

# Experience and Lessons Learned from the Implementation of the Coastal Zones and Small-island Management Act (2007) of Indonesia

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Indonesia is very concern with the management of the coastal zones and small islands, in view of the destruction caused by human activities and global climate change. The concern is particularly serious because of: a) the general tendency to exploit the resources of the coastal areas and small islands without proper consideration for the sustainability of the resources and the environment, and b) not enough attention being paid to the interest of local coastal population and their tradition. Moreover, the management of coastal zone and small islands have not been properly reflected or integrated into national planning system.

The global climate change which would cause global warming and sea level rise would certainly affect Indonesia which consists of thousands of small and low lying islands with thousands of miles of coastlines. Some Indonesian scientists have already calculated that by 2010 Indonesia could loose some 7,408 km<sup>2</sup> of land as the result of sea level rise of 0.4 m. This condition would continue and by 2050 Indonesia may loose 30,120 km<sup>2</sup> of land area due to sea level rise of 0.56 m. By 2100, the sea level rise of 1.1 m will cost Indonesia to loose some 90,260 km<sup>2</sup> of land in coastal areas and low-lying small islands (Media Indonesia, 30 Oct 2009).

As an example of these changes the area of Bali Island which is now 5,632 km<sup>2</sup> would become 5,345 km<sup>2</sup> by 2020, and by 2080 the remaining land in Bali would be 5,075 km<sup>2</sup> or would have lost 557 km<sup>2</sup> of land area. The impact would also be felt in other areas, including in Jakarta. Jakarta Soekarno–Hatta international airport in Cengkareng is predicted to be underwater by 2030 or even before that.

Surely the sea level rise would affect Indonesian transportation and port system, the destruction of coastal ecosystem, the lost of habitat and marine species and the reduction of productivity of agriculture and fisheries. Some predicted that Indonesia would loose many islands and by 2100 Nusa Penida island of Bali may be lost, together with many islands in the archipelagic country. Similar situations could also take place in the low lying coastal area of other countries in Southeast Asia, such as the Philippines, Cambodia, Thailand, Vietnam and others.



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Due to this concern, Indonesia has enacted Law No. 27 of 2007 dated 17 July 2007 on the Management of Coastal Zone and Small Islands. "Sustainability" is one of the basic principles of this Law, such as:

- The utilization of natural resources must not exceed their regeneration capacity.
- The utilization of the resources must not sacrifice the needs of the future generation.
- The utilization of the resources whose impacts have not been known must be with caution and supported by sufficient scientific research.

In this context, it is important to recollect some provisions of UNCLOS 1982 regarding the protection and the preservation of marine environment, including for the management and protection of the coastal zone, small islands and the coral area, such as:

- Article 192: "States have the obligation to protect and preserve the marine environment";
- Article 193: Although states have the sovereign rights to exploit their natural resources, they should do so "in accordance with their duty to protect and preserve the marine environment";
- Article 194 (5): In taking measures to prevent, reduce and control pollution of the marine environment, states should also "protect and preserve rare or fragile ecosystem as well as the habitats of depleted, threatened or endangered species and other forms of marine life";
- Article 197: "States shall cooperate on global basis and, as appropriate, on a regional basis... in formulating and elaborating international rules, standards and recommended practices and procedures for the protection and preservation of the marine environment....";
- Article 200: States shall cooperate... for the purposes of promoting studies, undertaking programs of scientific research and... shall endeavor to participate actively in regional and global programs to acquire knowledge for the assessment of the nature and extent of pollution, exposure to it, and its pathways, risks and remedies";
- Article 202 and 203 stipulate that developing states shall be assisted through technical assistance and other measures in protecting and preserving the marine environment.

It is common knowledge now that the earth is getting warmer and the ice in the Arctic and Antarctic, Himalayas, and even in Kilimanjaro (Africa) and Puncak Wijaya (Papua) are diminishing and maybe vanishing in the next 50 years or so. For instance, in 1980 (towards the end of the negotiation before the adoption of UNCLOS 1982) at the end of the summer in September the North Pole was covered by 3.01 million square miles of ice, in 1999 it has been reduced to 2.39 million square miles, in 2005 to 2.16 million square miles, and in 2008 to only 1.81 million square miles of ice (National Geographic, May 2009). Similar situation could also be observed in the Antarctic, Himalaya and other places.

Along with the increasing warmth of the earth, sea level is also rising, and the coral reefs are threatened, fisheries resources are affected and the coastal areas and its environment, particularly of the small low lying islands are increasingly threatened. Indonesia alone could lose about 2000 islands by 2030 if the sea level rise continues and no sufficient mitigation and adaptation efforts are being taken. Some countries in the Pacific like Tuvalu and Kiribati and in the Indian Ocean like the Maldives are facing serious problems. In fact, some Indonesian leader had once stated that if the trends continue Jakarta International Airport maybe threatened or flooded as early as 2016. Indonesia and other participants of the Workshop on Managing Potential Conflicts in the South China Sea are now informally developing cooperative program to study sea level rise and the climate change in the context of promoting cooperation on marine environment in the South China Sea.

Indonesia is very concern with these matters, especially because it strides the so-called highway of the Ocean, between the Indian and the Pacific Oceans. So do other countries in the area which are also rich with the coral resources (the Philippines, Malaysia,

Timor Leste, PNG and Solomon Islands (The so-called the Coral Triangle Countries). The coral triangle region covers only about 2% of the surface of the World Oceans, yet it contains some 76% of all the coral species on earth. The area is about 5.7 million kilometer square covering the waters of several states. It is the global center of marine bio diversity with more than 600 coral species and some 3000 fish species, and about 50 % of the world reef fish species. It is populated by some 120 million people who are dependent upon fisheries for their livelihood and income. The value of coral resources in that area is calculated about US\$ 2.3 billion/year. The area is also one of the most critically threatened areas mainly from climate change, over fishing and illegal fishing activities, unsustainable coastal development and pollution, both from land and sea based sources.

Indonesia has some 61.000 km<sup>2</sup> of the coral reefs that could absorb 73.5 million ton of CO<sub>2</sub>/year. In addition Indonesia also has some 93.000 Km<sup>2</sup> of mangrove forest which could also absorb some 75.4 million ton of CO<sub>2</sub>/year.

In view of the above, particularly the obligation of states parties to UNCLOS 1982 to protect and preserve the marine environment and the specific location of Indonesia as the largest Archipelagic State in the world, lying between two oceans, President Susilo Bambang Yudhoyono of Indonesia, since taking office at the end of 2004, has seen the need to protect the oceans within the context of climate change and its influence on Indonesian coastal areas and the survival of the Indonesian coral reefs.

Therefore:

- In the meeting of the APEC Ministers of Oceans and Fisheries in Bali in September 2005, an APEC Bali Plan of Action on Oceans was approved.
- President Susilo Bambang Yudhoyono later sent a message to the Biological Biodiversity Conference in Brazil in 2006 expressing the importance of conserving biodiversity and announced Indonesian commitment to achieve 10 Million Ha of Marine Protected Areas (MPA) by 2010 and 20 Million Ha of MPA by 2020. Significantly, during the World Ocean Conference (WOC) in Manado in May 2009, Indonesia has achieved and declared 13.4 Million Ha of Marine Protected/Conservation Areas, the last was in Sawu Sea, thus bypassing the target for 2010;
- He also announced the intention of Indonesia to organize the World Ocean Conference in Manado in May 2009.;
- President Susilo Bambang Yudhoyono later also sent a message to the APEC meeting in Sydney in September 2007 proposing an initiative to promote cooperation of the 6 Coral Triangle Countries. The APEC Meeting later on welcome the CTI in its Declaration in 2007;
- During the COP 13th of the United Nations Framework Convention on Climate Change (UNFCCC) in Bali in December 2007 there was one Ocean Topics namely, Coral Triangle Initiative as suggested by Indonesia;
- During the COP 14th of UNFCCC in Poland in 2008 the Ocean Issues were barely discussed out of so many sessions.

Indonesia proposed that the 6 Coral Triangle Countries have a summit Meeting during the Manado Ocean Conference in 2009 to give the highest possible political commitment to protect the corals in the 6 countries.

Indonesia is also concerned with the increasing problems of IUU Fishing in the region. In this context, in cooperation with its neighbors, Indonesia has been cooperating in the context of Arafura and Timor Sea Experts Forum (ATSEF) and in Sulu - Sulawesi Marine Eco-Region (SSME).

Indonesia also took the initiatives to join various Regional Fisheries Management Organizations (RFMO's) such as the Indian Ocean Tuna Commissions (IOTC) and the Commission for the Conservation of Southern Bluefin Tuna (CCSBT). In May 2008 the Indonesian Parliament also ratified the UN Fishstock Agreement of 1995. Hopefully Indonesia would also ratify in the immediate future the Honolulu Convention 2000 establishing the Western and Central Pacific Fisheries Commission (WCPFC).

The World Ocean Conference (WOC) was organized in Manado on 11-15 May 2009. The theme of the Conference was the Oceans and the Climate Change. The Conference was widely regarded as very successful. There was no opposition either domestically or regionally or internationally that expressed criticism or opposition to the Conference. The Conference was attended by more than 420 delegates from 87 countries and international intergovernmental organizations. It produced the Manado Ocean Declaration (MOD), expressing commitments by the participants to protect and preserve the marine environment of the oceans.

While the Declaration contains some 13 considerations and 21 points political commitments, it also welcomes the efforts of the Coral Triangle Initiative as one of the means of carrying forward the visions of the WOC 2009 and reiterates the importance of achieving an effective outcome of the 15th UNFCCC in Copenhagen at the end of 2009, and invite them to consider how the coastal and ocean dimensions could be appropriately reflected in their decisions.

It is also interesting to note that a number of academic symposiums on oceans have also taken place during the WOC. Hundreds of papers written by Indonesian as well as world scientists were discussed as side events. Indonesia also took the opportunity to increase the awareness of the Indonesian people to ocean affairs by organizing writing competition on ocean matters. 320 articles were written by 56 journalists either national as well as provincial, plus 86 articles by 61 non-journalist writers from 30 provinces of Indonesia.

At the end of the WOC, a Summit Meeting of the 6 Coral Triangle Countries was held on 15 of May 2009. The Summit also produced the Coral Triangle Initiative Declaration on coral reefs, fisheries, and food security. The Declaration emphasized the need for collaborative actions. They also agreed on CTI Regional Plan of Actions to conserve and sustainably manage coastal and marine resources within the Coral Triangle region. They also agreed to establish the Secretariat for the coral reefs, fisheries, and food security and cooperation in the CTI. The CTI has been positively received by the CTI partners particularly by the USA, Australia, World Bank Global Environmental Fund (GEF), Asian Development Bank, various non-governmental organizations particularly the Conservation International (CI), The Nature Conservancy (TNC), World Wildlife Fund (WWF) and other supporters.

It was later understood that, some contributions have been committed by the CTI countries and their supporters to implement the CTI Regional Plan of Actions. For instance, during the Summit meeting, Indonesia has committed to contribute USD 5 million to the CTI, the Philippines USD 5 million, the PNG USD 2 million, Malaysia USD 1 million, Australia AUD 2 million, the GEF USD 63 million, and the US USD 41 million. In addition each CTI countries have also developed their own respective National Plan of Actions to protect and conserve the coral reef in their own respective countries.

It could also be mentioned that some triangle countries are now in the process of implementing their national and regional Plans of Actions. They should actively and seriously seek cooperation from the regional and international community to help and cooperate in promoting cooperation on the protection and preservation of the coral reefs in the triangle area. In that context, the coral triangle countries are, in essence, also promoting the protection and the preservation of the marine environment as stipulated in various articles of UNCLOS 1982 which most countries in the region and in the world have already ratified. They should also expedite the agreement on the establishment of the CTI Secretariat, and activate more vigorously their respective national Secretariat in order to promote regional and international cooperation on coral reef management and preservation as stipulated by the UNCLOS 1982 and other Conventions and Agreements on Oceans and the Seas. Hopefully, the COP 15 of the UNFCCC in Copenhagen in December 2009 will also seriously consider how the coastal and ocean dimensions, including the protection of the coral reefs, could be appropriately reflected in their decision, as expected by the Manado Ocean Declaration of 14 May 2009.

On its own, after enacting the Law No. 27 Year 2007, the Indonesian Government has also issued Government Regulation No. 60/2007 on November 16th, 2007, with regard to the Conservation of Fisheries Resources. Consequently, the Minister of Marine Affairs and Fisheries has also issued a number of Regulations, such as (1) Regulation No. 16/2008 dated September 17th, 2008, on Planning on Management of Coastal Zone and Small Islands, (2) Regulation No. 17/2008 dated September 17th, 2008, on Conservation Area in the Coastal Zone and Small Islands, (3) Regulation No. 18/2008 dated Sept 17th, 2008, on Accreditation to

Programs on Management of Coastal Zone and Small Islands, (4) Government Regulation No. 20/2008 dated Sept 17th, 2008, on the Utilization of Small Islands and Its Surrounding Waters and (5) Minister of Marine Affairs and Fisheries Regulation No. 8/2009 dated March 13th, 2009, regarding the Participation and the Empowerment of Society in the Management of Coastal Zone and Small Islands.

At this moment the Government of Indonesia is still preparing a number of Presidential Regulations on various issues, such as (1) on Coordination on the Management of the Coastal Zone and Small Islands, (2) on Rehabilitation of Coastal Zone and Small Islands, (3) on the Delimitation of Coastal Boundaries, (4) on Reclamation in Coastal Zones and Small Islands, and a number of Government Regulations, such as (1) on the Utilization of the Outermost Outlying Small Islands, and (2) on the Mitigation of Disasters in the Coastal Zone and Small Islands.

In conclusion, Indonesia, particularly under the leadership of President SBY, has been paying and continue to pay serious attention to the Protection of the Coastal Zones and Small Islands, especially as they may be affected negatively by human activities, either at sea or in coastal areas, such as illegal fishing, destruction of mangrove forests, sand mining, and others, by general climate change, ocean warming and the sea level rise.