



CORAL
TRIANGLE
CENTER

Inspiring People Saving Oceans

CORAL
TRIANGLE
CENTER | 2022
ANNUAL
REPORT





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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

CTC envisions healthy seas that enrich people and nature.

MISSION

CTC inspires and trains 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 marine resource management.

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.

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.

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.

LETTER FROM THE EXECUTIVE DIRECTOR

Inspiring global commitments were made in 2022. Nations agreed to protect a third of the planet for nature by 2030 in a landmark deal aimed at safeguarding biodiversity at the recent COP15 UN biodiversity summit in Montreal, Canada. Under the G20 Indonesian Presidency, special attention was paid to the role of the oceans to address climate change and sustainable blue economies leading up to the G20 Summit in Bali held in November 2022.

Speed, collaboration, capacity and outreach are needed to turn this commitment and funding into action now and at scale! Climate change, biodiversity loss, pollution and overfishing need to be addressed in an integrated and inclusive way.

In 2022, CTC expanded its Marine Protected Area (MPA) program in Timor-Leste and started up a new program in Lease Islands, Maluku, for the habitat protection of dugongs and a deep-sea snapper fisheries pilot program in the Banda Islands in Maluku with partners. We planted 200,000 seedlings to restore the mangroves in the Nusa Penida MPA in Bali and developed online training modules regarding Resilience-Based Management and Coral Restoration. CTC continues to support the Government of Indonesia with the management effectiveness evaluations of MPAs in Indonesia.

Across the programs, we further strengthened our science program with the introduction of reef imagery in our coral monitoring programs. We completed our Gender Equality and Social Inclusion (GESI) strategy to be more inclusive in all what we do. Our new knowledge management framework will allow us to take CTC to the next level as a learning organization. Via online webinars and social media we reached out to 200,000 people.

Since 2011, we have trained almost 6,000 people in marine conservation and sustainable fisheries. We continue our focus on strengthening the role of women in fisheries, MPAs, and community development. This year, more than 500 children engaged in our new CTC's Ocean Keeper Club, a marine conservation outreach program for children in the 9-12 years age group. In 2022, we were able to fully operate our Center for Marine Conservation, again engaging almost 4,000 visitors who participated in events, workshops, fun learning programs, dive training and excursions to Nusa Penida MPA. This brought the total number of visitors to more than 17,000 since we opened in 2017.

A major milestone was achieved with the completion of the Center's facilities including our new office and expo hall. Artists, photographers, experts, partners and volunteers closely worked with our team to develop a one-of-a-kind interactive exhibition on marine biodiversity, threats and solutions using art and science, traditional tools and technology.

I look forward to increasing our impact together in the coming years by engaging and inspiring more people to achieve effective protection of at least 30% of the oceans by 2030.



A stylized handwritten signature in black ink.

Rili Djohani
Co-founder and Executive Director

LETTER FROM THE CHAIRPERSON

Our oceans and the diverse life they harbor are in grave peril, demanding immediate attention and decisive action to secure their future sustenance for generations to come. The delicate balance of ocean health hangs precariously in the balance, necessitating bold, concerted efforts to reverse the damage already wrought and fortify resilience against future threats.

The time for bold, collective action is now and it is imperative that we join forces to steer them back to vitality. With major policy decisions looming on the horizon at the international stage, spearheaded by esteemed global leaders, including Indonesia, we have a pivotal opportunity to champion the cause of ocean conservation and inspire transformative change.

Indonesia has an opportunity to become a beacon of maritime stewardship. With 28 million hectares of waters already designated as MPAs, Indonesia is charting a course toward fulfilling its commitment to safeguarding 32 million hectares by 2030. By doing so, Indonesia not only safeguards its own marine resources but also sets a commendable example for global ocean conservation. Indonesia can pave the way for transformative governance and management approaches essential for expanding protected areas worldwide.

In parallel, CTC has become an example of how a home-grown organization can be effective and lead the way from the community level, up to the national, regional, and all the way to the international level. CTC's team of dedicated and passionate individuals have effectively galvanized support for programs that address critical threats to the oceans such as biodiversity loss, climate change, destructive fishing, pollution, and unsustainable development, amongst others.

Recognizing our interconnectedness, together, let us embrace the idea that ocean protection is at the forefront of our collective endeavors for a sustainable and thriving planet.

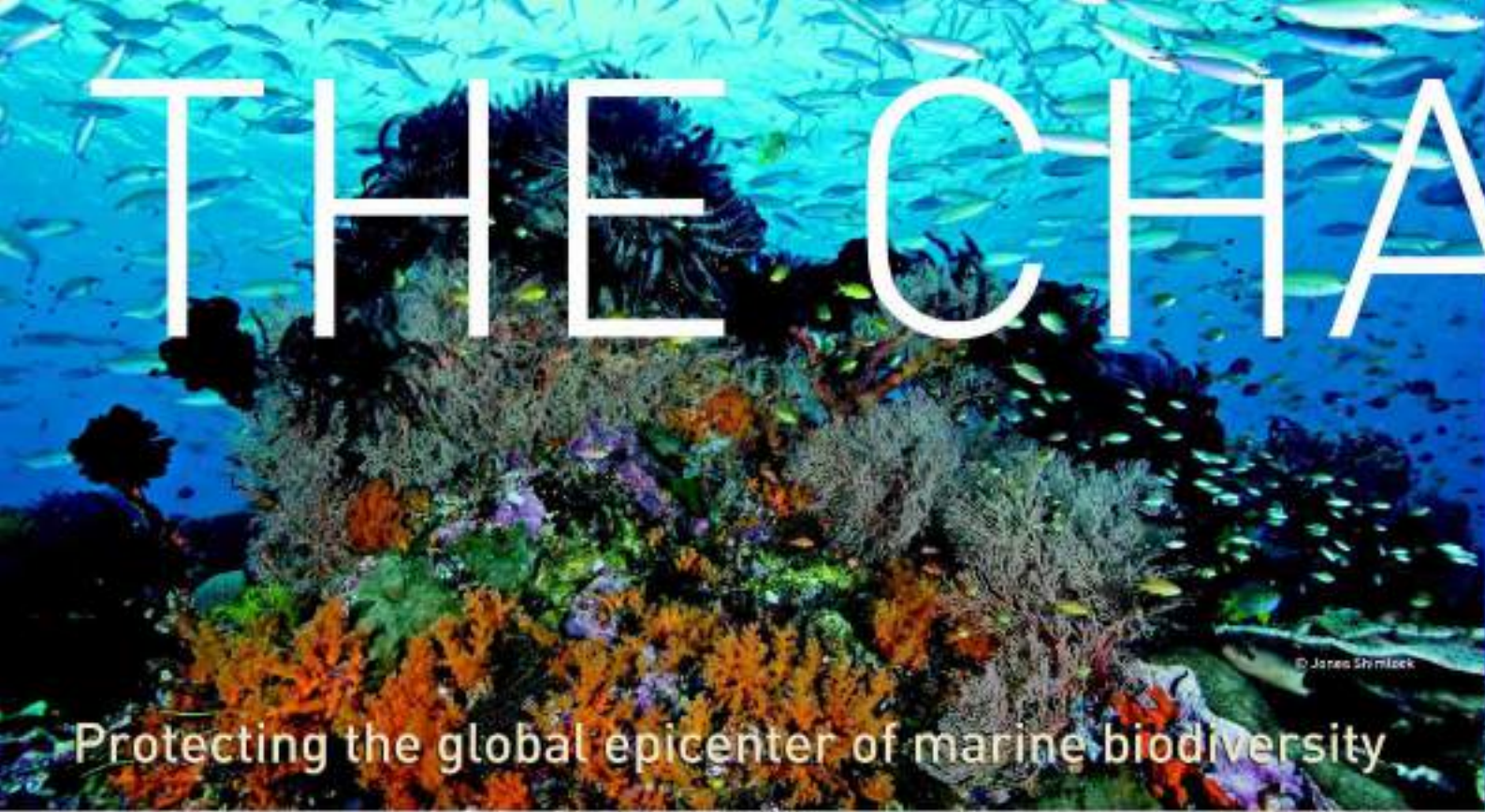
The time for action is now. Let us rise to the challenge and safeguard the future of our oceans, for they are the lifeblood of our planet.



A stylized handwritten signature in black ink.

Yuli Ismartono
Chair of the Board of Trustees

THE CHALLENGE



Protecting the global epicenter of marine biodiversity



Against the threat of...



Houses
76%
of all coral species in the world

Home to
3,000
species of reef fish

Provides
130 million
people with food and income

Generates
\$1.6 billion
in revenue from fish catch and marine tourism

TOP CORAL REEF THREATS

Unsustainable fishing



Coastal development



Irresponsible tourism



Pollution



Climate change



70% of the Coral Triangle's reefs could be destroyed by 2050 if business continues as usual

WHAT WE DO



WE LEARN

We implement, we test, we gather knowledge



WE PARTNER

We work with government agencies, academic institutions and other NGOs

We use field experience, state of the art science and best practices:



TO INSPIRE

Youth, students, tourists and concerned citizens



TO TRAIN

Professionals and communities to take care of our oceans



TO ENGAGE

Private sector and work with them toward sustainable marine and coastal practices

And connect all groups to amplify:



OUR ULTIMATE GOAL

To abate the threats of overfishing, pollution and climate change together, preserve the most diverse and resilient coastal marine ecosystems in the world and secure oxygen, food, jobs and protect the coast for millions of people.

We Learn

from field sites where we implement theories and determine effective strategies to manage MPAs

We Partner

with government agencies, academic institutions, the private sector, and other non-government organizations

We Train, We Equip

people involved in the management of MPAs across the Coral Triangle region

We Engage, We Inspire

students, tourists, dive operators, fishing communities – everyone who has an interest in protecting the health of our reefs

We Connect

various groups – MPA managers, local leaders, women – to promote collaboration and encourage knowledge sharing

AMPLIFY MARINE CONSERVATION



KEY CONSERVATION TOOL

Marine Protected Areas (MPAs)

MPAs - areas where resource use is regulated and critical areas are protected – have been proven effective at maintaining or even improving the quality of reefs and rehabilitating fish populations.

With 197 MPAs throughout the archipelago covering some 23.38 million hectares, Indonesia is well on its way to achieve its goal of having 32 million hectares of MPAs by 2030. To make sure these MPAs are effectively managed, Indonesia needs trained and capable MPA managers and technical personnel to support its conservation targets.

However, Indonesia doesn't have enough trained people capable of managing all these protected areas.

Each MPA also has unique features and specific needs, and what works in one MPA might not work in another.

This is where CTC comes in. We help establish MPAs. We test theories and determine the best strategies. And we train and equip all people to effectively manage MPA.

“ Our whole approach is aimed to inform, engage and equip people with practical tools to better understand and manage coastal and marine ecosystems.

Rili Djohani, CTC Executive Director

”

IMPACT IN NUMBERS

Since its establishment in 2010 until 2022, CTC has turned knowledge into on-the-ground action to protect and sustainably manage marine resources in Indonesia and the Coral Triangle.

THROUGH OUR TRAINING AND LEARNING ACTIVITIES, WE HAVE

Developed **30** training modules
 Conducted **305** trainings
 Trained **7,237** people



THROUGH OUR CENTER FOR MARINE CONSERVATION, WE HAVE ENGAGED

16,500 people in our fun learning activities, games for change, art and science programs, events, and dive training pool.



THROUGH OUR SOCIAL MEDIA AND OUTREACH ACTIVITIES, WE HAVE ENGAGED

200,000 people annually to learn about marine conservation

THROUGH THE ESTABLISHMENT OF MPAS IN INDONESIA AND TIMOR-LESTE, WE HAVE PROTECTED

435,839 hectares of critical marine habitats and helped restore fish stocks for the local community



- MPA : Marine Protected Area
- MMAF : Ministry of Marine Affairs and Fisheries
- MAF : Ministry of Agriculture and Fisheries
- LGN : Local Government Network
- CTI-CFF : Coral Triangle Initiative on Coral Reefs, Fisheries and Food Security
- WLF : Women Leaders Forum



CONSERVATION ON THE GROUND

Through the establishment of new Marine Protected Areas in Indonesia and Timor-Leste we are protecting critical marine habitats and helping restore fish stocks for local communities.



NUSA PENIDA MPA

Est: 2010
Size: 20,057.19 ha
Location: Bali



BANDA ISLANDS MPA NETWORK

Est: TWP Laut Banda (2009), Hatta (2014), Ay-Rhun MPA (2021)
Size: 71,536.46 ha
Location: Maluku



SULA MPA

Est: 2018
Size: 117,959.88 ha
Location: North Maluku



LEASE MPA

Est: 2021
Size: 67,484.19 ha
Location: Maluku



BUANO MPA

Est: 2021
Size: 31,886.86 ha
Location: Maluku



SAMBA SEMBILAN MPA

Est: 2023
Size: 8,372.20 ha
Location: Liquica



ATAURO MPA

Est: 2023
Size: 13,252.22 ha
Location: Atauro Island



MANUFAHI MPA

Est: In the process
Size: 41,624.7 ha
Location: Manufahi



NINO KONIS SANTANA NATIONAL PARK

Est: 2007
Size: 60,901.40 ha
Location: Lautem

CONSERVATION ON THE GROUND

Collaborative Work to Protect Dugongs in the Lease Islands Marine Protected Area (MPA)



In collaboration with the Baileo Foundation and the Maluku Province's Department of Marine Affairs and Fisheries, CTC launched the "Kalesang Dugong" project in Saparua within the Lease Islands, aiming to protect the endangered dugong (*Dugong dugon*) and its crucial habitat. The project encompasses Mahu and Ihamahu villages in the East Saparua sub-district, and Booi and Porto villages in the Saparua sub-district. Initial kick-off meetings, involving stakeholders at various levels, revealed high community enthusiasm for project implementation.

Dugongs, herbivorous marine mammals reliant on seagrass, weigh approximately 400 kg, grow up to three meters, and live up to 70 years. Despite being observed around the Lease Islands MPA, their population is scant, with the last study in 1992 recording 22 to 37 individuals.

Running from July 2022 to June 2024, the two-year "Kalesang Dugong" project not only focuses on dugong and seagrass protection but also aims to enhance the capacity and awareness of local communities, including Indigenous groups, women, youth, businesses, and MPA personnel. Supported by the Critical Ecosystem Partnership Fund (CEPF) under the Wallacea II Partnership Program, the project addresses historical conservation and economic development gaps in the region.

In a significant breakthrough, the CTC team spotted a dugong near Booi Village and identified feeding trails in seagrass meadows, indicating potential survival and reproduction in the Lease Islands MPA. The encounter occurred during a biophysical survey assessing dugong habitat in four villages: Porto, Booi, Mahu, and Ihamahu. The team utilized visual observation, manta tow, and aerial survey methods over four days. Part of the "Kalesang Dugong" project aiming to boost local awareness and capacity in dugong protection.

The sighting is crucial for the Lease Islands MPA. As dugongs serve as indicators of healthy marine ecosystems. The project will update data on population, distribution, and observations through advanced biophysics surveys and regular resource use monitoring (RUM) surveys. It will also establish a citizen science mechanism to enhance marine conservation databases at local, regional, and national levels. Additionally, CTC also provided training on the management of stranded dugongs and marine mammals to local community members furthering community engagement and awareness. The training included participants from various community elements, contributing to a holistic approach to marine conservation in the region.



Erawan Asikin
Head of the DKP of Maluku Province

The Department of Marine Affairs and Fisheries of Maluku Province expresses its gratitude and appreciation for the cooperation of CTC and Baileo, who have taken good initiatives by carrying out the 'Kalesang Dugong' project in the Lease Islands MPA.

Strengthening Coral Restoration in Indonesia



This year, the Coral Restoration Task Force conducted an assessment of ongoing coral restoration initiatives in Indonesia to assess the current biophysical status and the needed technical support for each site.

In May, the Task Force visited the Nusa Penida MPA, specifically focusing on projects employing the Mars Assisted Reef Restoration System (MARRS). Collaborating with Bali Hai Cruise (BHC) and Kelompok Nuansa Pulau (KNPI), observed notable coral growth on the Reef Stars at the restoration sites. The relocation site at the BHC Pontoon exhibited robust and rapid growth of coral fragments, affirming the suitability of the site. Routine maintenance was conducted by the BHC team to uphold MARRS method standards. Concurrently, CTC's community partner, KNP, partaking in the Adopt-a-Coral program, expanded their restoration project to approximately 100 square meters, with plans for further expansion throughout the year.

In March, the Coral Reef Restoration Task Force embarked on an 11-day series of meetings across Sulawesi, covering the South and Southeast coasts to the North tip of the island. The objective was to establish initial relationships with Wakatobi, Takabonerate, and Bunaken National Parks, nurturing potential partnerships. The warm welcome from the Heads and staff of the National Parks provided insights into their restoration projects, experiences, and aspirations.

Highlighting the broader context of coral reef restoration in Indonesia, where over 500 initiatives exist, a March 2022 study published in the Marine Policy journal revealed 17 laws within Indonesia's legal framework related to coral restoration activities. However, many practitioners remain unaware of these regulations. Addressing this gap, CTC, in collaboration with the Indonesian Ministry of Marine Affairs and Fisheries - Center for Coastal and Marine Resource Management (BPSPL) Denpasar, organized a webinar on March 30, 2022. The session focused on disseminating Ministerial Regulation No. 28/2021, emphasizing the obligation for individuals or organizations engaging in activities in marine spaces to obtain the Kesesuaian Kegiatan Pemanfaatan Ruang Laut (KKPRL) permit. Mr. Permana Yudianto, Head of BPSPL Denpasar, provided clarifications on the permit's requirements, submission, and issuance, encouraging restoration practitioners in Bali to apply promptly. The webinar, attended by more than 60 participants, facilitated active inquiries as participants prepared for compliance with the regulation.



I Putu Wahyu Permadi
Nuansa Pulau Community Group

After the coral restoration program by CTC happened, in Bali we say Astungkara (according to God's will) the coral reefs are growing well.

Restoring Ecosystems and Strengthening Effective Management of the Nusa Penida MPA

This year, we embarked on a multifaceted initiative to restore the degraded reefs of Nusa Penida MPA. Diversifying reef rehabilitation methods, CTC in collaboration with coral experts, local community groups (Pokmaswas), and government staff, installed 40 fish domes, 200 reef stars, and concrete sculptures depicting a mask and Gajah Mina—a mythological elephant-headed fish with a protective role in Balinese Hindu culture. Prior to deployment, safety standards were meticulously followed as each structure was gradually mobilized from land to sea, concluding with the attachment of coral fragments.

The deployment locations were strategic, with Reef Stars submerged in Ped village using the Mars Assisted Reef Restoration System and fish dome structures installed in Suana village based on water conditions, coral species characteristics, and fish diversity. The latter serves the purpose of supporting local fisheries by providing shelter for target fish.

In addition to coral restoration, CTC led the transplantation of thousands of mangrove seedlings on Nusa Lembongan Island, bolstering efforts to restore the coastal ecosystems and safeguard against large waves and storms. Cared for in a nursery by the local community surveillance group, Gili Bhuana, native mangrove species contribute to nature conservation, livelihood improvement, and food security.

Simultaneously, CTC conducted annual reef health monitoring at Nusa Penida MPA, incorporating underwater visual census and benthic monitoring protocols. To overcome limitations of traditional methods, the team trialed an image-based underwater photo transect method with automated image analysis using machine learning algorithms. Preliminary results indicate efficiency comparable to traditional methods, enabling quick responses to disturbances.

CTC plans to extend this innovative method to other MPA learning sites, promoting efficient monitoring and protection of tropical marine ecosystems in the Coral Triangle. The integration of machine learning algorithms marks a transformative development for marine conservation, addressing resource constraints in image monitoring for organizations like CTC.



Supporting Effective Management in Indonesia's MPAs



CTC played a crucial role in supporting the Indonesian Ministry of Marine Affairs and Fisheries (MMAF) and the Ministry of Home Affairs in evaluating the effectiveness of multiple MPAs across Indonesia. This evaluation utilized the Evaluation of Conservation Area Management Effectiveness (EVIKA) method as a measurement tool, with the CTC team serving as technical experts and trainers for government evaluators to ensure optimal use of EVIKA.

The EVIKA system, implemented for the first time in 2021, categorizes MPAs based on their management effectiveness. The bronze category signifies minimal management with a score below 50 percent. The silver category represents optimal management with a score ranging from 50 to 85 percent. The gold category indicates sustainable management, with a score exceeding 85 percent. To attain a gold rating, the management unit must demonstrate direct benefits to local communities and uphold sustainable marine conservation practices.

During this period, CTC also supported its MPA learning sites in Bali, Maluku, and North Maluku Provinces in the EVIKA evaluation process. Preliminary results showed an improved effectiveness level for the Nusa Penida MPA compared to the previous year, placing it in the silver category. The final evaluation score will be formally announced by the MMAF in the coming months. To sustain the Nusa Penida MPA's effectiveness, CTC will continue supporting the Technical Management Unit to meet national standards.

Simultaneously, EVIKA assessments were conducted in the four newly-declared MPAs supported by CTC, namely the Ay-Rhun Islands, Buano Islands, and Lease Islands MPAs in Maluku, and the Sula Islands MPA in North Maluku. These MPAs, actively facilitated by CTC, received initial scores placing them in the minimally managed bronze category. Among them, the Lease Islands MPA achieved the highest initial score, followed by the Sula MPA, the Ay-Rhun Islands MPA, and the Buano Islands MPA. The evaluation team recommended various measures for the MPA Management Units, such as reinforcing the role of local community surveillance groups (Pokmaswas) for resource use monitoring. Additionally, they advised continued support from organizational partners like CTC in public outreach and education to empower local communities to actively participate in marine conservation efforts in their respective areas.

Online Training Course in Coral Restoration Launched



In December 2022, CTC launched a new online course designed for individuals interested in reef restoration, including practitioners, community members, reef managers, and students. This course, available in Bahasa Indonesia, is accessible through the CTC Academy, the organization's online training portal.

The inaugural module, titled "Coral Reef Restoration Indonesia," focuses on enhancing the capabilities of Indonesian coral reef restoration experts. Developed in collaboration with Mars Sustainable Solutions (MSS) and funded by Bloomberg Philanthropies' Vibrant Ocean Initiatives, the module draws extensively from the Mars Assisted Reef Restoration System (MARRS) approach. The program aims to achieve several objectives: (1) provide foundational knowledge on coral biology and reef resilience; (2) disseminate information on tactics, approaches, and planning for coral reef restoration; and (3) cover pre- and post-restoration activities.

Upon completion of the online training, participants receive a digital certificate. Successful participants who proceed to the second stage of practical training with MSS can earn certification for implementing the MARRS technique.

The second module, titled "Resilience-Based Management in Coral Reef Restoration Programs," is geared towards increasing the capacity of coral reef restoration practitioners in Indonesia. Developed using materials from the Reef Resilience Network and incorporating case studies of coral restoration programs in Indonesia, the module's goals include providing knowledge about marine ecosystems, particularly coral reefs; understanding the fundamentals of coral reef resilience; gaining insights into coral reef restoration fundamentals; and comprehending resilience-based coral reef management. Together, these modules contribute to advancing expertise in reef restoration and promoting sustainable practices within Indonesia's marine environments.



Supporting Sustainable Fisheries in the Banda Islands

CTC initiated a new capacity-building project to enhance fish catch monitoring in the Banda Islands, Maluku, known as the Banda Islands Snapper Fisheries Pilot Project. This initiative aims to establish a baseline for the status of deep-water snapper populations, ultimately improving fishing practices and sustainability in the region. The project emphasizes the involvement of local stakeholders in fisheries monitoring and management, presenting a model for community engagement and creating valuable roles for fishers. Preliminary findings indicate that direct collaboration with local fishers for catch monitoring yields more precise and detailed information, enhancing the quality of stock assessments and providing actionable management advice.

The project incorporates the implementation of territorial use rights for fishing (TURFs) alongside no-take reserves, representing potentially the only feasible methods for effectively managing small-scale demersal fisheries in remote Indonesian sites. Funded by the David and Lucile Packard Foundation, the project is a collaborative effort between CTC, Yayasan Konservasi Alam Nusantara (YKAN), and the People and Nature Consulting.

As part of the project's initial activities, CTC organized a two-day fish identification training in Ambon, Maluku, from May 30 to June 1, 2022. The training involved 23 participants from CTC staff and various government institutions. Participants learned to identify 100 deep-sea fish species commonly found in Indonesia, with a focus on families such as Lutjanidae (snappers), Epinephelidae (groupers), Lethrinidae (emperors), and Carangidae (jacks). This knowledge empowers participants to enhance the deep-sea fisheries database in eastern Indonesia, assisting small-scale fishers in accurately identifying their catch.

In another facet of the program, CTC conducted training sessions to enhance understanding of MPAs and their significance in sustainable fishing practices in the Banda Islands, Maluku. The training, attended by 23 fisheries and government staff, covered marine ecology, fisheries management, and the role of MPAs in supporting sustainable fisheries. Participants gained skills in describing the ecology and ecosystems of target fish, recognizing deep-sea fish species in the Banda Islands, and documenting and recording fish types, contributing to the overall success of the Banda Island Snapper Fisheries program.



Bachri Helwakan

local staff of Banda Sub-district office

I really enjoyed the training by CTC because the trainers delivered it in fun and interesting ways. I also made some notes that hopefully can help me educate local fishers in Banda in recognizing the variety of deep-sea fishing catch.

Establishing New Marine Protected Areas and Strengthening Marine Resource Management in Timor-Leste

Manufahi, Timor-Leste

CTC's expert team conducted a comprehensive biophysical survey in Manufahi Municipality, Timor-Leste, covering the coastal sub-districts of Same, Alas, and Fatuberliu. These areas in the southern part of Timor-Leste displayed promising signs of healthy marine ecosystems. The underwater surveys revealed initial results indicating two areas with 'fair' and four with 'good' conditions of coral reef, featuring coral cover ranging from 30-70%. Abundant fish populations were also observed. Simultaneously, a socio-economic team, led by local consultants, conducted purposive sampling interviews in six fishermen's villages, while CTC's partner, Marine Change, assessed capacity and financing potential related to tourism, corporate support, and public and government funding. The Ministry of Agriculture and Fisheries (MAF) of Timor-Leste, the Manufahi local government, and a UNDP Timor-Leste team joined the survey, with the results serving as a scientific baseline for the new MPA design in Manufahi, Timor-Leste, supported by UNDP Timor-Leste in collaboration with MAF.

In June 2022, the CTC team revisited Timor-Leste to present survey results, focusing on biophysics and socioeconomic, supporting the establishment of a new MPA in Manufahi District. A workshop was convened with 36 attendees representing local fishing and conservation groups, village leaders, and government representatives. The team presented the proposed MPA's outer boundaries and the biophysical survey's findings, revealing healthy coral coverage and abundant fish biomass, including large groupers and red snappers. Charismatic marine species like Napoleon wrasse, sea turtles, manta rays, whales, and sharks were also documented. The socioeconomic survey underscored the need for a sustainable finance strategy to boost the local economy and promote sustainable fisheries while reducing environmentally harmful practices. While community representatives expressed support for the Manufahi MPA, further discussions on MPA regulation integration with traditional marine tenure systems and alternative livelihood programs for local fishers are planned.

Later in the year, CTC reached a significant milestone by presenting a draft Ministerial Decree for the proposed Manufahi MPA in Timor-Leste. The draft outlines the MPA's total area, legal framework, conservation targets, management objectives, zoning systems, regulations, management plan, unit structure, and a sustainable financing plan. Prepared in collaboration with MAF, Manufahi Municipality, and under the UNDP Timor-Leste ATSEA-2 project, the draft establishes conservation targets for coral reefs, mangroves, seagrass, sea turtles, dugongs, and cetaceans. The MPA's primary goals are to protect and restore critical species and ecosystems, control fishing activities, prevent pollution, and promote sustainable use. Additionally, the MPA aims to raise public awareness about marine conservation and encourage responsible tourism practices. CTC has been actively involved in the Manufahi MPA's establishment since early 2022, facilitating surveys, stakeholder consultations, and the development of scientific input and plans for the new MPA design.



Atauro, Timor-Leste

CTC conducted scientific diving training for nine officers of the Atauro Island MPA Management Unit. The training was conducted from March 21-23, 2022 in Dili, Timor-Leste, using the SSI Open Water Diver certification process. There were nine participants representing community leaders from Atauro and officers from MAF in Timor-Leste. As follow-up on the training and certification, they all will be part of the reef health monitoring team for Atauro Island MPA (next year), after being trained in scientific diving.



Metinaro, Timor-Leste

In September 2022, Coral Triangle Center (CTC) undertook a series of field surveys and organized a focus group discussion involving key stakeholders in the Metinaro sub-district as initial steps toward gathering baseline data for planning a new MPA in the region. This initiative is part of the Food and Agriculture Organization - Indonesian Sea Large Marine Ecosystem project, focusing on marine conservation and MPA establishment in Timor-Leste.

The survey covered Metinaro's 23-kilometer coastline, with support from the Ministry of Agriculture and Fisheries (MAF) of Timor-Leste and the MAF office in Manufahi Municipality. Data collection included mapping coastal ecosystems, such as coral reefs, mangrove forests, and seagrass meadows. Critical habitats for marine animals like dugongs and sea turtles, as well as migratory routes for cetaceans, were also documented. In addition, the team assessed coastal sedimentation and measured seawater quality in terms of salinity, temperature, and acidity, cross-referencing findings with previous desktop studies.

Collaborating with Timor-Leste MAF, CTC identified fishing grounds, diving spots, community areas, industries, and fish landing docks. Traditional customary areas were identified where the customary practice of Tara Bandu governs the sustainable use of marine and natural resources. A focus group discussion involving 16 community members engaged in local marine industries was held, allowing them to share insights on livelihoods and suggest areas of interest. These inputs will inform MPA planning, including management strategies and a zoning system regulating animal protection areas, fishing grounds, aquaculture, and marine tourism sites to foster long-term harmony between nature and humans.

CTC is analyzing the collected data, with plans to present it to the government and stakeholders through a national workshop. This presentation will elucidate the MPA establishment design for Metinaro, seeking further input and feedback from stakeholders at the national level. CTC continues its efforts in supporting the establishment and management of other MPAs in Timor-Leste, including Atauro Island, Liquica, and Nino Konis Santana.



Nino Konis Santana National Park

CTC started working in the Nino Konis Santana Protected Area (NKS PA), located at Timor-Leste's easternmost point. Collaborating with stakeholders from Com, Tutuala, Laurel Villages, and Lautem Municipality, the CTC team and consultants gathered community input, highlighting the need for updated conservation data, enhanced local capacity, and the establishment of legal, managerial, and sustainable financing mechanisms for NKS PA.

Following community consultations, a training needs assessment was conducted from June 23-29, 2022, involving 47 respondents, including personnel and managers from Nino-Konis Santana, Atauro, and Liquica MPAs. Identified needs included training on the protection of endangered marine animals, MPA management fundamentals, MPA formation processes, zoning, and coastal ecosystem ecology. CTC is in discussions with the Ministry of Agriculture and Fisheries of Timor-Leste to address these technical aspects.

Simultaneously, progress was made in formulating the Nino Konis Santana Protected Area management plan and in outlining monitoring activities for assessing management effectiveness. The plan provides recommendations for ongoing research and development, ensuring the long-term sustainability and resilience of the marine ecosystem within the protected area's boundaries. The plan is poised for submission to the MAF of Timor-Leste. Encompassing 68,000 hectares of terrestrial and 63,500 hectares of marine areas, the Nino Konis Santana Protected Area stands as a vital conservation effort at the eastern extremity of Timor Island.



BUILDING CAPACITY IN MARINE RESOURCE MANAGEMENT

Strengthening Women's Leadership in Marine Conservation

To improve women's capacity leadership in the environmental protection, CTC carried out a special training of leadership and basic marine conservation involving 18 women champions from different provinces across Indonesia. The "Women in Conservation" training was run for five days, starting from January 13-17, 2022, in Bali. During the first two days, participants learned about leadership and communication skills at CTC's Center for Marine Conservation in Sanur. The remaining days were spent in Nusa Penida MPA to explore marine conservation topics, conduct field excursions to mangrove forests and seaweed farms, and conduct simulation at reef health monitoring and MPA design.

Participants came from five provinces in Indonesia, namely Lampung, West Java, Central Java, Bali, Maluku dan North Maluku. Some of them have backgrounds as civil servants at the provincial marine affairs and fisheries agency, and others are known for their prominent social positions in local women's groups. The diversity among participants brought the discussions alive and introduced different perspectives to each topic's analyze.

Participants like Sarna Sibela from North Maluku, summarized some inspirational topics and activities shared by other participants to be implemented later in her place. Using her position as a fishery extension officer in Sula Islands, Sarna highlighted the importance of having creative ways to raise public awareness about marine conservation: "We have already established the Sula Islands MPA in 2020, yet we still have more work in managing the area for it to become beneficial for all. I will engage more youth and women in delivering key messages about MPAs and use more appealing visual aids," she said.



Susri Novita

a participant from the Kuala Teladas village, Lampung

As a villager who works every day picking blue swimming crabs, I found the training to be challenging at first. I was quite shy to speak up. However, I gradually learned that we are here equal and saying my opinion actually helped other participants to understand the complexity of marine conservation in different area.

Supporting Women Fishers in Sustainable Blue Swimming Crab (BSC) Fisheries in Lampung and Central Java

CTC, in collaboration with Photovoices International (PVI), addressed the underrepresentation of women fishers in Lampung's Blue Swimming Crab (BSC) fisheries by organizing a photo exhibition and learning network session. Held from May 23-25, 2022, the exhibition showcased the strategic role of women in the BSC supply chain. Attended by the Lampung Governor and other stakeholders, the event served as a platform for empowering women fishers and fostering sustainable BSC fisheries.

The photo exhibit emphasized positive changes led by women in BSC fisheries management, providing insight into their significant contributions. It also showcased creative edible snacks using BSC processing by-products which offer alternative income sources for women fishers, who are often adversely affected by unsustainable practices.

Since 2020, the Committee of Sustainable BSC Fisheries in Lampung (KPPRB), with support from NGOs like CTC and PVI, has undertaken various capacity-building activities for women fishers in Central Lampung, East Lampung, and Tulang Bawang Districts. Workshops and training sessions covered business canvas models, participatory photography, financial literacy, and BSC waste processing.

The expansion of CTC's support to Blue Swimming Crab Fishers in Central Java involved a preliminary survey in districts like Pati, Rembang, Jepara, and Demak. The study assessed the socioeconomic conditions of women involved in BSC fisheries, emphasizing their roles in preparation, post-capture phases, and by-product processing. While women demonstrated creativity in producing by-products, further capacity-building in marketing, business planning, and financial literacy is essential.

Following surveys, CTC conducted intensive training for 19 trainers to implement a sustainable BSC fisheries project in Central Java. Covering topics such as ecology, business model canvas development, communication, and teaching techniques, the training aimed to empower BSC women fishers in Rembang Regency. This initiative, supported by the Walton Family Foundation, aligns with national fishery goals and contributes to the livelihood improvement of BSC women fishers in Lampung, Central Java, and West Java. The trainers, equipped with new skills, will collaborate with CTC in 2023 to support sustainable BSC fisheries and boost the local economy.



Strengthening Alternative Livelihoods for Women in Nusa Penida MPA



To further optimize the utilization of seaweed products in the Nusa Penida MPA, CTC conducted a training for women groups to create eco-friendly plastic substitute products such as straws and food packaging using seaweed. The seaweed processing training, which took place in Toyapakeh Village on February 22-23, 2022, was attended by 15 participants from various local groups including local women farmers, youth, and entrepreneurs. During the training, participants learned how to make seaweed pulp which was then combined with other ingredients and dried at high temperature to make straws and food packaging. The resulting seaweed straws and food packaging are food-grade and easily decompose in nature. The challenge of using these products, if being made traditionally, lies in their durability and resistance to warm or hot contents. Nevertheless, the manufacture of plastic substitutes from seaweed is recognized as one of the best efforts to mitigate environmental threats due to plastic waste. This training was delivered in collaboration with the Center for Testing and Application of Marine and Fishery Products (BBP3KP) of the Ministry of Marine Affairs and Fisheries (MMAF). This training is part of the Coral Reef Rehabilitation and Management Program-Coral Triangle Initiative (COREMAP-CTI) Grant Package 4 in Nusa Penida implemented by CTC with full support from the Asian Development Bank (ADB).

LEARNING NETWORKS AND PARTNERSHIPS

CTC Executive Director Receives ICRS World Reef Award in Bremen, Germany

CTC Executive Director, Rili Djohani, was honored with the International Coral Reef Society's World Reef Award for her significant conservation contributions. The award, presented during the 15th International Coral Reef Symposium in Bremen, Germany, acknowledges Ms. Djohani's achievements in the field of reef science and management. Dr. Carly J. Randall, Chair of the ICRS Honors and Awards Committee, highlighted that the award specifically recognizes individuals from under-represented demographics in the field.

The World Reef Award, bestowed by the International Coral Reef Society, founded in 1980, grants lifetime ICRS Fellow status, a certificate, and a monetary award of US\$2,500. Dr. Andréa G. Grottoli, ICRS Chair, presented the award and emphasized its significance during the pandemic, acknowledging individuals making noteworthy contributions to coral reef ecosystems.

Expressing her gratitude, Ms. Djohani emphasized the collective efforts of CTC's efforts on MPA development, sustainable fisheries, and addressing climate change, employing the latest science and tailored training programs to enhance local capacity in the Coral Triangle region, a global hotspot for marine biodiversity. She dedicated the award to the women leaders of the Coral Triangle who are working towards ocean protection in their areas.

Marthen Welly, CTC Conservation Science Advisor, presented on enhancing capacity for coral restoration in Indonesia at the same symposium, highlighting lessons from building local capacity through the Indonesian coral reef restoration task force. Additionally, CTC Program Manager Hesti Widodo shared insights online on minimizing the competency gap for effective coral reef management, drawing lessons from the Sunda Banda Seascape. The recognition received by Rili Djohani and the contributions of the CTC team underscore their dedication to marine conservation and building sustainable practices in the Coral Triangle region.



Strengthening Sustainable Marine Tourism through the Green Fins Program



As tourism slowly opened up in Bali this year, CTC was on the ground again to assess existing Green Fins members Abyss Ocean World in North Bali and Ceningan Divers and Resort in Lembongan Island. Easy Divers in Pemuteran was also assessed and became a new member. The Green Fins Program, supported by the UN Environment Program and the Reef-World Foundation, empowers the tourism industry to protect our oceans through responsible tourism. During the assessment period, the crew and staff of the dive centers were given a short course by CTC's Green Fins assessors regarding the Green Fins initiative and Code of Conduct. Every process of the operation and the execution of dive trips were then evaluated in detail. The end of the process included discussion with the assessors, where challenges were identified, encouraging feedback was given, and steps on how to improve certain aspects were worked out together. The evaluation aside, it was pleasant to reconnect with everyone. All three dive centers were able to complete their assessment and maintain an active member status. We're also very happy to welcome Easy Diver to the family of Green Fins Indonesia.

Sharing Lessons Learned at the 2nd Asia Parks Congress in Kota Kinabalu

CTC Executive Director Rili Djohani and Marine Conservation Adviser Marthen Welly participated in the 2nd Asia Parks Congress in Kota Kinabalu, Malaysia, from May 24-28, 2022. The congress, themed "Parks for Nature and People," brought together leaders and practitioners from various sectors to discuss the interconnectedness of nature and society in protected areas.

During the event, Ms. Djohani delivered a presentation on the Coral Triangle Initiative for Coral Reefs, Fisheries, and Food Security (CTI-CFF), providing insights into its history, challenges, and opportunities in the 'Connectivity & Transboundary Conservation' plenary. Additionally, Mr. Welly and Ms. Djohani jointly presented at the 'Effective Protected & Conserved Areas' Working Group, focusing on strategies to enhance capacity building in the Coral Triangle to achieve the 30 x 30 conservation goal. They also shared experiences in strengthening management effectiveness in the Nusa Penida and Atauro Island MPAs within the Lesser Sunda Seascape.

Dr. Kathy MacKinnon, Co-Chair of the 2nd APC International Steering Committee and a member of CTC's scientific advisory board, played an active role. She chaired a plenary session and participated in a side event discussing other effective area-based conservation measures (OECMs). OECMs aim to permit a broader range of human land uses and interactions with the natural environment compared to traditional protected areas.

The Congress, jointly convened by Sabah Parks, Malaysia, and IUCN, attracted over 1,250 delegates from 49 countries. It was one of the first major environmental gatherings in Asia since the onset of the Covid-19 pandemic. The outcomes of the Congress contributed to identifying priorities for the next decade to strengthen protected and conserved area systems in the region, aligning with the post-2020 Global Biodiversity Framework under negotiation by the Convention on Biological Diversity.



Promoting Blue Economy in the G20 in Bali



CTC actively engaged in two engagement groups, the Road to Ocean 20 and the Civil Society 20 (C20), as part of its commitment to supporting Indonesia's leadership in the upcoming G20 Summit in Bali in November 2022. In these forums, CTC emphasized the imperative need for G20 leaders and policymakers to prioritize the sustainable blue economy in the post-Covid-19 era.

The Road to Ocean 20 meeting, conducted from August 28 to 29, brought together around 100 participants from diverse G20 countries, fostering intersectoral collaborations for coral reef protection and Blue Natural Capital. This aimed to reinforce G20 ocean diplomacy and harness collective efforts.

Simultaneously, during the two-day Environment, Climate Justice, and Energy Transition (ECE) Working Group meeting of the C20, discussions revolved around supporting G20 countries in achieving their net-zero carbon emission targets by 2050 through a just energy transition. The meeting underscored the significance of directing investments towards a sustainable blue economy post the global Covid-19 pandemic. Within the ECE working group, CTC spearheaded discussions on marine conservation and biodiversity as a priority issue.

CTC's active involvement in these forums showcases its dedication to fully supporting Indonesia's G20 leadership. The organization addresses critical issues, advocating for the recovery of the global blue economy, a campaign to protect 30% of the oceans by 2030, promotion of sustainable fishing practices, tackling marine plastic waste, and advocating for gender equity in marine and fisheries sectors.

PUBLIC EDUCATION, OUTREACH, AND COMMUNICATION

CTC Launches "Ocean Keeper Club" to Inspire Young Learners to Care for the Seas

CTC's Ocean Keeper Club was launched virtually on March 14, 2022 and held regular monthly educational activities that enabled students to learn about a variety of topics, including coral reefs and charismatic marine animals such as sea turtles, manta rays, and dugongs, amongst others, while, at the same time, learning about threats such as plastic pollution and habitat destruction, as well as what they can do to take part in marine conservation.

CTC's Ocean Keeper Club is a club for young people between 9-11 years old to learn about the beauty of our ocean and its unique inhabitants, as well as the challenges they are facing today. Members of CTC's Ocean Keeper Club have the chance to join interactive learning activities together with the three main characters, Max, Mindy and Octa, where they can find out how to take part in keeping our ocean and planet healthy.

Since its launch in March 2022, more than 500 children from all over Indonesia have joined the club's monthly learning activities. The majority of participants came from local elementary schools in Sanur, Bali, while some students also joined from East Kalimantan, West Java, East Java, and Jakarta. Ocean Keeper Club's sessions feature different topics every month such as "Let's Go to the Mangroves!" (Bermain ke Hutan Mangrove!), "Learning about Seagrass Meadows and Dugongs" (Mengetahui Padang Lamun dan Dugong), "The Amazing Coral Reefs" (Terumbu Karang Istimewa), and "Watch Out for Plastic Waste!" (Awat Ada Sampah Plastik!), among others. CTC aims to expand and scale-up the Ocean Keeper Club to reach 1,000 students with its educational program and activities over a period of one year. We aim to formalize partnerships with 10 public schools in Bali and Maluku Provinces and work with teachers to help integrate the Ocean Keeper Club as part of the school's regular extra-curricular activities.



Bali's Biggest Clean Up: Raising Awareness on Ocean Plastic Pollution



CTC actively participated in Bali's 6th Annual Biggest Clean-Up by hosting a local event in Sanur. The collaborative effort, involving local community groups and private sectors, resulted in the collection of 49.25 kgs of non-organic trash within a brief 30-minute period on February 20, 2022. Approximately 45 participants, including members of Banjar Semawang in Sanur, Intercontinental Hotel and Resort Sanur, Sustainable Suzy, and ecoSmart HUB Bali, adhered to community activity restrictions by wearing face masks and maintaining safe social distances.

Waste analysis post-clean-up revealed that a majority of waste (66%) consisted of metals, textiles, rubbers, glasses, and face masks, amounting to 32.5 kgs. Styrofoam constituted 16%, white plastic packaging accounted for 9%. Notably, plastic bags and bottles weighed only around 4 kgs, marking a 50% reduction from the 2021 figures, possibly influenced by Bali's regulatory ban on single-use plastic bags.

Despite the positive decline in plastic bags and bottles, the pandemic contributed to increased Styrofoam and plastic food packaging waste. Movement restrictions led to heightened online food ordering, with many Bali restaurants still relying on environmentally unfriendly materials, exacerbating the overall waste issue.

At the island-wide level, the 6th Annual Bali's Biggest Beach Clean-Up indicated plastic packaging as the primary waste collected. Organized by One Island, One Voice, the event highlighted the pandemic's role in amplifying plastic packaging usage. With 28.1% of Bali's population lacking awareness of proper waste management, there is a pressing need for increased public education to address this significant challenge.



Coral Triangle Day 2022: Celebrating Women at the Forefront of Marine Resource Management

CTC marked Coral Triangle Day on June 9, celebrating the marine biodiversity hub that houses 76% of the world's coral species and supports millions of people. The 2022 theme, "Sustaining the Coral Triangle Ecosystem through Blue Economy," echoed the UN World Oceans Day celebrated on June 8.

In collaboration with the Coral Triangle Initiative on Coral Reefs, Fisheries, and Food Security (CTI-CFF) Regional Secretariat and WWF Coral Triangle Program, CTC organized a webinar titled "Coral Triangle Day: Celebrating Women in the Sustainable Blue Economy" on June 13, 2022. The event showcased innovations and initiatives by women leaders in the Coral Triangle, featuring case studies from Indonesia, the Philippines, and Solomon Islands, emphasizing sustainable marine resource management through Blue Economy innovations. The focus was on inspiring similar actions for ocean revitalization, drawing lessons from the pandemic's last two years.

Moderated by CTC Executive Director Rili Djohani, the speakers included Dr. Mohd Kushairi Mohd Rajuddin from CTI-CFF, who highlighted the Gender Equality and Social Inclusion strategy, aiming to strengthen equality in decision-making. Susan Roxas from WWF Coral Triangle Program discussed the Blue Economy definition and regional investments. CTC Senior Program Manager Hesti Widodo presented Blue Economy innovations through case studies of seaweed farmers in Nusa Penida MPA and Lampung's women blue swimming crab fishers. Rindah Melsen, President of Nusatuva Women Savings Club in Solomon Islands, illustrated how women formed saving clubs to sustain marine resources. Suzette Villano from the Sagnay Tuna Fishers Association in the Philippines showcased women leaders driving tuna fishing sustainability in their area. The webinar highlighted the crucial role of women in advancing sustainable practices across the Coral Triangle.



Community Awareness Campaign for Protected Marine Animals in the Nusa Penida MPA



CTC carried out outreach and awareness programs within the Nusa Penida MPA, targeting local communities, youth, fishers, and governmental entities to foster understanding of MPA zoning regulations and the imperative to protect endangered marine species. Newly developed posters, emphasizing the crucial role of preserving manta rays, sunfish, and green sea turtles, inhabitants of the Nusa Penida MPA, were created to amplify the impact of these outreach initiatives.

Collaborating closely with Nusa Penida's MPA Technical Management Unit and the Department of Food Security and Fisheries in Klungkung District, CTC organized outreach activities that reached a broad audience of over 100 participants. An inclusive discussion involving government officials, fishers, community surveillance groups, and dive operators set the stage for school outreach efforts, engaging more than 50 primary and secondary school children from Nusa Penida Island. The interactive sessions used posters and videos and seamlessly integrated informative content with entertaining games and quizzes, where participants with accurate responses were rewarded with prizes from CTC.

These outreach endeavors play a pivotal role in reinforcing the connections between CTC, local governments, schools, and the community. Alongside the distribution of educational posters, CTC produced an instructional video illustrating how snorkelers and divers can actively contribute to the protection of manta rays in the area. This forward-thinking initiative aligns with CTC's long-term vision, ensuring sustained community mobilization and widespread public involvement in diverse marine conservation campaigns and activities within the Nusa Penida MPA.



Ocean-Themed Children's Story Book with the Asia Foundation's Let's Read Program



CTC collaborated with the Let's Read Program of the Asia Foundation to develop children's books focused on marine conservation. CTC hosted a writing and illustration workshop in April 2022 at our Center for Marine Conservation in Sanur, Bali bringing together writers and illustrators to learn how to develop ocean-themed children's books. The workshop explored methods of developing a children's story book in detail and yielded five children's story books that tell engaging stories about marine life and conservation. With these stories, we hope to inspire children to save our ocean.

Private Sector Collaboration to Promote Ocean Conservation in Nusa Lembongan

CTC once again collaborated with Bali Hai Cruises to conduct two awareness-raising and outreach activities for young children in Nusa Lembongan, focusing on the issues of marine conservation, endangered, threatened, and protected marine species, and plastic pollution.

The events featured traditional "Wayang Samudra" performances to create an exciting and fun learning experience for local schoolchildren, as well as a video focusing on the protection of manta rays, a popular marine animal found in the islands, and a theater performance by local youth focused on reducing plastic waste. The events were held in October and were attended by more than 120 students and teachers from three elementary schools, junior high and high schools from Nusa Penida and Nusa Lembongan.

The events were also attended by Bali Hai Cruises' General Manager Pande Ardika, CTC Executive Director Rili Djohani, and guests from the Australian General Consulate in Bali, including Amelia Ekkel, the Head of Public Diplomacy Unit, as well as representatives from the Management Unit of the Nusa Penida MPA and the community surveillance group (Pokmaswas). CTC and Bali Hai Cruises have been organizing outreach events since 2016 and resumed in 2022 after activities were put on hold during the pandemic.



Fun Learning Activities for School Children to Celebrate Earth Day

Earth Day is celebrated around the world to promote awareness about environmental issues. On April 25, CTC, in collaboration with the Nuansa Pulau Community Group, celebrated Earth Day 2022 with fun learning activities as an outreach event for local children in the Ped villages in Nusa Penida. The theme was "Invest in Our Planet, Let's Protect Our Coral Reefs". The event was supported by the Nordic Green Run and attended by students from four public schools in Ped Village. Throughout the event, children learned about coral reef ecosystems and restoration processes. They also had the opportunity to practice hands-on restoration by attaching coral fragments on a Reef Star structure. They were very attracted to the materials and games provided by the CTC team.

This activity aims to inspire young generations and raise their awareness of the importance of protecting coral reef ecosystems. CTC's goal is to ensure that the knowledge transfer will empower these children to take steps to protect their environment.



CENTER FOR MARINE CONSERVATION

Environment Leaders, Private Sector, Media, and Students at CMC

In 2022, CTC's Center for Marine Conservation (CMC) experienced a surge in visitors following the relaxation of Covid-19 travel restrictions in Indonesia. A notable guest was Carlos Manuel Rodriguez, CEO and Chairperson of the Global Environment Facility and former Costa Rican Environment and Energy Minister. Rodriguez, a pioneer in Payment for Ecosystem Services initiatives, joined a discussion at the center along with partners based in Bali. This gathering fostered dialogue on environmental management successes and potential collaborations for sustainable development.

Additionally, key figures such as CTC Board Chair advisor George Tahija, Laurel Tahija, exhibition donors Mr. David Salman, and Jed Frost contributed to supporting CTC's outreach initiatives. The center actively engaged with the tourism sector and media to promote Bali as a post-pandemic tourist destination, hosting the editor of NOW! Bali Magazine and Bali Buddies.

The Center opened its doors to various groups, emphasizing collaboration and knowledge exchange. Visitors included the Rotary Club of Bali Seminyak, exploring collaborations in education, environment, and social movements. A team from Microsoft Asia-Pacific region participated in fun learning activities, emphasizing marine ecosystems and conservation through the Aquatico board game. Resonance Global held a meeting at the Center to launch the second phase of the Indonesia Tuna Consortium, engaging the local community in learning about MPAs.

Further visits involved hosting a meeting between the Coral Triangle Initiative on Coral Reefs, Fisheries, and Food Security (CTI-CFFI) Regional Secretariat, partners from WWF, USAID, and the Conservation Finance Alliance. The meeting discussed priorities, such as scaling up capacity for MPAs and establishing a regional trust fund. USAID Asia Mission Director Dr. Steven G. Olive later visited to discuss collaborative efforts in sustainable fisheries and marine biodiversity conservation.

In June, Dr. Rodney Salm, a Science Advisory Board Member, visited the center and commended progress in facilities, upcoming exhibits, and programs. July brought 32 youth members of Marine Buddies from various locations for a day of fun learning activities. CTC facilitated a two-day Open Water Diver Course for Celly Catharina, Senior Marine Program Specialist for USAID Indonesia.

In September, close to 100 journalists gathered at the center for the Trusted Media Summit 2022, organized by the Google News Initiative. In October, John Vermilye, co-founder of Mission Blue, visited, strengthening CTC's collaboration with Mission Blue. Another significant event was the fisheries management training organized by USAID and NOAA in collaboration with the Indonesian Ministry of Marine Affairs and Fisheries.

December saw visits from the Marine and Fisheries Department of Central Java Province and East Java Province, contributing to capacity-building efforts in marine conservation. The diverse range of visitors underscores CTC's commitment to education, collaboration, and environmental stewardship.



Art and Science Exhibits Launched



This year, CTC launched a series of art and science exhibits at its newly-completed exhibition hall, providing a prelude to the hall's full opening in 2024. In August, the Grand Blue Project, an interactive exhibit, was launched at the Center for Marine Conservation. It's a unique digital video library showcasing Indonesia's marine diversity, featuring over 60,000 videos collected over 30 years. The exhibit's curator, Edi Frammenwiler, shared footage of underwater marvels, and the audience praised the visual database's potential for contributing additional content.



September witnessed the unveiling of Ari Bayuaji's 'Weaving the Ocean' Art Installation, a community project transforming discarded plastic ropes into art. Ari used these ropes to craft representations of the Gajah Mina [Balinese God of the Seal] and giant jellyfish, emphasizing the impact of plastic pollution on marine life. The exhibit serves as a permanent display at the Center for Marine Conservation, with artworks available for purchase to support CTC's marine conservation initiatives.



In the second week of September, CTC launched Indonesia's first multimedia exhibit on coral restoration, a collaboration with Mars Sustainable Solutions. Focused on the Mars Assisted Reef Restoration System [MARRS], the exhibit demonstrates an effective method to restore coral reefs rapidly. The launch featured a panel discussion highlighting the intersection of business, conservation, science, and government in driving positive change. The exhibit, combining art, gamification, and science, underscores the enduring partnership between CTC and Mars Sustainable Solutions to advance coral restoration in Indonesia.



October saw the introduction of 'Harmony Island' by Mulyana, an art installation at the Center for Marine Conservation. This exhibit, crafted from surplus yarn from the garment industry, showcases vibrant coral ecosystems through crochet pieces. Mulyana's creation, featuring Mogus, the octopus monster, surrounded by colorful coral islands, aims to raise awareness of environmental issues in oceans.



In December, CTC collaborated with Dutch artist Anne van Borselen to create new murals at our Center for Marine Conservation highlighting the beauty of our underwater environment. Anne is based in Amsterdam and is a frequent visitor to Bali. She was born in Surabaya in 1937. Anne works with different artistic mediums and is known for her layered, freeform combinations of colors and motifs.

When asked what inspired her murals at CTC's Center for Marine Conservation, Anne said she thought about people and landscapes as well as her memories from snorkeling when she was younger. "I like to see the corals, fish, and sun in the sea." When [CTC Executive Director] Rili [Djohani] asked me to paint on CTC's wall, I wanted to bring my memories back to life. I painted a coral on the front wall, and on the other side, it could be a fish. "So, people will see corals when they come and fish when they leave," she said.



Ari Bayuaji
Artist

My sculpture of Gajah Mina is inspired by the statues and carvings I have seen in my daily life in Sanur. I think it is very important to have this sculpture as an installation with my other works CTC. Constructed with wood, plastic threads found on the beach, and hand-woven plastic and cotton threads (as the scales), the creature is looking up at the giant jellyfish and other plastic objects floating above it. I would like to make the audience feel how Gajah Mina, as the representation of the God of the sea, feels hopeless at the bottom of the ocean watching what is going on in the ocean because of our action, human action.

CTC Hosts U.S., Germany, Switzerland and Australian Embassy Events



With more onsite events happening at the end of the pandemic, CTC had the honor to host and organize several key events for our partners in the diplomatic community.

CTC facilitated a half-day meeting and dialogue between a delegation from the German Government and representatives of Indonesian non-governmental organizations in July to discuss energy transition, plastic waste, climate change, and biodiversity loss. The German Ambassador to Indonesia, ASEAN, and Timor-Leste, Ambassador Ina Lepel, attended this interesting forum which was part of the G20 Foreign Minister Meeting in Bali. Attended by approximately 50 participants, this meeting took place at the CTC's Center for Marine Conservation and provided an opportunity to strengthen professional networks with stakeholders at regional and international levels, especially among G20 leaders and activists, to advocate for coastal and marine ecosystems, sustainable fisheries, biodiversity protection, and climate change.



We were also delighted to host an educational and cultural networking event organized by the U.S. Embassy - Jakarta at our Center for Marine Conservation on August 31, 2022. The guests of honor were US Ambassador to Indonesia Sung Kim, US Consul General Jonathan Alan, and USAID Mission Director Jeff Cohen. The event was also attended by representatives from the art community, museums, the media, universities, and non-governmental organizations. The guests enjoyed an alfresco meal at our Courtyard followed by a special performance of our Wayang Samudra. We hope that we inspired our guests to spread the message of ocean conservation.



In December, the Australian Consulate-General in Bali, Anthea Griffin, along with visiting New Colombo Plan students from Murdoch University, hosted a seminar on waste management and renewable energy at CTC's Center for Marine Conservation. With 155 participants, the seminar aimed to share ideas, encourage new and creative thinking, showcase local solutions, and build partnerships to address waste management and renewable energy challenges in Australia and Indonesia.

On December 9, the Embassy of Switzerland in Indonesia organized an evening reception at CTC's Center for Marine Conservation. The event was hosted by the Ambassador of Switzerland to Indonesia, Timor-Leste, and ASEAN, His Excellency Olivier Zehnder. The event gathered around 100 guests, representing the Swiss community in Bali, who enjoyed an alfresco meal in our courtyard and visited our interactive exhibits.

Students Learn from CTC's Permaculture Swirl Garden and Starfish Composting Station



On March 30, 2022, we inaugurated our permaculture Swirl Garden and Starfish Composting Station, joined by the Australian Consul-General in Bali, Ms. Anthea Griffin. Initiated in September 2021 and supported by the AVP Impact Fund, these projects serve as a showcase for sustainable practices, emphasizing proper waste management, a zero-waste lifestyle, and permaculture gardening techniques. Fundamentally aligned with our commitment to environmental education, these facilities will be seamlessly integrated into our Center's fun learning activities.



In April, we welcomed 20 teachers and 100 students from Sanur to partake in educational sessions at our Center for Marine Conservation. The program, designed to promote zero-waste and permaculture methods, engaged participants in interactive learning activities. The initiative showcased our permaculture garden and composting station, offering practical insights into permaculture principles, waste management techniques, organic composting demonstrations, and the creation of permaculture gardens. The students acquired new knowledge and drew inspiration from our zero-waste initiatives. Simultaneously, teachers actively participated, learning how to implement effective waste management and composting programs within their schools.

INSTITUTIONAL DEVELOPMENT AND ORGANIZATIONAL EFFECTIVENESS

CTC Strengthens Knowledge Management and Gender, Equality and Social Inclusion Principles Institutionally



In 2022, CTC successfully implemented two strategies aimed at enhancing organizational effectiveness and fortifying its internal mechanisms to evolve into a learning organization. These strategies received support from the David and Lucille Packard Foundation's Organizational Effectiveness Program.

CTC completed its Gender, Equality, and Social Inclusion (GESI) strategy, affirming its dedication to fostering GESI principles across its programs and institutionally throughout the region. Developed in collaboration with GESI Consultant Sally Yacoub, the strategy emanated from a comprehensive GESI assessment conducted earlier in the year. The objective is to instill a GESI-responsive approach within CTC, contributing to regional GESI promotion. The strategy adopts a three-fold approach, involving mainstreaming GESI across all projects, targeted interventions, and capacity building, as well as advocacy for GESI. By adopting this approach, CTC aims to address entrenched societal and systemic exclusions and inequalities at various levels, ensuring its marine conservation and fisheries programs are socially inclusive and contribute to global goals promoting gender equality and inclusiveness.

CTC finalized its Knowledge Management Strategy in partnership with consultant Iqbal Fajar. Acknowledging its rich repository of data, information, and knowledge, CTC sought to connect, consolidate, and facilitate the reuse of these resources. The Knowledge Management System framework, guided by an external KM expert consultant, was established to enhance the archiving, validation, reuse, sharing, communication, and security of CTC's knowledge resources. This KM framework and strategy allow CTC to systematically organize critical knowledge assets within its organizational structure, ensuring their availability for necessary staff. By doing so, CTC enhances its ability to retain, enrich, improve, and apply knowledge assets as it continues to evolve into a regional leader in marine conservation.



New Supervisory Board Member



In October, CTC welcomed Linda Uiharto as the new member of CTC's supervisory board, succeeding Susantin Sinarno upon her retirement. Ms. Uiharto, a certified tax consultant and chartered accountant, currently serves as the Co-Managing Director at Tricor Indonesia, part of the Tricor Group, renowned for its expertise in business expansion. With an extensive background in finance and taxation, Ms. Uiharto will play a crucial role in advising CTC's finance team, offering insights into financial and tax matters, and providing guidance during the annual external audit. She holds a master's degree in finance from Tarumanagara University in Jakarta and is a founder of PT BPO Seven Inovasi Indonesia, specializing in business process outsourcing.

In bidding farewell to Ms. Sinarno, an esteemed scuba diver and ocean advocate who served on CTC's Board of Supervisors from 2010 to 2022, the organization expressed gratitude for her invaluable contributions. Ms. Sinarno played a pivotal role in ensuring CTC's financial integrity, consistently upholding compliance with Indonesia's financial laws. Her passion for marine conservation was evident through her participation in CTC's annual staff retreats and scuba diving activities. CTC Executive Director Rili Djohani conveyed heartfelt appreciation for Ms. Sinarno's 12 years of dedicated service, acknowledging her commitment to CTC's mission, financial expertise, and positive contributions to the organization. As Ms. Sinarno embarks on retirement, the CTC team expressed best wishes for her future endeavors, recognizing the lasting impact of her conservation journey.



Underwater Biodiversity and Unique Cultural Encounters: CTC Board Members Visit the Banda Islands



In October, CTC organized a six-day liveaboard trip for board members and esteemed guests to the remote Banda Islands in the Banda Sea, Maluku, Indonesia. Led by Executive Director Rili Djohani, the group, including CTC Board Chair Yuli Ismartono and Co-Chair Hendrik Sasmito, explored the islands' rich marine biodiversity. The expedition served as an opportunity to engage with local customs, highlighted by a "Buka Sasi" (Sasi Opening) ceremony in Ay Island, offering insights into indigenous practices of marine resource management.



Since 2012, CTC has collaborated with the government, local partners, and Banda communities to establish a resilient MPA network across the archipelago. Departing from Ambon City, the group visited Lease Islands MPA, meeting Wempy Parinusa, the King of Ameth Village, and explored the underwater beauty of Molana and Ameth. Diving near Gunung Api island revealed the stunning coral ecosystems.

Arriving in Banda Neira, the team visited a local waste processing facility addressing plastic pollution, co-managed by Yayasan Cahaya Samudera Indonesia (YCSI) and CTC. They observed the MPA Training for Sustainable Fisheries, part of the Banda Islands Deep-Sea Snapper Fisheries project. The exploration included historical sites, environmental initiatives, and diving, showcasing the beauty as well as the challenges faced by the islands.

On Ay Island, the group participated in the traditional "Buka Sasi" ceremony, symbolizing the community's acceptance of CTC as honored family members. CTC's involvement in the ritual emphasized the significance of the indigenous practice of Sasi in marine conservation, promoting seasonal closures for sustainable resource management.

The journey concluded at Tulehu Port in Ambon, where guests met CTC local staff. The trip underscored the importance of community engagement, indigenous knowledge, and conservation efforts in fostering healthier ocean ecosystems and economic benefits for local communities.



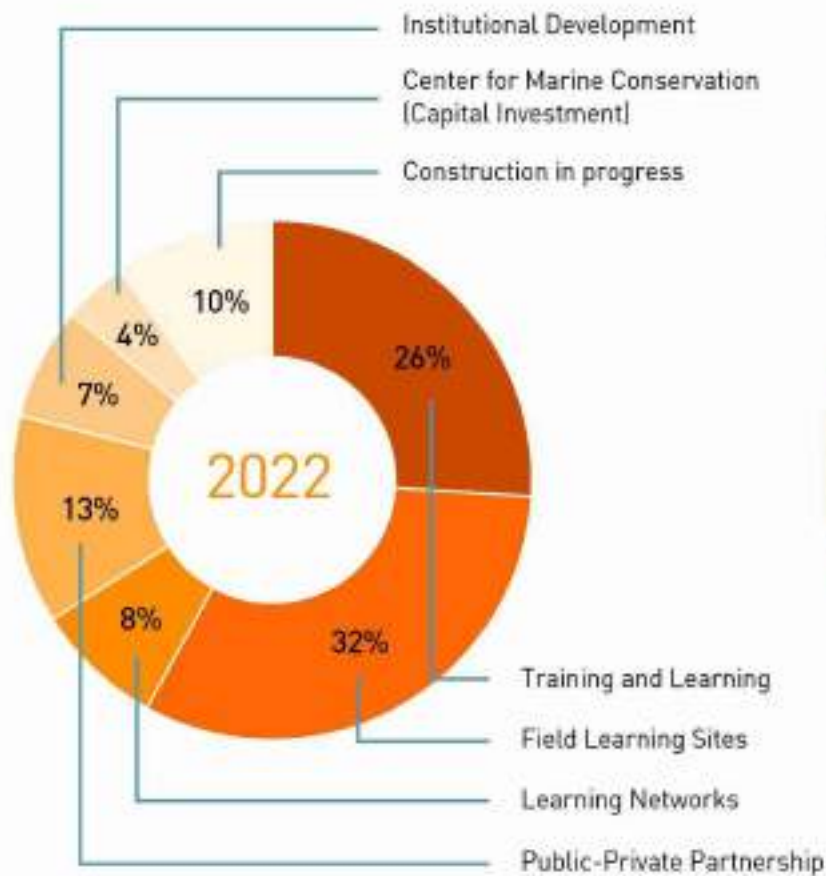


ORGANIZATION CHART & FINANCIAL SUMMARY

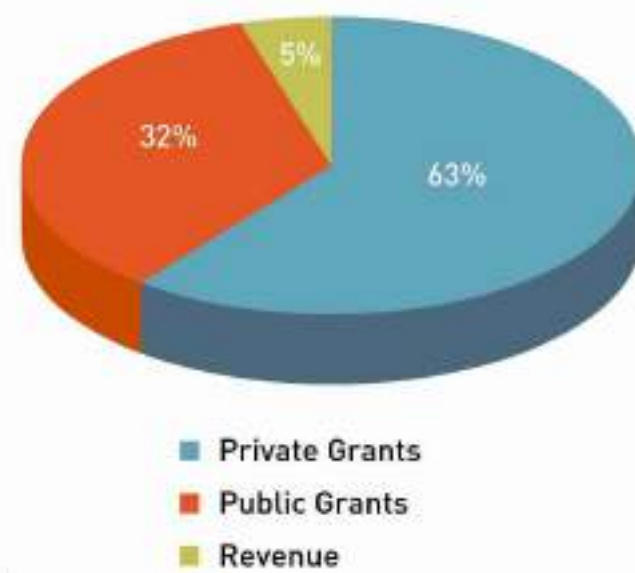
CTC ORGANIZATION CHART



CTC SPENDING ALLOCATION BY STRATEGY 2022



ACTUAL INCOME 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-KP)
02. MMAF DG KP3K, Directorate KKJI
03. MMAF Directorate Marine Biodiversity Conservation Area (RKHHL)*
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 Pas 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 Bahera 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 Balileo
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 Hetta 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. Kumbara
09. GummyBox
10. OceanBeliz
11. PADI
12. Hotels in Bali (Hard Rock Hotel Bali, Fairmont, Mercure, Sudamala, Prama, Sanur Paradise, Tandjung Sari)
13. Dive Operators Community Komodo (DOCK)
14. GAHAWISRI Bali
15. GAHAWISRI Maluku
16. Smiling Tours
17. Buffalo Tours
18. Tierra Mar
19. Sustainable Solutions
20. Studio JvG

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. Era 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. Mabu Lodge
03. Pari Dive

Community Based Organizations (CBOs)

Bali & Nusa Penida

01. Satya Pasana Nusa
02. Celagi Buana Putra
03. Majelis Ajiit
04. Forum Krama Muda
05. Mangrove Tour Jungut Batu
06. Forum Petani Rumpit Laut
07. Forum Melayan
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 Rhuu
03. Kelompok Konservasi Masyarakat Pulau Hatta
04. Kelompok Kreatif Anak Banda (KKAB)

Lease, Sula and Buano Islands

01. Moluccas Coastal Care (MCC)
02. Happy Green Islands (HGI)
03. Klasis 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. USD01 (United States Department of Interior)
12. Australian Government (Department of Environment & Energy)
13. AusAid (Australian Consulate-General Bali)
14. UN Environment Programme
15. Aratuna and Timor Seas Ecosystem Approach (ATSEA)
16. Bloomberg Philanthropies





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