



CORAL
TRIANGLE
CENTER

Inspiring People Saving Oceans

FOURTH QUARTER 2021 REPORT

CORAL TRIANGLE CENTER



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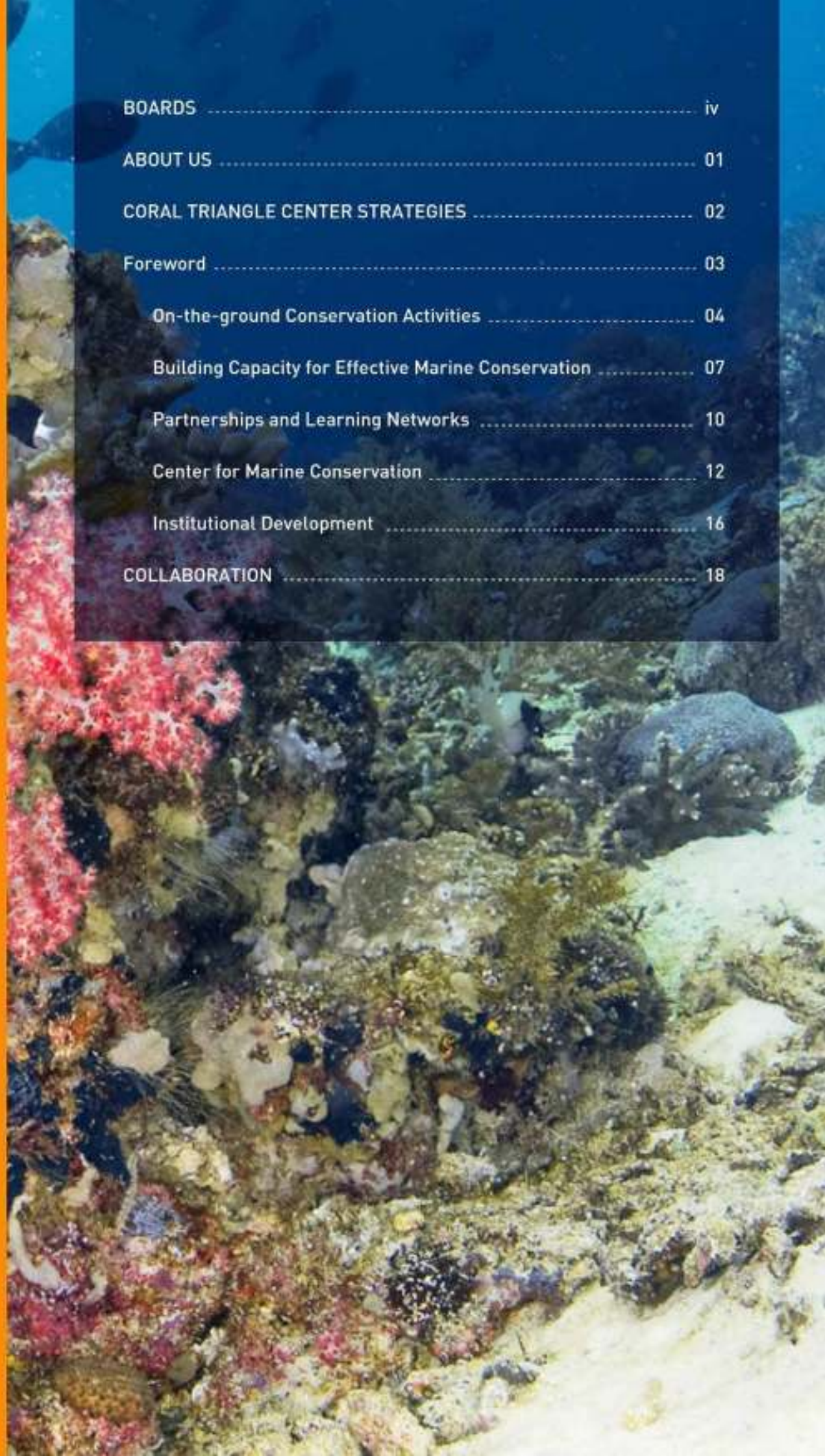


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ABOUT US

CORAL TRIANGLE CENTER

A center of excellence in tropical marine resource management:
Building local leadership for long-term conservation in the Coral Triangle



Inspiring People Saving Oceans

VISION

Healthy seas that enrich people and nature.

MISSION

To inspire and train generations to care for coastal and marine ecosystems.

VALUES

Excellence

In the quality of our teaching. In the performance and integrity of our staff.
In our commitment to being a world-class center of tropical resources management.

Local Stewardship

Based in the heart of the Coral Triangle, we maintain strong roots in the field and close ties to stakeholders at all levels. We value traditional knowledge and practices, and promote local ownership of our projects.

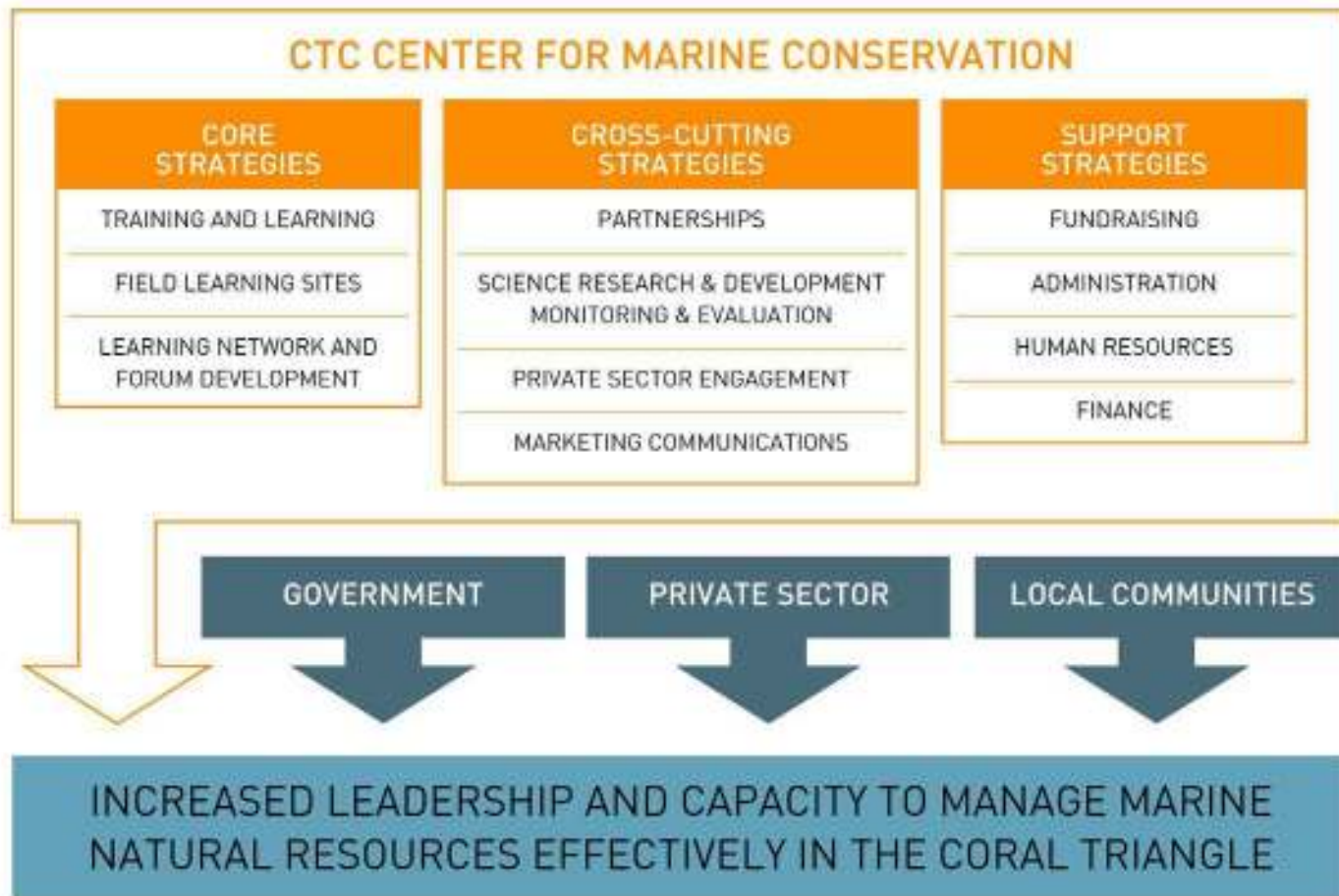
Collaboration

We build partnerships among leaders in government, communities, NGOs, education, and the private sector because only by engaging all constituencies can solutions be effective.

Result

We provide trusted information, are transparent in our actions, and hold ourselves accountable for the quality of our programs, changing our strategies as necessary and measuring our impact over time.

CORAL TRIANGLE CENTER STRATEGIES



CTC is an official development partner of the Coral Triangle Initiative on Coral Reefs, Fisheries and Food Security (CTI-CFF) - a government-led initiative of the six countries of the Coral Triangle region namely Indonesia, Malaysia, Papua New Guinea, Philippines, Solomon Islands and Timor-Leste. CTC supports the CTI-CFF in cross-cutting activities such as capacity building, women empowerment, local government leadership, sustainable tourism and private sector engagement. CTC is also a member of the International World Conservation Union (IUCN) and the International Coral Reef Initiative (ICRI)

FOREWORD

As 2021 draws to a close, we look back on a year in which we could further consolidate and expand our online training, workshop and webinar services engaging more than 1,300 people. Via our social media we reached almost 200,000 individuals. Our coral and fish monitoring surveys, dive expedition, and community programs in the field could proceed under strict Covid-19 guidelines. Despite the continued global Covid-19 pandemic, we were able to strengthen our program and organization with six new sponsors, four new board members and seven new staff. Among the highlights was the launch of three MPA tools by the Ministry of Marine Affairs and Fisheries (MMAF) including the MPA Vision 2030 Roadmap, the MPA Capacity Building Roadmap, and the new EVIKA MPA management effectiveness tool that CTC helped facilitate with partners. These tools will be instrumental to support the Government of Indonesia to help set aside 10% of its marine waters in effective MPAs, and contribute to the realization of the global post-2020 Convention on Biological Diversity (CBD) goal to protect 30% of land and oceans by 2030.



CTC is also supporting the CT6 countries through the Coral Triangle Initiative on Coral Reefs, Fisheries, and Food Security (CTI-CF) regional secretariat with a plan to scale up, accelerate and sustain capacity building in the Coral Triangle region with partners in this context. With the completion of CTC's expo facilities at our Center for Marine Conservation this year, we will be able to focus on the outreach and engagement of schools, students, dive operators, local communities, non-government organization colleagues, government officials, visitors and tourists in ocean conservation. This is a defining decade in which principles of resilience, inclusiveness and sustainability should drive the Blue Recovery of our oceans in the face of climate change and the global pandemic. My heartfelt thanks to our sponsors, partners, board and staff for their unwavering support and commitment to our mission to inspire and train generations to care for coastal and marine ecosystems. Towards healthy seas that enrich people and nature.

Rili Djohani
Executive Director



ON-THE-GROUND CONSERVATION ACTIVITIES

Coral Reefs in Banda Remain Resilient



Amidst climate change threats which have warmed and acidified our oceans globally, a recent reef health monitoring (RHM) survey carried out by CTC's learning sites team around the Banda and Ay-Rhun Islands marine protected areas (MPAs) showed positive results. All corals observed at 14 sites were found to be in healthy condition with no indication of coral bleaching or being damaged by any destructive fishing practices.

According to Purwanto, CTC MPA Learning Site Manager, healthy coral reefs were observed at the depth of 3 and 10 meters of the waters around Ay, Rhun, Hatta and Gunung Api Islands in Banda. The Point Intercept Transect (PIT) was used as the main methodology to assess the percentage of living corals. Healthy coral colonies in Banda, dominated by Staghorn (*Acropora cervicornis*) and Branching (*Acropora florida*) species, all appeared in shades of olive green and brown, and none of them were affected by diseases or bleaching.

On the other hand, the CTC also found an abundant and healthy population of indicator fish species signaling a healthy ecosystem. These indicator fish species include grouper, snapper and barracuda that were often seen swimming along with surgeon fish and bump-head parrot fish. Finally, the team also observed some spawning activities of Napoleon Wrasse (*Cheilinus undulatus*) fish near the Nailaka and Tanjung Noret, Rhun Island, indicating the overall robust and dynamic ecosystems.



"So far, we are happy with the survey result. Once the report is completed, we will deliver a training about RHM survey for local teams in Ay-Rhun and Banda Islands MPAs, also for DKP Maluku teams. Therefore, they can conduct the same survey on their own in the future," said Purwanto.



CTC conducted the RHM survey from November 12 to 17, 2021. In doing underwater observation, our team was also supported by personnel from the Marine Affairs and Fisheries Agency (DKP) Maluku Province, Marine Recreation Park (TWP) of Banda Sea and the office of Marine and Fisheries Resources Surveillance (PSDKP) of Banda Islands. Additional support came from private sector partners such as Blue Motion Dive Center, which had facilitated the survey's transportation.



CTC has been supporting the government, local partners and communities in the Ay and Rhun Islands since 2012 to design and develop a resilient MPA. In 2016, the Maluku Province Government issued a decree for the establishment of the Ay-Rhun Islands MPA which was then followed by an official declaration by the Indonesian Ministry of Marine Affairs in June 2021.

"Mameng" Boat Ready to Sail in Banda



After months of hard work and meticulous preparation, the "Mameng" long-boat that CTC facilitated for the Nailaka community surveillance group (Pokmaswas) of Rhun Island in Banda, is finally set to start patrolling the seas. CTC officially handed the long boat to the Pokmaswas representatives through a simple ceremony held on November 13, 2021. The symbolic transfer was witnessed by representatives from the Maluku Provincial Government's Marine Affairs and Fisheries Agency (DKP), Marine Recreation Park (TWP) of Banda Sea and the office of Marine and Fisheries Resources Surveillance (PSDKP) of the Banda Islands, as well as the customary leader of Rhun Village, together with local religious leaders and other community members from the Ay-Rhun Islands marine protected area (MPA).

In addition, both representatives of CTC and Nailaka Pokmaswas also signed an official hand-over agreement which provides guidance on the use of the Mameng long-boat. Some points highlighted in the agreement include the boat's utilization to support surveillance, marine resource monitoring and plastic waste clean-up activities in Rhun Island.

However, the Pokmaswas also can use the boat for emergency and/or formal situations such as evacuation and governmental events.

The construction of the Mameng boat, whose name comes from a local name for Napoleon wrasse (*Cheilinus undulatus*), a threatened reef fish species that inhabits the surrounding water of the Ay-Rhun MPA, has been ongoing since May 2021. The shipbuilders meticulously assembled the boat using high-quality wooden materials brought from Ambon at a traditional shipyard in Banda Naira Island, about a two-hour motorboat ride from Rhun Island. With good maintenance, this 40 Horse Power engine long-boat can be estimated to serve all activities for decades to come.

Rhun Island is part of the Ay-Rhun Islands MPA, which was officially declared by the Ministry of Marine Affairs and Fisheries through a ministerial decree in June 2021. The Ay-Rhun Islands MPA, which covers a total area 47,968.74 hectares, is equipped with zoning plans to conserve and manage the marine environment and fisheries whilst respecting traditional fishing grounds and the local wisdom practice of Sasi that regulates the use of marine resources in sustainable manners.



Improving Local Capacity for MPA Surveillance in Nusa Penida



Knowing what happens at sea is essential for marine resource protection from any potential threats. Therefore, a solid coordination to develop awareness among community members who devote themselves to safeguard the ocean should be a priority. Recently, CTC visited Suana Village in Nusa Penida to train members of the Buana Jaya surveillance group (Pokmaswas) to enhance their knowledge and skills in marine conservation.

The intensive training took place on November 24-27, 2021 with three days of in-class activities and a full-day field trip. Enthusiastic participants, which also included officers from the Bali MPA Management Unit, learned about the introduction to marine and coastal ecosystems, principles of MPA, marine surveillance, and methodologies on data collection and resource use monitoring.

"I really enjoy the training and appreciated the way CTC delivered it. We have received basic skills about monitoring activities from local governments in the past, but this training is giving more information and skills to us. For example, I now know how to speak to fishers about the MPA zoning system while doing the area monitoring," said I Ketut Mudra Asmara, the head of Buana Jaya Pokmaswas in Suana.

In delivering the training, CTC received support from UPT KKP Bali and the Benoa Marine and Fisheries Resources Monitoring Base (PSDKP Benoa), especially during the field exercise. CTC ensures that the knowledge transfer happened accordingly so that the Buana Jaya Pokmaswas will be able to conduct their own resource use monitoring activity in the future.



Strengthening Community-based Coral Restoration Efforts

As part of its efforts to build local capacity in marine conservation, CTC organized two trainings for the Nuansa Pulau Community Group this quarter. The group is a local environmental awareness community based in Ped Village, Nusa Penida and serves as CTC's partner in its coral restoration program and Adopt-a-Coral program.

On December 2-7, 2021, the Coral Reef Restoration Task Force visited the group in its based in Nusa Penida and taught them basic coral biology and morphology, as well as monitoring standard operating procedures, and methodology. The group experienced hands-on practice in Reef Star production, starting from sand filtering until the end of the coating process. The Task Force also assisted in selecting and assessing suitable sites to expand their current restoration project.

As a follow up to the training, CTC once again organized an in-depth training in coral reef health monitoring to the group in CTC's Center for Marine Conservation on December 18-19, 2021. During the training, the group learned about the different methods in measuring coral growth and coral reef health.



They also had a chance to visit the coral restoration site managed by the Nusa Dua Reef Foundation as a way to compare it with their own restoration site.

Through these activities and other engagements in this collaboration, we hope to ensure that our coral restoration activities will flourish and restore biodiversity in Nusa Penida MPA for many years to come.

Seaweed Crackers: Reviving Nusa Penida's Blue Economy

The global coronavirus pandemic has forced most locals in Nusa Penida MPA to rediscover an old way of living through seaweed farming. In Suana Village, one of the most-visited tourist destinations on the east side of the island, local women entrepreneurs work collectively in the Sari Segara group to jointly run a small venture engaged in transforming seaweed into marketable tasty crackers. Established in 2012, Sari Segara used to be an all-male seaweed farmers' group. However, with more members beginning to turn to hospitality industries for employment, their wives slowly took over operations. In 2018, the group was collaboratively run by 32 women for extra income to support their family. They also started expanding the group's focus from only selling seaweed crops to processing it as some delicacies.

Through experiments, these women finally came up with a flagship product called seaweed crackers. The current head of Sari Segara, Ni Wayan Sari Wariningsih, explained the process of making crackers is less time-consuming yet still profitable. Therefore, members can still work on domestic tasks while taking care of their seaweed farms and producing crackers part time. "Making the cracker dough and cutting it can be done in 2-3 hours, but the drying process can take up to three days," she said.

To make a minimum 25 kilograms of dried seaweed crackers, Wayan required up to 1.5 kilograms of dried seaweed with 35% of moisture to be mixed with cassava flour and other ingredients.



Therefore, the end products can have a unique subtle taste, which makes it different from other fish-based crackers. Every month, before the pandemic, the Sari Segara group could sell up to 100 kilograms of dried crackers for IDR 50,000 (USD 3.5) per kilogram. "We never sold the crackers outside Nusa Penida because we want it to be our local signature product. However, with the low economy nowadays, we are considering expanding the product distribution to Bali mainland," Wayan said.



CTC is working to help strengthen the local economy in Nusa Penida. The implementation of the Coral Reef Rehabilitation and Management Program - Coral Triangle Initiative (COREMAP-CTI) project has assisted Sari Segara in obtaining the Halal label from the Indonesian Ulema Council (MUI) and the National Agency for Drug and Food Control (BPOM). In addition, the women will also be given some training on business plans, packaging and marketing, which can improve the group's management and product development in the future.

The COREMAP-CTI is a project running from April 2021 through to September 2022. One of the project's objectives is to provide essential capacity-building and support to local community groups, such as local seaweed farmers' groups to improve their harvest quality and marketing of small-scale seaweed production to support local livelihoods.

BUILDING CAPACITY FOR EFFECTIVE MARINE CONSERVATION

Blue Carbon for Policymakers Online Training Course Launched at COP 26

CTC, in collaboration with the Australian Government's Department of Industry, Science Energy and Resources (DISER), is proud to announce that our new online training module on blue carbon for policymakers was launched at the 2021 United Nations Climate Change Conference (COP26), on Saturday, November 6, 2021 in Glasgow.

The launch was part of an event entitled Designing Blue Carbon Policy for Sustainable Outcomes, hosted by the Australian Government. Australian, Indonesian and Pacific Island officials sought to answer the question: "How can blue carbon policies be designed to drive sustainable and effective change?"



Blue carbon ecosystems, such as mangroves, seagrasses, and tidal marshes found in coastal areas, have been scientifically recognized as critically important to mitigating the negative consequences of global climate change for their ability to sequester and store significant amounts of carbon dioxide. However, there are numerous threats to their survival.

The online blue carbon policy training course seeks to enhance understanding and management of coastal blue carbon ecosystems and is aimed at junior to mid-level policymakers in Indonesia and the Pacific region. As part of the training course, there are several short 'snap-shot' recordings from blue carbon experts all over the world to further explain the concept of blue carbon, identify nature-based solutions, and illustrate how the preservation of blue carbon ecosystems can contribute to each country's Nationally Determined Contributions (NDCs) under the Paris Climate Agreement. NDCs are at the heart of the Paris Agreement and contain each country's action plans and key metrics for these long-term goals. NDCs embody efforts by each country to reduce national emissions and adapt to the impacts of climate change. Apart from the expert interviews, interactive games are also included in the training to familiarize each participant with the international treaties and agreements that govern blue carbon systems and aim to curb greenhouse gas emissions.



During the event, Minister Angus Taylor, the Australian Minister for Energy and Emissions Reductions, noted the need to take action to preserve blue carbon. He highlighted the work that the Coral Triangle Center (CTC) and the Australian Government have done together to provide a useful tool that policymakers can use in their work, and why this collaboration is significant in global climate change mitigation efforts.

Mr Tonney Wagey from Indonesia's Ministry of National Development Planning (BAPPENAS) extended this to highlight Indonesia's blue carbon policy framework and the efforts the government has made to protect its blue carbon ecosystems, especially mangrove ecosystems, which are extensive in Indonesia. Ms. Debra Sungi from the Papua New Guinea Climate Change Development Authority also noted how PNG has started taking steps to conserve its blue carbon ecosystems while Dr. Mat Vanderkluft, from the Commonwealth Scientific and Industrial Research Organisation (CSIRO) highlighted the importance of engaging local communities in preserving blue carbon ecosystems.

The blue carbon training modules for policymakers tackles similar topics discussed during the side event and will be available online as a self-paced training program.



CTC Launches New Online Fisheries Management Training Module on World Fisheries Day

On this year's World Fisheries Day, November 26, 2021, CTC launched a new integrated online training course that will equip fisheries managers with both knowledge and skills in relation to rights-based fisheries management. The course is the latest self-paced training module available on the CTC Academy, CTC's e-learning portal which can be accessed via CTC's website.

The Integrated Fisheries Management (IFM) training module was adopted from a similar one developed earlier by the Environmental Defense Fund (EDF) and translated to Bahasa Indonesia. The training module has three main objectives that will enable participants to recognize and examine basic challenges in fisheries, differentiate between conventional and rights-based fisheries management, and grasp examples of the application of rights-based management from various places in the world. Moreover, the module consists of five units where each has a storyline explaining a hypothetical fisheries case example to provide opportunities for participants to jointly examine challenges in fisheries, as well as identify effective alternative solutions to overcome these challenges.



The IFM online training is a basic-level that focuses on the sustainable management of fisheries. As a self-paced training, all participants can freely start the course according to their respective time availability. The maximum duration of time given by the system for participants to complete this training however is limited to 90 days only. Upon completion of the training and passing the exam, participants will receive their certificates can take the advanced level where participants will learn on how to facilitate and design rights-based fisheries management.

Coral Reef Restoration Task Force: Mission Bali Hai Reef Star Relocation

Determining a suitable site is an important aspect of a successful restoration project. CTC assisted Mars Sustainable Solutions (MSS), Nusa Dua Reef Foundation (NDRF) and Bali Hai Cruise on October 13-14, 2020 in determining the best location to relocate previous Reef Stars that have been buried by sand. The Task Force assisted BHC Team in site assessment and selection, pre-habitat assessment, as well as Reef Star relocation and installation. This served as the Task Force's first mission in assisting and providing technical support for reef restoration practitioners.

The location was selected based on site assessment and pre-habitat assessment data, as well as protective reef structures that will minimize impact from heavy sand movement. An interesting discussion ensued to determine the best location for the relocation, since the site needed to have specific characteristics such as depth of less than 10 meters, being close to a live coral source, not too sloped and being located in a rubble area. Another consideration was to choose a site that will be suitable as a potential tourism site in the future.



Under the warm sun, in cool water, and with a high spirit, the team managed to complete all tasks. Aside from that, the team also completed the build for 40 new Reef Stars. The Bali Hai Cruise team also successfully completed the MARRS method training which is needed in order to implement the method optimally.

CTC Organizes JUARA Media Short Course for National Media



To conclude the current run of the "Rajungan untuk Masyarakat Sejahtera" (JUARA) media campaign in Indonesia, CTC held an online short course for national media on November 13, 2021. The JUARA activity series has so far been attractive to both local and national media in mainstreaming the key narrative on the importance of sustainable blue swimming crab (BSC) fisheries practices in Indonesia to preserve its economic value and natural stock protection for the long run.

Several national media organizations, such as KOMPAS, Investor Daily Indonesia and Mongabay, enthusiastically attended the JUARA Media Short Course. CTC and Terra Komunika co-facilitated, in collaboration with resource persons from the Directorate General of Capture Fisheries of the Ministry of Marine Affairs and Fisheries Indonesia, the Department of Marine Affairs and Fisheries (DKP) Lampung Province, the Head of Communication Forum of BSC Fishermen in Lampung, the Indonesian Crab Management Association (APRI) and the Environmental Defense Fund.

Through presentations and engagement in interactive discussions with all speakers, participants said that they had received sufficient information about the current state of BSC fisheries in Indonesia, as well as some key messages on collaborative efforts made by multiple stakeholders to promote and protect this invaluable species.



By having great media exposure, it is hoped that the harmonization of BSC-related policies and regulations between central and regional governments, as well as good compliance among small-scale fishers and private sectors, can be well-maintained.

Since 2018, CTC and other key organizations have contributed positively to institutional capacity-building at the provincial level, particularly in Lampung. CTC has trained personnel of the Sustainable BSC Fisheries Management Committee (KPPRB) and local woman fishers in the Kuala Teladas and Sungai Burung Villages of Tulang Bawang District to increase their skills and knowledge, as well as improving their existing small and home-based enterprises.

"Women will become our new local champions and motivators who can accelerate the behavioural change in the community. Their voices, along with other male fishers, need to be heard by the media so that they can be passed on to the government and policy makers at higher levels," said Executive Director of CTC, Rili Djohani.



According to data recorded by the MMAF Indonesia, the total value of BSC export during the first quarter of 2021 reached USD 150.86 million, or 8.64% of the overall Indonesian fishery exports. This figure is 4.15% higher than the average export value of a similar period the previous year. BSC is the fourth highest Indonesian fishery export commodity after shrimp, tuna and squid. According to APRI, more than 80% of Indonesian BSC products are exported to the United States.

Furthermore, the MMAF has also acknowledged the crucial role of BSC capture fisheries as the main source of livelihood for 90,000 fishermen and 185,000 pickers - mostly women, who work in various local plants and processing units. CTC will continue to mainstream narratives of sustainable BSC capture fisheries through various media channels to raise awareness of the importance of keeping the socio-economic value of BSC, improving law enforcement, and protecting marine ecosystems to ensure that BSC stocks remain sustainable.

PARTNERSHIPS AND LEARNING NETWORKS

Indonesia Launches New Management Tools for Effective Marine Conservation

The Directorate General of Marine Spatial Management (Ditjen PRL) of Indonesia's Ministry of Marine Affairs and Fisheries (MMAF) launched a set of management tools for effective marine conservation in Indonesia on December 03, 2021 including MPA Vision 2030 & EVIKA. The launch was part of the National Workshop on Marine Biodiversity and Conservation themed "Effective Conservation for a Sustainable Ocean".

These new management tools will ensure that Indonesia can meet its target of having at least 10 percent (32.5 million hectares) of Indonesian waters as effectively managed conservation areas by 2030, contributing to the realisation of SDG 14 to protect life underwater. The statement is in line with the MPA Vision 2030 aims: "The establishment of 32.5 million hectares of Marine Protected Areas that effectively protect marine biodiversity and fish resources to improve the welfare of fishers, coastal and small island communities in Indonesia". In order to achieve this, the plan has been divided into seven key "Areas of Work" (AoW). Together with World Wildlife Fund Indonesia, CTC facilitated the preparation of the MPA Vision document, specifically focused on strategy in relation to Integrated Planning, Human Resources and Competency Building for MPA personnel, Communications and Outreach Platform.



On the other hand, the EVIKA tool focuses on conservation targets (e.g. species and objectives) and lists input, process, output, and outcome. This extends on the earlier evaluation tool (E-KKP3K), which only assessed conservation area.

The results of EVIKA will identify the status of a MPA and the needs to be considered as an action plan for the future progression of MPA management. Since early 2021, CTC has played an active role to ensure the EVIKA mechanism is implemented properly, as well as supporting the Indonesian Government to assess 61 MPAs nationwide using the new tool.

The MPA and EVIKA documents can be downloaded from the publications list on CTC's website.

CTC Strengthens Collaboration with Indonesia's Ministry of Marine Affairs and Fisheries (MMAF)

For the third time this year, CTC strengthened its position as a strategic partner of the Indonesian Government by successfully signing an agreement with the Ministry of Marine Affairs and Fisheries (MMAF) to deliver forthcoming collaborations that will ensure effective and sustainable marine resource management and conservation in Indonesia. CTC Executive Director Rili Djohani signed the agreement with the Directorate General of Marine Spatial Management (Ditjen PRL) Pamuji Lestari in an online ceremony on November 29, 2021.

The agreement with the Ditjen PRL covers four key aspects. These include CTC's supports to apply National Action Plans on the Coral Triangle Initiatives on Coral Reefs, Fisheries and Food Security (CTI-CFF), direct assistance in the establishment process and effective management of marine protected areas (MPAs) and networks, technical support on the draft of marine spatial and zoning plan, and contributions to the improvement and development of sustainable and ecofriendly marine tourism management in Indonesia.

Earlier this year, CTC also signed two agreements with the Bureau of Research and Human Resources (BRSDM) and the Directorate General of Capture Fisheries (Ditjen PT) of the MMAF. "The agreement signing this year between the Ditjen PRL and its partner organizations will support the realization of the MPA Vision 2030 as our road map to an effective MPA management in Indonesia," said Hendra Yusran Siry, the Secretary of Ditjen PRL MMAF in his opening remarks.

The agreement reflects a reciprocal endeavor, where CTC will be proactive in its annual contribution to provide data and scientific information, recommendations, technical guidance and other supports needed for an effective and sustainable management of marine resources in Indonesia. On the other hand, the Ditjen PRL will facilitate any high-level coordination needed by its organizational partners and provide qualified personnel to participate in human resource development and capacity-building activities held by CTC.

To ensure that this partnership will be carried out well, both CTC and the Ditjen PRL agreed to have regular monitoring and evaluation activities twice a year. The cooperation between CTC and the Ditjen PRL itself has been ongoing for more than a decade as CTC has consistently contributed to the marine conservation programs run by the MMAF Indonesia.



CTC Appointed as Co-Chair of CTI-CFF Women Leaders Forum

Timor-Leste and CTC were appointed as chair and co-chair, respectively, of the Coral Triangle Initiative on Coral Reefs, Fisheries, and Food Security (CTI-CFF) Women Leaders' Forum (WLF), during the 16th CTI-CFF Senior Officials Meeting held virtually on December 13-15, 2021.

The CTI-CFF Women Leaders Forum was established at the 10th CTI-CFF Senior Officials Meeting and 5th Ministerial Meeting in Manado, Indonesia in May 2014, where the CTI-CFF called upon Coral Triangle countries to actively engage and incorporate gender equality perspectives to achieve its goals and targets. It encouraged all its bodies and its six member countries to integrate women as major stakeholders in its activities, and to document these actions to provide testament to, and serve as a model for, gender integration in marine resource management.

Through the activities of the CTI-CFF Women Leaders Forum, it is envisioned that coastal and marine resources have been and will continue to be more effectively managed due to increased engagement and empowerment of women in decision-making processes at all levels in the Coral Triangle region and in the various CTI-CFF bodies. As the co-chair of the CTI-CFF Women Leaders' Forum, CTC will serve for two years and will assist the chair to demonstrate active commitment to promote the rights of women and girls, build their networks and capacity, and ensure recognition of their integral value within CTI's conservation and sustainability goals and activities.



Some of the activities of the CTI-CFF Women Leaders' Forum in the coming year include the implementation of the CTI-CFF Gender Policy, and forging partnerships and collaborations to build capacity of women leaders in marine resource management, amongst others. CTC has been an active member of the CTI-CFF Women Leaders' Forum since the beginning and has been instrumental in its establishment as a formal part of the CTI-CFF body. In collaboration with partners such as USAID and the US Department of the Interior, CTC has organized key activities for the WLF such as a peer-learning study tour in the US for senior women leaders; a small grant program for grassroots women leaders in marine conservation; an intensive inter-generational leadership program for women leaders in each Coral Triangle country, and the development of a competency-based learning module to advance women's role in marine resource management in the Coral Triangle.



The CTI-CFF Women Leaders Forum involves a wide range of partners, and functions as a peer-learning network for women who are playing key leadership roles in sustaining the marine resources of the Coral Triangle region. It serves as a platform to accomplish simultaneous goals, including to:

- ▶ recognize the achievement of women leaders who are championing marine conservation in the six Coral Triangle countries;
- ▶ build the capacity of women from the Coral Triangle to take leadership roles in preserving and sustaining the region's unique marine and coastal resources;
- ▶ collect and share tools as well as good practices that integrate gender principles in marine conservation and sustainability projects and weave them into existing CTI-CFF structures and activities outlined by the CTI-CFF Regional and National Plans of Action;
- ▶ integrate gender principles in CTI-CFF activities and through recommendations presented at annual CTI-CFF Senior Officials Meetings.



CENTER FOR MARINE CONSERVATION

CTC's Center for Marine Conservation Re-Opens to the Public



CTC's Center for Marine Conservation welcomed visitors this quarter. Starting November 4, 2021, we have opened our doors to the public and our facilities are open regularly from Monday to Sunday.

Join our fun learning activities and the creative workshops we offer, and be inspired to protect our reefs. We offer various interactive learning activities, including coral clay workshops, fun learning classes, traditional sea animal weaving workshops, an amazing ocean race, adopt-a-coral, fun learning trips, a community art canvas, and a dinner with art performance. For those who are up to the challenge, we have two Escape Rooms, SOS from the Deep and SOS Plastic Danger, the first-ever marine conservation-themed escape rooms in Indonesia.

We continue to adhere to the guidance provided by the government and local authorities. Our number one priority is keeping all of our visitors and team members healthy. In order to keep everyone safe, we implement strict COVID-19 Protocols. People who are visiting our center must show proof of COVID vaccination. We also limit the number of participants for each of our activities to further mitigate the risk of COVID-19 transmission.

We are looking forward to welcoming you all to our Center for Marine Conservation!

"Coral Triangle": A New Painting Installed at CTC's Center for Marine Conservation

CTC's Center for Marine Conservation has a new painting by Bali-based artist Davina Stephens. The artwork, which measures 113cm x 243 cm, features the artist's signature style: utilizing wood blocks that she designed and carved by local artisans as well as colors that are applied in a "wash style." Davina calls the piece "Coral Triangle" - as it features a map of the region and a marine chart that show the areas where CTC works. The piece hangs at our Center's reception desk, welcoming every visitor to our learning facility. The story behind the artwork started due to Davina's and CTC's shared passion and value for underwater life and conservation. Having grown up enjoying the beauty of underwater life in many places in the Coral Triangle Region, she feels that this is the opportunity for her to contribute to the region through the artwork that she is passionate about.

Her method of working is decided by the material she uses. She loves working with wood blocks that she designs and has carved by local artisans in Bali. She prints them onto rice paper and the joy comes in the application of colours that she applies in a wash style.



She also implements a designed tool called a 'tcap'. This is what is used to stamp the wax onto fabric for the art of Batik. Davina is a New Zealand born artist who has lived in many different places in the world. Everyone can find her passion for the ocean in her artwork collection called Divine Archipelago, which include images of coral, ocean bodies and landscapes on her website: davinastephens.com



Harvest Time for CTC Center for Marine Conservation's Permaculture Garden

Since September 2021, CTC has been developing a permaculture garden at our Center for Marine Conservation assisted by our trainer who has vast experience developing permaculture gardens in Indonesia. Within the last three months, we have planted a variety of vegetables, flowers, and herbs. The team has chosen the plant wisely to suit our garden and our needs. Some of the plants which the team have planted are peppermint, apple mint, Brazilian spinach, lemon, tomato, lemon basil, ginger, rosemary, oregano, dill, sweet basil, and rosella.

After three months, we managed to have our first harvest of Brazilian spinach, peppermint, lemon basil, and rosemary. The rest of our plants are still growing as we look forward to another harvest in the weeks to come! The first harvest indicates that the first phase of the permaculture garden establishment project has been completed. The team will continue to maintain the garden to make sure that all the plants are growing sustainably. Moving forward, the team is planning to plant some more herbs and vegetables in our garden. Through our garden, CTC hopes to be able to continue to inspire and engage visitors about ecosystem balance and love for nature.



Fun Learning Class with Pakuan University

From December 9 to 11 2021, CTC hosted a visit from Pakuan University, located in Bogor. The agenda from the visit was for the university lecturers participate in CTC's fun learning class and learning field trip. The first day activity of their visit covered an introduction to basic knowledge and a deeper understanding of the coastal ecosystem, a coral clay workshop, and escape room experience at the CTC Center for Marine Conservation. On the second and third days, the participants were taken to Nusa Penida Marine Protected Area to learn about the establishment of the Marine Protected Area, rehabilitation efforts, and local community participation in the management of the area.



During this learning field trip, the participants were introduced to the importance of understanding and appreciating our marine environment. The trip to Nusa Penida MPA provides the chance to visit mangrove forests, seaweed farming sites, participate in coral rehabilitation projects, observe Lembongan Recycling Center, meet the local community and learn about the marine ecosystem. They also visited our coral restoration site and plant baby corals themselves. Through this immersive fun learning program, CTC hopes to continue to inspire people from all walks of life to protect our reefs and oceans.

World Children's Day 2021 - Teaching Young Learners to Love and Protect the Ocean



We organized an online fun learning class for school children in the Coral Triangle on November 20, 2021. The activity, entitled Discover the Life of Mori and Friends in the Coral Triangle Region, coincided with this year's World Children's Day, which encourages children to imagine a better world following the impacts of the COVID-19 pandemic. Through this activity, we aimed to inspire the next generation to envision a world where marine animals live in a healthy and abundant ocean.

During the class, 45 young learners aged six to ten years old went on a virtual tour to discover the beauty of our marine environment. They were also introduced to the threats that our marine animals and environment faces, such as plastic pollution. As part of CTC's mission to inspire people to care for our oceans wherever they are, we believe that these online fun learning activities will be able to spark ideas on what young children can do to protect our seas.



Inspiring the Next Generation of Ocean Keepers



CTC facilitated a fun and interactive coral restoration excursion in collaboration with Bali-based dive shop Joe's Gone Diving in November. Nine junior divers from Green School received an introduction to coral biology and restoration taught by the members of the Coral Reef Restoration Task Force members from CTC and the Nusa Dua Reef Foundation.

The Green School students were given a comprehensive basic lesson in coral biology and coral restoration using the MARRS method, a coral restoration method developed by Mars Incorporated, where sand-coated hexagonal steel structures called Reef Stars, attached with healthy coral fragments, were installed underwater. In a classroom practice using dead coral fragments, the students were divided into two competing groups and each managed to complete their Reef Stars under three minutes. The class was then taken out on a half-day excursion in the nearby ocean in Sanur to implement what they had learned. These bubble makers, ranging from 11 to 14 years old, went out on a dive and successfully deployed two Reef Stars. At the end of the trip, a commitment to expand this achievement in the future was agreed upon. The children's excitement and creativity inspire us.

Through this early education, they got to learn, play and develop skills by direct contact with nature, all in a fun and safe environment. Learning through nature, especially early in children's education, is crucial in helping to build awareness and develop appreciation for the planet. In the end, it comes down to the steps we take now to get the Future Ocean Defenders to understand the importance of sustainability on Earth and start acting on it to leave a positive legacy: a better planet for them to live in.



CTC Hosts US Embassy Staff at Center for Marine Conservation



CTC hosted officers from the U.S. Embassy Jakarta and USAID Indonesia on December 22, 2021 at its Center for Marine Conservation in Bali. Deputy Chief of Mission Michael F. Kleine led the visit with his family, accompanied by USAID Deputy Director for the Environment Office, Mark Newton, and Marine Program Specialist for USAID Indonesia, Ahmad Hafizh Adyas.

Their visit to CTC began with a tour around our center, and introductions to our integrated learning facilities dedicated to coral reef and ocean protection. During the visit, they had the chance to try our fun learning program Games for Change - Escape Room SOS from the Deep and SOS Plastic Danger. They also learned about CTC's contribution and achievements under several USAID-funded projects in Indonesia and the Coral Triangle. Mr. Kleine shared his recognition of CTC's work and efforts and his hope that CTC can strengthen its collaboration with the US Embassy Indonesia to sustain the successful conservation activities to protect the unique marine biodiversity in the Coral Triangle.



New Exhibition Hall at the CTC Center for Marine Conservation



CTC completed the construction of Phase 3B of its Center for Marine Conservation in November 2021, marking the end of the Center's construction process, following the completion of Phase 1 in October 2017, Phase 2 in October 2018 and Phase 3A in October 2020. It is an important milestone, realizing our institution is growing in fulfilling our mission to inspire more people to care for the oceans. It also marks our transition to a sustainable organization, expanding and deepening our outreach and impact to a larger public.

The Center for Marine Conservation's Phase 3B consists of an indoor Exhibition Hall on the ground floor and a multimedia communications studio, virtual meeting room and work stations on the second floor. The indoor Exhibition Hall, which has a total floor area of 520 square meters, has a maximum capacity of 500 visitors. It has a large fan-cooled main exhibition area and two dedicated rooms that will house permanent interactive exhibits and a volunteer room that will serve as the future quarters of the Center's volunteer exhibition guides. The main exhibition area is equipped with natural ventilation to reduce carbon footprint and to adapt to the Covid-19 pandemic health protocols.

The Exhibition Hall is designed to host interactive learning exhibitions on the various issues that our ocean is facing such as climate change,

overfishing, plastic pollution, as well as solutions to these critical problems such as marine protected areas, and coral restoration, amongst others. Spaces for critical conversations that prompt visitors to examine their actions to protect the planet and the oceans will also be set-up. The space will also host temporary exhibits from Indonesian and international artists that focus on ocean themes. It can also serve as a venue for film screenings of ocean-themed films and documentaries for small groups of people.

Meanwhile the second floor, with a floor area of 82.4 square meters, has a fully-equipped virtual meeting space that aims to host virtual dialogues and conferences. It has a multi-media studio that is capable of producing high quality content for virtual ocean-themed fun-learning classes for young learners, online training modules for marine conservation professionals, as well as live webinars and training sessions for various digital learning requirements. We hope that after Covid-19 travel restrictions are lifted, the Center for Marine Conservation will be fully operational and we will be able to host visitors from Indonesia and as well as from around the world and realizing our goal to influence 1.5 million people in Indonesia and the Coral Triangle to take action to care for our oceans.



Coral Diving School Adds New Courses

At CTC's Center for Marine Conservation, we provide a variety of courses that allow people to learn and discover the rich marine biodiversity. We offer courses through CTC's Coral Diving School in collaboration with Scuba Schools International (SSI). The courses are taught by leading marine conservationists with vast experience in studying marine conservation issues. We offer basic snorkeling classes, introductory scuba, a marine biological specialty course, basic underwater photography, an open water dive course, and a scuba skill update course.

This quarter, we added two new courses hosted at the Coral Diving School - the Scientific Diving and React Right. The Scientific Diving course offers an introduction to the scientific diving theory, reef health monitoring protocol, fish length estimation, basic GPS data collection, and data analysis. The React Right program is a course that offers an understanding of emergency responses that provides students with the training and knowledge needed to act as the first responder in case of an emergency.

All proceeds from the courses will support CTC's marine conservation activities. Students who join will not only learn new skills but also directly contribute to the protection of coral reefs and marine life in the world's epicenter of marine biodiversity.



INSTITUTIONAL DEVELOPMENT

Sharing Lessons Learned and Staff Learning Trip at Nusa Penida Marine Protected Area



On December 17, 2021, the full team of CTC staff went to Nusa Penida MPA for the staff learning trip where we deepened our knowledge about the key principles of coral restoration using the MARRS method. Following the training, we were able to experience hands-on the process of coral transplantation by directly tying coral fragments onto Reef Star structures. Some of us had a chance to snorkel over our coral restoration and Adopt-a-Coral site and saw first hand how the baby corals have grown into healthy reefs. We also learned about how our local community partners have successfully processed seaweeds into marketable crackers through technical guidance from our ADB-COREMAP Project.

These activities marked the time of reflection for us as we grow as a team and we hope to bring more impacts on ocean conservation and beyond in the new year of 2022.



To conclude the year, the CTC Team conducted two internal workshops and activities during this quarter: our annual work planning meeting and staff development trip. This marks the first time that the entire CTC staff has come together for face to face meetings since the Covid-19 Pandemic. We held our two-day work planning meeting at our newly completed Exhibition Hall at the Center for Marine Conservation on December 9-10, 2021 where we discussed lessons learned in the past year and brainstormed for our work plan in 2022.



COLLABORATION

National Governments in the Asia Pacific Region

01. Coral Triangle Initiative for Coral Reefs, Fisheries and Food Security (CTI-CFF) Regional Secretariat and National Coordinating Committees
02. Ministry of Agriculture and Fisheries, Timor-Leste
03. Center for South China Studies of Ministry Foreign Affairs
04. Department of Marine Parks, Malaysia
05. Partnerships in Environmental Management for the Seas of East Asia (PEMSEA)

Ministry of Marine Affairs and Fisheries (MMAF) of the Government of Indonesia

01. MMAF Human Resources & Community Development Agency (BPSDM-KPI)
02. MMAF DG KP3K, Directorate KKJI
03. MMAF Directorate Marine Biodiversity Conservation Area (KKHL)*
04. MMAF Fisheries Training Center in Banyuwangi
05. MMAF Fisheries Training Center in Tegal
06. MMAF Fisheries Training Center in Ambon
07. MMAF BPSPL Denpasar
08. MMAF Balai Kawasan Konservasi Perairan Nasional (BKPPN) Kupang
09. MMAF Pengawas Sumberdaya Kelautan Pos Banda

Provincial Governments and Agencies

01. Bali Provincial Government (Dinas Kelautan dan Perikanan)
02. NTT Provincial Government (Dewan Kawasan Konservasi Perairan Nasional - DKKPN)
03. Maluku Provincial Government (Bappeda and Dinas Kelautan dan Perikanan)
04. Klungkung District Government (Bupati, Bappeda, Dinas Peternakan - Perikanan dan Kelautan, Dinas Pariwisata)
05. Klungkung Regency Government (Pemerintah Klungkung)
06. Central Maluku District Government (District Planning and Marine-Fisheries Office)
07. Seram Timur District Government (Dinas Kelautan dan Perikanan)
08. Certification Institute for Marine Core Competencies - LSPK (Lembaga Sertifikasi Profesi Kelautan)
09. Pusat Pelatihan Mandiri Kelautan dan Perikanan (P2MKP)
10. Balai Teknologi Industri Kreatif Keramik (BBPT-BTIKK)
11. Balai Pengelolaan Hutan Mangrove Wilayah I

Non Government Organizations

01. International Coral Reef Initiative (ICRI)
02. Global Sustainable Tourism Council (GSTC)
03. International Union for Conservation of Nature (IUCN)
04. The Nature Conservancy (TNC)
05. World Wildlife Fund (WWF)
06. Conservation International (CI)
07. RARE Conservation
08. Conservation Strategic Fund (CSF)
09. Pusat Pendidikan Lingkungan Hidup (PPLH) Bali
10. Yayasan Bahtera Nusantara - Bali
11. Yayasan Nusa Wisata, Nusa Penida
12. Friends of National Park Foundation - Nusa Penida
13. Yayasan Warisan Budaya Banda Naira - Kepulauan Banda
14. Aquatic Alliance Foundation
15. Yayasan Masyarakat dan Perikanan Indonesia (MDPI)
16. Mission Blue
17. Plastic Pollution Coalition
18. Reef World Foundation
19. Environmental Defense Fund (EDF)
20. Starling Resources
21. Oceanic Society
22. Lembaga Partisipasi Pembangunan Masyarakat (LPPM)
23. eL SiL Kie Raha
24. Yayasan Baileo
25. Role Foundation
26. Australian Volunteers International (AVI)
27. Studio Gelombang
28. Seattle Aquarium
29. Mars Sustainable Solutions

Academic Institutions

01. Australian Tropical Marine Alliance (ATMA)
02. Murdoch University - Australia
03. Georgia University - USA
04. Wageningen University - Netherlands
05. Western University of Australia
06. Victoria Shanghai Academy - Hongkong
07. Indonesian Institute for Science - LIPI
08. Institut Pertanian Bogor - IPB
09. Brawijaya University - UNIBRAW
10. Udayana University - UNUD
11. Hasanudin University - UNHAS
12. Diponegoro University - UNDIP
13. Pattimura University - UNPATTI
14. University Warmadewa in Bali
15. Sekolah Tinggi Perikanan - STP
16. Universitas Pendidikan Ganesha Singaraja - UNDIKSA
17. University of Khairun
18. Sekolah Tinggi Perikanan Hatta Syahrir
19. University of Darussalam

Private/Corporates/Agencies

01. World Ocean Council
02. Young Presidents Organization
03. National Geographic Society
04. Asian Geographic Magazines Pte Ltd
05. The Body Shop Indonesia
06. Jenggala
07. Grand Luley Resort
08. Kummara
09. GummyBox
10. OceanBellz
11. PADI
12. Hotels in Bali (Hard Rock Hotel Bali, Fairmont, Mercure, Sudamala, Prama, Sanur Paradise, Tanjung Sari)
13. Dive Operators Community Komodo (DOCK)
14. GAHAWISRI Bali
15. GAHAWISRI Maluku
16. Smalling Tours
17. Buffalo Tours
18. Tierra Mar
19. Sustainable Solutions
20. Studio Jy9

Bali and Nusa Penida

01. Lembongan Marine Association
02. Nusa Lembongan World Diving
03. Lembongan Dive Center
04. Lembongan Dive Operator Association
05. Blue Corner Dive Center
06. Big Fish Dive Center
07. Two Fish Dive Center
08. Bali Hai Cruise
09. Crystal Dive Center
10. All4diving
11. Ena Dive Center Marine Adventures
12. LivingSeas
13. Bali Diving Academy
14. Ceningan Divers Resort
15. Reef Seen Resort

Maluku and North Maluku

01. Blue Motion Dive Center
02. Mahu Lodge
03. Pari Dive

Community Based Organizations (CBOs)

Bali & Nusa Penida

01. Satya Posana Nusa
02. Cotagi Buana Putra
03. Majelis Arit
04. Forum Krama Muda
05. Mangrove Tour Jungut Babu
06. Forum Petani Rumpun Laut
07. Forum Nelayan
08. Karang Taruna Sanur Kajah
09. Yayasan Pembangunan Sanur
10. Kelompok Nuansa Pulau

Banda

01. Kelompok Konservasi Masyarakat Pulau Ay
02. Kelompok Konservasi Masyarakat Pulau Rhun
03. Kelompok Konservasi Masyarakat Pulau Hatta
04. Kelompok Kreatif Anak Banda (KKAB)

Less, Sula and Buano Islands

01. Moluccas Coastal Care (MCC)
02. Happy Green Islands (HGI)
03. Kasis Gereja Protestan Maluku
04. DPD Komite Nasional Pemuda Indonesia (KNPI)

Donors

01. SymAsia Foundation
02. Rainbow Foundation
03. David and Lucile Packard
04. Margaret A. Cargill Philanthropies
05. Walton Family Foundation
06. Critical Ecosystems Partnership Fund (CEPF)
07. Waterloo Foundation
08. National Geographic
09. Hard Rock Hotel Bali
10. USAID Sustainable Ecosystems Advanced (SEA) Project
11. USDOI (United States Department of Interior)
12. Australian Government (Department of Environment & Energy)
13. AusAid (Australian Consulate-General Bali)
14. UN Environment Programme
15. Arafura and Timor Seas Ecosystem Approach (ATSEA)
16. Bloomberg Philanthropies





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