



THE EAST ASIAN SEAS CONGRESS



## Charting a New Decade of Healthy Ocean, People and Economies

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### Collab 11

## Managing Networks and Transboundary Cooperation on Marine Protected Areas (MPAs) in the ASEAN Region

21 October 2021, 8:00 AM - 11:00 AM (GMT+7)

Online via Zoom

### ORGANIZERS:



Partnerships in Environmental  
Management for the Seas of East Asia  
(PEMSEA) Resource Facility



ASEAN Centre for Biodiversity (ACB)



East Asian Seas (EAS) Congress 2021  
“Charting a New Decade of H.O.P.E. (Healthy Ocean, People, and Economies)”

**Managing Networks and Transboundary Cooperation  
on Marine Protected Areas (MPAs) in the ASEAN Region**

21 October 2021, 9:00 AM – 12:00 PM (GMT+8)  
Online via Zoom

**PROCEEDINGS**

**1.0 INTRODUCTION**

The ASEAN Centre for Biodiversity (ACB), in collaboration with the Partnerships in Environmental Management for the Seas of East Asia (PEMSEA), conducted a virtual session entitled ***Managing Networks and Transboundary Cooperation on Marine Protected Areas (MPAs) in the ASEAN Region*** as one of the pre-congress events of the East Asian Seas (EAS) Congress. The session was held on 21 October 2021 and hosted and moderated by Ms. Antoinette Taus, Founder and Executive Director of Communities Organized for Resource Allocation (CORA).

The virtual session aimed to discuss the status and progress of transboundary management of coastal and marine biodiversity in the ASEAN region. In particular, it sought to highlight the various initiatives and collaborative actions on sustaining healthy coastal and marine ecosystems through transboundary cooperation such as:

- a. the concept of transboundary management in the context of Large Marine Ecosystems (LMEs) to mitigate biodiversity loss and maintain productive coastal and marine environment in the region;
- b. the transboundary approaches at site, national, and regional levels in managing coastal and marine habitats for migratory species;
- c. lessons learned, good practices, and future plans related to strengthening capacities for the conservation and sustainable management of MPAs;
- d. effective management of MPAs through science-based approaches including key emerging issues affecting coastal and marine environment in the ASEAN, such as climate change and marine litter; and
- e. communication, education, and public awareness (CEPA) strategies to advocate issues drivers of biodiversity loss.

The session also zoomed in on transboundary management in relation to the achievement of national, regional, and global commitments such as the post-2020 global biodiversity framework (GBF), UN Sustainable Development Goal (SDG) 14, and Sustainable Development Strategy of the Seas of East Asia (SDS-SEA) implementation. These commitments will contribute to the Congress’s goal in establishing a roadmap on transformative blue solutions for the next decade. Thus, the session presented an opportunity to forge new collaborations and partnerships among the ASEAN Member States (AMS) in protecting its coastal and marine environment, especially in improving the management of MPAs.

Participants of the session were composed of local, national, and regional representatives from AMS, academe, research institutions, non-governmental organisations, development partners from the ASEAN region and beyond. The programme appears as Annex 2 to this

document, while Annex 3 contains the list of participants and Annex 4 the links to the recording and presentation materials.

## **2.0 OPENING REMARKS**

### **2.1 Dr. Theresa Mundita S. Lim, Executive Director, ASEAN Centre for Biodiversity:**

In a video message, Dr. Theresa Mundita Lim expressed her thanks to the PEMSEA for co-organising the pre-congress virtual session with the ACB, in preparation for the East Asian Seas Congress 2021 which will be held in December 2021. She likewise extended her congratulations to the Royal Government of Cambodia for the successful hosting of the Congress with the rousing theme Charting a New Decade of Healthy Oceans, People, and Economies (HOPE).

Dr. Lim emphasised that while the world is navigating turbulent waters due to COVID-19 pandemic and climate change crises, the world leaders unanimously agreed during the High-Level Segment of the 15th Meeting of the Parties of the Convention on Biological Diversity (CBD COP 15) that time is running out and that urgent and necessary actions must be undertaken now.

Dr. Lim highlighted the historic global movements that are taking place to recalibrate our bearings towards our goal of living in harmony with nature and cited the Kunming Declaration which emphasised the world's commitment to negotiate an 'effective' post-2020 global biodiversity framework by the second phase of the COP 15 in 2022. She added that the Declaration committed to "step up actions to reduce the negative effects of human activities on the ocean to protect marine and coastal biodiversity and strengthen the resilience of marine and coastal ecosystems to climate change;" while also noting the efforts and commitments of various countries in protecting 30 per cent of their land and sea areas by 2030.

Dr. Lim shared that Brunei Darussalam, as this year's ASEAN Chair, delivered the ASEAN Joint Statement (AJS) at the Meeting, reiterating the region's concern on marine debris and emphasising the collective actions taken by the AMS. She also emphasised how the AMS recognised the enormity of climate change as a global threat, including its complex impacts such as ocean acidification and sea-level rise, and how they agreed to intensify regional efforts towards nature-based solutions through actions that protect marine and coastal ecosystems.

She underscored that this virtual session is an opportune time for knowledge exchange, particularly the virtual poster presentations of the ASEAN Heritage Parks (AHP) in Large Marine Ecosystems, such as the Indonesian Seas and the Andaman Sea in the Bay of Bengal, which would allow us to deep dive into transboundary management efforts at the site, national, and regional levels. She added that the sharing from the esteemed speakers from the UN Development Program (UNDP), Coral Triangle Initiative on Coral Reefs, Fisheries, and Food Security (CTI-CFF) and Arafura Timor Seas Ecosystem Action Plan (ATSEA) will provide more in-depth insights on the importance of these transboundary approaches to larger seascapes. Dr. Lim expressed that the ACB is also honoured to share the efforts in supporting the AMS in enhancing marine biodiversity conservation through the AHP Programme and the ASEAN Flyway Network and through knowledge management platforms such as the ASEAN Biodiversity Dashboard, among others.

Dr. Lim welcomed the presence of Ms. Leah Karrer from the Global Environment Facility (GEF) and expressed appreciation for the GEF's push for an integrated approach, with enhanced engagement and collaboration in multi-stakeholder platforms. Such commitment for resources is necessary to bridge the conservation financing gap for protected areas.

Dr. Lim quoted the CBD Executive Secretary, Ms Elizabeth Mrema's who stated during the High-Level Segment that, "safeguarding biodiversity is the defining task of the decade, positioned at the centre of the biggest issues the world faces." Dr. Lim stressed that we must all undertake this task, as a community, as a nation, as a region and emphasised that our collective efforts when pooled together can make a huge difference in protecting biodiversity and saving our planet.

## **2.2 Dr. Ca Vu Thanh, Member, PEMSEA Executive Committee:**

On behalf of PEMSEA, Dr. Ca Vu Thanh welcomed the participants and noted that this is one of the many collaborative activities with the ACB—a PEMSEA non-country partner through the years. Dr. Ca stated the EAS Congress 2021, with the theme 'Charting A New Decade of H.O.P.E. (Healthy Ocean, Peoples and Economies), has joined the start of decadal actions in promoting sustainable development agenda alongside the launch of the UN Decade of Ocean Science for Sustainable Development and UN Decade of Ecosystem Restoration and the negotiations for the post-2020 Biodiversity Framework and the UNFCCC COP, among other global events.

According to Dr. Ca, the global pandemic has added a new dimension to the existing challenges in achieving environmental sustainability, thus countries are in the process of developing and adopting sustainable recovery and adaptation measures in response to the COVID-19 impacts. He noted that this collaboration is an opportune time to come up with practical recommendations that can help inform global discussions, donor programming, the PEMSEA Roadmap to 2030 and the national and local economic recovery plans on ways to protect and manage coastal and marine biodiversity if we are to sustainably manage our shared resources and ecosystem goods and services that support food security, livelihood, well-being and regional peace and stability.

Dr. Ca also mentioned PEMSEA's recent review of its shared regional framework, the SDS-SEA, which show the efforts to conserve and sustainably manage biodiversity at the national level based on country partners' adoption of the National Biodiversity Strategy and Action Plans (NBSAPs). The review noted that all 11 country partners have complied with Article 26 of the CBD through the submission of their respective 6th National Reports detailing their accomplishments in biodiversity conservation. Supporting policies, legislations and programs that support biodiversity conservation are also in place in the 11 countries, which are also in line with SDG 14 and Aichi Biodiversity Targets 6, 7, 10 and 11.

At the local level, management plans for the protection, restoration and conservation of coastal habitats are in place in the Integrated Coastal Management (ICM) sites in the form of strategic plans such as Coastal Strategies, ICM plans, Strategic Environmental Management Plans or thematic plans (e.g., MPA management plans, mangrove conservation plans, etc.) in line with the priorities in the NBSAPs. Dr. Ca added that varying levels of application of spatial planning tools such as coastal use zoning and MSPs to delineate conservation areas and address use conflicts were noted in selected ICM sites, including the application of local state of the coasts reporting as a medium for reporting of progress in ICM implementation using an agreed set of governance and management program indicators.

Dr. Ca stated that MPA establishment and networking as a tool for conservation planning is widely implemented in the region, particularly in China, Indonesia and the Philippines. Six countries collectively covered an estimated 30 per cent of their territorial waters under protection through the designation of MPAs.

### **2.3 Dr. Leah Karrer, Senior Program Manager, GEF Secretariat:**

Dr. Leah Karrer shared that transboundary governance is the foundation of GEF investments in ocean and freshwater initiatives around the world. Over the last 30 years, GEF has invested in 23 LMEs including six LMEs in the East Asian Seas. She added that MPAs are a priority global environmental benefit of GEF investments. These investments ensure that countries throughout the region can meet their environmental agreements obligations such as the post-2020 GBF which stresses the need for mainstreaming biodiversity across sectors of the economy and society. Dr. Karrer emphasised that mainstreaming is a key aspect of LMEs and MPAs which address a range of activities from fisheries to agriculture to tourism.

She recognised the numerous seascapes, LMEs, MPAs, and the Coral Triangle Initiative established through the work of the ASEAN, PEMSEA, and many partners which demonstrates the region's leadership in marine conservation. She highlighted some of the greatest contributions of the region, beginning with the importance of an integrated approach. Dr. Karrer acknowledged PEMSEA's work on integrated coastal zone management (ICZM), having assisted in building ICZM strategies throughout the region wherein projects have demonstrated integration across sectors, geographies, and stakeholders. This approach has also brought an importance at the GEF and is now a central tenet of the soon-to-be-agreed GEF-8 funding strategy focusing on integrated issues such as sustainable cities, food systems, and plastic pollution.

Dr. Karrer identified private sector engagement as another contribution of the region as the East Asian Seas has been collaborating with the private sector in two critical ways. First, the region has been working with businesses to adopt sustainable practices not only with fishers, dive operators, but also with coastal developers, insurance and shipping companies, agriculturists, and beyond. The region also brought in innovative financing including multilateral development banks such as the Asian Development Bank, World Bank, as well as impact investors such as Meloy Fund for fisheries and to circulate capital for plastic pollution. She shared that the GEF has been pleased to help catalyse these private sector partnerships and help innovate financing. Dr. Karrer emphasised that these two tenets, integration and private sector engagement, have been fundamental to the success of marine conservation efforts in the region and provided important lessons to the world. Finally, she expressed that GEF looks forward to working with the region to foster effective and successful transboundary cooperation with the networks of marine protected areas.

### **2.4 Dr. Pornsri Suthanaruk, Deputy Director-General, Department of Marine and Coastal Resources, Thailand:**

On behalf of the Chair of the ASEAN Working Group on Coastal and Marine Environment (AWGCME), Dr. Pornsri Suthanaruk welcomed the participants and acknowledged the representatives of the ASEAN Working Group on Nature Conservation and Biodiversity (AWGNCB) and the AWGCME. She conveyed her appreciation to the ACB and PEMSEA for the efforts in conducting this session.

Dr. Suthanaruk acknowledged the rich coastal and marine resources of the ASEAN region highlighting migratory species that do not recognise boundaries and move from country to another throughout their life cycle. Considering the importance of connectivity and the integrity of ecosystems, ICZM has been widely implemented in ASEAN region including the establishment of MPAs and use of Marine Spatial Planning which are among the various management tools that have been adopted following the ICZM principles. These efforts have been made to achieve the post-2020 global biodiversity targets in protecting and conserving 30 per cent of terrestrial, inland waters, coastal, and ocean areas by 2030. Dr. Suthanaruk shared that other additional key factors such as effective governance, efficiency of biodiversity conservation in LMEs, financial mechanisms, public awareness, and collaboration among AMS are also important to success and play critical roles to maintain biodiversity and keep productive and healthy oceans. She underlined that the sharing of lessons learned and best practices will enhance capability to tackle the problems and minimise negative impacts on biodiversity and environment through mitigation and adaptation mechanisms. In addition, Dr. Suthanaruk noted that the establishment of nature-based solutions can encourage people to make responsible alternatives.

For Dr. Suthanaruk, the session will help strengthen collaborations among AMS and will serve as an opportunity to express the views on how they can cooperate to conserve ecosystems. She added that the engagement of stakeholders across all levels will leverage the fulfillment of the 2050 vision of *Living in Harmony with Nature*. She wished the session a fruitful discussion to help develop concrete actions as a response to the post-2020 global biodiversity framework and as a support to relevant Sustainable Development Goals.

### **3.0 KEYNOTE MESSAGE**

Dr. Jose E. Padilla, Regional Technical Adviser, Water and Oceans, Bangkok Regional Hub, of the UN Development Programme (UNDP), provided an overview of the importance of transboundary waters and emphasised that transboundary is the 'norm', not the exception, for world's waters. He shared a short video to clarify further what is Large Marine Ecosystems (LMEs) and showed the map and coverage of the LMEs Hub, a regional perspective of the world's ocean. He also highlighted in the map the coastal populations in the LMEs.

Dr. Padilla discussed the GEF approach on Managing LMEs, where the *Transboundary Diagnostic Analysis and Strategic Action Programme* development approach for the management of LMEs are consistently used to develop management strategies. He shared that in Asia, GEF supported a large number of marine protected areas including the Sulu Celebes Seas (UNDP); Arafura and Timor Seas (UNDP); Yellow Sea (UNDP); East Asian Seas (UNDP); the South China Sea and Gulf of Thailand (UNEP); Bay of Bengal (FAO); Indonesian Seas (FAO).

He defined the Transboundary Diagnostic Analysis (TDA) as a mechanism to help the participating countries to 'agree on the facts' as many conflicts are driven by perceptions and removing these can be an enormous step in itself. He also shared the objectives of the TDA, which are to identify & prioritise the transboundary problems; gather and interpret information on the environmental impacts and socio-economic consequences of each problem; analyse the immediate, underlying, and root causes for each problem, and in particular identify specific practices, sources, locations, and human activity sectors from which environmental degradation arises or threatens to arise.

In addition to TDA, he also defined the Strategic Action Program as a regional policy framework that strengthens the participating countries' individual and collective ability to contribute directly to actions. The Strategic Action Program also provides national and regional commitments to policy, legal and institutional reforms, and investments to remedy the root causes of priority transboundary issues identified in TDA. This is endorsed at the Ministerial level and are seen in the various LMEs that UNDP supported.

Dr. Padilla mentioned the common Transboundary Environmental Concerns in LMEs (from TDA) which include biodiversity loss-low MPA coverage; nutrient over-enrichment/hypoxia; overfishing; plastic pollution; and climate change. He discussed these threats in detail and proposed solutions such as increasing the MPA coverage and improving the management of MPAs to address the biodiversity loss. In terms of nutrient over-enrichment/hypoxia, Dr. Padilla discussed how to facilitate economic and policy incentives for fertilizer use efficiency, nitrogen recovery from wastewater, and enhancing nutrient sinks. To address the issue of overfishing, Dr. Padilla said that there's a need to reduce negative fisheries subsidies (\$16 billion/year) and redirect to improve fisheries management, promote sustainable aquaculture, and MPAs; scale-up ITQs (up to \$40 billion/yr), ensure social equity in ITQ allocation to small scale fishers (SSF), and ensure sound science, EBA, data sharing, the precautionary principle in RFMOs & LMEs. Among the solutions to plastic pollution as shared by Dr. Padilla, are supporting a circular economy; and global scaling up of proven mechanisms that deliver high percentage of plastic recovery and re-use (bottle bills, selected bans, incentives for producers to recover & re-use plastics, etc.). Meanwhile, there is a need to put a proper price on carbon emissions; remove fossil fuel subsidies; and set a minimum allowable ocean pH level to prevent further degradation from ocean acidification.

Dr. Padilla highlighted that there are challenges in LME management such as the commitment of littoral countries towards transboundary management to address shared concerns, finding win-win solutions, to soften the short- and long-term impacts; lack of appreciation of the economic significance and value of the oceans; significant resources required to implement national and regional commitments beyond GEF financial support; and more meaningful engagement of stakeholders at the local, national, regional levels.

#### **4.0 PRESENTATIONS ON TRANSBOUNDARY APPROACHES IN ASEAN**

##### **4.1 ASEAN Heritage Parks Programme: Managing Network of Marine Protected Areas:**

Ms. Clarissa C. Arida, ACB's Director for Programme Development and Implementation Unit, presented the ASEAN's rich marine biodiversity, covering about 50 per cent of the Earth's water surface and one-third of the total surface of the world. She also shared the threats on the ASEAN's coastal and marine ecosystems, which include habitat change, ineffective governance, overexploitation, pollution, climate change, among others.

Ms. Arida's presentation focused on the ACB's role of the ACB in managing the ASEAN Heritage Parks Programme, an ASEAN flagship programme that manages a regional network of representative protected areas created to generate greater collaboration among the AMS in preserving their shared natural heritage. She also highlighted the ACB's efforts in providing support to protected area management planning, updating of management plans, establishing baseline information on species and ecosystems, and supporting livelihood and capacity building for law enforcement activities.

She shared various regional platforms and venues in strengthening the AHP network, such as the ASEAN Conference on Biodiversity, AHP Conference, ASEAN Biodiversity Dashboard, and the ASEAN Clearing-House Mechanism. These platforms aim to enhance knowledge-sharing and foster camaraderie and networking among AHP managers and other stakeholders. She also shared key regional programmes and initiatives providing support in sustaining the AHP network which includes the ASEAN Flyway Network, Biodiversity Conservation and Management of Protected Areas in ASEAN (BCAMP) Project, Small Grants Programme (SGP), Institutional Strengthening of the Biodiversity Sector in ASEAN (ISB) Project, and Mobilising Stakeholders to Inform the Development of a Science-based Decision Support System for Coastal Wetlands in ASEAN Region Project.

Ms. Arida emphasised the need to enhance regional cooperation in sustaining the network of MPAs in ASEAN through cross-sectoral and cross-pillar collaboration, including the collaborative management of MPAs and partnerships across MPA networks, and cross-sectoral framework towards the conservation of threatened species in the ASEAN including marine species.

Some of the ways forward that Ms. Arida highlighted include support to science-based approaches to fill in gaps in MPA and connectivity science; engagement of stakeholders to support and manage networks of MPAs and encourage more MPA nominations for AHPs; improve knowledge management and sharing of knowledge products to scale up or replicate sustainable management of MPAs, MPA networks, and marine corridors; capacity building towards effective MPA management; engagement of indigenous peoples and local communities (IPLCs); combating marine debris in ASEAN; and strengthening the AHP Programme through the post-2020 global biodiversity framework.

#### **4.2 ASEAN Flyway Network**

Ms. Yang Shufen, Director of the Sungei Buloh Wetland Reserve, National Parks Board, Singapore introduced the East-Asian Australasian Partnership (EAAFP) which is one of the partnerships in the region focusing on the conservation of migratory birds and their habitats. She emphasised how these wetlands and birds connect the countries together.

Ms Yang shared the establishment of the ASEAN Flyway Network (AFN) and its framework composed of the national focal points as core members and partners, NGOs, and academe as non-core members. The network helps facilitate the sharing and exchange of knowledge and best practices, support for collaboration at a site level, implementation of activities when funding is available, among others. Ms Yang added that the AFN operates as a virtual network where collaborative activities, partnerships, and workshops can be done when funding opportunities arise.

Ms Yang presented the AFN project, *Improving Biodiversity Conservation of Wetlands and Migratory Waterbirds in the ASEAN Region*, which was supported by the Government of Japan through the Japan-ASEAN Integration Fund in 2017. This allowed the network to carry out essential work to support science-based policies. The project was co-led by Singapore and the ACB with support from the AMS and inputs from the EAAFP Secretariat and NGOs such as Wetlands International and BirdLife International. The project consists of four areas including establishing a functioning AFN, addressing data gaps, capacity building, and CEPA. The outputs of Phase I of the project include regional meetings and national planning workshops, as well as data collection in existing and potential flyway network sites and priority coastal areas. Finally, Ms Yang shared the future activities of the network including the Phase II of the project



which focuses on organising regional and national workshops and increasing capacities through training on bird identification, wetland ecology, among others.

#### **4.3 Transboundary approaches in ASEAN: Coral Triangle Initiative on Coral Reefs, Fisheries, and Food Security (CTI-CFF)**

Dr. Gregory Bennett, CTI-CFF Technical Program Senior Manager, provided an overview of the global outlook on coral reefs. Between 2009 and 2018, the continuous rise in sea temperature cost the world 14 per cent of its coral reefs. This was similarly reported In the Sixth Status of Corals of the World: 2020 Report, where it was *revealed that sharp declines in coral cover, correspond with rapid increases in sea surface temperatures, indicating their vulnerability to temperature spikes, and found that this phenomenon is likely to increase as the planet continues to warm.*

The CTI-CFF was formed in 2009 with the multilateral partnership of six countries: Indonesia, Malaysia, Papua New Guinea, the Philippines, Solomon Islands and Timor-Leste, led by the National Coordinating Committees (NCC), CTI Strategic Partners and Collaborators. Dr. Bennett shared the 10-year CTI-CFF Regional Plan of Action adopted in Leaders' Summit in 2009 which includes five goals, 10-targets, and 37-regional activities.

Dr. Bennett likewise shared the examples of MPAs in coastal and marine habitats that are deemed critical to the sustainability of migratory/transboundary marine turtle populations in Indonesia, Malaysia, and the Philippines. He stressed that the marine turtles protected area network (MTPAN) in the Sulu-Sulawesi Seascape is among the key programs in which transboundary cooperation could take place.

In July 2018, the CTI-CFF held a Sulu-Sulawesi Seascape Regional Convergence Meeting: Toward Establishing Transboundary Coordination where some recommendations on facilitating the establishment of the regional or tri-national MPA network were discussed, along with the transboundary cooperation within the region towards the protection of marine turtle habitats and fisheries management. The convergence meeting also served to follow up the capacity needs assessment of the partners.

Dr. Bennett shared some future projects and proposals related to MPA networks and transboundary/connectivity issues. He called for the close cooperation among the Members Countries, Partners and other stakeholders on the connectivity and transboundary issues of reefs, fish and relevant resources/services; the conduct of capacity building for the stakeholders in transboundary and connectivity issues and management; and the strengthening of the relevant technical working groups.

#### **4.4 Designing Resilient MPA Network in the Arafura and Timor Seas Region**

Dr. Handoko Adi Susanto provided an overview of the geographical coverage of the Arafura Timor Seas Ecosystem Action Plan (ATSEA) and the various biodiversity resources found in the area and the globally threatened marine megafauna including migratory, rare, and threatened species (e.g., turtles, dugongs, birds, cetaceans, sharks and rays).

Dr. Susanto highlighted that marine ecosystems provide important goods and services such as food and livelihoods from fisheries, aquaculture and marine tourism; coastal protection/flood control; and carbon sequestration but they are being threatened by anthropogenic factors such as unsustainable harvesting, habitat loss, industry (oil and gas exploration/ extraction, shipping), marine and land-based pollution, and climate change. He said that MPAs

(particularly in no-take areas) can be powerful tools, but they can only be effective if they are managed effectively.

With the support of the Australian Government, second phase of the ATSEA Programme which is a regional partnership involving the Governments of Indonesia, Timor-Leste and Papua New Guinea, aims to collectively manage marine and fisheries resources to promote sustainable development and ensure the economic growth of the coastal people in the transboundary area through the of restoration, conservation and sustainable management of marine-coastal ecosystems approach. The planning tool used was Systematic Conservation Planning Tool – Marxan and Spatial Analysis.

Dr. Susanto then presented the five steps of the MPA Network design and the Resilient MPA Network for ATS Region from the regional and national consultations among key stakeholders composed of ninety-three existing and proposed MPAs with a total area 271,588 km<sup>2</sup>, twenty AOIs with a total area of 29,385 square kilometres. He also mentioned the targets and updates on marine conservations per country such as in Indonesia and Timor-Leste where results showed some gaps in MPA coverage for some conservation targets.

He further emphasised that this was the first iteration of an MPA network design for the ATS region which was built from existing MPAs/Marine Spatial Plans from each country. The use of best available data and best practices to identify gaps in the existing MPA network allowed them to ensure adequate representation of shallow and deepwater habitats, conserve critical areas not currently protected (e.g. turtle nesting beaches, areas important for other ERT species, shipwrecks and airline wrecks), consider connectivity, maximise benefits for fisheries, and consider climate change vulnerability assessment. Although there were some limitations, this iteration managed to achieve targets while minimising the impact of resource utilisation such as capture fisheries, oil and gas mining, shipping, among others.

Moving forward, Dr. Susanto highlighted some points including validating areas of interest (ground-truthed to ensure they will provide the expected benefits for the MPA network) and discussing proposals for new MPAs among the local stakeholders; conducting more detailed and comprehensive stakeholder consultations in each of the four countries; zoning all MPAs in the region using scientific design criteria and compiling the zoning plans in a regional database; and addressing research priorities to refine the design, particularly regarding modelling and mapping connectivity (larval dispersal), fishing pressure and the impacts of climate change on key habitats and species throughout the region.

## 5.0 OPEN FORUM

The floor was opened for questions from the attendees of the session. The speakers addressed them as summarised below:

**QUESTION 1.** Is there any monitoring mechanism at the ASEAN level for management of the ASEAN Heritage Parks? Can an AHP be delisted as a sanction for bad management by the ASEAN Member State?

**Ms. Clarissa Arida:** As the AHP Programme Secretariat, the ACB monitors and evaluates existing AHP sites. AHP Managers are requested to submit Annual Reports. There is no policy yet on delisting AHPs but it is being considered in the current AHP Regional Action Plan (RAP) review and assessment of the selected key areas of the AHP Programme.

**QUESTION 2.** What have been the most successful cases or lessons learned in engaging multi-country engagement in implementing LME level conservation and how can we expand the role of private sector and coastal communities in addressing the threats in LMEs, especially in addressing the biodiversity loss, plastic pollution and acidification?

**Dr. Jose Padilla:** With respect to the initiatives to the LMEs, the projects supported by the GEF and implemented agencies including UNDP and UNEP, provided forum on shared environmental concerns. Countries, for instance, have agreed to put in place a regional coordination mechanism to discuss issues and to agree on the implementation of the Strategic Action Programme that is a part of the LME projects. This continued after the project was completed, as seen in the Yellow Sea and in East Asia. PEMSEA itself originated from a UNDP GEF project and has now evolved into what it is now as an intergovernmental organisation. The participation of the different stakeholders is important. For instance, the private sector can put in place wastewater treatment plans to manage nutrient loading which primarily comes from industrial and commercial wastes. . Ecotourism is a big activity, within MPAs in LMEs, and tourism is also driven by the private sector. We have seen the private sector play an important role in awareness raising in some protected areas such as the Tubbataha Reefs Natural Park. Multi-stakeholders participation is key to the success of the initiatives in LMEs. Perhaps the most crucial point is the willingness of the countries to work together in addressing, common issues.

**QUESTION 3.** How are migratory species protected at the global level and are there similar initiatives outside of ASEAN that are doing these?

**Ms. Yang Shufen:** Yes. There are about 10 recognised flyways in the world, some of which have their own regional initiatives, while others have successful small initiatives. One of the critical flyways that needs international attention is the East Asian-Australasian Flyway. The ASEAN region is an important transit where the migratory birds travel every year and the EAAF hosts a few millions of migratory birds, one of the most diverse, and the largest number of threatened species. If conservation actions do not click in the next decade there are many migratory waterbird species that are at risk of extinction, one of this is the commonly known Spoon-bill Sandpiper.

**QUESTION 4.** You mentioned Capacity Building in the Way Forward of your presentation. What kind of “capacities” are these, and how could they contribute to effective transboundary management?

**Dr. Gregory Bennet:** Within the CTI region, there are three countries from the ASEAN region and three from the Pacific region and we’ve seen their different approaches, particularly through the different seascapes. Basically, what we want to emphasise is having a scale of approach where countries have the skills to pick up the regional programme and join these initiatives. This is one of the capacity building that CTI is looking at, and the strengthening of activities in the region with lacking capacity and resources, to put them in the same platform.

**QUESTION 5.** How can we fast track addressing the gaps in MPA coverage for some conservation targets given the various intervening issues that the countries are facing?

**Dr. Handoko Adi Susanto:** When we identify the gaps, we use a scientific design on what we want to conserve. For example, when it comes to marine turtles, we need to

understand their migratory route, life cycle, feeding behavior, and so on. We have many references, we have guidance on how to design the MPA network, and on how to identify the gaps. As mentioned before, this is quite challenging because we could not travel and do field observation since the pandemic, but we use existing information like MPS and other data.

**QUESTION 6.** What are the latest scientific findings on the impacts of these heritage parks like spillover effects of fish, sustainable tourism development, improved sustainable livelihood development of local communities, among others?

**Ms. Clarissa Arida:** The ACB conducts regional and national studies on the value of these AHPs and how the years of protecting these parks have benefited the local communities. The ACB ensures that benefits from the regional and site initiatives being supported will be sustained. For example, sustainable livelihood support to local communities in AHP mangrove ecosystems sites such as in Meinmahla Kyun Wildlife Sanctuary in Myanmar. The sustainable conservation financing support through the EU-BCAMP project aims to address threats to biodiversity in and around the parks through alternative livelihood support.

**QUESTION 7.** The Turtle Islands Heritage Protected Area (TIHPA) harbours the largest nesting aggregation of green turtles in the entire ASEAN Region and is the world's first Transboundary Protected Area for Green Turtles and formally established through a MOA between Malaysia and the Philippines. Does TIHPA qualify as an AHP and are there initiatives to establish it as such?

**Ms. Clarissa Arida:** The AHP Secretariat continues to consult both the Philippines and Malaysia for the nomination of TIHPA. As a transboundary protected area, the Ministries of Environment and Foreign Affairs should be included in the discussion for the preparation of the nomination of the protected area.

**QUESTION 8.** Dr. Lim made a reference to the target of designating 30 per cent of terrestrial, inland waters, coastal, and marine areas on earth as protected areas or other effectively conserved area-based measures (OECM) in the draft post-2020 GBF. Yet the status quo of MPA coverage in LMEs in ASEAN region is even far below the Aichi Target of 10 per cent. The ASEAN position at the CBD COP high level segment in Kunming is to have an ambitious and realistic GBF. The question is, from the ACB perspective, what percentage of coastal and marine areas in ASEAN seas designated as MPA or OECMs will be realistic in the coming decade, taking into consideration their connectivity, effectiveness in management and respect of the rights of the IPLCs?

**Ms. Clarissa Arida:** The ASEAN aspires for realistic targets and indicators in the post 2020 GBF taking into account national circumstances. The ACB in partnership with a number of international and regional partners is undertaking a science-based assessment to identify marine areas which the ASEAN can use as a basis in expanding PA coverage. The 30 per cent target in the GBF is a global target and we are also supporting ASEAN countries in assessing potential OECMs sites.

**QUESTION 9.** What do you think about the current solution of setting up portable MPAs today? Is it more effective than permanent MPAs in preserving biodiversity in ASEAN?

**Ms. Clarissa Arida:** You may be referring to temporal or seasonal MPAs when you refer to portable MPAs. Seasonal closure of MPAs are practised for fish sanctuaries MPAs and there is great potential for effective area-based conservation in conserving fish stocks and allow for coral or seagrass growth. The more common ones are the permanent MPAs but temporal MPAs could be an effective part of OECMs.

**QUESTION 10.** How to make the MPA transboundary operational in the field, while the regulations in each country are different? What are the concrete steps that will be taken, apart from the cooperation that has been carried out so far.

**Dr. Jose Padilla:** The transboundary MPA that comes to mind is the Turtle Island Heritage Protected Area shared by Philippines and Malaysia. From my recollection, the two countries jointly developed the management plan and coordinated its implementation in recognition of the high concentration of turtle nesting areas located in the islands. There are national and regional actions in place. There is continuing effort and our colleagues from the Philippines and Malaysia could provide further information on the arrangements and lessons learned.

**QUESTION 11.** You have very nicely identified the market and policy failures underlying the current problems, and clearly identified policy and market solutions. But the real issue is how to get these policy and market solutions adopted and put into practice? To help us understand how that may be achieved, could you share some examples where policy and market failures in relation to natural resource management have been successfully addressed in the region in the last 10 years, and the key success factors in achieving those changes?

**Dr. Jose Padilla:** Policy making is complex as you are aware due to multiple objectives that are oftentimes conflicting. For instance, in pricing fertilizer, subsidies target the farmers yet the externalities are not at all factored in. There has been success in developed countries in this regard as the experience in the Danube river has shown. In the ASEAN, it may be difficult to advocate but there are positive developments such as in organic farming, though still very limited. Organic farming addresses health concerns but has co-benefits. Fisheries subsidies are not prevalent in the ASEAN as far as I know - it is more of an issue for EU countries that enables them to fish around the world. Fuel subsidies particularly for diesel face the same concern. Market solutions are usually outside of the sector and there is a need to cast a wider net in finding solutions.

**QUESTION 12.** If sustainability of LMEs would partly require sound science, how much investment is given to doing sound science in LMEs, particularly in ASEAN?

**Dr. Jose Padilla:** Let me respond to this from the LME projects funded by the GEF. The TDA which is a scientific exercise is supported as part of the foundational projects by the GEF and the amount allocated differs across LMEs. Unfortunately, I could not provide an exact figure but you may check the project database in the GEF website. However, there is much more science needed than what the GEF could support. While the science work needs to be site specific but in the absence of studies, a 'distant' second best solution is by looking at the results of studies completed elsewhere to provide information on magnitudes and directions of impacts. There are accessible global databases that one may check.

## **6.0 VIRTUAL POSTER PRESENTATIONS ON TRANSBOUNDARY INITIATIVES**

The event also featured a virtual poster presentations on initiatives and projects that consist of collaborative efforts with larger seascapes and promote transboundary cooperation on MPAs to address issues and threats concerning the management effectiveness of these habitats.

### **6.1 ASEAN Biodiversity Dashboard:**

Dr. Arvin Diesmos, ACB's Director for Biodiversity Information Management Unit, presented the ASEAN Biodiversity Dashboard which is a knowledge management platform that houses valuable information on the region's biodiversity. The dashboard is a repository for biodiversity data consisting of species, habitats, protected areas, indicators, among others to support conservation initiatives.

The dashboard contains data-rich updated information from official sources and from the ASEAN Member States, collated by the ACB with support from the European Union, and NatureServe. The platform is highly interactive, which allows for increased access for scientists, policymakers and the public.

### **6.2 Collaborational Management in Wakatobi National Park:**

Ms. Arista Setyaningrum, Park Officer of Wakatobi National Park in Southeast Sulawesi, Indonesia, introduced the Wakatobi National Park by describing it as the second-largest national park in Indonesia with 1,320,987 hectares, 97 per cent of which covers the marine area. The Park is also considered as part of the Heart of the Coral Triangle Center. Ms. Setyaningrum focused on their collaborative management efforts and enumerated the eight conservation targets of the Park which include the coral reefs, mangroves, seagrass, high economic value fish, cetaceans, birds, sea turtle and spawning aggregation sites.

She also presented the various strategies of the Park in relation to its carrying capacity. Each area of the Park is identified according to its designated function such as resource use zonation, tourism development, sustainable fisheries and eco-tourism. She illustrated the resource use zonation strategy by showing the map indicating the various uses of the Park and their respective users. These include the core use zone which has very limited human activities and other multiple-use zones for traditional fishing, seaweed cultivation, tourism, navigation and others, therefore emphasising the avoidance of disruption of economic activities while continuing the other activities to safeguard the park. She added that this demonstrates the collaborative agreements between business operators, tourism operators, and conservation managers.

Ms. Setyaningrum shared the permitting system enforced among the resource users in the Park. One is the Business Permit issued for the provision of nature tourism services while the other is the Conservation Area Entry Permit used for the activities inside the conservation area other than the activities regulated in the business permit policy. She also highlighted the partnership strategies across all the islands in the park that involve the government sector, local communities and private sector that contribute to ecosystem restoration, park management and other relevant coastal development activities. Ms. Setyaningrum

enumerated some of the local community groups working with the Wakatobi Park Management team in protecting the Park. Lastly, she stressed that protecting marine ecosystems is equal to protecting our life.

### **6.3 Ecological Restoration in Lampi Marine National Park:**

Ms. Phyo Thuzar Win, Staff Officer of Nature and Wildlife Conservation Division, Forest Department shared the ongoing national effort on restoring terrestrial and aquatic protected areas in Myanmar which contributes to the transboundary cooperation for countries along the Andaman Sea. She emphasised the contribution of the Re-establishing Natural Habitats (RNH) Programme in achieving Myanmar's commitment to international agreements such as the Paris Agreement, UN Sustainable Goal 14, and Target 3 of the post-2020 global biodiversity framework.

The RNH Programme is a 10-year, government-led project being implemented from 2019 to 2028). Among the different government ministries and organizations involved in the implementation of the programme are the Ministry of Natural Resources and Environmental Conservation, Ministry of Agriculture, Livestock, and Irrigation, Navy, Myeik University, and Istituto Oikos. Ms. Win shared the two major components of the RNH Programme - Restoration and Protection. She highlighted that the outputs of the Programme include the following: (i) coral reef restoration; (ii) reduce threats and safeguard the biodiversity and ecosystems; (iii) maintain freshwater resources; (iv) enhancing livelihood and improving local stakeholders' awareness and participation; and (v) capacity building.

The Lampi Marine National Park, located in Bokepyin Township, Tanitharyi Region of Myeik Archipelago, is part of the RNH Programme. The park is one of the nine marine ASEAN Heritage Parks in the region and home to important species such as coral reefs, hornbill, and lesser-mouse deer. The area also served as the mother island of the Moken Sea Gypsies. She described the ecological threats in the area which include the following: (i) increasing human population and fishing boats; (ii) loss of forest cover for agriculture expansion; (iii) changes in ocean circulation due to climate change; (iv) sand mining; and (v) weak legal frameworks related to environmental management.

Ms. Win underlined the importance of transboundary cooperation for more effective protection of the marine park. She also highlighted the following areas for transboundary cooperation such as coral reef restoration, reef-based ecotourism, marine litter, habitat protection and migratory species conservation.

### **6.4 Managing Renewable Natural Resources in Tarutao National Park Area:**

Mr. Chaiyapruk Werawong, Senior Forest Officer of Tarutao National Park began his presentation by showing the resource map in the area which indicates core use zone, navigation, recreation, traditional fishing and special use zones, highlighting various ecosystem services provided by the Park. He also shared the major environmental issues in the Park and the various conservation objectives by the park management. Overall, the park initiatives hope to control and revive the condition of the natural resources in the area. Mr. Werawong added that the intended conservation outputs specifically include the increase of the number of aquatic animals and nursery grounds, decrease of the resource usage in the project area, and control illegal fishing for stopping catch embryos or aquatic animals in nursery grounds.

Mr. Werawong also showed various tourism destinations and activities offered in the Park including the geological features of Tarutao National Park which covers several islands and large portions of limestone, emphasising that the area is valuable for international tourism and the local economy. He also shared the intensive marine law enforcement activities in the Park such as reconnaissance patrols (both sea and land-based), covering almost 80 per cent of Tarutao park area, as well as data gathering that contributes to effective management of the protected area.

Mr. Werawong enumerated some of the management activities by the Protected Area Committee of Tarutao, which is a multi-stakeholder group tasked to cooperate for sustainable resources, such as marine debris collection, installation of buoys and coral reef monitoring.

#### **6.5 Potential of Abandoned, Underutilized and Undeveloped, Aquaculture Ponds and Mangrove Greenbelts as Blue Carbon Incentives in the Philippines:**

Mr. Terence Dacles, Senior Advisor of the ProCoast Project of *Deutsche Gesellschaft für Internationale Zusammenarbeit* (GIZ) GmbH, discussed a brief background on the *Sustainable Coastal Protection through Biodiversity Conservation in Coastal Ecosystems Affected By Typhoons in the Philippines* or the ProCoast Project. Mr. Dacles shared that they are working with the Biodiversity Management Bureau of the Department of Environment and Natural Resources and the Zoological Society of London in implementing this project which aims to establish marine protected areas, focusing on mangrove restoration and conservation, and setting up greenbelts in the Philippines. He mentioned that the project has the following work packages: (i) policy advice and capacity development; (ii) dissemination of best practices via Centers of Learning; and (iii) Knowledge Management and Awareness-raising. He emphasised that the project conducts a Training of Trainers on mangrove and beach rehabilitation, focusing on mangrove ecopark green grey engineering.

Mr. Dacles highlighted the challenges faced by operating and managing fishponds and explained that fishpond operations in public land require a Fishpond Lease Agreement with the Department of Agriculture Bureau of Fisheries and Aquatic Resources (25 years lease to 50 years maximum). He shared that a lot of fishponds in the Philippines are abandoned, underutilized and undeveloped (AUU). Thus, the project focuses on the reversion and restoration of these abandoned ponds. He shared the case of the Municipality of Leganes of Iloilo City where abandoned fishponds were converted as mangrove eco-parks.

He also shared the study conducted with support from the Zoological Society of London which showed that fishpond reversion to mangrove forest could sequester 21,000 to 28,000 tons of carbon dioxide over 6.5 years. He also emphasised that the project promotes mangrove greenbelts by conducting a number of studies to show the potential of using greenbelts as a means of protecting the coast. The studies also show that ponds yield higher blue carbon stocks than seafront rehabilitation. Given these benefits of AUU, Mr. Dacles stressed the importance of prioritising AUU pond reversion and mangrove greenbelts at the national level in order to facilitate mangrove as one of the Nationally Determined Contributions of the country. As a way forward, the project together with the local government and other stakeholders are establishing mangrove integrated ecoparks and marine protected areas.

#### **6.6 ASEAN-Norwegian cooperation project on local capacity building for reducing plastic pollution in the ASEAN region (ASEANO):**

Mr. Thomas Bell, Science and Communications Manager of PEMSEA Resource Facility discussed the ASEANO project which focuses on understanding global plastic pollution in this



region, emphasising its complexity and challenges brought by interdependent environmental and socioeconomic system compounded by the lack of information on many aspects of the plastic life cycle. The project aims to identify clear and replicable measures that can be used at a river-basin level and focuses on key aspects of monitoring and capacity from which succeeding actions may emanate from.

The pilot sites were identified in Indonesia and the Philippines which allows comparison and possible lessons learned that can be useful across the region. Mr Bell shared that the project uses the source-to-sea approach throughout river basins with distinct local and national boundaries; hence, requiring effective coordination and cooperation. The project gathered available baseline studies including existing knowledge and the overlapping local, provincial, and national laws and regulations which are used to analyse information gaps. Mr. Bell also pointed out another crucial aspect which is understanding the relationship of plastic within communities, businesses and other sectors. The project looked at public attitude and knowledge regarding plastic pollution since any long-term solution needs societal understanding especially on the culture and common practices (e.g. *tingi* culture in the Philippines). He shared that the initial result shows high awareness on the general topic of plastic pollution, its impact, and importance of recycling and reduction, but low awareness on the initiatives taken by the local government to reduce plastic pollution. Noting the disconnect between understanding the problem and its solution, Mr Bell added that this could be compared with other river basins and replicated in other countries to see if it is a common gap that can be addressed.

Mr Bell underlined that the sites identified for this project are located in highly populated areas and connect to major rivers; hence, the impact of plastic pollution affects large urban communities. The lessons learned from this project can be compared and replicated to other river basins in the region, as well as the importance of developing solutions that work at a local level.

7.0 VISUAL SUMMARIES

The event was concluded by presenting the visual summaries below which captured the highlights of the session.

**PRESENTATIONS ON TRANSBOUNDARY APPROACHES IN ASEAN**

**WAYS FORWARD:** SCIENCE-BASED APPROACHES, CAPACITY BUILDING, STAKEHOLDERS ENGAGEMENT, ENHANCED MANAGEMENT PLANS, KNOWLEDGE MANAGEMENT, ENGAGEMENT OF IPLCS, COMBATING MARINE DEBRIS.

**ASEAN Heritage Parks Programme:** A regional network of representative protected areas. Ms. Clarissa C. Arida, ASEAN Centre for Biodiversity. **50 AHPs** Coastal & Marine.

**ASEAN Flyway Network:** Network of WETLANDS and MIGRATORY WATERBIRDS Conservation. Ms. Yang Shufen, National Parks Board, Singapore. **16** EAATP Network Sites in ASEAN, **17** potential flyway sites.

**Coral Triangle Initiative:** GOALS: To SUSTAIN resources, To ADDRESS issues. WAY FORWARD: COOPERATE, BUILD CAPACITY, STRENGTHEN RELEVANT TECHNICAL WORKING GROUPS. Dr. Gregory Bennett, CTI-CFF Regional Secretariat.

**Designing Resilient MPA Network in the Arafura and Timor Seas Region:** - BUILDING ON EXISTING MPAs. Dr. Handoko Adi Susanto, UNDP/GEE/PEMSEA Arafura Timor Seas Ecosystem Action Plan. AUSTRALIAN GOVERNMENT. **GROUND-TRUTHING, STAKEHOLDER CONSULTATIONS, ZONING, RESEARCH PRIORITIES.**

**KEYNOTE MESSAGE:** THE LARGE MARINE ECOSYSTEM APPROACH IN BIODIVERSITY CONSERVATION AND SUSTAINABLE FISHERIES. Dr. Jose E. Padilla, United Nations Development Programme. **MANAGING LMEs Large Marine Ecosystems** STRATEGIC ACTION PROGRAM. **OCEAN THREATS:** Biodiversity Loss, Plastic Pollution, Hypoxia, overfishing, ocean Acidification. **CHALLENGES:** Lack of appreciation of economic significance, Significant resource requirement, Commitment of countries, Finding win-win solutions, Stakeholders engagement.

Presentations on transboundary approaches in ASEAN

**MANAGING NETWORKS AND TRANSBOUNDARY COOPERATION ON MARINE PROTECTED AREAS (MPAs) IN THE ASEAN REGION**  
**Virtual poster presentations**

**Managing Renewable Natural Resources in Tarutao National Park:** IMPACT: IMPERATIVE SOLUTION FOR CONSERVATION. OUTCOME: CONTROL AND REVIVE. OUTPUTS: INCREASE THE QUANTITY, DECREASE THE RESOURCE USAGE, CONTROL ILLEGAL FISHING. THE WAYS: PROTECTED AREA COMMITTEE, MULTISCALE COLLECTOR, PULL-UP/LEADING, RECOVERING MONITORING ON CORAL REEF.

**Ecological Restoration in Lampi Marine National Park:** RESTORATION: Coral Reef Restoration. PROTECTION: reduce biodiversity threats, maintain fresh water, livelihood enhancement, capacity building. TRANSBOUNDARY COOPERATION: MANAGEMENT BASED ON CARRYING CAPACITY, ZONATION SYSTEM, SUSTAINABLE FISHERIES, COASTAL DEVELOPMENT MANAGEMENT.

**Collaborational Management in Wakatobi National Park:** Ms. Arista Setyaningrum, Wakatobi National Park. TRANSBOUNDARY PARK INITIATIVES: POLICY, ERMIT, PARTNERSHIP.

**ASEAN Biodiversity Dashboard:** ACHIEVEMENTS IN AICHI AND SDG TARGETS, ONLINE EARLY WARNING SYSTEM, USER/POLICY-FRIENDLY INTERACTIVE PLATFORM, CURRENT DATASETS, DATA VISUALIZATION, APIS, BIODIVERSITY TRENDS, PROTOTYPE FOR NATIONAL INDICATOR. Dr. Arvin Diesmos, ASEAN Centre for Biodiversity.

**ProCoast:** SUSTAINABLE COASTAL PROTECTION THROUGH BIODIVERSITY CONSERVATION IN COASTAL ECOSYSTEMS. Mr. Terence Daclis, Procast Project, GIZ. AUU FISHPOND, MANGROVE FORESTS, PROMOTION OF MANGROVE GREENBELTS, CARBON DIOXIDE SEQUESTRATION.

**ASEANO:** IMPROVED CAPACITY FOR: WASTE MONITORING, COMMUNICATION, WATER QUALITY MONITORING. ASEA-NORWEGIAN COOPERATION PROJECT OR LOCAL CAPACITY BUILDING FOR REDUCING PLASTIC POLLUTION IN THE ASEAN REGION. Mr. Thomas Bell, PEMSEA Resource Facility.

**PLASTIC POLLUTION:** COMPLEX, INTERDEPENDENT. plastic, business, community.

Virtual poster presentations

## **ANNEX 1. RECOMMENDED ACTIONS FROM THE COLLAB.**

The recommended actions identified are as follows:

- a. Strengthen support for collaborative initiatives, networking, and partnerships within the region to encourage transboundary cooperation among MPAs;
- b. Strengthen governance in MPAs and enhance cooperation with local governments and key stakeholders;
- c. Enhancement of management plans and establishment of sustainable financing mechanisms in MPAs;
- d. Improve knowledge management and sharing of knowledge products to scale-up or replicate initiatives in MPA networks;
- e. Identify marine corridors and expand networks of MPAs based on connectivity science and other science-based approaches; and
- f. Strengthen capacity building towards effective transboundary MPA management such as core capacities and skills on ICM, MSP, and other monitoring and evaluation tools.

## ANNEX 2. PROGRAMME.

Host and Moderator:

**Ms. Antoinette Taus**

Founder and Executive Director

Communities Organized for Resource Allocation

Activity	Topics	Speaker
Opening addresses		<p><b>Dr. Theresa Mundita S. Lim</b> Executive Director ASEAN Centre for Biodiversity</p> <p><b>Dr. Ca Vu Thanh</b> Member, PEMSEA Executive Committee</p> <p><b>Dr. Leah Karrer</b> Senior Program Manager GEF Secretariat</p> <p><b>Dr. Pornsri Suthanaruk</b> Deputy Director-General Department of Marine and Coastal Resources Ministry of Natural Resources and Environment of Thailand</p>
Keynote message	The Large Marine Ecosystem Approach in Biodiversity Conservation and Sustainable Fisheries	<p><b>Dr. Jose E. Padilla</b> Regional Technical Adviser, Water and Oceans Bangkok Regional Hub United Nations Development Programme</p>
Presentations on transboundary approaches in ASEAN	<p>ASEAN Heritage Parks: Effectively Managing a Network of Protected Areas</p> <p>ASEAN Flyway Network</p> <p>Transboundary approaches in ASEAN: Coral Triangle Initiative on Coral Reefs, Fisheries, and Food Security (CTI-CFF)</p>	<p><b>Ms. Clarissa C. Arida</b> Director for Programme Development and Implementation Unit ASEAN Centre for Biodiversity</p> <p><b>Ms. Yang Shufen</b> Director (Sungei Buloh Wetland Reserve) National Parks Board, Singapore</p> <p><b>Dr. Gregory Bennett</b> Technical Program Senior Manager, CTI-CFF Regional Secretariat</p>

	Designing Resilient MPA Network in the Arafura and Timor Seas Region	<b>Dr. Handoko Adi Susanto</b> Regional Project Manager UNDP/GEF/PEMSEA Arafura Timor Seas Ecosystem Action Plan (ATSEA-2)
Q&A		
Multimedia break		
Virtual poster presentations on transboundary initiatives	<p>ASEAN Biodiversity Dashboard</p> <p>Collaborational Management in Wakatobi National Park (Indonesia)</p> <p>Ecological Restoration in Lampi Marine National Park (Myanmar)</p> <p>Managing Renewable Natural Resources in Tarutao National Park Area (Thailand)</p> <p>Potential of Abandoned, Underutilized and Undeveloped, Aquaculture Ponds and Mangrove Greenbelts as Blue Carbon Incentives in the Philippines</p> <p>ASEAN-Norwegian Cooperation Project on Local Capacity Building for Reducing Plastic Pollution in the ASEAN region (ASEANO)</p>	<p><b>Dr. Arvin Diesmos</b> Director for Biodiversity Information Management Unit ASEAN Centre for Biodiversity</p> <p><b>Ms. Arista Setyaningrum</b> Park Officer Wakatobi National Park Southeast Sulawesi, Indonesia</p> <p><b>Ms. Phyo Thuzar Win</b> Staff Officer Nature and Wildlife Conservation Division Forest Department Myanmar</p> <p><b>Mr. Chaiyapruk Werawong</b> Senior Forest Officer Head, Tarutao National Park La-ngu District, Satun Province Thailand</p> <p><b>Mr. Terence Dacles</b> Senior Advisor, ProCoast Project Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH</p> <p><b>Mr. Thomas Bell</b> Programme Manager PEMSEA Resource Facility</p>
Visual summary and synthesis		Host
Closing remarks		Host

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#### **ANNEX 4. LINKS TO THE RECORDINGS AND PRESENTATION MATERIALS.**

Recording - <https://youtu.be/a6VdF1UwpT8>

Presentation materials - <https://tinyurl.com/ACB-Collab-Presentations>