



CORAL
TRIANGLE
CENTER

Inspiring People Saving Oceans

CTC ACADEMY

ENHANCING LOCAL CAPACITY FOR TROPICAL
MARINE RESOURCES MANAGEMENT

TURNING KNOWLEDGE AND SKILLS INTO ON THE GROUND ACTIONS







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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



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.

WHAT WE DO



WE LEARN

We implement, We test,
We gather knowledge



WE PARTNER

We work with government agencies,
the academe 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 towards sustainable
marine and coastal practices

And connect all groups to leverage impact at scale:



OUR ULTIMATE GOAL

To abate the threats of overfishing, pollution and climate change together and 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

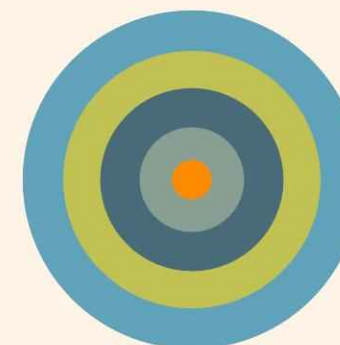
with students, tourists, dive operators, fishermen – everyone who has an interest in protecting the health of our reefs

We Connect

various groups – MPA managers, local leaders, women – to promote collaboration and encourage more learning

“ Our whole approach is aimed to inform, engage and equip people with practical tools to better understand and manage the coastal and marine ecosystems.
Rili Djohani, CTC Executive Director ”

AMPLIFY MARINE CONSERVATION



LOCAL
NATIONAL
REGIONAL
GLOBAL

- : Center for Marine Conservation (Regional Hub)
- : Training & Learning
- : Field Learning Sites
- : Learning Networks
- : Public Private Partnerships



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 154 MPAs throughout the archipelago covering some 17.3 million hectares, Indonesia is well on its way to achieve its goal of having 20 million hectares of MPAs by 2020. To make sure these MPAs are effectively managed, Indonesia will need some 500 trained and capable MPA managers and approximately 2,000 technical personnel.

However, Indonesia doesn't have enough trained people capable of managing all these protected areas. Based on 2015 data from the Ministry of Marine Affairs and Fisheries (MMAF), there are only approximately 175 MPA managers and 850 technical personnel.

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.

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 as usual continues

CTC ACADEMY

Welcome to the CTC Academy!

Why are coastal and marine environments important, and what role do they play in my life? How do we keep our oceans and our planet healthy? What are the dangers to our oceans, and what can be done to safeguard them? What are Marine Protected Areas (MPAs) and why do they matter? What can I do?



These are just a few of the questions answered by the CTC Academy learning modules on marine science, MPA principles, planning and management, sustainable fisheries and sustainable tourism in marine areas.

We have a wide range of courses available to support current and future guardians of the seas, people working at the frontline of conservation efforts in the Coral Triangle. Our courses are classroom-based with a strong field training element. Training is offered throughout the Coral Triangle region. Field training is held at learning sites, such as the one on the beautiful island of Nusa Penida. Alumni of courses can also join our learning networks, connecting them to other people working throughout the Coral Triangle and the world.

Who are the courses for?

The CTC Academy courses are designed for a broad audience: government, MPA and fisheries staff, tourism operators, NGO workers, teachers, trainers, students, volunteers, and anyone else with an interest in learning more about the Coral Triangle, its human and natural riches, and the work that needs to be done to preserve it. Courses are tailored to the audiences' needs, and can be delivered throughout the region.

Who are our teachers?

Our curriculum is developed in-house in consultation with internationally renowned MPA and marine science professionals. Our educators have many years of experience teaching and working in marine and coastal management. Lessons build on decades of practical field experience, best practice approaches and lessons learned.



GOING BEYOND TRAINING

Producing capable marine managers through training and development was our main goal when CTC was set up in 2010.

At the time, Indonesia – the largest archipelago in the world – was in dire need of capable marine managers. CTC marked the end of its first five-year strategic plan in 2015 by reaching incredible milestones in training work. But beyond the numbers of modules delivered and people trained, CTC deepened its training impact.

LEARNING by DOING

Every year, CTC facilitates more than 30 groups & hundreds of individuals from various countries to come to Nusa Penida MPA in Bali to learn about the challenges of implementing an MPA and good practices in marine conservation.

Standardized, Institutionalized

CTC embarked on a project with the Ministry of Marine Affairs and Fisheries (MMAF) to develop the competency standards for MPA managers in 2014. This project was finally completed in 2015, with the development of competencies for Sustainable Marine Tourism in MPA course for operators. With the competency standards now completed, we will focus on institutionalizing them.

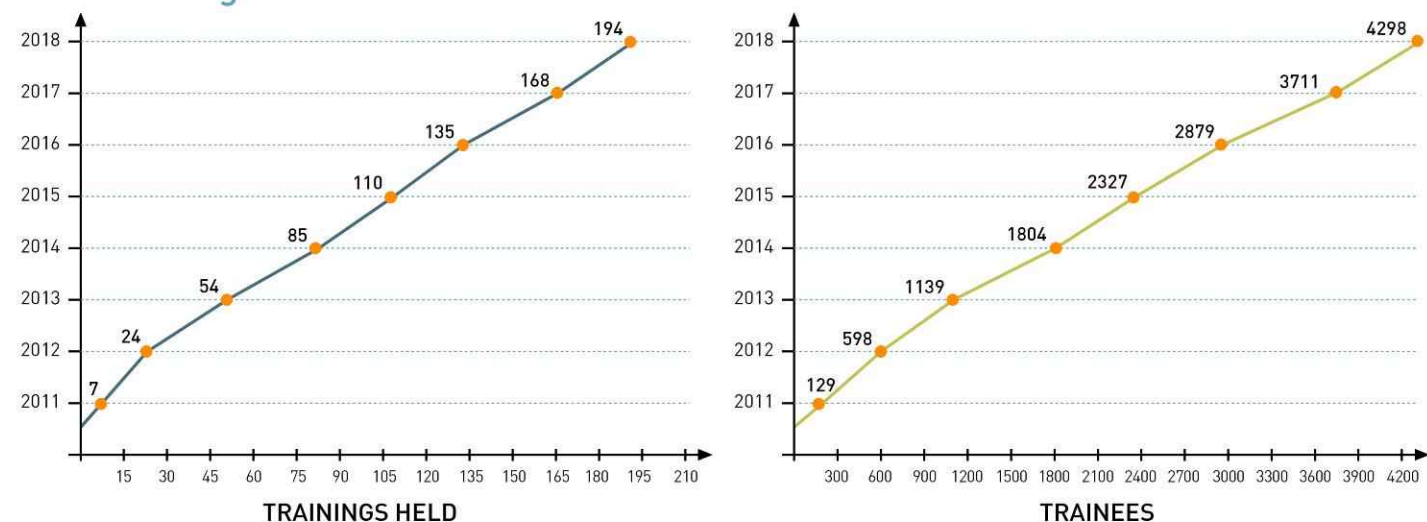
MMAF also began adopting CTC courses into its curriculum in 2013. That year, the ministry adopted CTC's MPA Design course, which means it is now being used at all MMAF training centers nationwide. In 2014, MMAF adopted another two courses – Community Perception Monitoring and Marine Resource Utilization Monitoring. This trend continued in 2015, with MMAF adopting two more of our courses: a.) Collecting Biophysical Data in MPA, Coastal and Small Islands and b.) Sustainable Marine Tourism in MPA, Coastal and Small Islands,

From Training to Certifying

An important milestone in CTC's training work came in September 2015, when CTC became just the second conservation NGO in Indonesia to be certified by the Ministry of Marine Affairs and Fisheries as a Tempat Uji Kompetensi (TUK), or professional competency assessment center.

With this certification, CTC can now officially issue certificates in marine conservation and fisheries management to those who complete a minimum of four days training and pass an exam. To carry out this new mandate, four of our staff members have been certified as assessors, plus another consultant affiliated with CTC.

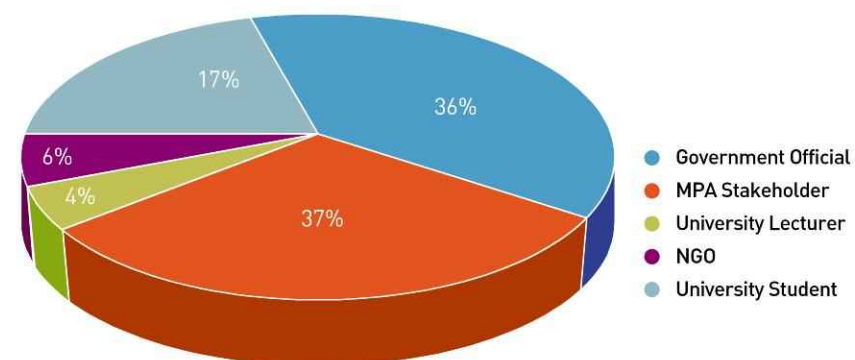
Our Training Work Over the Years



As of December 2016, CTC has 25 training modules available that offer support to a range of elements in the coastal zone and marine area planning, design, and management including fisheries management and climate change aspects.

Since March 2011 to December 2018, a total of 4,298 participants have graduated from the CTC Academy.

CTC Training Profile



The success of the program is measured by the quality of its training programs (in term of content and delivery), the number of people trained, and how the training is used in the planning and management of coastal marine resource management throughout the region.

“ People in the government, NGOs, communities, companies, citizens can make a difference. Increasing their knowledge and capacity and connecting them to take action and preserve the ocean is the very essence of what we do at CTC.

Rili Djohani,
CTC Executive Director

”

INTRODUCTORY COURSES FOR COASTAL MANAGEMENT AND MARINE PROTECTED AREAS

Threats to our oceans have never been higher. The danger comes from several directions: the growing number of people living close to the shores, who all depend on the sea and its resources, the impact of development on coastal ecosystems, the desire and demand for marine products internationally. The situation has reached alarming proportions with the impending impacts of climate change on both ecosystems and human communities.



This growing crisis can only be tackled by efficient management and conservation efforts in coastal areas.

One of the key strategies being promoted throughout the region to address these problems is the design and implementation of marine protected areas (MPAs) and networks of MPAs.

Our introductory courses provide a foundation for understanding the tools available for managing and conserving coastal and marine areas, so that biodiversity and food security are preserved for future generations. Some of these courses have been developed for specific areas within the Coral Triangle, but can be adapted to other regions upon request. Other courses are relevant for all Coral Triangle nations.



COURSE SYLLABUS

Principles of Marine Protected Area Management

This course aims to provide participants with a thorough background and up-to-date insights on the design, planning, and management of MPAs. Participants will learn the basics of population dynamics of exploited species, and how these dynamics relate to resource use. While the course uses examples from all over the world, there is a strong focus on the Indonesian context.

OBJECTIVES:

1. To understand the foundational concepts of marine conservation.
2. To learn the role of MPAs as a tool for marine biodiversity conservation, sustainable fisheries, and marine resource management.
3. To understand the basic principles of MPA management.
4. To enhance interest in and awareness of marine resource conservation.

INTENDED AUDIENCE:

Conservation practitioners from government agencies, NGOs, and other co-managing user groups. However, the training can be tailored to suit a range of interested audiences.

MINIMUM REQUIREMENT:

High school graduate or equivalent, preferably with a basic knowledge of English.

LANGUAGE:

This training can be given in Bahasa Indonesian and/ or English.

DURATION:

Four full days

Marine Conservation Action Planning

This training aims to provide participants with insights on the planning methodology for Marine Protected Areas, called Conservation Action Planning (CAP). CAP is a straightforward and proven approach for planning, implementing, and measuring success for conservation projects. The methodology was developed by conservation practitioners working in real places. It has been tested and deployed successfully by hundreds of teams working to conserve species, sites, ecosystems, landscapes, and seascapes across the globe. While the training will use examples from all over the world, there is a strong focus on the Indonesian situation.

OBJECTIVES:

1. To learn foundational methodological processes for maximizing the effectiveness of MPA planning and management.
2. To enhance the ability of MPA managers to design projects using 'Miradi' as a support tool.

INTENDED AUDIENCE:

MPA management practitioners from government agencies, NGOs, and other co-managing user groups.

MINIMUM REQUIREMENT:

S1 (BSc) or equivalent, with a working knowledge of English. Participants will preferably have basic knowledge on marine ecosystems and fisheries management.

LANGUAGE:

This training can be given in Bahasa Indonesian and/ or English.

DURATION:

Three full days, but can be extended as necessary if final production of a tangible CAP document is desired.

Community-Based Coastal Resource Management (CBCRM) Integrated Coastal Zone Management

This course provides students with a basic understanding of what CBCRM is, what the technical and process requirements are, and what different roles and responsibilities exist within a CBCRM framework. A shared understanding about the challenges encountered while implementing CBCRM is explored, and solutions and ideas are advanced to ensure success can be achieved.

OBJECTIVES:

1. To understand the concept and tools of CBCRM in order to promote and support CBCRM of marine natural resources.
2. To explore and understand the tools related to CBCRM for further involving local communities in the management of a site.
3. To understand the different roles and responsibilities between stakeholders and challenges faced by stakeholders in applying CBCRM.

INTENDED AUDIENCE:

Coastal conservation and MPA practitioners from government agencies, NGOs, and other co-managing user groups; community groups and representatives; communications staff and community liaison officers.

MINIMUM REQUIREMENT:

High school graduate or equivalent; a working knowledge of English.

LANGUAGE:

This training is given in English.

DURATION:

Five full days

Integrated Coastal Zone Management (ICZM)

This course teaches students how to develop an integrated coastal zone management plan, utilizing a range of analytical techniques and tools.

OBJECTIVES:

1. To understand the concept of integrated coastal zone management.
2. To understand and be able to undertake the range of analyses required for ICZM plan production.
3. To produce an integrated coastal zone plan.

INTENDED AUDIENCE:

Coastal conservation and MPA practitioners from government agencies, NGOs, and other co-managing user groups; community groups and representatives; fisheries staff and science officers.

MINIMUM REQUIREMENT:

Knowledge of marine and coastal ecosystems and fisheries, and/ or basic formal training in natural or social science. A good basic knowledge of English.

LANGUAGE:

This training can be given in Bahasa Indonesian and/ or English.

DURATION:

Five full days

Introduction to Basic Marine Ecology

This course teaches students the basics of marine ecology, to provide a foundation for understanding marine processes and the importance of marine management.

OBJECTIVES:

1. To gain a foundational understanding of marine ecology.
2. To understand the basic processes taking place in marine ecosystems and the important role of management.

INTENDED AUDIENCE:

Government agencies, teachers, dive operators, NGOs, and any other interested stakeholders in marine conservation.

MINIMUM REQUIREMENT:

High school graduate or equivalent.

LANGUAGE:

This training can be given in Bahasa Indonesian and/ or English.

DURATION:

Four full days

UNDERSTANDING THE BIOPHYSICAL SCIENCE BEHIND COASTAL AND MARINE CONSERVATION



The biophysical sciences can help marine managers understand the status and trends of the marine and coastal resources they are making efforts to conserve. In order to effectively and sustainably manage any coastal area for biodiversity and food security, it is critical to understand, measure, and monitor its biophysical elements.

Biophysical science tools and methodologies that measure baseline ecological status and trends over time provide an MPA or coastal management team with crucial information to guide decision-making. Many of the decisions made as part of MPA management benefit from these tools, from understanding what areas need to be fully protected to secure spawning aggregations of fish for future productivity to understanding oceanic conditions that can mitigate the impacts of climate change on an area. The role of the biophysical scientist or science team is essential: scientific results help practitioners develop and follow the type of management systems needed for an area. They also help practitioners assess whether management efforts are ultimately being successful, or need to be adapted.

These courses provide a foundation for understanding the tools and mechanisms required for biophysical assessments, monitoring, and measures of impacts at a site. They are relevant for science practitioners and managers across the Coral Triangle, and are complemented by social science and associated courses. Ultimately, all these courses are needed for effective and sustainable coastal and marine management.

COURSE SYLLABUS

Dive Training and Introduction to Marine Biological Monitoring

This training intends to equip participants with the preliminary scuba-diving skills necessary for supporting water-based monitoring survey techniques. They convey essential insights on the species and habitats of the underwater world, on the role of Marine Protected Area (MPA) management, and on the design of MPAs. Participants learn basics of population dynamics of exploited species and how these dynamic relate to resource use. The training uses examples from all over the world, with a strong focus on the Indonesian situation.

OBJECTIVES:

1. To provide participants with diving skills (equivalent to Open Water - certified) and environmentally friendly diving practices.
2. To teach basic knowledge and skills on marine biological survey/ observation techniques (seagrass, mangrove, cetacean, turtle, fish, and invertebrate habitat and population).

INTENDED AUDIENCE:

Technical science staff, particularly from: government agencies, NGOs, local communities, universities, marine research centers, and related stakeholders

MINIMUM REQUIREMENTS:

- a. High school graduation certificate or equivalent
- b. Healthy with a doctors letter/ recommendation
- c. Swimming skills (able to swim at least 200 meters on the water and 5 meters underwater)
- d. No claustrophobia
- e. No other sickness that may prohibit the participant from diving activities (more information available upon request)

LANGUAGE:

This training can be given in Bahasa Indonesia and/ or English.

DURATION:

Five full days, but can be extended to six days with additional field activities.

Reef Health Monitoring

Reef health monitoring (RHM) is a biological monitoring tool to help inform MPA managers and decision-makers about the status of, and any trends of change, in coral reef and fish condition. RHM is critical for providing science-based input to ensure effective and adaptive MPA management. A monitoring person should have both the diving skills and the coral and fish identification skills necessary to conduct reef health monitoring. The RHM protocol taught in this course uses Point Intercept Transect (PIT) technique for surveying coral, and Underwater Visual Census technique (UVC) and timed swimming for surveying fish.

OBJECTIVES:

1. To enhance participants' skills in coral reef and fish identification.
2. To enable participants to implement monitoring activities to survey coral reefs and associated fish species.
3. To strengthen participants skill on data management, analysis, and interpretation.

INTENDED AUDIENCE:

This training is tailored to suit technical science staff, particularly from:

- a. Government agencies
- b. NGOs
- c. Local communities
- d. Universities
- e. Marine research centers
- f. Related stakeholders

MINIMUM REQUIREMENTS:

- a. Prior completion of MPA 101 training course
- b. Diving skills to at least advanced level and/ or with at least 25 dives logged
- c. High school degree or equivalent
- d. Healthy with doctor letter/ recommendation

LANGUAGE:

This training is provided in Bahasa Indonesia.

DURATION:

Four full days

Spawning Aggregation Sites Monitoring

The monitoring of Spawning Aggregation Sites (SPAGs) is the process of monitoring suspected and confirmed sites where fish spawn. Spawning usually occurs during full-moon or new moon. Monitoring focuses on populations of broodstock in SPAGs. Data collected from SPAGs monitoring helps to effectively inform MPA managers and decision makers about best practice processes required to protect certain areas that are identified as important for SPAGs.

OBJECTIVES:

1. To give participants an understanding of the definition of Spawning Aggregations (SPAGs) and an understanding of their impacts on the function of an MPA.
2. To give participants the skills needed to effectively identify and monitor SPAGs.
3. To give participants the skills needed to manage the data gathered, and undertake appropriate analysis and interpretation.

INTENDED AUDIENCE:

This training is tailored to suit technical science staff, particularly from:

- a. Government agencies
- b. NGOs
- c. Local communities
- d. Universities
- e. Marine research centers
- f. Related stakeholders

MINIMUM REQUIREMENTS:

- a. Prior completion of MPA 101 training course
- b. Diving skills to at least advanced level and/ or with at least 25 dives logged
- c. High school degree or equivalent
- d. Healthy with a doctors letter/ recommendation

LANGUAGE:

This training can be given in Bahasa Indonesia and/ or English.

DURATION:

Three full days, but can be extended to four days with additional field activities)

Marine Biological Surveying and Observational Monitoring

This training program aims to prepare participants for in-field surveying and monitoring of a range of biomes and species. The training is compartmentalized into different focus areas, and these areas may be taken independently for focused learning or holistically as an overall course. The training uses examples from all over the world, with a strong focus on the Indonesian situation.

OBJECTIVES:

1. To provide participants with the knowledge and skills needed for Marine Biological Surveying and observation monitoring techniques (that can be used to monitor seagrass areas, mangroves, cetaceans, turtles, invertebrates, associated habitats, and population dynamics).
2. To provide participants with the understanding of how to compile and interpret data for supporting both MPA design and management.

INTENDED AUDIENCE:

This training is tailored to suit technical science staff, particularly from:

- a. MPA management officials and practitioners
- b. Coastal community members
- c. Marine tourism operators
- d. Universities

MINIMUM REQUIREMENTS:

- a. Prior completion of MPA 101 training course
- b. Diving skills to at least advanced level and/ or with at least 25 dives logged
- c. High school degree or equivalent
- d. Healthy with a doctors letter/ recommendation

LANGUAGE:

This training can be given in Bahasa Indonesia and/ or English.

DURATION:

Five full days, but can be shorter and tailored to particular biomes or species of interest.



UNDERSTANDING THE SOCIAL SCIENCE BEHIND COASTAL AND MARINE CONSERVATION



The social sciences help marine and coastal managers to better understand the reasons behind the human-caused threats to marine resources. They also contribute to finding the best-fit solutions that ensure effective management of the area and engage local communities.

The social sciences provide tools and methodologies that support the efforts of coastal zone and MPA management teams. The role of a social scientist or community engagement team is crucial: they help inform and guide the type of management systems needed for an area. They also help practitioners effectively engage and involve local community members and resource users in the management processes. Finally, social science research allows practitioners to assess whether management efforts are successful, or need to be adapted.

Our social science courses help practitioners gain an understanding of the social dimensions of the natural resources in an area. This is critical for understanding what management mechanisms are appropriate for the respective area.

COURSE SYLLABUS

Perception Monitoring

Perception monitoring was originally designed as a tool to measure local communities' perceptions towards MPA establishment and management. MPA managers need to get feedback from communities living inside and around an MPA in order to effectively undertake adaptive management and ensure that the goals of the MPA are achieved. By participating in this training, MPA managers and practitioners will be able to design questionnaires, conduct surveys, analyze and interpret survey results, and adapt outreach and awareness strategies for their future work.

OBJECTIVES:

1. To teach one social survey method to measure attitude, knowledge, and behavior.
2. To demonstrate the administration of survey questions and result interpretation.

INTENDED AUDIENCE:

This training is tailored to suit technical staff, particularly from:

- a. Government agencies
- b. NGOs
- c. Academic institutions or universities

MINIMUM REQUIREMENTS:

1. S1 (BSc) or equivalent, preferably with basic knowledge of English
2. Participants preferably to have basic knowledge of marine ecosystems and fisheries management
3. Prior completion of MPA 101 training course
4. Familiarity with computers, particularly MS Excel, MS Word

LANGUAGE:

This training can be given in Bahasa Indonesia and/ or English.

DURATION:

Four full days



Marine Resource Use Monitoring

Resource use monitoring (RUM) is a method of monitoring socio-economic activities being conducted in relation to MPA management. The monitoring is conducted to assess and understand the range of different types of activities being undertaken in an MPA in relation to the utilization of marine resources at the site. RUM is an important tool for MPA managers, and the data from the monitoring is useful to support MPA managers and decision-makers to develop appropriate, considerate, and robust MPA management plans, and improve MPA management implementation.

OBJECTIVES:

1. To provide participants with the skills needed to develop their own on-site protocol for long-term in situ monitoring of the levels, rates, and trends of natural resource use being undertaken by people actively utilizing resources within an MPA.

INTENDED AUDIENCE:

This training is tailored to suit technical monitoring and surveillance staff particularly from:

- " Government agencies
- " NGOs
- " Local communities
- " Universities
- " Marine research centers
- " Related stakeholders

MINIMUM REQUIREMENTS:

- " Prior completion of MPA 101 training course
- " High school degree
- " Ability to operate GPS and camera
- " Basic communication skills sufficient to undertake interviews

LANGUAGE:

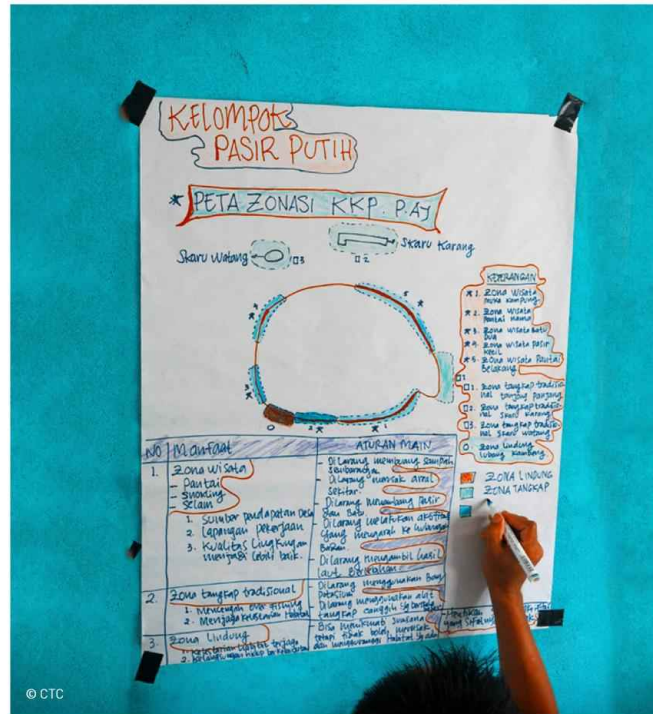
This training can be given in Bahasa Indonesia and/ or English.

DURATION:

Five full days, but can be extended to six days with additional field activities.



SPATIAL PLANNING FOR MARINE PROTECTED AREAS



The marine and coastal environment provides essential resources to a wide range of user groups: fishers, aquaculture farmers, recreational users, oil and gas industries, and, more recently, to the wind, tidal and wave energy industries. As populations grow and resources diminish, conflicts can increase between these different user groups, making marine spatial planning and resource allocation critical for sustainable management.

Marine Spatial Planning (MSP) is a process for analyzing and allocating both the spatial distribution of human activities in marine areas and their temporal distributions, in order to use the marine and coastal environment in an ecologically and economically sustainable manner.

Marine Spatial Planning, when designed and implemented effectively, can:

1. reduce conflicts between user groups and increase regulatory efficiency;
2. facilitate the development of emerging industries, such as wind and wave energy and aquaculture;
3. help maintain critical ecological processes and ensure the provision of essential ecosystem services that they support (such as fishing, marine tourism and recreation, and cultural uses of the ocean).

[Source: EBM Tools Network, 2010]

Marine Spatial Planning for Districts

This course provides practitioners with a bottom-up introduction to the processes involved in effective Marine Spatial Planning (MSP). Participants will be introduced to the steps involved in MSP and to the range of tools available to support MSP processes. Participants will explore and understand the different levels of spatial planning and the importance of vertical alignment through different agencies and at different scales. Mechanisms to ensure appropriate levels of stakeholder engagement and involvement in the MSP process are taught, along with the skills required to develop site-based plans for MSP at district and MPA level.

OBJECTIVES:

1. To convey the role of Marine Spatial Planning in the conservation and utilization of marine resources.
2. To provide knowledge on the range of steps required to undertake effective Marine Spatial Planning.
3. To provide insight and experience on the range of tools and mechanisms available to support the Marine Spatial Planning process.

INTENDED AUDIENCE:

This training is tailored for:

- a. MPA managers
- b. Government technical staff
- c. District planners
- d. Outreach and communication staff
- e. NGOs
- f. Universities and academic institutions
- g. Community representatives

MINIMUM REQUIREMENTS:

- a. High school degree
- b. Experience in coastal-/ marine-/ MPA-related work

LANGUAGE:

This training can be given in Bahasa Indonesia and/ or English.

DURATION:

Five full days.

COURSE SYLLABUS

Using MARXAN in the Design of a Marine Protected Area

This training provides participants with knowledge on designing an MPA/ on conservation planning based on mapped marine habitat features, cost features, geographically relevant social use patterns, and marine biodiversity. This conservation planning process guides decisions about the location, configuration, and management of conservation areas. The aims of conservation planning are to get efficient, repeatable, transparent, and equitable processes established for making conservation decisions. During training, the participants will be introduced to the use of an automated reserve selection tool called MARXAN used to incorporate data, capture targets for conservation scenarios, and produce locational analyses regarding the placement of an MPA or the design of area management within an MPA.

OBJECTIVES:

1. To provide knowledge on spatial planning approaches to MPA design.
2. To enable participants to develop skills using an automated reserve selection tool called MARXAN.
3. To provide participants with the experience of using MARXAN to design an MPA.

INTENDED AUDIENCE:

This training is tailored to suit technical staff, particularly from:

- a. Government agencies
- b. NGOs
- c. Academic institutions or universities

MINIMUM REQUIREMENTS:

1. S1 (BSc) or equivalent, preferably with basic knowledge of English
2. Participants preferably to have basic knowledge of Geographic Information Systems, marine ecosystems and fisheries management
3. Prior completion of MPA 101 training course
4. Familiarity with computers, particularly MS Excel, MS Word

LANGUAGE:

This training can be given in Bahasa Indonesia and/ or English.

DURATION:

Four full days



FISHERIES MANAGEMENT



Concerns about the human impact on the marine environment used to be focused on issues of pollution and degradation. However, in more recent times, fishery stocks around the world have declined and collapsed, and stocks of large predatory fishes are estimated to have reduced by more than 90% from their pre-exploited biomass. This highlights the negative impact of unsustainable fisheries on the marine and coastal environment and on long-term food security.

In the past, fishery managers have been largely responsible for managing the marine environment; biodiversity was often secondary to economic considerations. However, the alarming rate of global fish stocks decline shows that ecological integrity is vital for the productivity of fisheries. Sustainable marine and coastal management plays a crucial role both for biodiversity conservation and for long-term fishery-related food security.

Therefore, it is increasingly acknowledged that the role of marine and coastal managers in fishery management is equal to that played by more traditional fishery-related experts. Understanding fishery management techniques and their integration into conservation is critical for future marine and coastal managers, leaders, and decision-makers.

COURSE SYLLABUS

Sustainable Fisheries Management

This course aims to equip coastal zone and MPA managers and practitioners with the skills needed to understand the foundational concepts of sustainable fishery management. The course also teaches managers and practitioners to effectively incorporate considerations of fishery productivity and sustainability into site and area planning and management.

OBJECTIVES:

1. To convey the concepts of fisheries (tools, methods, gears) and sustainable fishery management.
2. To provide practitioners with an understanding of basic fishery population dynamics and fisheries in crises.
3. To enable practitioners to identify factors impacting fisheries in Indonesia and the region.
4. To enable practitioners to understand and identify available tools for sustainable fishery management in MPAs.

INTENDED AUDIENCE:

This training is for:

- " MPA managers and practitioners
- " NGOs
- " Community groups
- " Fishery staff
- " Science officers

MINIMUM REQUIREMENTS:

- " High school degree
- " Good basic knowledge of English preferred

LANGUAGE:

This training can be given in Bahasa Indonesia and/ or English.

DURATION:

Five full days

“ After taking this training, I now have the capacity, a method and an approach that is better in carrying out my duties as an educator. This training is very helpful to support my work doing outreach to the community.

Hardiyono, CTC Academy Alumni from Ministry of Marine Affairs and Fisheries, Kebumen, central Java.

”

Ecosystem Approach to Fisheries Management (EAFM)

This course teaches students how to use local and scientific knowledge, information, and systems to develop and implement an ecosystem approach to fishery management plans. The course also builds skills in monitoring the success of the plan and in the use of culturally appropriate means to ensure compliance. By the end of the course, students will be able to:

1. assess the status and trend of fishery stocks and use these data in an ecosystem approach to fishery management;
2. develop an ecosystem approach to fishery management plans;
3. implement an ecosystem approach to fishery management plans;
4. ensure compliance to an ecosystem approach to fishery management plans;
5. apply adaptive management to an ecosystem approach to fishery management plans.

OBJECTIVES:

1. To convey the concept of fisheries as linked socio-ecological systems.
2. To convey functioning ecosystem definitions, including the role of fished species within ecosystems.
3. To convey a basic understanding of fish biology, especially reproduction and recruitment.
4. To demonstrate and convey human dimensions of fisheries and their role in management.
5. To convey what is meant by an ecosystem approach to fisheries management compared to other types of management, including local management practices and governance arrangements.

INTENDED AUDIENCE:

This training is for:

- a. Coastal conservation and MPA practitioners of government agencies
- b. NGOs
- c. Other co-managing user groups
- d. Community groups and representatives
- e. Fishery staff
- f. Science officers

MINIMUM REQUIREMENTS:

- a. Knowledge of local fisheries or basic formal training in natural or social science
- b. Good basic knowledge of English

LANGUAGE:

This training is given in English.

DURATION:

Five full days.



SUSTAINABLE TOURISM



Sustainable tourism plays an important role in marine and coastal management. The global tourism industry reached a significant milestone in 2012: for the first time in history, the number of international travelers surpassed 1 billion. By 2030, the number of travelers is set to grow to 1.8 billion. 12 of the 15 top international destinations these travelers visited were countries with coastlines.

International tourism generates around \$6.5 trillion USD/ year (or \$3 billion USD per day), and in 2013 travel- and tourism-related industries represented approximately 9.5% of the total global Gross Domestic Product (GDP). Tourism supports directly and indirectly more than 1 in 12 jobs around the world.

However, tourism activities can have a devastating environmental and social impact unless they are managed appropriately.

Understanding how to promote, manage, and support sustainable and responsible marine and coastal tourism is critical for marine and coastal managers, leaders, and decision-makers. More and more, the tourists themselves demand greater responsibility and sustainability in marine tourism. They are willing to pay more for products from companies that show a commitment to social responsibility and often chose their hotel depending on the support it gives to the local community.

COURSE SYLLABUS

Sustainable Tourism in a Marine and Coastal Environment

This training was designed to provide participants with the competencies needed for developing and managing marine tourism in coastal areas, on small islands, and in Marine Protected Areas.

OBJECTIVES:

1. To convey national and international policies of tourism management.
2. To convey the concept of non-extractive tourism in coastal areas, on small islands, and in Marine Protected Areas.
3. To convey tourism concepts for coastal areas, small islands, and Marine Protected Areas.
4. To practice the development of tourism activities based on zoning systems in coastal areas, on small islands, and in Marine Protected Areas.
5. To practice the development of internal and external communication messages for tourism activities.
6. To practice the development of monitoring and evaluation plans for tourism activities.

INTENDED AUDIENCE:

This training is for:

- a. MPA managers and practitioners
- b. NGOs
- c. Community groups related to tourism activities
- d. Tourism business operators
- e. Dive operators
- f. Associated coastal tourism enterprise developers

MINIMUM REQUIREMENTS:

- a. High school degree or equivalent

LANGUAGE:

This training can be given in Bahasa Indonesia and/ or English.

DURATION:

Five full days

“ This training gave me new perspectives on how to conduct community-based management, and also how to work with communities in developing a CBRM plan. The exercises given were very valuable in giving structure and ideas on how to better work with communities and potential partners out there.

Betty Bana, Trainee at Papua New Guinea's Department of Education

”

MANAGING FOR CLIMATE CHANGE

Climate change will dramatically affect coastal communities and ecosystems in the Coral Triangle. Changes in precipitation patterns will affect agriculture. Changes in ocean circulation and ocean chemistry will affect marine productivity and the distribution of marine life. Severe storms and coastal flooding will displace communities, damage infrastructure, and affect livelihoods.



These climate change stressors can have a compound effect on ecosystems already weakened by other anthropocentric activities, such as habitat destruction (through destructive fishing methods or habitat removal), pollution, and the over-exploitation of marine resources and fisheries. Together, these compound threats may be overwhelming for a system. Effective management in these circumstances requires an integrated understanding and approach.

Our training helps practitioners develop an understanding of the way climate change influences marine environments. The training develops the skills necessary to perform vulnerability assessments and introduces approaches that may confer resilience for marine and coastal habitats in the face of climate change. Main areas of consideration are:

- a. the protection of species and habitats with crucial ecosystem roles, or those of special conservation concern;
- b. the protection of potential carbon sinks;
- c. the protection of ecological linkages and connectivity pathways for a wide range of species;
- d. the protection of the full range of biodiversity present in the target biogeographic area.

In marine and coastal ecosystems, climate change can lead to:

1. Changes in water temperature and oceanic circulation patterns, which can provoke far-reaching disruptions throughout the marine food web.
2. Sea level rise, which can lead to saltwater flowing into estuarine and freshwater habitats; this which can have a negative effect on species and habitats that are sensitive to salinity shifts. Coastlines, too, may erode and be lost in some areas.
3. Coral reef bleaching and associated die-off, natural phenomena that are exacerbated by climate change. A lot of critical marine habitat (such as coral reefs, sea grass beds, and mangroves) can only exist within a certain temperature range and under particular conditions. Climate change can have a devastating negative effect on these conditions, leading to habitat loss.
4. Ocean acidification, is caused by increased levels of carbon dioxide (CO₂) in the oceans. Acidification can reduce the ability of corals, crustaceans, shellfish, and plankton to form shells and skeletons, critically threatening their survival, with far-reaching negative consequences for all marine life.

COURSE SYLLABUS

Managing for Climate Change in Marine Protected Areas

Planning for climate adaptation will require a planning team committed to the process and team members with the authority, specialized expertise, and resources to take action. By participating in this training, participants learn to effectively integrate planned climate change adaptations into existing plans, programs, policies, ongoing community development, and coastal management efforts.

OBJECTIVES:

1. To convey climate change and threats to coastal communities.
2. To enable participants to identify potential impacts of climate change for coastal communities.
3. To teach skills in conducting vulnerability assessments.
4. To teach skills in developing climate change adaptation plans and locally relevant early action plans.

INTENDED AUDIENCE:

This training is for:

- a. Coastal area / MPA managers
- b. Community representatives
- c. Multi-sector district government department leads
- d. Planners

MINIMUM REQUIREMENTS:

- a. High school degree or equivalent
- b. Experience working in coastal areas

LANGUAGE:

This training can be given in Bahasa Indonesia and/ or English.

DURATION:

Four full days

MPA ENFORCEMENT: INFRASTRUCTURE & OPERATIONS



The success of MPAs depends not only on effective management, but also on adequate enforcement.

The infrastructure needs for MPA enforcement can vary from site to site, and depend very much on the scale and size of the MPA, the activities taking place within its boundaries, and the resources available to the MPA management units. Common infrastructural needs include:

- an on-site office for the MPA management unit;
- boat(s), engines and boat safety equipment to support monitoring and survey work and PSE (Patrol, Surveillance and Enforcement) efforts;
- boundary markers to ensure zones related to different use areas can be recognized on the water;
- ranger/ patrol stations;
- communications equipment for effective communication between MPA staff and with other stakeholders;
- other infrastructure, such as patrol support equipment.

Operationally, systems need to be established to ensure all enforcement needs can be met. MPA managers and associated teams need to address a range of operational and process considerations in order to design an effective enforcement system for the MPA.



COURSE SYLLABUS

Boundary Marker Installation Training for MPAs

This four day training program aims to support technical practitioners working in MPAs to effectively and safely design, develop, and install boundary markers in the waters of their MPA. Such work is commonly undertaken in MPAs in order to effectively provide visible delineations of different zones within a site and/ or demarcate the outer boundary of the MPA itself, in order to enable user groups to identify these important locations whilst on the water.

OBJECTIVES:

- To teach practitioners to make a detailed plan for the effective installation of boundary markers at their sites.
- To teach practitioners to purchase/ produce and/ or make boundary markers (as relevant) that are most suitable for their site.
- To convey an understanding of mechanisms for engaging communities in the design and development of boundary markers.
- To help practitioners make sure that any development and deployment is in compliance with associated regulations.
- To help practitioners understand how to install boundary markers, considering site delineation, marker placement in terms of land or sea, depth, currents, and anchorage, as well as impact on the environment and visibility to fishers.
- To support trial installations in the field.

INTENDED AUDIENCE:

This training is tailored for a wide range of technical trainee's, including:

- On-site MPA practitioners
- Technical MPA staff
- Technical support NGO teams
- Dive companies
- Other technical agencies supporting an MPA

MINIMUM REQUIREMENTS:

- High school degree or equivalent
- For trial installation in the field participants must be scuba qualified to the level of PADI Advanced or equivalent.

LANGUAGE:

This training can be given in Bahasa Indonesia and/ or English.

DURATION:

Four full days, including one day field excursion.

Patrol, Surveillance and Enforcement (PSE) for MPAs

This training aims to provide participants with a thorough understanding of effective PSE system, and a clear step-wise process that enable them to design their own PSE systems for their MPA sites.

OBJECTIVES:

- To teach practitioners how to design and establish an effective Patrol, Surveillance and Enforcement (PSE) system for MPAs.
- To teach practitioner how to analyze the process systems needed and how to assess the operational systems required.
- To instruct practitioners on the range of support tools available for PSE operations and to assess the viability and relevance of tools to a given site.
- To teach practitioners how to budget for a PSE system.
- To demonstrate a simulation of an effective PSE operation.

INTENDED AUDIENCE:

This training is for:

- On-site MPA managers
- Patrol and monitoring teams
- Related decision makers

MINIMUM REQUIREMENTS:

High school degree or equivalent

LANGUAGE:

This training can be given in Bahasa Indonesia and/ or English.

DURATION:

Four full days, including field training.



FINANCING FOR MARINE PROTECTED AREAS AND COASTAL MANAGEMENT



Marine biodiversity is critical both for its intrinsic value and for the key role it plays in providing the essentials of life: food, fuel, medicines, pollution mitigation, and many, many more. Yet, despite its importance for human wellbeing, the financing currently available for marine conservation efforts does not meet global or local needs. This lack of funds prevents many sites from achieving effective long-term management.

Sustainable financing options for the numerous emerging and existing Marine Protected Areas around the world remain elusive. However, there are new opportunities and innovative mechanisms for MPA and coastal managers to find the financing necessary for biodiversity conservation and the long-term food security that is critical for the region. These mechanisms include both market-based and non-market-based approaches, the use of innovative fiscal instruments and Payments for Ecosystem Services (PES).

COURSE SYLLABUS

Sustainable Financing for Marine Protected Areas

This course is an introduction into the concepts of sustainable financing and the range of tools and mechanisms available to support the long-term financing of MPAs.

OBJECTIVES:

1. To convey the range of sustainable financing mechanisms available for MPAs.
2. To teach the processes needed for strategic financial planning.
3. To provide practitioners with approaches for identifying resources available and resources needed to manage MPAs.
4. To teach practitioners how to best link strategic needs with sustainable financing options that are appropriate to a site's needs.
5. To convey the role of wider stakeholders, donors, and investors in sustainable financing.
6. To teach practitioners how to develop a sustainable financing plan.

INTENDED AUDIENCE:

This training is for:

- a. MPA managers
- b. Government financial and administrative managers
- c. NGOs
- d. Administrative district and community leaders

MINIMUM REQUIREMENTS:

- a. High school degree
- b. Good working knowledge of English
- c. Experience in strategic planning and budgeting

LANGUAGE:

This training can be given in Bahasa Indonesia and/ or English.

DURATION:

Three full days.

Economic Valuation Skills for Marine and Coastal Management

This training aims to introduce students to basic economic theories and concepts to support the analysis of natural resource use patterns. Participants will learn to craft policy responses that lead to the sustainable use of resources. The course specifically focuses on techniques to identify and quantify the economic value of ecosystem goods and services.

OBJECTIVES:

1. To convey basic economics principles and the role of incentives in shaping markets.
2. To help participants define and identify the presence of market failures and their causes.
3. To convey the linkages between the ecological system and the economic system.
4. To teach participants to identify and map the distribution of the economic costs and benefits of ecosystem goods and services.
5. To teach participants to quantify the economic value of ecosystem goods and services using market and basic non-market methods.
6. To teach participants to use the results of economic analysis (including economic valuation) for policy planning and advocacy.

INTENDED AUDIENCE:

This training is for:

- a. MPA and Fisheries managers and practitioners
- b. Financial managers
- c. Fundraisers

MINIMUM REQUIREMENTS:

- a. S1/ Bachelor's degree
- b. Good working knowledge of English

LANGUAGE:

This training is given in English.

DURATION:

Three full days



COMMUNICATIONS FOR MARINE AND COASTAL MANAGEMENT



Marine and coastal ecosystems have evolved over many millennia into what we see today. Without human intervention, the only threats to these ecosystems were natural disasters, such as volcanic eruptions or earthquakes, and geological shifts such as the ice ages.

Marine and coastal ecosystems have been shaped and formed by the impact of these damaging and large-scale natural events throughout geological history. But never in the history of this planet has one species had such a dramatic impact on the marine environment. Over a short time period, humans have wrought such tremendous and ruinous changes that adaptation is often impossible, leading to ecosystem demise and species extinction.

Therefore, when we think about managing a marine and coastal ecosystem for both biodiversity and food security, we are generally talking about managing people, their behavior and their relationship to natural resources. As such, appropriate communication skills are an essential and integral component of any marine and coastal manager's (or team's) skills portfolio.

COURSE SYLLABUS

Facilitation Techniques for MPA Public Consultation

This course provides a basic introduction to techniques and tips for facilitation in the context of Marine Protected Areas and is a basic training for learning core facilitation techniques. Participants gain the knowledge and skills needed by a facilitator to effectively lead group discussions.

OBJECTIVES:

1. To teach the principles and basic skills, approaches, and attitudes needed to be a good facilitator.
2. To demonstrate the processes of group facilitation.
3. To teach participants how to handle group discussions, including how to cope with difficult situations during group facilitation.

INTENDED AUDIENCE:

This training is tailored for:

- a. Community organizers
- b. Other key stakeholders who will be facilitating public and group discussions and consultations on Marine Protected Areas

MINIMUM REQUIREMENTS:

High school degree or equivalent

LANGUAGE:

This training can be given in Bahasa Indonesia and/ or English.

DURATION:

Four full days, but can be extended to five days with additional field activities.

Introduction to Marine Conservation for Teachers

This training is designed for teachers at various levels, from elementary to high school. The training intends to present the importance of marine conservation and share with participants recent insights on the design, development, and management of Marine Protected Areas. Participants will learn the basics of the population dynamics of exploited species and how these dynamic systems relate to resource use and exploitation. The training uses examples from all over the world with a strong focus on the Indonesian context.

The course is based on the Principles of MPA Management program also available at CTC. It is tailored to support teachers to modify the information learned for delivery in classrooms and to adapt it to their local contexts. By the end of the training, it is expected that participants will have a better comprehension of basic marine conservation principles and an understanding of how to integrate them into their teaching materials.

OBJECTIVES:

1. To convey the foundational concepts of marine conservation.
2. To teach participants about MPAs as a tool for marine biodiversity conservation, sustainable fisheries, and marine resource management.
3. To convey the basic principles of MPA management.
4. To enhance interest and awareness in marine resource conservation.

INTENDED AUDIENCE:

This training is tailored for:

- a. Teachers of elementary to high school level (or equivalent)

The course can be tailored to suit teachers working at other educational levels as desired. It is particularly relevant for teachers responsible for classes in biology and the natural sciences.

MINIMUM REQUIREMENTS:

- a. Practitioner teachers
- b. Basic knowledge of English preferable

LANGUAGE:

This training can be given in Bahasa Indonesia and/ or English.

DURATION:

Three full days with additional one day field trip option.



EVALUATING THE EFFECTIVENESS OF YOUR WORK



Establishing and developing a Marine Protected Area involves many steps. From the initial design and consultation stage (involving an understanding of the biophysical, social and governance related elements at a site) through to operational systems design (involving management planning, staffing and infrastructure establishment) through to implementing activities to achieve management objectives. These are all critical steps in the process.

Through all these stages however, reflection and assessment is required to evaluate the effectiveness of the systems being designed, the mechanisms and processes being established, and whether the approaches being undertaken are effectively achieving what they set out to achieve. Through such assessments MPA managers and practitioners can assess progress at all stages of development and implementation, and can adaptively manage along the way to achieve optimal results.

COURSE SYLLABUS

Marine Area Management Effectiveness (MAME)

This course teaches participants about different types of MMAs and methods to assess the level of effectiveness in achieving resource sustainability including local fisheries outcomes as well as social, economic and governance objectives. This course allows students to understand the different type of stakeholders who must be involved in assessing effectiveness and to develop strategies to increase the level of management effectiveness. This involves training and practical skills development in how to gather supporting information related to MMA establishment and management, choosing indicators, and measuring the level of effectiveness in terms of social, economic, environmental and governance impacts.

OBJECTIVES:

1. To understand the basic principles of Marine Managed Area (MMA) management
2. To review different evaluation methods of MMA management and understand the main focus of each method
3. To understand the main indicators that are important to assess MMA effective management
4. To undertake a step-by-step process to evaluate MMA management effectiveness
5. To understand how to develop a multiple stakeholder assessment team that allows for comprehensive input and feedback
6. To understand the connection between MME assessments and adaptive management

INTENDED AUDIENCE:

This training is tailored for:

- a. Conservation and MMA practitioners of government agencies
- b. NGOs and other co-managing user groups

MINIMUM REQUIREMENTS:

- a. High school graduate or equivalent, preferably with a basic knowledge of English.
- b. Prior completion of Principles of MPA management or associated course.

LANGUAGE:

This training can be given in Bahasa Indonesia and/ or English.

DURATION:

Four full days.

BLUE ECONOMY



Blue Economy is a concept created by Gunter Pauli, a Belgian self-styled "serial entrepreneur." Mr. Pauli's Blue Economy highlights the relationship and balance between environmental sustainability, wealth generation, and job creation.

The 'Blue Economy' principles for sustainable marine and coastal management have been embraced at the highest level, to be implemented throughout marine and fisheries-related industries in Indonesia. The Marine Affairs and Fisheries Human Resources Development and Community Empowerment Agency has reflected this shift in thinking by issuing a statement that all efforts are to be directed toward implementing projects that provide tangible impacts on prosperity whilst sustaining marine resources and fisheries.

In response to this, CTC in collaboration with Ministry of Marine Affairs and Fisheries Indonesia developed a curriculum and set of modules to train fisheries area managers and train them on the basic principles of Blue Economy and how the it can be implemented in fisheries management area.



COURSE SYLLABUS

Blue Economy in Sustainable Fisheries Management

This course is based on Blue Economy-MMAF curriculum and slightly adapted with new modules that focus on the needs of fisheries extension officers. The new modules introduce topics on marine and fisheries resource management; a change from past modules topics of mariculture and fish processing. Fisheries extension officers play an important role; they serve as agents of change in community outreach and development.

OBJECTIVES:

Blue Economy Implementation in Sustainable Fisheries Management consists of 12 units. All units designed for students to:

1. Gain knowledge on Blue Economy concepts (definition, values, basic principles)
2. Identify Blue Economy strategy to implement in Fisheries Management Area
3. Build effective communications related to zero waste product/service distribution applying Blue Economy principles
4. Build Blue Economy network and partnership
5. Develop Business Model Canvas for small businesses

INTENDED AUDIENCE:

1. Extension officers of district/provincial marine and fisheries department
2. Extension officers (contract) assigned by Ministry of Marine Affairs and Fisheries
3. Outreach officers of MPA Technical Implementation Unit

MINIMUM REQUIREMENTS:

Minimum Diploma graduate

LANGUAGE:

This training can be given in Bahasa Indonesia and/ or English.

DURATION:

Four full days.

“ The training method that CTC used is actually quite good, because it is more interactive in comparison to other training methods. Here we are trained in how to interact with each other in the sense that we are required to be in action and it is much better than getting our advice alone.

Firman Nugraha Prasetya, CTC Academy Alumni from the Bureau of Fisheries Education and Training, Banyuwangi, East Java. ”

CTC ONLINE TRAINING

With many guardians of the sea located in remote locations throughout the Coral Triangle, this online training which is provided in collaboration with The Nature Conservancy, is a platform that provides essential access for practitioners interested to learn more about marine and coastal management through distance learning.

Free of charge, this online training is accessible to all and any interested practitioners or individuals. The trainings are available via the CTC website: <http://www.coraltrianglecenter.org/our-programs/online-training/>



Topic 1: Intro to Marine Biodiversity in the Coral Triangle region

This topic introduces you to the basics of biological diversity and to the Coral Triangle. This triangle contains the highest diversity of coral in the world. 25 minutes



Topic 2: Global Threats to Marine Biodiversity

This topic focuses on the global threats to marine biodiversity. By recognizing the threats to biodiversity you will be better able to respond appropriately when threats occur. 20 minutes



Topic 3: Local Threats to Marine Biodiversity

In this topic you will learn to recognize different local threats and have some idea of what management measures could be used to address them. 30 minutes



Topic 4: Population Dynamics

This lesson is about population dynamics, the study that analyses and explains changes in the size, age, gender and other characteristics of a population. 15 minutes



Topic 5: Marine Protected Areas (MPAs)

This lesson focuses on Marine Protected Areas (MPA), you will learn about the why, what and how to select an MPA. 20 minutes



Topic 6: Reasons for Marine Protected Area Establishment

This topic looks at Marine Protected Areas as tools for protecting marine diversity, fisheries, and tourism. 15 minutes



Topic 7: Marine Protected Area Zoning

This lesson focuses on the different types of zones in MPAs. During this lesson you learn about the basic principles used for selecting a no-take zone, the basic steps to establish zoning, and using the overlay technique to create maps with zoning. 10 minutes



Topic 8: Marine Protected Area Planning

This lesson focuses on MPA planning, where you will learn about how MPA management strategies and monitoring are linked to threats and conservation priorities. Upon completing this lesson you should be able to understand how conservation action planning is used for MPA planning. 15 minutes



Topic 9: Marine Protected Area Management

In lesson 8 we learned about how to develop MPA management strategies and monitoring that are linked to threats and conservation priorities.

In this lesson, we continue with Miradi, a user-friendly software program that provides nature conservation practitioners the ability to design, manage, monitor, and learn from their projects in order to more effectively meet their conservation goals. 15 minutes



Topic 10: Marine Protected Area Stakeholder Involvement

This lesson focuses on the importance of stakeholder participation in the planning, implementing and monitoring process in support of the MPA management effectiveness.

We look also into different types of management approaches, including collaborative management. 15 minutes



Topic 11: Marine Protected Areas Biological Monitoring

This lesson focuses on the biological monitoring in MPAs. During this lesson you learn about the reason why monitoring is important, the steps to plan a monitoring program, and an example of monitoring methods using Point Intercept Transect. 10 minutes



Topic 12: Marine Protected Area Perception Monitoring

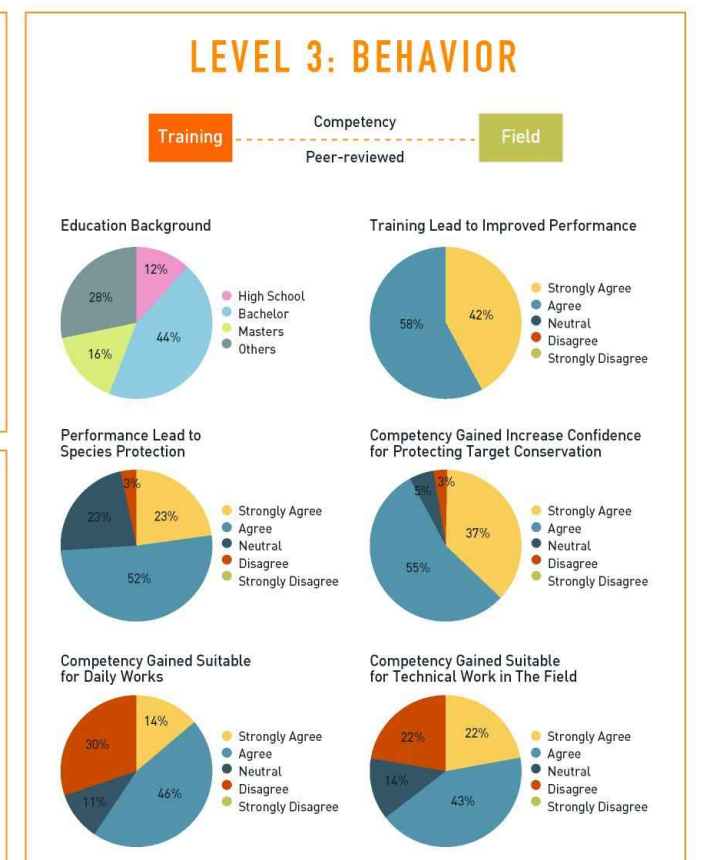
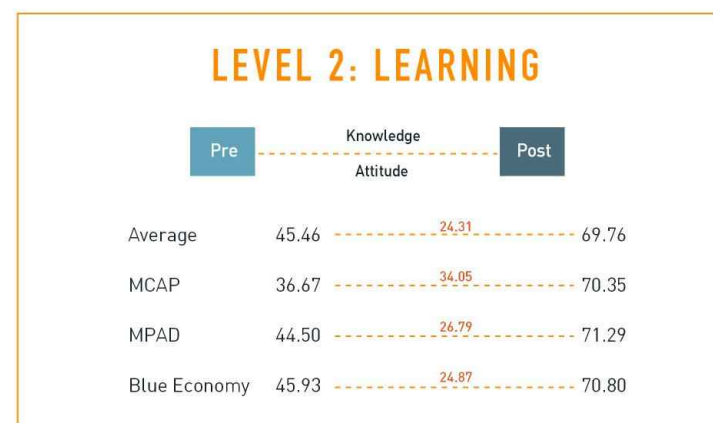
This lesson is about the monitoring of community perceptions. During the lesson we explain the concept of perception in the context of MPAs along with the steps to follow when conducting perception monitoring. 10 minutes

EVALUATING IMPACT ON THE GROUND



To better understand the impact of CTC's training programs, our training and learning team conducted an evaluation in 2016 and found out that our training participants have indeed increased their knowledge after attending our activities and have actually used what they have learned in their daily work.

CTC completed also monitoring, evaluation and learning (MEL) conceptual framework in 2016. The framework explores best practice approaches and methods for measuring the impact of our work on the ground, understanding lessons we have learned, and addressing the gaps in our activities.



COLLABORATION

Government

Regional Secretariat Coral Triangle Initiative for Coral Reefs, Fisheries and Food Security (CTI-CFF)

1. CTI-CFF MPA Technical Working Group (Regional)
2. Indonesia CTI National Coordinating Committee (NCC)

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 (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 (BKKPN) Kupang
09. MMAF Pengawas Sumberdaya Kelautan Pos Banda
10. Bali Provincial Government (Dinas Kelautan dan Perikanan)
11. NTT Provincial Government (Dewan Kawasan Konservasi Perairan Nasional - DKKPN)
12. Maluku Provincial Government (Bappeda and Dinas Kelautan dan Perikanan)
13. Klungkung District Government (Bupati, Bappeda, Dinas Peternakan- Perikanan dan Kelautan, Dinas Pariwisata)
14. Klungkung Regency Government (Pemerintah Klungkung)
15. Central Maluku District Government (District Planning and Marine-Fisheries Office)
16. Seram Timur District Government (Dinas Kelautan dan Perikanan)
17. Certification Institute for Marine Core Competencies - LSPK (Lembaga Sertifikasi Profesi Kelautan)
18. Pusat Pelatihan Mandiri Kelautan dan Perikanan (P2MKP)
19. Center for South China Studies of Ministry Foreign Affairs
20. Ministry of Agriculture and Fisheries of Timor Leste (Regional)
21. Ministry of Environment and Natural Resources of Solomon Islands (Regional)
22. Department of Marine Parks, Malaysia

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. Sekolah Tinggi Perikanan Hatta-Syahrir Banda Naira - STP

Community Based Organizations (CBOs)

Nusa Penida

01. Satya Posana Nusa
02. Celagi Buana Putra
03. Majelis Alit
04. Forum Krama Muda
05. Mangrove Tour Jungut Batu
06. Forum Petani Rumput Laut
07. Forum Nelayan

Banda

01. Kelompok Konservasi Masyarakat Pulau Ay
02. Kelompok Konservasi Masyarakat Pulau Rhun
03. Kelompok Konservasi Masyarakat Pulau Hatta

Private/Corporates/Agencies

01. World Ocean Council
02. The Body Shop
03. Asian Geographic Magazines Pte Ltd
04. GAHAWISRI Bali
05. GAHAWISRI Maluku
06. The Grand Luley Resort and Dive Manado
07. Five Elements Resort Ubud
08. Bali Hotels in Sanur, Bali:
 - a. Fairmont; Mercure; Sudamala; Prama; Plaza Suites; Tanjung Sari; Swiss Bel; Mahagiri;
09. Starbucks, Sanur Bali
10. Bio-wear

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. Antavaya

Banda Naira

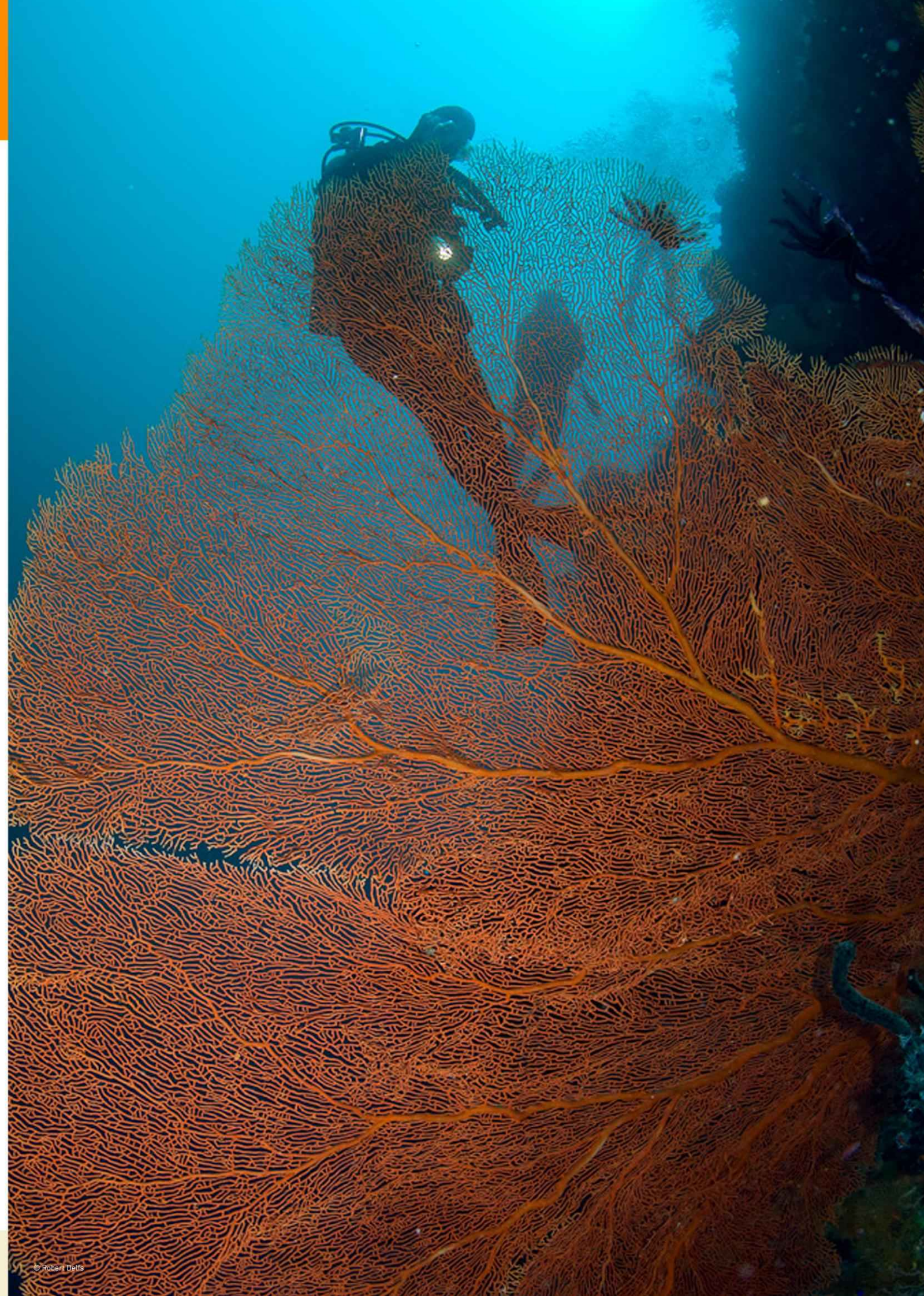
01. Blue Motion Dive Center

Non Government Organizations

01. The Nature Conservancy (TNC)
02. WWF
03. Conservation International (CI)
04. RARE Conservation
05. Conservation Strategic Fund (CSF)
06. PPLH Bali
07. Yayasan Bahtera Nusantara - Bali
08. Yayasan Nusa Wisata, Nusa Penida
09. Friends of National Park Foundation - Nusa Penida
10. Yayasan Warisan Budaya Banda Naira - Kepulauan Banda
11. Aquatic Alliance Foundation
12. Yayasan Masyarakat dan Perikanan Indonesia (MDPI)
13. Mission Blue

Donors

01. Give2Asia
02. David and Lucile Packard
03. Foundation Margaret A. Cargil
04. Foundation TNC (German government - BMU SEWPaC)
05. IUCN (International Union for Conservation of Nature/GIZ)
06. UNDP (United Nations Development Program)
07. USAID-Coral Triangle Initiative Support Program (US-CTI):
- Coral Triangle Support Program (Consortium TNC, WWF and CI)
08. USAID-Marine Protected Areas Governance (USAID-IMPAG) -
(Consortium: WWF, TNC, CTI, WCS and CTC)
09. USAID-RDMA (Regional Development Mission for Asia)
10. USDO (United States Department of Interior)
11. NOAA (National Oceanic and Atmospheric Administration)
12. ADB-RETA Knowledge Management Project
13. Arafura Timor Seas Ecosystem Action (ATSEA) Program
14. Grid-Arendal/ UNEP/GIZ





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