

Marshall Islands Marine Resources Authority

# MIMRA



**Annual  
Report  
FY2015**





**Marshall Islands**  
**Marine**  
**Resources**  
**Authority**



**ANNUAL REPORT 2015**

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Alfred Alfred, Jr.**

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# Sound fisheries framework good for RMI's future

The Marshall Islands membership in the Parties to the Nauru Agreement (PNA) is the foundation of our success in managing the commercial tuna fishery in the western and central Pacific. The PNA's Vessel Day Scheme (VDS) operates as a business management and conservation mechanism that has significantly increased fisheries benefits coming to the RMI and other PNA members, while controlling fishing effort. We have always stood behind the VDS. Its successful management is a credit to the PNA Office in Majuro, MIMRA and the fisheries departments in all PNA nations.

During FY2015, revenue derived as a result of the VDS amounted to \$24.4 million, 80 percent of MIMRA's overall operating revenues. Of importance, this FY2015 VDS-related revenue has increased 140 percent in just two years. We, however, don't anticipate it increasing significantly beyond this level over the next two years as the benchmark price of a fishing day is likely to remain at the same level. But by working together with other nations that are part of PNA, the RMI has benefited greatly and will continue to benefit in the coming years as a resource owner.

In addition to the RMI gaining a large increase in revenue from the commercial tuna industry, Port Majuro has developed into the busiest tuna transshipment port in the western Pacific, with 663 vessels engaged in purse seine transshipments throughout the year, a 25 percent increase compared to FY2014. This has generated spinoff benefits to the local economy as the purse seiners and the transshipment carrier vessels resupply locally and crews spend money in stores, hotels, bars and restaurants.



**MESSAGE FROM THE CHAIRMAN OF THE MIMRA BOARD OF DIRECTORS**

## BOARD MEMBERS

**Permanent:** Minister of Resources and Development, Alfred Alfred, Jr.; Attorney General Filimon Manoni; Secretary of Foreign Affairs, Bruce Kijiner. **Two-year terms:** Bobby Muller, Danny Wase, Saane Aho, Tommy Kijiner, Jr.

A very important project spearheaded by MIMRA with other RMI government staff and the support of the Australian government is the completion of the RMI's marine boundaries. The document has important economic and diplomatic implications. The detailed document with all of the coordinates has now been filed with the United Nations, officially delineating the extent of the 200-mile exclusive economic zone belonging to the Marshall Islands.

The Marshall Islands was selected as one of four islands in the Pacific to participate in the World Bank and the Global Environment Facility-funded Pacific Islands Regional Oceanscape Program (PROP) in partnership with the Forum Fisheries Agency. The aim is to strengthen the management of oceanic and coastal fisheries

programs within MIMRA. The focus is on sustainable fisheries practices, including sustainable financing of conservation of critical fishery habitats, and regional coordination and program management. We are delighted to be part of this good governance effort and anticipate it will have a positive impact on MIMRA operations going forward.

MIMRA is also conscious about promoting women's participation in a sector that has been male dominated for decades here and elsewhere. We are proud to say that a number of our divisions have women in management roles and in recent years MIMRA has increased the number of women working in fisheries activities.

Construction of a new MIMRA headquarters in Majuro is expected to start in FY2016, with a new PNA headquarters expansion project to follow.

This annual report offers an overview of the major programs and activities of the Marshall Islands Marine Resources Authority during FY2015.

**Alfred Alfred, Jr.**

**Minister of Resources and Development, Chairman, MIMRA Board of Directors**

# Using training, technology, partnerships to raise the bar

**M**IMRA continues to focus on raising the bar on fisheries management. This involves a range of efforts across the sector, including increasing the skills and number of Fishery Observers, rolling out use of new technology to improve data collection, expanding inter-agency collaboration for fisheries monitoring and enforcement, managing the commercial tuna fishery through the PNA's Vessel Day Scheme, and coordination with outer island local governments and communities to promote coastal fisheries conservation and management. A new World Bank/Global Environment Facility-supported management improvement program started late in the year and is expected to bring important benefits to the Marshall Islands, both in expanded monitoring and enforcement in conjunction with RMI Sea Patrol and our international partners as well as expanding the Fishery Observer force, and also with the goal of establishing the first "Competent Authority" by a small island state that will facilitate through a certification process the export of fish to major international markets.

Important areas of focus for MIMRA in FY2015 included:

- **Fisheries Observers.** MIMRA continued to expand the number of Fishery Observers through trainings during the year. This has been accomplished through cooperation with the College of the Marshall Islands, Secretariat of the Pacific Community and the Parties to the Nauru Agreement. Toward the end of 2015, MIMRA hired a certified Fishery Observer trainer to deliver multiple trainings per year in the Marshall Islands. This is expected to help MIMRA



## MESSAGE FROM THE MIMRA DIRECTOR

to more quickly reach its goal of expanding its corps of Fishery Observers to 100.

- **Expanding use of technology.** MIMRA started piloting tablets for Fishery Observers with the aim of fully migrating from manual to digital recording of fisheries data over the next couple of years. The tablets not only allow for instantaneous transmission of digital data from fishing vessels, but it allows Fishery Observers to do so securely and independently of the vessel's communications system. There are additional features that support the safety of Fishery Observers including GPS on the tablets. Utilizing the PNA's Fisheries Information Management System ensures that all PNA members are benefiting from the same data platform, which is already improving MIMRA's access to fisheries data for the oceanic fishery.

- **Pacific Islands Regional Ocean-scene Program.** Funded by the World Bank and the Global Environment Facility, this program that started late in the fiscal year is supporting MIMRA management improvements. The four main areas targeted are: support for expanded fisheries surveillance in the RMI's 200-mile EEZ to complement ongoing assistance from Australia, New Zealand,

United States and France; training and greater participation of MIMRA staff in economic, biological and operational analysis in support of developing negotiating positions with industry and within PNA; major expansion of the Fishery Observer program, both observers and de-briefers; and policy, legislative and staff development to assist MIMRA to establish a "Competent Authority" for certifying fish caught in RMI waters for the purposes of export. This program is collaborating with the Forum Fisheries Agency in addition to local partners.

- **Outer island resource management plans.** MIMRA's Coastal Division worked with a number of outer islands during the year to facilitate development of resource management plans. In addition, the Coastal Division continued to operate two domestic fish market retail facilities at Majuro and Kwajalein, with a network of outer islands supplying reef and bottom fish to the urban centers.

MIMRA aims to boost collaboration with outer island local governments in FY2016 and beyond.

**Glen Joseph**  
Director



# COASTAL

## AND COMMUNITY AFFAIRS

# Division links MIMRA and local fisheries to the people

**T**he Coastal Fisheries Division is MIMRA's link to the community in the Marshall Islands in numerous ways, from fisheries management initiatives and aquaculture development on the outer islands to managing fish market operations in Majuro and Kwajalein and conducting school and community awareness and capacity building programs.

Despite challenges of transportation and weather/sea conditions, Coastal Fisheries Division staff continued their services to communities through ecosystem-based fisheries management programs following the "Reimaanlok process" (the National Conservation Area Plan that provides a roadmap for sustainable fisheries development produced in 2010).

In addition, the Coastal Fisheries Division focuses on aquaculture development, fisheries research and assessment,

'Despite challenges of transportation and weather/sea conditions, Coastal Fisheries Division staff continued their services to communities through ecosystem-based fisheries management programs.'

fisheries marketing and promotions, compliance and enforcement, and public awareness and capacity building.

Due to climate impacts, including the development of one of the region's strongest El Ninos, in 2015 activities focused on Majuro Atoll.

Majuro faces numerous ecosystem challenges caused by human factors. On top of already evident climate change affects, including coral bleaching, the large population in the capital aggravates the fisheries situation, including causing deterioration of coral health, an increase in fish poisoning, seaweed/algae blooms, and overfishing.

In partnership with the Coastal Management Advisory Council (CMAC), Coastal Fisheries Division activities included incorporation of coral bleaching assessments to its dive assessment protocols, mapping of the seaweed outbreak in the downtown area, assisting Majuro communities drafting resource management plans, and consulting with the Marshall Islands Mayors Association and the Majuro Atoll Local Government Council on El Nino, fisheries management ordinances, and promotion of fish seasons and temporary bans on

# COASTAL

MIMRA staff joined Education Week activities, visiting elementary schools in Majuro. This year, MIMRA spoke to students in grades four to six about “over-fishing” and its consequences.



herbivorous fish. During this period, the Nitijela (parliament) adopted RMI Protected Areas Network (PAN) legislation, which was developed and supported by MIMRA in collaboration with CMAC and other community partners.

The legislation is an important step to improving fisheries conservation and sustainability by establishing a legal framework for communities to effectively manage their natural resources.

With the legislation now adopted, there is the need for technical and financial capacity to be identified and streamlined for communities to access in order to implement PAN programs in their areas. Following the Reimaanlok process, MIMRA and the member organizations of CMAC are working together to draft regulations to implement the PAN legislation and further streamline the PAN process.

Educating the community about marine resources and regulations governing sustainable use of these marine resources is an important objective of the Education and Awareness section of MIMRA. Every year, the Ministry of Education organizes a week-long event in celebration of Education week. This year’s theme was: “Kanne Lopal — Optimize educational opportunities for all.” The Education and Awareness section of MIMRA took part in this week-long

‘Aquaculture technical officers are working to establish a network to provide opportunities for the Micronesia sub-region to share knowledge and facilitate transfer of technology.

event by visiting elementary schools on Majuro, talking to students in grades four-to-six about “over-fishing” and its consequences.

Giant clam hatcheries on Arno and Likiep have been supported by the Coastal Fisheries Division for many years. Both facilities, which were originally built in the 1990s, are scheduled for major maintenance in 2016.

With facilitation by the Coastal Fisheries Division, Likiep formed an Aquaculture Association during 2015. It is anticipated that the new Likiep Aquaculture Association will take on responsibility for the marketing side of the clam trade, which will allow MIMRA to focus on producing seedlings to support the

outer island hatcheries.

The need to place higher priority on aquaculture development in government policy and socio-economic development plans has been identified by many islands in the region.

Since concerns and needs are similar and expertise in aquaculture development is available within the sub-region, aquaculture technical officers are working to establish an aquaculture network to provide opportunities for the Micronesia sub-region to share knowledge and facilitate transfer of technology to increase investment from governments and donor agencies for aquaculture development.

With assistance from FAO through a regional Technical Cooperation Program, representatives from MIMRA joined with officials from other government agencies in the Micronesia area and relevant institutions to draw up the institutional structure and governance mechanism for a regional aquaculture organization. This included formulation of a work program, agreements and other administrative documents for the new network. It was agreed that the name is Micronesian Association for Sustainable Aquaculture (MASA). Countries that committed to being a member of MASA include Marshall Islands, Palau, Kiribati, Nauru, and Federated States of Micro-

# COASTAL

The Coastal Fisheries Division manages two Fish Markets: the Outer Island Fish Market Center (OIFMC) in Uliga, Majuro, below, and the Kwajalein Atoll Fish Market Center (KAFMC) in Ebeye, Kwajalein.



nesia with participation of Guam and the Commonwealth of the Northern Mariana Islands. It is anticipated that this inter-governmental organization will be fully established in the coming year.

Partnerships and increasing financial resources available for Coastal Fisheries activities is important for the Division to meet its goals.

The Coastal component of the World Bank's technical assistance project known as Pacific Islands Regional Oceanscape Program (PROP), activities are being focused to address gaps in services currently provided and also increasing Coastal Fisheries Division engagement with outer island communities.

In 2015, MIMRA joined as one of the key Marshall Islands agencies involved with the International Atomic Energy Agency's (IAEA) national and regional projects. The IAEA is working with MIMRA and other agencies to build capacity for scientific analysis, marine and environmental sampling, and laboratory work. The two primary projects include "Harmful Algal Bloom Studies" in Asia and the Pacific and developing national capacity for ongoing "National Radioactivity Monitoring." In addition, IAEA worked with MIMRA to research ciguatera fish poisoning.

The Coastal Fisheries Division contin-

In FY2015, the OIFMC in Majuro bought 109,875.7 pounds of fish from seven outer atolls, paying local fishers \$129,307.35. Through visits to four atolls, the KAFMC bought \$29,011.50 worth of fish.'

ued its management of two Fish Markets for the urban centers: Outer Island Fish Market Center (OIFMC) in Majuro and the Kwajalein Atoll Fish Market Center (KAFMC). These provide thousands of pounds of fresh fish for the Majuro and Ebeye markets, and for Ebeye, in addition to fish, local produce from the outer islands is sold.

Fewer trips were made by MIMRA vessels to outer islands during 2015 due to a combination of unfavorable sea conditions and maintenance schedules of fish base boats and facilities.

Still, the amount of fish purchased injected an increase in revenue to fishers on the outer islands compared to FY2014. In FY2015, the OIFMC in

Majuro bought 109,875.7 pounds of fish from seven outer atolls, paying local fishers \$129,307.35. Through visits to four outer atolls, the KAFMC bought \$29,011.50 worth of fish as well as \$5,820.79 for local produce.

Since 1992, MIMRA has maintained a close partnership with the Overseas Fisheries Cooperation Foundation of Japan, which has supported numerous fisheries projects in the Marshall Islands, particularly focused on the outer islands.

In 2015, OFCF support focused on maintaining outboard engines for community fishing boats on outer islands, replacement and repair of KAFMC radio network system, and maintenance of MIMRA transport vessels and ice plants. OFCF also worked with MIMRA to address management needs for outer island fish bases.

During 2015, the Coastal Fisheries Division ensured that the five fish transport vessels — Jolok, Timur, Jebro, Lentanir and Laintok — received necessary maintenance and repairs. Staff also performed maintenance and repair work on the Wotje fish base ice machine, Arno fish base and Ine sub-fish base facilities, and OIFMC ice machines and other equipment.

The staff also carried out regular maintenance and servicing for MIMRA's eight vehicles.



# Increase in sales of outer island fish to Ebeye, Majuro

## FISH MARKETS

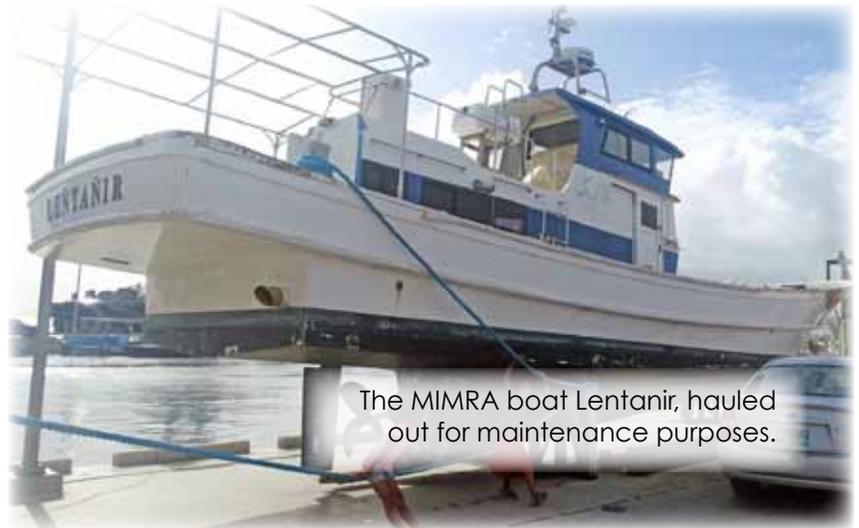
The Outer Islands Fish Market Center (OIFMC) on Majuro bought fish from Arno (33 trips), Maloelap (8 trips), Aur (7 trips), Wotje (4 trips), Jaluit (2 trips), and Mili, and Likiep (1 trip each). In 2015, fishers in these seven atolls earned \$129,307.35 for the 109,875.7 pounds of fish purchased for sale in the Majuro market. This is an increase over the \$116,853.13 earned by outer islands fishers from sale to the OIFMC in Majuro in 2014.

OIFMC enforced quality and size limits on the fish that are brought in from the outer islands. With fuel costs remaining high, OIFMC grouped atolls for its fish pick-up visit (Wotje-Likiep, Wotje-Ailuk, and Aur-Maloelap) to maximize the amount of fish per trip landed on Majuro.

The number of fish collection trips decreased from 88 in 2014 to 56 due to unfavorable ocean conditions, repairs and maintenance on MIMRA vessels, and an increase in emergency medical evacuation charters requested by the Ministry of Health.

Kwajalein Atoll Fish Market Center (KAFMC) now has a vessel to use for trips to its fish base partners and projects. Due to limited availability and high cost of fuel on Ebeye, however, trips were limited and inconsistent, with Namu, Likiep, Ailuk, and Jaluit receiving one fish pick up trip each. Still, KAFMC supplied limited amounts fish to the Ebeye community through direct purchase of fish from these atolls as well as from Ebeye fishers.

In 2015, fishers received \$29,011.90 for fish and \$5,820.79 for local produce sold to the KAFMC, an increase in both categories over 2014. Ailinglaplap fishing activities remain on hold due to ciguatera concerns. A team from Majuro is to be dispatched to assess the situation.



The MIMRA boat Lentanir, hauled out for maintenance purposes.

### Outer Islands Fish Market Center, Majuro Fish Purchased/Sold FY2015

Island	Lbs. Purchased	Price	Lbs. Sold	Sales \$
Arno	67,198	\$81,742	56,972	\$100,835
Aur	19,036	\$20,232	7,763	\$17,064
Maloelap	12,231	\$14,926	10,523	\$25,722
Wotje	5,360	\$5,771	2,862	\$6,841
Jaluit, Mili & Likiep	6,049	\$6,635	3,794	\$7,462
<b>Total</b>	<b>109,874</b>	<b>\$129,306</b>	<b>81,914</b>	<b>\$157,924</b>

### Kwajalein Atoll Fish Market Center Fish Purchased/Sold FY2015

Fish Purchased	Local Produce Purchased	Ice Sold	Fish Sold	Local Produce Sold	Misc Sales*
\$29,011	\$5,820.79	\$35,082	\$21,667	\$6,323	\$7,783

\* Includes sales of fishplates, salt fish ('tutu') and fish jerky. Fish and local produced purchased from fishers on Namu, Ailuk, Likiep and Ebeye.



## HATCHERIES

# Lessons learned at Arno, Likiep clam farm facilities



Tridacna Maxima

The Coastal Fisheries Division performed extensive rehabilitation on two of its hatcheries so that they were returned to full operation. Raceway tanks were repaired, saltwater pumps installed, and a total of four sessions of successful artificial spawning of *Tridacna Maxima* have been carried out with production ranging from five-to-ten million fertilized eggs per tank.

Though results from each spawning session produced a substantial number of fertilized eggs, high mortality rate has been an ongoing issue. Further investigation revealed that over-crowding occurs when the 1,350-gallon concrete raceway tanks are occupied by up to ten million giant clam larvae per tank, which generates competition for space and food resulting in higher mortality.

To resolve this issue, MIMRA staff worked to determine suitable concentration of larvae that will limit mortality yet yield appropriate number of seed clams. This required adjustment to the rearing methodology and application of the existing density procedure formulated by MIMRA's previous counterpart OFCF. To fully address the situation, additional tanks are needed to provide space for larval rearing and seed settlement.

'Although the function of the hatcheries is to supply clam seedlings to interested local farmers, they also serve as research stations with the objective of increasing giant clam populations.'

Currently, existing tanks are split between larval rearing and clam seed settlement, which does not provide adequate space for successfully producing clams. Additional settlement tanks will allow the current production number, which is roughly 350,000 juvenile clams per year, to double. Separate larval rearing tanks will allow the hatcheries to produce clam seeds continuously.

A density control scheme is now being applied for spawning trials while MIMRA works gradually toward constructing new larval rearing tanks.

In the meantime, following renova-

tions to the Arno and Likiep hatcheries, recruitment of local giant clam farmers in Arno was carried out by hatchery staff through community meetings. At Likiep Atoll, local farmers have established their own association called Likiep Atoll Aquaculture Association with a membership of 183 local farmers. The Association's charter was approved by the Office of the Attorney General in November 2014. This enables the Association to apply for grants to expand aquaculture projects and possibly to handle their own exporting and marketing in the foreseeable future.

In FY2015, Likiep clam farmers generated \$10,147 on the sale of giant clams (*Tridacna maxima*, *Elongated giant clams*; and *Tridacna derasa*, *Vasuva giant clams*).

Although the function of the hatcheries is to supply clam seedlings to interested local farmers, they also serve as research stations with the objective of increasing giant clam populations through stock enhancement and reseedling (conservation efforts).

The Coastal Fisheries Division maintains its commitment to promote aquaculture to other atolls and islands as a source of economic development in these communities.



Graphic images of the many problems with the sewage outfall pipe.



## SEWAGE OUTFALL

# Partnership finds big issues

**M**IMRA partnered with the College of the Marshall Islands and the University of Hawaii's Sea Grant Program to conduct an underwater assessment of the condition of Majuro's sewage outfall and wastewater line and what impact it is having on the marine environment in the area. The outfall and wastewater line

and the reef slope beyond the outfall were assessed. Spot check photos and a video transect were done. The survey showed that one section of the wastewater line in the shallows was missing and other sections bearing holes from corrosion, abrasion, and impact damage.

While the outfall originally terminated on the slope at 20 meters depth,

for many years now the outfall has releasing sewage in about 2.5 meter depth on the reef flat. The abraded reef slope directly below the outfall is devoid of any new coral settlement. It is believed that the *Hypnea* sp. seaweed that is seen along the reef is likely brought about by many years of untreated discharge on the reef shallows.





# Controlling the algal blooms

## SEAWEED OUTBREAKS

**F**or more than 10 years, the main sewage pipeline on Majuro Atoll has been slowly deteriorating causing untreated sewage onto coastal reefs. Eutrophication is an aquatic environment's natural reaction to the excessive addition of nutrients.

Algal blooms are common in areas with large populations with heavy pollution.

The nutrient-rich marine environment provides the perfect conditions for seaweed growth. In addition to the raw sewage, coastal communities are also prime contributors. The lack of proper waste disposal in certain communities has left the people to improvise and use the ocean as rest rooms.

Also, some individuals house pigs near the shoreline, rinsing their waste into the ocean. The overgrowth of seaweed spanning a long distance from Jenrok to Ajeltake is an environmental nuisance. It is an invasive organism. The two species were identified as *Hypnea musciformis* and *Gracilaria edulis*.

Mitigation opportunities include accelerating plans to fix the sewage outfall pipe in Delap; engaging farmers and local residents to use seaweed for compost; the Coastal Management Advisory Council has proposed closing ocean side reefs to fishing for seaweed-eating fish so that their populations expand and reduce the amount of seaweed; MIMRA's aquaculture sector is considering farming algae-eating sea urchins to counter act the overgrowth of seaweed.



*G.Edulis*, above, and *H.Musciformis*, below, which are two of the algae that are common sights on Majuro's reef flats. Below (both pages), brown algae outbreaks that continued in 2015.



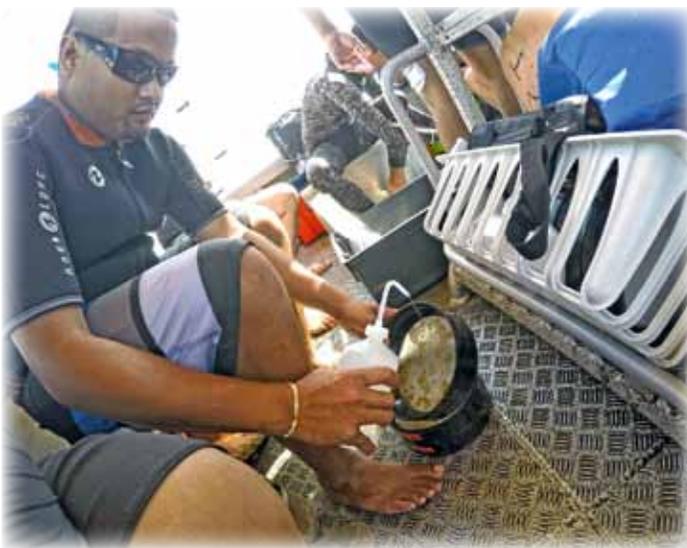


## Agency

**W**ork in 2015 with the International Atomic Energy Agency focused on three areas:

- Harmful Algal Bloom Studies in the Asia-Pacific:** Throughout the region, Small Island Developing States are under threat from seafood toxicity caused by marine algae blooms. Increased land-based activities by people that lead to eutrophication, typhoons and weather events that cause reef destruction, and significant changes in global climate are causing increased frequency and intensity of harmful algae blooms (HAB). Some countries in the region are facing potentially deadly paralytic shellfish poisoning (PSP) syndrome problems despite monitoring programs. This disease is a potential threat on a global scale and new proposed seafood safety requirements for fish imported to the United States and elsewhere could negatively impact countries such as the Marshall Islands with export fisheries industries. The IAEA is supporting work in the Marshall Islands with MIMRA and other agencies as part of a regional program for the “Use of Receptor Binding Assay to Reduce the Adverse Impacts of Harmful Algal Toxins on Seafood Safety.” A primary aim is to strengthen HAB monitoring capabilities. In addition to the IAEA, this project is additionally supported by funding from the Peaceful Use Initiative of the United States. Countries involved include Australia, Indonesia, Malaysia, Marshall Islands, New Zealand, Palau, Republic of Korea, Thailand and Philippines in close collaboration with the U.S. National Oceanic and Atmospheric Administration, ILM and IOC-UNESCO.

- Ciguatera Fish Poisoning (CFP) and Field Monitoring Workshop, Tahiti, French Polynesia:** This workshop together with the Second Coordination Meeting was held at Institute Louis Malardé, Tahiti, French Polynesia during March 2015. The workshop on CFP



Above, Lyla Lemari collects window-screen samples of algae. Left, Jessie Capelle collects sediments from different benthic habitats. Below, Jessie and workshop participants identify different planktons in a lecture series.



# assists in three key areas

## SUPPORT FROM IAEA

Field Monitoring one-week duration. The participants and experts were then divided into three subgroups based on research specialization. The groups collectively developed detailed work plans to achieve to objectives of the RAS7026 project:

- 1) Receptor Binding Assay (RBA) method validation,
- 2) establishment of effective CFP monitoring strategies, and
- 3) data management for compilation of shared regional CFP status information. Results from the subgroups was shared and discussed by the full membership, modifications incorporated, and the final work plan for the project accepted.

• **Developing a National Radioactivity Monitoring Capacity:** This project involving MIMRA and the Marshall Islands EPA is developing skills among staff in the two agencies to measure artificial radionuclides in the marine, terrestrial and coastal environment of the Marshall Islands. The Fukushima nuclear power plant accident in Japan in 2011 released a large volume of Cesium 137 and Cesium 134 into the Pacific Ocean. The dispersion of radioactive contamination from Fukushima through the air and by ocean currents highlighted the need to develop a radiological assessment capacity in the Marshall Islands. Develop baseline data on artificial radionuclides entering terrestrial waters of the Marshall Islands will document any direct impacts associated with the Fukushima accident or any future nuclear accident. The U.S. atmospheric nuclear weapons testing program at Bikini and Enewetak atolls in the northern Marshall Islands (1946-58) had a



Lyla Lemari and Jessie Capelle Isolate algae from collected sample seawater.

‘The dispersion of radioactive contamination from Fukushima through the air and by ocean currents highlighted the need to develop a radiological assessment capacity in the Marshall Islands.’

profound impact on the environment and health of people in the Marshall Islands. The nuclear test program left behind a legacy of distrust of U.S. scientific authorities and many unanswered questions. Some of the affected islands

have partnered with U.S. government agencies to improve radiological surveillance measures. Today, however, the Marshall Islands government has no independent capacity to monitor marine and terrestrial foods, air, water and soil for radioactivity. This program is helping the Marshall Islands to develop this capability. The Marshall Islands needs to be able to make informed decisions on issues related to radiation exposure, remediation and resettlement of islands, and radiological safety and health, based on its own independent research. This program is working to develop this capacity through expert missions to assess and improve the EPA laboratory, fellowships for MIMRA and EPA staff at international laboratories, visits to the IAEA laboratory in Monaco, and training on radiation sampling.



# Increasing the number of protected areas

## REIMAANLOK

**M**IMRA, with support from its partners in the Coastal Management Advisory Council (CMAC), provides technical assistance to local governments and communities for establishing protected areas by conducting resource assessment surveys, providing recommendations on the designation of protected areas, and facilitating the development of management plans for sustainable fisheries development as part of the eight-step Reimaanlok process.

In Majuro, there are three protected areas established under Reimaanlok: Woja Conservation Area, Bikirin, and Drenmeo. Two additional sites were proposed — Bokanbotin (Tibon family) and Ene Kalamur (Maddison family).

After initial consultations between MIMRA and the landowners, the sites progressed quickly into the Reimaanlok process with marine baseline assessments followed by a resource management planning workshop in September 2015 at the ICC facilitated by Wayne Andrew, a regional mentor from the Pacific Islands Marine Protected Areas Communities.

Management plans were drafted by MIMRA in consultation with the stakeholders with the goal of seeing an ordinance drafted and submitted to Majuro Atoll Local Government for endorsement.

‘On the outer islands, Reimaanlok was initiated for Ebon, Ujae, and Lae in response to requests from mayors. Initial meetings were held in Majuro between the national team led by MIMRA and the mayors.’

On the outer islands, Reimaanlok was initiated for Ebon, Ujae, and Lae in response to requests from mayors. Initial meetings were held in Majuro between the national team led by MIMRA and the mayors. Community consultations were held on Majuro for a visiting groups from Ujae and Lae to introduce the Reimaanlok process and the Micronesia Challenge.

A “state of the fishery” survey was conducted to obtain information on the status of their coastal fisheries and other related issues. Ebon is ahead in the Reimaanlok process by establishing a Local Resource Committee and meeting with people in the local community to facilitate development of a Resource Management Plan.



# COASTAL



Above and below: Successful meetings were held with community groups on Ebon Atoll. Inset: The National Conservation Area Plan. Opposite page: The Bokanbotin and Ene Kalamur protection areas.





The Coastal Management Advisory Council met with the Majuro Atoll Local Government and discussed many areas of mutual interest, including the level of coral bleaching that occurred as a result of the El Niño weather phenomenon.

## ADVISORY COUNCIL

# CMAC shares its knowledge base

The Coastal Management Advisory Council (CMAC) was formed in 2000 to facilitate cooperation among organizations involved in both marine and terrestrial resource management.

CMAC meets regularly to share current work and collaborate to ensure the most effective use of available resources. Among notable activities in 2015:

- A three-day strategic planning workshop was held in January to finalize its SAP draft with assistance provided by Elizabeth Turk, Protected Areas Advisor, from The Nature Conservancy (TNC).
- CMAC and others worked together with the Secretariat of the Pacific Regional Environment Program to develop RMI's State of Environment (SOE) Report, updating the 1992 Marshall Islands SOE and National Environment Management Strategy and contributing to the RMI National Strategic Plan. The report included: At-

mosphere and Climate; Marine; Land; Culture and Heritage; Biodiversity; the Built Environment; and Nuclear Testing Legacy.

- CMAC held an information-sharing session with MALGov and Marshall Islands Mayors Association, briefing the leaders on CMAC's role and the Reimaanlok process with particular focus on the fisheries management ordinance template, and options/recommendations for establishing fishing seasons or no take areas as temporary mitigation measures for protecting the coral reef ecosystem. Marshall Islands Conservation Society provided information on El Niño, herbivorous fish and coral bleaching. The exchange of information was well received by the mayors. MIMRA hopes to conduct one-on-one consultations on a more regular basis with the respective local governments to update on current/ongoing projects and issues that relate to coastal/marine.



Coral bleaching as a result of El Niño.

# OCEANIC



Off-loading tuna at Delap Dock in Majuro.

## The benefits of active engagement in tuna fishery

**M**anagement of the oceanic tuna fishery through PNA's Vessel Day Scheme has dramatically increased revenue generated while expanding engagement of the Marshall Islands Marine Resources Authority in management of the commercial fishery.

This has involved everything from increasing the number of MIMRA's Fisheries Observers and the use of electronic data for monitoring catches, to joining other PNA members in "pooling" fishing days for sale and taking regular enforcement action on violations of domestic fishing laws and regulations.

Although all revenue sectors rose (except for one that remained the same from the previous year), MIMRA's 59 percent increase in revenue in 2015 was driven by the Vessel Day Scheme (VDS).

VDS revenue increased from \$12.2

'Altogether, MIMRA generated \$31.7 million in revenue in 2015 compared to \$19.7 million the previous year. The VDS-related revenue accounted for 77 percent of this total.'

million in 2014 to \$15.2 million in 2015, while "Fishing Rights" revenue nearly tripled from \$3.4 million to \$9.2 million. The latter category reflected the positive development of the Marshall Islands joining several other PNA

members to "pool" VDS fishing days that were sold above the \$8,000 minimum fishing day fee benchmark since pooled days provided buyers with multilateral access to the fishing zones of all countries included in the pool — demonstrating another benefit of the Marshall Islands participation in PNA's VDS management of the fishery.

Altogether, MIMRA generated \$31.7 million in revenue in 2015 compared to \$19.7 million the previous year. VDS-related revenue accounted for 77 percent of this total.

The other area with a large increase over 2014 was fines for enforcement of various fishing violations, which rose from \$825,000 to \$3.2 million in 2015.

The joint venture with Marshall Islands Fishing Company earned MIMRA \$260,495, down from the \$1.1 million in 2014.

# OCEANIC

Close to 500,000 tons of tuna was transshipped in Majuro in 2015. MIMRA Fisheries Observers were on hand to record data on all transshipments, which is a key part of producing statistics for ongoing tuna stock assessments.



Of the total revenue of \$31.7 million, MIMRA provided \$15.8 million to the national government.

In 2015, Majuro, capital of the Marshall Islands, cemented its role as the busiest tuna transshipment port in the western Pacific.

The number of tuna transshipments during the year increased over 40 percent compared to 2014, leaping to 704 from 495. This continues the trend from the past several years of increasing tuna transshipment activity in Port Majuro.

Taiwan-flagged vessels accounted for nearly one-third (225) of the purse seine transshipments in 2015, a big increase on the 136 transshipments in the previous year, and a nearly four-fold increase on their 2013 total of 59.

The next biggest user of Majuro in 2015 for transshipments was the United States with 138 transshipments, up from 118 the previous year.

Chinese vessel usage of Port Majuro continued its upward trajectory

'This ongoing activity throughout the year created numerous spinoff economic benefits as vessels and their crews were in Majuro, using local stores, taxis, restaurants and hotels, and refueling and re-provisioning.'

to 123 transshipments, nearly double the 2014 total of 66. Marshall Islands flagged vessels made 110 transshipments, down from 125 the previous year. The balance was accounted for by vessels from Papua New Guinea (53), FSM (21), Philippines (12), Vanuatu (10), Tuvalu (8), New Zealand (3) and Kiribati (1).

A total of 444,393 tons of tuna was transshipped through Majuro in 2015. The largest volume species was skipjack tuna (384,993 tons), followed by yellowfin tuna (55,170 tons) and big-eye tuna (4,230 tons). Revenue from tuna transshipment rose in 2015 (to \$677,000 compared to \$547,000 in 2014).

This ongoing activity throughout the year created numerous spinoff economic benefits as purse seiners and carrier vessels and their crews were in Majuro, using local stores, taxis, restaurants and hotels, and refueling and re-provisioning. The Marshall Islands operated 12 purse seine fishing vessels in the Western and Central Pacific Ocean (WCPO). The number of fishing days used by these 12 vessels in the WCPO area declined from 2,481 in 2014 to 2,180 in 2015. However, fishing was more efficient with 86,885 tons caught — nearly all skipjack — compared to 75,918 tons the previous year.

A purse seiner (right) offloads its tuna cargo onto a carrier vessel that will transport the fish to offshore canneries. Majuro has become the world's busiest tuna transshipment port.

OCEANIC



Although an increase over 2014, the 2015 total was lower than 2011, when a record 90,259 tons was caught by 10 Marshall Islands flagged purse seiners. The Marshall Islands had no longline vessels fishing in the WCPO in either 2014 or 2015.

Total provisional catch by purse seine, longline and pole and line vessels fishing within the Marshall Islands exclusive economic zone (EEZ) dropped in 2015 to less than half of the record volume in 2014.

The drop in tonnage largely reflected location of tuna during an El Niño year when rising ocean temperatures pushed the fish east toward Kiribati waters and the adjacent high seas.

The number of foreign purse seine fishing vessels and longline vessels licensed to fish in Marshall Islands waters also declined in 2015: purse seiners 162, down from a high of 185 the previous year, and pole and line vessels 13 compared to 20 in 2014.

'Approximately 50 longline fishing vessels are based locally and provide mainly bigeye and yellowfin tuna to the processing facility for export by air freight several times each week.'

Foreign longline vessels remained stable at 50.

The main reason for the decline in foreign purse seiners fishing in the Marshall Islands EEZ was the drop in licensed S. Korean vessels from 26 in 2014 to five in 2015.

Japan, the only country to employ pole and line fishing, saw its fleet fish-

ing in domestic waters drop from 20 to 13.

The Pan Pacific Foods tuna loining plant production dipped in 2015 compared to the previous year. A total of 2,469 tons were produced, with the majority of this tonnage (1,821 tons) exported to Thailand and Mexico for canning. In 2014, 3,768 tons of pre-cooked tuna loins and related products were exported to various markets.

The Marshall Islands Fishing Venture, a subsidiary of Luen Thai Fishing Ventures, operates a dockside tuna processing operation in Majuro largely for export to international sashimi markets.

Approximately 50 longline fishing vessels are based locally and provide mainly bigeye and yellowfin tuna to the processing facility for export by air freight several times each week.

The Fishing Venture processed 3,274 tons of fish, mainly bigeye (1,708 tons) and yellowfin (871 tons) in 2015, down from 6,356 tons in 2014.



Fisheries Observer supervisors discuss data collection with observer team.

# Fisheries observers increase and expand use of e-reporting

**D**uring 2015, joint assistance from Pacific Community (SPC) and Forum Fisheries Agency helped MIMRA make considerable improvements in data collection and management. MIMRA continues working toward an integrated fisheries information management system to streamline its regional and international reporting obligations.

MIMRA's Fisheries Observers, who handle both monitoring on board purse seiners and port monitoring of transshipment operations, are migrating to the PNA Office-developed iFIMS (Fisheries Information Management System) for recording and managing data. This is complemented by existing TUFMAN and TUFMAN2 databases.

The ongoing training program for Fisheries Observers entails further development of e-Reporting and e-Monitoring initiatives.

It is anticipated that these trainings will encourage observers to adapt by using new tools and technology in gath-

## OBSERVERS

'One of the pilot projects undertaken by the Institute is to have Pacific Island Regional Fisheries Observer (PIRFO) standards provided for certified MIMRA observers.'

ering data more efficiently and timely.

MIMRA's Fisheries Observer force continues to grow, with 62 active in 2015, an increase from the 52 working during 2014.

These Fisheries Observers covered 182 purse seine trips during the year.

The main goal for the year was to focus on improving and expanding training programs carried out at the Maritime and Vocational Training Institute at the College of the Marshall Islands.

The Institute is gradually developing with a view toward addressing most of the needs of the observer program. One of the pilot projects undertaken by the Institute is to have Pacific Island Regional Fisheries Observer (PIRFO) standards provided for certified MIMRA observers.

Fisheries Observer trainings are but one component of the overall training provided through the College of the Marshall Islands. Included in the training are other aspects of maritime knowledge such as STCW-95 (Standards of Training, Certification and Watchkeeping), which include Basic Sea Safety, Survival, and Crewmanship.

This provides Fisheries Observers with a comprehensive and robust level of maritime standards and certification.



# Commercial catch data in the RMI EEZ in 2015

## TONNAGE

Catch tonnage declined for all three types of commercial fishing gear used in the Marshall Islands' EEZ. The catch was just over 30,000 tons in 2015 compared to over 80,000 tons in 2014. This reflected, in part, tuna migration patterns that were affected by the El Niño weather phenomenon.

- **Purse seine vessels:** The total catch by purse seine fleets operating in the Marshall Islands' EEZ was 26,694 tons in 2015, a drop of about 60 percent compared to the 70,235 tons caught in 2014 by purse seiners. The 2015 catch is the lowest since 2011. The US fleet accounted for close to half of this catch, followed by the FSM Arrangement fleet, Taiwan and Marshall Islands flagged vessels. Skipjack tuna dominated the catch, accounting for over 80 percent of the total.

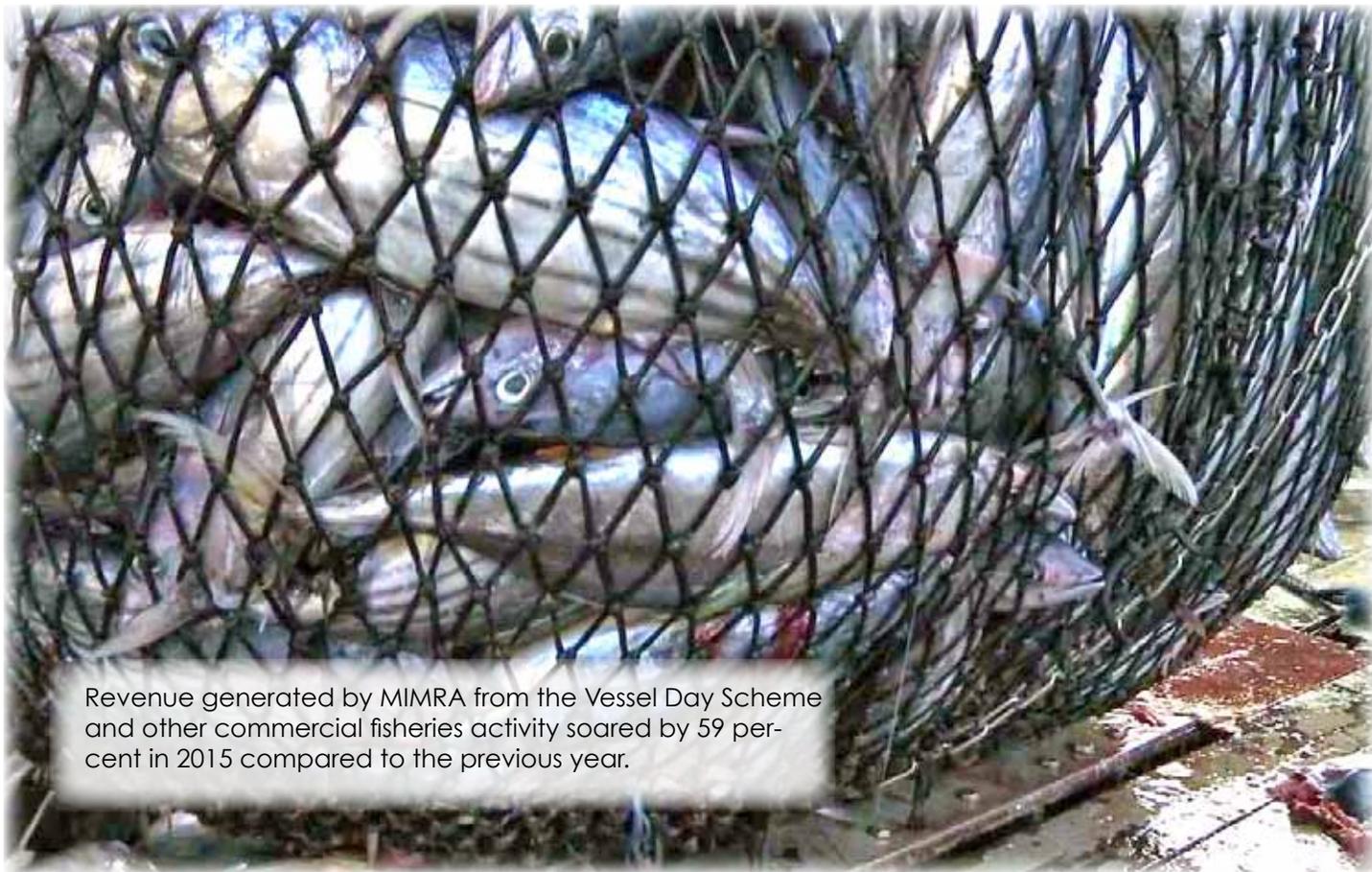
- **Longline vessels:** Similar to the purse seine catch, tuna caught by longliners declined by nearly 50 percent in 2015 compared to the previous year. The domestically-based foreign longline fleet is comprised of vessels from China, Taiwan and FSM and managed and operated under Marshall Islands Fishing Venture, Ltd., which is a subsidiary of Luen Thai. The tuna off-loaded at the Fishing Venture

in Majuro results in exports of chilled tuna species to markets in the US, China and Canada. In contrast, Japanese longline vessels offload their catch in ports in Japan. The catch in 2015 was estimated at 4,097 tons compared to 7,798 tons in 2014. It is the lowest in over four years. Over half of the catch was bigeye tuna (2,286 tons), while yellowfin (1,380 tons), other (309 tons), and albacore (122 tons) accounted for the balance. The largest portion of the 2015 longline volume was caught by Chinese vessels (2,155 tons), followed by vessels from the FSM (1,666 tons), Japan (230 tons), and Taiwan (46 tons).

- **Pole and line vessels:** Catch levels of tuna by pole and line vessels decreased 82 percent compared to the previous year. This is partly the result of a decline from 20 to 13 vessels in the Japanese pole and line fleet, the only one using this type of gear in the Marshall Islands' EEZ. Skipjack tuna accounted for nearly 100 percent of the 618 tons caught in 2015. This was the lowest total tonnage caught since 2011, when 269 tons were reeled in. The Marshall Islands has yet to place observers on board these vessels so observer coverage for validation purposes has not been achieved.



A total of 444,993 tons of tuna was transhipped in Port Majuro in 2015.



Revenue generated by MIMRA from the Vessel Day Scheme and other commercial fisheries activity soared by 59 per cent in 2015 compared to the previous year.

## HIGHLIGHTS

### CATCH FIGURES

- Purse seine catch in the Marshall Islands EEZ dropped dramatically, from 70,235 tons in 2014 to 26,694 tons in 2015. Close to half of this catch was by US-flagged vessels.

### FISHERIES REVENUE

- Fisheries revenue continued the upward trend of the past several years, with revenues rising 59 percent from \$19.8 million in 2014 to \$31.6 million in 2015 primarily as a result of implementing PNA's Vessel Day Scheme.

### MAJURO EXPANSION

- Majuro expanded its position as the busiest tuna transshipment port in the western Pacific during 2015. The number of transshipments rose dramatically, from 495 in 2014 to 704 in 2015. This resulted in 444,393 tons of tuna being transshipped through Majuro compared to 315,909 tons in 2014.

### OBSERVER NUMBERS

- The number of Marshall Islands Fisheries Observers con-

tinued to grow as a result of MIMRA-supported trainings through the College of the Marshall Islands and with the support of the Pacific Community (SPC). A total of 62 Fisheries Observers monitored 182 purse seine trips in 2015.

### FISHING DAYS

- The number of fishing days used by Marshall Islands flagged purse seine vessels in the Western and Central Pacific Fisheries Commission convention area declined from 2,481 in 2014 to 2,180 in 2015. However, fishing was more efficient with 86,885 tons caught compared to 75,918 tons the previous year.

### LICENSE NUMBERS

- The number of foreign purse seine fishing vessels and longline vessels licensed to fish in Marshall Islands waters declined in 2015: purse seiners 162, down from a high of 185 the previous year, and pole and line vessels 13 compared to 20 in 2014. Foreign longline vessels remained stable at 50.

### BY-CATCH

- Fisheries Observer data for Marshall Islands purse seine vessels showed these vessels had interactions with six turtles, 10 whale sharks and 20 marine mammals. Of the marine mammals, 16 were dead. The rest were released alive.

# LEGAL

## Treaties, laws, and domestic regulations and enforcement

MIMRA has expanded domestic enforcement of fisheries laws and regulations, while concluding work on two significant international efforts for the Marshall Islands: legal documents necessary for domestic approval of the Niue Treaty on Cooperation in Fisheries Surveillance and Law Enforcement in the South Pacific Region, and documentation of the Marshall Islands' marine boundaries.

### REGIONAL/INTERNATIONAL ISSUES

#### MIMRA redefines Marshalls EEZ and submits to the UN



Minister John Silk

**A** three-year project in collaboration with the Ministry of Foreign Affairs and the Attorney General's office to define the marine boundaries of the Marshall Islands' 200-mile exclusive economic zone was successfully completed. This was subsequently endorsed by Nitijela adoption of a new law, the Marshall Islands Maritime Zones Declaration Act 2016. Following passage of the legislation, the Minister of Foreign Affairs John Silk, with support staff from MIMRA and Foreign Affairs, deposited the maritime boundary legislation with the United Nations Headquarters in New York City.

#### RMI ratifies Niue Treaty, submits to FFA



National Police board a vessel.

**M**IMRA collaborated with the Attorney General's Office to draft a Cabinet Paper for the domestic ratification of the Niue Treaty. Action for domestic approval of the Niue Treaty followed from the signing of the treaty by the Marshall Islands. The Cabinet Minute approved the ratification of the Niue Treaty, and directed the Minister of Foreign Affairs to deposit the instrument

of accession/ratification with the Director General of the Forum Fisheries Agency (FFA) in the Solomon Islands. In tandem with the Cabinet Minute, a resolution drafted and was scheduled for introduction to Nitijela (Parliament) in the second half of 2016. This will conclude the national approval process for the treaty, which will enhance fisheries surveillance and law enforcement for the Marshall Islands.

# LEGAL

MIMRA has authority to regulate the holding, purchase, sale and export of marine ornamentals which are used in the highly popular international aquarium market. Below left, an example of illegal shark finning. Below right, sea cucumbers, the farming of which is now regulated.



## Changes in fishery regulations

Two new MIMRA domestic fishery regulations were completed and put into effect. These are:

- **Sea Cucumber Regulations:** In December 2015, MIMRA submitted the Sea Cucumber Regulations along with supporting documents to the Marshall Islands High Court for public access online. The regulations were approved by Cabinet. The new regulations provide for significant penalties for anyone exporting sea cucumbers without a license. A violation of the licensing provisions can result in a fine of up to \$100,000 in addition to the value of sea cucumbers harvested for export.

- **Aquarium Fisheries Regulations:** MIMRA submitted the Aquarium Fisheries Regulations to the Marshall Islands High Court for public access online. The regulations were approved by Cabinet. MIMRA has authority to regulate the holding, purchase, sale and export of marine ornamentals. The regulations also provide measures to control and support local governments' capacity to regulate the collection of marine ornamentals, which has developed as a small but sig-

### DOMESTIC REGULATIONS



nificant industry in the Marshall Islands. Enforcement: MIMRA continued active enforcement of fisheries laws and regulations. This resulted in court filings against a number of fishing vessels and settlements leading to a record level of fines totaling \$3,250,000. There is zero tolerance for fishing vessels that violate fisheries provisions in national laws. MIMRA, with the support of the Marshall Islands Police Department/Sea Patrol and the Attorney General's office,

actively monitored commercial tuna fishing operations in RMI waters. Seven vessels paid fines ranging from \$55,000 to \$1 million during FY2015. Fishing vessels were fined for various violations, including Interference with a Fisheries Observer in the Performance of his Duties, violating the terms of their licenses, fishing without a valid license, and possession of sharks and shark fins. A total of six fishing vessels paid fines during this period.

# FINANCE

## AND CORPORATE AFFAIRS

# Deloitte auditors give MIMRA high marks on finance

The Marshall Islands Marine Resources Authority continues to demonstrate financial accountability in its operations. For FY2015, as in previous audits, Deloitte auditors gave MIMRA an “unqualified” opinion, meaning all required financial reports and documentation was available and satisfactory for auditing.

“In our opinion, the financial statements present fairly, in all material respects, the financial position of the Marshall Islands Marine Resources Authority as of September 30, 2015 and 2014, and the results of its operations and its cash flows for the years then ended in accordance with accounting principles generally accepted in the United States of America,” said Deloitte auditors in the report issued July 13, 2016.

MIMRA continued to see operating revenue increase in FY2015, setting a new record for the Authority. Operating revenue rose 59 percent to \$31,569,468 compared to \$19,815,209 in FY2014. All sources of revenue increased in FY2015 except for one — boat charter fees — that remained the same as the previous year.

The Vessel Day Scheme (VDS) and fishing rights, both of which are part of Marshall Islands’ participation in the Parties to the Nauru Agreement

‘Majuro Atoll has become the busiest tuna transshipment port in the Western Pacific, with 704 vessels transshipping in FY2015 compared to 495 the previous year.’

(PNA) VDS tuna management system, accounted for nearly 80 percent of MIMRA’s operating revenue in FY2015.

The PNA VDS tuna management system continued to generate rising revenue. The VDS was the single biggest driver of MIMRA operating revenues in FY2015, accounting for 50 percent of total revenue at \$15.2 million, nearly double the figure from two years earlier.

Fishing rights revenue nearly tripled from \$3.8 million in FY2014 to \$9.2 million in FY2015. This represents income from bilateral arrangements with Japan, the United States fisheries treaty, and the FSM Arrangement, all of which operate according to the VDS.

Other revenue sources increased,

including license fees (from \$1.4 million to \$1.6 million), tuna transshipment fees (from \$547,000 to \$677,000), enforcement fines (from \$825,000 to \$3.2 million), Fisheries Observer fees (from \$561,924 to \$647,419), and other (from \$146,523 to \$426,092).

Boat charter revenue remained steady at \$700,000 in both FY2014 and FY2015. The increase in Fisheries Observer and tuna transshipment fees reflect the expansion of MIMRA’s observer force. The observer program monitors dozens of fishing trips on many different purse seine vessels fishing in PNA waters. Majuro Atoll has become the busiest tuna transshipment port in the Western Pacific, with 704 vessels transshipping in FY2015 compared to 495 the previous year.

Non-operating revenue amounted to \$608,612 (reflecting equity revenue from the purse seiner operated by Koo’s Fishing Company in joint venture with MIMRA, a grant, and interest from MIMRA investments). This was 55 percent lower than in FY2014, largely as a result of a lower return from the joint venture vessel.

MIMRA’s net asset worth grew by 50 percent to \$37.2 million in FY2015 compared to \$24.7 million in FY2014.

# FINANCE

## MIMRA: Management's Discussion and Analysis for fiscal years 2015, 2014 and 2013

### MARSHALL ISLANDS MARINE RESOURCES AUTHORITY

P.O. BOX 860, MIMRA/R&D Bldg., Delap Majuro MH 96960

Tel. No. (692) 625-8262; Fax No. (692) 625-5447

#### FY2015 Management Report

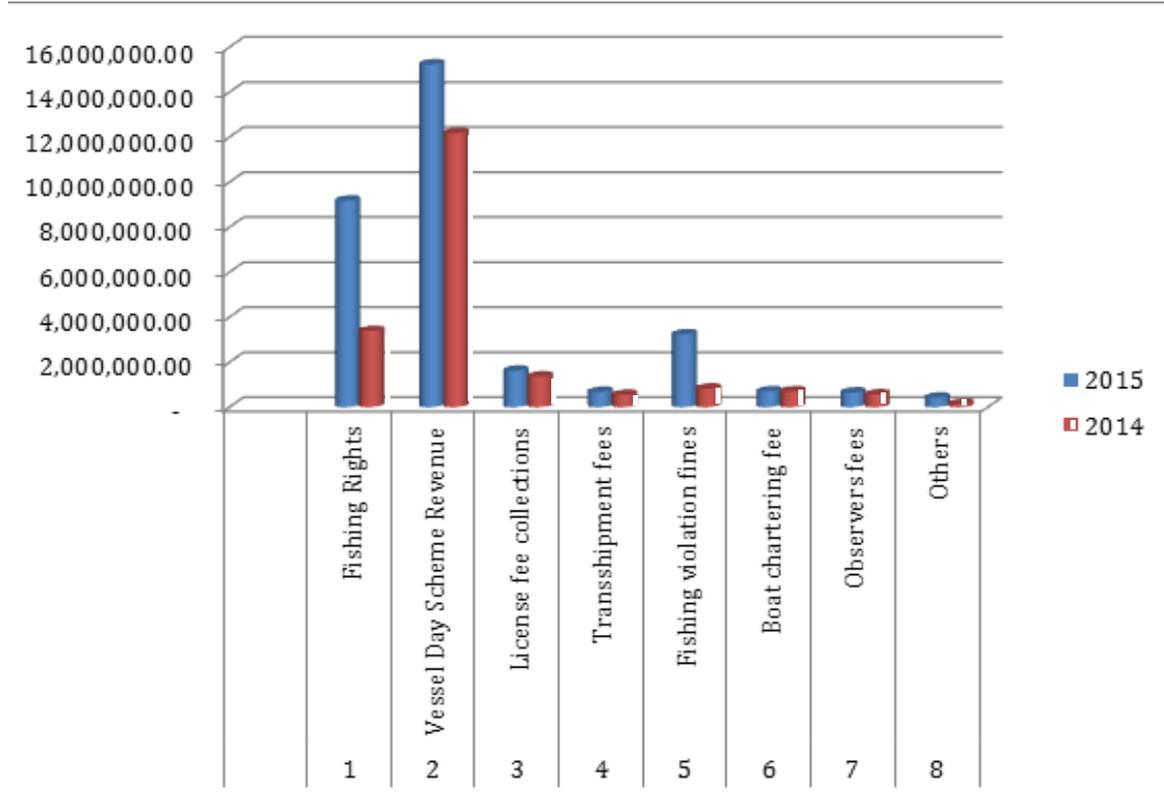
The following tables summarize the financial condition and operations of MIMRA for fiscal year 2015, 2014 and 2013. These appear in the FY2015 audit.

	<u>2015</u>	<u>2014</u>	<u>Change(%)</u>	<u>2013</u>
<b>ASSETS:</b>				
Current and other assets	\$32,741,649	19,662,248	67%	\$12,627,881
Capital assets	202,955	206,048	(02)%	224,570
Investment in JV	<u>4,811,417</u>	<u>5,530,922</u>	(13)%	<u>5,240,001</u>
Total Assets	<u>\$37,756,021</u>	<u>\$25,399,218</u>	49%	<u>\$18,112,246</u>
<b>LIABILITIES:</b>				
Current liabilities	\$ 508,003	\$ 735,196	(31)%	362,138
Long-term liabilities	- 0 -	- 0 -		- 0 -
Total Liabilities	<u>\$ 508,003</u>	<u>\$ 735,196</u>		<u>362,138</u>
<b>NET ASSETS:</b>				
Investment in capital Assets	202,955	206,048	(02)%	244,364
Construction in Progress	-	-		
Unrestricted	<u>37,045,063</u>	<u>24,457,974</u>	51%	<u>17,505,744</u>
Total Net Assets	<u>\$37,756,021</u>	<u>\$25,399,218</u>	49%	<u>18,112,246</u>
<b>Revenue, Expenses and Changes in Net Assets:</b>				
Operating Revenue	31,569,468	\$19,815,209	59%	\$11,641,057
Operating Expenses	<u>3,821,064</u>	<u>2,708,186</u>	41%	<u>2,379,051</u>
Operating Income	<u>\$27,748,384</u>	<u>\$17,107,109</u>	62%	<u>9,262,006</u>
Non-operating revenues	608,612	1,355,891	(55)%	3,118,299
Non-operating expenses	<u>15,773,000</u>	<u>11,549,000</u>	37%	<u>6,742,561</u>
Net non-op rev(expenses)	<u>(15,164,388)</u>	<u>(10,193,109)</u>	49%	<u>(3,624,262)</u>
Changes in net assets	12,583,996	6,913,914	82%	5,637,744
Net assets at beg. of year	<u>24,664,022</u>	<u>17,750,108</u>	39%	<u>12,112,364</u>
NET ASSETS at end of year	<u>\$37,248,018</u>	<u>24,664,022</u>	51%	<u>17,750,118</u>

# FINANCE

## MIMRA: Management's Discussion and Analysis for fiscal years 2015, 2014 and 2013

### Comparative Revenue: FY2015 vs FY2014



	2015	2014	2013
1 <b>Fishing Rights</b>	9,177,671.00	3,383,643.00	2,478,875.00
2 <b>Vessel Day Scheme Revenue</b>	15,228,935.00	12,171,596.00	7,746,478.00
3 <b>License fee collections</b>	1,621,500.00	1,363,549.00	1,140,200.00
4 <b>Transshipment fees</b>	677,000.00	547,000.00	413,000.00
5 <b>Fishing violation fines</b>	3,235,000.00	825,000.00	870,000.00
6 <b>Boat chartering fee</b>	700,000.00	700,000.00	-
7 <b>Observers fees</b>	647,419.00	561,924.00	261,286.00
8 <b>Others</b>	426,092.00	146,523.00	38,813.00
9 <b>TOTAL REVENUES</b>	31,713,617.00	19,699,235.00	12,948,652.00
<b>Recovery (Allowance)</b> for bad debts	(144,149.00)	115,974.00	-
<b>NET REVENUES</b>	31,569,468.00	19,815,209.00	12,948,652.00
<b>Overall Change</b> for FY2013 vs FY2012	11,754,259.00	59%	

# FINANCE

## Marshall Islands receives \$19.6m

**M**IMRA's operating expenses increased by 41 percent to \$3.8 million, but this increase is largely because of a one-time impairment provision for \$980,000 relating to MIMRA's investment in stocks of

an affiliate, a non-recurring expense. Without this, actual operating expenses increase by only five percent, less than increases over the two previous years.

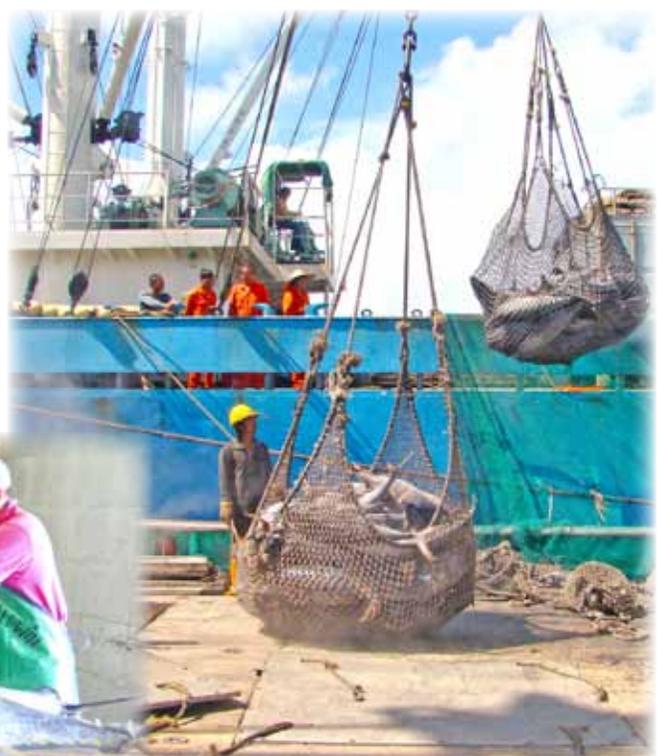
Salaries rose by seven percent to (\$1.4 million). Membership dues,

boarding and observer fees, training and professional fees all saw increases in FY2015. MIMRA transferred to the Marshall Islands government \$19.6 million in FY2015, up from \$11.5 million the previous year.

### Top 10 Aquarium Exports '14-15

Common Name	2014	2015
Flame Angel	56,684	48,388
Multicolor Angel	9,500	6,837
Lemon Peel Angel	7,207	5,914
Mystery Wrasse	7,820	4,879
Bartlett's Anthias	8,186	6,887
Golden Wrasse	1,658	2,680
Helfrich's Firefish	4,209	7,126
Chevron Tang	800	879
Helfrich Goby	7,855	3,694
Lemon Peel Hybrid	761	530
<b>Total</b>	<b>104,680</b>	<b>87,742</b>

Left, aquarium exports by local businesses. Below, workers at Marshall Islands Fishing Venture. Right, uploading tuna in Majuro.



## Smaller fleets register in FY2015

**T**he number of distant water fishing nation purse seiners registered to fish in RMI waters declined in FY2015, but this did not impact revenue generated through the VDS and bilateral fishing rights agreements. The number of domestically flagged purse seine vessels stayed the same as in FY2014 at 10.

The fleets registered in FY2015

(FY2014 registered boat numbers are in parenthesis):

- S. Korea 5 boats (29)
- Taiwan 25 boats (29)
- China 5 boats (7)
- New Zealand 2 boats (3)
- Shanghai Kaichuang, China 2 boats (6).

Domestic fishing companies included Koo's Fishing Company (4 boats),

Central Pacific Fishing (2 boats), Pan Pacific Fishing (3 boats), and Marshall Islands Fishing Corporation (1). The number of domestic boats were the same in FY2014.

Marshall Islands Fishing Venture, a locally-based tuna fishing and processing company, maintained the same number of longline fishing vessels as in FY2014.





**Marshall Islands Marine Resources Authority**

**[www.mimra.com](http://www.mimra.com)**