

**Report of the United Nations – The Nippon Foundation Fellowship
2016 Alumni Meeting**

**Maritime Southeast Asia and South Asia: Mapping Opportunities
and Challenges**

Bali, Indonesia

28 November – 1 December 2016

DAY 1 – 28 November 2016

Opening Session

Ms. Gabriele Goettsche-Wanli, Director, Division for Ocean Affairs and the Law of the Sea, Office of Legal Affairs of the United Nations (DOALOS), opened the UN-Nippon Alumni meeting. She extended her warm welcome to all participants and encouraged fruitful discussion. For over a decade, the UN-Nippon Fellowship Programme has trained government officials and mid-level professionals from 70 countries in the areas of law of the sea and maritime affairs. She hoped that the work of Alumni gathered at the meeting could have positive impacts in the field of ocean affairs.

Ambassador Arif Havas Oegroseno, Deputy Minister of the Indonesian Coordinating Ministry for Maritime Affairs, elaborated a range of maritime issues facing Indonesia and many other countries in the world including illegal fishing, forced labour, climate change, and maritime boundary disputes. He emphasized that the ocean is not getting enough attention and highlighted the urgent need for cooperation to address various maritime problems in a peaceful manner.

Mr. Abbas Daher Djama, Global Alumni Network Representative, pointed out that the UN Nippon Alumni Network is a dynamic platform that has served the evolving needs of its Alumni to progress through their careers. Consisting of 130 members from 70 different countries, the UN Nippon Alumni Network is one of the most diverse of such alumni networks. He emphasised that the UN Nippon Alumni Network symbolizes the strong ties between each Alumnus, based on our common passion for the ocean.

Mr. Michael Lyndon B. Garcia, Regional Alumni Representative, reminded the participants of the important role of the United Nations Convention on the Law of the Seas (UNCLOS) as the primary legal framework for managing ocean-related activities. He called on participants of the meeting to remind themselves of the aspirations of States parties to UNCLOS, which is to establish a legal order for the seas and oceans which will facilitate international communication and promote the peaceful uses of the seas and oceans, the equitable and efficient utilization of their resources,

the conservation of their living resources, and the study, protection, and preservation of the marine environment.

Ms. Suzie Sudarman, MA, Director of the American Studies Center, Universitas Indonesia and the Indonesian Institute of Advanced International Studies (INADIS), explained the commitment of her institutions to promoting the principles of freedom of navigation and cooperation in the field of ocean affairs. She also introduced the work of her institutions in helping Indonesia's younger generations.

Keynote Speaker

Ms. Gabriele Goettsche-Wanli, Director, United Nations DOALOS, began her speech by highlighting the importance of the ocean for national economic and social development, international trade, and communication, and noted that it is therefore crucial to enhance peaceful cooperation and the sustainable development of our oceans.

She drew attention to the challenges related to environmental protection. As States are increasingly looking to the oceans to support economic development, marine ecosystems are adversely impacted by pollution, unsustainable exploitation of resources, the introduction of invasive alien species, climate change, and the effects of ocean acidification. She indicated that these were the findings of the First Global Integrated Maritime Assessment and urgent action is required to address pressures on our oceans.

Ms. Goettsche-Wanli emphasized that since marine pollution, the impacts of climate change, and living marine resources are transboundary in nature, it is very important for States to enhance their cooperation at regional and global levels. UNCLOS is the key foundation for such international cooperation. UNCLOS provides legal clarity regarding the limits of sovereignty, sovereign rights and the jurisdiction of coastal States. This is crucial not only for peace and security, but also for the development of blue economies and securing investment opportunities. Many provisions of UNCLOS are recognized as reflecting customary international law and have served as the basis for regional legal instruments.

UNCLOS not only promotes regional and global cooperation but also has a role in maintaining peace and security. In particular, the dispute settlement mechanisms support the maintenance of peace and security and sustainable development when disputes arise.

Despite the development of a robust legal regime, the effective implementation of UNCLOS by States continues to be a major problem due to insufficient capacity. This includes insufficient human, financial, institutional, and scientific capacity. Notwithstanding these challenges, there are opportunities to improve international cooperation, including through public/private partnerships. Ms. Goettsche-Wanli outlined these opportunities, including in the context of Sustainable Development Goal 14. Further, she noted that the General Assembly decided to convene a United Nations Conference to Support the Implementation of Sustainable Development Goal 14: Conserve and sustainably use the oceans, seas and marine resources for sustainable development, in June 2017, coinciding with World Oceans Day. Ms. Goettsche-Wanli noted that the First Global Integrated Marine Assessment, and future Assessments under the Regular Process for Global Reporting and Assessment of the State of the Marine Environment, including Socioeconomic Aspects, can contribute to providing “the best available science” that should inform policy decisions.

Ms. Goettsche-Wanli also indicated that the link between the ocean and climate change has gained greater attention. The General Assembly decided to address the effects of climate change on oceans at the UN Open-ended Informal Consultative Process on Oceans and the Law of the Sea in 2017.

Ms. Goettsche Wanli pointed out that, when discussing maritime opportunities and challenges in Southeast Asia and South Asia, there are tools developed at the international level that can support their objectives. She also reminded the Alumni that their active participation in Fellowship and Alumni Network activities can help reduce the capacity gaps that might hamper the ability of their countries and regions to benefit from the many advantages that the ocean can offer.

Experts' Session

Dr. Daniel Hammond, University of Edinburgh

China's Domestic Politics and South China Sea Dispute Management

Dr. Daniel Hammond examined the similarities and differences between China's online messaging to international audiences in the immediate run-up to, and aftermath of, the South China Sea arbitration case (*The Republic of the Philippines v. the People's Republic of China*) conducted before an arbitral tribunal, with the Permanent Court of Arbitration acting as registry.

Using content analysis of Twitter handles used by the People's Daily, Global Times, and Xinhua, Dr. Hammond analysed how China communicates its foreign policy preferences to different audiences.

At the end of his presentation, Dr. Hammond provided some recommendations pertaining to social media exposure to help facilitate better cooperation between States. He suggested that social media presented challenges, as it was difficult to manage messaging on social media, how it might come across, and how it might be responded to by a large audience. Despite these challenges, social media also provides us with opportunities. Social media provides another space in which those making and implementing policy regarding the oceans and law of the sea can engage in discussion and spread information.

Prof. Clive Schofield, University of Wollongong

Defining Lines in the Sea as an Essential Enabler for the Blue Economy

Prof. Schofield began his presentation by outlining the importance of the oceans. These extensive maritime spaces and their associated coastal zones are critically important to sustaining life on Earth. Coastal and ocean areas are the drivers for the global economy and play a crucial and increasingly important role in global food security. He then proceeded to explain the emerging concept of the blue economy and its components. He further explored how marine spatial issues are becoming ever more important to effective ocean governance and realizing blue economy dividends. Despite there being no agreed definition of 'blue economy', the concept is increasingly gaining attention due to greater reliance on marine resources, growth in existing marine industries,

new marine industries, and innovation that brings potential job creation and competitive advantage, and growing concerns for sustainability and environmental protection.

While there is increasing recognition of the critical importance of the oceans across scales, from the global to the regional, national, and sub-national coastal community levels, the oceans are also increasingly under threat. This is especially the case as activities occur in coincident maritime spaces leading to tensions and incompatible overlaps. Marine activities and uses are increasing, diverse, coincident, transboundary and conflicting. Against this backdrop, blue economies need limits and boundaries to provide legal certainties for economic activities. Zoning becomes crucial to define areas for conservation of marine biodiversity. Prof. Schofield provided a range of examples, including the Designated Shipping Area and General Use Zone in the Great Barrier Reef and the Northwestern Hawaiian Islands (NWHI) Marine Sanctuary declared in June 2006. However, defining lines alone is not enough. There are needs for States to communicate the location of lines, deal with the transition towards a digital age, and apply new technologies for maritime management, surveillance, and enforcement.

Prof. Stuart Kaye, University of Wollongong

Law and Marine Biodiversity: How Can Southeast Asian Countries Make A Difference?

The waters of Southeast Asia are home to some of the richest marine ecosystems in the world. They are also the site of extraordinary human activity, with some of the world's busiest shipping routes, large scale offshore oil and gas production, and vast fisheries, which are heavily relied on for the food security of hundreds of millions of people. Prof. Kaye began his presentation by presenting data relating to coastlines, fish production, mangroves, coral reefs, and ships passing through Southeast Asia.

Consequently, the effective management of this extraordinary level of human activity requires a high level of coordination. However, when one considers there are nine coastal States within ASEAN, and many extra-regional players – China, Japan, the Republic of Korea, the United States, Australia, India and the European Union – the task required to ensure such coordination cannot be underestimated. There are various issues that States in the region are facing including cooperation, IUU fishing, MPAs, marine pollution, disaster preparedness, shipping, and climate change.

Prof. Kaye elaborated the existing mechanisms used within Southeast Asia to manage marine areas. He looked at efforts at coordination through ASEAN (for example, the ASEAN Centre for Biodiversity, and the ASEAN Working Group on Coastal and Marine Environment), and also through other mechanisms, such as the Coral Triangle Initiative. Prof. Kaye further explained how Southeast Asian States engage with extra-regional players who have a role to play in the protection of marine biodiversity. Prof. Kaye concluded his presentation by highlighting the continuing need for collaboration, education, and capacity-building, as well as extra-regional engagement, to protect marine ecosystems in Southeast Asia.

Ms. Gabriele Goettsche-Wanli, Director, DOALOS

United Nations Regular Process for Global Reporting and Assessment of the State of the Marine Environment, including Socioeconomic Aspects

Ms. Gabriele Goettsche-Wanli began her presentation by providing an overview of the Regular Process and modalities for implementation of the Process. She explained that the First Global Integrated Marine Assessment had been carried out under the auspices of the UN General Assembly and the Regular Process for Global Reporting and Assessment of the State of the Marine Environment, including Socioeconomic Aspects.

Ms. Goettsche-Wanli outlined ten main themes in the summary of the Assessment. These included climate change, marine biota, food security and safety, patterns of biodiversity, use of ocean space, inputs of harmful material, cumulative impacts, distribution of ocean benefits, and integrated management. The First Global Integrated Marine Assessment highlighted information gaps regarding the physical structure of the ocean, waters of the ocean, biota of the ocean, and human interactions. It called for urgent action to address existing problems. Problems such as climate change can only be addressed at global level. Delaying actions would impose environmental, social, and economic costs. In the area of capacity-building, the First Global Integrated Marine Assessment emphasized the need to fill the knowledge gaps. Applying knowledge in ocean management requires material, personnel, experts, and other resources to support the necessary activities.

Having highlighted the main findings of the First Global Integrated Marine Assessment, Ms. Goettsche-Wanli explained the second cycle of the Regular Process. General Assembly Resolution 70/235 (23 December 2015) set the foundation for the launch of the second cycle of the Regular Process. As proposed by the Ad Hoc Working Group of the Whole to the General Assembly, the five-year second cycle will run from 2016 to 2020. The Ad Hoc Working Group of the Whole recommended a programme of work for the second cycle of the Regular Process (2017-2020). The main outputs of this programme of work include: (1) the Second World Ocean Assessment(s); Regular Process support for other ocean-related intergovernmental processes, including technical abstract(s); and (3) activities in support of making the second cycle operational, such as regional workshops, briefings, and meetings for outreach and awareness-raising, and capacity-building.

DAY 2 – 29 November 2016

Panel 1. The South China Sea Maritime Dispute

Moderator: Prof. Clive Schofield, University of Wollongong

Rapporteur: Dr. I. Made Andi Arsana (Indonesia)

Commentator: Mr. Michael Lyndon B. Garcia (the Philippines)

Mr. Michael Garcia (the Philippines)

The South China Sea Arbitration Case: Post-Ruling Scenarios

Mr. Garcia started his presentation by asserting that the South China Sea (SCS) has recently been a trending topic. Mr. Garcia focused on the post-ruling scenario of the SCS, especially with respect to the response of the Philippines and other States in the region. He elaborated on the history of, and the latest developments concerning, the SCS, together with the rationale of the decision by the Philippines to bring the case before an arbitral tribunal. Mr. Garcia went on to explain the ruling of the Tribunal.

With respect to ASEAN, Mr. Garcia highlighted that ASEAN does not take any specific position on the ruling, but respects legal and diplomatic processes. ASEAN and China have conducted a summit with an agenda, among other things, to respond to the latest situation in the SCS. He said that China had agreed that a draft framework of the Code of Conduct regarding the SCS was to be

ready mid-2017. Mr. Garcia also discussed the bilateral approach that the Philippines and China have taken so far in relation to determining the best steps to be taken after the ruling.

In conclusion, Mr. Garcia noted that the SCS case is a test for the application of international law in the region.

Dr. I Made Andi Arsana (Indonesia)

The New Map of the South China Sea: The Implications of the 2016 Tribunal Award for Maritime Boundary Delimitation between Indonesia and its Neighbours in the South China Sea

Dr. Arsana followed the presentation of Mr. Garcia also on the South China Sea (SCS). Dr. Arsana focused on the post-ruling situation, especially with respect to the maritime boundaries of Indonesia in the SCS. Similarly to Mr. Garcia's presentation, Dr. Arsana highlighted points of the Tribunal awards. He started his presentation by explaining the geographical context of the SCS as a semi-enclosed Sea. He discussed the implications of the decision for Indonesia's maritime boundaries, including with Malaysia and Viet Nam.

With regards to the Tribunal's decision on the status of geographical features in the SCS, including those in the Spratly Islands group, Dr. Arsana highlighted potential implications for the roles of islands in maritime boundary delimitation. He noted that Indonesia was an archipelagic State with thousands of Islands, and that it may need to revisit its small outer islands and investigate whether or not those islands will affect its forward position where maritime boundaries have yet to be settled. Likewise, he suggested that small islands of Indonesia's neighbours might also need to be reconsidered for their roles in maritime boundary delimitation.

Dr. Arsana concluded that even though the 2016 ruling relates to China and the Philippines, the award serves as jurisprudence that can be referred to at a later time when there are similar cases.

Mr. Dong Manh (Viet Nam)

Joint Oceanographic Marine Scientific Research Expedition in the South China Sea: An Example for Maritime Confidence Building Measures

Mr. Dong delivered a presentation on confidence building measures (CBM) in the South China Sea (SCS). He presented a programme called the Joint Oceanographic Marine Scientific Research Expedition in the SCS (JOMSRE). Mr. Dong started by explaining that JOMSRE is a good example of how States in the SCS region have initiated collaboration among themselves, which collaboration served as a good CBM.

He explained that JOMSRE is a technical activity to map the seafloor of the SCS involving the Philippines and Viet Nam, and was without any prejudice to sovereignty and sovereign rights over land and maritime areas in the SCS. Both States funded the project and the data was also equally shared for them to understand better the seabed and its potential. The JOMSRE project was made possible through goodwill and good faith from both sides, indicated by reciprocal visits by the leaders of the two States prior to the JOMSRE projects.

JOMSRE's scientific components include physical oceanography, chemical oceanography, biological oceanography, geological oceanography, and coral reef ecology, indications that the project was a comprehensive survey for a holistic understanding of scientific aspects of the SCS. There have been four legs of the survey (JOMSRE I-IV) within the project from 1996 to 2007, and Mr. Dong outlined that the results have helped the Philippines and Viet Nam to enhance mutual trust, and laid good foundations for cooperation between them. He suggested that the project also directly and indirectly contributed to the realisation of the draft DOC in 2002 and the implementation of UNCLOS's provisions regarding cooperation in semi-enclosed seas. This project was the very first implementation of this provision in the region, and also the first official joint activity after WWII in the region. In short, Mr. Dong concluded that JOMRE is a good model for scientific CBM in the SCS.

Ms. Mary Fides A. Quintos (the Philippines)

Post-Arbitration South China Sea: Prospects and Challenges for Cooperation

Ms. Quintos presented general observations on the prospects and challenges for cooperation in the South China Sea (SCS) after the 2016 Tribunal award. She started her presentation by highlighting the Coral Triangle Initiative (CTI) as a good example of cooperation in the Asia-Pacific Region, in which the Philippines, together with Indonesia, Malaysia, Timor-Leste, Papua New Guinea and the Solomon Islands, are participating. She mentioned possible inclusion of the SCS region into the CTI, for the SCS is also rich with biological diversity. Ms. Quintos went on to explain research and a number of observations that confirm the richness of the SCS by presenting figures regarding the economic value of fishery products extracted from the SCS.

Ms. Quintos noted that, while the SCS region faces environmental threats, no binding regional instrument for protecting the marine environment is in place. Nevertheless, the region has potential for cooperation. Ms. Quintos went on to outline the relevant provisions of UNCLOS governing the possibility of cooperation where sovereignty and sovereign rights issues are still pending. She observed that, even though sovereignty and sovereign rights are still in dispute, cooperation is not impossible. She noted that this was also confirmed by provisions in the DOC.

In particular, Ms. Quintos mentioned a number of challenges in conducting cooperation in the SCS, which include pending maritime boundaries, trust deficits, and issues relating to initiating joint undertakings. While there are challenges, Ms. Quintos also highlighted some prospects for cooperation, such as an improved relationship between China and the Philippines, the possibility of establishing a science park in the Scarborough Shoals, positive developments within ASEAN regarding maritime cooperation, and the involvement of track two diplomacy to help the States of the region materialise collaboration among them.

In conclusion, Ms. Quintos asserted that there have been ongoing simultaneous efforts conducted by a number of parties to promote cooperation in the SCS. Mainstream policy dialogue has also been conducted for exchange of ideas and information among relevant parties. Future cooperation in the SCS will certainly require strong political will and good faith among the parties in question.

Dr. Senia Febrica (Indonesia)

Armed Robbery Attacks against Ships in South China Sea: Looking at the Problem and Possible Solutions

Dr. Febrica presented her ideas on maritime security in the South China Sea (SCS), especially on armed robbery attacks against ships. She explained the challenges and possible solutions to the problems posed by armed robbery against ships. Dr. Febrica started by presenting data and information regarding actual and attempted armed robbery attacks in the SCS. It appears that 2014 was the worst year, with the highest number of incidents, between 2007 and 2015. She also presented data on crew taken hostage in the SCS, with 2010 appearing to be the worst year with more than 40 crews taken hostage.

Dr. Febrica went on to outline specific locations where incidents took place, including waters near the Anambas Islands, near the Natuna Islands and in the Malacca Strait. Those three locations seem to be the most prone locations for armed robbery attacks against ships, and also where crews are taken hostage. On the other hand, the global recession also affects the situation in the SCS and the surrounding region, since a great number of vessels have been laid out, anchoring in and around the SCS. This certainly brings more complexity to the already-complex situation in the SCS.

Dr. Febrica presented, in light of the relevant provisions in UNCLOS, a legal basis for cooperation in the region, especially as between those States in the semi-enclosed sea. She also presented existing cooperation mechanisms in the region, including ASEAN, CSCAP, and ReCAAP, even though not every party in the region is a party to those cooperation mechanisms. ReCAAP, for example, is an active cooperation institution in the region but Indonesia and Malaysia are not members of this arrangement, complicating cooperation among States in the region. In conclusion, Dr. Febrica highlighted possible cooperation to be explored, which includes joint or coordinated patrols, ship tracking and monitoring, and improving resources to deter armed robbery attacks.

Panel 2: Marine Environment and Fisheries (a)

Moderator: Ms. Valentina Germani, (DOALOS)

Rapporteur: Ms. Maria Amalia Rodriguez Chaves (Costa Rica)

Commentator: Ms. Nopparat Nasuchon (Thailand)

Mr. Taimur Faiz (Bangladesh)

Community Participation in Conservation of Marine Biodiversity in Bangladesh

During the first presentation of Panel 2, Mr. Faiz outlined that inclusive decision-making processes are relevant to marine conservation. However, the rapid decline of biodiversity is a challenge faced by States and coastal communities. Important features such as marine protected areas (MPA) cover 1738 km² of marine areas in Bangladesh. Likewise, ecologically critical areas comprise 3248 km² of coastal-marine area. Wildlife sanctuaries and national parks encompassing coastal area, as well as hilsa fish sanctuaries in coastal-estuarine waters (with temporal restrictions), are other conservation measures in place.

It has to be acknowledged that the role of communities in conservation is critical. It has been emphasized that conservation of marine biodiversity improves when the local stakeholders participate in planning and decision-making activities. Moreover, well-designed and community-based conservation measures and co-management practices can offer crucial benefits, both to the environment and to the people concerned.

With regard to key challenges of community participation in conservation, some important elements have been identified, such as a top-down approach of centralized government; the exclusion of local people from sustainable resource utilization; the overexploitation of coastal-marine living resources; insufficient scope of community participation; lack of awareness; driving forces limiting marine conservation; and the effects of climate change. With respect to the latter, climate migrants will have to be addressed in the near future.

Some recommendations addressed by the presenter are the following: the creation of suitable legal and institutional frameworks; the designation of protected areas through community-oriented approaches; economic incentives for the resource users; application of the ecosystem-based

approach; awareness-building and capacity development; research and science-based conservation practices; value chain development for improved access to market; community mobilization; and enhancement of the tourism sector, among others.

In conclusion, Mr. Faiz addressed recognition of the advantages and necessity of community-based marine resources management and co-management. Bangladesh has been endorsing a number of projects and development initiatives that promote biodiversity conservation through an ecosystem-based approach and management practices designed to strengthen conservation outcomes by giving local communities a central role in the conservation and management of natural resources in coastal-marine ecosystems.

Ms. Pham Thi Gam (Viet Nam)

Oil Spill Response and Preparedness in ASEAN and an Overview of Viet Nam

Ms. Pham outlined the geographical context of ASEAN, which includes 10 countries: Brunei Darussalam, Cambodia, Indonesia, the Lao People's Democratic Republic, , Malaysia, Myanmar, the Philippines, Singapore, Thailand, and Viet Nam. She noted that the South China Sea (SCS) has a high risk of oil spills. For example, approximately 1,300 platforms have been installed in the SCS and adjacent seas, and 25% of the world's oil is carried by sea through the Singapore Strait.

Some valuable achievements by ASEAN on collaborative mechanisms to prepare for and respond to oil spills are: signature of an MOU on the ASEAN Cooperation Mechanism for Joint Oil Spill Preparedness and Response (28 November 2014), the main elements of which are: a) Jointly undertaking appropriate measures to prepare for and respond to oil spill incidents in the ASEAN region; b) Developing a Regional Oil Spill Contingency Plan; c) Developing strategies and action programmes to strengthen capacity and capability of ASEAN Member States; d) Sharing information; e) Jointly conducting and/or sharing the results of research and studies on the scientific and technical aspect of oil spill preparedness and response. However, some shortcomings have been identified, such as the limited ASEAN countries ratifying the international conventions concerning oil spills; the cooperation activities under this MOU have not been detailed to implement it; and ASEAN and China only adopted the 2002 Declaration on the Conduct of Parties in the SCS with general content.

Ms. Pham suggested some solutions in relation to oil spills in ASEAN: a) All ASEAN countries should ratify the main Conventions related to oil spill response, especially OPRC 1990; b) Detailed activities based on the ASEAN MOU should be approved as soon as possible; c) ASEAN should enhance cooperation with China in preparing for and responding to oil spills. The presenter specifically addressed Viet Nam's legal framework regarding oil spills, which is encompassed in the following provisions: Law on Marine and Island Resources and Environment (Chapter VII); the Viet Nam Maritime Code (provides for seagoing vessels and seaports in the process of building, which must have a plan on oil spill emergency); and Decision No. 02/2013/QD-TTg to promulgate the Regulation on the Operation of Oil Spill Response (amended by Decision 63/2014/QD-TTg of the Prime Minister).

In conclusion, Ms. Pham noted that oil spill preparedness and response awareness is necessary at all national, regional, and international levels to protect the marine environment.

Ms. Nopparat Nasuchon (Thailand)

The Impacts of Ocean Acidification on Marine Ecosystems and Socioeconomics

Ms. Nasuchon outlined that burning of fossil fuels is a major source of global warming and leads to global climate change. Impacts deriving from climate change are sea level rise, seawater pH decrease, and seawater temperature-increase. More specifically, acidified seawater and ocean warming have negative impacts on the physiology of marine animals. Knowledge about the effects of CO₂ on marine animals in the past 20 years has increased. Furthermore, impacts of ocean acidification have been identified in the following species:

- *Mollusks*: High value on markets. Oysters and scallops have high value on markets and ocean acidification affects the development of these species.
- *Echinoderm*: Keep balance in ecosystems, but have lower capacity for acid-based regulation, which makes them vulnerable to ocean acidification. For example, sea urchins' gonad development is delayed, and muscle mass is reduced.
- *Crustacean*: Marketable species of high value, which play a central role in the food web. Ocean acidification decreases exoskeleton thickness in these organisms.

- *Fish*: Affected lateralization and reduced audio ability, impaired retina function, altered olfactory.
- *Corals*: Ocean acidification reduces skeleton and growth in corals, as well as the percentage of fertilization and settlement. Corals are rapidly eroding. Examples of different corals exposed to acidic PH and increased temperature were given.

Ms. Nasuchon asked how ocean acidification affects marine ecosystems. She outlined that it specifically affects food webs, the balance of ecosystems and species. Predators can also switch between different prey. Additionally, economic costs due to ocean acidification may include loss of mollusk markets and coral reefs that would impact ecosystem services they provide and the tourism industry.

Future needs identified by the presenter include: a) Study in commercially important species; and b) Appropriate strategies and regulations for mitigating the effects of climate change in the fisheries sector, for example increasing mangrove area, promoting alternative power for fishing boats, and protecting nursery grounds.

Ms. Maria Amalia Rodríguez Chaves (joint paper with Professor Ronan Long), Marine Biodiversity beyond National Jurisdiction (Costa Rica)

Ms. Rodríguez Chaves outlined that high seas areas cover approximately 64% of the ocean's surface, and almost 43% of the Earth's surface. However, protection for the biodiversity and habitats in this wide region is little. Furthermore, multiple activities take place in the maritime areas within and beyond national jurisdiction, such as: shipping, oil and gas extraction, energy production, seabed mining, cable laying and emerging uses (e.g. geo-engineering).

An ad hoc working group to study issues related to the conservation and sustainable use of biodiversity in areas beyond national jurisdiction (ABNJ) was established by the United Nations General Assembly (UNGA) in 2004. The group met once a year over a decade and in 2011 the package deal was agreed, with four main elements identified as legal gaps in ABNJ: area-based management tools, including MPAs; access to marine genetic resources and benefit sharing; environmental impact assessments; and capacity building and transfer of marine technology.

In June 2015, Resolution 69/292 was adopted. It has four main elements: a) the development of legally binding instrument under UNCLOS; b) the establishment of a Preparatory Committee which will work on substantive recommendations for the UNGA; c) before its 72th session (2018), the UNGA will decide on the convening and start date of an Intergovernmental Conference; and d) the process should not undermine existing legal instruments and frameworks. Two meetings of the Preparatory Committee have taken place at UN Headquarters. Meetings have been structured in Working Groups, addressing the elements of the package deal and cross-cutting issues.

In conclusion, Ms. Rodríguez Chaves outlined that: a) a fragmented and sectoral approach to ABNJ governance is failing to protect marine biodiversity; b) there is a need for integrated, comprehensive and coherent ABNJ governance, with both regional and global structures; c) the development of an international legally binding instrument under UNCLOS specifically targets the protection of marine biodiversity in ABNJ; and d) States should take advantage to include a mechanism to enable robust and coordinated ABNJ governance.

Commentator

Southeast Asia is a region with great marine production supporting the world. The region is not only facing overexploitation of marine resources, but also marine pollution and climate change effects on ecosystems and species. From the panel, the Commentator identified the following challenges:

- Oil spills have often been occurring without being reported in the region, and liability is a challenging topic.
- To protect and reduce marine pollution, we need to increase human awareness on all levels.
- General guidelines on oil spill control need support from the regional organizations or international organizations.
- According to its location and geological characteristics, the Southeast Asia region has been and will be affected by ocean warming and ocean acidification. We need to mitigate climate change in the fisheries sector by:

(a) Protecting and increasing mangrove forest coverage;

(b) Promoting alternative power sources for fishing boats such as sun and wind;
and

(c) Conducting studies on the effect on ocean warming and acidification in habitats
and species.

- A lesson learned from Bangladesh has suggested that decentralization needs to incorporate the concept of community-based fisheries management. Communities should have right to manage their resources.
- The BBNJ negotiation process is a historic opportunity to improve the conservation and sustainable use of marine biodiversity in ABNJ.

Panel 3. Maritime Boundaries

Moderator: Prof. Stuart Kaye, University of Wollongong

Rapporteur: Ms. Anna Mihneva-Natova (Bulgaria)

Commentator: Mr. Chintaka Mendis (Sri Lanka)

Ms. Didina Coelho Da Silva (Timor-Leste)

Compulsory Conciliation between Timor-Leste and Australia

Ms. Didina Coelho Da Silva presented how Timor-Leste was trying to resolve its maritime boundaries disputes with Australia through a compulsory conciliation process. The process was taking place under the terms of Part XV of UNCLOS and represented the first time compulsory conciliation had been invoked thereunder.

Mr. Samharn Dairairam (Thailand)

The Equi-Area/Ratio the New Equitable Solution for Maritime Delimitation

Mr. Samharn Dairairam, discussed the pros and cons of the new equitable solution for maritime delimitation based on Equi-Area. He explained the application of equi-ratio to reduce the vagueness of the existing legal approach used in relation to the historical titles of islands. He went on to discuss the reasoning of the judgment of the International Court of Justice in the *Nicaragua vs. Colombia* case.

Ms. Anna Mihneva-Natova (Bulgaria)

Maritime Boundaries in Black Sea and Caspian Sea

Ms. Anna Natova stressed the importance of cooperation in settling maritime issues, while not endangering peace and security or the well-being of coastal States. She gave as an example the case of delimitation of the maritime boundaries in the Black Sea and the Caspian Sea.

Mr. Mubarak Al Hinai (Oman)

Oman and Iran Maritime Boundary Delimitation Agreement in the Sea of Oman: Lessons to be Learned

Mr. Mubarak Al Hinai discussed the Oman and Iran (Islamic Republic of) maritime boundary delimitation Agreement in the Sea of Oman, highlighting lessons learned from the negotiation process. He noted that Iran (Islamic Republic of) had adhered to the principles underlined in UNCLOS, despite not being a party to the Convention, instead accepting those principles as part of customary international law.

Mr. Gian Pierre Campos Maza (Peru)

Commission on the Limits of Continental Shelf: Role, Submissions and Recommendations in Cases of Maritime Areas under Dispute

Mr. Gian Pierre went beyond the technical and scientific evidence before the CLCS and demonstrated how disputes might be resolved while concentrating on the legal regime. He outlined why CLCS deliberations and recommendations should become comprehensive and conclusive by taking the challenges as opportunities.

Mr. Justin Tanga Biang (Cameroon)

Maritime Boundary Delimitation in the Gulf of Guinea and in Southeast Asia: Regional, Common and Best Practices

Mr. Tanga presented the results of a survey he conducted on emerging State practice in relation to maritime boundary delimitation in Southeast Asia and the Gulf of Guinea. He emphasized the importance of streamlining the process and identifying best practices as providing possible guidance for every coastal State.

Mr. Chinthaka Mendis (Sri Lanka)

Maritime Disputes in South Asia: The Objections Raised by Bangladesh, India, and Maldives on Sri Lanka's Continental Shelf Claim

Mr. Mendis discussed the major issues concerning the delimitation of the outer continental shelf beyond 200 nautical miles in the Bay of Bengal. He outlined the relative strengths, and procedures provided by UNCLOS. He noted that disputes regarding the extension of the continental shelf have arisen between Bangladesh and India, Bangladesh and Myanmar, and the latest between Bangladesh and Sri Lanka, and the Maldives and Sri Lanka. Mr. Mendis concluded that, despite the existing disputes, it is important to realize that countries with overlapping claims can come to a common understanding to operate on a shared output basis.

DAY 3 - 30 November 2016

Panel 4: Maritime Trade and Security

Moderator: Dr. Daniel Hammond, University of Edinburgh

Commentator: Ms. Espenilla Jacqueline Joyce (the Philippines)

Rapporteur: Mr. Abbas Daher Djama (Djibouti)

Mr. Tran Viet Ha (Viet Nam)

Port Management in Viet Nam

Mr. Tran presented the challenges faced regarding the management of ports in Viet Nam. Mr. Tran presented the location and specifics of the different ports of Viet Nam, as well as their connections with the world and future development projects. Mr. Tran explained the main shortcoming of port management, which is the lack of agencies responsible for the overall coordination of the ports. Although the Viet Nam Maritime Code 2015 established the creation of a port authority, several fundamental questions remain, including with respect to the structure of the new entity.

Mr. Kasem Niamchay (Thailand)

Protection of Thailand's Maritime Interests: A View from a Safety and Security Perspective

Mr. Niamchay highlighted various maritime interests of Thailand such as marine fisheries, offshore drilling, seaborne trade, and coastal tourism. He insisted on the need for protecting these

areas from several threats, including degradation of fish resources, interruption of operations in offshore facilities, oil spills/leaks and illegal movement of people, goods, and products. Mr. Niamchay presented different steps to improve the protection of Thailand's maritime zones. These include active engagement at the international level through the ratification of several maritime international instruments, creation of a better national organization based on Thailand's long-term strategy and finally, an effective implementation at the operational level.

Mr. Abbas Daher Djama (Djibouti)

Fighting Piracy on Land

Mr. Djama highlighted that the most effective way to fight the crime of piracy and international crime is to disrupt money flows. Mr Djama showed that 30 per cent of the funds coming from acts of piracy leave the country to be reinvested elsewhere. There is a need to establish a more effective structure that would detect and deter the use of financial institutions for money-laundering, in compliance with international standards. Mr Djama explained the different processes to detect suspicious activities by financial banks, and the current shortcomings in most countries, including in the East of Africa, to applying these rules.

Ms. Jacqueline Joyce F. Espenilla (the Philippines)

Examining the Philippines-Indonesia Joint Declaration: An Expansion of the Hot Pursuit Doctrine

Ms. Espenilla examined the different mechanisms implemented by Indonesia and the Philippines in order to control their maritime borders. She also looked at the concept of hot pursuit in international law and whether its expansion is possible, and under which conditions. Ms. Espenilla highlighted whether and to what extent force can be used in the exercise of an expanded right of hot pursuit, and whether there are any issues pertaining to the exercise of overlapping criminal jurisdiction.

Panel 5: Marine Environment and Fisheries

Moderator: Dr. Francois Bailet (DOALOS)

Commentator: Dr. Laely Nurhidayah (Indonesia)

Rapporteur: Dr. Laely Nurhidayah (Indonesia)

Ms. Pakjuta Khemakorn (Thailand)

The Challenges and Efforts in Managing Fishing Capacity of Marine Fisheries in Thailand

Ms. Khemakorn outlined that marine fisheries law plays an important role for the economy in Thailand, with marine capture being the largest commodity. Total production is, on average around 2,000,000 tonnes, with around 15,000 fishing licences. However, she noted problems relating to overfishing, with contributing factors including open access, highly destructive fishing gear and practices, lack of MCS, and IUU fishing. She gave an overview of the legal and policy framework in Thailand and the challenges being faced, as well as possible solutions.

Ms. Khemakorn then turned to fishery reform in Thailand under new laws enacted in 2015, and a Marine Fisheries Management Plan to be implemented from 2015 to 2019. She outlined the challenges to be addressed: 1. Overfishing and overcapacity, especially in the commercial fleet; 2. IUU fishing; 3. Catching large quantities of juvenile fish of commercial species; 4. Conflicts between artisanal and commercial fishers; 5. Degraded critical habitat; 6. Inadequate fisheries data and information; and 7. Inadequate capacity building on fisheries management. She then gave an overview of the seven targets under the Plan, relating to: 1. Reducing fishing capacity and catch; 2. Increasing artificial reefs and community stock enhancement projects; 3. Reducing IUU fishing; 4. Reducing proportion of juvenile catch; 5. Reducing conflicts to a manageable level; 6. Restoring critical habitat areas; 7. Improving data collection and information dissemination systems; and 8. Obtaining effective and efficient capacity of staff in terms of fisheries management. She provided a detailed overview of the measures to be taken to meet these targets.

Mr. Maheepala Mudiyanse Aruna (Sri Lanka)

Identifying Fisheries Law Enforcement Barriers in Sri Lanka – Fishers’ Prospects

Mr. Aruna outlined fisheries’ economic contribution to the Sri Lankan economy and per capita consumption. He outlined problems relating to fisheries, including lack of compliance with

fisheries rules and regulations, poaching, lack of sound data and information, post-harvest losses and poor marketing and transportation, inadequate and poor management and maintenance of fishery infrastructure, poor and destructive fishing gear practices, inadequate investment in the fishery sector, poor coordination between Ministry and allied institutes, poor application of the fisheries development plan, insufficient expertise in the fishery sector, and the high operational cost of fishing.

The aim of his study is to identify the barriers/practical issues hindering implementation of fisheries management initiatives and rules and regulation in the country. Mr. Aruna gave an overview of the legal framework in Sri Lanka and relevant regulations. Having outlined the methodology for the study, he set out its findings. According to the data collected from three fisheries districts, 59% fishermen were generally satisfied with the formulation and implementation of the fisheries law in the country, while 41% fishermen were generally unsatisfied. Fishers mentioned that strengthening punishments, the prohibition of environmentally harmful fishing gears, unbiased law enforcement, awareness for fishermen, sudden inspection, and proper data collection would be helpful in minimizing IUU fishing. Mr. Aruna made recommendations regarding awareness on fishery law; multilevel coordinating organizations; a bottom-up process; unbiased enforcement; trade measures; accurate and cost-effective data collection; coordination among institutes; precautionary approaches; political will and government commitment; increasing penalties; establishing alternative livelihoods; and reducing poverty.

Ms. Laely Nurhidayah (Indonesia)

Marine Biodiversity Laws in Indonesia

Ms. Nurhidayah outlined that there are strong indications that marine biodiversity has been deteriorating globally. Indonesia's marine biodiversity is in a state of continuing decline. Fish and their ecosystem are essential for human well-being. Presently about 70% of the Indonesia's protein comes from fish, while nearly 20% of the country's GDP is derived from fisheries and other marine-related industries.

The Convention on Biological Diversity (CBD) is an important international instrument for the conservation and sustainable use of biological diversity. The objectives of the CBD are the

conservation of biological diversity, the sustainable use of its components, and the fair and equitable sharing of the benefits arising out of the utilization of genetic resources. Ms. Nurhidayah outlined various problems, relating to marine ecosystems suffering a loss of biodiversity; over-exploitation and destructive fishing practices; habitat change/development; climate change; and pollution (sea and land-based sources). She then outlined Indonesia's legal framework and set out challenges relating to conflicting interests among stakeholders; overlapping jurisdictions over marine resources among government institutions and agencies; local government capacity; community participation; and a lack of law enforcement.

Ms. Nurhidayah then gave an overview of opportunities. These included MPAs (target to 2020 about 20 million ha marine conservation area), currently having 13.529.067 ha initiated and managed by the Ministry of Forestry and the Ministry of Marine Affairs and Fisheries, local government, and local communities. In addition, the government has adopted more policies in favour of conservation and sustainable fisheries with two Ministry of Fisheries Regulations: No 1/2015 on lobster, crab and blue crab catch and No 2/2015 on the ban of trawls and seine nets.

In conclusion, she outlined that the best way to protect marine biodiversity is to involve multiple stakeholders and integrate the three dimensions of sustainable development. These include implementing poverty alleviation programs, providing infrastructure, health, and education to the community, and improving law enforcement.

Commentator

Fisheries play an important role in the socio-economic development of countries in Southeast Asia and South Asia for food security and income. However, there are global problems of declining fish stock/depletion of resources due to overfishing, IUU fishing, destructive fishing, weak law enforcement and compliance by fishermen with law and regulations. This is also a problem in Southeast Asia and South Asia, including Indonesia, Sri Lanka and Thailand. Maritime challenges as identified from those three presentations include:

- IUU fishing;
- Destructive fishing;
- Conflicting uses of coastal habitat;

- Marine pollution; and
- Climate Change.

Possible solutions and opportunities may be implemented under the international framework (hard and soft law), with bilateral and regional cooperation also available as a means for addressing these issues. Relevant instruments include UNCLOS; the CBD; the 2030 Agenda for Sustainable Development and SDG 14 (Conserve and sustainably use the oceans, seas and marine resources for sustainable development); the UN Framework Convention on Climate Change (UNFCCC), which underscores the role of oceans as climate regulators and the importance of action to limit ocean warming and ocean acidification; the ASEAN Initiative-Joint ASEAN-ASEAFDEC Declaration on Combating IUU Fishing; and the UN General Assembly Resolution on ABNJ. The recommendation is to ensure full implementation of international instruments at the national level. However, there is a concern of lacking legal, institutional and technical support aspects at the national level. These challenges are, for instance, the problems of lacking a comprehensive legal and policy framework to support the management of fishing capacity such as in Thailand. Some countries have made amendments or undertaken legal reform in their legal regulations to address some of the challenging issues, such as in Indonesia and Thailand. There are also concerns regarding local government capacity, which may need to be improved; community participation, which may require empowering traditional small-scale fisherman and improving awareness programs; and law enforcement, with it being necessary to improve law enforcement and compliance with law and regulations.

Panel 6: Ocean Governance

Moderator: Ms. Suzie Sudarman (MA, INADIS & Universitas Indonesia)

Commentator: Mr. Francois Bailet (DOALOS)

Rapporteur: Ms. Dysi Polite Dyspriani (Indonesia)

Mr. Hendra Yusran Siry (Indonesia)

Indonesia Coastal Zone Management in Limbo

Mr. Siry explained the shift in the management of coastal zones in Indonesia in the last 15 years. The passage of the Law 22/1999 on Regional Government (Decentralization Law) in 1999

delegates more responsibility in the management of coastal zones to regencies and municipalities. The enactment of the two new laws (Law 22/1999 and Law 25/1999) on administrative and fiscal decentralization provided opportunities for a shift in coastal zone management (CZM). It showed both political will and innovation from the central government in managing marine, coastal and fisheries affairs.

Mr. Siry described the pathway of decentralized CZM in Indonesia. He elaborated the dynamic governance and significant shifting from Law 22/1999 to Law 32/2004 into the Law 23/2014 about regional/provincial government. He further provided details pertaining to the divisions of Indonesian government that are involved in CZM and the implications of Law No 23/2014 in managing marine and fishery sectors.

He noted challenges, including the dynamic political and decentralization process (especially for direct election), asking whether there is a need to revise the law again; issues of local government capacities and capabilities; requirements for decentralized CZM; effective and efficient functioning of government to create the enabling conditions and avoid misperception of decentralization; and the essential role of central government (especially MMAF). Mr. Siry concluded that coastal zone management in Indonesia faces large-scale social, economic, and environmental problems; coastal zone management in Indonesia is at devolved experiment stage; and coastal zone management has an improved framework. However, stronger political will is needed.

Ms. Dysi Polite Dyspriani (Indonesia)

Shaping Responsible Marine Tourism: MPA for Sustainable Marine Services Management in the Place So-called the World Maritime Axis

Ms. Dyspriani focused on the development of marine tourism in conservation areas of Indonesia (Marine Protected Areas or MPAs) and the problems and challenges that the government encounters. She stated that marine tourism needs to be part of the country's mainstream sustainable economic development. There are some considerations involved in achieving this goal. First, Indonesia is a biodiversity hotspot that has high marine biodiversity, but which is not optimally managed. Second, the positive trend of the development of marine tourism in the world and in

Indonesia. Third, utilization of marine tourism is non-extraction of existing marine resources, meaning it is more sustainable for the longer term. Nonetheless, there may be potential damage to the environment if marine tourism is managed carelessly.

Ms. Dyspriani outlined that the utilization of MPAs in Indonesia is managed by a zoning system that incorporates the following zones:

- Core Zone (Absolute protection of fish habitat and populations; research; and education)
- Sustainable Fishing Zone (Protection of habitat and fish populations; catching up with tools and environmentally-friendly ways; environmentally-friendly farming; tourism and recreation; research and development; as well as education)
- Utilization Zone (Protection of habitat and fish populations; tourism and recreation; research and development; and education)
- Others (Protection; rehabilitation; sites and historical objects, among others)

She outlined that marine tourism and other activities can be conducted in conservation areas (MPAs) as long as not in the core area, and should consider the sustainability of the marine environment and the interests of local and traditional people. She emphasized the need for a scheme to transform marine tourism from irresponsible leisure to environmental-based activities. Following the examination of changing behaviour due to economic change, there was a need to alter, reshape, and redefine tourism to ecotourism activities. Ecotourism and MPAs thus represented a combination of ways that are becoming important. Sustainable marine tourism can thus support and benefit MPAs, while MPAs assist sustainable tourism. For example, in Raja Ampat, Papua, the population of manta rays is still abundant compared to the other regions of Indonesia, largely due to progressive conservation measures enacted by the local government. Now, manta rays have become a symbol for the conservation success of Raja Ampat.

She observed that ecotourism in the conservation/marine protected areas may generate more income for local people. For example, global manta rays ecotourism generates more income than fishing, making the species highly valuable for many Indonesian communities who rely on ecotourism for their livelihood. However, changing jobs from fisherman to tour guide is not simple. Support for training and technical assistance is needed.

She concluded that new tourism-based industries have developed, enabling local communities to directly benefit from conservation. Marine tourism brings new jobs that provide income. Increase in income in turn supports education, and with education comes a better understanding of conservation.

Mr. Zaki Mubarok Busro (Indonesia)

IUU Fishing and Fisheries Crime: Perspectives of Policy and Legal Measures of Indonesia

Mr. Zaki presented Indonesia's policy and legal practices in combating Illegal, Unreported and Unregulated (IUU) fishing and fisheries crimes within the framework of relevant international law and practice. He pointed out that IUU fishing is intertwined with transnational organized crimes such as people smuggling, trafficking in persons, forced labour, and drug trafficking. He gave examples of the Benjina case (Indonesia) and abalone plundering. Mr. Zaki emphasized that IUU fishing activities continue to be a prominent problem for marine ecosystems and contribute to economic losses. Indonesia has a significant IUU fishing problem. The economic losses Indonesia has suffered from those illicit activities include practices of tax evasion, illegal fuel, and reduction of income for local fishermen. In response to this matter, Indonesian authorities have committed to eradicating the activities by imposing tough measures. When probing IUU fishing, related crime activities were also discovered. Transnational crimes such as trafficking in persons, forced labour, as well as drug and weapon smuggling, were undertaken by criminals along with IUU fishing.

Indonesia has implemented a range of policy measures to address the IUU fishing activities. These include, among others, the implementation of the NPOA-IUU Fishing 2012-2016, including a moratorium, non trans-shipment, bans on unsustainable fishing gears, and incorporating human rights standards in the fishing industry.

He noted challenges, including that the NPOA-IUUF expires in 2016; the moratorium policy may create a lack of fish supply in the market and unemployment; a clear separation is needed for international organizations in addressing IUU fishing and fisheries crimes; deficiencies in law enforcement; divergent approaches and domestic legal systems amongst States in discerning IUU fishing and fisheries crimes; a lack of definition regarding IUU fishing, and concerning the connection between IUU fishing and transnational organized crime; various issues in overcoming

fisheries poaching; and Indonesia not being a State Party to the 1993 FAO Agreement to Promote Compliance with International Conservation and Management Measures by Fishing Vessels on the High Seas (the Compliance Agreement) and the Cape Town Agreement of 2012 on the Implementation of the Provisions of the Torremolinos Protocol of 1993 relating to the Torremolinos International Convention for the Safety of Fishing Vessels, 1977 (the 2012 Cape Town Agreement).

He outlined a number of solutions. First, Indonesia should prepare to adopt NPOA-IUUF 2017-2021. Second, more public consultation could be considered as one good option to gather concerns from the public. Third, presidential regulations should be amended by incorporating specific tasks in addressing fisheries crimes. Fourth, consideration should be given to not declaring the flag of fishing vessels when sinking those vessels in order to garner bilateral, regional and international support in combating IUU fishing and fisheries crimes. Fifth, filling the loopholes identified as deficiencies in law enforcement. Sixth, amending fisheries laws by adding norms on transnational organized fisheries crimes. Seventh, Indonesia could consider providing its consent to be bound by the Compliance Agreement and the 2012 Cape Town Agreement.

Concluding Remarks

In the concluding remarks Mr. Francois Bailet noted that:

- Decentralization is a fundamental approach in ocean governance.
- Some experiences show that marine tourism has been done in an unsustainable way. This is because tourists feel that they have paid. Given the complicated situation, there are needs to formulate strategies to create sustainable tourism, particularly in Marine Protected Areas (MPAs).
- Transnational organized crimes are massive activities where huge money-laundering activities are involved. Human security is a way forward to secure future ocean governance. Therefore, we need to have science and policy-making to help us act collectively.

The moderator, Ms. Suzie Sudarman, highlighted the need for technical assistance and the importance of good cooperation among stakeholders to overcome issues of ocean governance.

Session of Global and Regional Representatives

This session served as an initial discussion on the follow-up to the Global Alumni Meeting in Tokyo (2014) and future action. In this session, Alumni identified key areas for improvement (skills and knowledge) and future actions.

DAY 4 – 1 December 2016

United Nations -Nippon Foundation Alumni Consolidation Meeting

As a follow-up to the Session of Global and Regional Representatives held on Day 3 of the meeting, Alumni further discussed various ideas regarding further actions and selected coordinator(s) for each action identified. As part of this session the experts also offered their insights and possible solutions to some concerns raised by Alumni.

Visit to Marine Conservation Sites

As an integral part of the meeting on the last day, participants visited a mangrove conservation site in Kampoeng Kepiting (Crab Village), and the Turtle Conservation and Education Centre in Serangan Island, Bali. In Kampoeng Kepiting, first-hand information was provided by Mr. I Made Sumasa on their local initiative to develop mangrove conservation areas. In 2009 Mr. Sumasa gathered fishermen in his village to establish the Wanasari Fishermen Group. Currently, this Group consists of 93 fishermen. Since 2009 the group of fishermen, together with their family members – 545 people in total – has carried out sustainable efforts to restore mangrove forest covering over 1,300 hectares. The Fishermen Group has also used a small part of the mangrove conservation area for crab cultivation, a restaurant, and bird-watching site, to improve the livelihood of the local fishermen. At Serangan Turtle Conservation, the relentless efforts of Mr. Wayan Eka and his colleagues in eradicating turtle trading in Bali was emphasised. Mr. Eka and his colleagues work consistently to rescue turtles from Bali and other parts of Indonesia that are being traded on the island, and many others that have been injured as a consequence of human activities.