless, the magic remains, with every visit as captivating as the very first time.

The intertidal waters here are increasingly dotted with fishing nets, crab traps and canoes carrying anglers, particularly in areas close to villages. The intensification of fishing activities in these narrow coastal waters has been fuelled by the rising human population and their close proximity to the international border with Australia.



The ATSEA-2 team have discussion with local community in South Fly District, Papua New Guinea



Fish maw harvest



Dried fish maw

One specific activity that has become more prevalent along the Fore Coast is the harvesting of fish maw – part of a wider intensification of fishing in the area. Increased fishing activities have led to a decline in fish populations and other noteworthy environmental impacts. There is evidence in the Daru market of an increase in the harvest and sale of Endangered, Threatened and Protected (ETP) bycatch.

### Traditional practices protecting fishing grounds

To combat overfishing, various villages have taken initiatives to protect their fishing grounds. For instance, villagers in Parama strictly forbid settlers in Daru town and neighbouring villages from fishing on their home reefs. The enforcement of spatial and temporal closures of fishing grounds is carried out by clan elders through traditional practices.

In Papua New Guinea, a "*sabi*" area is a special fishing zone protected by local customs. It's an area where fishing is limited or completely stopped for a certain time to let fish populations recover and ensure their long-term survival. The decision to establish a *sabi* area and its rules are usually made by the local communities or clan elders who have traditional rights over the fishing grounds.

To enforce the closure, a ceremony takes place in the fishing area. A pole is planted in the ground and decorated with grass and symbolic items. During the ceremony, a spell is invoked to discourage fishing in the area during the designated time. Breaking the spell or violating the taboo is believed to have spiritual consequences or curses. Fishing is only allowed after the *sabi* is officially lifted by the same clan elder.

These *sabi* areas and their rules are deeply rooted in local traditions, customs and spiritual beliefs. They play a vital role in customary fisheries management, aiming to regulate fishing, safeguard fish stocks and maintain a healthy marine environment.



Fishing activity in South Fly District, Papua New Guinea

### Developing an artisanal fisheries management plan

The ATSEA-2 Project is helping communities to develop and implement an artisanal fisheries management plan. This involves raising awareness and conducting training sessions on an Ecosystem Approach to Fisheries Management (EAFM), while also gathering information from the communities about their fisheries and customary or contemporary management practices. This information is then incorporated into the Fore Artisanal Fishery Management Plan (FAFMP), along with relevant measures taken from national regulations.

The FAFMP includes various measures aimed at addressing the decline in fish populations and ensuring long-term sustainability. Some of the management measures adopted from national regulations include restrictions on fishing net size for barramundi, fish size limitations and temporal fishing restrictions. Additionally, measures derived from local practices are included, such as establishing *sabi* areas.

### Challenges and next steps

The development of the fisheries management bill is being supported by a legal consultant. They are helping to translate the management measures outlined in the management plan into a bill that will be enacted as law, thereby providing a legal framework for implementing the management plan in the communities. An emphasis is placed on ensuring the bill aligns with local needs and practices while adhering to national regulations.

There are a number of challenges associated with implementing the management plan and passing the fisheries management bill, which can be time-consuming and complicated. To expedite this process, a team of individuals with relevant expertise will be supported by a lawyer who will help to streamline the proceedings. Additionally, addressing the challenge of implementing the plan requires conducting more awareness campaigns to gain buy-in from community members. This approach aims to empower communities to take ownership and implement the management plan effectively, thereby managing their resources with minimal external support.



## Fostering Public Engagement for Improved Fisheries Management in Papua New Guinea

By Joe Kiningi

The littoral nations of the Arafura and Timor Seas (ATS) region are united in their efforts to combat the depletion of marine and fishery resources. Recognising the significance of collaboration, the ATSEA-2 Project conducted the Strategic Thinking and Strategic Planning National Workshops in Port Moresby, Papua New Guinea (PNG), on 5 April and 5 May 2023, respectively. The primary objective of these workshops was to gather valuable national inputs to facilitate the drafting of the Strategic Action Program (SAP), and also use the opportunity to gather inputs for the National Action Programme (NAP) from the national stakeholders.

Stakeholders from different state agencies, NGOs and academe participated in the development of the SAP and NAP, including representatives from the Conservation and Environment Protection Authority (CEPA), National Oceans Office, National

Fisheries Authority (NFA), United Nations Development Program (UNDP), Western Province Fisheries, South Fly District Fisheries and the University of Papua New Guinea.

In the National Working Group (NWG) workshops the four main components of the SAP, and by extension, of the PNG NAP were discussed and relevant details provided in the draft SAP. In the Strategic Thinking Workshop, the NWG reviewed the framework of the SAP containing the key components of the thematic issues and provided inputs on the priority actions. In the Strategic Planning Workshops the national team provided inputs on the contents of the draft SAP and established linkages to the NAP. PNG is developing its first NAP. Therefore, it has started early so is able to conduct its national consultations concurrently with SAP consultations.



*Discussion session during the Strategic Planning Workshop*

For an updated assessment of the key transboundary environmental issues, interviews were conducted among coastal communities in the ATS region, including those within South Fly District. Mabudawan, a village chief from the South Fly District, has observed a significant decline in the size of fish and a noticeable reduction in fish stocks over the past five years. These concerning trends have been detrimental to local communities' livelihoods and have had negative impacts on the ecosystem. Mabudawan's observations reflect those of the other villages on the Fore Coast and highlight the urgent need for sustainable fishing practices and effective conservation measures in South Fly District. Furthermore, the ATSEA-2 Project conducted a Transboundary Diagnostic Analysis (TDA) along the Indonesia-Papua New Guinea border, which revealed specific issues that demand immediate attention, such as declining fish populations and habitat degradation.

Stakeholders have collaborated to address challenges by developing strategies for inclusion in the NAP. Notably, the introduction of the Artisanal Fisheries Management Plan (AFMP) empowers local communities to manage and protect their

marine resources. This approach delegates responsibility, enabling communities to adopt sustainable fishing practices. Strategies include introducing village-specific fisheries management measures, incorporating local by-laws into government laws, controlling over-harvesting through penalties, integrating customary practices into management plans, and conducting continuous advocacy programs to raise awareness. The AFMP strives to empower communities and promote sustainable management practices.

Progress made at the national level in developing NAP will complement the ongoing efforts to create SAP at the regional level. These collaborative endeavours are vital for effective marine resource management in the ATS region. Given the heavy reliance of coastal communities on marine resources, it is crucial to promote responsible fishing practices. This includes avoiding overfishing, targeting adult fish rather than juveniles, and implementing appropriate fishing gear types.

Throughout the workshops, participants dedicated their efforts to developing comprehensive details regarding activities, indicators and timelines for priority actions. The discussions also offered a platform for national teams to align the SAP with the NAP, ensuring a coherent and cohesive approach. As a result, participants reached an agreement on the essential final steps required to review, complete, and endorse the SAP, solidifying their commitment to sustainable marine resource management in the ATS region.

Moving forward, the next steps will involve reviewing, finalising and endorsing the SAP, with a focus on consultation with other ATS countries to foster cooperation and shared concepts. Additionally, the adoption and implementation of the NAP within different state agencies, based on their respective roles, will be prioritised.





# A Journey Towards Sustainable Livelihoods: Empowering Fishing Communities in Viqueque

By Stella Yovita Arya Puteri

In Timor-Leste, the coastal waters of Viqueque – known locally as Viqueque Municipio – are rich in fish species such as tuna, mackerel and snapper. The region is also home to a lively coastal community and a thriving group of fisherfolk. With support from the Arafura and Timor Seas Ecosystem Action Phase II (ATSEA-2) Project, they are developing more sustainable practices and securing the long-term future of their communities.

In recent years, efforts from the Ministry of Agriculture and Fisheries (MAF) of Timor-Leste, through the ATSEA-2 Project, in collaboration with UNDP Timor-Leste, have been made to support the fisherfolk in Viqueque. The ATSEA-2 Project has been focusing on improving community infrastructure, providing training in

sustainable fishing practices and improved management of coastal resources. The goal is to empower fisherfolk, encourage responsible fishing methods and ensure a sustainable future for their livelihoods.

### **Gaining Crucial Knowledge: ATSEA-2 Visit to Viqueque**

In March 2023, the ATSEA-2 Project Team visited Viqueque to witness the impact of program initiatives (the team had previously conducted training sessions on Ecosystem Approaches to Fisheries Management (EAFM) between October and November 2022). During their visit, the team engaged with members of the fisherfolk community centred around Fatudere Village. Here, in the sub-village of Adarai, they met Tomas Alberto Da Silva.

“Through the ATSEA-2 Project, we have gained crucial knowledge on cultivating marine resources and the importance of preserving our marine ecosystem,” said Tomas. “This training has empowered us to adopt sustainable practices and protect our valuable marine resources, including coral reefs and mangroves.”

### **Creating Opportunities for Fisherfolk**

The fisherfolk group in Adarai has grown from 30 members in 2002 to 69 members by 2019. However, malfunctioning fish aggregating devices, known as rumpons, subsequently led to a decline in membership. Despite setbacks, the group remains resilient, with 12 smaller groups comprising around five members each, totaling 69 fisherfolk. For many of the fisherfolk in Adarai, access to essential equipment and infrastructure remains a critical challenge.

Dr Handoko Adi Susanto, the ATSEA-2 Regional Project Manager, insists that material support alone is not enough. “This problem is not unique to Adarai,” he explains. “Fisherfolk face similar problems across the ATS region; many obtain the tools they need from the government, but are not equipped with knowledge to optimise the use of these facilities.”



*(Above) Tomas Alberto Da Silva, head of the fisherfolk group in Adarai Aldea/Fisherfolk Centre, Fatudere Suco, Viqueque Municipio, Timor-Leste*

And that’s where the ATSEA-2 Project can really make a difference. Through capacity building, training and the diversification of livelihoods, fisherfolk have been empowered to overcome challenges and build their resilience by embracing a multifaceted approach. In addition to fishing, they engage in gardening and livestock rearing, particularly during unfavourable weather conditions. Notably, women actively participate in fishing activities and have formed cooperatives and savings groups since 2019, thereby challenging established gender roles, promoting equality and contributing to a more inclusive fishing industry.

“The participation of women in fishing activities has been instrumental in establishing cooperatives and savings groups,” explains Tomas. “Their involvement empowers them economically and fosters solidarity within our fishing community; initiatives providing training on sustainable fishing practices and financial management, specifically for women fishers, have been vital in promoting gender equality and creating a more inclusive sector.”

## The Path to Progress

Fisherfolk in Adarai have made significant strides. They have overcome limitations in refrigeration and transportation, enabling them to sell their catch outside the village; support from individuals in Viqueque who purchase their catch in bulk and then sell it in the city has been instrumental in expanding their market reach. These fisherfolk continue to preserve their marine resources and contribute to the sustainable development of their community.

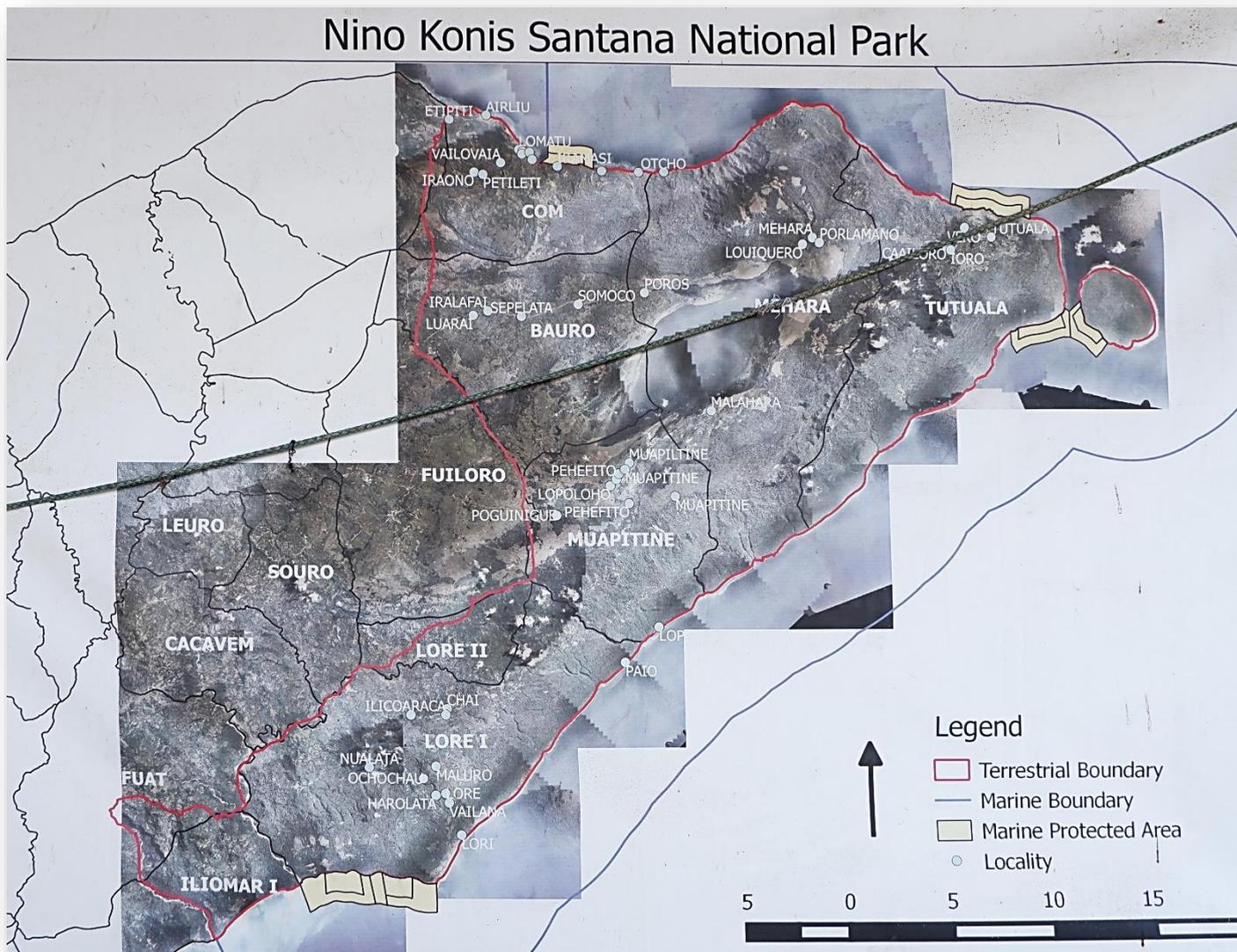
“The ATSEA-2 Project has played a vital role in our progress,” says Tomas. “With ATSEA-2’s support, we have gained knowledge, improved our practices and diversified our sources of income. We are grateful for the collaborative efforts between our community and the government to address our challenges, such as equipment maintenance and procurement.”

The success of fishing communities in Adarai, Viqueque, is a testament to the resilience of local people and their commitment to building sustainable livelihoods for themselves. By empowering fisherfolk and promoting sustainable fishing practices, the ATSEA-2 Project is helping to drive positive change in Viqueque, ensuring a brighter future for coastal communities.

Moving forward, the ATSEA-2 Project will collate the lessons learned from the recent visit and convey the messages collected among the fishing communities of Adarai to the government, in order to inform planning that accommodates their needs. By building bridges between fisherfolk, communities and the government, ATSEA-2 is helping to create a synergetic, thriving environment that supports livelihoods and preserves marine resources for generations to come.



Members of the fisherfolk group in Adarai inspect a pile of broken rumpons (a type of floating buoy used to attract oceanic fish)



# Improving Management Effectiveness in Nino Konis Santana National Park

By Deti Triani and NI Luh Putu Yulia Dewi

From 5-7 June 2023, the ATSEA-2 Project conducted an assessment using the Management Effectiveness Tracking Tool (METT) in Com Village, Timor-Leste. Working in collaboration with the Ministry of Agriculture and Fisheries (MAF), this assessment aimed to evaluate the extent to which Nino Konis Santana National Park (NKSNP) has successfully achieved its goals and benefited the coastal communities in the surrounding area.

The ATSEA-2 Project is actively engaged in improving the management of NKSNP. In order to achieve these aims and objectively measure

progress, METT provides a standardised set of criteria and indicators that measure the effectiveness of MPA management. Some common aspects evaluated by METT include legality and policy, institutional frameworks, management personnel, funding and operational management.

The assessment involved the participation of 37 stakeholders, including government officials from fisheries and forestry departments at the municipal level, local security guards from the marine police and forest guard, and village heads from Com, Lore and Tutuala. To complete the assessment, focus



Focus Group Discussion with local community in Com Village, Timor-Leste

group discussions (FGDs) were held with members of coastal communities, while interviews were conducted with representatives from the NKSNP management authority and Conservation International.

To obtain the METT score results, participants in the FGD were required to answer 38 multiple choice questions, with values ranging from 0 to 3. The assessment yielded a score of 46, indicating an almost two-fold improvement compared to the previous baseline assessment in 2014, which had a score of 24. The improved levels of performance are indicative of substantial progress made in managing the NKSNP. This improvement can be attributed mostly to the coastal communities who have demonstrated a strong understanding of regulations and actively comply with them to ensure the sustainability of the NKSNP.

While this progress is commendable, the assessment identified certain areas that require further attention, particularly in regard to management personnel. To address these issues,

the establishment and adoption of the NKSNP Management Plan is recommended, in order to provide a structured framework for guiding management activities. Additionally, capacity-building initiatives should be implemented to equip the NKSNP management authority with the necessary skills and knowledge to fulfil their responsibilities effectively.

Enhanced management effectiveness of the NKSNP underscores the importance of community engagement and compliance. Moving forward, it is crucial to sustain this progress by continuing to involve coastal communities in decision-making processes and promoting their active participation in the management of the park. Regular assessments using tools like METT will further aid in monitoring and evaluating the ongoing effectiveness of management efforts.

# Announcement

Save the date for the **4<sup>th</sup> International Conference on Integrated Coastal Management & Marine Biotechnology (ICMMBT)** happening on 12 & 13 September 2023 in Bali, Indonesia. This collaborative initiative, organised by IPB University Center for Coastal and Marine Resources Studies (CCMRS-IPB) in partnership with the Arafura and Timor Seas Ecosystem Action Phase II (ATSEA-2) Project and Archipelagic & Island States (AIS) Forum as co-organisers, brings together experts and stakeholders to discuss sustainable development in Integrated Coastal Management (ICM) and Marine Biotechnology (MBT).

With the theme of "**Good Practices and Innovations Towards Blue Economy**", ICMMBT aims to explore regional progress, practical solutions and best practices for accelerating actions towards a sustainable blue economy. Through research findings, insightful discussions, and collaborative efforts, together we are going to address challenges and shape future actions and strategies in ICM and MBT.

The ATSEA-2 Project will contribute valuable insights during the plenary session, focusing on lessons learned regarding Transboundary Diagnostic Analysis (TDA) and Strategic Action Program (SAP) Updating. Additionally, ATSEA-2 conducts a parallel session on **Marine Pollution and Community Empowerment** that will shed light on impactful initiatives in the region together with our partners. We are going to emphasise the importance of collaboration among academics, researchers, and stakeholders in driving sustainable development forward.

Abstract submissions are open until 30 July 2023. So, if you read this before its deadline, help us spread the word and share your expertise!

For registration and more information, visit:

 <https://bit.ly/ICMMBT>



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Join us in shaping a sustainable and prosperous blue economy at ICMMBT! Stay tuned on our social media channels for more information and updates.

## New Publication Released!

We are excited to announce the release of our latest publication titled "Climate Change Implications for the Arafura and Timor Seas Region: Assessing Vulnerability of Marine Systems to Inform Management and Conservation." This study highlights the impact of climate change on highly vulnerable coastal and marine habitats and species, emphasising the need for proactive management and conservation efforts. For more details, access the full publication here:

<https://bit.ly/climatechange-ATSregion>



Join us in protecting our precious seas from the effects of climate change!





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