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**Annual Report FY2022** 

### Marshall Islands





### **ANNUAL REPORT 2022**

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Interior photos: Absalom Edwards, Armer Ishoda, Bevan Wakefield, Eve Burns, Francisco Blaha, Giff Johnson, Hilary Hosia, International Organization for Migration, Jojo Kramer, Karen Earnshaw, Lyla Lemari, Melba White, Pamela Rubon, Sergio Bolasina, Tamiko Jajo, and Tatiana Shoniber.

On the cover: Clockwise from top right: MIMRA Fisheries Enforcement Officer Stevenson Graham reviews a purse seiner's log; Enforcement Officers Stephen Domenden at the wheel and Stevenson Graham head out to inspect a transshipment operation in Majuro lagoon; MIMRA Director Glen Joseph checks the Google Earth view of Majuro and Arno atolls for fishing activity at MIMRA's Monitoring, Control and Surveillance center; Fisheries Enforcement Officer Stevenson Graham passes a longline fishing vessel in Majuro lagoon; a purse seine transshipment operation in progress; and Fisheries Enforcement Officer Stevenson Graham inspects a purse seiner's log on the bridge of the vessel.

Cover photos: Francisco Blaha, Giff Johnson, and Sergio Bolasina.

# Climate justice key

hile the Marshall Islands will remember 2022 as the year that Covid finally spread to our nation after two and a half years of border lockdown, the year also showed the benefits beginning to develop as a result of MIMRA's painstaking behind-the-scenes work over the previous several years. The

end of the isolation imposed by the Marshall Islands to ward off Covid for as long as possible also meant that after borders opened fully at the end of August, many programs that had slowed during the pandemic were able to pick up speed for implementation.

The year also generated greater awareness and engagement among fisheries departments in the region, including MIMRA, about impending effects of climate change on the tuna fishery. Climate change threatens to undermine the hard work of

MIMRA and Pacific Island partner nations to manage the biggest, most sustainable tuna fishery in the world. The rising temperature of the ocean portends serious negative impacts on the fishery. The Pacific Islands' negligible carbon footprint means we are not responsible for the climate change now in play, but we will pay the price in a dramatic way if global temperature rise cannot be held to the Paris Agreement ceiling of 1.5 degrees Celsius. MIMRA is focused on climate justice as part of our international and regional fisheries management action.

MIMRA's initiative to move into a new area of the tuna "value chain" and increase benefits and opportunities for the nation showed what can be done by taking bold steps. The joint venture established by MIMRA with The Nature Conservancy, known as Pacific Island Tuna Provisions, LLC, delivered on its first full year of tuna supply to Walmart, the world's largest retail company. The tuna delivered from the Marshall Islands and the western Pacific region to Walmart resulted in the production of 11 million cans of Walmart's house brand, Great Value tuna. By showing that Pacific Island Tuna Provisions could de-

Message from John M. Silk, Chairman of the MIMRA Board of **Directors and Minister of Natural Resources and** Commerce.



**BOARD MEMBERS** 

Minister John M. Silk, Chairman: Director Moriana Phillip, vice chair (EPA); Director Robert (Bobby) Muller, private sector (PII); Director William Reiher, scholastic institute (CMI); Director Danny Wase, SOE (shipping); Director Ladie Jack, local government (Majuro Atoll); Director Reginald White, climate (National Weather Service).

liver tuna in this trial year of operations led Walmart to extend the contract.

The arrangement with Walmart is based on the Marshall Islands participation in the Parties to the Nauru Agreement (PNA)-managed Vessel Day Scheme that governs purse seine tuna fishing in the waters of PNA members in a sustainable manner. MIMRA and Pacific Island Tuna Provisions briefed the other PNA members about the supply arrangement with Walmart in hopes that in 2023 and beyond, more PNA members can supply sustainably caught

tuna for the United States market.

Another important initiative that is aided by the relationship with Walmart and the learning process it has set into motion is establishment of the Competent Authority that, it is hoped, would enable Marshall Islands fish exports to the European Union, the world's largest seafood

> market. A significant amount of groundwork was performed in 2022 by the staff of MIMRA's fledgling Competent Authority, including site visits, assessments and trainings for Majuro-based tuna processing companies that are keen to upgrade facilities and operations to meet stringent standards required by the European Union.

> Other fisheries engagement by MIMRA is also improving sustainable management of marine resources at the domestic, regional and international level.

Domestically, MIMRA increased the footprint of the Protected Area Network and its Reimaanlok Program for sustainably managing coastal resources. Regionally, MIMRA is heavily engaged with the Forum Fisheries Agency, the Parties to the Nauru Agreement, and the Western and Central Pacific Fisheries Commission on work to curtail and eliminate illegal, unreported and unregulated (IUU) fishing, establishing mechanisms to manage and control fishing at sustainable levels, and improving safety for both fishers and Pacific fisheries observers.

MIMRA prides itself on maintaining a high-degree of transparency and accountability in its operations. In addition to financial audits and this annual report, we formalized transparency in fisheries operations in 2022, when MIMRA committed to sharing its vessel monitoring data on Global Fishing Watch's pubic map. This improves ocean governance and promotes fisheries compliance.

All this work is possible because of the dedicated, experienced, and skilled workforce at MIMRA.

John M. Silk

# 2022 was the year that

he increasing number of reports and studies documenting the warming of the oceans and the changes this is forecast to bring to tuna migration patterns has brought the global climate crisis home to us in an alarming and clear manner. Pacific Islands are being - and will continue being - impacted by climate change in a disproportionate way. Our islands had little to do with creating the climate crisis, but we will feel the brunt of the results, particularly in the tuna fishery. This is an ironic development considering the Pacific Island region's successful long-term management of the tuna fishery. Through a multilayered approach involving regional and international negotiations, expanding monitoring, control and surveillance programs, and many other actions - notably the Parties to the Nauru Agreement's Vessel Day Scheme management of the purse seine industry — the Pacific islands have established the western and central Pacific tuna fishery as the most sustainably managed fishery in the world.

Climate justice is high on the agenda for the Marshall Islands. Fisheries must be an important component of all international climate negotiations and, in particular, MIMRA and the Marshall Islands will continue to state our case for loss and damage in international negotiations. For the Marshall Islands and other PNA members that control waters where most of the world's tuna is caught, climate justice is a high priority as we understand the forecasts being made about the impact of climate change on our fishery that is the foundation of economic development for many of our island nations.

If 2021 was a "rebound year," then 2022 was a year that MIMRA work delivered results.

• The MIMRA joint venture company with The Nature Conservancy, Pacific Island Tuna Provisions, capably managed the supply of tuna to Walmart canneries that resulted in over 11 million cans of tuna processed for the huge American retail company. The vision of the PITP tuna supply initiative with Walmart is to expand the supply with other PNA members providing tuna and expand the



Message from Glen Joseph, Executive Director, Marshall Islands Marine Resources Authority.



amount of tuna that is unloaded at dockside in Majuro into freezer containers for export. This latter point builds on the existing substantial transshipment operation in Majuro lagoon by aiming to bring more of the tuna onshore. The goal is to create more jobs, tax revenue and development of the domestic economy, while potentially leading to a paradigm shift in the container shipping industry that currently sees most container vessels depart from the Marshall Islands virtually empty.

- Tuna transshipment operations remained strong and a per-transshipment tuna tonnage record was established in 2022.
- The Fish4ACP tuna value project launched its implementation phase toward the end of the year by gathering a large group of government and tuna industry players. After nearly two years of planning, studies, and delays due to Covid, the project began next steps for identifying ways for the Marshall Islands to greater benefits from this part of the tuna value chain beyond simply providing a location for the purse seine industry to transship tuna. Essential to this process was agreement to formalize a task force under the name "MI-FISH" as part of an informal, but important, public-private partnership. The plan to expand the volume of tuna landed and shipped out in

# MIMRA showed results



Board Directors Reginald White, William Reiher, Bobby Muller, Chairman John Silk, Vice Chair Moriana Phillip, Executive Director Glen Joseph, and Directors Danny Wase and Ladie Jack.

freezer containers from the current one or two percent of the total now transshipped to 30 percent is the primary goal of this European-Union supported program.

- MIMRA's new book, Field Guide to the Corals of the Marshall Islands, was published in May. The book for the first time details the types of corals in Marshall Islands water. The publication guides readers through 145 hard coral and 24 types of coral disease. Publication was supported by the World Bank. It was distributed to the schools, local governments, and other entities.
- The new Competent Authority continued to make progress on our road to gain access to the European Union for Marshall Islands fishery products. Among the initiatives that will bear fruit in coming years is the effort to develop a Marshall Islands certification process for tuna and other marine products that meets industry standards globally.
- In the Coastal Fishery, the Reimaanlok (Looking to the Future) Process continued to make progress by moving outer

island communities through the eight stages of the process of developing and implementing locally-designed resource management plans. As part of this, collection of data continued to improve. MIMRA's Fish Aggregating Device (FAD) installation continued its work as a national program with regular maintenance and new installations around islands and atolls in different parts of the country. The FAD program is aided by MIMRA's partnership with the UN Food and Agriculture Organization and the Pacific Community (SPC).

Partnerships continued to define MIMRA's program in 2022. MIMRA benefited from its partnership with numerous regional agencies, programs, and NGOs, including the Parties to the Nauru Agreement, the Forum Fisheries Agency, the Western and Central Pacific Fisheries Commission, the World Bank, Asian Development Bank, and The Nature Conservancy and many others.

It is important to stress that MIMRA's partnership with the Parties to the Nauru Agreement (PNA) is the foundation for the effective participation of the Marshall Islands in the global and regional tuna industry. PNA's Vessel Day Scheme (VDS) is a multi-layered management system for the purse seine industry that, in addition to increasing the benefit the Marshall Islands receives annually from the tuna fishery, limits fishing to sustainable levels. The fact that stocks of the four tuna species in this region remain healthy is testament to the success of the VDS and PNA management. MIMRA is continuing to look at ways to add value to the Vessel Day Scheme by getting involved in other aspects of the tuna value chain.

Despite the many global challenges facing our work, we continue to feel optimistic about the future. This is because we have a dedicated team of staff and numerous partner organizations that are working together to further the sustainable management and use of our marine resources, both oceanic and coastal.

### Glen Joseph



The Federated States of Micronesia purse seiner Nanmadol uploads its catch to the mothership Jochoh.

# Climate change looms as fisheries' biggest challenge

#### Overview

he most important aspect of the oceanic fishery is that in the western and central Pacific Ocean, all four tuna species are fished sustainably and have been for the past several years. This is due to the work of MIMRA's Oceanic Division and other fisheries departments in the region as well as the regional fisheries organizations, all of whom contribute to ensuring that the tuna species in the fishery are sustainably managed.

Through a multi-layered approach involving regional and international negotiations, expanded domestic and regional monitoring, control and surveillance programs, and many other actions — notably the Parties to the Nauru Agreement's Vessel Day Scheme

management of the purse seine fishery — the Pacific Islands have established the western and central Pacific as a model of sustainable fisheries management for the world. Despite the Oceanic Division's performance and the good work of those managing the tuna fishery in our region, however, climate change is looming as a game-changer and the most serious challenge to fisheries in our region. Multiple studies are now documenting the acidification and warming of the oceans and the changes this is forecast to have on tuna migration in our region. This brings the global climate crisis home to the Marshall Islands and all Pacific Islands, which depend on the tuna fishery for both food and income. The Pacific Islands are being affected by climate change in a disproportionate way. Our islands had little to do with causing the climate problem, but the islands will feel the brunt of the results, particularly in the tuna fishery. This is an ironic development considering the Pacific Island region's successful long-term management of the tuna fishery. But it is now the key factor that must now be addressed in all mediumand long-term planning by island governments and fisheries departments.

Despite the ongoing Covid pandemic and climate challenges, 2022 was a year of accomplishment for the Oceanic Division, with many projects delivering results. The tuna supply contract between a MIMRA joint venture and Walmart successfully finished its first year, and was to be renewed in 2023 for two additional years, showing Walmart's support for the supply of tuna through a Marshall Islands joint venture company.



# **MIMRA** works closely with FFA

As part of MIMRA's effort to engage in the tuna value chain, the Competent Authority made significant strides in 2022 toward its full establishment. The Competent Authority is an essential development for MIMRA's effort to open the pathway for export of marine products to the European Union, the world's largest seafood market. Of particular note is the Competent Authority's work with the tuna processing industry in the Marshall Islands to move their operations forward for upgrading facilities and standards needed to comply with Marshall Islands domestic fisheries health and safety requirements as well as the strict EU fisheries import requirements. As part of the development of the Competent Authority, construction work began on the new MIMRA Annex building that will house the Competent Authority and a new and expanded laboratory that will be a centerpiece of the Competent Authority's monitoring program for the tuna industry.

The Oceanic Division's work with the Forum Fisheries Agency on monitoring, control and surveillance continued to expand and improve in 2022. The Oceanic Division's port sampling operation, Port State Control monitoring and enforcement, and oversight of tuna transshipment and exports all played an important role for both domestic and regional fisheries management and stock assessments.

Although the number of transship-



A MIMRA Fisheries Enforcement officer approaches a longline vessel.

"MIMRA worked closely with FFA members to lobby the Western and Central Pacific Fisheries Commission to adopt a draft Conservation and Management Measure on an Interim Management Procedure for WCPO Skipjack Tuna and a Proposed Amendment on Establishing a Harvest Strategy for Key Fisheries and Stocks in the Western and Central Pacific Ocean."

ments declined in 2022 compared to the previous year, an all-time average tonnage record per transshipment was established during the year. FISH4ACP, a European Union-supported initiative to identify ways to increase the value to the Marshall Islands of the large transshipment operation in Majuro, moved into a new phase of implementation after two years of studies and consultation.

At the regional level, MIMRA worked closely with Forum Fisheries Agency members to lobby the Western and Cen-



**Executive Director of The Western** and Central Pacific Fisheries Commission Rhea Moss-Christian.

tral Pacific Fisheries Commission to adopt a draft Conservation and Management Measure on an Interim Management Procedure for WCPO Skipjack Tuna and a Proposed Amendment on Establishing a Harvest Strategy for Key Fisheries and Stocks in the Western and Central Pacific Ocean. Both of these are essential management initiatives to ensure the long-term health of the tuna fishery in the region. Marshall Islands also nominated Rhea Moss-Christian for the Executive Director position at

# OCEANIC



The FISH4ACP value project launch event at the Marshall Islands Resort in November, 2022.

## Tuna value project launched

the WCPFC Secretariat in Pohnpei. She was approved by the membership at the December annual meeting to take up her new post in 2023.

During the year, MIMRA signed an MOU with Global Fishing Watch to make its fishing activity visible to the world by sharing vessel monitoring data on Global Fishing Watch's public map. This action, once implemented, will improve ocean governance and promote compliance throughout the fishery.

Another important initiative in the monitoring, control and surveillance area occurred in 2022 with Oceanic Division Enforcement Officers beginning to use a "maritime domain awareness platform" developed by a New Zealand company to identify suspected illegal fishing activity in the western Pacific. This added a new capability to MIM-RA's MCS program, providing a highly sophisticated surveillance tool that it began using to identify vessels engaged in

suspicious activity for which they were not licensed.

Increasing MIMRA's presence in the global MCS sector, MIMRA Director Glen Joseph was nominated during 2022 to be Vice Chairman of the International Fisheries Monitoring, Control and Surveillance Network, representing the Pacific Islands.

The Oceanic Division's range of programs is described in more detail in the following pages.

### FISH4ACP developments

The FISH4ACP tuna value project launched its implementation phase in late 2022 by gathering a large group of government and tuna industry players at the Marshall Islands Resort. After nearly two years of planning, studies, and delays due to Covid, the project moved into the liftoff period focused on the tuna transshipment operation that has

developed over the past two decades in Majuro. The work is funded by the European Union and implemented by the UN Food and Agriculture Organization in partnership with MIMRA.

The aim is simple: Increase the benefits to the Marshall Islands from this part of the tuna value chain beyond simply providing a location for the purse seine industry to transship tuna.

The launch event at the Marshall Islands Resort was followed the next day by a technical meeting of those involved in tuna fishery work locally. This resulted in the agreement to formalize the multi-stakeholder partnership under the name "MIFISH," a name chosen by the participants. Although it is an informal public-private partnership, the partnership is essential to the success of the plan to increase benefits to the Marshall Islands, said Chief Technical Advisor for FISH4ACP Gilles van de Walle, who is with the UN Food and Agriculture Organization headquarters



# FISH4ACP promotes energy efficiency

in Rome, Italy. The group that met revised the MIFISH strategy that had been drafted earlier and decided to meet twice a year to review progress.

Although a big focus of the FISH4ACP project is on economic expansion, this is only one of the three "pillars" of this project. The other two pillars of equal importance are expanding renewable energy usage as part of a focus on the environment, and implementing social protections to ensure workers in the tuna industry are fairly treated.

Janina Marie Laurent, who works with the German International Development Agency (GIZ)-supported sustainable sea transport program in Majuro and is not connected to FISH4ACP, expressed enthusiasm for the multiple objectives of the tuna transshipment project. "The FISH4ACP initiative and the planned intervention on Marshall Islands shows certain overlaps to our project in the area of low carbon sea transport," she said.

"We encourage energy efficiency in the maritime transport sector as part of the value chain. And it is encouraging to see that this strategy looks at economic, social and environmental aspects and its implementation will help increase the benefits of the people of the Marshall Islands."

The EU-funded program is supporting fisheries work in countries around the world, although the project with MIMRA is the only one supported by



Janina Marie Laurent and, inset, Gilles van de Walle.

"The plan to expand the volume of tuna landed and shipped out in freezer containers from the current one or two percent of the total now transshipped to 30 percent will also require a large increase in power from the Marshalls Energy Company, estimated to be more than one megawatt of additional power."

FISH4ACP in the Pacific Islands. The project has its roots in a 2019 visit to Auckland, New Zealand by MIMRA staff at the invitation of the FAO to discuss a proposal for the project. Among this group was MIMRA Director Joseph, who in his remarks at Marshall

Islands Resort launch, said it is time for the Marshall Islands to harness more of the benefits from the tuna industry.

Key parts of the FISH4ACP plan are to increase the volume of tuna that is landed by purse seiners in Majuro for unloading into freezer containers that will be shipped by container vessels to canneries in different parts of the world. This in turn leads to numerous infrastructure needs, including expanding freezer cold storage on land to accommodate thousands of tons of tuna awaiting transshipment offshore, expansion of Stevedore facilities to accommodate freezer containers, and reviews of other infrastructure to ensure readiness for storage and movement of large volumes of tuna by land-based containers. The plan to expand the volume of tuna landed and shipped out in freezer containers from the current one or two percent of the total now transshipped to 30 percent will also require a large increase in power from the Marshalls Energy Company, estimated to be more than one megawatt of additional power. The goal of expanding renewable energy to support the transshipment of tuna is part

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The RMI team at the WCPFC's meeting in Vietnam was led by MIMRA Chairman Minister John Silk, front right.

### RMI at WCPFC annual talks

of a transition to more sustainable use of resources.

The main goal of the FISH4ACP project is to implement a cooperative strategy for expansion and to attract investors to support this expansion. The aim is to provide a sound basis to develop value adding for the transshipment operation and to attract investment to support expansion of domestic participation.

A shortage of labor is a problem all private sector tuna industry players are facing in the Marshall Islands and in many countries of the world. It is both a common issue for all the industry in the Marshall Islands and a bottleneck to expanding the country's engagement in the transshipment operation. The project together with industry is looking at ways to overcome this barrier to development. One issue is changing the perception that all jobs in fisheries are low paying and unskilled. While fisheries industry companies do require basic laborers to load or unload fish, there are many skilled jobs that will be needed

as part of implementing the FISH4ACP project, including engineers, cold storage specialists and others with skills and training. The strategy for implementation of activities covers 10 years, although the EU and FAO's involvement is for a five-year period.

### **WCPFC** conservation action

Throughout the year, the Oceanic Division engaged in the ongoing work of the Western and Central Pacific Fisheries Commission (WCPFC). This includes participation on the Scientific Committee and the Technical and Compliance Committee, the two main subsidiary bodies of the Commission. In addition, Oceanic Division staff engaged in multiple smaller working groups and workshops during the year, including the workshop for Development of Labor Standards and the Working Group on Electronic Monitoring and Electronic Reporting. The work

in these various committees and workshops progresses work on key fisheries issues to present to the annual WCPFC meeting that is held every December. However, with Covid border closures, the December 2022 meeting was the first in-person session in three years.

In December 2022, the Marshall Islands delegation for the WCPFC's annual meeting in Vietnam was led by MIMRA Board Chairman Minister John Silk. This meeting recognized the fine work of two individuals who were stepping down at the end of their terms in their positions: Jung-re Riley Kim, Chair of WCPFC, and Feleti Teo, Executive Director of WCPFC.

Throughout the year in the leadup to the WCPFC annual meeting, the Oceanic Division was focused on two primary areas: A Draft Conservation and Management Measure on a Management Procedure for WCPO Skipjack Tuna, and a Proposed Amendment On Establishing a Harvest Strategy for Key Fisheries



### CEANIC

# **Taking** care of skipjack stocks

and Stocks in the Western and Central Pacific Ocean. These were supported by MIMRA and all Pacific Islands Forum Fisheries Agency members. The Oceanic Division worked on developing and promoting both of these proposals which are essential for both coastal states and distant water fishing nations. MIMRA Deputy Director Oceanic, Berry Muller, led the Small Working Group on Skipjack Management Procedure during the annual meeting in December.

MIMRA believes these measures are critical to long-term sustainability of tuna in this region. The fundamental point is to look at where the islands want to see the tuna fishery in five to 10 years time, and then answer the key question: What must all fishing nations do now in ensuring the many interconnected issues that are crucial pieces of ensuring livelihoods and resilience for generations to come are secured well into the future? How can we be efficient in moving these many interconnected issues into decisions that can be acceptable to all?

These important conservation management issues that were on the table for consideration at the December annual meeting led the Commission to agree to strengthen its commitment to a harvest strategy approach to managing tuna stocks and to adopt an interim management procedure for skipjack tuna. Both are important for conservation and steps in the process to expand sustainable



MIMRA observer Alex Leander ready to board a longliner in Majuro.

"The final important agenda item for the WCPFC was selection of the next WCPFC executive director. Feleti Teo, who had run the Pohnpei-based organization for two terms, was to step down in early 2023. Rhea Moss-Christian was nominated for this position by the Marshall Islands."

management of the fishery.

In another important decision, the Commission agreed to reinstatement obligations related to fisheries observers on board vessels. January 1 was agreed as the date for observers to start returning to purse seiners and other fishing vessels, after a more than two-year hiatus due to Covid. Fisheries observers are an essential element of the monitoring, control and surveillance system in the region as they provided on-board information critical to fisheries management.

The final important agenda item for the WCPFC was selection of the next WCPFC executive director. Feleti Teo. who had run the Pohnpei-based organization for two terms, was to step down in early 2023. Rhea Moss-Christian was nominated for this position by the Marshall Islands. Moss-Christian was formerly the chair of the WCPFC for four years.

### **World Bank** supports governance

The Pacific Islands Regional Oceanscape Program for Economic Resilience (PROPER) is the second phase of the Pacific Islands Regional Oceanscape program funded by the World Bank. PROP moved into a transition phase in 2022 to the second phase PROPER. Valuable lessons were learned from the first seven years of PROP implementation that will guide improved, sustainable impacts.

# PROPER way to go forward

During the year, MIMRA staff worked to align PROPER projects with the overarching regional objectives of the original series of projects to contribute to the regional goals of strengthening sustainable oceanic and coastal fisheries management. PROPER is designed as a set of stand-alone projects to be implemented by countries or regional organizations, linked with the collective aim of improved fisheries management, improved climate change adaptation and economic resilience. PROPER is structured to allow these projects to work in conjunction and for all national projects to contribute toward regional policy objectives and focus on addressing national priorities.

For the Marshall Islands, PROPER will contribute in the short and medium term to socioeconomic recovery from the Covid pandemic by stimulating employment and livelihood opportunities. In the longer term, it aims to contribute to the economic resilience of the fisheries sector and the country by maintaining and enhancing the economic value of both oceanic and coastal fisheries. Building on the experience from the PROP first phase, employment positions generated and funded through PROPER will be transitioned to MIMRA subject to a needs and performance assessment, as was the case with the Competent Authority officers engaged and funded by the PROP first phase work. This approach builds sustainability beyond the project period.

PROPER is made up of four project components:

- Strengthening Policy and Institutions
- Strengthening Regional Collaboration and National Capacity for Oceanic Fisheries
- Strengthening Regional Collaboration and National Capacity for Coastal Fisheries and Conservation of Critical Coastal Habitats



The Syota Maru takes on tuna from two purse seiners.

"The Marshall Islands committed to sharing its vessel monitoring data on Global Fishing Watch's public map, bolstering ocean governance and promoting compliance throughout some of the world's richest fishing grounds."

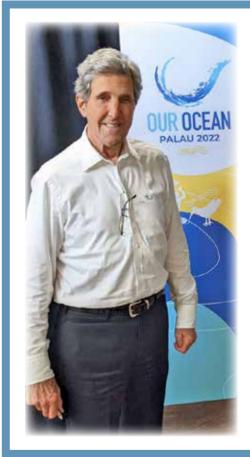
• Project management.

The development objective of PROPER is to strengthen regional collaboration and national capacity for the management and the sustainable development of the oceanic and coastal fisheries sector in the Marshall Islands.

The preparation phase for PROPER started from Feb 13, 2022 and was to continue to May 2023. This preparation phase was funded on a retroactive basis by MIMRA to show its commitment to support the management of the fisheries sector. The \$18 million PROPER project was scheduled to be approved by the World Bank Board in May 2023. The expected life span of the project is six years with an anticipated closing date is of 30 September, 2029.

### Transparency in operations

The Marshall Islands committed to sharing its vessel monitoring data on Global Fishing Watch's public map, bolstering ocean governance and promoting compliance throughout some of the world's richest fishing grounds. This momentous decision for fisheries transparency was announced during the Our





Left, the US Special Presidential Envoy for Climate John Kerry at the Our Oceans Conference in Palau in April, 2022, Above, Global Fishing Watch's CEO Tony Long with Forum Fisheries Agency Director Dr. Manu Tupou-Roosen, and Minister John Silk in Palau

# Demonstrating compliance

Oceans Conference in Palau in April by MIMRA Board Chairman Minister John Silk, who headed the delegation at the global summit.

The partnership agreement was signed between MIMRA and Global Fishing Watch in Palau.

It symbolizes the two organizations' dedication to advancing transparency of fishing activities in the Pacific Islands region.

"There is real value in open data when it comes to monitoring the ocean," said Director Joseph. "By making its fishing activity visible on the Global Fishing Watch map, the Republic of the Marshall Islands is helping demonstrate compliance.

"We hope the data-led insights complement already existing monitor-

"By making its fishing activity visible on the Global Fishina Watch map, the Republic of the Marshall Islands is helpina to demonstrate compliance."

ing, control and surveillance tools to validate what is being reported by flag States and strengthen the way fisheries are managed."

Tony Long, chief executive officer of Global Fishing Watch, said: "Global

Fishing Watch is honored to be partnering with the Marshall Islands to build greater transparency of fishing activity in the Pacific.

"This progressive decision will help facilitate accountability and good behavior in the region and support a more sustainable future by strengthening fisheries monitoring."

The partnership with Global Fishing Watch is an important element of MIM-RA's regional commitment to combat illegal, unregistered and unregulated (IUU) fishing. "In 2018, Marshall Islands' President Hilda Heine set out a bold vision of an IUU-free Pacific by 2023," said Minister Silk at the announcement of the agreement in April 2022.

"Other Micronesian presidents signed



Director Glen Joseph explains MIMRA's state-of-the-art fisheres monitoring systems.

# System spots illegal activity

onto that challenge the following year. To achieve this ambitious goal, we must harness innovative technologies to protect our marine resources and the livelihoods of Pacific people."

Global Fishing Watch uses publicly broadcast automatic identification system data to track close to 70,000 commercial fishing vessels operating globally. Adding VMS data provides an even clearer view of global fishing activity. The data can assist fishers abiding by the rules through faster, more efficient port entry and provide opportunities to implement regulatory and market incentives to reward them.

"Transparency can help vessel operators publicly demonstrate compliance and show their commitment to implementing relevant conservation measures," said CEO Long.

"We believe the Marshall Islands" pioneering leadership will encourage other Pacific nations, as well as industry stakeholders, to embrace transparency in support of enhanced ocean governance."

### Stepping up surveillance capacity

Oceanic Division Enforcement Officers began making use of a "maritime

"The Oceanic Division began trialing a new 'maritime domain awareness platform' developed by a New Zealand firm, Starboard Maritime Intelliaence (starboard.nz)."

domain awareness platform" developed by a New Zealand company to identify suspected illegal fishing activity in the western Pacific during the latter part of 2022. This helped the Oceanic Division begin identifying apparent illegal activity of vessels in the region through the use of the new system.

The development highlights new and expanding capability for monitoring, control and surveillance, not only of the Marshall Islands EEZ but also of neighboring EEZs. The Oceanic Division's state-of-the-art MCS center at the MIMRA headquarters in Majuro makes it possible to integrate multiple surveillance and data systems for the benefit of Enforcement Officers' monitoring and, when concerns are identified, follow up

investigations.

Once the Marshall Islands border reopened in 2022, Francisco Blaha, MIM-RA's offshore fisheries advisor supported by the New Zealand Ministry of Foreign Affairs and Trade, continued in-country work with fisheries boarding and compliance officers Stephen Domenden and Stevenson Graham. Over time, Oceanic Division compliance officers have become more savvy in understanding and evaluating vessel movements that are captured through satellite imagery, vessel monitoring systems and onboard logs, and for vessels that come into Majuro port, onboard assessments.

The Oceanic Division began trialing a new "maritime domain awareness platform" developed by a New Zealand firm, Starboard Maritime Intelligence (starboard.nz). The software program "provides teams with a comprehensive view of maritime activity and powerful tools for analysis." Combining global automatic identification system data, multiple layers of satellite data, scientific models, and other information, the Starboard software supports fisheries teams to "effectively analyze and investigate vessels and areas," according to starboard.nz home

With the support of Director Glen Joseph, Blaha worked with the New Zea-



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# NZ firm fine tunes intricate software

land firm to roll out the fisheries monitoring software for the Oceanic Division — in addition to the multiple monitoring systems already in play at the MIMRA headquarters building in Majuro. As the Oceanic Division staff began using it last year, they also offered suggestions to the

Starboard team to develop additional capabilities specific to this fishery, which led to the Starboard team developing additional algorithms to help track vessels that MIMRA was monitoring. Of significance, the availability of the new Starboard software program al-

lowed the Oceanic Division to monitor and evaluate the behavior of tuna carrier vessels. Although there are hundreds of these large vessels supporting the purse seine fishery in the region, little has been known about their operations outside of in-port transshipment operations. This is because most of the fisheries surveillance and monitoring focuses on purse seine and longline fishing vessels because these are actual fishing boats. But the Oceanic Division MCS officers began taking a closer look at carrier vessels and their interest was piqued after the seeing unusual behavior by a S. Korean carrier vessel while it was in Kiribati waters that did not fit with its stated voyage of voyaging from S. Korea to the Federated States of Micronesia.

The New Zealand system can segregate data to show only the movement of



Melvin Silk works with offshore fisheries advisor Francisco Blaha.



carriers, a technological capability not available as recently as 2021. This technology allows the Oceanic Division to perform surveillance operations that it couldn't conduct in the past. In addition, collaboration between the Oceanic Division and the New Zealand company led to improvements in the programming, with new algorithms developed specifically to pick up movement of carrier vessels.

Using the new system, the Oceanic Division MCS officers saw a S. Korean carrier vessel leave S. Korea and head for its intended port of call in the Federated States of Micronesia. But instead of stopping in Micronesia it continued into Kiribati waters — a thousand miles further to the east — where it then proceeded to change its course into a zig-zag movement over a period of days before turning

around and heading back in a straight line to a port in Micronesia. Oceanic Division MCS officers wondered, Why didn't it go directly from point A to B since its port of call was in the FSM, not Kiribati. After review, the MCS officers determined the only

reason for the zig-zag movement was a vessel dropping fish aggregating devices (FADs) into the water — an activity for which this carrier vessel was not licensed to perform. This discovery with the S. Korean vessel led MCS officers to take a closer look at the behavior of other carrier vessels to broaden their oversight of the fishery.

### **Tuna transshipments** and exports

The Marshall Islands did not approach its pre-Covid level of transshipment in either 2021 or 2022. However, transshipment operations did rebound significantly from the 13-year record low established in 2020 when strict border controls dramatically curtailed tuna

### OCEANIC



#### Total Catch Purse Seine Fleets\* in the Marshall Islands EEZ 2013-2022

Year	SKJ	YFT	BET	OTH	Total
2013	40,113	1,514	538	6	42,171
2014	66,196	3,477	668	18	70,359
2015	21,293	4,295	126	0	26,344
2016	72,329	5,790	648	0	78,767
2017	22,765	2,901	788	65	26,519
2018	26,424	2,168	253	58	28,903
2019	4,806	65	410	11	5,394
2020	28,915	7,000	871	55	36,841
2021	35,842	18,270	514	14	54,640
2022	38,655	1,918	523	28	41,123++

Figures are metric tons. \* Marshall Islands, Taiwan, Kiribati, FSM, Nauru, Tuvalu, Japan, China, and S. Korea (listed in order of catch tonnage). Key: SKJ=Skipjack Tuna, YFT=Yellowfin Tuna, BET=Bigeye Tuna, OTH=Other. ++ 2022 tonnage is provisional.

#### Total Catch Longline Fleets\* in the Marshall Islands EEZ 2013-2022

Year	ALB	BET	YFT	OTH	Total
2013	237	2,972	2,014	738	5,961
2014	172	4,680	2,346	680	7,878
2015	122	2,286	1,380	359	4,147
2016	67	1,522	1,127	420	3,136
2017	71	1,698	1,389	445	3,603
2018	52	2,210	1,262	316	3,840
2019	134	1,974	1,699	410	4,269
2020	21	1,640	1,282	256	3,199
2021	122	1,677	1,136	331	3,265
2022	233	1,636	1,347	368	3,584++

Figures are metric tons. \*Longline: Marshall Islands chartered, FSM, and Japan (listed in order of catch tonnage). Key: ALB=Albacore, BET=Bigeye Tuna, YFT=Yellowfin Tuna, OTH=Other.

#### Total Catch Pole-and-Line Fleets\* in the Marshall Islands EEZ 2013-2022

Year	BET	SKJ	YFT	Total
2013	3	1,719	4	1,726
2014	3	3,317	21	3,341
2015	0	615	2	617
2016	0	429	1	430
2017	0	72	0	72
2018	0	1,017	1	1,018
2019	0	1,022	2	1,024
2020	0	2,223	9	2,619
2021	2	761	14	777
2022	0	880	13	893++

Figures are metric tons. \* Pole-and-line fleet is exclusively Japan. Key: BET=Bigeye Tuna, SKJ=Skipjack Tuna, YFT=Yellowfin Tuna.

# **Transshipment** operations see a big rebound

transshipment in Majuro port. A total of 257 transshipments were conducted by purse seiners transferring their catches to carrier vessels in the lagoon or unloading at docks for freezer container storage and later shipment to canneries. This amounted to an average of 21 transshipments per month in 2022. While this was a decrease from the 298 transshipments the previous year, 2022 set the all-time record for average tuna tonnage per transshipment. The 257 transshipments accounted for an estimated 218,759 metric tons, nearly identical to the 2021 tonnage. This represented an average of 851mt per transshipment, which beat the record set in 2019 of 807mt per transshipment.

Transshipment operations in 2020 were dramatically curtailed due to Covid border controls that caused purse seiners long delays in entry to offload tuna, forcing them to other ports in the region with less stringent rules. Although both 2021 and 2022 represented solid rebounds from 2020, both years were impacted by climactic conditions that saw tuna schools generally far to the west in the Papua New Guinea region. This made Majuro a less convenient port for transshipment for many purse seiners and saw transshipment operations rise in other ports in the PNA region.

Ongoing Covid port restrictions for most of 2022 kept MIMRA Oceanic Division staff off purse seine vessels transshipping in the lagoon until the end of August, following the first outbreak of Covid in the Marshall Islands. Once Covid spread to the Marshall Islands in August 2022, the long-term border clo-

### Provisional purse seine transshipments in Majuro port in 2022

Flag	Number of PS Transshipments	SKJ	YFT	BET	
China	8	5,682	459	10	
El Salvador	1	819	176	275	
FSM	39	30,237	3,655	493	
Kiribati	1	850	225	5	
Korea, Republic	of 1	380	335	715	
Marshall Islands	65	50,190	3,081	443	
Nauru	46	34,815	4,558	562	
Papua New Gu	inea 9	6,010	1,527	133	
Solomon Islands	s 3	1,943	146	126	
Spain	3	4,512	588	1,475	
Taiwan	74	50,215	6,580	1,038	
Tuvalu	7	5,471	1,008	24	
Total	257	191,123	22,337	5,299	

Note: The numbers listed under different tuna species are metric tons. Key: SKJ: Skipjack; YFT: Yellowfin; BET: Bigeye.

# Official monitoring resumed

sure and related port entry rules ended, making it easier for vessels to transship and allowing Oceanic Division fisheries enforcement officers to return to in-person monitoring of transshipment operations in the lagoon.

The breakdown of the 257 transshipments in 2022: There were 219 transshipments, 35 split between transshipments and unloadings, and three unloadings at dockside. For comparison, in 2021, there were 39 split and nine complete unloadings.

Taiwan-flagged vessels again led all purse seiners in the number of tuna transshipments conducted in Majuro during 2020. Taiwan vessels transshipped tuna 74 times during the year that amounted to almost 30 percent of the total. Just behind Taiwan were Marshall Islandsflagged purse seiners that transshipped their tuna 65 times, or about 25 percent of the total. Nauru-flagged vessels were in third place with 46 transshipments

"Taiwan-flagged vessels again led all purse seiners in the number of tuna transshipments conducted in Majuro during 2020. Taiwan vessels transshipped tuna 74 times during the year."

and Federated States of Micronesia vessels accounted for 39 transshipments. The rest of the transshipments were single digits: Papua New Guinea (9), China (8), Tuvalu (7), Solomon Islands and Spain (3 each), and El Salvador, Kiribati and S. Korea (1 each).

Transshipment fees were identical in 2021 and 2022: \$347,000 each year.

Fisheries observers returned to active duty on purse seiners toward the end of 2022 when Covid border restrictions ended. For the year, observers went on nine purse seine vessel fishing trips to monitor their operations. There were no observer trips on longline vessels in 2022. Port monitoring of transshipment operations in the lagoon was suspended in early 2020 and continued through August 2022, after which MIMRA staff resumed in-person monitoring of transshipment operations. However, inperson monitoring of dockside unloadings of tuna from purse seine vessels for Pan Pacific Foods and Pacific International Inc. and longline vessels at Marshall Islands Fishing Venture continued throughout the year, following adherence to standard operating procedures for Covid prevention until August.

In addition to the purse seine transshipment activity, the 23 longline vessels associated with the Marshall Islands

### OCEANIC



# PPF leads in tuna export numbers

Fishing Venture-operated fish base unloaded a provisional total of 3,582mt of tuna in Majuro. The bulk of the catch was bigeye tuna (1,675mt) and yellowfin tuna (1,364mt). These two species accounted for 85 percent of the tuna unloaded at the MIFV fish base in Majuro. MIFV exports mainly fresh chilled tuna species to markets in the US, China and Canada. Frozen fish (rejects and bycatch) are shipped to Asia via transport containers and/or sold locally.

In 2022, the Pan Pacific Foods, MIFV, and Pacific International Inc. combined to export 9,196mt tons of whole tuna in freezer containers. PPF exported the largest amount of this total with 3,954mt. Skipjack accounted for 5,379mt, followed by yellowfin that totaled 3,549mt. Bigeye exports amounted to 268mt. Of the total exported, 5,749mt was sent to Thailand, 2,345mt was exported to Vietnam, 1,077 went to the Philippines and 24mt went to Japan.

### **Private** sector growth

MIMRA, on behalf of the government, maintains a joint venture partnership with Koo's Fishing Company, Ltd. through the Marshall Islands Fishing Company. MIFCo operates two purse seiners. This venture provides an additional revenue stream as well as being a catalyst for further on-shore developments. In 2022, the MIFCo joint venture vessels generated

Number of foreign longline, pole-andline and purse seine vessels licensed to fish in RMI EEZ, by year and flag, from 2018 to 2022.

FLAG	GEAR	2018	2019	2020	2021	2022
CHINA	LL	0	22	20	18	22
	PS	8	9	9	9	10
FSM	LL	9	9	10	12	11
FSMA	PS	49	54	70	83	79
JAPAN	LL	6	9	2	2	1
	PL	11	20	21	25	15
	PS	25	26	28	29	22
KIRIBATI	PS	5	7	3	4	2
KOREA	PS	24	25	25	21	20
PHILIPPINES	PS	13	10	15	15	15
CH-TAIPEI	LL	0	1	0	0	0
	PS	23	24	18	21	23
TUVALU	PS	1	1	0	1	1
USA	PS	31	6	25	0	0
TOTAL	LL	15	41	32	32	34
	PL	11	20	21	25	15
	PS	179	162	190	183	195

\$307,596 net income to MIMRA. Of the 11 domestically registered purse seiners, Koo's Fishing Company maintained four vessels, MIFCo had two and Pan Pacific Foods had five. Koo's added one compared to 2021, while PPF had one fewer than the previous year.

The PPF loining plant operations in 2022 were limited to cold storage and containerization of fish. It operated five Marshall Islands-flagged purse seine vessels, which supplied the plant with raw materials. The plant did not produce any processed fish during 2022 due in part to Covid restrictions and staff storages. PPF exported 3,549mt tons of containerized whole tuna.

Pacific International Inc. handled 10 unloadings of the tuna catch from purse seiners for storage in dockside freezer containers for later shipment to offshore canneries. The total volume of the 10 unloadings amounted to 4,197mt filling 173 containers. PII's net yard handled net repairs for only three purse seiners during the year, an indication of the challenges caused by Covid port entry restrictions through most of the year.

Longline vessels chartered by MIFV, as noted earlier, unloaded 3,582mt of tuna at the Majuro fish base. Most of MIFV's tuna tonnage, mainly fresh chilled tuna, was exported to markets in the US, China and Canada. Frozen fish (rejects and bycatch) were shipped to Asia via transport containers and/or sold

The national fleet of 11 Marshall Islands-flagged purse seine vessels caught an estimated 85,984mt in 2022, slightly lower than the 89,434mt caught in 2021.

#### Tuna caught in RMI EEZ

A total of 244 purse seine, longline and pole-and-line vessels were licensed to fish in Marshall Islands waters in 2022. Not all of those licensed actually fished. This number of vessels was up from the previous year's total of 240 vessels licensed. The breakdown of the fishing licenses shows 195 purse seiners, 34 longliners and 15 pole-and-line vessels. The number of pole-and-line vessels declined significantly from the



Crew members work on repairing their nets at the PII net yard. Inset, the big picture view of the yard.

# Skipjack still the dominant fish

previous three years, when between 20 and 25 were licensed to fish in the Marshall Islands EEZ. The year-to-year fluctuation in licenses generally reflects variations in the location of tuna schools.

For the second year in a row, there were no US-flagged vessels licensed to fish. In contrast, FSM Arrangement vessels remained the dominant factor in vessel registrations with 79 purse seiners licensed, over one-third of the total. FSMA purse seiners accounted for 41 percent of the 195 licensed. Japan was next with 38 licensed vessels — 22 purse seiners, 15 pole-and-line vessels, and one longliner. China licensed 32 vessels, a mix of 22 longline and 10 purse seine vessels. Taiwan licensed 23 purse seiners to fish, while S. Korea had 20 and the Philippines 15. The FSM licensed 11 longline vessels, and Kiribati awnd Tuvalu had two and one purse seine vessel licensed to fish, respectively.

The commercial catches within the Marshall Islands EEZ are taken predominantly by the purse seine fishery

"The correlation between El Niño and fish catches in Marshall Islands waters was demonstrated in the 2015-2016 period. An El Niño event occurred in 2015 and the following year, the catch tonnage soared to an all-time record of 78,767mt."

but longline and pole-and-line operations also occur. In 2022, the estimated total catch for all fishing gears combined was 45,600mt with purse seine accounting for 90 percent followed by longline eight percent and pole-and-line two percent. Purse seine catch in the Marshall Islands EEZ decreased from 54,640 metric tons in 2021 to 41,123 metric tons in 2022. Skipjack tuna continued to be the dominant catch, accounting for 94 percent of the total catch in 2022. A total of 44 percent of the purse seine catch in the EEZ was taken by the 11 Marshall Islands-flagged vessels. The catch rates in the Marshall Islands EEZ are usually influenced by prevailing environmental conditions, with higher catches recorded during or immediately following strong El Niño periods. The correlation between El Niño and fish catches in Marshall Islands waters was demonstrated in the 2015-2016 period. An El Niño event occurred in 2015 and the following year, the catch tonnage soared to an all-time record of 78,767mt. Thereafter catches declined into the 26,000-28,000mt range for two years as the region entered an ENSO neurtral period, before plummeting to 5,292mt in 2019. Total catches have fluctuated since then, with 36,841mt caught in 2020, rising to 54,640mt in 2021, then declining to 41,123mt in 2022.

The breakdown of the catch tonnage for the three types of fishing gears active in Marshall Islands waters in 2022:

• Purse seine catches: The estimat-



The transshipment vessel Sea Blazer receives Ocean Galaxy's catch in Majuro lagoon.

# Big jump in yellowfin catch

ed total catch of the purse seine fleets operating in the Marshall Islands EEZ show that the catch decreased in 2022 compared to 2021, from 54,640mt the previous year to 41,123mt in 2022. The tonnage fluctuations from year to year reflect the climatic situation in the region. As always, skipjack was the dominant species in the purse seine catch, with 38,655mt in 2022, or 94 percent of the tonnage. A total of 1,918mt of yellowfin, 523mt of bigeye, and 28mt of "other" species was caught rounding out the catch for 2022.

An interesting anomaly occurred in 2021, when yellowfin tonnage accounted for one-third of the total catch. Generally, the yellowfin total fluctuates between five and 10 percent of the total purse seine catch. In 2022, the yellowfin percentage returned to its more usual level at five percent.

• Pole-and-line catches: Despite the smaller number of Japan pole-and-line vessels licensed to fish compared to the previous year, the total catch increased over 2021. In 2021, pole-and-line vessels caught 777mt of tuna, while in

2022 the total rose to 893mt. Catch levels were higher in the 2018-2020 period, ranging from 1,018mt to 2,619mt. Skipjack accounted for nearly all of the pole-and-line catch in 2022, for 880mt or 99 percent of the total. Yellowfin accounted for 13mt.

• Longline catches: After a decline in longline catch tonnage in 2020, the following two years show a trend of increasing tonnage. The provisional longline catch for 2022 of 3,584mt was an increase on the 3,265mt the previous year. Bigeye tuna comprised nearly half of the total catch, with 1,636mt, followed by yellowfin at 1,347mt. Albacore and other species made up the balance. The 23 chartered longline vessels associated with the Marshall Islands Fishing Venture fish base operation accounted for the majority of this catch with 2,357mt or 66 percent. FSMregistered vessels caught the next highest volume, estimated at 989mt. Japan longline vessels caught 238mt. In contrast to the purse seine fishery, which is mostly concentrated in the southern waters of the Marshall Islands' EEZ,

longline fishing is more widely dispersed throughout the EEZ.

### Catch in the WCPFC area

The 11 Marshall Islands-flagged purse seiners caught an estimated 85,984mt of tuna during 2022 in the Western and Central Pacific. This volume was consistent with the catches the past several years which saw 95,533mt, 81,913mt and 89,434mt caught in 2019, 2020, and 2021, respectively. Meanwhile, the annual catch estimate for longline vessels that are chartered by the Marshall Islands Fishing Venture in Majuro amounted to an estimated 2,446mt. This compares to the previous three years when chartered longliners caught 2,890mt, 1,599mt and 1,733mt in 2019, 2020, and 2021, respectively, in the WCPFC area. (Note: the difference between the 2,466mt charter vessel total and the total in the previous paragraph is due to the fact that the higher tonnage figure has undergone the raising process using data from other sources, including observers. Both totals remain provisional.).





### CEANIC



Nauru Total



Observer Wilmot Bikajela holds his caliper. Right, liferaft training.

### **OBSERVER PROGRAM**

### Fisheries Observer trips by flag and gear 2022

#### Flag Purse Seine Longline Taiwan 6 **FSM** 0



0

# Watchdog team hit hard

s was the case in 2020 and 2021, MIMRA fisheries observers continued to be the most seriously affected group within MIMRA during the Covid pandemic. The halt to deployment of observers on purse seiners at the beginning of March 2020 until late 2022 saw the number of observer trips plummet to only 10-to-20 percent of the level in the pre-Covid year of 2019.

From March 2020 to November 2022, there were no MIMRA observer trips on purse seiners. Prior to this, purse seine trips made up the bulk of observer work. For the five years prior to Covid, 2015-2019, MIMRA observers averaged 159 purse seine trips annually, with a high of 182 in 2015. Longline observer trips also declined well below the previous five-year average of 29 per year. In 2020 and 2021, MIMRA observers performed a total of 35 trips, for a 17.5 longline trip average per year. In 2022, however, there were no longline trips and only nine on purse seiners. All of the latter were accomplished in the waning months of 2022, after border restrictions were lifted in August following the introduction of Covid into the Marshall Islands for the first time and resumption of observer operations on purse seiners.

MIMRA observers were fully reinstated back on purse seine vessels as of November 2022 (the Western and Central Pacific Fisheries Commission at its December annual meeting approved the full resumption of observer operations Pacific-wide from January 1, 2023). From this late stage in 2022, MIMRA observers covered three PNA trips for a total of 158 sea days (an average of nearly 53 days per trip) and six bilateral trips for 252 sea days (an average of 42 days per trip). This was nine purse seine vessel observer trips for the years accounting for 410 sea days in 2022. No longline vessel trips were undertaken, due to a combination of factors related to Covid restrictions and renegotiation of a new longline placement memorandum of understanding.

The border closures in Marshall Islands and in most Pacific Island nations during the 2020-2022 period hit MIMRA's observer force hard. Although observers qualified for the United States government's Pandemic Unemployment Assistance program, which provided most of them with replacement wages for lost work, many trained observers left for other jobs or migrated to the US during the pandemic. At the outset of pandemic and into 2021, MIMRA was able to maintain 42 active observers. This number dropped to 34 in 2022, as eight left the program. An important point of emphasis for MIM-RA going forward will be to rebuild its observer group to pre-Covid levels.

MIMRA's core group of observer managers and debriefers remained stable in 2022 with five full-time observer staff. This included a compliance officer, data specialist, data entry/debriefer assessor, observer assistant trainer/debriefer assessor, and a longline port sampler. MIMRA's Observer Program also maintained three senior observers and five trainee debriefers. Each of the trainee debriefers has accomplished some of



### Fisheries Observer trips 2015-2022

Year	PS	LL	Total
2015	182	0	182
2016	175	28	203
2017	153	39	192
2018	145	34	179
2019	141	33	174
2020	20	12	32*
2021	0	23	23*
2022	9	0	9*

\* Observer coverage restricted due to Covid Source: MIMRA Oceanic Division.



MIMRA observers Simon Lucky, Ricky Lalimo, and Fred McKay model their safety accessories, including inflatable lifevests.

# by long border closures

the requirements to be certified as a fullfledged debriefer. These certification requirements include completing practicum debriefing sessions under the supervision of a certified debriefer as well as a debriefer assessor, and participating in three phases of training: Introduction to debriefing, real-time one-on-one session with an observer, and pass the debriefer examination. Covid delayed the completion of these training opportunities for the five trainee debriefers to become fullfledged, certified debriefers.

MIMRA currently maintains two debriefer assessors and two observer trainers. All four are Pacific Islands Regional Fisheries Observer (PIRFO)-certified. PIRFO is an SPC-managed program for the region. Observer trainings are conducted at the College of the Marshall Islands campus in Arrak, Majuro.

During 2022, there were several workshops for observer trainers and coordinators. They were:

• 9th PNA Coordinators Meeting and the 22nd SPC/FFA Regional Observer Coordinators Workshop (February 28-March 4, 2022)

This coordinators workshop was conducted virtually via Zoom, since the pandemic at the time was an ongoing issue around the Pacific. The main accomplishments of the weeklong workshops included:

- · Receiving suggestions and recommendations from members to prioritize observer redeployment on fisheries vessels and normalizing safety precautions on a daily basis (including washing hands, wearing Personal Protective Equipment such as visor, mask, gloves and etc.). This preparation for resumption of observer activity was a win-win situation for purposes of scientific data collection as well as the observers regaining their livelihoods as seafarers to provide for their families.
- Discussing improvements for observer accommodations on purse seiners.
- Approving the requirement that to resume work onboard vessels, observers must complete or at least get Covid vac-

cinations.

- Debriefer Assessor/Trainer Workshops (November 28-December 2 and December 5-9, 2022)
- · MIMRA PIFRO-certified debriefers Iaokiri Barai and Jacob Keju participated in the first training: Both Iaokiri and Jacob attended the five-day training and revalidation as Debriefer Mentors and Assessors November 28-December 2.
- Only Iaokiri was able to participate in the follow-on five-day refresher for observer trainers as well reviewing new training materials in preparation for PIR-FO training to resume across the Pacific in 2023.
- · Iaokiri and Jacob completed the program and are certified as PIRFO Debriefer Mentors and Assessors. Iaokiri also accomplished a certification as an official PIRFO Trainer. Both can now supervise and evaluate debriefers. In terms of PIRFO trainer work, Iaokiri is now certified so he can conduct trainings and other observer refresher courses approved by MIMRA.



# Oceanic highlights

#### **Vessels tonnage**

There were a total of 257 tuna transshipments in Majuro port in 2022. The transshipments accounted for 218,759 metric tons of tuna. Although the number was lower than the 298 transshipments in 2021, the average tuna tonnage per transshipment set an all-time record in 2022 at 851mt per transshipment. The breakdown of the transshipments to carrier vessels and unloadings at dockside in 2022: There were 219 transshipments, 35 split between transshipments and unloadings, and three unloadings dockside. For comparison, in 2021, there were 39 split and nine complete unloadings.

#### **VDS** success

Purse seine Vessel Day Scheme (VDS) revenue continued a two-year decline with over \$1 million less in 2022 than the previous year. VDS revenue totaled \$24,986,928 in 2022, down from \$26 million in 2021 and a further decline from 2020 and 2019, when MIMRA collected \$28.1 million each year from the VDS. Fishing rights revenue grew by 62 percent, from \$3.3 million in 2021 to \$5.4 million in 2022 largely due to increased fees from FSM Arrangement and US Treaty vessels. Licensing fees were almost identical: \$2.4 million in 2022 compared to \$2.5 million in 2021. Total net operating revenue at \$35.6 million was similar to 2021 with an increase of \$7,233.

#### **Vessel licenses**

A total of 244 purse seine, longline and pole-and-line vessels were licensed to fish in Marshall Islands waters in 2022, a slight increase from the 240 licensed the previous year. The breakdown was 195 purse seine, 34 longline, and 15 pole-and-line vessels. As is the case each year, not all licensed vessels



### Tuna transshipment Majuro 2014-22

actually fished in the Marshall Islands EEZ during the year..

#### **Funding to RMI**

MIMRA transferred \$26.2 million to support the national government's budget in 2022, a figure that amounted to about 10 percent of the budget. It was a modest increase on the \$26 million provided in 2021.

#### National fleet

The Marshall Islands-flagged purse seine fleet of 11 vessels caught an estimated 85,984mt of tuna, slightly less

than the 89,434mt in 2021. In addition, the provisional catch of the 23 longline vessels associated with the Majurobased Marshall Islands Fishing Venture-operated fish base totaled 3,582mt, over double 2021.ure-operated fish base totaled 1,733mt.

#### Observer action

Despite the Marshall Islands border being closed due to Covid from March 2020 to August 2022, which halted most observer trips, MIMRA was able to maintain 36 active observers. A total of nine purse seine trips were observed in 2022.

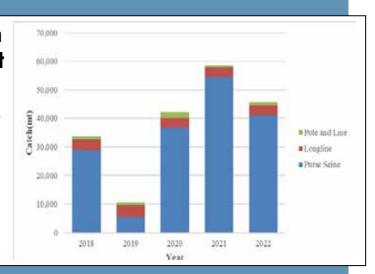


### CEANIC

# for MIMRA in 2022



Total catch by different fishing gear-types operating in the RMI **EEZ from** 2018 to 2022



in 2022 there were 219 transshipments, 35 split between transshipments and unloadings, and three unloadings dockside. For comparison, in 2021, there were 39 split and nine complete unloadings.

Source of tables on p24 and 25: MIMRA Oceanic Division.

#### PII vessel service

The border closure until late August 2022 due to Covid continued to impact Pacific International Inc. fisheries operations. For 2022, PII handled 10 unloadings of the tuna catch from purse seiners for storage in dockside freezer containers for later shipment to offshore canneries.

The total volume of the 10 unloadings amounted to 4,197mt filling 173 containers. PII's net yard handled net repairs for three purse seiners during the year.

### Onshore processing, exports

Pan Pacific Foods (PPF) loining plant continued operations in 2022 but these were limited to cold storage and containerization of fish. The company again did not produce processed fish as in 2021. PPF, PII and the Marshall Islands Fishing Venture combined to export to offshore canneries 9,196mt tons of whole tuna in freezer containers. The largest volume of these exports, 5,749mt, went to Thailand. A total of 2,345mt was exported to Vietnam, 1,077mt to the Philippines, and 24mt to Japan.

#### **RMI EEZ tonnage**

An estimated 45,600mt of tuna was caught in the Marshall Islands EEZ by purse seine, longline and pole and line vessels. Most of this volume — 90 percent — was was caught by purse seiners, while longline vessels accounted for eight percent of the total catch and pole and line vessels picked up two percent. The purse seine catch of 41,123mt decreased from 54,640mt the previous year.

### OCEANIC §

# US retail giant banks on

he Marshall Islands has the distinction of being the first Pacific Island to break into the tuna supply chain with a contract for providing Marine Stewardship Council-certified tuna caught in Parties to the Nauru Agreement waters to the American retail giant Walmart.

2022 was a milestone year for the Marshall Islands as it entered the tuna supply chain business for the first time. This was no small feat and was the culmination of over five years of step-bystep work to put the pieces into place to make it happen. The foundation enabling a Marshall Islands company to supply Walmart with tuna is the Marshall Islands membership in the Parties to the Nauru Agreement, the organization of western and central Pacific nations that control waters where most of the world's skipjack tuna is caught.

PNA has implemented a game-changing Vessel Day Scheme (VDS) to manage the purse seine fishery. It has seen revenue accruing to PNA members leap from \$60 million in 2010 to nearly \$500 million in 2022. The VDS involves a multilayered monitoring and control program to promote sustainability in the fishery. Elements of this system — independent verification and a rigorous chain of custody — helped bring Marine Stewardship Council certification of free schoolcaught skipjack and yellowfin fisheries.

Even as revenues have risen dramatically as a result of the VDS, the Marshall Islands and most Pacific Islands have been limited to selling fishing licenses, with some participation in processing tuna in a few islands. For the most part, the participation in the fishery by Pacific Islands has been mainly as license sellers. The VDS, however, has opened the door to PNA members engaging in other aspects of the tuna value chain and MIMRA made the jump into the supply chain in 2022.

Beginning in January, a company based in the Marshall Islands, Pacific Island Tuna Provisions (PITP), be-



gan sourcing container loads of MSC-certified tuna caught in PNA waters for Walmart. Over the year, PITP arranged eight deliveries of tuna to Walmart tuna canneries. Some of the tuna delivered to Walmart was shipped from the Marshall Islands through local business Pacific International Inc.

### How the Walmart deal developed

As the Marshall Islands expands its footprint in the tuna fishery in the Pacific, its guide is an Alaskabased model in which Native Alaskans manage their \$4.5 billion fishery. "Alaska's fisheries are among the best-managed, most sustainable in the world," says the US National Oceanic and Atmospheric Administration.

The concept of moving beyond merely being sellers of fishing licenses to engaging in all aspects of the tuna value chain picked up momentum after MIMRA Director Glen Joseph joined a group of PNA representatives on a tour of Native Alaskan-managed fisheries operations in the late 2010s. The visit was sponsored by MIMRA's long-

time partner, The Nature Conservancy.

"It started with Alaska," said Director Joseph. "It presented other opportunities and led us to ask, what's beyond the Vessel Day Scheme? How could we not take the next step of participating in the value chain?"

The VDS system coupled with the ongoing large-scale tuna transshipment operation in Majuro motivated MIMRA to take next steps. MIMRA and TNC established a Majuro-based limited liability corporation, Pacific Island Tuna Provisions, to be a tuna supply company. This led to a supply contract with the US retail giant Walmart. Despite initial challenges faced by any startup company, Pacific Island Tuna Provisions-supplied tuna resulted in 11 million cans of tuna being produced for Walmart.

The Marine Stewardship Council's certification of PNA's free school tuna fishery a decade ago recognized PNA's sustainable management system for skipjack and yellowfin tuna, giving the PNA fishery a global stamp of acceptance. It both confirms the quality of PNA management through the VDS and adds value in the marketplace for tuna caught in a sustainable manner.



# Marshall Islands partner



### Joint venture makes it possible

Pacific Island Tuna Provisions, LLC was established to pursue commercial tuna opportunities that support sustainable fishing in the region. It is the first time an individual PNA country has pushed its way into the global tuna distribution industry that is controlled by a handful of large tuna industry players in Asia, the United States and elsewhere. By opening up a major market for tuna caught without the use of fish aggregating devices it is increasing market opportunities for sustainably caught tuna.

The Walmart contract for tuna supply in 2022 dovetails with MIMRA's dual goals of developing new opportunities in the tuna value chain while at the same time promoting sustainable and socially-responsible fishing operations.

MIMRA and PITP ran into industry pushback when they began the move into the tuna supply business. The supply sector is dominated by large industry companies. Some questioned why the Marshall Islands would try to move into the tuna supply business. The simple fact is the Marshall Islands, as a tuna resource owner, wants to expand its participation in the tuna fishery. And the PNA's management system opens the door to the islands getting involved up and down the value chain. Simply stated, the PNA/MSC-certified skipiack and vellowfin fisheries are the best and they are a sovereignty tool that the Marshall Islands is now using.

Walmart's business model for food sourcing aligns with MIMRA's and the PNA's tuna sustainability system. Retailers want sustainably sourced fish, which requires traceability and accountability. The VDS provides all of this by maintaining the chain-of-custody from fishing to delivery of the finished product.

#### Next steps

By the end of 2022, the eight deliveries of skipjack tuna provided by PITP had generated 11 million cans of Walmart's house brand tuna, Great Value. Walmart and PITP planned to extend the tuna supply contract for a two-year term during 2023 in order to expand and accelerate the tonnage of fish being delivered for processing under Walmart's house tuna brand. Walmart executives praised the partnership. "Walmart is actively supporting this project," said Sean Reber, Walmart's senior director for Sourcing and Procurement.

What this translates to is that Walmart, which was ranked as the number one retail company in the world in 2022, is putting its buying weight behind tuna that is caught through the PNA system for sustainably managing tuna in the western Pacific.

After a year of tuna deliveries to Walmart by PITP, other PNA countries are showing interest in the PITP-Walmart arrangement. PITP wanted, and is set up to facilitate, the participation of other PNA members in supplying tuna to Walmart. During the year, PITP and MIMRA representatives updated PNA members about progress of the initiative. At the outset, while wanting to bring in more PNA members, MIMRA and PITP recognized that they would need to take the initial risk to show the opportunity of success for a new venture into the tuna supply chain. Having demonstrated it worked in the first year, PITP and MIM-RA are working with the PNA to scale the amount of tuna supplied to Walmart by involving the wider membership of PNA.

By the end of 2022, 15 purse seiners had signed up with PITP to supply tuna to Walmart. The fact is that Walmart could absorb all the free school caught tuna from all PNA EEZs, which indicates the opportunity for expanding and bringing other PNA members into the supply system.

The way PITP is established, after covering its operations costs, the profit goes to the Marshall Islands — a payoff for sustainably managing its tuna. If additional PNA members get involved in supplying tuna to Walmart, the same system will apply to them. With Walmart an active partner purchasing tuna sourced from PNA waters, it affords the Marshall Islands and other PNA members a unique opportunity to expand their reach into this aspect of the tuna value chain, ending their role of being limited to selling licenses to distant water fishing nations.

## COMPETENT AUTHORITY

# Training sessions raise skills in the private sector

#### **Summary**

he Marshall Islands goal of accessing the European Union seafood market made significant progress during 2022 through the work of MIM-RA's Competent Authority. The Competent Authority's work continued to gain momentum and expanded on the initial work with the tuna processing industry players begun in earnest in 2021.

The key challenges for the Marshall Islands are two-part: First is gaining recognition from the EU for its fledgling Competent Authority, which is the agency that oversees quality assurance and compliance of local fish processing facilities with strict EU rules for fish handling and prevention of illegal, unreported and unregulated (IUU) fishing. In addition to the ongoing work of fully establishing the Competent Authority, the second big challenge for accessing the EU market is local processors that must significantly improve their infrastructure, facilities and processing systems to pass requirements of the EU as tuna processing export fa-

Lending further impetus to the Marshall Islands move toward EU recognition is its significant role in the Pacific tuna fishery. Although the country's exclusive economic zone is on the periphery of the richest tuna grounds, over the past two decades, the country's capital atoll Majuro has developed into one of the world's busiest tuna transshipment ports, with hundreds of thousands of metric tons of tuna annually moving from purse seine vessel to carrier vessel or freezer container for shipment to canneries in Asia and South America. In addi-



CA Advisor Aquina Pyanne, left, and PPF Quality Control Head Judith Sebastian check fish temperature at Delap Dock.

tion, Majuro hosts several fish processing operations, including a longline fish base that feeds fresh tuna into global sashimi markets under the umbrella of the Asiabased fisheries company Luen Thai International Group.

A missing link for the Competent Authority has been its lack of an adequate laboratory needed for sampling and testing fish products. That is in the process of being remedied. During 2022, MIMRA awarded a bid to Pacific International Inc. to build an annex to the existing four-story fisheries headquarters that will include a fully outfitted lab and expanded offices for the Competent Authority as part of a multi-million dollar investment. Construction of the facility began in late 2022, with completion scheduled for late 2023 or early 2024. When complete, another essential piece of the Competent Authority's effort to meet EU requirements will be in place.

The annex will be similar to the existing MIMRA HQ with four floors, with the second floor exclusively for the laboratory. It will house three units: Chemical, Microbiology and Radioanalytical laboratories.

Competent authority staff has been involved in repeated inspections of fish processing establishments in Majuro to help them identify deficiencies in their infrastructure and fish handling operations that need to be improved. During 2022, the Competent Authority also sponsored training sessions in an effort to improve the knowledge of managers and staff of the private sector fish processing facilities in a range of food safety procedures.

The preliminary visits and infrastructure assessments provided baseline information on each of the Majuro processing facilities. These established the foundation for ongoing follow-up inspections by the Competent Authority to review



Competent Authority inspections and training of industry to improve fish processing and handling.

and evaluate progress in meeting requirements necessary to meet the Marshall Islands and EU standards. These infrastructure assessments by the Competent Authority also provided an opportunity for the operators to start prioritizing their plant upgrades should they decide to participate in the EU market.

The Competent Authority in 2022 implemented its role as the inspection and assessment agency for local fish processors. This identified the many requirements and standards that must be met by Marshall Islands companies intending to export fish products to the international market, including the EU market. If the Marshall Islands Competent Authority is successful in gaining EU recognition in the future, it will join Kiribati, Solomon Islands, Fiji and Papua New Guinea as the island countries with recognized Competent Authorities enabling fish processors to export fish to the EU market.

### Work of the **CA in 2022**

Milestone accomplishments for the Competent Authority during the year included:

- Working together with industry representatives to create a Purse Seine Fish Vessel Monitoring Report form. The CA and industry began trialing this form onboard vessels offloading tuna in Majuro during the year. The form was created to cater to vessel crews, as they will be the main users providing information by using the form. Its purpose is to enable the CA officials to have access to fish handling conditions and practices on each vessel to assist in evaluating the fishing vessel's "hazard analysis and critical control points" (HACCP) plans, which are an essential element in analyzing tuna for health and safety.
  - The first assessment by the CA team

- of a Marshall Islands-flagged purse seiner, the Jabbuk, which is associated with Pan Pacific Foods tuna processing facility. Meetings with crew, agents, and managers to discuss the Marshall Islands standards for vessels to ensure all the standards are understood and followed by vessels will become routine for the CA. The assessment of the Jabbuk was the first step in this process that will soon see all Marshall Islands-flagged vessels undergoing these CA-led assessments once they arrive in port.
- Multiple visits to fish processing facilities in Majuro for inspection, sampling, and verification of fish products. These official control activities also included inhouse training and a self-study as a follow up to the comprehensive CA and industry food safety training provided in 2021. CA officers are required to revisit the materials and conduct a presentation based on what they have learned and understood to

# COMPETENT AUTHORITY

# Random inspections are key

develop their capacity and professional development.

• Receiving the European Union's response to the ongoing document assessment of the Competent Authority. The EU concluded that all the elements and requirements set out in the Marshall Islands submission have met EU requirements and, if properly implemented, provide sufficient guarantees of compliance with EU rules. Only five minor areas needed to be addressed. The CA swiftly attended to those concerns and provided the response.

### Sampling, monitoring, awareness

The work of the Competent Authority is focused on repeated official control activities involving inspections and assessments of processing facilities and fishing vessels delivering fish for export, professional development of CA staff to ensure they are knowledgeable for the work of the CA, and engagement with processors to ensure their personnel fully understand health and safety requirements for fish handling and processing for export.

Inspection and verification of official control activities are a core function of the Competent Authority and are mandatory requirements scheduled in CA work programs. Non-scheduled inspections are also conducted to observe the levels of adherence to mandated protocols and regulatory requirements by industry, especially during an impromptu visit. An additional purpose of the random CA inspections is to monitor the state and condition of the surroundings and practices, including support transportation and



Loading fish boxes into containers at MIFV.

storage, and observe fish temperatures to affirm the requirements of the Marshall Islands Standards and the operator's own documented procedures. These random inspections are carried out by the CA as part of its regulatory verification role.

Among the many aspects of CA inspections is a documentary assessment of a company's traceability system. This allows the CA officer to have a bird's eye view of the system the company has to ensure the fish sourced is from a vessel that follows management and conservation measures for the country it has authority to fish in, whilst at the same time has all the controls necessary to ensure safe fish production. The traceability assessment is part of the CA regulatory functions and is built into its schedules and inspection plans. The MIMRA CA and IT teams met with the Pan Pacific Foods and Marshall Islands Fishing Venture representatives to present catch documentation scheme (CDS) and traceability requirements. This traceability system Awareness is an effort for the development of the etraceability system for the CA and Oceanic Divisions from the landing of tuna to its export.

Toward the end of the year, CA also held a meeting with industry representatives for briefing and awareness on the implementation of Marshall Islands Standards, in light of the Marshall Islands border opening in August and the resulting progression of the EU authorization process.

Throughout the year, the CA focused on a series of official control activities, including inspection, sampling, and verification of fish products at local processors. In-house training and a self-study were conducted in follow up to the comprehensive

CA and industry food safety training provided in 2021. CA officers were required to revisit the materials and conduct a presentation based on what they have learned and understood. A CA-industry meeting was held for key industry players in the value chain of fisheries activities, including fishing vessel operators, truckers loading and transporting fish, exporters, and processing plant workers. The purpose of the meeting was to gauge the understanding of each participant's role in the value chain, and how their understanding of CA sanitary and health requirements determine the main exporter's health certificate authorization that will be in force soon.

### Ongoing inspections of industry

The CA team conducted its initial inspection of the Pan Pacific Foods processing facility in 2022. Unfortunately, the facility has not been in operation since the beginning of the Covid-19 pandemic



A Competent Authority team at Marshall Islands Fishing Venture.

### MIFV improves its standards

due to the restrictions on vessels entering Majuro port, which led to a shortage of tuna supply to facilitate processing. The PPF quality control team provided a tour of the facility for the CA staff. Despite no processing, the facility was kept in good condition thanks to maintenance and cleaning during this time of inactivity.

Related to the initial inspection of the PPF processing facility, the CA team observed a tuna unloading activity at the main commercial dock in Delap. The purpose of the observation was to assess PPF's unloading and transportation of frozen tuna from the dock to their facility for sorting, containerization, and export. The vessel uses a crane to lift nets filled with fish from the storage holds and transfers them into PPF's bins, where crews onboard control the placing of the tuna into the bins and personnel from the PPF processing facility monitors the operations on the landing site. Once full, the bins are forklifted onto a cart that delivers the bins on a one-minute drive to the facility.

A follow-up inspection was conducted at the Pacific International Inc. tuna landing site as part of CA routine inspection activity. Follow-up inspections are carried out to investigate whether previous nonconformance issues identified have been adequately addressed. These issues were addressed in the report on the inspection presented to PII for action.

The CA team conducted its first initial inspection of the Marshall Islands Fishing Venture's processing plant. MIFV performs weekly tuna processing for export while keeping its facility up to Marshall Islands industry standards by maintenance and cleaning when possible. MIFV showed improvement since the inspection in 2021 and MIFV officials said they intend to continue improving to meet Marshall Islands industry standards.

MIFV has been receiving imports of frozen and CO-treated tuna loins from China as raw material for their bandsaw products for further processing for export to their buyers. This was done to fulfill order requests and meet quotas. The CA inspected these containers to verify the information sent in from China. MIFV also sent in testing results from China and the CA verified these results are correct by comparing them to testing results done at the MIFV and PPF laboratories.

The CA team also evaluated the loading and containerization operations for MIFV at Delap Dock container yard.

The CA plant inspections include testing water, product evaluation, sampling, and testing. Water safety is crucial for safe food and fish handling for consumption. Processing companies in Majuro submit water samples to the Marshall Islands Environmental Protection Authority for laboratory testing. The CA, however, has regulatory oversight of processing facilities where water is sampled regularly from the operations and submitted for testing. The results of such testing enable the CA to assess the safety of water used for preparing food. The water used by all three operators - PPF, MIFV, and PII was sampled and submitted to the lab for testing.

Testing fish samples is also an essential part of the CA oversight process. Tuna is a scombrotoxin fish due to its high histidine content, which through a bacterial enzymatic action converts histidine into histamine. This chemical compound can result in serious health consequences for some consumers if not controlled by operators by proper handling and storage with regular oversight by the CA as the regulator. As part of the CA function, the products were sampled for histamine testing. A total of 36 product samples and 17 water samples were submitted for testing during the year.

CA officers are now verifying all exports of tuna submitted by the operators. Initially, the Oceanic Division was re-

# COMPETENT AUTHORITY

# Focus on capacity growth

sponsible for all exports. So far 47 export certifications have been approved since the CA took over this task, mainly to destinations in Thailand, Vietnam, and the Philippines. Random product verification was carried out to verify export documents, container integrity, and temperature requirements for frozen products loaded for exports.

To ensure coverage of all elements of the tuna handling process, a meeting was conducted in mid-June involving the CA, Marshall Islands Ports Authority, local truckers, and service

providers for the fishery operators. The meeting established the roles each stake-holder would play in the supply chain of fishing operations.

Now that the CA has a functioning regulatory division within MIMRA, the CA will be exercising its oversight role on all fishery operators, while the supporting services remain the role of the main operator through its arrangements with these services and contractors. This meeting highlighted to the operators and stakeholders the requirements needed to meet the required food safety and sanitary conditions to enable them to qualify for health certification.

The landing sites (PII and Delap Dock) managed by PII and Ports Authority have duties to perform during fish offloading under areas of compliance. Truckers (Majuro Stevedore and Terminal Co.) will need to maintain their delivery trucks that carry tuna from the facilities to the Stevedore yard to be shipped out on container vessels. The Q&A section took up most of the time indicating positive feedback as the stakeholders were now aware of the CA and its sanitary requirements.



Lyla Lemari takes water samples at PPF.

### CA staff capacity building

Training and mentorship, both internal and external, was an essential part of the CA program in 2022. Numerous in-house presentations by CA officers as part of the CA officers' capacity development were done to reinforce past teachings. One revisited material from the training delivered by a Portugal-based consultant, Helder Silva, engaged by the World Bank in 2021 to deliver comprehensive food safety training to the CA and domestic industry. The CA officers were tasked to re-visit the zoom training materials, take notes, and prepare and make a presentation. This allowed for a re-evaluation of the officers' level of understanding of the study materials. The experience benefited the CA team by retaining their knowledge and improving their public speaking skills for future meetings where they will be given the opportunity to make presentations. Among the topics covered: Food safety international frame, basics of fish quality and spoilage, fish hazards, seafood safety and quality, and bacteria growth and control.

The CA officers participated in their second Stock Assessment Workshop introductory course conducted by the Pacific Community (SPC) via Zoom. The introductory workshop involved a mix of lectures and practical exercises focused on the following topics: Tuna fisheries of the Pacific, tuna data collection, tuna data issues, tuna management, oceanography and climate, tuna blood, guts, and environment, and understanding mortality, growth and recruitment, why do we model tuna populations, introduction to stock status, and harvest strategy introduction.

The materials guided the participants in understanding tuna and stock assessments conducted in support of the fisheries. This course was followed by the advanced workshop.

CA staff joined in a series of World Bank-supported Pacific Regional Ocean-scape Project (PROP) meetings during the year that involved all MIMRA divisions and sections on their budgetary allocations as well as staff recruitment and selection. The budgetary allocations for each division span activities for the next five years. The CA budgetary allocation will begin in 2023 under the World Bank. In the interim, all its operational funding comes from MIMRA. A World Bank allocation for the CA was made available to begin in 2023 and earmarked for the next five years.

The CA was part of the selection panel that carried out interviews and selections for the various positions within the PROP Project. The CA team was also a part of the selection panel that carried out interviews and selection of the new fisheries officer who will work with the Oceanic and the CA Divisions.

The CA team engaged with a new intern for the MIMRA summer internship



### FISH4ACP launch at Melele Room

program, Isabella Narruhn, Isabella was assigned to the division as she is interested in laboratory work. She, along with fellow interns, spent a day of orientation led by Coastal Deputy Director Florence Edwards. The presentation provided an introduction to MIMRA, its various divisions, and the role each one plays. To introduce Isabella to the CA division, CA Officer Tatiana Shoniber provided an overview of the Competent Authority. Isabella was then assigned to reading material to understand CA regulatory oversight of operations and products, specifically tuna, and the necessary measures the industry members and Competent Authority must take to ensure the production of safe fish products intended for human consumption. The CA intern was also taken to observe a sampling exercise of imported loins from MIFV. She was assigned to the PPF laboratory to observe and assist in product testing. The experience will provide her with a good understanding of laboratory procedures and some processes regarding sampling and

CA Officer Tatiana assisted in organizing the launch ceremony for FISH4ACP,

which took place in the Marshall Islands Resort's Melele Room. The substantial industry presence at the ceremony demonstrated the importance of this initiative, and their importance as stakeholders in the movement. As a member of the value chain taskforce, the Competent Authority is also in active engagement with the FISH4ACP initiative.

The Competent Authority welcomed its newest staff member, Auditor Donny Andrike. Upon his arrival, Donny was immediately briefed into learning the many facets surrounding the CA's work, including inspections and follow-ups. Donny's first assignment was in conducting organoleptic analyses of fish from the PPF processing facility.

A fundamental concept Donny learned is that when dealing with fish for consumers, the Competent Authority must thoroughly comprehend the risks and microorganisms involved in fish handling and processing. This is a crucial element for successful CA regulatory efforts for fish handling. All fish exported from the Marshall Islands that is intended for human consumption must be safe and free of such hazards and bacteria.

Competent Authority's Tatiana Shoniber and Lyla Lemari sampling fish.

### **EU process** advances

The Marshall Islands decision to apply to be a European Union-authorized country for exporting seafood products resulted in an initial letter to the EU in 2019 requesting to be listed as an authorized country. From 2019 to 2022, regulations, standards, and policy protocols were developed and certified, including many CAled initiatives, to meet EU requirements and conditions.

Two document assessments were carried out by the EU on the CA submission. The response after the second assessment by the EU highlighted an improvement over the previous response, noting only five minor areas in need of attention. The EU indicated that the current MIMRA CAestablished legal framework and protocols, if properly implemented, will provide sufficient guarantees of compliance with EU rules. To respond to the five minor areas identified by the EU response, the CA swiftly addressed those issues by submitting original documents via diplomatic channels to the Marshall Islands contact point in the EU. MIMRA and CA are awaiting the EU response and next steps.

#### Challenges

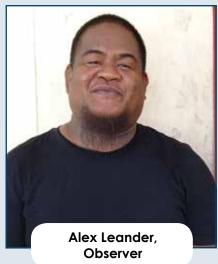
The challenge is ensuring that the CA consistently meets its objective of providing timely regulatory oversight and verification pursuant to its protocols sufficient to meet EU requirements as well as the enforcement of the new Marshall Islands Industry Standards for all operators in 2023.

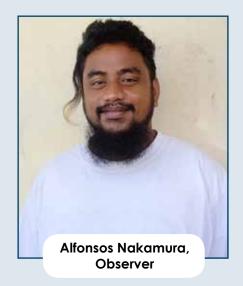
The companion challenge is for domestic industry businesses to make major improvements to their facility infrastructure to meet changed standards. To make the latter a reality requires ensuring all operators are fully aware of the CA regulatory requirements and its enforcement regime. Continuous dialogue is vital between the industry and the CA so that everyone is on board with all CA developments and processes.

### MIMRA GALLERY

### Some of the many people who

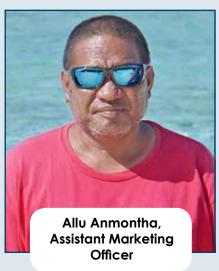


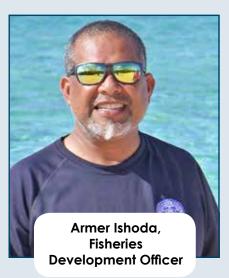
















#### make MIMRA what it is today

















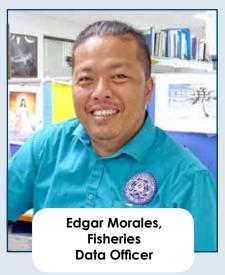


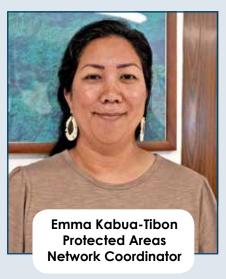
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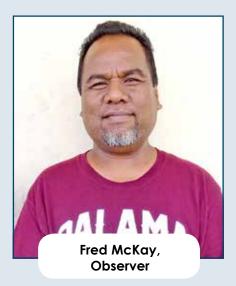




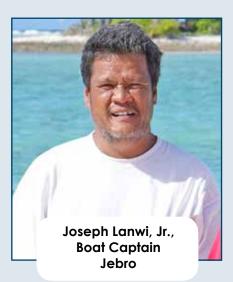








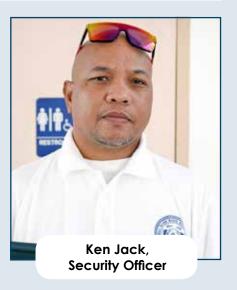




#### make MIMRA what it is today



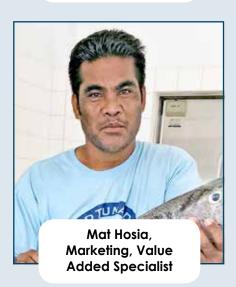








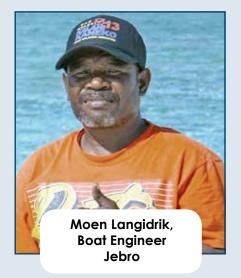






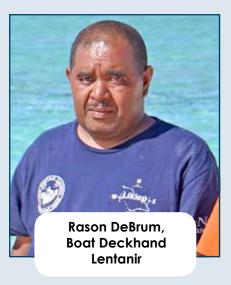


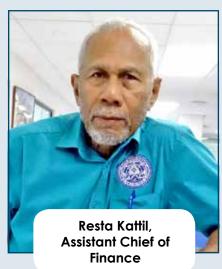
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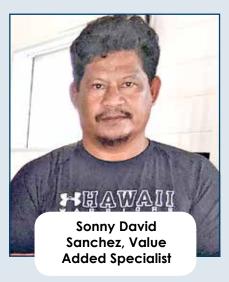




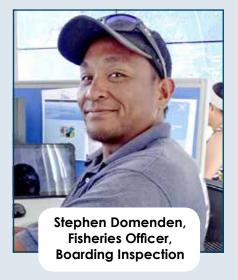








#### make MIMRA what it is today



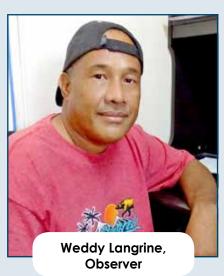


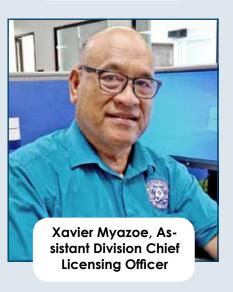


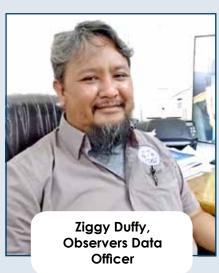












## HUMAN RESOURCES



## MIMRA's new HR Department

IMRA's new Human Resources (HR) office is an equal opportunity department that focuses on the organization's most important asset – its employees — to ensure they're satisfied, engaged and have all the resources they require to perform as expected. HR is the department responsible for maintaining MIMRA's personnel, employee relations and workplace culture. This team manages recruiting, hiring, firing, training, skills development, policy implementation, benefits, payroll, government regulation, legal compliance and safety, and often moderated and helped resolve conflicts and concerns between employees.

In Fiscal Year 2022, MIMRA hired Human Resources Specialist who started the HR Department. It was a busy year for the HR team. A proposal for approval on the new Employee Policy Handbook, Evaluation Performance System, and new pay scale was introduced to the Board in December 2021 and approved.

Training was conducted for all MIMRA Board Members, Corporate level staff, and employees throughout Majuro, Ebeye, and all fish bases in the outer islands. The HR Department was able to provide training opportunities for 95 percent of MIMRA staff during the year. MIM-RA ended FY2022 with 81 employees, which included losing 11 and gaining 16 new employees during the year.

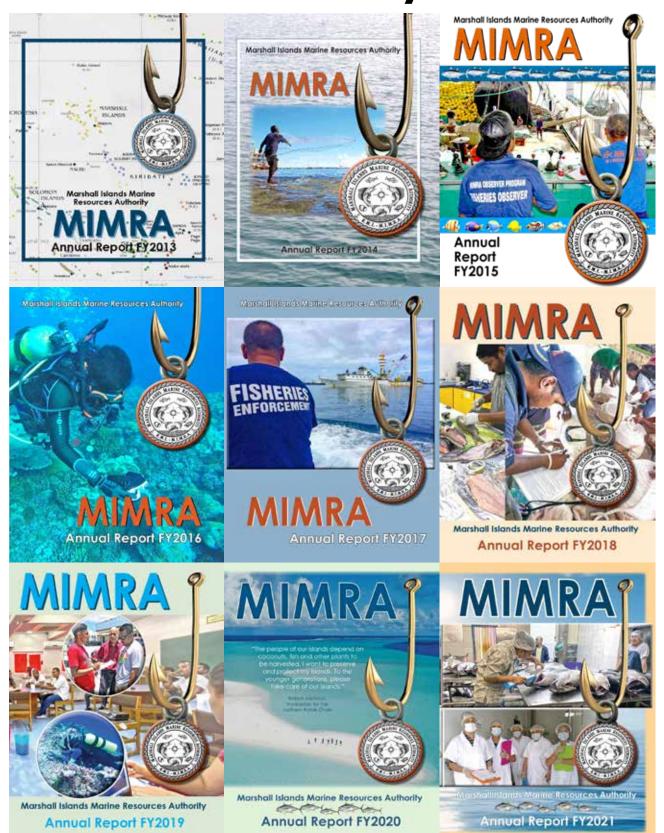
A summer Internship Program was also supervised that saw 12 Interns join the Authority. They were assigned mentors from various departments within MIMRA and worked alongside our regular staff gaining valuable experience and insight into MIMRA's work. The primary purpose behind MIMRA's ongoing Internship Program is to interest young people in fisheries work so that they will pursue educational opportunities in this field, and return to work for MIMRA - as many current employees have in the past.



Top, MIMRA's basketball team Lady Sharks with coach Dike Poznanski, Assistant Chief of Oceanic Fisheries. Above, the Kwajalein Atoll Fish Market Center team. Below, participants in the martial arts self-defense course with Micro Games medalist Jason Sam in the center.



## MIMRA does it by the book





Participants in the signing of an agreement between MIMRA and the Forum Fisheries Agency to extend the aerial fisheries surveillance program. It was signed on the margins of the WCPFC annual meeting in Vietnam December 2, 2022. Pictured from left are MIMRA Legal Counsel Laurence Edwards, II; MIMRA Director Glen Joseph; **Fisheries Forum Fisheries** Agency Director General Dr. Manu Tupou-Roosen; MIMRA **Board Chairman Minister John** Silk; Forum Fisheries Agency **Director of Fisheries Operations Allan Rahari**; and Forum Fisheries Agency Monitoring, Control and Surveillance Policy Advisor Jason Raubani.

## The many roles

#### Summary

he Legal Division provides advice to the MIMRA Board of Directors and management regarding fisheries legal issues at the national, sub-regional, regional and international levels. All legal work carried out by the Legal Division is based on the principles of upholding the rule of law and conserving the nation's marine resources for the benefit of the people of the Marshall Islands.

The Legal Division advises both the Coastal and Oceanic Divisions. For the Oceanic and Industrial Affairs Division. the Legal Division is tasked to review national fisheries laws that may require review against regional and sub-region-

al measures that are binding on the Marshall Islands as a member of the Western and Central Pacific Fisheries Commission, Pacific Islands Forum Fisheries Agency, Secretariat of the Pacific Community, Parties to the Nauru Agreement, and the United Nations Convention on the Law of the Sea.

In addition to these duties, the Legal Division assists MIMRA in legal representation in court for prosecution against fishing vessels or companies alleged to have engaged in unlawful acts in violation of national fisheries laws and regulations of the Marshall Islands. This includes illegal, unreported and unregulated fishing, contravention of conditions of fishing licenses, obstruction of fisheries observers, misreporting, and other



Above, Forum Fisheries Agency Director General Dr. Manu Tupou-Roosen with MIMRA Board Chairman John Silk. Right, Silk with the Marshall Islands nominee for Executive Director of the Western and Central Pacific Fisheries Commission, Rhea Moss-Christian, who was approved by the annual meeting of the WCPFC in December 2022.



## of the Legal Division

infractions. For the past five years, most cases have been settled out of court by way of summary proceedings, which is allowed under the Fisheries Enforcement Act. There were no cases filed in 2022.

The Legal Division provided in-house training for compliance and enforcement officers within MIMRA on an "as-needed" basis for capacity building and understanding of the laws of the Marshall Islands. The Legal Division also handled legal drafting of bills, resolutions, regulations, bilateral access agreements, and local government ordinances in support of safeguarding marine resources in the Marshall Islands.

The Legal Division also assists management in the negotiation of fishing day sales under PNA's Vessel Day Scheme. Fishing days are sold to bilateral fishing partners and to domestic partners, in line with the FSM Arrangement, which provides for preferential treatment to purse seine vessels flagged in island nations, including the Marshall Islands. Before fishing vessels are issued licenses to fish in the Marshall Islands EEZ, they are required to have an access agreement with MIMRA. This is required before commencement of fishing prior to January 1 of each New Year. These license conditions are outlined in access agreements required under the Fishing Access and Licensing Act.

Coastal Fisheries Law is still a fairly new landscape, especially for the Marshall Islands. As such, a lot of the work that the Legal Division undertakes focuses on drafting legislation and reviewing policies so that the framework for the Coastal Division is clear in terms of law, enforcement, monitoring, and ensuring compliance of individuals and businesses that interact with the coastal waters in the Marshall Islands. Current coastal legislation focuses on regulating the licensing process; regulating and conserving certain species that are used for commercial purposes; and regulating the import and export process for sea cucumbers and aquarium fish. The legislation that was updated or developed in 2022 included the Protected Areas Network Regulations and the FAD Buoy Tracking Regulations 2022.

## LEGAL

# Division's focus on strategic workshops

## Workshop support in 2022

The Legal Division led or assisted a number of workshops and legal arrangements involving MIMRA staff during 2022. These included:

- Memorandum of Understanding with Global Fishing Watch: On April 12 at the 7th Our Oceans Conference in Palau MIMRA Board Chairman Minister John M. Silk signed a Memorandum of Understanding with Global Fishing Watch CEO Tony Long. The MOU is a first for a Pacific Island nation to make its fishing activity visible to the world through the Global Fishing Watch platform. The partnership agreement was signed between the two organizations, symbolizing their dedication to advancing transparency of fishing activities in the Pacific Islands region, home to the world's most productive tuna fisheries.
- FAD Buoy Tracking Regulations 2022 (4IA Regulations) National Workshop: On May 31, 2022, MIMRA, in conjunction with the Parties to the Nauru Agreement Office (PNAO), facilitated a national workshop with MIMRA officers and fishing industry representatives in reviewing the draft Fish Aggregating Device (FAD) Buoy Tracking Implementing Arrangement Regulations 2022. The purpose of this workshop was premised on the following: (a) to implement the Parties to the Nauru Agreement FAD Buoy Imple-



The WCPFC annual meeting in Da Nang, Vietnam in December 2022.

menting Arrangement; (b) to provide prescribed terms and conditions for the use of a FAD Buoy by fishing vessels in the Arrangement Area; and (c) to put in place measures for the management of the use of the Fishing Aggregating Devices and associated electronic equipment and related matters. The effective control of FADs is a key factor in the healthy status of the major tropical tuna stocks in the region. Under the Arrangement, FAD buoys will have to be registered to identify who is responsible for the buoys and the FADs they are associated with; and the buoys will have to transmit position data so they can be tracked as they drift in the waters of PNA and Tokelau and the adjacent high seas areas. The tracking data will be linked to data from fishing, provided by fisheries observers and the vessel operators, to improve the understanding of the impacts of FAD use on target and bycatch stocks. The new Arrangement will also strengthen the control of PNA Members and Tokelau over FADs in their waters collectively and individually, including strengthening their capacity to respond to FADs becoming beached. The outcome of this workshop was beneficial for the fishing industry representatives as well as MIMRA, which incorporated their industry views into the final draft FAD regulation.

• Workshop on WCPO Tropical Tuna Longline Fishery: On November 1-2, 2022, MIMRA along with the

Western Pacific Regional Fishery Management Council (WPRFMC) facilitated a workshop premised on developing guidance on longline fishery management in the Western and Central Pacific Ocean and identifying mutual interest, which was used to develop principles shared among several WCPFC members when revising or developing a new tropical tuna measure.

#### Other developments

• Enforcement: MIMRA continued active enforcement of Marshall Islands fisheries laws and regulations in 2022. Over the past several years, this has resulted in court filings and out of court settlements against a number of fishing vessels, which led to a total of \$2,165,000 in fines collected from 2017 to 2022. There is zero tolerance for fisheries violations in the Marshall Islands. MIMRA, with the support of the Marshall Islands Police Department/Sea Patrol and the Attorney General's Office, actively monitors commercial tuna fishing operations in Marshall Islands waters. In 2022, there were no cases filed against fishing vessels or fishing companies as there were no allegations of violations that occurred in the Marshall Islands EEZ. Despite the lack of allegations, there is no room for complacency as MIMRA officers continued throughout 2022 to vigilantly monitor fisheries activity and any alleged infractions.



The Outer Islands Fish Market Center at the Uliga Dock area in Majuro.

## Covid continued to slow outer island programs in '22

#### Summary

Coastal Division's fish collection and distribution program operations were negatively impacted by Covid-19 travel restrictions that remained in effect into August 2022. Regardless of the Marshall Islands remaining free from Covid during the March 2020-August 2022 period, the Coastal Division felt collateral impacts that the Covid pandemic brought. There was a decrease in customer sales and a number of Coastal employees left their jobs due to the ongoing border closures. In addition, an acceleration of other MIMRA and government initiatives during 2022 to compensate for the Covid situation kept the number of fish collection trips and the fish volume coming into the Majuro and Ebeye markets at 2021 levels — well below the pre-Covid period.

#### FISH MARKETS

The border closure and strict quarantine requirements for anyone coming into Marshall Islands (up to August 2022) also affected the MIMRA Maintenance Section in their regular dry-docking of MIMRA transport vessels as well as the ongoing repair and maintenance of the equipment in the two main fish markets in Majuro and Ebeye as well as the network of fish bases on the outer islands because it was difficult for specialized technicians to enter the country to assist the MIMRA team.

Covid caused supply-chain havoc worldwide, and with the Marshall Islands generally being at the far end of that supply chain, it led to significant delays in receiving much needed parts and equipment for regular maintenance and repair of both the Coastal program's fleet of vessels and its network of fish bases linked to the Outer Islands Fish Market Center (OIFMC) in Majuro and the Kwajalein Atoll Fish Market Center (KAFMC) in Ebeye. MIMRA program work aside, Coastal Division vessels were repeatedly put to work to deliver Covid-related gear to remote outer islands as well as help with vaccination team transportation. All of this diverted these assets from focus on the supply of fish from the outer islands to the OIFMC and the KAFMC.

Despite these ongoing Covid needs that MIMRA assisted with, the Coastal Division still managed to maintain a similar number of outer island fish trips as in 2021. A total of 23 trips were made to collect fish for transport to the OIFMC from seven remote atolls.

## COASTAL



## The many benefits of working with OFCF

MIMRA and the Coastal Division have benefited greatly from the more than 30-year partnership with the Overseas Fisheries Cooperation Foundation of Japan. OFCF first began Fisheries Development Assistance for Pacific Island Nations (FDAPIN) projects in 1992 in the Marshall Islands. Due to the success of the initial phase of the cooperation program, from fiscal year 1995, FDAPIN II was implemented for a fiveyear period. This focused on assistance ranging from repairs and restoration of fisheries related facilities to related skills, technology and knowledge being transferred from skilled OFCF technicians who worked closely with MIM-RA's staff.

Each year, during the annual OFCF Japan/Pacific Island Nations Fisheries Directors Meeting on Fisheries Cooperation, OFCF receives requests from each participating country for FDAPIN projects. After conducting field surveys and consultation with each government, the scope of the projects are developed and are followed by a drafting and signing of a memorandum of understanding and implementation plan.

OFCF has been a stable and highlyvalued partner, dispatching engineers to assist with maintenance and repair of vessels and refrigeration facilities to the Marshall Islands two-to-three times a year through FDAPIN. The engineers have repaired MIMRA vessels and refrigeration facilities with MIMRA engineers as part of an ongoing transfer their skills and technology related to mainte-



#### FISH MARKETS

"OFCF has been a stable and highly-valued partner, dispatching engineers to assist with maintenance and repair of vessels and refrigeration facilities to the Marshall Islands two-to-three times a year through FDAPIN."

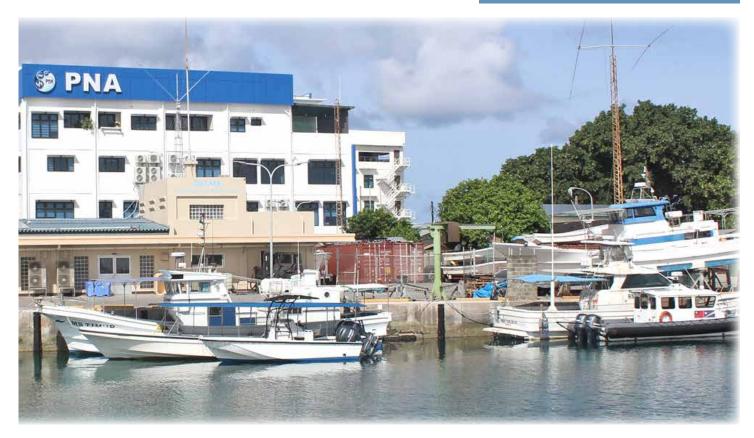
nance of fisheries facilities through onthe-job training.

OFCF Japan has also provided equipment to Outer Islands Fish Market Center (OIFMC), Kwajalein Atoll Fish Market Center (KAFMC), and fish bases in outer islands through FDAP-IN. Through these activities, OFCF and FDAPIN has greatly contributed to capacity building and maintenance

of vessels and refrigeration facilities in MIMRA. This OFCF cooperation has filled a critical vacuum in maintenance assistance for the fisheries sector. This is because this type of essential work is rare to be conducted by Official Development Assistance (ODA) from developed countries and international organizations. The Fisheries Development Assistance for Pacific Island Nations through the OFCF is a unique and highly-valued program for the Marshall Islands.

FDAPIN is recognized as a unique example not only for skills transfer and technology training for local engineers, but for extending the life of fisheries vessels and refrigeration facilities for the long term.

The Joint Action Plan for Strengthening Pacific Bonds and for Mutual Prosperity of the Ninth Pacific Islands Leaders Meeting (PALM9) conducted in 2021 also focused on fisheries collaboration. "Japan will support the Forum Island Countries with the development of the fisheries industry in the Pacific includ-



ing the rehabilitation of fisheries facilities and support for developing locally produced fisheries products through OFCF," PALM9 leaders decided.

During FY2022, Japanese engineers were not able to enter the Marshall Islands due to the border closure for the Covid pandemic. However, equipment and spare parts were needed to maintain MIMRA's vessels and refrigeration facilities. MIMRA engineers took initiatives to create FDAPIN lists of necessary equipment and spare parts and to repair dysfunctional and damaged vessels and refrigeration facilities with online advice from the Japanese engineers. The initiatives provided them opportunities to implement FDAPIN in the Marshall Islands on their own. The initiatives were taken based on progress of skill and technology transfers from Japanese engineers to MIMRA engineers through long-term cooperation with OFCF.

Essential requests MIMRA made to OFCC and which were implemented by OFCF during the 2022 time pe-

#### FISH MARKETS

"MIMRA engineers took initiatives to create FDAP-IN lists of necessary equipment and spare parts and to repair dysfunctional and damaged vessels and refrigeration facilities with online advice from the Japanese engineers."

#### riod included support for:

- Maintenance and repair of MIMRA ice plants.
- Maintenance and repair of MIMRA transport vessels.
- · Maintenance and repair of community fishing boats on outer islands.

The annual maintenance and repair program included:

Transport vessels: Yearly dry-dock

and maintenance service and repairs of all MIMRA fish transport vessels (Jolok, Timur, Jebro, Lentanir and Laintok) was achieved.

Community boats: Seven community fishing boats and their engines were repaired.

Fish base renovations: MIMRA staff continued maintenance and repair work on Jaluit, Wotje, and Arno fish bases, and the Ine, Arno sub-fish base. This included repair and maintenance of ice machines and outboard engines.

**OIFMC and KAFMC:** Maintenance of equipment was performed.

MIMRA vehicle maintenance: Maintenance service and repairs were performed on eight vehicles.

Hatchery maintenance: Maintenance and repairs on Loto Giant Clam Hatchery at Likiep, and assisting the Likiep community to construct new giant clam raceway tanks; maintenance and repairs on the Woja Hatchery in Majuro; and maintenance and repairs on the Arno Giant Clam Hatchery were all performed in 2022.

## COASTAL



## **Fewer** pickup trips, more fish in '22

#### **OIFMC**

The Outer Islands Fish Market Center (OIFMC) on Majuro experienced the ongoing effects of Covid restrictions. Due in part, however, to the relaxation of travel and port entry restrictions, the seven outer islands providing fish to the OIFMC saw an increase in income generated by the sales of fish in Majuro compared to 2021. It was still far off pre-Covid levels, but represented a small rebound for fishers on the remote outer islands.

A total of 23 fish pickup trips were accomplished during 2022 compared to 35 the previous year. This included: Arno (13 trips), Aur (4 trips), Maloelap (2 trips), and Jaluit, Mili, Namu, and Wotje (1 trip each). Although fewer trips were undertaken in 2022, the pertrip average pounds of fish rose significantly. MIMRA's fish market network continued to provide fishers with income by purchasing fish and fish products in 2022.

For the Arno fishers, a total of 20,059.82 pounds of fish were purchased at a value of \$25,263.82; 2,318.20 pounds of fish were purchased from Aur fishers at a value of \$3,676.86; Jaluit fishers received \$1,674.11 for 1,892.20 pounds of fish; Maloelap fishers received \$5,970.98 for 5,991 pounds of fish; Mili fishers received \$2,743.10 for 1,846.70 pounds of fish; Namu fishers received \$2,109.03 for



The Kwajalein Atoll Fish Market Center, which was challenged in 2022 by vessel transport issues. Despite this, the KAFMC was able to supply limited amounts of fish to the community.

#### **MARKETS**

3,037.40 pounds of fish; and Wotje fishers received \$431.38 for 435.25 pounds of fish.

The monetary benefits that the fishers of these seven atolls received directly totaled \$42,999.87 for the 39,665.09 lbs of fish purchased. This compares to the \$32,953.30 that fishers from these seven atolls received for catching 31,905.3 pounds of fish in 2021. The OIFMC continues to enforce quality and size limits on the fish that are brought in from the outer islands.

#### **KAFMC**

The KAFMC remained challenged in 2022 with vessel transport issues, including the high cost of fuel, which limited the number of pickup trips to the

outer islands. However, KAFMC continued to supply limited amounts of fish to the Ebeye community through direct purchase of fish and local produce from Namu, Ailuk, and Likiep and Ebeye fishers as well as providing assistance in fuel and ice provision. For FY2022 fiscal year, KAFMC was able to directly inject to the communities \$13,221.84 for 7,035.85 pounds of fish and \$3,992.50 for produce totaling \$17,214.34. This compared to \$21,733.91 for both fish and produce in 2021.

The facility has continued operations in a limited capacity through selling fish and local produce purchased from Ailuk, Namu, Likiep and the Ebeye community as well as ice and other commodities. During 2022, KAFMC continued to look for avenues to secure fuel purchases to allow for regular trips to the outer islands to purchase fish and local produce from the fish base-communities of Likiep, Namu and Ailuk.



## **PAN: Three atolls active**



The official PAN launch in March, 2022, which followed Nitijela passage of legislation and MIMRA board promulgation of regulations to implement the program. Pictured are EPA General Manager Moriana Phillip, Minister John Silk, and MIMRA Deputy Director Coastal Florence Edwards.

#### **Summary**

The Protected Areas Network (PAN) Office focused on promoting conservation and livelihoods development projects for outer atoll communities through funding opportunities and technical assistance. Under the PAN Regulations 2020, the Reimaanlok (Looking to the Future) Process is underscored as the primary mechanism to attain PAN support. Through Reimaanlok, four focal areas are assessed for funding or technical support including: a) Protected areas, b) Associated sustainable livelihoods, c) Capacity building, and **d)** Education and awareness.

In accordance with the PAN law, funding of up to \$20,000 is available each year for five individual one-totwo-year projects. The PAN Office received its first disbursement of Micronesia Challenge Endowment Funds, \$230,776, in February 2021 to help

"The 'Ebon Jerbal ko Bwinnid Project' aims to revive handicraft makina skills usina their own cowrie shells endemic to Ebon as well as traditional canoe building skills. \$20,000 is required to cover travel costs and training materials."

implement all aspects of the PAN in the Marshall Islands. Since the launching of the PAN in March 2022, only three atolls showed interest to the PAN Office for funding support: Ebon, Namo, and Namdrik. The impact areas for all three proposals are mainly associated with sustainable livelihoods and capacity building.

#### **Outer islands** engagement

- Namo: The Namo Atoll Local Government sought PAN Office support to develop a giant clam hatchery in an effort to expand sustainable livelihoods and improve food security. A total of \$20,000 was requested to be used solely for the purchase of all materials and supplies required to construct 10 raceway tanks. Delivery costs of the materials from Majuro to Namo's project site will be borne by the local government. Namo's application was received by the PAN Office on July 13, 2022 and technical evaluations by Coastal Management Advisory Council (CMAC) were completed on September 15, 2022.
- Ebon: The "Ebon Jerbal ko Bwinnid Project" aims to revive handicraft





EPA GM Moriana Phillip, MIMRA Deputy Director Coastal Florence Edwards, Minister John Silk, Secretary of Natural Resources and Commerce Iva Reimers, and Conservation Society Director Dolores deBrum-Kattil at the PAN launch.

## PAN support for pearl farm

making skills using their own cowrie shell endemic to Ebon as well as traditional canoe building skills. A total of \$20,000 is required to cover travel costs, training materials for handicrafts making and canoe building, and contractual fees for the instructors. Other associated costs such as fuel and food will be contributed as in-kind at a value of \$6,200. Ebon's application was received by the PAN Office on August 3, 2022 and technical evaluations by CMAC were completed on September 23, 2022.

• Namdrik: The Namdrik Atoll Development Authority Pearl Farm Project requested support to sustain their pearl farm operations as evident in a recently signed agreement with a pearl farm contractor. A total of \$20,000 was requested to fund their local pearl farm workers and grafting expert including travel costs, while a smaller portion will be used for equipment and supplies. Namdrik's application was received by the PAN Office on October 13, 2022 and technical evaluations by CMAC were completed on October 18, 2022.

#### **PROTECTED AREAS NETWORK**



Outer islanders on Lae Atoll use a throw net for fishing.

#### **Board support for PAN process**

As a final step of the review process, the MIMRA Board was to evaluate the recommendations from CMAC for each outer island proposal before a final decision was made. It is envisaged that supporting the first round of applicants will heighten awareness about this funding opportunity for Reimaanlok sites and encourage additional atoll leaders to apply for these available resources to support the implementation of their respective resource management plans



## Aquaculture initiatives include training, tech help

#### Overview

As part of the Marshall Islands Fisheries Development Plan, aquaculture has been identified as a viable source of income for outer island communities. MIMRA is responsible for overseeing multiple hatcheries, including the Arno Atoll Giant Clam Hatchery, Loto Giant Clam Hatchery in Likiep, Woja Giant Clam Hatchery in Majuro, and the recently acquired Ajeltake Fish Hatchery, also in Majuro.

Additionally, MIMRA collaborated with private industries such as Atoll Technologies of the Marshall Islands (ATMI), which raises Moi fish in open cages, Marshall Islands Mariculture Farm (MIMF), and Atoll Marine Aquaculture (AMA), which raises giant clams and corals. MIMRA also collaborates with the CMI Land Grant program on various aquaculture research projects.

All aquaculture initiatives in 2022 provided local fishermen and farmers with training and technical assistance on hatchery and cage maintenance. Training on coral farming has also been implemented with local communities in several atolls, enabling them to sell corals and clams for export to the aquarium and marine ornamental markets.

After a successful pilot project in 2019 and further training in 2022, seaweed farming is being considered for future implementation.

Based on progress in recent past years, including 2022, the United Nations Food and Agriculture Organization (FAO) will be providing valuable assistance to enhance the development of aquaculture activities in the Marshall Islands. This support is expected to pave the way for new opportunities

#### **AQUACULTURE**



Marine biologist Simon Ellis leads a joint IOM-MIMRA giant clam farming training for women and men from Namo, Aur, Wotho and Likiep.

and growth in the industry, and we are excited to see the progress that will be made.

The giant clam farming initiative, started many years ago, and continued through 2022, is a viable and cost-effective aquaculture project that requires minimal input, making it particularly suited for implementation in the outer islands.

This project is currently being extended to additional atolls as more local governments have shown interest in creating hatcheries that are locally owned and managed. During 2022, two atolls, Aur and Wotje, began construction of raceways and acquiring training

in maintenance and giant clam husbandry. The participation of these two atolls will significantly increase the footprint of giant clam growing in the Marshall Islands.

During 2022, the Coastal Division conducted research trials on additional low-input marine species that have the potential to enhance food security and income-generating opportunities for local communities.

The Marshall Islands Aquaculture Risk Assessment and Business Investment Strategic Plan includes recommendations and initiatives, some of which were completed in 2022 while others are still in progress. One of the ongo-

## COASTAL







Left, women working at the Ajeltake hatchery. Above, posing with giant clams during the IOM-MIMRA training in Majuro.

ing initiatives is conducting research trials of various marine invertebrates and seaweeds to diversify the range of aquaculture species available in the Marshall Islands. Favorable outcomes of these ongoing trials will lead to more projects being launched to create more opportunities for livelihood and economic growth, particularly in rural regions.

Additionally, work is in the pipeline for 2023 and beyond to aid giant clam projects of local communities by providing financial support for infrastructure — primarily raceways — development and technical expertise.

The Coastal Division is collaborating with the World Bank PROPER program to ensure the success of this initiative. The World Bank's financial and technical support was engaged with the aim of reducing the lengthy three-year timeline that usually accompanies the process from establishing a hatchery to marketing of giant clams, enabling farmers to start generating revenue sooner.

The Coastal Division during 2022 began working on several initiatives to

## Woja, Likiep and

#### **AQUACULTURE**

promote aquaculture investment and development in the Marshall Islands. These initiatives include identifying suitable sites for aquaculture through habitat assessments, documenting potential marine species for aquaculture within the atolls, and creating an aquaculture prospectus to attract investors.

#### Woja hatchery

The hatchery at in the Woja area of Majuro Atoll has been successfully producing giant clams. But unfortunately the hatchery has seen a higher rate of juvenile mortality compared to the hatcheries on the outer islands. The reason for this is likely due to higher pollution, resulting in high nutrient levels in the Majuro lagoon. In contrast, the lagoons in the outer islands remain

relatively free of such contamination.

As a result, the cultivated giant clams benefit from cleaner and more pristine environments in atolls such as Likiep and Arno.

It was also observed in 2022 that algal growth is significantly higher in Majuro's tanks, requiring more frequent cleaning compared to the outer islands. In an attempt to improve the growth and survival rate, an alternate approach was implemented toward the end of 2022 to increase the percentage of shade cloth. This has led to some improvements, particularly with reduced algal growth. But the growth rate of giant clams has been slightly slower as a result. Installing a new filtration system was being explored for 2023 to address this issue. Despite this setback, the production of clam seedlings continues, albeit at a lower number than desired.

The Woja hatchery also explored the possibility of cultivating Trochus, a







A group of women working at the Ajeltake hatchery with one, left, measuring a moi.

## **Arno hatcheries**

species similar to giant clams that require minimal resources and are cost-effective.

It's interesting to note that Trochus and giant clams can coexist in the same tank without any adverse effects on each other's survival. The first phase of the trial showed that the presence of Trochus has proven to be beneficial for giant clams as it helps regulate algal growth, which has posed a significant challenge at this hatchery. The polyculture of giant clam and trochus has the potential to not only increase clam production but can create additional economic opportunities and maximize food security for the local communities.

The initial phase of the trochus trial was completed. However, further investigation is ongoing to determine the feasibility of Trochus farming. This entails assessing growth timelines and examining potential supply chains before moving forward with the project.

#### **AQUACULTURE**

#### Likiep and **Arno hatcheries**

The Likiep Loto hatchery continued operations in 2022 and consistently produced clam seedlings for the Likiep Farmer's Association. Meanwhile, the Arno hatchery halted operation and clam production due to nearby construction activities.

As a result, Likiep farmers earned a total revenue of \$5,240 from clam sales, while Arno farmers have earned a total of \$851 for the year.

Revenue growth is anticipated with the establishment of a new women's association in Likiep. Construction of additional facilities and training of members of the women's association were successfully executed through a partnership between the International Organization for Migration and MIM-

#### Ajeltake hatchery

The newly hired staff members for the hatchery played a pivotal role in bringing the transition period from ATMI to MIMRA to a successful conclusion for management of the hatchery in the Ajeltake area of Majuro.

Their training enabled the hatchery to produce 15,000 juvenile Moi fish, which were subsequently transferred to the ocean cages for growth by ATMI. Unfortunately, certain hatchery runs were plagued by jellyfish invasions, resulting in high mortality rates. Moreover, the outbreak of Covid-19 in Marshall Islands beginning in August 2022 led to some stock loss as staff members fell ill and were unable to care for the fish. The ATMI, funded by USAID, conducted a training session for women on cultivating seaweed and milkfish during the year. The focus was on increasing local production of ogo and milkfish in a hatchery setting, hoping

to contribute to economic growth and facilitating market-based enterprise development. Additionally, the training aimed to provide opportunities for women to learn new skills and equip them with the knowledge necessary to start their own mini-farms or secure employment in the aquaculture sector. The ongoing Covid-19 pandemic and extended border lockdowns in both the Marshall Islands and Kiribati prevented the acquisition of milkfish eggs and larvae. Moi fish, raised in the hatchery, were used as an alternative.

Despite these challenges, eight women received training in feeding and maintenance of Moi, tank maintenance, feed (rotifer) production, and seaweed grow-out. Due to the suspension of AT-MI's USAID grant, the second part of the training was not completed, despite its initial success. At the end of 2022, efforts were underway to determine if the training can be continued into the future.





Local fishers on Lae Atoll are pictured attaching coconut fronds on a soon-to-be-deployed FAD.

#### FISH AGGREGATING DEVICES

## UN and MIMRA sign a key



Coastal Division Fisheries Development Officer Armer Ishoda shows local fishermen on Ebon Atoll how to rig a fish aggregating device (FAD), which was later deployed near Ebon.

During 2022, MIMRA installed four anchored fish aggregating devices (aFADs) near Majuro Atoll and three neighboring atolls.

This brings to 17 the number of anchored FADs installed in the 2018 to 2022 period.

The four new aFADs were constructed in the different atolls where they were deployed: Majuro, Lae, Ailinglaplap, and Ebon. This follows on the aFADS located near Ailuk, Kili, Namdrik, Ujae, Namo, and Majuro in 2021.

MIMRA and the United Nations Food and Agriculture Organization (FAO) signed a memorandum of understanding in 2022 to focus on the sustainable use of nearshore FADs to support coastal and small-scale tuna fish-





Left, a new fish aggregating device on a MIMRA boat ready to be deployed outside of Majuro Atoll. Above, Coastal Division staff held community consultations with local fishers on Ailinglaplap Atoll prior rigging a new FAD.

#### FISH AGGREGATING DEVICES

## **MOU** on nearshore FADs

ers, as well as post-harvest activities and alternative preservation methods for processing and storing catches.

The agreement is expected to develop and expand MIMRA's capability to deploy FADs in many other parts of the Marshall Islands.

Because travel to the Marshall Islands remained restricted in the 2021-2022 period, FAO technical consultants involved in supporting expansion of the Marshall Islands FAD program were only able to conduct training via Zoom calls. With the border opened after August 2022, MIM-RA anticipates that collaboration with FAO will increase in 2023 and beyond.



Coastal Division staff lead a community consultation on Lae Atoll prior to making and deploying a FAD.



## VDS revenue down, but

IMRA places a high priority on financial accountability and transparency to ensure that the work of the Authority is implemented effectively, efficiently and according to the law. Financial accountability is essential for the Authority to carry out its mandate for sustainably managing coastal and oceanic fisheries activities for the Marshall Islands. In this regard, MIMRA has had no unresolved or outstanding audit findings in recent years, demonstrating its commitment to accountability.

For Fiscal Year 2022, the annual MIM-RA audit was not completed by the time of publication of this report. However, the unaudited figures are provided in this report.

The Marshall Islands Marine Resources Authority in 2022 saw its second year in a row of decline in revenue from the Vessel Day Scheme, its largest source of operating revenue. However, an increase in fishing rights revenues helped to balance the revenue picture so that net operating revenues were nearly identical to 2021. Despite a decline in VDS revenue in 2022, MIMRA's annual contribution to the Marshall Islands government's national budget increased slightly in 2022, from \$26 million the previous year to \$26.2 million this year.

Due in large part to the Marshall Islands being part of the Parties to the Nauru Agreement (PNA), MIMRA's operating revenue has remained above \$31 million since FY2015. The ongoing Covid pandemic impacted revenues in 2022

## Increase in fishing rights \$\$

to some degree, as it did the two previous years. MIMRA's operating revenues in 2022 of \$34,704,804 were down six percent compared to 2021, when the operating revenues amounted to \$36,631,390. Non-operating revenues added another \$670,138, giving MIMRA total revenues for 2022 of \$35,374,942 — nearly identical to the previous year. The higher nonoperating revenue helped boost MIMRA total revenues to nearly equal that of the \$35,574,575 generated in 2021.

After eight years of increase in revenue from the Vessel Day Scheme (VDS), 2021 saw a seven percent decline compared to 2020, and 2022 saw a four percent decline compared to 2021. In 2021, the VDS generated \$26,027,040. This figure fell to \$24,986,928 in 2022 for various reasons, including a decline in "pooled" fishing day revenue as well as a reduction in the sale of fishing days to bilateral partners. The "pool" day system allows members of the PNA to pool fishing days that are usually sold at a higher fee because they provided fishing vessels that purchase pooled days access to all of the fishing zones of the countries participating in the pool day system.

Most of the other operating revenue areas remained stable or increased in 2021 (2021 figures in parenthesis):

- Licensing and registration of fishing vessels, \$2,419,320 (\$2,452,349)
- Fishing rights, \$5,440,320 (\$3,341,529)
  - Observer fees, \$626,050 (\$610,450)
- Transshipment fees, \$347,000 (\$347.000)
  - Fishing violation fees, \$0 (\$600,000)
  - Others, \$1,555,324 (\$2,196,207).

"Bad debts" increased in 2022, but were still modest at \$13,200. Significantly, MIMRA's net position continued its positive growth at the end of 2022. MIMRA's net position has grown steadily, from \$36.6 million 2020 to \$44.3 million in 2022.

The fluctuation in fishing licensing and registration revenue reflects changes from year-to-year in the number of vessels licensed to fish in Marshall Islands waters. The number of vessels licensed to fish in the exclusive economic zone of the Marshall Islands was 244 in 2022. a slight increase on the 240 licensed the previous year. The number fluctuates from year-to-year. For example, in 2019, 223 were licensed. Revenue reflects these trends, which further reflect locations in the region of tuna schools.

Fishing rights revenue continued its increase to an all-time high of \$5.4 million, continuing a three-year trend of in-



## contribution to RMI up

creases. The previous high was in 2018 and 2021 with over \$3.3 million in revenue each year. Fishing rights revenue increased due mainly to an increase in revenue from FSM Arrangement vessels and Japan vessels. This offset the decline in US Treaty revenue.

Transshipment fees were hit hard by Covid, with only \$319,000 in fees collected from transshipment in 2020 — the worse year for transshipments in over a decade because of port entry restrictions. The revenue improved slightly to \$347,000 in 2021 as Covid port entry restrictions eased, allowing transshipments to increase. It remained the same in 2022 and is likely to increase in coming years with the Covid border closure now a restriction of the past.

Fisheries observer fees remained large constant over the 2020-2022 period, with only slight change. In 2022, MIMRA received \$626,050 in observer fees, a slight increase over the previous year.

Although MIMRA maintains an active monitoring, control and surveillance program for the commercial tuna fishery, there were no fishing fines collected in 2022. Some years, there are more and other years there may be none. This represents the ongoing nature of monitoring and enforcement of fishing rules in the

Despite the reduced VDS revenue, as noted earlier, the funding contributed to the Marshall Islands government national budget increased to \$26.2 million, \$200,000 higher than 2021. MIMRA's

#### MIMRA Contributions to RMI FY2013-FY2022

#### **Fiscal Year Contribution**

2013	\$6,348,374
2014	\$11,549,000
2015	\$15,773,000
2016	\$26,285,938
2017	\$40,129,700
2018	\$29,440,214
2019	\$29,141,128
2020	\$31,300,000
2021	\$26,000,000
2022	\$26.200,000*

#### Source:

MIMRA Financial Statements and Independent Auditors' Report, FY2014-FY2021.

\*2022 figure was not yet audited as of the date of publication of this report.

contribution also includes revenue generated from operation of two joint venture fishing vessels through the Marshall Islands Fishing Company, a partnership with Koo's Fishing Company. In 2022, the JV generated income compared to a loss the previous year. MIMRA's contribution to the national government in 2022 accounted for about seven percent of the FY2022 national budget income.

MIMRA's total assets continued to increase. They increased by over \$4 mil-

lion in 2022 compared to 2021. MIMRA ended FY2022 with total assets valued at \$44.4 million. This represents a 10 percent on the previous year. At the end of FY2022, MIMRA's combined funds (savings and current account) amounted to \$24,643,700, which was lower by 16 percent compared to \$28,471,860 in FY2021. The decrease can be attributed to the non-collections from PNA for the FSM Arrangement days payment on 2021/2022 and VDS pooling, and cash grants from the World Bank.

MIMRA's operating expenses decreased by 13 percent in 2022 compared to 2021, going from \$5,957,568 to \$5,175,662. The biggest change in expenses was in professional fees. In 2021, MIMRA spent over \$1 million on this budget category. In 2022 the amount decreased to \$48,927.

Challenges for MIMRA included the fact that throughout 2022, the Marshall Islands continued to have the highest fuel prices in the Micronesia region. They averaged well above \$6 per gallon. Many commodities saw an increase in prices during the year, particularly with Covid disruptions of supply chains globally. Climate change and its impact on location of tuna schools does impact MIMRA's revenue generation. In addition, while the annual three-month FAD closure is an important conservation measure, it does affect MIMRA revenue collections, especially transshipment revenue. Historically, the FAD closure means fewer purse seiners transshipping in Majuro.



#### MIMRA: Management's Financial Condition and Operations for fiscal years 2022, 2021 and 2020

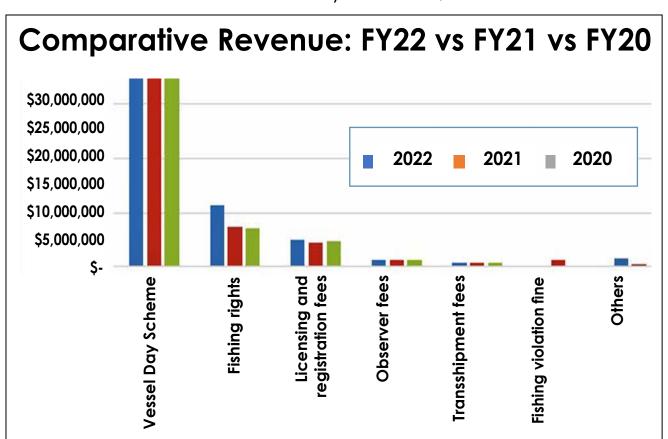
This table summarizes the financial condition and operations of MIMRA for fiscal years 2022, 2021 and 2020.

Statements of Net Position				
	2022	2021	(%) Change	2020
ASSETS: Current and other assets Capital assets Investment in JV	\$ 34,102,625 6,509,926 3,781,732	\$ 30,241,252 6,517,456 3,474,136	7% -2% 8%	\$ 27,776,659 5,413,423 4,696,089
Total Assets	\$ 44,394,283	\$ 40,232,844	6%	\$ 37,886,171
LIABILITIES: Current Liabilities	\$ 859,407	\$ 917,278	-7%	1,207,613
NET POSITION: Investment in capital asset Restricted Unrestricted	s \$ 6,509,926 111,053 36,913,897	\$ 6,517,456 219,607 32,578,503	-1% -98% 8%	\$ 5,413,423 991,623 30,273,512
Total Net Position	43,534,876	39,315,566	7%	36,678,558
	\$44,394,283	\$40,232,844	6%	\$37,886,171
Statements of Revenue, Exp	penses and Chang	es in Net Position		
	2022	2021	(%) Change	2020
REVENUES: Operating Revenues Capital Revenues Non-Operating Revenues	\$ 34,704,804 - 670,138	\$ 36,631,390 - (1,056,815)	(6%) - (64%)	\$ 35,199,282 - 2,806,152
Total Revenues	35,374,942	35,574,575	(6%)	35,883,711
EXPENSES: Operating Expenses Non-operating expenses	5,175,662 26,200,000	5,957,568 26,000,000	-15% -2%	5,707,367 31,300,000
Total Expenses	31,375,662	31,957,568	(14%)	37,007,367
Changes in net position	3,999,280	3,617,007	10%	998,067
Net position at start of year	40,254,915	36,637,908	3%	35,680,491
Net position at end of year	\$ 44,254,195	\$ 40,254,915	9%	\$ 36,637,908

<sup>\*</sup>Unaudited

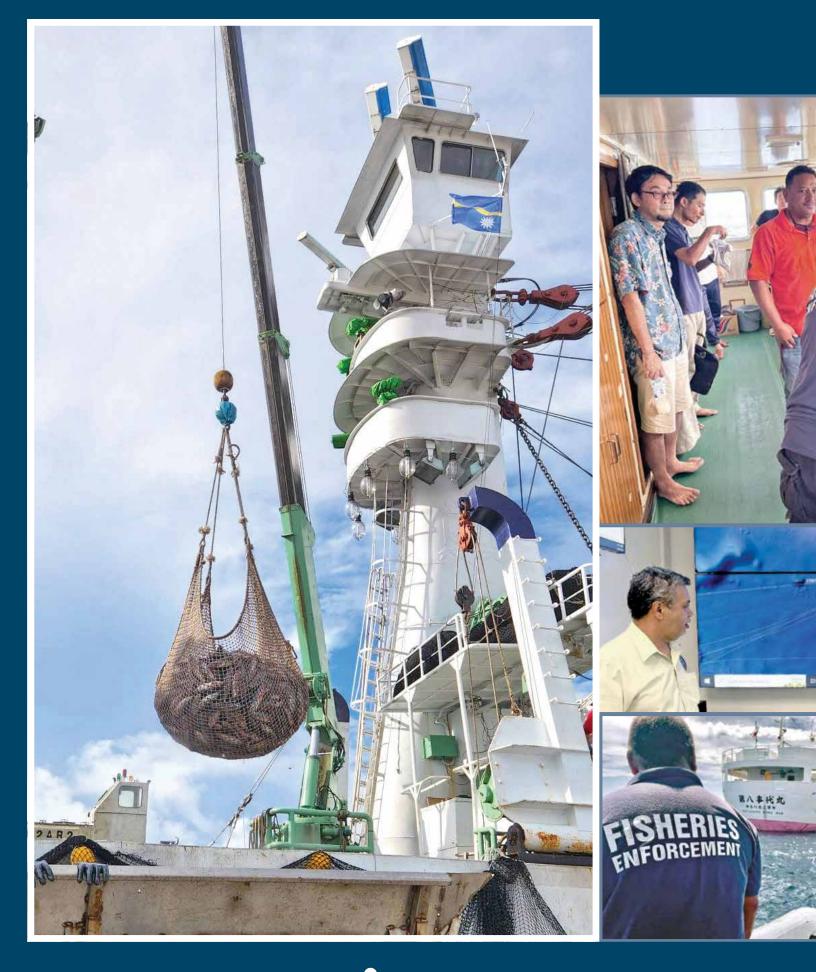


MIMRA: Management's Discussion and Analysis for fiscal years 2021, 2020 and 2019



	2022*	2021	Change	2020
Vessel Day Scheme	\$24,986,928	\$26,027,040	\$(1,040,112)	\$28,112,074
Licensing/registration	2,419,320	2,452,349	(33,029)	2,300,800
Fishing rights	5,440,320	3,341,529	2,098,791	3,579,787
Observers fees	626,050	610,450	15,600	660,594
Transshipment fees	347,000	347,000	-	319,000
Fishing violation	-	600,000	(600,000)	100,000
Others 1,555,324	2,196,207	(386,677)	127,584	
Total operating reven	Jes 35,594,972	35,574,566	54,573	35,199,839
Bad debts	(13,200)	(27)	(13,173)	(557)
Total net				
operating revenues	3 5,581,772	35,574,539	41,400	\$ 35,199,282

<sup>\*</sup> Unaudited.



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