

An OCEANA  
Publication

# THE CHAMPIONS OF PANAON



## Island of promise

Why Panaon is worth protecting

**PARTNERS FOR  
PANAON**  
The people behind  
paradise

**A LIFE ON THE SEA**  
Through the eyes of  
Panaon's fishers

**VOYAGE OF  
DISCOVERY**  
OCEANA's 2020  
Panaon Expedition

**'WE ARE ALL  
CONNECTED'**  
The scientists speak



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A fishing net caught on corals (DANNY OCAMPO)

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**THE ENIPAS ACT:**

A conservation law gets more 'teeth'



**Partners for Panaon**

Conserving the treasures of this extraordinary island must be a team effort



**A life on the sea**

Nobody knows the waters of Panaon Island better than its fishermen



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THE CHAMPIONS OF **PANAON**

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Underwater photo: The reef in Balongbalong, Pintuyan (VICTOR TICZON)





Fairy basslets around a colony of blue sponge, Anislagon MPA, San Francisco (BADI SAMANIEGO)

## MESSAGE

**M**y warmest greetings to Oceana Philippines as it publishes the Panaon Island magazine.

This publication which is in line with our thrust to protect our coral reefs and marine resources, is truly noteworthy. By conserving and sustainably managing our vibrant coral reefs, we are leaving behind a significant legacy that will benefit future generations.

May we always appreciate the interconnectivity of our ecosystem and inspire others to encourage the different stakeholders of Panaon Island to protect and preserve their exceptionally rich and beautiful coral area.

The government is fortunate to have partners like you in our goal of environmental conservation, which greatly contributes to our country's sustainable growth and progress. Let us all work together to maintain our collaborations now and in the years to come.

I wish you all the best in your endeavors.

**RODRIGO ROA DUTERTE**  
*President, Republic of the Philippines*

MANILA  
March 2022





# Good news from the Philippines

*How Oceana is campaigning to protect and restore coral reefs*

**C**oral reefs worldwide are under stress due to climate change and the warmer oceans that result. We've lost a quarter of the world's live corals in just 30 years, a loss that hurts the half a billion people who depend on coral reefs for jobs, food, and coastal protection. But there is still hope for surviving coral reefs, if necessary protections are put in place.

Oceana is campaigning now to save one of these reefs in the Philippines. The reef in question lives in the waters of Southern Leyte, at its southern tip, Panaon Island. This little-known, richly biodiverse area, which is part of the Coral Triangle, could thrive for future generations if the Congress of the Philippines enacts a national law to protect it.

Oceana, together with the provincial government of Southern Leyte, sponsored a 21-day scientific expedition to Panaon Island last October 2020. The expedition's scientists found that more than half of the coral reefs surrounding the island were in good or excellent condition. Some of the areas visited in Southern Leyte had more than 60 percent coral cover—a remarkably high level. Not surprisingly, fish populations in the area were found to be diverse and abundant, as were seagrass and mangroves.

While these reefs are thriving now, they face many risks that jeopardize their future. During the expedition, scientists



found evidence of illegal and destructive fishing, plastic pollution, and unbalanced tourism growth. These threats, along with intensifying impacts of climate change, are why the reefs of Panaon Island need further protection.

Oceana and our allies—the people of Panaon Island and Southern Leyte—are committed to declaring this island as part of the Expanded National Integrated Protected Area Systems (ENIPAS) Act. This will protect the island's corals and other habitats from destructive fishing and other threats. And, most importantly, it will help the people of Panaon Island, Southern Leyte, and the

Philippines—who depend on wild fish—to improve their livelihoods and those of generations to come.

While many coral reefs have succumbed to bleaching and acidic waters, there are still pristine reefs, like Panaon Island, that we can and should protect. Coral reefs foster life around the world and we must, in turn, give them the help that they deserve and need.

For the oceans,

**ANDREW SHARPLESS**  
*Chief Executive Officer*  
 Oceana





# Doing more for our seas

*Sustainable management of Panaon will be facilitated under the ENIPAS Act, which will help safeguard the island's reefs*

**W**e miss connecting with family and friends and going out with them. In particular, we miss traveling to the beautiful beaches of the Philippines. It is two years into the pandemic, and its socio-economic and environmental impact has been further exacerbated by strong typhoons, like the recent Typhoon Odette, which has ravaged our land, including a special place in the Eastern Visayas—Panaon Island in Southern Leyte.

Typhoon Odette's devastation of the lives and livelihoods in Panaon Island is proof of our changing climate's grave impacts and consequences. The calls for securing more mangrove areas and protecting coral reefs take on extreme urgency to save our oceans and feed our people.

Oceana works with the government, our fisherfolk and coastal communities, and various stakeholders towards protecting more marine habitats in our country. In line with this goal, and after securing with our partners the presidential proclamation of the portion of the Philippine Rise, including Benham Bank, as a protected marine resource reserve in May 2018, we lost no time. We began a feasibility study on having an ecologically and biologically significant area as a potential site to be covered by the Expanded National Integrated Protected Area Systems (ENIPAS) Act. Among the sites we studied and visited, Panaon Island in Southern Island stood out.

Panaon Island is at the southern tip of Southern Leyte. All four municipalities are among the poorest in the Philippines, being fourth or fifth class municipalities. Despite this, stakeholders of Panaon Island have protected this precious gem, having established through local ordinances 19 marine protected areas (MPAs). It is part of the 50 priority reefs, regions in the world with the most biodiverse ecosystems on the planet, seen to be highly likely to survive the adverse impacts of global climate crisis, and therefore in need of urgent protection.



Amidst the pandemic, Oceana embarked on a 21-day journey to Panaon Island, with the expedition team coming back, thankfully COVID-free, with such exciting news of outstanding coral reef cover, so rare and unique nowadays. We share with you in this magazine the overwhelming feeling of awe and motivation from the team, as we push for inclusion of the waters and resources of Panaon Island under the ENIPAS Act. Sustainable management of Panaon Island will be facilitated under this act, which will help safeguard the good to excellent reefs of the island that contribute to the livelihood of Southern Leyte and its adjacent waters.

I invite you to bask in the vibrant underwater images of Panaon Island and of its hard-working people. May this magazine inspire you to do more for our seas.

I take this opportunity to thank our partners, who made conservation a well-deserved priority agenda. To the Province of Southern Leyte led by Governor Damian Mercado, and to the local chief executives of the municipalities of Panaon Island, Mayor Shirlita Chong, Mayor Fe Gamutan-Maruhom, Mayor Rustico Estrella Sr., and Mayor Roy Salinas, *saludo kami sa inyo!*

This pandemic has brought men and women back to their provinces. Many returned to fishing as a primary source of livelihood and subsistence. Now, more than ever, we see the importance of the ocean as our lifeline, and the urgency of taking good care of our natural resources and protecting significant, precious yet vulnerable areas like Panaon Island.

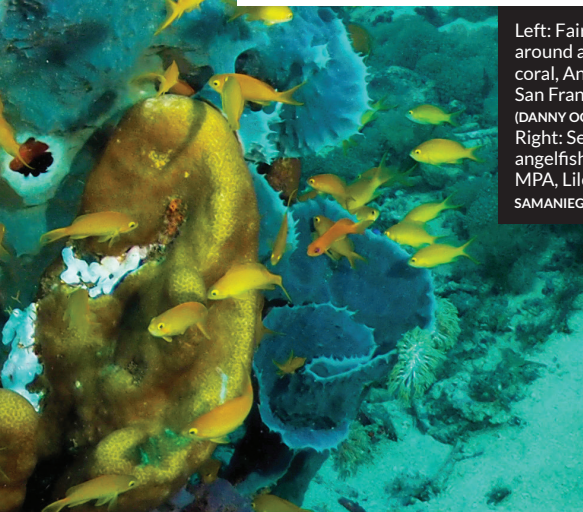
This is among the best legacies we can give our children and their children.

Mabuhay!

**GLORIA ESTENZO RAMOS**

*Vice President*

*Oceana Philippines International*



Left: Fairy basslets around a massive coral, Anislagon, San Francisco (DANNY OCAMPO)  
Right: Semicircle angelfish, Bahay MPA, Liloan (BADI SAMANIEGO)







# Island of promise

Panaon Island in Southern Leyte has been recognized as having some of the world's most potentially climate-resilient coral reefs, and conserving them will determine the fate of its people

By Alya B. Honasan

PHOTOGRAPHS by Rommel Cabrera



**T**HE name is the Visayan word for catching a fish using a spear or *pana*, the most ancient of ways to fish—and an appropriate one for an island whose remarkable wealth has long been found in its waters.

Panaon Island stretches only 30 kilometers from north to south; on the map, it appears almost like a fish itself, looking upwards, its mouth touching Leyte up north. It is bounded on its east side by Dinagat, at the top of Mindanao; in the southeast by the Surigao Strait; and in the southwest by the Mindanao Sea. It is, in fact, considered part of the Mindanao Deep, also known as the Philippine Trench, the geological outcome of colliding tectonic plates, and considered the second deepest body of water on the planet—which explains the riches beneath the waves.

Approaching Panaon under a blue sky, one is welcomed by tranquility and beauty. Clear water, white beaches, and terrain that rolls upward towards low, green mountains of volcanic rock come into view. Wawa Bridge, on that







CLOCKWISE FROM BELOW, OPPOSITE PAGE: The seaside boulevard in San Ricardo; Wawa Bridge connects Panaon Island with mainland Leyte; big catch at the fish landing; children at afternoon play



northern tip, in the largest municipality of Liloan, connects the island to Leyte.

Panaon has four coastal municipalities that are home mainly to subsistence fishermen and small rice and coconut farmers, who also plant greens as part of their daily fare. Liloan has an area of 50.30 square kilometers, and as of 2020, had a population of 24,800. Pintuyan, with a land area of 36.98 square kilometers, is home to 10,202 people; San Francisco, with a land area of 26.49 square kilometers, has a population of 13,436; and San Ricardo, which measures 47.56 square kilometers, is where 10,500 people live. The island can be accessed by land and sea, through Southern Leyte's capital of Maasin. From farther away,

people fly to the airport in Tacloban before heading to Panaon by land.

In terms of money in any bank, Panaon is not an affluent place, with the communities classified as fourth or fifth class based on annual income. "Southern Leyte is one of the poorest provinces in the Philippines, and they are the one almost always hit by strong typhoons," said Marianne Saniano, Oceana's Science Campaign Manager, who heads the campaign to strengthen coral-rich marine

Panaon Island has 19 marine protected areas or fish sanctuaries established through local ordinance by the four municipalities

protected areas.

The international marine environmental organization is working on national policy that will declare Panaon Island as a marine protected area. "As a campaign manager, I'm always looking for the areas that get less help. And as a Filipino citizen, I want other parts of the Philippines—the ones that are not given enough attention—to be protected too," Saniano said in an interview for *Oceana's* magazine.

Panaon is vastly wealthy in other terms, however, which is why Oceana is on the ground there today. Panaon is the site of 19 marine protected areas (MPAs) or sanctuaries, as mandated by local government ordinances, with different levels of fishing control.

It is well-known that the Philippines—along with Indonesia, Malaysia, Papua New Guinea, Timor-Leste, and the Solomon Islands—is part of the Coral Triangle, a region of exceptional marine biodiversity that is home to the planet's biggest concentration of corals.

#### **MOST LIKELY TO SURVIVE**

More recently, Panaon Island was discovered to sit within an area known as BCU (bioclimatic unit) 34, identified in a global study co-funded by Bloomberg Philanthropies under their Vibrant Oceans Initiative (VOI), which pinpointed coral reefs most likely to survive the ravages



of accelerated climate change, and thus must be protected for the future. It was this distinction that pushed Oceana to zoom in on the place, as Bloomberg is also a funding partner of Oceana's work in the Philippines.

"We were overjoyed by our victory in the Philippine Rise, and started looking for other areas we could protect," says Oceana Vice President Gloria Estenzo Ramos. Oceana had successfully campaigned for the protection of the Philippine Rise, a 24.4-million-hectare undersea hotbed east of Luzon, leading to the signing of Presidential Proclamation 489 in May 2018 declaring the Philippine Rise a marine resource reserve, and the area known as Benham Bank a no-take zone.

"Panaon used to be a place where dynamite fishing was rampant, but it recovered," says Ramos. "It had a very inspiring story from the very beginning, where you see the relationships, the legal framework, the ordinances crafted by local government. It was the perfect place for us to undertake another coral reef campaign." The VOI choice only added to Oceana's resolve. "It gave us a stronger sense of responsibility that this pristine place should be protected."

Since Panaon scores high in terms of coastal development and a growing population, the work has become even more necessary. During Oceana's feasibility study of Panaon in 2019, before the pandemic put a halt to tourism, Saniano saw dive boats visiting from as far as Bohol. "There's big potential, so we saw the urgency to protect and put safeguards in place before large-scale tourism comes in."

There are already some established scuba-diving resorts and operations in the nearby diving destination of Sogod Bay, as well as some sites on the western side of Panaon itself, including the walls of Napantao near San Francisco, and Marayag and Son-ok Point near Pintuyan. Extreme divers enjoy the high-speed drift-diving in the channel between Liloan and the Leyte mainland. Photographers love the breathtaking concentration of corals. Divers, snorkelers, and tourists in general, however, all come to see the world's biggest fish, the whale sharks, locally known as *butanding* or *tikitiki*, which converge in large numbers between November and May to feed. Pods of dolphins have also been frequently spotted in the area.

Oceana's initial study determined that Panaon was indeed an ideal place to work, worth the effort and attention. "As a campaigner, you look not only at biophysical factors. You meet the people, and find out how attainable your goals are. The governor and the mayors were accommodating, the people were pro-environment, and their knowledge level was high, so that was a big help," Saniano declares.



### HIGH AWARENESS

Giving credit where it's due, Saniano reveals that the United Kingdom-based organization Coral Cay Conservation had been in Southern Leyte since 2002 with the Southern Leyte Coral Reef Conservation Project (SLCRCP), on

a mission to conserve marine biodiversity and help alleviate poverty in coastal communities along Sogod Bay through the protection of coral reefs. The group left the Philippines after the COVID-19 pandemic made further work untenable.





CLOCKWISE FROM BELOW, OPPOSITE PAGE: Fishing boats lined up on shore; ferry at the Liloan Pier; the community fish landing in Liloan; divers and snorkelers collecting crown-of-thorns starfish

“Coral Cay did a lot of groundwork for popularizing education and science, and established a solid partnership with local authorities, so big credit to them, and that’s why the people have high awareness on the importance of marine resources,” agrees Dr. Badi Samaniego, fish expert and lead scientist of the Panaon Expedition organized and led by Saniano last October 15 to November 5.

As evidence of the people’s commitment to protect their MPAs, Samaniego recalls how, as the expedition team was getting ready to dive at one site, people on shore were waving their arms and shouting that diving was prohibited. Oceana’s Manila office called the local government unit (LGU), which called the Bantay Dagat—and the misunderstanding was settled in 15 minutes, after the community wardens were assured that the diving was for scientific study.

An overwhelming 95 percent of survey respondents said that the coastal ecosystem is very important to the community

natural resources, threats to fishers and communities, reliance on the ocean for food and livelihood, and perception of fish catch and size.

Among the noteworthy findings: An overwhelming 95 percent of total respondents (which included non-fishers) and 99 percent of fishers said that the coastal ecosystem is very important to the community. A total of 89 percent believe MPAs are important in promoting

Oceana also commissioned a socio-economic survey in 2020 conducted by Dakila Kim P. Yee, assistant professor in the Division of Social Sciences of the University of the Philippines Visayas Tacloban College. The goal was to determine the knowledge, attitude, and perceptions (KAP) of interviewees on Panaon’s

biodiversity; 79 percent of fisherfolk believe marine sanctuaries have a positive impact on livelihood; and 76 percent believe healthy mangroves, seagrass, and coral reefs are necessary for fish catch to be plentiful.

Thirty-five percent of fishers surveyed are subsistence fishermen, keeping between 81 and 100 percent of what they catch for consumption. Forty-seven percent of total respondents and 59 percent of fishers identified illegal fishing as the main threat to their natural resources, along with marine pollution and climate change. Fifty-nine percent also said the fish catch had decreased over the years.

#### NATIONAL SCALE

The Fisheries Management Area 8 Management Body chaired by the Bureau of Fisheries and Aquatic Resources Region (BFAR) 8 unanimously passed FMA 8 Resolution No. 2021-001, “A Resolution Recognizing the Urgent Need for Protection and the Sustainable Use of the Marine



Resources Found in the Panaon Island in Southern Leyte and Part of the Fisheries Management Area 8 Recommending For This Purpose its Declaration as a Marine Protected Area Pursuant To R.A. No. 11038, Referred to as The Expanded National Integrated Protected Area Systems Act of 2018” on March 23, 2021, Saniano reports. The Department of Environment and Natural Resources (DENR), meanwhile, performs a very important role to declare Panaon a marine protected area under the Expanded National Integrated Protected Area Systems (ENIPAS) Act of 2018. The process, Saniano explains, requires the DENR to develop a protected area suitability assessment (PASA), informed by the results of Oceana’s biophysical and socio-economic research. This will be followed by public consultations and a recommendation by the DENR to include the area in the system. Then comes

a national review, and finally a presidential proclamation. Another more ideal route is for Congress—specifically, Oceana’s champions in the House of Representatives, former Southern Leyte Representative and now Secretary of Public Works and Highways Roger Mercado, Sen. Cynthia A. Villar, and Deputy Speaker Loren Legarda—to file a bill for Panaon Island’s inclusion in the ENIPAS. Sec. Mercado committed to file the bill, but was appointed by President Duterte as Secretary of the Department of Public Works and Highways.

“The ENIPAS Act will highlight Panaon on a national scale, giving it national coverage, attention, funding, and effort, whereas now it’s just on the LGU and barangay level,” notes Samaniego. “If we could rally all those resources and that intensity so that potential ‘destroyers’ will know it’s backed up, that would help.” Also, legislation

can better guide the development of the island, he adds, as Liloan is the gateway to mainland Southern Leyte, where all the commerce and infrastructure building are happening. “Sadly, all the mangroves and seagrass are there, too, where they are building a circumferential road around the island. We should not deprive the people of Panaon of what they need to feel that they are economically developing, but we have to be mindful that their main resource base is not sacrificed. We need guidelines in place through the ENIPAS so all development must pass scrutiny, so the reefs are not impacted.”

Sec. Mercado made the best plea for his constituents in the documentary. “Environmental protection is our vision for Southern Leyte—but we need partners who will help us, and not exploit us; who will teach us how to be self-reliant, and stand on our own.”

## The ENIPAS Act: A conservation law gets more ‘teeth’

Republic Act No. 7586, “An Act Providing for the Establishment and Management of a National Integrated Protected Areas System, Defining its Scope and Coverage, and for Other Purposes,” known as the NIPAS Act, was signed into law on June 1, 1992 by then President Corazon Aquino.

It was hailed as an important step of the Philippine government in protecting biodiversity areas all over the archipelago, recognizing the significant role played by such places in addressing poverty, spurring economic development, conserving water and wildlife, adapting to climate change, and preventing disasters.

The Act covered “outstandingly remarkable areas and biologically important public lands that are habitats of rare and endangered species of plants and animals, biogeographic zones and related ecosystems, whether terrestrial, wetland, or marine, all of which shall be designated as ‘protected areas.’” Categories included were strict nature reserves, natural parks, natural monuments, wildlife sanctuaries, protected landscapes and seascapes, resource reserve, natural biotic areas, and others “established by law, conventions or international agreements of which the Philippine Government is a signatory.” The goal of the NIPAS was also clear: “the classification and administration of all designated protected areas to maintain essential ecological processes and life-support systems, to preserve genetic

diversity, to ensure sustainable use of resources found therein, and to maintain their natural conditions to the greatest extent possible.”

Twenty-five years later, on July 24, 2017, President Rodrigo Duterte signed into law Republic Act No. 11038, “An Act Declaring Protected Areas and Providing for Their Management, Amending for This Purpose Republic Act No. 7586, Otherwise Known as the ‘National Integrated Protected Areas System (NIPAS) Act of 1992’ and for Other Purposes.” This was known as the Expanded National Integrated Protected Area Systems (ENIPAS) Act of 2018, and its enactment was welcomed as a significant, much-needed update to ensure greater protection for the natural life support systems.

“We laud the timely passage of the ENIPAS Act, as it will enhance the conservation efforts undertaken for our unique but vastly threatened biodiversity and ecosystems, including our marine habitats,” said Oceana’s Vice President Gloria Estenzo Ramos then on the passage of the law. “It is high time that our biologically significant protected areas be given the highest priority and protection they deserve.” The ENIPAS Act added more than 100 legislated protected areas in the Philippines to the list, including the Tañon Strait Protected Seascape where Oceana started its campaign to implement the ban on illegal commercial fishing in municipal waters in 2015.

Among the most important points of the ENIPAS Act is the establishment of an Integrated Protected Area Fund (IPAF), “for the purpose of financing the projects and sustaining the operation of protected areas and the System.” The updated Act ordered the creation of a Protected Area Management Plan, to be carried out by a Protected Area Management Board composed of a wide range of stakeholders. Support for law enforcement and management are given to the Protected Area Superintendent. Local governments can be held accountable for failure to comply with the strict measures under ENIPAS Act.

Other areas where the ENIPAS Act gained more teeth are in mandating scientific and technical support for biodiversity conservation; marking clear boundaries for protected areas; banning the use of destructive fishing gear within protected seascapes; training and deputizing rangers for law enforcement; and identifying special prosecutors, appointed by the Department of Justice, to handle violations of protected area laws.

For a place like Panaon, ENIPAS coverage would mean steeper penalties for illegal fishing, and a bigger piece of the Integrated Protected Area Fund (IPAF) dedicated to conservation, to help ensure the availability of resources for future generations. Income from the operation and management of the protected area accrues to the IPAF.





Volunteer divers gather destructive crown-of-thorns starfish in the waters of Liloan. (ROMMEL CABRERA)

# Partners for Panaon

Conserving the treasures of this extraordinary island must be a team effort

BY Alya B. Honasan, Joy Rojas, and Marie Tonette Grace Marticio

The provincial and local governments of Southern Leyte and the four municipalities of Panaon Island, various local government agencies, active partners such as the international non-government marine conservation organization Oceana, community volunteers, and the fishes and people of Panaon themselves are committed to securing this marine biodiversity treasure for generations to come. Each sector plays a specific role in this collective effort, and must play its part for the success of the whole.

**DPWH SECRETARY ROGER MERCADO:**

***'We do what we can on the ground'***

"Our area is all rugged terrain," says "Oging" Mercado, former representative of the lone district of Southern Leyte, and now Secretary of the Department of Public Works and Highways. "We have everything, from mountain to reef." Born and raised in Maasin, Leyte, he grew up close to nature, the son of a schoolteacher mother with a green thumb. "We were raised to respect not just people, but all the wonderful creations of God. You see life in the insects, the trees, the fish." Mercado started the efforts for Panaon during his time as congressman.

Mercado, a lawyer, is an ideal champion to help Oceana push for legislation to cover Panaon Island under the Expanded National Integrated Protected Area Systems (ENIPAS) Act of 2018, a stronger, amended version of the original NIPAS Act of 1992, and which has included more than 100 new areas now protected by legislation in the Philippines. "I know of our rich underwater life, although I have not seen it myself," he says. "But through the scientific studies of Oceana, and their

presentation, I saw how awesome it really is."

The sense of environmental ownership of the people in Panaon evolved mostly in the last decade or so, observes Mercado, a public servant for some 34 years who first served in Congress in 1987. "When we made the environment one of our priorities under our 'TEA' agenda—Tourism, Environment, Agriculture—we made it a point to explain the benefits of taking care of our natural resources. More people are becoming aware of such concerns as global warming, food scarcity, species extinction."

He also wants people to understand that conservation and livelihood are not contradicting ideas. "If we do things in a proper way, if we have plans and guidelines on how to harvest and care for resources, it will be sustainable, and will provide us a stable means of livelihood. It's not just about living by the day; we must think long term."

"Marine protected areas, the main strategy of marine conservation efforts in Panaon, is a team effort," says Mercado. "One of our mottoes here is 'unity, solidarity, and teamwork.' We strive for what is good for everybody."

The excellent state of the corals in Panaon brings apprehension as well as pride, however, Mercado reveals. "It makes me afraid because I am worried about our limitations. The more we need to protect, the more we feel the limits of our resources, especially with regard to monitoring, having people willing to work long hours to watch for poachers or big, illegal fishing vessels from neighboring provinces with high-tech fishing devices. I can feel the burden. Maasin and Panaon are quite far from each other, and reaction time can be quite slow,



DPWH Secretary Roger Mercado

so we must trust in our empowered barangay folk, and pray that people start seeing things our way."

Next steps for the further protection of Panaon Island's reefs include inspections, mangrove planting, coastal clean-ups, and convincing more fishers of the value of seasonal fishing and using legal fishing methods and prescribed net sizes. "It's about keeping things clean and green, and doing what we can on the ground."

A main benefit of covering Panaon Island under the ENIPAS Act, he feels, is stronger law enforcement. "There will be basis now in the law, and our police and Coast Guard will not be hesitant to provide support, as they will have a sense of authority and purpose."

His message to future generations of environmental stewards in the province: "Good luck!" Mercado says, only half in jest. "There is need for more preparation on their part. Conservation of vulnerable resources should be part of the education curriculum. We have to teach them the importance of Mother Earth from a young age." -ABH





Panaon Island remains lush with greenery. (ANNE BIEMANN)

**OCEANA CHIEF EXECUTIVE OFFICER  
ANDREW SHARPLESS:**

***'Panaon Island offers some hope'***

**What were your thoughts when you first learned about the existence of good to excellent coral cover on Panaon Island?**

While we often hear that coral reefs in the Philippines and around the world are in dire condition from the impact of climate change, Panaon Island offers some hope. The coral reefs found in the waters of Panaon are richly biodiverse and, if protected, offer a tremendous opportunity for improving the livelihoods of those who rely on this important place.

**How is protecting Panaon Island contributing to Oceana's global mission and work? How significant are the Philippine coral reefs in the global state of coral reefs?**

Oceana is the largest international advocacy organization aimed solely at saving our ocean. In the 20 years since we were founded, Oceana has won more than 225 victories worldwide that stop overfishing, habitat destruction, pollution, and the killing of threatened species, and protected nearly 4 million square miles of ocean. Oceana is, country by country, rebuilding abundant

and biodiverse oceans. The Philippines—and Panaon Island—is a piece of that puzzle.

Coral reefs around the world play an important role in fostering life in the oceans. They provide marine life with shelter and protect our coastlines from the threats of storm surges. Reefs, especially those in the waters of Panaon, are important to a country like the Philippines, a fish-eating nation, because if protected, they can sustain an important food source for many Filipinos.

**The expedition was certainly successful in terms of gathering data and putting Panaon on the map. Any additional insights?**

Organizing an expedition in the middle of a global pandemic is a very difficult job, and only possible through the dedication and expertise of a top-tier crew. We are very proud of our Philippine crew who safely explored, researched, and documented Panaon Island's marine ecosystem. Their findings have helped inform our campaign to win policies that will result in more biodiversity in the water and fish on plates of Filipinos.

**Scientists believe that Panaon should be more strongly protected ASAP, as it's a race**



Oceana Chief Executive Officer Andrew Sharpless

**against time. Do you agree?**

Absolutely. And it is especially important that the coral reefs in the waters of Panaon Island are granted national protection before they are exposed to pervasive threats. For instance, during the expedition, Oceana's scientists learned that there is an outbreak of crown-of-thorns starfish in the area. If left unchecked, they will spread and kill the healthy corals off the coast of Panaon Island. However, if we protect these waters under a national law, there will be better support for efforts to eliminate these, and similar threats. In short, the time to protect





'The time to protect Panaon Island, and the fisherfolk and coastal communities who rely on these bountiful waters, is now.' - Andy Sharpless

Panaon Island, and the fisherfolk and coastal communities who rely on these bountiful waters, is now.

**The long-held idea that conservation and livelihood are often at odds remains prevalent in some places in the Philippines. Can you say the same sentiment holds in other areas where Oceana works? How do you address this and how would you convince people—like Filipino fisherfolk—otherwise?**

Our oceans cover 71 percent of our planet and are home to most of the life on our planet. What is not well-known is that they also provide livelihoods to countless fishers around the world, feed hundreds of millions of people, and have the capacity to provide a healthy seafood meal to a billion people, every day. And, right now, over 3 billion people depend on the oceans for their livelihoods.

In the Philippines, one way that we engage

with fisherfolk and others who depend on the oceans is through our work establishing and implementing the Fisheries Management Area (FMA) system in accordance with the Department of Agriculture-Bureau of Fisheries and Aquatic Resources Fisheries Administrative Order No. 263, series of 2019. FMAs provide the nation's fisheries with science-based and participatory management. In reaching out to fisherfolk, coastal communities, and the public we have managed to form meaningful relationships and cultivate an understanding of why it is important to protect our oceans.

**Why, in your view, are marine protected areas (MPAs) a particularly effective approach in places like the Philippines?**

Among the many reasons, illegal commercial fishing has long been a problem in the Philippines. Specifically, commercial fishing vessels are encroaching on municipal waters

and taking away the opportunity for small-scale fishers to fish and provide for their families. Establishing a marine protected area will help ensure the strict enforcement of fisheries laws and national law.

**What will be the benefits of a national policy protecting Panaon Island?**

Protecting Panaon Island through the Expanded National Integrated Protected Area Systems (ENIPAS) Act will ensure holistic and sustainable management of its marine resources. From a process point of view, this will also ensure that there will always be sufficient allocation for its protection in the government's budget. This means that protection is not just the sole responsibility of the local government units, but a shared responsibility among national government agencies, non-government organizations, academics, fisherfolk, and other sectors.



Southern Leyte Gov. Damian Mercado

**SOUTHERN LEYTE GOV. DAMIAN MERCADO:**

**'The expedition in Panaon Island is a welcome initiative'**

*(The following was the Governor's message to welcome Oceana's 2020 expedition to the island.)*

The Province of Southern Leyte welcomes Oceana to our waters. Being a major coastal province, our marine areas and resources are vast and still unexplored. Moreover, our coastal communities are dependent on fishing as livelihood. More importantly, our marine areas have a good number of marine protected areas which are gradually

becoming diving and snorkeling destinations. In this context, marine conservation is indeed imperative, especially in this time of climate and health crisis.

The partnership with Oceana for the protection of Panaon Island is a most welcome initiative. The municipalities of Panaon, with their active local leaders and constituents, are fully supportive of this, and sincerely welcome the team to their areas of jurisdiction.

May we succeed in this endeavor through wholesome working relations with all concerned stakeholders for the restoration and conservation of Panaon Island marine areas.





OCEANA Vice President Gloria Estenzo Ramos

### OCEANA VICE PRESIDENT GLORIA ‘GOLLY’ ESTENZO RAMOS:

#### ***‘The voices of the fisherfolk must be heard’***

“Both,” retorts Gloria “Golly” Estenzo Ramos, vice president of Oceana and leader of Philippine operations, the only Asian outpost of this international marine conservation organization, when asked whether her work is harder or easier precisely because Oceana works only on ocean issues. “It depends on who you’re talking to. If you’re talking to government, we know there are all of these strong arguments for these treasures that we aren’t taking good care of. We’re an archipelago, we’re so used to seeing the ocean, and we take it for granted. Many still feel the ocean’s resources are infinite, and if we tell them there are so many problems now, it doesn’t stick.”

The good news is that technology—read: social media—has put leadership action, or the lack thereof, under scrutiny. “That’s why we really want the front-liners now—our youth, our fisherfolks—to get their voices heard. The fact that they’re more adept in technology makes a big difference. Now politicians have to hear them, because they’re no longer invisible.”

With Panaon Island’s coral reefs deemed among the most potentially climate resistant in the world as a result of a study co-funded by Bloomberg Philanthropies through their Vibrant Oceans Initiative, the value of healthy reefs in determining the survival of coastal communities is underscored even more. “We are at the apex of the Coral Triangle, the center of the center of marine biodiversity, but that doesn’t seem to hit the hearts of decision makers who don’t care about having reclamation projects that hurt our corals, seagrass, and mangroves,” Ramos says. “If fully implemented, the Expanded National Integrated Protected Area Systems (ENIPAS) Act would actually lead to some reckless, irresponsible officials losing their positions

or even going to jail because of failure to implement the law.”

The Act’s main mechanisms would be an Integrated Protected Area Fund (IPAF) set aside for expenses, and a Protected Area Management Board (PAMB) that will be in charge of making collective decisions. “There are many challenges, growing pains, reforms, many players coming in,” Ramos says. “But to us, it’s clear whose interests we represent—a bountiful ocean that benefits the fisherfolk and coastal communities, without any doubt.”

She is upbeat about rallying stakeholders behind Panaon Island, Oceana’s next project site after their successful campaign to get a portion of the Philippine Rise, a rich area northeast of Luzon, and its shallowest portion, the Benham Bank, declared a marine reserve in 2018. “There are so many lessons from that campaign, including the need to collaborate with government and various sectors and to be focused, persistent, determined, and always one step ahead,” Ramos recounts. “One thing we learned from Oceana’s chief

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The first important step under the ENIPAS Act is the creation of a Protected Area Management Plan (PAMP) for each of the areas

executive officer Andy Sharpless, because he’s a campaigner, is that, like Benham, this could be a sovereignty issue. Whenever Chinese vessels were seen in Benham, engagement from Filipino citizens went up. That gave us the motivation to make Panaon a national, even an international issue, because it’s both a national and global treasure.”

Ramos’ own confidence and passion came from growing up close to nature on visits to her father’s hometown in Catmon, Cebu. “I don’t think I’d be as passionate a defender of our oceans without that exposure, as it’s become part of my DNA.” Like her, Ramos’ husband is a lawyer, and their four children have not fallen far from the tree: three are lawyers, and one is a marine scientist.

It still frustrates her no end, however, when, even as scientists have issued urgent warnings about the need to save the planet, changes are still taking place too slowly. “It pains you,” Ramos says. “What’s getting in the way? The ‘business as usual’ mindset—people don’t want to change because it may mean a dent in profits. Addressing this means changing the system. Nature cannot wait. We’re wasting time that could be used to effect changes.” **-ABH**

### CONGRESSWOMAN LOREN LEGARDA:

#### ***‘National legislation gives better institutional protection’***

“Southern Leyte is one of the poorest provinces in the Philippines, and visited by strong typhoons,” says Antique Representative and House Deputy Speaker Loren Legarda, who has pushed for the passage of the Expanded National Integrated Protected Area Systems (ENIPAS) Act, of which she is principal author, since 2013 “to actively address areas that remain under-protected.” “The island is not given enough attention,” Legarda says. “Creating a marine protected area (MPA) could provide benefits to locals, such as sustainable ecotourism jobs that would depend on healthy coral reefs.”

Most significantly, the ENIPAS Law strengthens climate adaptation mechanisms and the conservation of Philippine biodiversity, and empowers stakeholders to help make the decisions.

The first important step under the ENIPAS Act is the creation of a Protected Area Management Plan (PAMP) for each of the areas, the congresswoman explains. A Protected Area Management Board (PAMB) executes the plan, and a legal mechanism is put into place to protect critical areas and prevent biodiversity loss. The challenge will be to ensure strict implementation. “Without the law, protected areas remain vulnerable to destructive exploitation. Additionally, the composition of each PAMB is such that we get full cross-sectoral representation and oversight from the local representative.”

Since 1992, 113 protected areas had been declared through Presidential proclamations under the NIPAS Act of 1992, although only 13 were fully legislated as such. “The ENIPAS Act, which became law in July 2017, declares 97 natural parks, protected landscapes or seascapes, and reserves as protected areas under national law, bringing the total number of areas protected by law to 110,” Legarda says. The revised law allowed for



Congresswoman Loren Legarda



more extensive protection and effective preservation of more areas, thanks to funding for protection and prosecution of violators. “Through this measure,” Legarda adds, “local communities and stakeholders will be able to do more to participate in the management and protection of forests, oceans, flora, fauna, and the indigenous peoples that reside in these sanctuaries.”

The problem with the previous NIPAS Act was that most proclamations of protection were temporary, and were easily overruled by succeeding administrations. “National legislation gives better institutional protection, and ensures the protected areas receive an annual budget to fund their conservation,” says Legarda. “It is the highest form of protection for an area in the country, and automatically excludes such areas from activities like mining, logging, and poaching, and limits fishing to only non-protected species and using non-destructive methods.

Panaon Island is a perfect example of an area that can benefit from more protection. “It forms part of the Coral Triangle, and based on the survey by Oceana, I know that more than 250 species of hard coral and plenty of soft corals have been documented,” says Legarda. “Panaon Island is blessed with extensive coral cover and coral outcrops. It is home to many marine species, which is quite rare, considering that the country’s reefs have been steadily declining over the last 40 years.”

A PAMP could further improve the health of coral reefs, ensure fish diversity, abundance, and biomass, and even protect against marine pollution by banning single-use plastics. “I understand that to date, two out of four municipalities in Panaon have passed resolutions urging the National Solid Waste Management Commission to classify single-use plastic as a non-environmentally acceptable product,” notes Legarda, who has also filed a bill that regulates the use of such plastics.

She cites the value of MPAs as key to sustained protection. “I note that community leaders in Panaon have already established 18 local MPAs. However, if there is a nationally designated MPA, Panaon would be granted stronger protection, as well as increased funding to support management of the area.”

Legarda concludes, “The ENIPAS Law ensures that the conservation of specific protected areas in the country is prioritized, strongly supported, and incorporated in development plans and programs of both the national government and local government units.” - AH

**SEN. CYNTHIA A. VILLAR:**

Chair of Senate Committee on Agriculture and Food:

**‘We cannot let our guard down’**

(Following are excerpts from the message delivered by Sen. Villar for the launch of the primer

produced by Oceana for Republic Act. No. 11038, the Expanded National Integrated Protected Areas System or ENIPAS Act, and the virtual exhibit on Panaon Island.)

The Philippines is one of the 17 mega-diverse countries in the world or the world’s top biodiversity-rich countries, which hosts two-thirds of the world’s biodiversity and contains 70-80 percent of the world’s plant and animal species. As a mega-diverse nation, the Philippines ranks fifth in terms of number of plant species. It is home to 5 percent



Sen. Cynthia A. Villar

of the world’s plants, it is fourth in bird endemism, and fifth in mammal and reptile endemism. Our rich biodiversity is a valuable asset of our country, and this is the reason why, in 1992, Republic Act. No. 7586 or the National Integrated Protected Areas System

(NIPAS) Act was enacted as a mechanism to conserve biodiversity in the Philippines. The law provides the legal framework for the establishment and management of protected areas in the country. Under this 1992 NIPAS Act, Congress was able to strengthen the protection status of 13 ecologically important areas through individual legislation.

However, through the years, the establishment of protected areas by legislative action became few and far between, and yet the need to secure for the present and future Filipinos the perpetual existence of all native plants and animals has become more urgent and necessary, given the profound impact of human activities on the environment, particularly the effect of increasing population, resource exploitation, and industrial advancement. Thus, when I was a newly installed chairperson of the Environment Committee, I wasted no time and vigorously pursued the passage of RA 11038 or the ENIPAS Act of 2018, which strengthened the framework for the establishment and management of all designated protected areas in the country.

More importantly, the ENIPAS included the legislation of 94 more protected areas, comprising natural parks, natural monuments or landmarks, protected landscapes and seascapes, wetland parks, parks and wildlife centers, wildlife sanctuaries, natural biotic areas, and resource reserves. The enactment of the ENIPAS Act brought the country’s total legislated protected areas to 107, or a total land area of 4,382,568 hectares, classified as national parks under the provision of the 1987 Philippine Constitution. Moreover,



Panaon Island is a perfect example of an area that can benefit from more protection. (ROMMEL CABRERA)



apart from the 107 legislated protected areas, there are 13 more protected areas so designated by virtue of presidential proclamation, and 124 more considered as initial components of the NIPAS that have not yet been legislated.

I realize that more designation or legislation of protected areas is not enough to ensure conservation of these areas. For one, ample government resources should be poured into the preservation, maintenance, and sustainability of these areas. That is why, in my capacity as vice chairperson of the Senate Committee on Finance, and in charge of the budget of the Department of Environment and Natural Resources (DENR) for fiscal year 2022, I initiated the transfer of a substantial budget from the controversial National Greening Program to the conservation and management of protected areas in various regions and provinces instead. While the direct cost budget for protected areas for 2021 was just around P680 million, the budget for 2022 stands at P1.671 billion. I deem it prudent to pour more budget into protected areas if we are serious in our efforts for the restoration of our ecosystem. I believe that the Protected Areas Management Board or PAMB of each of the protected areas should be kept busy and alert making sure that the budget allotted for their respective protected areas actually goes to conservation activities, and is not wasted elsewhere.

Be that as it may, our work does not stop there. Much has yet to be done. We should be mindful of the alarming reality that while the Philippines is biodiversity-rich, it is also among the world's biodiversity hotspots, or those areas experiencing high rates of habitat or biodiversity loss. Hotspots have lost around 86 percent of their original habitat, and are also considered to be significantly threatened by extinction, induced by climate change. Many areas in the country actually remain unprotected or under-protected.

We, thus, welcome the merits of having Panaon Island in Southern Leyte declared a protected area. We take note of Panaon's rich marine diversity as discovered by Oceana in the recent expedition. We marvel at the discovery of nearly pristine coral reefs and the presence of abundant marine species such as octopuses, black tip sharks, batfish, eel, sea turtles, sea snakes, barracuda, giant trevally, and big red snappers, among others. The discovery serves as an eye-opener so that Panaon may be considered as a protected area and brought within the coverage of the ENIPAS Act.

As we are racing against time to protect as much of the country's rich biodiversity, I am inclined to support a legislation according to the protected area status of Panaon Island. And so I am urging the DENR, the

communities, and the stakeholders like Oceana to forthwith start with the process of the protected area suitability assessment (PASA), which is a mandatory requirement to legislate a protected area. We know that the environment, especially our protected areas, continuously face multiple threats. I know that for a fact, because the Las Piñas-Parañaque Wetland Park, also a protected area and a Ramsar-listed wetland of international importance in my hometown, is exposed to the threat of being destroyed, particularly by planned reclamation projects within the vicinity. I have been at the forefront of fighting reclamation since 2010, and the proponents just keep on coming. We cannot let our guard down.

### DEPARTMENT OF ENVIRONMENT AND NATURAL RESOURCES REGIONAL EXECUTIVE DIRECTOR TIRSO PARIAN JR.: *'An MPA's spillover effect can contribute to poverty alleviation'*

Forester Tirso Payot Parian Jr., regional executive director for the Department of Environment and Natural Resources (DENR) Region 8, situates Panaon Island in the bigger picture. "It forms part of the Coral Triangle, an area of high biodiversity that sprawls across multiple countries in the western Pacific Ocean. Southern Leyte is also among the sites where whale sharks (*Rhincodon typus*), locally known as *butanding* or *tikitiki*, are observed."

Parian enumerates existing laws that help protect the island, including Republic Act (RA) 7160, or the Local Government Code of 1991; RA 8550 as amended by RA 10654, "An Act to Prevent, Deter, and Eliminate Illegal, Unreported, and Unregulated Fishing, Amending Republic Act No. 8550, Otherwise Known as 'The Philippine Fisheries Code Of 1998,' and for Other Purposes"; RA 9003 or the Ecological Solid Waste Management Act of 2000; Executive Order (EO) 533, "Adopting Integrated Coastal Management as a National Strategy to Ensure the Sustainable Development of the Country's Coastal and Marine Environment and Resources and Establishing Supporting Mechanisms for its Implementation"; PD (Presidential Decree) 705, the Forestry Code of the Philippines; RA 9147, the Wildlife Act; and EO III, s.1999, "Establishing the Guidelines for Ecotourism Development in the Philippines."

Parian noted how human activities pose the biggest threats to the marine environment in Panaon Island. "Marine litter can be found wrapped around some coral colonies in the area; this could lead to suffocation and death. Litter can also be ingested by or entangle many marine species. Sea turtles are among the most vulnerable to this." Through its Environmental Management Bureau (EMB), the DENR is further pushing ecological solid waste management, coordinating with local



Former DENR Regional Executive Director Tirso Parian Jr.

government units (LGUs) to carry out waste reduction measures like proper segregation and collection, as well as composting, recycling, and reusing of solid waste.

The LGUs on Panaon Island have established 19 locally managed MPAs, which have improved coral cover and diversity as well as fish diversity and abundance, Parian reports. "This spillover effect can help in poverty alleviation. MPAs contribute to food security, sustainable livelihood, and economic growth, as well as climate change mitigation and adaptation. They have been used across the globe to counter overfishing and reef disturbance."

Local fisherfolk certainly know their role in the sustainable management of the MPAs in Panaon Island, because "it is where they get their sustenance and livelihood," Parian notes. "Based on the perception survey conducted by Oceana, they understand the relationship between conservation and livelihood, so they appreciate any activities to augment conservation efforts."

Including Panaon under the Expanded National Integrated Protected Area Systems (ENIPAS) Act of 2018 would boost the management, supervision, and operationalization of conservation activities. "It will ensure a regular annual budget," Parian says, "and allow the collection of fees for the use of facilities of the protected area, as well as special use permits from industries that will be operating on the island."

The money will go to the Integrated Protected Area Fund (IPAF), which is then channeled back to management and operation activities. A Protected Area Management Office (PAMO) will be established under a Protected Area Superintendent (PASU) for day-to-day concerns, while a Protected Area Management Board (PAMB) will take care of high-level policy-making. "The inclusion





BFAR Region VIII Regional Director Juan D. Albaladejo

of Panaon Island in the ENIPAS will ensure the protection of the island’s resources for the benefit of present and future generations,” Parian concludes. -ABH

**BUREAU OF FISHERIES AND AQUATIC RESOURCES (BFAR) REGION VIII REGIONAL DIRECTOR JUAN D. ALBALADEJO:**

***‘The protection of Panaon Island under the ENIPAS is an opportunity for long-term, absolute protection of the natural gems of the island’***

“Panaon Island is teeming with marine life,” declares Juan D. Albaladejo, regional director of the Bureau of Fisheries and Aquatic Resources (BFAR) Region VIII. “Having several high value fish species and exceptional marine biodiversity, its four municipalities benefit from these bounties.” Indeed, based on the annual fisheries production reports from the fisheries technicians of Liloan, San Francisco, Pintuyan, and San Ricardo, Southern Leyte, an increase ranging from 16 to 25 percent in fisheries production was recorded in 2021. This, Albaladejo says, can be attributed to the island’s pristine and strategic location, sustainable fisheries management measures undertaken by local government units (LGUs) and the Provincial Government of Southern Leyte, and the cooperation of fisherfolk communities in the implementation of their respective municipal fishery ordinances. “The municipalities also remain adaptive, receptive, and active in inter-agency convergence initiatives relevant to fisheries conservation.”

Still, several challenges remain. These include inclement weather conditions, the increasing price of fishing gear, illegal fishers and intruders from nearby municipalities and even other regions, mainly the Caraga Administrative Region. “Also, the fisheries sector is provided with the least annual fund allotment, and there is insufficient law enforcement and third-party interventions,”

says the regional director.

BFAR helps address issues through the provision of equipment to locals and fisheries organizations, according to the available budget. These include motorized boats with complete accessories, fishing gear (such as squid jiggers, multiple handlines, and bottom set longlines), and paraphernalia (such as *payao*, a fish aggregation device) to selected fisherfolk. The bureau assists in aquaculture for tilapia production in Liloan and hatchery materials in Pintuyan, and in post-harvest facilities such as a community fish landing center in Liloan. Smaller equipment like weighing scales, ice boxes, and fish tubs are provided to fish vendors and at landing centers, as well as vacuum sealers, chest and upright freezers, stainless or aluminum smokehouse to various fisherfolk organizations.

BFAR counts 18 marine protected areas on the island: seven in Pintuyan, three in San Francisco, seven in Liloan, and one in San Ricardo. “The nearby fisherfolk communities remain supportive of the conservation and management of these MPAs,” says Albaladejo. “They conduct coastal clean-up activities along the shoreline, and ensure that the knowledge and importance of maintaining

Fisheries Management Area 8 is the first in the country to approve an FMA-wide Enforcement Plan when it passed the FMA 8 Resolution No. 2021 - 002 last August 2021

these areas will be inherited as good values by their next generations.”

The BFAR Provincial Fisheries Office (PFO) assists in the conduct of Fishery Law Enforcement Training (FLET) to capacitate local fishery law enforcement teams of Panaon Island municipalities, and initiates capacity-building activities for their Municipal Fishery and Aquatic Resources Management Councils (MFARMCs), Albaladejo says. Patrol boats, life jackets, hand-held radios, and binoculars are distributed to Municipal Fishery Law Enforcement Teams (MFLET) or Bantay Dagat members. Watchtowers have been constructed in strategic areas to support the LGUs’ initiatives in protecting their municipal waters. Information, education, and communication (IEC) materials relevant to fisheries management and conservation are also distributed for free to locals through their respective Municipal Agricultural Offices (MAOs).

“The inclusion of Panaon Island in the coverage of the Expanded National Integrated Protected Area Systems (ENIPAS) will create an opportunity for long-term, holistic, sustainable, convergent, and balanced action towards absolute protection of the natural gems of Panaon and its people,” Albaladejo says. “Through this initiative, strengthened implementation of fishery laws will be reinforced with sufficient funds and unified support from member municipalities. This convergence will continually protect the marine biodiversity of the island, thus providing not only the people of Panaon Island but also the entire province of Southern Leyte with sustained fisheries resources and livelihood.”

Inclusion in the system would mean that a ridge-to-reef approach to conservation will



Port of Liloan entrance gate (ROMMEL CABRERA)



be put in place, which will conserve and enrich the riches of both land and water, he adds. "This will also embody the advocacy of the bureau on managing our fisheries resources through the Ecosystem Approach to Fisheries Management (EAFM), maintaining the balance between ecological well-being and human well-being through good governance and legislation that will protect not only Panaon's marine biodiversity, but also the future of our people."

**LILOAN MAYOR SHIRLITA CHONG:**  
*'What we need now is to keep our coral reefs in good shape'*

The sea and our coastal resources are extremely essential to the inhabitants of the municipality of Liloan, says Mayor Shirlita Chong. "As we are a coastal municipality, fishing is the secondary source of income of the people. It supplies food and job opportunities, and promotes our tourism industry by providing unique recreational activities, from fishing and boating, to kayaking, snorkeling, diving, and whale watching"

Chong says the entire community is kept updated through a regular information, education, and communication (IEC) campaign conducted by local government unit (LGU) employees. "Schoolchildren were invited to participate in activities that broaden their understanding of the value of our coastal resources. The relationships between



Liloan Mayor Shirlita Chong (ROMMEL CABRERA)

upland and coastal ecosystems are discussed through forums, general assemblies, and environmental initiatives like coastal clean-ups, mangrove planting, crown-of-thorns extraction, and the strict implementation of our Solid Waste Management program." The organized Municipal Fisheries and Aquatic Resource Management Council (MFARMC) also works with the fisherfolk organization to disseminate information on the importance of protecting the environment.



School grounds in Panaon: 'Legislation will help protect the future of our people' (ROMMEL CABRERA)

The most significant challenge the LGU has faced, and which continues to pose the greatest threat, is the encroachment of commercial fishermen on their municipal waters, the mayor says. "They compete with our municipal fishermen for access to our marine resources. And, because of the modern technology they are employing, the marine ecosystem is being destroyed, and overfishing is occurring as a result of them fishing to the maximum, without regard for future generations." Solid and liquid waste, not only from Liloan but from neighboring municipalities, is also affecting the sea waters. "Strict implementation of policies, rules, and regulations is a challenge for us."

Recognition of the area's healthy coral reefs has been a source of encouragement, Chong says. "I'm flattered and proud that the efforts we've undertaken had a positive impact on our marine resources. It is a wonderful honor that we were able to connect with some agencies or groups who share our commitment to environmental protection. What we need now is to keep our coral reefs in good shape. And it would be achievable if all of our stakeholders worked together to ensure the long-term viability of our initiatives and programs that will help to create a more sustainable and healthy marine ecosystem." Aside from supporting the local economy, Chong notes the part such reefs play in addressing the growing threat of climate change, as well.

As for having Liloan covered, along with the rest of Panaon Island, by the Expanded National Integrated Protected Area Systems (ENIPAS) Act, "We need to learn more about RA 11038 and the accompanying Implementing Rules and Regulations before I can say what the benefits will be for us," Chong notes. "In terms of protection, however, it will undoubtedly be



San Francisco Mayor Fe Maruhom (ROMMEL CABRERA)

very beneficial for the long-term viability of our healthy ecosystem, through a strong partnership, and networking and cooperation of our stakeholders for effective project implementation." **ABH**

**SAN FRANCISCO MAYOR FE MARUHOM:**  
*MPAs are 'a declaration of our commitment'*

Mayor Fe Maruhom of the municipality of San Francisco in Panaon Island gives credit to those who led the municipality before her. "I am very proud of having some of the healthiest reefs in the country, and thankful to my predecessors for having been sensitive to the needs of the environment, and for having the foresight to attend to the needs of future generations," says this retired professor from Mindanao State University, who ran for mayor in the 2019 local elections, after her retirement.

Coastal resources are very important to her constituents, says Maruhom. "Majority of the families in San Francisco depend on



subsistence farming and fishing. Our coastal resources are crucial to food as well as tourism. Full-time fishermen of San Francisco are aware of the interplay between the protection of the environment and the amount of fish they catch—not only them, but also their families and the rest of the community. Those in coastal barangays and even inland barangays know that garbage thrown into waterways will end up in the sea.”

The municipality’s Napantao Marine Protected Area (MPA), established in 1996, serves as “a declaration of our commitment to protect our treasured resource,” the mayor says. Two other MPAs in barangays Sta. Paz Sur and Punta have also been established since then, with three more in Sta. Paz Norte, Anislagon, and Cuasi being considered. “Even before the establishment of the Napantao MPA, the provincial government and the local government unit (LGU) had been working together to educate coastal communities. It was done through dialogues between the team and fisherfolk, their families, and the rest of the communities.”

Maruhom expresses her gratitude to the international non-government organization Coral Cay Conservation, which worked for a decade in Panaon to help conserve the coral reefs. “They did not only help protect the Napantao MPA from poachers, but also enhanced the awareness of coastal communities. They conducted barangay assemblies and held sessions in the different schools, and organized reef rangers who were taught snorkeling and identification of fish and corals.”

Maruhom admits that such protection is not always easy, however. “There will always be those who consciously cause damage to our environment. One of the biggest challenges is how to protect resources from abusive personalities and adverse practices, with a fifth-class municipality budget.” Maruhom also cites the problem of infestation of coral-eating crown-of-thorns starfish, known locally as *dap-ag*.

Having the entire island covered by the Expanded National Integrated Protected Area Systems (ENIPAS) Act of 2018 would be ideal, she says. “A separate budget



The coastal road hugs Panaon Island beside the San Ricardo fish sanctuary. (ROMMEL CABRERA)

Full-time fisherfolk of San Francisco are aware of the interplay between the protection of the environment and the amount of fish they catch

extended to each municipality solely for the purpose of protection, not only of diverse coastal ecosystems but all other ecosystems from ridge to reef, will be very beneficial. Having enough resources will enhance the LGU’s capability to protect, conserve, and preserve through sustainable utilization and development, with the guidance of technical experts.”

Maruhom also cites Executive Order No. 138 signed June 1, 2021, “Full Devolution of Certain Functions of the Executive Branch to Local Governments, Creation of a Committee on Devolution, and for Other Purposes,” also known as the Mandanas resolution, which will see a “substantial increase in the shares of the LGUs from the national taxes” beginning in 2022. “With the Mandanas allocation, we intend to create a team of regular and permanent, fully equipped coastal rangers or Bantay Dagat to ensure effective and efficient enforcement of resource management and fisheries ordinances. Hopefully the allocation will be enough, considering all the



San Ricardo Mayor Roy Y. Salinas (ROMMEL CABRERA)

devolved functions that come with it. With the income generated from tourists, we also intend to fully implement our plans of empowering coastal communities, especially those with protected areas, with alternative livelihood projects to make them realize their proprietorship of the MPAs.” - ABH

#### SAN RICARDO MAYOR ROY Y. SALINAS:

**‘Our efforts have borne much fruit’**

For Mayor Roy Y. Salinas, now on his second term as leader of the municipality of San Ricardo on Panaon Island, the sea has always been a part of life. “I grew up near the sea, since our place is along the shoreline.” In fact, one full moon night when he was young, Salinas and his friends got a big scare when



a huge fish, a *kugtong* (a large grouper), appeared in the shallows. “We ran for our lives! Now I realize that the presence of that big fish was a manifestation of the healthy reefs in our municipality. It was also a sign of the abundance of resources and marine biodiversity during that time, which persist until now.”

Coastal resources play a vital role in the livelihood of his fellow San Ricardohanon, Salinas says. “About 60-70 percent of the municipality’s population is highly dependent on fishing and farming; most of the farmers are also the fisherfolk.” They are conscious of the connectivity between protection of the marine environment and the volume of fish they catch over a period of time.

The mayor initiated various fisheries activities with the help of the Municipal Agriculture Services Office (MASO) and the Municipal Environment and Natural Resources Office (MENRO), spreading the word through meetings, forums, and house visits. “We conducted fisherfolk and fishing vessel registration to gather baseline data on the fishing population. We mobilized people’s organizations and the Municipal Fisheries and Aquatic Resources Management Councils (MFARMC) in order to help the municipality identify fisheries issues. Their participation had a good impact on managing marine resources, especially their recommendations on strategies and coordinated efforts in fisheries law enforcement.”

Their biggest problem, Salinas says, is the presence of poachers and illegal fishers (known as *busero*) from the neighboring areas of Surigao del Norte and Dinagat. “They raid our resources during inclement weather, when our municipal fisheries law enforcement team cannot navigate the high seas. Lack of manpower for such enforcement is another challenge; we also lack equipment and fast-moving seacraft to catch poachers.”

Inclusion of the island under the Expanded National Integrated Protected Area Systems (ENIPAS) Act would mean a great deal to the people, says this 10-year public servant. “This protection will facilitate the conservation of natural seascapes that help sustain marine resources. As a result, the livelihood of the residents will flourish, especially the fisherfolk who directly benefit from the produce.”

Learning that his home reefs are potentially among the most climate resistant in the country as well as the world, “I feel a sense of pride, and am very grateful for the information,” Salinas says. “It means that all our efforts for the conservation and protection of our marine habitats have borne much fruit. Our implementation of fisheries laws in coordination with the Philippine Coast Guard (PCG) and the Bureau of Fisheries and Aquatic Resources (BFAR) has proven to be effective.”

Marine conservation will be a challenge for future generations of San Ricardohanons, Salinas concludes. “Marine habitats are always vulnerable. Any threat could damage our reefs and cause depletion of marine resources. Thus, the LGU’s role in protecting and conserving marine biodiversity is very vital, as most of our constituents’ livelihoods depend on them.

“What we enjoy today is our debt to past generations, and what we do today will determine the fate of future generations.” – **ABH**

#### **PINTUYAN MAYOR RUSTICO ESTRELLA SR.:**

**‘Having MPAs will result in more fish and a better economy’**

With a proliferation of parrotfish, damselfish, fusilier, rabbitfish, scads, surgeonfish, rudderfish, and butterfly fish, plus whale sharks and sea turtles visible in the summer, the fifth-class municipality of Pintuyan, Southern Leyte, is truly a diver’s dream.

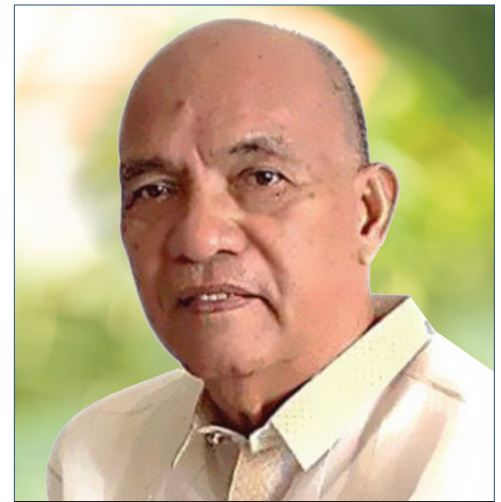
Residents and tourists have the Honorable Mayor Rustico Estrella Sr. to thank for his efforts in preserving the beauty and wealth of the sea.

“Pintuyan has six marine protected areas (MPAs) and two marine reserves (MRs),” he says. “These are situated in the coastal barangays of Nueva Estrella Norte, in between Dan-an and Catbawan, Manglit, Son-ok, Balong-Balong, Cogon, and Caubang.

“The local government unit (LGU) has passed an ordinance protecting its MPAs and MRs. It has also organized its own Municipal Fishery Law Enforcement Team, or Bantay Dagat, to conduct seaborne patrol operations to ensure the municipal waters and MPAs and MRs are protected from illegal fishers and poachers. There are also regular coastal and river clean-ups and waste segregation schemes organized by the LGU to maintain cleanliness in the coastal areas.”

A Comprehensive Municipal Ordinance and Municipal Tourism Ordinance specifically protecting whale sharks and other endangered marine species have likewise been issued. According to Section 38, Article 10 of the ordinance, the fishing and taking of whale sharks and endangered species are strictly prohibited.

Tourists are also advised to observe the following protocol during whale shark interactions: sticking to the ratio of one boat per whale shark to minimize disturbance of these gentle giants; the use of proper scuba diving gear; the prohibition of underwater flash photography, touching, and riding on the back of a whale shark; and maintaining a distance of not less than three meters away from the body and four meters away from the tail of a whale shark to give it a safe environment.

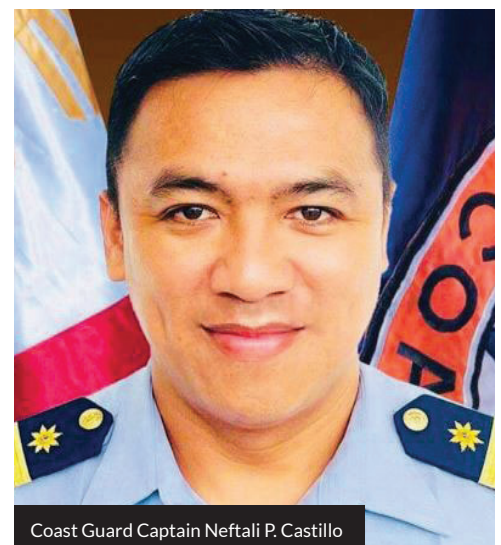


Pintuyan Mayor Rustico Estrella Sr.

Even with these provisions in place, Pintuyan folks remain vigilant, actively participating in the protection of their home’s natural resources. “They are very much involved,” avers Estrella. “Barangay councils manage their respective MPAs, assigning barangay *tanod* (watch) to guard them. Local residents are also involved in coastal clean-ups initiated by the barangay councils, and they report illegal fishers in their MPAs and MRs to the concerned authorities.”

For Estrella, watching over the waters of Pintuyan is a lifelong commitment that ensures that marine life remains safe and abundant for present and future generations to enjoy.

“Information is continuously disseminated to barangays regarding the benefits of having MPAs and MRs in their barangay,” he says. “Locals should know that MPAs increase fish catch, attract both local and foreign tourists, and preserve coastal fish habitat that will serve as breeding grounds of most fish species. As a whole, having MPAs will result in more fish, more food, more income, a healthier environment, and a better economy for Pintuyan.” – **JR**



Coast Guard Captain Neftali P. Castillo



## COAST GUARD CAPTAIN NEFTALI P. CASTILLO:

**'We feel honored to help'**

At the Philippine Coast Guard (PCG) Station in Barangay Abgao, Port Area, Maasin City, Southern Leyte, there is never a shortage of things to do. Despite regular coastal clean-ups, marine pollution is a persistent problem, as is the presence of coral-eating crown-of-thorns (COT) starfish. And let's not even get started on climate change's effects on the sea. Rising water temperatures lead to mass coral bleaching, depriving coral of algae that supplies it with food and oxygen. Increasing sea levels lessen coral's exposure to sunlight, thus affecting its growth.

Yet for the men and women tasked to secure the marine protected areas in Panaon Island, the job is a privilege. "Honestly, I and all the personnel of Coast Guard Station Southern Leyte feel honored in our role in helping the environment," says Coast Guard Captain Neftali P. Castillo, MSc deputy commander. "But we are also challenged because these problems are ever-present and continuous."

It helps to know that the team is not alone in its commitment to preserve Panaon's beauty and pristine waters. Local government units (LGUs), national government agencies, non-government organizations, mariners, and private individuals have joined members of the Coast Guard in their numerous coastal clean-up drives and mangrove planting initiatives. The third quarter of 2021 alone saw the planting of 450 mangrove seedlings and the collection of 500 kilograms of different kinds of waste in Southern Leyte. Southern Leyte's LGUs have also helped them extract about 800 COTs in parts of Padre Burgos, Liloan, Limasawa Island, and San Ricardo. "Without everyone's efforts, these problems would only have gotten worse," he says.

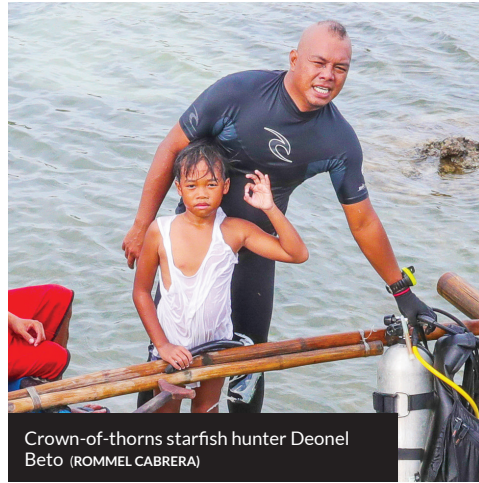
For all the challenges he and his team face, Castillo hasn't lost the passion to keep going. "These feelings are important because they boost us to continue and intensify our efforts," he says. "But it's also humbling because we can never solve them on our own, but always with everyone's help and cooperation."

"As station commander of Coast Guard Station Southern Leyte, I would like to thank Oceana for helping us preserve the rich marine resources of Panaon Island. The PCG will always be a supportive partner in their endeavor to protect our oceans and our future."-JR

## DIVER AND CROWN-OF-THORNS STARFISH HUNTER DEONEL BETO:

**'It's a challenge to explain the need to extract them'**

It started as just a hobby for Deonel Beto



Crown-of-thorns starfish hunter Deonel Beto (ROMMEL CABRERA)

There should also be proper basis for choosing a marine sanctuary, Beto adds. 'It should be suitable, and not just easy to guard'

when he organized a group of divers to extract crown-of-thorns (COT) starfish (*Acanthaster planci*), marine pests that eat away at hard coral, from the sea. He did not expect the impact that the group would have.

"We dove in Napantao in San Francisco after COVID-19 community restrictions were lifted in February 2021," says the 41-year-old businessman, who is based in Barangay Poblacion, Liloan. "We saw Napantao's beauty. However, we also saw a lot of COT or *dap-ag*. We informed the dive resorts, so they dove the next day and got over 500 of them."

The next day, village officials were able to extract over 400 more COTs and started raising awareness on the outbreak, which started around July.

"From what I know, their predators such as bumphead parrotfish, triton shells (*tambuli*), and big pufferfish have decreased in number, or it may have been climate change—that is why their numbers have drastically increased," says Beto of the infestation. "It takes decades to form a table coral, but COT can eat them in weeks."

COTs live in areas between four and 12 meters deep. One can grow as big as a large squash, and looks like any starfish, but with thorns. Beto and friends have been able to extract about 5,000-6,000 COTs since February 2021 in different areas in Southern Leyte. They collect around 200-300 per dive, usually on weekends. Each dive lasts 60-75 minutes, and every refill of an air tank costs P2,500. They recently had an extraction activity every day from September 24 to October 1 in Liloan, in partnership with the

local non-government organization Green, Inc.

Beto has been diving for only about two or three years, but has long been joining environmental activities such as coastal clean-ups. "We still have a lot of dive sites that need to be explored here," he says. "There are sites on the Pacific side of Panaon that are beautiful, including Saod and Bahay."

In terms of environmental protection laws, Beto feels there is a need for constant "monitoring, upgrading, and evolution. They need to be sustainable because it seems that our laws are stagnant, unlike in other areas where there are stricter local ordinances."

The local government unit (LGU) in Liloan conducts bimonthly sea patrolling, but that depends on the availability of the Philippine Coast Guard's (PCG) aluminum boat. The pump boat of the Bureau of Fisheries and Aquatic Resources was under repair at the time of this interview.

He supports the move to make all of Panaon an MPA. "The fisherfolk just need to be well-informed. In Silago, Southern Leyte, the fisherfolk were the first to oppose the idea, but when they were educated, they were even the ones who initiated protecting the area. They were grateful that a marine sanctuary was established in their place."

There should also be proper basis for choosing a marine sanctuary, he adds. "It should be suitable, and not just easy to guard. Its marine biodiversity, location, and safety should be taken into account."

The Department of Labor and Employment used to carry out COT extraction last year under its Tulong Panghanapbuhay sa Ating Disadvantaged/ Displaced Workers (TUPAD) Project, where fisherfolk were paid to extract COTs, but they were not taught the proper procedure, Beto says. That could be another reason for the increase in population, because once COTs are not extracted correctly, they release additional eggs or sperm.

A group of marine biologists and Oceana oriented Beto's group on the proper way of extracting and killing COTs. Other divers inject COTs with 30 percent vinegar 70 percent water. Beto learned that if COTs are scattered, they feed, but if they are clustered together in one area, they mate. He adds to his knowledge by reading and watching documentaries.

"People need to know about this, because only divers can see what's down there," Beto says. "We usually post on social media for awareness. Sometimes I pay divers to help me extract COTs. We also raise funds for their food and tanks. It's a challenge to explain the need to extract them, but now more people are learning about the problem, and they are helping us finance our work."

-MTM



# A life on the sea

Nobody knows the waters of Panaon Island—its riches, its challenges, and its growing fragility—better than its fisherfolk.

PHOTOGRAPHS by Rommel Cabrera



**B**Y all accounts, a fisherman's life is not easy. It involves long hours, significant effort, and in these days of destructive fishing, overpopulation, and climate change, less and less rewards. More often than not, fishermen's children and grandchildren are also choosing a life away from the sea where they first saw light.

Yet, the fishers of Panaon Island believe enough in their way of life to organize, push for better laws, and find ways to care for their livelihood and share the bounty. Here are some of their stories.

## ELVIS TURNO

*Barangay Dakit, San Francisco:*

*'Fisheries and municipal laws must be properly implemented'*

Originally a marine transportation graduate from Cagayan de Oro, Elvis Turno, or Tatay

Elvis, as he is called, worked as a seafarer before he had a family; his wife was a company employee, and they have two children. Turno used to work in a private collection agency in Cagayan de Oro, but the family moved back to his wife's hometown of Barangay Dakit, San Francisco, Panaon Island when she got sick. Their older son is a person with disability, while the younger one works as a call center agent. Turno, who is 63, spends the mornings cooking his family's meals for the day and doing the household chores.

Turno is president of the Barangay Dakit Fisherfolk Association, and is a member of San Francisco's Municipal Fisheries and Aquatic Resources Management Council (MFARMC). He has been fishing for over 10 years for food, but sometimes sells his catch when there's a surplus. He used to have his own fishing boat, but has sold it, and now uses a boat of the







CLOCKWISE FROM BELOW, OPPOSITE PAGE: Elvis Turno; boys dive from a boat to catch fish; at the Liloan fish market; pushing a raft out to sea



association, which owns five ordinary boats and two pump boats shared by members from two barangays, Pinamudlan and Dakit.

Turno admits that it's not an easy life. "Our catch drastically decreased because the local government unit (LGU) is poor at implementing fisheries laws. We used to have an active fisheries law enforcement team that I helped organize. We used to be very strict. We were given fiberglass boats for patrolling, but they were not well-maintained."

In fact, Turno rues the deterioration of MPA protection in his area. "Law enforcement here is not full blast, unlike in other towns in Panaon Island. They have not revisited the laws here. The other day the police were able to catch illegal fishers, but they almost met an accident because of the huge waves."

Other places are more diligent about

safeguarding their sanctuaries, he notes. Still, in one of them, Punta, he pointed out some illegal, excessively fine fishing nets left by fishers. In neighboring municipalities like Pintuyan and San Ricardo, people who are not from the area cannot fish there. "Meanwhile, our place is free-for-all, depending on who complains. We are only called if needed."

"I've been working with the MFARMC for a long time now," he recalls. "We created sanctuaries in Napantao, Punta, and Anislagan; we planted seaweed and placed big shells, but they were also not managed well."

He does not really earn from fishing these days, he reveals. "Sometimes, I only catch about half a kilo at night. That's how difficult it is here." He usually catches local fish like *hotik*, *bisugo*, *lapu-lapu* (grouper), and sometimes *tanguigue* (Spanish mackerel). "We used to

catch fish for food within 30 minutes to an hour, but now we only catch three to four small fish. We are lucky if we are able to catch more overnight."

Their usual method of fishing is towing or trolling, practiced by subsistence fishermen, but which targets bigger fish. It involves casting two or more baited fishing lines, which are then pulled across the water.

Turno has also turned to coconut farming, because fishing could not provide for his family's needs. His wife has a small piece of coconut farmland, but he also works as a laborer sometimes.

The main problem is simple, he says: the depleting catch and increasing number of fishermen. Even those from the mountains have ventured into fishing. He worries that the more common fish that they catch, such





as *bugaong* (perch), will vanish. “We need a healthy marine ecosystem for food, so that our fishermen no longer need to paddle farther to catch more,” Turno says.

“Tourism will also be an advantage if we can promote our place. But if other places were able to protect their resources, we can also do that here, as long as fisheries and municipal laws are properly implemented.” Turno hasn’t lost hope, though; his sons may even consider going back to fishing if the situation improves, he says. - *MTM, ABH*

### ANTONINO AMPO

*Barangay Cogon, Pintuyan:*

*‘We need to be identified and regulated so our sea will not be abused’*

If none of Antonino Ampo’s eight children became a fisherman like their father, it’s because he worked hard to send them to school, sparing them the hardships and frustrations he endures out at sea.

Born and raised in Pintuyan Island, the son of a fisherman and good swimmer learned how to fish at 15 through his neighbors. Soon, he was fishing all over the island.

In his second year of high school, Ampo made his way to Manila, hanging on to an uncle’s promise to sponsor his education. Instead, he ended up doing odd jobs to survive. He returned to Pintuyan Island and the only thing he knew, fishing.

He used to catch around 5 kilograms of fish using a spear gun. At night, when there is an abundance of fish, he could catch up to 20 kilograms. Ampo, who starts fishing at 6 pm, then goes back at 1 am to fish till dawn, usually catches *habason* or unicornfish. Found



‘The protection of Panaon Island under the ENIPAS is an opportunity for long-term, absolute protection of the natural gems of the island’

in corals, it’s best for grilling because of its thick skin. Traders buy first-class fish at P80, and pay P50 for second-class fish.

Now 66, he seldom goes out to fish, but spearfishes when the weather is fine. He no longer has his own pump boat, but uses a paddleboat. Yet he remains fiercely protective of the water, and helps law enforcers monitor any illegal fishing activities, especially when there is bad weather and no one is patrolling the area. “If others do not go out to fish when there are typhoons, some fishermen take advantage of the situation, especially those engaging in *boso* (poisoning fish for bigger income).”

He once witnessed an illegal fisher in the sanctuary who poisoned fish and lobsters to catch them alive and sell them at a higher

price. Oxygen tanks in their pump boats keep the fish alive.

Make no mistake: Ampo is sympathetic to the struggles of his fellow fishermen. He knows the difficulty of having no alternative source of income whenever there’s a calamity or the catch is small.

Yet he also recognizes and respects the law. “Some fisherfolk do not register with their local government units,” he says. “It’s the law that must be followed, otherwise, you will be considered illegal. You also don’t get to avail of the assistance provided by our government. We need to be identified and regulated so our sea will not be abused.”

It helps that Pintuyan Island is supportive of fishermen in terms of crafting ordinances to protect fisherfolk and the sea. “If it’s not too late, I hope our sea gets protected through the establishment of marine protected areas for different fishes to breed and thrive,” he says. “It’s hard if all the areas will be open as fishing grounds. Our marine resources will be depleted in no time. There will be nothing left





CLOCKWISE FROM BELOW, OPPOSITE PAGE: Antonino Ampo (TONETTE MARTICIO); Eduardo Salfamones; coral-eating crown-of-thorns starfish; a day's catch; Presno Felicio



for the future generations.” *MTM, JR*

### EDUARDO SALFAMONES

*Barangay Pandan, Liloan:*

*‘A healthy marine ecosystem is important, just like a healthy person’*

Eduardo Salfamones was taught to fish by his uncle when he was in grade school, as he grew up close to his uncle’s family. He has been fishing all his life.

Today, at 67, he is president of the Barangay Pandan Fisherfolk Association in Liloan. He uses a paddleboat to fish alone from about 7 in the morning to noon. A trader waits for them on the shore and buys their catch for the day. He usually earns about P220 from his daily catch of fish like *mais-mais* and *salinggukod*.

*Lapu-lapu* (grouper) used to be abundant in their area, but he noticed that there has been less fish over the years. Now he is only able to catch fish for food because he can no longer go farther. If he gets lucky, he is able to sell about 2 kilograms. “There’s fewer fish to catch because of the people,” he says. “They use nets with small holes. They are the ones destroying our environment.

“A healthy marine ecosystem is important, just like a healthy person. If you take care of the sea, it will be healthy, as well.

“I never thought of engaging in illegal fishing. I may not be able to stop them, but they should be reported to the police.”

Salfamones has three daughters, all now residing in Manila. He has a son aged 20 waiting to be enrolled in college next year, also in Manila, to be with his older sisters. Two of his daughters are management graduates, while one is a teacher, and all of them are still single.

His son does not go with him to fish. “Kids do not want to engage in fishing these days. They’d rather hang out with friends. If he wanted to fish, I would support him, but I want him to finish studying first.” His son fishes

as a hobby at night, using his speargun.

Salfamones’ children helped each other to finish college. He was also able to send them to school through fishing. His wife died five years ago. They were able to buy a house in Manila, where his children live.

He ventured into tilapia culture when their fisherfolk association was given equipment under the Fisheries, Coastal Resources, and Livelihood (FishCORAL) Project of the Bureau of Fisheries and Aquatic Resources (BFAR), with funding from the International Fund for Agricultural Development (IFAD). He also runs his own fishpond as an alternative source of income, with over 7,000 heads of tilapia.

Marine protected areas are important, Salfamones believes, because people simply go wherever there is fish. “The fish should be protected from illegal fishers. People should only use fishing gear allowed by law, especially fishing nets. Our laws are good, but we should support them. If we do not have laws, then people will just abuse our environment.”

Salfamones helps place markers for sanctuaries, and reports illegal fishers to authorities because he himself used to be a village watchman. “More than security, though, the biggest problem that fishers are facing right now is the lack of fishing gear, because not everyone can avail of those given by the government.”

Nowadays, Salfamones likes to give tilapia to neighbors and friends because he believes in sharing his blessings with others. “There is more than enough food for me, and I also earn a bit for myself—but I still want to fish, because it’s what I’m used to.” *-MTM, AH*

### PRESNO FELICIO

*Barangay Pinut-an, San Ricardo, Southern Leyte:*

*‘Having an MPA is like having a deposit of fish’*

Wisdom comes with age, but it’s never too late to educate and inspire the younger ones to care for the environment, says 84-year-old fisherman Presno Felicio, president of the Barangay Pinut-an Fisherfolk Association.

Felicio started fishing when he was still single in the 1960s. Fishing has always been his life. His father died while he was only 2, so he only learned how to fish from his neighbors.

Felicio was only able to finish grade school. Before he became a fisherman, he used to mine gold in their area. “It was difficult to find jobs during that time. The price of copra was low, so I had to think of other ways to earn and I tried illegal fishing, but that was a long time ago.”

He confessed to having even reached Mindanao to join illegal fishers. That way, he was able to support his family, but decided to stop engaging in illegal activities during martial law. He also witnessed how other fishermen lost their lives and limbs because of dynamite fishing.

Now he is an advocate for responsible fishing, being the oldest among the fisherfolk in their village. “The local government units (LGUs) are now stricter in regulating fishing, which is good because the people are obliged to follow. Before, you could just go anywhere to fish, but now there are areas designated for us to fish.”

He usually catches *baleleng* or red snapper from setting up his net at night and returning to it in the morning. “It’s easier to fish that





way. You are able to sleep well at night, and you don't get cold. You just need to come back in the morning to check if you caught anything."

However, due to his age and the restrictions of the COVID-19 pandemic, he seldom goes out to fish with a group, including his grandchildren. He had six children, but his son whom he taught how to fish recently died. Felicio would make fishnets for them.

They used to earn P10,000 for a group of six fishermen, but the amount has decreased because the fish are disturbed by those who do spearfishing, so they need to sail farther out to get a better catch, which he can no longer do.

Felicio says the main problem that the fisherfolk in San Ricardo are facing is other fishermen who poison the fish to catch them alive and sell them for a higher price.

"Having a marine protected area (MPA) is like having a deposit of fish that needs to be protected. No one should be allowed to fish there. It's also good because we get to protect other species, such as whale sharks that can also be found here."

He noted that illegal fishing kills other fish, as does underwater gold mining, which also destroys corals. Underwater gold mining has been a practice in their community for years, but has not been regulated by the proper authorities.

"A healthy sea is important because people

depend on it to live. The sea has helped me raise an engineer and feed my family. If you take care of it, it will bless you abundantly. Fishing has been my life." – *MTM*

### **TERENCIO CAPILITAN**

*Barangay Estrella, Liloan:*

*'A healthy sea is important for us to have food and income'*

At 67, Terencio Capilitan has spent much of his life at sea. Once a mess man, he decided not to go back after the ship he was sailing on burned in Brazil while they were on anchorage in 1999. Money meant for processing his application went instead to buying a boat, and he became a fisherman in 2000.

In better times, he would catch a lot of *anduhaw* (a type of mackerel), about 5 kilograms. These days, there is simply nothing to catch, and at the time of this interview, Capilitan hadn't fished in three months.

"A lot has changed here because there's a lot of fisherfolk using huge fishing nets, so we can no longer catch fish near the shore," says Capilitan, who fishes using drift gillnet. Competition also comes by way of fishers using spear guns, which he says scares away the fish, resulting in decreasing catch. Other fishers use illegal fishing nets with small holes, and there are those who rely on chemicals to force fish out from the corals.

As secretary of the Barangay Estrella Fisherfolk Association in the Municipality of

Liloan, he knows what needs to be done to remedy the situation. "Our law needs proper enforcement," he says. "There should be a protected area to preserve fish from those who abuse the sea, especially our corals."

But due to age and a lack of support from fellow fishers, he is resigned to the thought that nothing would come of his efforts. "I am already old so I can no longer help guard at night. Our association members are also not active. We are 29 in our group, but only 10 attend our meetings. We have called for a meeting four times because we received some equipment, but only a few attended, and we cannot force them.

"We cannot stop people from fishing as long as they are doing it legally," he adds. "It's hard for me sometimes because I cannot stop illegal fishers by myself. If I report them, they will get mad at me." Even Liloan has tolerated the use of spear guns for fishing because of the pandemic. "They are only allowed to fish in the barangays where they are registered," he clarifies.

That he has found another source of income has perhaps weakened his resolve to protect the waters that have served him and his community well. The only fisherman in his family, he lives with his niece and tends to his sister's coconut farm so he can earn when he's not fishing. Sometimes he asks her for money when he's low on cash.

"A healthy sea is important for us to have





(CLOCKWISE FROM OPPOSITE PAGE) Terencio Capilitan; Ruel Gonia; fresh shrimp; killing time between fishing with board games and gadgets

food and income to buy our other needs,” he acknowledges. “But the biggest problem is not having anything to put on the table. What can we do? It’s really tough. The fish is gone.”  
**MTM, JR**

**RUEL GONIA**

*Barangay Timba, San Ricardo: ‘Our children will suffer if people continue destroying the sea’*

As a fisherman who dreams of having a better future for his children, 48-year-old Ruel Tibon Gonia from Barangay Timba, San Ricardo, Southern Leyte turns night into day to support their studies.

Gonia has three sons. His eldest is now in second year college and is aiming to be a seafarer, while the younger boys are in high school. He has not trained them to fish because he wants them to achieve more than what he experienced in life.

He started fishing in 2005 when he was 32, learning from his neighbors. Over the years, he noticed a decrease of about 30

to 50 percent in their catch because of the increasing number of fisherfolk in their town.

He has his own pump boat and usually does hook and line fishing instead of using nets. He and other fishermen go out from 6 to 9 in the evening, depending on the weather.

Gonia says they catch about 100 kilograms of fish at most, sometimes 20 kilograms when they are using a gillnet. They sell fish for P100 per kilogram that they divide among five fishermen. Most of their catch is flying fish that they also dry when they are not sold.

“Some fishermen prefer to catch squid, but it is cheap. Its price is controlled by the traders, so it is only bought for P40 per kilogram. I pity other fishermen who fish at night until morning, but only earn very little for their hard work.”

As president of the Barangay Timba Fisherfolk Association, Gonia believes that having their own means to transport their catch to their village would help his peers, who, he feels, are being shortchanged by traders.

“If I only had my own vehicle, I will not buy their fish at an extremely low price. I feel for them because prices double when the catch is sold in the market,” he said, citing the need for the government’s adequate support for fisherfolk.

He likewise lamented that there are fishermen who engage in fish potting (*bobo*), or laying traps on the sea bed and forcing the fish into the traps using lights. It scares the fish away from the shore, which may have also caused declining catch, Gonia says. “It is not illegal, but it should be registered with the local government unit,” he stresses.


Gonia is concerned for the future of his children, who depend on his fishing as their main source of livelihood at the moment.

“Illegal fishers should be reported to stop them. Our children will suffer if people continue destroying the sea. If our sea will not be protected, farming will not be enough to support our need for food.”

Although he believes that fisheries laws are effective because they encourage the reporting and apprehension of illegal fishers, he believes having a marine protected area (MPA) will benefit them more.

“We have existing fish sanctuaries here in Timba and Benit that are under rehabilitation, so we need help to maintain them. They have been there for a long time, and there are lots of first-class fish, so we need to conserve them for the future.” - **MTM**





# Voyage of discovery

The Oceana team braves typhoons and a pandemic to explore Panaon Island's vibrant coral reefs on a pioneering 21-day expedition

The Panaon expedition, the research voyage conducted by Oceana to this coral haven in the province of Southern Leyte, took place on October 15 to November 5, 2020, during the COVID-19 pandemic in the Philippines. Thanks to a Memorandum of Understanding between Oceana and the province, the governor was able to write a letter of endorsement to the Inter-Agency Task Force for the Management of Emerging Infectious Diseases Resolutions (IATF), allowing the team to visit the area—on the condition that nobody would set foot on land, and would only leave the boat to dive.

Thus, the year-long planning which started in October 2019, led by Oceana's Science and Campaign Manager Marianne Saniano, had to incorporate two days of COVID testing and isolation before the trip, two-and-a-half days of travel from Bauan, Batangas to Panaon by boat, 15 days of a biophysical survey and documentary filming, and another two-and-a-half days of travel back to Luzon. The goal: to survey the marine protected areas (MPAs), all covered by local ordinances, as well as adjacent reefs and non-sanctuaries.

The vessel chartered for the project was the Discovery Fleet's M/Y *Discovery Palawan*,

a fully equipped 49.20-meter dive boat with 20 cabins. That meant enough room for the 32 people on the expedition, led by Saniano as overall coordinator and Oceana's science campaign manager, Danny Ocampo as deputy coordinator, photographer, and drone pilot. Consultant scientists were team leader Dr. Badi Samaniego, reef fish specialist, and his research assistants Homer Hernandez and Kent Elson Sorgon, and Dr. Victor Ticzon, coral reef specialist, and his research assistant Krystl Ckaye "Bew" Pardo.

Marco Biemann was the documentary director, with Anne Biemann doing





The M/Y Discovery Palawan, the Panaon expedition team's home for three weeks (ANNE BIEMANN)

underwater cinematography. Also on the team were Dr. Edna de Castro, volunteer doctor on board, and Yvette Lee, Discovery Fleet Corporation's vice president of operations and director for marketing and media affairs, as volunteer underwater photographer. Dive guides Karen Chan, Chrispher Maranan, and Zhao Xi Li-Maranan, boat manager Noli Tolibas, and the rest of the boat's seasoned crew rounded out the team.

"They needed a boat that would be able to accommodate the participants and still comply with IATF rules on 50 percent occupancy," said Lee. "Luckily, our ship fit

the bill. Also, the people involved knew that we have shared passions on the environment. With my background as an underwater photographer, how could I not want to be part of it? I would have gone even if I had to pay, haha!"

Dr. Marisse Nepomuceno, infectious disease specialist, was consulted prior to departure to put the safety system in place, which included COVID testing and isolation before boarding, and an emergency plan in case of accident, evacuation, or infection. "The biggest problem would have been infection during the expedition itself, and not having

proper medical care while they were out at sea doing their work," Nepomuceno said in the 18-minute documentary video put together by Biemann Produktion Haus Inc. on the expedition, *Panahon ng Panaon*. "There were no hospitals, or a medical doctor might not be prepared to manage a case of COVID-19 pneumonia while at sea."

### TOUGH PREPARATION

"To be honest, it was a tough preparation, given that all related agencies we had to negotiate with were still in transition to the new normal," said Tolibas in the video. "But through proper coordination with respective agencies, we managed to pull through."

"There were a lot of apprehensions, since the team would be coming from various locations and we would be working in close quarters—literally, inside the ship," added Ocampo. "The logistics of ensuring everyone joining was COVID-free was one of the biggest challenges."

The research was meant to strengthen the campaign for Panaon Island to be included under the Expanded National Integrated Protected Area Systems (ENIPAS) Act of 2018. "The objective is for this precious gem to be protected under the Act, which would give it more stability in terms of accessing financial resources, which is important for the sustainable management of the protected area," said Oceana Vice President Gloria Estenzo Ramos.

"It was raining on our way to Bauan," wrote Saniano in her account of the expedition on the Oceana website, labeled as the "Captain's Log." "Upon arriving, we were greeted by very strict security guards. Eventually, we were allowed to go near the M/Y *Discovery Palawan* to load our stuff. By nighttime, we were

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The year-long planning had to incorporate two days of COVID testing and isolation before the trip

informed that the Philippine Ports Authority in Bauan had finally cleared our documents and the Philippine Coast Guard had lifted the travel ban. We were finally good to go."

By October 18, Sunday, the diving had begun, to rave reviews. "Danny's group was the first to arrive," Saniano wrote. "While approaching the mothership, Danny was shouting 'The reef was so beautiful!'...Then Marco's team came in and he was taken by the beauty of Panaon. 'Mar, the reefs were so pretty!'" By October 19, spirits were high: "With every dive, reports from the divers get



better and better, even from sites that are outside the marine sanctuary,” wrote Saniano. “I feel good that I chose the right area to recommend for protection. I am really looking forward to the next sites.”

Ocampo’s own online journal attested to the amazing underwater sightings. “Today is the third day of diving,” he wrote on October 19, “and the team is in very high spirits. We are amazed to see that every site we have been to boasts of amazing underwater seascapes. We visited Esperanza Dos, a locally managed MPA that is comparable to Tubbataha in terms of reef contour, diversity, and coral cover. We didn’t see much fish, but the potential is there once adequate protection and policies are put in place.”

### 34 DIVES, 12 DAYS

Research assistant Bew Pardo also chronicled her daily routine for the Oceana website. “For the whole trip, we did 34 dives in a span of 12 diving days! That is approximately three dives per day!” The schedule included being up by 5:30, and first breakfast at 6 am. “After donning my survey attire, my co-research assistant and I then head to the salon to prepare the cameras that our team will use for the survey.”

Back on the boat at 9 am, it’s “time for a heavy breakfast after the first dive!” Pardo wrote. “As Ms. Yvette said, the breakfast after the first dive is the best meal of the day.” Indeed, as Ticzon seconded, “Yvette fattened us up!” The boat’s excellent chef, Siegfred Colcol, saw to that. “We have a good crew that has been with us for almost 10 years,” Lee said. “They are like family to me. We love our jobs, and they take pride in what they do.”

Next dives were at 10:30 am and, after a power nap, at 2:15 pm. “After taking photos of the transects during this dive, I usually have more time to take shots of the reef and other subjects,” Pardo wrote. By 4 pm, Pardo was “listening eagerly to the stories of my fellow divers as to what they saw during the surveys.” By 6 pm, before dinner, it was time to “charge the batteries of the cameras that we will be using for the next day. I start to save and back up the photos that we have taken during the three dives. We also try to prepare the cameras for the next day’s dive so we don’t have to worry about them in the morning.” Then it’s unwinding “by either watching a movie or an episode of a series on Netflix, or playing games on my Nintendo Switch...I try to get at least six hours of sleep so that I’ll be energized for the next day.”

Video director Biemann has had much experience documenting similar projects. “Expeditions are at the core of every natural history documentary that does not take place in your backyard,” he said on the Oceana website. “The Panaon expedition was my fifth scientific expedition as well as our 12th

underwater film expedition.”

The preparations had to be meticulous for such a locked-in shoot, from securing the lean crew to ensuring that any piece of equipment could be repaired or replaced. Still, Biemann felt it was worth the effort. “Documenting the natural world has never been as important as it is now. More and more ecosystems are collapsing, and destruction is at such a fast pace. If we do not collect evidence of their beauty now, we might lose it forever.”

It wasn’t all smooth sailing, however, as the dives also revealed the threats that the reefs had to face. On October 21, after a dive outside the Anislagon MPA, Ocampo recounted how “we were saddened by the sight of floating plastic. Our documentation team removed a lot of abandoned fishing lines, and my hand got caught on several fishing hooks while helping them. We even saw plastic caught on corals, which we removed after documentation to bring back to the boat with us.”



### FOUR TYPHOONS

Also, incredibly, the expedition encountered four typhoons: Ofel, Pepito, and the particularly destructive Rolly and Quinta. “We were blessed that we were able to completely cover most sites and get back home safely,” Tolibas said on the website.

Saniano wrote in her log on October 26, “While we were going through our day, our thoughts went to the victims of Typhoon Quinta, especially in Batangas and Mindoro. Most of the ship’s crew are from there. We

saw footage of how strong the surge was and the devastation it brought to the shores of Mainit, Batangas. It brought wreckage to homes and boats of fisherfolk and dive operators. This 2020 is really showing us how we are so vulnerable to the forces of nature.”

Fortunately, the vessel was able to take shelter in Liloan Port. “We knew the winds were strong because the two or three coconut trees on the top of the mountain overlooking our anchorage were bending 45 degrees,” said Lee. “The worst part, of course, was having to sit out these typhoon days.” The team had to make adjustments for the lost diving opportunities.

Two team members celebrated birthdays on the boat, Bew Pardo and Danny Ocampo. “I realized that despite spending my birthdays on land and close to the sea for the past 50 years, this was my first birthday ON THE SEA!” Ocampo wrote on November 4. “I was also thinking

of how the year went by and, despite the pandemic, I feel rewarded that our achievements in the Philippines as an organization are still substantial due to the great leadership and teamwork that we have.” The crew greeted him with a birthday cake, and the day also marked the culmination of the expedition.

“Looking back, we spent 21 days on board the M/Y *Discovery Palawan* with 16 days of fieldwork,” wrote Saniano on November 5, before heading home. “Days before,





CLOCKWISE FROM OPPOSITE PAGE: Some dive team members on the dinghy (ANNE BIEMANN); Dr. Badi Samaniego plots a course; cautionary signs on the boat; disinfecting cameras after each dive; the then very pregnant expedition leader Mar Saniano



we encountered several challenges, from logistical preparations and COVID testing to typhoons during the preparation and conduct of this expedition. But with every day and every target site visited, I would see the smiling faces of the divers talking about how nice the coral reefs are. Each of the target sites had its distinct characteristics that may serve a special purpose for the island's ecosystem. I am looking forward to the results of this expedition. I hope that through this, people, not only those of Panaon, will see how special the island is and how urgent it is for Panaon to be protected."





# 'We are all connected'

**The scientists behind Oceana's Panaon expedition explain how the benefits of conservation extend way beyond the biological**

BY Alya B. Honasan

**T**HIS IS IT." Marianne Saniano, marine scientist and Oceana's campaign manager for the Panaon Island project, sent this short message to Oceana Vice President Gloria "Golly" Estenzo Ramos minutes after she first dove in the Napantao Marine Protected Area (MPA) of Panaon Island in 2019. "Normally I would wait until we got back to land before I finish my report," Saniano recalls. "That time, I was still in the *banca*, and I insisted on sending the drone footage to Ms. Golly at once." Her boss' reaction? "Well, I guess you've made your recommendation!"

It was in 2014 that Bloomberg Philanthropies, a foundation working in five key areas—the arts, education, the environment, government innovation, and public health—launched the Vibrant Oceans

Initiative, with the mission of identifying and protecting climate change-resistant coral reefs, the planet's best bets for replenishing the rest of the world's reefs in the future.

These were not specific reefs but regions, known as bioclimatic units (BCUs), chosen according to five major indicators: history of warming or temperature rise, predicted future temperature rise, cyclone risk and

damage, larval connectivity (how juveniles of marine species are transported to and from the area by ocean currents), and recent stress, such as global coral bleaching episodes.

Three of these BCUs are in the Philippines. BCU 34, stretching from Mindanao to Cebu, includes Panaon Island. BCU 34 is home to over 3.5 million people







CLOCKWISE FROM BELOW, OPPOSITE PAGE: Dr. Victor Ticzon and assistant Bew Pardo at work in the boat's salon; a marine turtle joins the dive (ALVIN SIMON); Dr. Badi Samaniego recording the fish population, and being interviewed for the expedition documentary; Oceana's Mar Saniano calling the shots



living along its coastline, and has a total area of over 15,000 square kilometers, including 710 square kilometers of reefs, only 21 percent of which are legally protected through national or local legislation.

In 2019, Saniano conducted a feasibility study of seven potential sites, identified by Oceana according to a set of criteria that included the political landscape and biophysical factors. Another site had been identified, but some unfortunate events

diverted her to Panaon instead. "I also wanted a site in Eastern Visayas, with not many non-government organizations—a place that wasn't getting too much help," Saniano recalls. Oceana's data-driven strategy and participatory approach to the work included a research expedition, interviews, a focus group discussion with fisherfolk and tourism workers, and a socio-economic survey in the coastal communities.

"I expected the stress of coordinating

In 2019, seven potential sites were identified by Oceana according to criteria that included political landscape and biophysical factors

internally and with partners," she says of her job as overall coordinator of the Panaon expedition. "It was a good thing we had a memorandum of agreement with the province." The icing on the cake, however, was that all this had to happen during the COVID-19 pandemic, which threw in health and safety as major considerations, along with choosing a team that would gather data to back up the call for a national policy that would protect Panaon Island.

That team included fish expert Dr. Badi Samaniego, an assistant professor at the University of the Philippines Los Baños (UPLB), and coral reef expert Dr. Victor Ticzon, UPLB associate professor and head of the university's Aquatic Zoology Research Lab.

#### BLOWN AWAY

It didn't take long before Samaniego and Ticzon were themselves blown away by Panaon's underwater glory. "To start off, I had no idea Panaon Island even existed," says Samaniego. He gives three common parameters to gauge the health of a reef, according to the fish population: "First is species density, or how many types of fish are in a given area, as compared to other sites; second is abundance—you count the fish, how many individuals of a certain species are in an area; and third is the estimated biomass—in practical terms, how much meat is there that is usable, expressed in kilograms or metric tons. These are important parameters from both a biodiversity as well as a practical, fisheries, economic point of view."

Samaniego uses a straightforward fish visual census. "They ask my kids in school, 'What is your dad's job?' They say, 'Dad counts fish'—that's the essence of it." "It" involves diving, laying a transect line, and within, say, a five-meter band in that determined space, identifying all the fish and estimating their size before counting individuals.

That presupposes, of course, that the census taker can name them all, "but there are over 6,000 species," Samaniego says. "What we used to do was, if we couldn't remember, we would draw it, or write down distinct traits—'big blue fish with round tail'—then go back to our books. It's high-tech now, though, so we take photographs, and I am still surprised to find new fish, new behavior. That's what has kept me interested after 30



years of diving.”

Panaon scored high in terms of species diversity and abundance, Samaniego reports. The catch: biomass was strikingly poor. “Where were the big fish? Even the photo documentation team that went across the reef did not see many big ones.” Although it’s possible that more fish has been caught for subsistence since the pandemic, when many lost their jobs in the city and returned to fishing in their hometowns, Samaniego warns against jumping to that sole conclusion. “Related literature has always reported that there has been few big fish; it’s been historically true for the past 10 years. This makes for an interesting oceanographic study. It might be driven by location, being an area where currents flow to and from the Pacific and inland Philippine waters. Is it the movement of water? How connected is Panaon to other islands and localities? Besides, if it were all fishing, why are the corals so beautiful?”

Even the coral guy admits he was initially pessimistic. After years of diving and, as he often discussed with fellow coral expert Dr. Wilfredo Licuanan, “writing obituaries” for deteriorating reefs, Ticzon experienced a “reset” after Panaon. “Right now, based on the studies of Dr. Licuanan, there are almost zero reefs with excellent hard coral cover (HCC). Then the first reef we dove in Panaon was excellent. I said, maybe the next dive, it won’t be as good, but it still was. Then I said, if things are still excellent by the third dive, then this is something. And it was! It’s very rare to encounter an area in the Philippines with that much HCC.”

### LANDMARK STUDY

That landmark study led by Dr. Licuanan, director of the De La Salle University-Br. Alfred Shields Ocean Research (SHORE) Center Marine Station, surveyed 206 reefs all over the Philippine archipelago, north to south, from 2014 to 2017. In the initial findings, none of these stations was classified as being in excellent condition (referring to 75 percent cover and higher) based on live coral cover or LCC (HCC and soft coral cover combined), with 22 percent as the average—classified as “poor.” Updated findings reiterated that 104 of these 106 stations were in HCC Category D, with 22 percent and less hard coral cover.

HCC has become the more recent benchmark for reef health, explains Ticzon, as soft coral makes up only a small percentage of most reefs. “The focus now is on well-developed reefs, big structures that have been formed over millions of years, which provide



A colorful giant clam in Catig, Liloan (BADI SAMANIEGO)

more ecological functions and are resilient to typhoons. Although the big stands are more indicative of the state of a reef, we still can’t discount the contribution of soft corals to diversity, however.”

Like Samaniego, Ticzon spotted a slight problem in the abundance of vulnerable monostands of similar kinds of hard coral. “There were hectares of branching growths—amazing to look at, but my worry is if there’s a storm, branching corals are very fragile; if they get hit, they’ll get wiped out.” There were also many meters of branching, continuous *Acropora* (stony corals) that are very vulnerable to infestations of crown-of-thorns (COT) starfish, which feed on such coral. Considering that hard coral grows at an average rate of 3 centimeters a year, one big storm or COT infestation could have dire consequences.

Still, Ticzon and Samaniego, colleagues since their school days, have a rather wry analogy: “We have what we call the Ace Vergel corals, not so pretty, but tough guys,” Ticzon says, referring to the late Filipino action star. “Then there are the K-pop corals, easy on the eyes but very fragile. Many reefs in Panaon have a good mix, but there are large sections formed by large branching corals. Based on our studies, these branching corals are very important because small-bodied fish live there, and they’re associated with high biodiversity.”

Like Samaniego, Ticzon relies on transect lines and photographs to record an area. In Panaon, that meant going down to the reef slope, marking a 75 by 25-meter rectangle, and using a random set of numbers to choose segments.

For coral assessment, five transects were laid in 34 sites, with 10 random points analyzed per photo for a total of 85,000 random benthic (sea bottom) points analyzed. The result: 15 of 34 reefs surveyed were in excellent condition. Overall, HCC was estimated at 39.72 percent, with mean hard coral cover higher than both the national and regional average.

For the fish visual census, five 50-meter transects were laid on each site at a depth of six to 12 meters. “Management is working,” Saniano states emphatically. “There was 43.72 percent HCC inside MPAs, and 34.65 percent outside the boundaries of MPAs, much higher than the national average of 22 percent.”

### A FORM OF INSURANCE

Biodiversity is not the only value of conserving corals, Ticzon notes. “In

this time of frequent and intensifying storms, fully formed reefs reduce wave energy and protect the shoreline. Instead of building seawalls, if you have healthy reefs, they will do a better job, at a lower cost. You just have to protect them and keep them growing. Aside from that, they are a source of protein for fisherfolk, especially during this pandemic. If people didn’t protect their reefs, they would have had no place to get their food, now that many have gone back to fishing. Reefs are really a form of insurance.”

“My analogy is planting rice,” seconds Samaniego. “Some farmers save a few bags of seeds to plant again. The reefs we try to preserve are the seeds, so we can harvest in the future. If we harvest it all, we are left with nothing.”

The aforementioned “insurance” gets expanded coverage when Samaniego looks at the bigger picture. “Corals, mangroves, and seagrass are all part of the marine ecosystem. From the point of view of fish ecology, mangroves and seagrass are habitats of juvenile fish that grow and later move to the reefs. When you support fish communities, it’s essential to protect these habitats as part of their life cycle. Otherwise, if seagrass beds are buried and eroded, and mangroves cut and reclaimed, developmental habitats are lost. Marine conservation must be approached holistically.”

This is why Ticzon is a believer in the MPA approach that involves all stakeholders. “It’s inclusive, it’s protecting an entire community. If you protect a certain area, you preserve all the connections and relationships between living things, as well, at a very low cost. You will be preserving the ecological process that



sustains the entire system.”

“The awareness of the people is already high, and that will work well in conservation,” agrees Samaniego. “If we push for stronger protection, there will be a critical mass to support it. As a tool, MPAs are most effective because the Philippines is made of 7,000-plus islands, and majority of the people are dependent on the ocean. We need this means to protect islands and reefs.”

### ‘THE PHILIPPINES IS UNIQUE’

Samaniego, the son of a fisheries graduate, studied agriculture at UPLB, developed an early affinity for wildlife, and idolized environmentalists David Attenborough and Jacques Cousteau. After graduating, he headed to the Turtle Islands as a volunteer for the Pawikan Project of the Department of Environment and Natural Resources (DENR), later deciding to pursue his masteral studies in zoology. As a Ph.D. student, Samaniego was accepted by the Khaled bin Sultan Living Oceans Foundation for its Global Reef Expedition project, and spent the next four years diving across 15 territories, from the Galapagos and French Polynesia, to Fiji, Palau, and the British Indian Ocean. Still, he always wanted to bring all the knowledge home. “In terms of beauty and diversity, the Philippines is unique,” he declares.

Ticzon, a San Pablo, Laguna native, studied biology in preparation for medical school, until he got to snorkel in Surigao during an environmental impact assessment. Instead, he learned to scuba-dive and pursued his master’s degree in environmental science, going on to his Ph.D. in marine science at the UP Marine Science Institute in Diliman. He is also curator for corals of UPLB’s Museum of Natural History. Both Samaniego and Ticzon were mentored by UPLB marine biologist Dr. Vincent Hilomen, an expert on marine biodiversity, who pushed the two towards their respective fields.

“When I teach marine biology, even to agriculture and forestry students, I explain how they play an important part in the health of the oceans, because whatever they do in the watershed will reflect in coastal waters,” says Ticzon, a long-time teacher. “I show them what single-use plastic looks like on a reef, wrapped around coral. Everything is linked. You have to be very conscious of your footprint. A lot of papers say the biggest threat to the reefs is going to be climate change. I think it’s indifference. Lots of people take coral reefs for granted.”

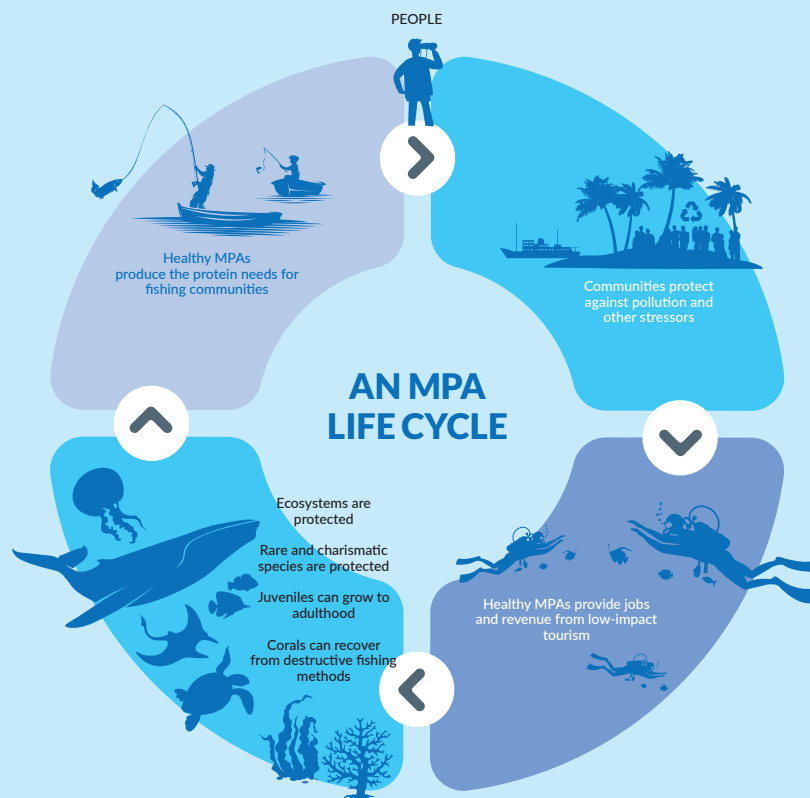
Saniano was also a student of Dr. Hilomen’s, a UPLB graduate in biology with a master’s degree in zoology, minor in environmental science, who is now enjoying the advocacy work. “I used to be more research-oriented, but I didn’t feel that I was contributing much to saving the earth—

## What is a marine protected area (MPA)?

The International Union for the Conservation of Nature (IUCN) defines a Marine Protected Area (MPA) as “a clearly defined geographical space recognized, dedicated, and managed, through legal or other effective means, to achieve the long-term conservation of nature with associated ecosystem services and cultural values.” It was also the IUCN which held the first conference on MPAs, the International Conference on Marine Parks and Reserves, in Tokyo in 1975, recommending a system of such areas to relieve pressure on the world’s marine ecosystems.

In the 2018 video “Do MPAs Really

Work?” (<https://oceana.org/blog/watch-do-mpas-really-work>), Oceana defined an MPA as “any protected part of the ocean.” MPAs have been proven through science and the experience of communities worldwide to be an effective tool for marine resources management, especially in archipelagos with big coastal communities that depend on the sea to live. Yet, only 4-7 percent of the world’s oceans are protected, and even less than that are classified as no-take zones, where fishing is not allowed. According to the video, scientists recommend that 30 percent of the world’s oceans must be covered by MPAs for the seas to stay healthy.



until I became a campaign manager and did field work, and was exposed to different stakeholders, politicians, government agencies, officials, fisherfolk, scientists. It felt like something was happening, and I appreciated developing strategies and observing the dynamics between people.” Her personal advocacy is to convince others to listen to science in decision-making, but thinks her calling lies in bridging gaps between scientists and ordinary people. “I want everyone to see how we are all connected, because what we do on land affects the sea.”

The campaign was particularly memorable for Saniano, because when the team sailed on

the Panaon expedition, she was four months pregnant. “I was worried Ms. Golly would not allow me to go. I called her, and my goal was to not put the phone down until she said yes!” To Saniano’s relief, Ramos never saw the pregnancy as a disadvantage, and agreed that Saniano would be much more stressed if she stayed home.

When she isn’t breastfeeding her now one-year-old son, Saniano fields questions from her nine-year-old son Juancho, who is aware of his mother’s work and often frets about the future of the planet. “That’s why Mom is working very hard to protect the ocean,” Saniano tells him. “Lots of people like me are trying our best. That’s why we’re here.”



# OCEANA: Protecting the world's oceans

Oceana was established by a group of leading foundations—The Pew Charitable Trusts, Oak Foundation, Marisla Foundation (formerly Homeland Foundation), Sandler Foundation, and the Rockefeller Brothers Fund—after a 1999 study they commissioned discovered that less than 0.5 percent of all resources spent by non-profit environmental groups in the United States went to ocean advocacy.

As an international organization focused solely on oceans, Oceana is dedicated to achieving measurable change by conducting specific, science-based policy campaigns with fixed deadlines and articulated goals. Since its founding, Oceana has won more than 200 victories and protected more than 4.5 million square miles of ocean.

Various campaigns are run to achieve the organization's goals. Under Save the Oceans, Feed the World, Oceana works for policy change proven to increase abundance and biodiversity, such as stopping overfishing through the establishment of science-based catch limits, reducing bycatch or the incidental catch of non-targeted animals, and protecting important marine habitat. Oceana focuses on the countries that control the world's fish catch. Just 29 countries and the EU control more than 90 percent of the world's seafood catch. Oceana is already campaigning in countries that control about a third of the world's wild fish catch: the United States, Europe, Belize, Brazil, Canada, Chile, Mexico, Peru, and the Philippines.

Oceana has its only outpost in Asia in the Philippines, the center of marine biodiversity. Home to richly diverse ecosystems, the waters of the Philippines have the highest level of nearshore diversity in the world. There are more species of coral in 20 hectares of the Central Visayas of the Philippines than the entire Caribbean. From manta rays to mangroves, enclosed seas, and more than 7,100 islands, this archipelago nation has it all.

The Philippines' marine waters support highly productive fisheries, providing livelihoods and food for millions of people. The country ranks among the top 12 fishing nations worldwide, producing an annual catch of almost 2 million metric tons in 2018. Fish is served at every meal, representing 56 percent of animal protein intake and 12 percent of all food.

Unfortunately, 75 percent of the fishing grounds in the Philippines are currently overfished. Even though total catches at the national level have not yet

crashed, signs suggest these catches have been maintained by overfishing new species and new areas over time. Fishers now bring home fewer large fish, and reef fish have declined between 70 and 90 percent, leading to major losses to coastal economies.

Illegal fishing remains a problem in this country despite recent improvement in fisheries enforcement and reforms under the amended Fisheries Code such as establishment of vessel monitoring mechanism as a requirement for all commercial fishing vessels. Commercial fishers continue to enter municipal waters, and foreign fleets continue to poach high-value species. Destructive fishing—like the capture of young fish before they can grow to adulthood—is a significant threat to the health of fish populations and the livelihoods of fishermen.

Oceana also campaigns for the elimination of single-use plastic, a massive problem in the Philippines. The archipelago generates more than 17.5 billion tons of plastic waste every year, and an estimated 163 million plastic sachets, 48 million shopping bags, and 45 million thin bags are thrown away by Filipinos annually, according to a study conducted by Global Alliance for Incinerator Alternatives (GAIA). Much of that plastic makes its way to our oceans, polluting beaches, harming marine life, and threatening entire food webs.

The Philippine government passed the Ecological Solid Waste Management Act (Republic Act 9003), which was designed to regulate polluting plastics and other non-environmentally acceptable materials, on January 26, 2001. Oceana continues to advocate for the National Solid Waste Management Commission to release the list of non-environmentally acceptable products and packaging materials, including single-use plastics. Oceana and its allies in the Break Free From Plastic Movement are also campaigning to urge local governments to pass ordinances banning single-use plastics in their jurisdictions and enact resolutions supporting a national ban on

single-use plastics. As of March 2020, 531 local government units have adopted ordinances banning/regulating single-use plastics, according to the Department of the Interior and Local Government.

Oceana has campaigned for the protection of special areas in the Philippine archipelago. With partners from the government and civil society sector, the organization successfully pushed for the protection of the Philippine Rise, a 24.4-million-hectare undersea hotbed east of Luzon, leading to the signing of Presidential Proclamation 489 in May 2018 declaring the Philippine Rise a marine resource reserve, and the area known as Benham Bank a no-take zone. Recently, after a research expedition in 2020, Oceana is working closely with government agencies and stakeholders to have Panaon Island in Southern Leyte covered under the Expanded National Integrated Protected Area Systems (ENIPAS) Act of 2018. The Bloomberg Philanthropies, through their Vibrant Oceans Initiative, co-funded a study that already located Panaon among the world's 50 most climate change-resistant coral reefs.

Oceana commits to support the government in its goal to promote national policies that protect the Philippines' vast marine resources. With its technical expertise, Oceana partners with the government to fulfill its mandate to develop and implement science-based policies and plans that are appropriate in the ecosystem. Through the Fisheries Management Areas (FMA) system, Oceana ensures that key stakeholders, such as the fisherfolk, academe, and other civil society groups, participate in the Management Body of each FMA, and the necessary fisheries management plans, including the National Sardines Management Plan, are implemented.

Because so many people rely on fish for food, and with around 67 million people living in coastal communities, the Philippines provides a critical opportunity for work to improve and effect sustainable fisheries management. The country's highly productive fisheries, if managed properly, can be harnessed to feed the growing population and secure the livelihoods of many. Therefore, achieving food and economic security for the Filipino people means that marine conservation, habitat protection, and sustainable fisheries must be the goals of both national policies and local communities.

