

## **Supplementary Document 16: Sector and Institutional Analysis**

Indonesia: Coral Reef Rehabilitation and  
Management Program—Coral Triangle Initiative  
Project

## The Indonesian Maritime Sector

There are 4 maritime sectors in Indonesia:

### **1. Shipping**

Similar to the shipyards industries, the Shipping sector is in a very bad shape in Indonesia. Policies made in the seventies and mid-eighties have had negative impacts on a once mighty shipping sector, due in part to personal greed of the era. The outcome of these irrational policies was devastating, to the sector.

Until at least late 2004, around 90% of goods to be exported and 50% of inter-island trade still relied on foreign vessels. Indonesia's prolonged economic crises increased the country's dependence on other nations.

### **2. Maritime & Fisheries**

The Indonesian Maritime & Fisheries sector exists in a classic situation of domestic resource abundance from which other countries reap the benefits. The Archipelagic State sits where the cold waters of the Indian Ocean and the warm waters of the Pacific Ocean meet, creating a very fertile sea that in return attract a diversity and abundance of marine flora and fauna.

Most Indonesian fishers stay near the coasts due to their land-based culture, small boats and previous abundances of coastal resources, leaving the offshore fisheries for foreign and illegal fishers from other countries. Other nations such as Japan, Korea, Taiwan, Thailand to name a few, depend heavily on seafood for their protein intake, and much of it originates in Indonesia, very often extracted illegally. Enforcement over the millions of square kilometers is very expensive and there is limited policy history in this sector for trade agreements that limit foreign take. Now, due to overpopulation and poverty issues, the open access fisheries are collapsing both inshore and off shore, and immediate action for food security is a national priority.

### **3. Tourism**

Indonesia's climate is warm and relaxing year round, with exotic tropical vegetation, rain forests, reefs, dramatic landscapes and millennium of diverse cultural heritage. Yet marine tourism lags far behind much smaller countries and those with less appealing natural attractions. Coastal tourism is focused in Bali, Yogyakarta and a few other sites, as the economy was long-based on commodities and subsistence agriculture, not tourism or service industries. Despite a national coastline of almost 100,000km, much of which is still very natural and undeveloped, there is limited industry experience, poor tourism marketing, limited support services or infrastructure particularly in many of the remote districts. Recreational boating, long-distance yacht and cruising, fishing, diving and watersports, and pure ecotourism (where visitors actually pay and work to rehabilitate or conduct conservation tasks) with thousands of coastal villages that could conduct small scale domestic and international tourism activities represent a huge potential, and still under-developed business sector in Indonesia.

### **4. Maritime Law**

Despite a long history as an extensive archipelagic nation, Maritime Law in Indonesia is not very extensive or well socialized. Much of it originated from the early UN Convention on the Law of the Sea (UNCLOS) in the 1970s. Indonesia established the Maritime Council of Indonesia (DMI, Dewan Maritim Indonesia) in 1999. The President of Indonesia chairs the Council and DMI members consist of ministers from the cabinet including the military chief of staff and chief of the police. Its members are so high-profiled that there were great expectations for the DMI. But after a decade of existence, the result is still barely felt.

Reference: The Indonesian Maritime Journal, 2010

## I. National Development Plans

1. The Djuanda Declaration, 13 December 1957, stated that Indonesia is an Archipelagic State. It is stipulated that the body of water surrounding, within and connecting the islands of Republic of Indonesia is inseparable part of the Republic of Indonesia territory as one united country. The concept of archipelagic state is recognized in the United Nation Convention on The Law of the Sea (UNCLOS) on December 10th 1982 and ratified with Republic of Indonesia Act Number 17, in the year 1985. This recognition presents a broad responsibility in order to manage, secure and sustainably utilized the Republic of Indonesia's territory and all of its resources. It requires great maritime capability, supported by developed human resources, large amount of financial resources and modern technology.

2. The emergence of Indonesia's Reformation Period (*Reformasi* in Indonesian) after Suharto stepped down from the presidency in 1998 implied a significant break with the past. Indonesian politics changed profoundly from a centralized authoritarian regime to a decentralized democracy, and with this change came important economic implications. Around half of total public spending became under sub-national government control. This ongoing journey towards a full effective democracy has been accompanied by both successes and difficulties, while major challenges remain ahead: improving the country's infrastructure, education, healthcare, and employment opportunities.

3. However, while spending has increased in the regions, many regions show no improvements in their education system and infrastructure. As such, Indonesia keeps lagging behind its regional peers regarding infrastructure and enrollment rates beyond basic education. In some districts, the situation has in fact deteriorated since the *Reformasi*.

## II. Government Development Plans of Indonesia

4. The Indonesian government gives high priority to nationwide economic and social development. It has drafted a number of ambitious objectives that should be reached by the year 2025. These objectives include:

- An orderly, developed, peaceful and socially just society;
- A competitive and innovative population;
- A just democracy;
- Social and developmental equality among all people and all areas in the country; and
- To become an important global economic and diplomatic force.

5. To reach these targets, the government has drawn up three interrelated and interdependent development plans:

- **National Long-Term Development Plan (RPJPN)** (*Rencana Pembangunan Jangka Panjang Nasional*)
- **National Medium-Term Development Plan (RPJMN)** (*Rencana Pembangunan Jangka Menengah Nasional*)
- **Masterplan for Acceleration and Expansion of Indonesia's Economic Development (MP3EI)** (*Masterplan Percepatan dan Perluasan Pembangunan Ekonomi Indonesia*)

6. The first of these development plans, the RPJPN, is hierarchically most important and spans the period from 2005 to 2025. This long-term plan is for reasons of planning and

efficiency divided in four stages, each with a lifespan of five years. These four stages are the four separate medium term RPJMNs developed by the national ministries, provincial and district governments, and run parallel with the taking office of a new national government. Through these medium term plans different government agencies are able to set their own priorities in the process of national economic development (on the condition that these policies are in line with the long term RPJPN). Currently, the Bambang Yudhoyono government executes the RPJMN 2010-2014 (second stage of the RPJPN). The MP3EI was implemented in 2011 in order to assist the RPJMN in accelerating and expanding the economic development of Indonesia.

#### **A. National Long Term Development Plan (RPJPN 2005-2025)**

7. This ambitious long term development plan of the government serves as reference point for the whole Indonesian society (government, people, and businesses) in order to reach the national objectives as drafted and formulated by the democratic chosen government of Indonesia. This development plan, which runs until 2025, is divided in four medium-term plans and assisted by the MP3EI.

8. In accordance with Article 4 of Law Number 25 Year 2004 on National Development Planning, the National Long Term Development Plan (RPJPN 2005-2025) has been drawn up as a continuation and renewal of earlier stages of development planning in Indonesia. The RPJPN, a development plan which stretches twenty years, aims to achieve the development goals as mandated in the Preamble to the Constitution of 1945. This long-term plan involves conducting institutional restructuring while simultaneously keeping the nation in pace with other nations.

9. This RPJPN is for reasons of planning and efficiency divided in four stages, each with a lifespan of five years. These four stages are the four separate medium term plans called National Medium Term Development Plan (abbreviated RPJMN) and run parallel with the taking office of a new government. These four stages are the National Medium Term Development Plans (2005-2009, 2010-2014, 2015-2019, and 2020-2025).

10. Through these medium term plans separate governments can set their own priorities in the process of national economic development (on the condition that these priorities are in line with the long term RPJPN).

##### **1. Vision and Mission of RPJPN 2005-2025**

11. The vision and mission of the RPJPN 2005-2025 is to establish a country that is developed and self-reliant, just and democratic, and peaceful and united. The three underlined word pairs are elaborated as follows:

12. **Developed and self-reliant**; to encourage development that ensures the widest possible equality in the country, supported by quality human resources, developed infrastructure, the application of science and technology, and supported by the implementation of a free and active foreign policy.

13. **Just and democratic**; to encourage development that ensures the rule of law that is fair, consistent, non-discriminatory, serves the public interest and supports the gradual continuation of democracy in various aspects of political life in order to be accepted as a constitutional democracy.

14. **Peaceful and united**; to encourage development that is able to realize a sense of security and peace among all people, able to accommodate the aspirations of this dynamic society, upholding state sovereignty and territorial integrity, as well as to protect all people from

any threat.

15. During the course of this plan, economic development is aimed at achieving the following main objectives:

- The establishment of a solid structure in which the agricultural economy (in the broad sense) and mining form the basis of an economy that produces products in both an efficient and modern manner, in which the manufacturing industry contains global competitiveness and becomes the motor of the economy, and services become the glue of economic resilience.
- Income per capita in 2025 should reach approximately USD \$6,000 in combination with a relatively good level of equity while the amount of poor people should not be over 5% of the total population.
- Reach food self-sufficiency and maintain it at safe levels. It should contain enough nutritional quality and be available for every household.

## **B. National Medium Term Development Plan (RPJMN)**

16. The National Medium-Term Development Plans (RPJMN) are the 5-year phases of implementation of the 2005-2025 National Long-Term Development Plan (RPJPN). Each one constitutes the basis for ministries and government agencies for formulating their respective Strategic Plans. Local governments must take this plan into account when formulating their regional development policies. The RPJMN is to be further elaborated into the Annual Government Work Plan (RKP) that will then become the basis for formulating the Draft Government Budget (RAPBN).

17. As mentioned above, the RPJPN is divided in four separate medium term plans (RPJMNs) which all have a life span of five years. Of these four plans only the first one has been finished. Currently, the second plan is in progress. The basic scale of priorities and strategies of the respective RPJMNs are summarized in the following:

- (i) **The First RPJMN (2005-2009).** Unfortunately, this RPJMN was executed during a period of external shocks brought on by the crisis in the United States and Europe. Although Indonesia was still able to show growth, these external shocks did cause a negative impact, especially on social indicators such as poverty eradication and tackling of unemployment. Also the fuel subsidy cuts in 2005 had a negative impact on these indicators due to the resulting high inflation.
- (ii) **The Second RPJMN (2010-2014).** This stage aims at greater consolidation of the reform of Indonesia in all fields by emphasizing endeavors for increasing the quality of human resources, including the promotion of capacity building in science and technology and the strengthening of economic competitiveness. The maritime development strategy during this phase aims to change the national mindset from land-based to ocean-oriented towards strengthening the nation's marine policy foundations and legal framework for development. This policy is expected to be a solid foundation for national development vision maritime.
- (iii) **The Third RPJMN (2015-2019).** This third stage is aiming for the greater consolidation of development in a comprehensive manner in all fields by emphasizing attainment of economic competitiveness on the basis of competitiveness of natural resources and the quality of human resources and by the increasing capability to master science and technology. The vision for maritime national development in this period will be a focus on completing the first phase of a strategic plan, increasing the nation's maritime superiority in the arena of global competition (education, R & D, *Seapower*). This policy is

expected to increase the competence of Indonesia in a global era.

- (iv) **The Fourth RPJMN (2020-2020)**. Aims to realize an Indonesian society that is self-reliant, advanced, just, and prosperous through the acceleration of development in various fields by emphasizing the realized economic structure that is more solid on the basis of competitive advantage in various regions, and is supported by quality and competitive human resources. The continued policy focus will be on strengthening the maritime economy. This policy is expected to significantly increase the contribution of the maritime sector to the national GDP, followed by the next phase of development, which will work on improvement and sustainability of the national maritime vision.

### C. Master plan for Acceleration and Expansion of Indonesia Economic Development (MP3EI)<sup>1</sup>

18. The Masterplan for Acceleration and Expansion of Indonesia's Economic Development (abbreviated MP3EI) is a recently unveiled (2011) ambitious master plan through which the government targets an economic growth rate of seven to eight percent per year after 2013 and aims to turn Indonesia into one of the world's largest economies by 2025 with expected per capita income of USD \$14,250-\$15,500 and total gross domestic product of USD \$4.0-\$4.5 trillion. It includes USD \$470 billion in investments that, to a large extent, the private sector would hopefully supply through public-private partnerships. This economic growth is expected to coincide with a decrease in the rate of inflation from 6.5 percent in 2011-2014 to 3.0 percent in 2025. The combined growth and inflation rates reflect the characteristics of a developed country.

19. MP3EI is a working document and as such it will be updated and refined progressively. It contains the main direction of development for specific economic activities, including infrastructure needs and recommendations for change/revision of regulations as well as initiatives for the need of new regulations to push for acceleration and expansion of investments. MP3EI is an integral part of the national development-planning scheme and is not meant for substituting the existing Long-Term Development Plan 2005-2025 (Law No. 17 year 2007) and the Medium-Term Development Plans (Presidential Decree No. 7 year 2009). MP3EI is formulated in consideration of the National Action Plan for Greenhouse Gas (*Rencana Aksi Nasional Gas Rumah Kaca - RAN GRK*) as a national commitment that recognizes the global climate change.

20. The vision for 2025 will be achieved by focusing on three main goals:
- (i) Increase value adding and expanding the value chain for industrial production processes, and increase the efficiency of the distribution network. In addition, increase the capability of the industry to access and utilize both natural and human resources. These increases can be attained by the creation of economic activities within regions as well as among regional centers of economic growth.
  - (ii) Encourage efficiency in production and improve marketing efforts to further integrate domestic markets in order to push for competitiveness and strengthen the national economy.
  - (iii) Push for strengthening of the national innovation system in the areas of production process and marketing with a focus on the overall strengthening of sustainable global competitiveness towards an innovation-driven economy.

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<sup>1</sup> Please note that this is a summary of the MP3EI - report published by the Indonesian government. For the full report please visit the website of the National Development Planning Agency (Bappenas) ([www.bappenas.go.id](http://www.bappenas.go.id)).

## 1. Economic Corridors

21. Important part of the MP3EI is the development of economic corridors in Indonesia based on the potentials and advantages inherent to each region throughout the country. By taking into consideration these potentials and strategic roles of each major island, six economic corridors have been identified (marine and fisheries themes are highlighted by consultant):

<b>Sumatra</b>	Center for <b>production and processing of natural resources</b> and the nation's energy reserves
<b>Java</b>	Driver for national industry and service provision
<b>Kalimantan</b>	Center for production and processing of national mining and energy reserves
<b>Sulawesi</b>	Center for production and processing of national agricultural, plantation, <b>fishery</b> , oil and gas, and mining
<b>Bali - Nusa Tenggara</b>	Gateway for <b>tourism</b> and national food support
<b>Papua - Moluccas</b>	Center for development of food, <b>fishery</b> , energy, and national mining

## D. Public-Private Partnerships in Indonesia<sup>2</sup>

22. The MP3EI envisages a high degree of cooperation among the central government, local governments, state owned enterprises and the private sector. The private sector in fact has a vital role to play in this master plan (in the form of PPP schemes) as it is expected to contribute the bulk of financing.

23. The Indonesian government, through it's the Ministry for Economic Affairs and Bappenas (National Development Planning Agency), offers Public-Private Partnerships (PPPs) to the private sector. The ability of private companies to reduce costs, shorten the procurement period, and manage constructions and facilities more efficiently, have made PPPs capable offering value for money compared to the construction of the same facilities that are managed by the government. To increase the utilization of the PPP scheme, two main steps are carried out, namely optimizing the PPP scheme and increasing the quality of utilizing the PPP scheme.

24. The steps for optimizing the PPP scheme are made through: (i) developing, revising, and harmonizing various sectors as well as regional policies and regulations, for facilitating formation of the PPP, particularly revision of Presidential Regulation Number 67 year 2005 and regulations on the land procurement for construction of public infrastructure; and (ii) developing laws and regulations for expanding the PPP priority fields other than infrastructure.

25. However, up to the moment Indonesia's PPP framework has not shown satisfying results yet due to regulatory discrepancies within the country's institutions and other bottlenecks that are mentioned in the summary of risks below. It will be important to establish a good track record that shows ability to realize and manage these projects in order to build trust in the private sector.

## E. Indonesia's Potential for Economic Growth

26. Acceleration and expansion of Indonesia's economic development is supported by Indonesia's demographic potentials, the abundance of its natural resources, and by its geographical advantages. Although Indonesia's fundamentals are strong, achieving a high level of growth will not happen automatically. A number of challenges must be overcome in order to realize sustainable development

<sup>2</sup> <http://www.indonesia-investments.com/projects/public-private-partnerships/item70>

## 1. Demographic Composition

27. Indonesia is the fourth most populous country in the world. The rapidly increasing purchasing power of this huge population is creating a significant market. Moreover, the population is also increasing in the quality of its human resources, thus providing a desirable competitive edge. The country is experiencing a transitional period in the structure of the population productive age. In the period 2020-2030 the dependency index (which shows dependency on the federal government, such as subsidies) will reach its lowest point. An important implication of this condition is the increased importance of job creation. More importantly, if general education continues to improve, Indonesia's economic productivity will experience an exponential growth.

## 2. Natural Resources

28. Indonesia has an abundance of both renewable (agricultural products, including fisheries) and nonrenewable (mining and minerals) natural resources. It must be able to optimize the handling of its natural resources by increasing a processing industry that will provide high added value, while at the same time reducing exports of raw materials. Indonesia's current economic structure is primarily focused on agriculture and industries that extract and harvest natural resources. There are only limited industries that focus on products with added value. In addition to this, there is a development gap between the western and eastern parts of Indonesia. MP3EI aims at accelerating and expanding nationwide economic development in order to make the nation more equitable.

29. Indonesia is one of the world's major producers of a broad range of commodities. It is the largest producer and exporter of palm oil in the world. It is the world's second largest producer of cocoa and tin. Regarding nickel and bauxite the country comes fourth and seventh respectively in the world's reserves. Indonesia is also one of the largest producers for steel, copper, rubber and fisheries. Indonesia contains huge reserves of coal, geothermal energy, and water that are used to support Indonesia's prime industries such as, textiles, shipyards, transportation, as well as food and beverages.

## 3. Geographical Location

30. Indonesia is the world's largest archipelago with a length of 5,200 kilometers stretching from east to west and a width of 1,870 kilometers. It has a direct connection to the world's largest markets as it is located on one of the most economically active sea lanes in the world: the Malacca Strait which is the prime route for global container shipping. Indonesia is located within five hours travel time from the world's two largest and fastest growing economies: India and China.

## F. Risks of Investing in Indonesia<sup>3</sup>

31. Investing always encompasses risks. Generally speaking: the higher the risks are, the higher the yields can become. In recent years Indonesia has shown the world that investing in this country can be highly lucrative business (such as investing in its stock market, real estate or commodities). But investing in Indonesia also entails more risks than investing in a developed country because Indonesia contains a number of country-specific dynamics and characteristics that can frustrate investments and harm the investment climate.

32. Solid preparation and thorough information-collection are key ingredients for investing in

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<sup>3</sup> For more details from this source, please refer to: <http://www.indonesia-investments.com/doingbusiness/risks/item76>



any country. Below is a list with potential risks or issues that (can) disturb the investment climate in Indonesia.

### **1. Population and Demographics**

33. Indonesia is facing rapid urbanization. In 2010, 53% of Indonesia's population lived in urban areas. It is predicted that by 2025, the population in urban areas will reach 65 percent. The direct implications that must be anticipated are the increase in movement patterns, the changing patterns of consumption and production structures. These will impact the employment structure, increased land-use conflicts, and increase the need for reliable infrastructure to support the distribution of goods and services.

### **2. Land Acquisition**

34. One of the main obstacles to infrastructure development in Indonesia has been the issue of land acquisition. The underlying reason for this situation is legal impediments to agree on fair compensation for landowners and, as a result, endless legal disputes over valuation (on various occasions, business expansion has led to tensions with local communities). Indonesian government adopted a new land acquisition law (UU 2/2012) but its results are yet to be seen.

### **3. Infrastructure**

35. Lack of sufficient quality and quantity of infrastructure in Indonesia has been barring economic and social development to reach its full potential. The quality and quantity of Indonesia's infrastructure is in a poorer condition than in its regional peers. This applies to both hard infrastructure (roads, railways, bridges) and soft infrastructure (education, social welfare and health). Connectivity between regions should be developed to accelerate and expand economic development. Provision of infrastructure that encourages connectivity will reduce the costs of transportation and logistics that will improve product competitiveness and accelerate economic growth. Included in the country's infrastructure development is the construction of transportation routes, information and communication technology (ICT), and all regulations associated with them. The country's recent macroeconomic growth in fact proves to be a burden on its infrastructure, as it needs to absorb significantly increased economic activity. Since the fall of the New Order regime in 1998, there has been a serious shortage of investments in this field. The government is aware of the need for huge investments in the country's infrastructure but up to the present there has been more planning than much-needed action.

36. The Indonesian government has put investments in infrastructure as a top priority of its Medium Term Development Plan (RPJMN 2010-2014), most of which is envisaged to be financed through private capital in the form of public-private partnerships (PPPs). However, as Indonesia's current regulatory framework and business environment are not optimally conducive, it might be a too ambitious strategy of the government at this point (until further reforms are initiated). Conflicting law and regulation are currently hurdles for Indonesia's infrastructure development.

37. According to research conducted by Morgan Stanley, the ratio of Indonesia's infrastructure spending to its gross domestic product (GDP) is only about 2.3%. In comparison, India spends 6.5%, Thailand spends 3.4%, and Malaysia spends 4.3% of GDP on infrastructure development.

### **4. Energy Subsidies**

38. A major concern of international institutions is Indonesia's ever-increasing amount of energy subsidies, which entail significant budgetary costs. Initially, these energy subsidies were

introduced to support basic needs of the poor. However, by keeping these energy prices artificially low, price signals are blurred, consumption and investment decisions are distorted, and the vulnerability of public finances to international oil-price volatility is increased. It is also assumed that richer households benefit more of these subsidies than poorer households do. These subsidies have become a huge burden on the government budget and therefore the government is aiming to slash them. However, cutting energy subsidies is a politically sensitive issue in Indonesia and will bring about serious criticism and demonstrations. It will also put great pressure on the achievement of inflation targets. Knowing that in 2014 new elections are held, the government will not be too supportive of reducing the subsidies, as it will come at the price of popular support.

## **5. Bureaucracy**

39. Indonesia's bureaucracy is known to be long and complicated and seems to have become a 'power center' in its own right, thus effectively resisting efforts toward reforms: bribery remains rife and there is no sustained progress in building institutions that enhance the business climate, such as credible courts. As such, the country contains various business uncertainties that harm the investment climate.

## **6. Human Resources and Informal Sector**

40. The quality of human resources is a big challenge for Indonesia. Currently only about 50 percent of workers in Indonesia have enjoyed primary school education, and only eight percent have a formal diploma. Quality of human resources is affected by access to quality education and health facilities, as well as access to basic infrastructure.

41. A dual labor market characterizes Indonesia: a small formal market and a large informal one. The formal-sector workers are protected through severance payments and relative high minimal wages. The latter is an incentive for employers to hire workers from the informal sector where there is a lack of social insurance. Extensive informality is detrimental to long-term growth and undermines the collection of tax revenues (needed for investments in the country's infrastructure, healthcare and education).

## **7. Corruption**

42. Indonesia has never scored high in the Annual Corruption Perceptions Index (by Transparency International). This index indicates the level of political corruption in a given country. Currently Indonesia's ranks number 118 (out a total of 176 countries) but its performance has shown a steady improvement since the start of Susilo Bambang Yudhoyono's administration in 2004.

## **8. Governance**

43. Apart from the issue of political corruption, there are other factors that negatively influence the effectiveness and performance of (good) governance in Indonesia. It is obvious that governing such an immense archipelago, containing almost 240 million people with different cultural and religious backgrounds, does not come without problems. There are many examples of governance that frustrate the Indonesian economy and the country's investment climate.

44. Demonstrations, one feature of an open democratic society, take place almost on a daily basis in Indonesia, albeit usually small-scale. The issues that initiate protests range from political issues (such as perceived weak government performance) and economic issues (such as low wages) to social issues (such as religious matters). These demonstrations are directed -

vertically - towards the government or - horizontally - towards other groups in Indonesian society. The important point here is that these demonstrations indicate that part of the people is not satisfied with the current state of the country. Indonesian history has shown that in some extreme cases (such as the ouster of Suharto in 1998) pressure from the people has succeeded in toppling the political power that consequently had disastrous effects on the economy. Although it is highly unlikely that such extreme events re-emerge (because of the current different political context), one should be aware that there is repressed frustration in part of Indonesian society.

## **9. Natural Disasters**

45. Earthquakes, tsunamis, volcano eruptions and floods are all phenomenon that occasionally make news headlines in Indonesia and take both human lives and damage the infrastructure. This vast country is located on the Pacific Ring of Fire, while most of its geographical space consists of water. These two circumstances make the country vulnerable to natural disasters; a situation which is worsened by the weak state of some of its infrastructure.

## **10. Ethnic and Religious Violence**

46. Indonesia has witnessed sustained and structural outbursts of violence throughout its history, but it seems justifiable to pose that the demise of the strong New Order government in the late 1990s has enabled both ethnic and religious violence to flare up in the regions because of the reduced role of the army in Indonesian society. Occasionally one section of a radical community makes its presence felt by engaging in violent acts such as bomb attacks.

## **III. GOVERNANCE<sup>4</sup>**

47. Policy and legal instruments play key roles in ensuring the sustainable management of coastal habitats, preventing marine pollution, and prohibiting certain fishing activities, which threaten the marine environment of Indonesian waters. The aim of this chapter is to analyze the policy and legal framework and institutional arrangement for coastal management in Indonesia. The chapter starts with a review of Indonesian legal framework, followed by the analysis of national legal framework for coastal resources management. It then examines some aspects of coastal and marine policy. The analyses of inadequacy of enforcement and compliance aspects in implementing the policies and laws of marine resources management in Indonesia are included. This chapter also examines some developments of law enforcement policies in Indonesia.

### **A. LEGAL AND POLICY FRAMEWORK**

#### **1. Indonesian Legal Framework**

48. Marine resource management in Indonesia is through a very extensive, complex regulatory framework. The foundation for this is laid down in Section 33, Para 3 of the 1945 Basic Constitution which reads: "Land and water and natural resources therein shall be controlled by the State and shall be utilized for the greatest benefit of or welfare of the people."

49. Since its independence in 1945, Indonesia has had a very complex hierarchical legal system. It has "one of the most formidable legislative frameworks in the world" (Tomascik *et al.*, 1997). According to the General Peoples Assembly Temporary Decree (*Ketetapan Majelis Permusyawaratan Rakyat Sementara/ MPRS*) No. XX/MPRS/1966 concerning the hierarchical

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<sup>4</sup> Based on yet unpublished, Govt of Indonesia Report: 2012: Indonesia State of the Coral Triangle Report (Final Draft); Chapter 3; Governance. Edited lightly and re-formatted for this report.

nature of Indonesia's legal system, there were nine levels of laws in Indonesia (Table 1). This system remained valid until 1999.

50. The Basic Constitution is the supreme law of Indonesia. The other levels are created through General Peoples Assembly decree (MPR decree) and laws or decrees under the Basic Constitution. MPR Decrees are implemented through laws enacted by the Parliament. After enactment, the laws are published in the formal statute book. These laws may be made more specific through Government Regulations or Ministerial Decrees. However, this hierarchical legal system changed significantly, after the fall of President Soeharto in 1998, when major legal reforms took place. Through the enactment of MPR Decree No III/ MPR/2000, the levels were reduced to seven (Table 1).

51. The Indonesian legal framework for marine and coastal management comprises two groups of laws. The first is the laws that address management of national or internal issues. The second is the national laws to implement international obligations as a consequence of the Government of Indonesia ratifying international conventions.

**Table 1. The Hierarchy of Indonesia's Legal System Comparing of MPRS Decree No. XX/MPRS/1966 and MPR Decree No. III/MPR/2000**

No	MPRS Decree No. XX/MPRS/1966	MPR Decree No. III/MPR/2000
1	Basic Constitution	Basic Constitution
2	General Peoples Assembly Decree	General Peoples Assembly Decree
3	Laws and Acts	Laws and Acts
4	Government Regulation Substitute Law or Act	Government Regulation Substitute Law or Act <sup>5</sup>
5	Government Regulations	Government Regulations
6	Presidential Decrees	Presidential Decrees
7	Ministerial Decrees	Regional Government Regulations <sup>6</sup>
8	Provincial Government Regulations	
9	District or City Regulations	

#### **a. National Legal Framework for Coastal Resources Management**

52. There is no one Indonesian law or regulation that specifically addresses the use and management of coral reef resources. Conservation and management of coastal and marine resources are regulated by a group of natural resource laws and regulations.

53. According to Putra (2001 in Patlis, 2001), at least twenty Acts or laws and hundreds of regulations and ministerial decrees relate to the management of coastal resources. However, only seventeen laws on natural resources management relate to coastal and marine management. These include fourteen laws on natural resources management and ocean activities, and two national laws for the ratification of international conventions. Those laws are

<sup>5</sup> The government can enact this government regulation if the state is in a critical condition (chaos), but it is only applied for temporary situations. This regulation should be submitted to the parliament to get approval during the next assembly period. If the parliament accepts the regulation, it can be increased as a law or Act, but if not, this regulation should be terminated (Para 4 of Article 3 of People's General Assembly Decree No III/MPR/ 2000).

<sup>6</sup> Para 7 of Article 3 of People's General Assembly Decree No III/MPR/2000 arranges that Regional Government Regulations include: Provincial Government Regulations; District or City Regulations; and Village Ordinances. Each of lower regional government levels is required to adhere to and execute the higher-level regulation.

listed in Table 2, where the fifteen national laws are grouped into six broad categories. *Each of these laws is briefly described below.*

**Table 2. Legislations Affecting Marine Resources Management**

No	Regulations	Subject
<b>I</b>	<b>National Level</b>	
<b>A</b>	<b>Ocean Jurisdictional Claims</b>	
1	Act No. 6/1996	Indonesian Waters
2	Act No 5/1983	Indonesian Exclusive Economic Zone
3	Act No. 1/1973	Indonesian Continental Shelf
<b>B</b>	<b>Ocean Resources and Activities on the Sea</b>	
4	Act No. 17/2008	Shipping
5	Act No. 4/2009	Minerals and Coal Mining
<b>C</b>	<b>Terrestrial Spatial and General Planning Laws</b>	
6	Act 26/2007	Spatial Use Management
7	Act No. 9/1990	Tourism
<b>D</b>	<b>Coastal and Marine Resources Management</b>	
8	Act No. 31/2004 and added or revised by Act No. 45 of 2009	Fisheries
9	Act No. 41/1999 and added or revised by Act No. 19 of 2004	Forestry
10	Act No. 16.1992	Quarantine of Agriculture, Cattle, and Fish
11	Act No. 27/2007	Coastal and Small Islands Management
<b>E</b>	<b>General Legislation of Environmental Management</b>	
12	Act No. 32/2009	Environmental Protection and Management
13	Act No. 5/1990	Conservation of Biological Resources and Their Ecosystems
<b>F</b>	<b>Legislation of Decentralization</b>	
14	Act No. 22/1999	Regional Government
15	Act No. 25/1999	Financial Balancing between Central and Regional Government
16	Draft Act 2013	Village Administration Law
<b>II</b>	<b>International Level</b>	
1	Act No. 17/1985	Ratification of United Nations Convention on the Law of the Sea
2	Act No. 5/1994	Ratification of United Nations Convention on Biological Diversity

#### **b. Laws of Ocean and Maritime Jurisdiction Claims**

54. There are three laws concerning ocean and maritime jurisdiction claims. These include the Indonesian Waters Act; Indonesian Exclusive Economic Zone (EEZ Act); and Indonesian Continental Shelf (Continental Shelf Act). These laws are analyzed below.

- **Act No. 6 of 1996 concerning Indonesian Waters.** The archipelagic regime was introduced to Indonesian law subsequent to the ratification of the 1982 LOSC in 1985. This Act stipulates that, the waters of the territories of the Indonesia waters comprise the Indonesian territorial sea, archipelagic waters and inland waters. The Indonesian territorial sea extends seawards for a distance of 12 nautical miles measured from the Indonesian archipelagic baseline (Article 3.2). The baseline for the Indonesian archipelagic water is drawn using the archipelagic straight basic line. If such line cannot be used, the basic common line or the straight basic line as described by Article 5 shall be used. Article 7 provides for the boundary between the archipelago waters and the inland waters. Article 10 establishes the process for defining boundaries between Indonesia and other countries.

Article 23 of the Indonesian Waters Act provides that the utilization, management, protection and preservation of marine ecosystems, including coral reefs in those waters should be conducted in accordance with existing national and international laws for those activities. However, there is no specific article that addresses the rights of regional governments regarding the use and management of marine resources in internal waters.

- **Act No. 5 of 1983 concerning the Indonesian Exclusive Economic Zone (EEZ Act).** This Act grants Indonesia sovereign rights for exploring, exploiting, conserving and managing natural resources in its Exclusive Economic Zone/EEZ (Article 4). The natural resources include living marine resources such as fish, marine mammals and coral reefs, and non-living marine resources, such as oil, mineral and gas. Although most coral reefs and some other coastal ecosystems are within territorial waters, activities of exploration and exploitation of living and non-living marine resources in the EEZ outside territorial waters have an impact on coral reef ecosystems. Therefore, the management of resources exploitation activities in the EEZ addressed by the EEZ Act relates closely to coral reef management in Indonesia as a whole.

- **Act No. 1 of 1973 concerning the Indonesian Continental Shelf (Continental Shelf Act).** This law grants to Indonesia the rights of exploitation and exploration for natural resources on the seabed and subsoil beyond its territorial sea. Activities such as gas and mineral mining on the seabed and subsoil of the submarine areas can impact negatively coral reef ecosystems. Therefore, provisions of this Act specifically cover the prevention of pollution in the superjacent waters and the airspace above the continental shelf. There is a complementary relationship between the continental shelf law, the basic mining law, and government regulations on the supervision of offshore oil exploration and exploitation. These other laws are considered below.

### c. The Laws on Management of Ocean Activities

55. There are two laws concerning the management of ocean activities. These include maritime transportation (shipping) and basic provisions for mining. These laws are analyzed below.

- **Act No. 17 of 2008 concerning Maritime Transportation (Shipping Act).** This law deals with maritime transportation, including navigation, port management, loading, shipping accidents, investigation, shipping lines and seafarer safety. In relation to coral reef management, some provisions of Articles 65-68 specifically cover marine pollution generated from ship operations. However, the implementation of the maritime transportation laws include legal instruments for the reduction and prevention of pollution from ships' operations that relate to other laws that address ship sourced pollution requirements arising from international conventions such as the IMO conventions.

- **Act No. 4 of 2009 concerning Minerals and Coal Mining.** No specific article of this Act addresses marine resource management planning, but it notes the requirement for the prevention of negative impacts of mining activities on coastal and ocean resource management (GESAMP, 1990). Government Regulation No. 17 of 1974, subsequent to this law addresses the Supervision of Offshore Oil Exploration and Exploitation providing for marine protection and controls to address problems of pollution from seabed activities.

#### d. **The Laws on Terrestrial Spatial and Other General Planning Activities**

56. There are two laws concerning the terrestrial spatial use and other general planning activities. These include spatial use management and tourism Acts. These laws are described below.

- **Act No. 26 of 2007 concerning Spatial Use Management (Spatial Use Management Act).** This is a general law with the principal purpose of regulating use, planning and control over space, waters and land, including management of marine and coastal resources. Even though coral reef management is not specifically addressed in this Act, the obligations to manage marine and coastal areas are clearly management measures relevant to coral reefs. Articles 1 and 2 of the Spatial Use Management Act provide the definitions and the aims of spatial use management activities including marine reserve areas. The Act emphasizes the importance of integration in the development and management of the province and district areas. Article 8 provides that development and management of the region should be integrated at the national, provincial, and district levels. It also provides the rights for local government to manage its region (including ocean and space), but the areas beyond its jurisdiction are to be addressed by central government (Article 9). However, Article 9 does not clearly state the area of marine responsibility of regional governments. Government Regulation No 47 of 1997 subsequent to this law addresses National Spatial Planning. Article 3 provides the national goal and scope of National Spatial Planning. The regulation provides the definition and management criteria for such planning areas. Article 10 provides a definition of protected areas, such as forest--protected areas, water catchments areas, national park area, and agriculture areas, such as wetland agriculture, animal husbandry areas, and fisheries areas.
- **Act No. 9 of 1990 concerning Tourism.** Healthy coral reefs are potential sites for tourist attractions and infrastructure. In regard to the development of the marine tourist industry, Act No. 9 of 1990 includes a basic rule for the tourist industry development. Articles 16 and 18 define three types of tourist attraction: natural, cultural and specific tourist developments that can be potentially managed specifically for tourist industry purposes. Although no single article of this Act specifically addresses the use and management of coral reefs, Article 35 provides that the destruction of a tourism object, including a natural ecosystem is prohibited. The offence attracts a maximum penalty of five years in jail or a fine up to Rp. 50 million (US\$6,000).

#### e. **The Laws of Coastal and Marine Resources Management**

57. Three pieces of legislation regulate the management of marine resources. These Acts are concerned with fisheries, forestry and the quarantine of agriculture, cattle and fish. This section outlines the key aspects of these laws in relation to coral reef management.

**Act No. 31 of 2004 and added or revised by Act No. 45 of 2009 concerning Fisheries.** Act No. 31 of 2004 is the legal basis for fisheries management in Indonesia. Enacted on 6 October 2004, it replaces the former Fisheries Act (No. 9 of 1985), and then the Act No. 45 of 2009 revised it again. It regulates the management of fishery resources, ecosystem conservation efforts, conservation of fish species, and conservation of fish genetics. Fisheries-related conservation areas include coral reefs, seagrass beds, mangrove swamps, lakes, rivers and ponds that are considered important to be conserved. In this case the government can establish the site as a

conservation area, including as an aquatic nature reserve, national water park, water recreation park, and/or fishery reserve. Under the Fisheries Act, coral reefs are classified as fish resources (Article 1.4 of Act 45/2009). Article 7 of Act 45/2009 provides the right for the Minister of Marine Affairs and Fisheries to implement management measures to control fishing activities. These include: (i) specifying fishing method or gear; (ii) determining the maximum sustainable yield (MSY) or total allowable catch (TAC) for domestic and foreign fishing; (iii) specifying fishing and aquaculture activities; (iv) preventing activities such as pollution and destructive fishing of the resource and its ecosystems; and (v) rehabilitation of the resources and its habitat. The Fisheries Act prohibits the use of illegal fishing methods and equipment that pollute and degrade the fisheries and the ecosystems (Articles 8--14 of Act No. 31/2004), with maximum penalties of six years in prison and a fine of up to Rp. 1.2 billion (US\$133,000). These activities can be categorized as a crime (Article 84 of Act No. 31/2004).

- **Act No. 41 of 1999 and added or revised by Act 19 of 2004 concerning Forestry.** Act No. 41 of 1999 addresses forestry activities in Indonesia. These include: management, planning, inventory, conservation, rehabilitation and reclamation of forests. The Forestry Act also addresses research and development, and the development of human capacity to deal with forestry matters. The Forestry Act does not directly address the management of coral reefs, but coastal forestry activities can damage coral reefs and their ecosystem, especially in mangrove areas. **The Forestry Act defines forest to include mangroves.** According to Article 1.b of Act No. 41 of 1999, forest is defined as “the area that consists the natural resources that dominated by reforestation in alliance with their ecosystems where they cannot isolate each other.” In this point, mangroves are seen as the trees although they live at the borders between land and sea. There is no single article of the Forestry Act that arranged specifically the management of mangroves. Mangroves are defined like other forests and can be addressed with respect to forest conservation, forest production and forest reserves in the forest management system (Article 6 of Act No 41/1999). Mangrove ecosystems are an important area for fisheries management. They can function as the nursery ground for some fish and marine species, and also as a buffer zone or “filter area” for coral reef ecosystems reducing pollution, abrasion and sedimentation from land---based activities (Dioscoro *et al.*, 2000). Excessive and illegal logging of mangroves will result in the destruction of fisheries and coral reef ecosystems.

- **Act No. 16 of 1992 Concerning Quarantine of Agriculture, Cattle and Fish (Quarantine Act).** This Act regulates the export and import of certain types of animals and plants. Corals are included in the regulatory framework. Like the Fisheries Act, the Quarantine Act defines fish to include corals (Article 1.10). Act No. 16 is relevant to the management of coral reefs in Indonesia, because the import and export of reef species and materials to and from Indonesia (Articles 5-6). Although no single article of this Act specifically addresses the use and management of coral reefs, Article 7 requires that the export or import of all animals or plants should be accompanied by health certificate of these animals or plants. Article 31 arranges that the maximum penalty of the offence is three years in jail or a fine up to Rp.150 million (USD\$18,000).

- **Act No. 27 of 2007 concerning Coastal and Small Islands Management.** The aim of this Act is to protect, conserve, rehabilitate and utilize the resources of coastal and small islands in sustainable manner. The Coastal and Small Islands Management Act is the first Act in Indonesia that arranges the concession regime of small islands and



coastal areas (Articles 16-27). Indonesian private (person or entity or local community) can apply to have the rights for utilization of small islands and coastal areas for at least 20 years (Articles 18 and 19). Small islands and coastal areas can be used for the activities of conservation, training and education, research and development, mariculture, marine tourism, cattle farming, organic agriculture and other fisheries and marine industry (Article 23). This Act arranges conservation activity in order to ensure sustainability of coastal and small island ecosystems, to protect of migration routes of fish and other marine biodiversity, to protect the habitat of marine biota, and to protect traditional cultural sites (Article 28). This Act also arranges the obligation for conducting research and development in order to improve the quality of planning and management of coastal and small islands areas.

- **MMAF Government Regulation No. 60 of 2007: on Conservation of Fishery Resources**, regulating three conservation activities: first, ecosystem conservation, consisting of the ocean, seagrass beds, coral reefs, mangroves, estuaries, coastal swamps, rivers, lakes, reservoirs, ponds, and artificial aquatic ecosystems. Second, conservation of fish species, intended to protect endangered fish species, to maintain fish species diversity, to preserve the balance and stability of ecosystems, and to utilize fishery resources sustainably. Third, conservation of fish genetics, through maintenance, breeding, research and preservation of gametes.
- **Minister of Maritime Affairs and Fisheries Regulation No. 17 of 2007 on Conservation Areas in Coastal Environments and Small Islands**, regulating 4 issues, namely first, categories of conservation area, which consist of Coasts and Small Islands Conservation Area, Maritime Conservation Area, Coastal Conservation Area, and Backshore Area. Second, determination of Coasts and Small Islands Conservation Area through proposal of candidates for conservation area, area reservation, area establishment and area delimitation. Determination of Maritime Conservation Area is through proposal of candidates for conservation area, feasibility assessment of area candidates, and area establishment. Third, the authority to manage Coasts and Small Islands Conservation Area is exercised by the national government for national conservation areas, provincial government for provincial conservation areas and regency or municipal government for regency or municipal conservation area. The authority to manage Maritime Conservation Area is exercised by regency or municipal government. Fourth, patterns and procedures for managing conservation areas, including conservation planning, conservation area management patterns, and procedures for managing of conservation areas.
- **Minister of Maritime Affairs and Fisheries Regulation No. 2 of 2009 on the Procedures for Determination of Aquatic Conservation Areas**, regulating 6 issues, i.e. first, criteria and types of aquatic conservation areas, which are determined based on ecology, social-culture, and economy. Second, proposal of candidates for aquatic conservation area, which is submitted by individuals, community groups, research institutions, educational institutions, government agencies and nongovernment agencies. Third, identification and inventory of candidates for aquatic conservation area, which is conducted by the Minister, Governors, Regents/Mayors in accordance with their respective authority. Fourth, reservation of aquatic conservation area, which is determined by the Minister, Governors, Regents/Mayors in accordance with their respective authority. Fifth, establishment of aquatic conservation area, which reservation is determined by Governors and Regents/Mayors and then established by the Minister.

Sixth, delimitation of aquatic conservation area, which is conducted by the Limit Determination Committee appointed by the Minister.<sup>7</sup>

#### f. General Legislation on Environmental Management

58. There are two laws concerning environmental management. These include the Environmental Management Act and the Conservation of Biological Resources and their Ecosystems Act. These laws are analyzed below.

- **Act No. 32 of 2009 concerning Environmental Protection and Management**

The aim of this Act is to create environmentally sustainable development through planning policies and rational exploitation, development, maintenance, restoration, supervision and control. The Environmental Management Act is a comprehensive law on environmental management in Indonesia. It adopts a holistic approach based on the archipelagic concept of the essential unity of the living space of the Indonesian people, which covers the land, air space and sea under Indonesian sovereignty (Article 3). Two Government Regulations under the Environmental Management Act have been made. The first is regulation No. 7 of 1999 which deals with the preservation and conservation of plants and animals. The second is Regulation No. 19 of 1999 addresses standardization of water quality. Both of these regulations are relevant to coral reef management. For example, Article 9 of the Government Regulation No. 19 of 1999 prohibits activities of persons or legal entities that will cause marine pollution and destruction. The offence is punishable by paying all the cost of pollution prevention and recovery of the destruction (Articles 23-24 of Government Regulation No. 19/1999. Ministerial decrees have also been made to implement the Environmental Management Act that relates to coral reefs. For example, the State Minister of Environment Decree No. 4 of 2001 promulgated guidelines for the prevention of coral reef destruction and for the rehabilitation of coral reefs, including standards for the status and destruction of coral reefs, programs controlling coral reef destruction guidelines for management authorities at provincial and district levels; and establishment of a funding program for preventing the destruction of coral reefs.

- **Act No. 5 of 1990 concerning Conservation of Biological Resources and Their Ecosystems (Biological Resources Act)**

The Act provides for the protection of biological diversity and serves as guide for the formulation of two documents outlining ways and means of attaining it. One such document is the National Strategy on Management of Biological Diversity calling for multi-agency cooperation in managing biodiversity, which was prepared by the Ministry of Environment in 1993. In the same year, the Ministry of National Development Planning (Bappenas) formulated the Biodiversity Action Plan for Indonesia. Some of the main activities outlined in the plan include the expansion of the country's database, information dissemination among policy makers and the general public, and the promotion of sustainable uses of natural resources. This action plan paves the way for the formulation of the National Biodiversity Action Plan (NBAP) as part of the Five Year Development Plan (REPELITA VI). The activities in the plan reflect the strategies specified in Indonesia's Agenda 21 – a document that spells out Indonesia's plan of action at the national level – which also demonstrates the country's commitment to the 1992 Convention on Biological Diversity, which the country signed. These strategies

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<sup>7</sup> *Indonesian Marine Conservation Areas*, 2010, Ministry of Marine Affairs and Fisheries, Directorate General of Marine, Coasts and Small Islands, Directorate of Aquatic and Marine Resources.

include: managing the protected areas system more effectively; conserving biodiversity in agro systems and non-protected production areas; ex situ conservation of biological diversity; protecting traditional community knowledge and improving knowledge on conservation of biodiversity; and developing and maintaining sustainable biological diversity utilization with equitable sharing of benefits. The national government of Indonesia shares with the local government units the following tasks to conserve biodiversity under the Local Autonomy Law: the management of marine resources; landscape regulation; and enforcement of local and national laws.<sup>8</sup> The Biological Resources Act establishes basic principles for the management, conservation, and use of biological resources, natural habitats and protected areas. These include (i) the protection of life-support systems, the conservation of animal and plant species diversity and their ecosystems, and the sustainable use of biological resources and their ecosystems; (ii) sustainable, harmonious, and a balanced use of biological resources; and (iii) the development of human capacity and quality of life. The Biological Resources Act promotes two types of “nature protection areas”: nature reserve areas and nature sustainable areas (Articles 14 and 29). Subsequent to this Act, a government regulation was enacted that specified the types of nature reserve areas and nature sustainable areas. Indonesian Government Regulation No. 68 of 1998 divides the nature reserve areas into two types of nature protection areas: (i) nature reserve area (*kawasan cagar alam*) and (ii) wildlife reserve area (*kawasan suaka margasatwa*). The nature sustainable area is divided into three types: (i) national park area (*kawasan taman nasional*), (ii) grand forest park area (*kawasan taman hutan raya*) and (iii) nature recreational park area (*kawasan taman wisata alam*). Article 1 of Government Regulation No. 68 of 1968 defines:

- Nature Reserve Area is “the specific area in land or waters which functions as the area for prevention of degradation of biodiversity of plants and animals and their ecosystems.”
- Wild Reserve Area is “the area that because of it nature has specific plants, animals and their ecosystems that need to be conserved.”
- National Park is “the nature preservation area on land and/or waters which consists of original ecosystems of plants and animals that are managed by zonation system and used for research, education, tourism and recreation.”
- Grand Forest Park Area is “the nature preservation area on land and/or waters intended for the collection of indigenous and non-indigenous plants and animals that are used for research, education, tourism and recreation.”
- Nature Recreational Park Area is “the nature preservation area on land and/or waters intended for tourism and recreation.”

#### g. The Laws of Decentralization Authorities

59. The fall of President Soeharto and the subsequent of democratization of Indonesia’s politics resulted in new laws on decentralization that have tremendous impact on marine resources management. Two of the key Acts that are analyzed below are Act No. 32 of 2004 concerning Regional Government and Act No. 33 of 2004 concerning Financial Distribution Central and Regional Government.

- **Act No. 32 of 2004 and added or revised by Act 12 of 2008 concerning Regional Government (Autonomy Act).** The Regional Government Act grants authority to the regional governments to manage their own natural resources. Article

<sup>8</sup> From SSME Conservation Plan, 2012.

18.4 grants to the Provinces jurisdiction over Indonesia's territorial sea that extends up to 12 nautical miles from the archipelagic baseline. One-third of the territorial sea is given to district or city governments. Where the distance between two provinces is less than 24 nautical miles, the jurisdiction of each province is the median line from each province (Article 18.5). **However, this arrangement does not apply to traditional fishing activities (Article 18.6).**

Article 18.3 provides for the authority of the regional governments (province, district and city). This includes (i) exploration, exploitation, conservation and management of the coastal resources; (ii) administrative matters; (iii) spatial planning; (iv) law enforcement activities in regard to local regulations and regulations that have been decentralized by the central government; (v) involvement in maintaining national security and sovereignty. Article 24 describes the role of national government in setting minimum standards for e.g. marine affairs and fisheries services. Article 33 grants authority to Province to manage waters from 0-12nm, without explicitly stating the role of Districts from 0-4nm. This is of course in line with autonomy requirements, but the wording is open to interpretation and, while we expect Provinces will grant authority to Districts, there may be some noise about this clause. Effects Spatial Planning, and roles and responsibilities of National, Province and District

Excluded are some functions that are retained by the central government. These include the functions for foreign affairs, security, defense, judicial, national fiscal and monetary, and religion (Article 10.3). The regional governments have full authority to manage their own business. However, in general, the role of the provincial government has decreased dramatically. Most functions are now devolved from central and provincial to local (i.e. district or city) governments, including public works, health, education and culture, agriculture, communications, industry and trade, direct investment, environmental management land use, cooperatives and labor (Article 14).

The amendment to Law 32/2004 is expected in late 2013. This amendment will also impact aspects of Law 27/2007 (spatial planning) and Law 45/2009 (fishery resources). This is a major piece of legislation that will influence our target sector, with implications (which appear to be mostly positive) but whose timing at the launch of COREMAP—CTI may bring delays.

- **Act No 33 of 2004 concerning Financial Distribution Central and Regional Government (Financial Distribution Act).** The Financial Distribution Act provides for almost a complete transfer of budgetary management from the central to local government. Article 10 of the Financial Distribution Act provides that the equilibrium funds consist of money derived from the National Income and Expenses (*Anggaran Pendapatan dan Belanja Negara/APBN*) that are divided into three components: (i) sharecropping funds; (ii) general funds; and (iii) specific allocation funds. The equilibrium funds that are derived from sharecropping funds are sourced from tax and natural resource conversion (Article 11.1). Sharecropping funds sourced from tax include land and building tax, tax on land and building acquisitions, and income tax (Article 11.2). The sharecropping funds sourced from natural resource conservation come from forestry, general mining, **fisheries**, oil mining, natural gas production, and geothermal production (Article 11.2).

The first component of the equilibrium funds derived from sharecropping particularly from natural resource revenue is divided into four components. First, the revenue from

forestry activities is divided into two arrangements. Revenue from forestry levy and forestry resources, the regional government gets 80%, while the remaining 20% goes to the central government (Article 14.a). Revenue from reforestation fees, the regional governments receive 40% and the central government 60% (Article 14.b).

**Second, for revenue from fishing, general mining and geothermal production, regional governments receive 80%, while the remaining 20% goes to the central government (Articles 14.c.d.g).** Third, for oil production revenue, regional governments receive 15.5% and the central government 84.5% (Article 14.e). Finally, for revenue from natural gas production, regional governments receive 30.5% and the central government 69.5% (Article 14.f).

According to article 27.1, the central government should provide the second component of equilibrium funds, the general allocation, to regional governments, equaling 26% of the National Income and Expenses (APBN). General allocation funds of a regional government are allocated based on the fiscal gap and basic allocation (Article 27.2). The fiscal gap is calculated from the regional fiscal need minus the regional fiscal capacity, while the basic allocation is calculated based on the number of regional government officers (Article 27.2.3). The regional fiscal need is calculated from the total population, area, the expense of the construction index, gross regional domestic product per capita, and the human development index (Article 28).

The third component of the equilibrium funds, i.e. specific allocation funds, is allocated to assist the regional governments to finance specific regional needs. The total of the specific funds is established annually in the APBN (Article 38). **The Financial Distribution Act significantly influences the use and development of coral reefs in regional areas through its allocation of funds and establishment of priorities. The implementation of this law may address the lack of funds for coastal and ocean resource development programs at the regional level.**

- **Ministry of Home Affairs: Regulation No. 39 / 2010 on Village Owned Enterprises.** Enterprises in the villages can be privately owned, or community owned. This regulation states that in order to increase the financial capacity of the village government in governance and to increase incomes through various economic activities of the rural, village-owned enterprises is established in accordance with the needs and potential of the village. The Community can establish a *POKMAS* or community group that operates a village enterprise (BUMDes). They need to meet the following requirements:

- (i) Requirement for BUMDes formation:
  - (a) At the initiative of the village government and community, based on community of villagers meetings;
  - (b) The economic potential exists for the community business;
  - (c) It is in accordance with the needs of the community, especially in the fulfillment of basic needs;
  - (d) The village has not previously used the available resources optimally, especially rural wealth;
  - (e) Availability of human resources whose capable in managing rural enterprise as assets for rural economies driven;
  - (f) The availability of business units that constitute the economic activities of people who run partially and poorly accommodated, and

- (g) To increase people's income and revenue of villages.
- (ii) The mechanism of BUMDes formation referred to in paragraph (1) includes these stages:
  - (a) Village consultation / consensus for an agreement;
  - (b) The agreement set forth in the AD / ART, which at least contains: organization and procedure, determination of personnel, accountability systems and reporting, profit sharing and bankruptcy;
  - (c) The proposed material agreement which could be used as a draft of village regulations, and
  - (d) The issuance of such village regulations.
- **Min of Home Affairs: Draft National Law (RUU) on Village Administration Law.** Revision of Law No. 5 / 2009 National Law on Village Government. There is a draft national law that is near ratification in the national legislature. Among other themes, it discusses the BUMDes or village-owned enterprises.
  - Article 33 of the Third Draft states that the village government sets the village authority over natural resources or wealth of the village.
  - Article 99: Rural Development Planning passage states
  - Article 109: Community Empowerment:
    - (i) In the framework of rural development and sub-rural development, Government and District / City government can empower rural communities by:
      - (a) Improving the quality of rural communities through education, training, and extension;
      - (b) Providing assistance in rural development activities;
      - (c) Recognizing and developing indigenous institutions that already exist;
      - (d) Facilitating the growth initiatives and movements in order to develop the potential of rural communities and local assets;
      - (e) Giving priority to the use and development of appropriate and environmentally friendly technology by utilizing local wisdom, and
      - (f) Developing customs and local culture.
    - (ii) In addition to the empowerment of rural communities as described in paragraph (1) Government and District / City could implement community empowerment in accordance with the development and rural community needs.
- Article 111: Wealth of the village is defined by Article 111, and among others includes: value of village land, village market, animal markets, boat landing facility, area for catching anchovy (small coastal fish; *bagan ikan*), anchovy houses, village-run fish auction, auction of village-managed agricultural products, village-owned forests, fresh water springs owned by the village, public baths and other village owned wealth. Note that coral reefs and most coastal resources are not defined specifically in this draft. This same Article, 111 states that the village is entitled to revenue sharing of the wealth owned by the village that have been transferred by province/district or city, except for the wealth that is used for public purposes (e.g., value of land transferred for roads or public infrastructure).
- Article 119: on state-owned village enterprises:
  - (i) The Village may establish village-owned enterprises in order to provide social services to residents, encouraging rural economy, increase incomes and Revenue of Villages.

- (ii) Village Regulations that are guided by [district] legislation shall specify the establishment of village-owned enterprises.
- (iii) Village-owned enterprises referred to in paragraph (1) shall be incorporated.
- (iii) The Government provides incentives for village-owned enterprises in the form of tax exemption because BUMDes (village-owned enterprises) provide direct benefits and close to the community

#### **h. The Laws for Ratification of international Conventions and Agreements**

60. Several Acts have been enacted by Indonesia in connection with the ratification of international marine and coastal environmental agreements related to the management of coral reefs. These include Act No. 17 of 1985 concerning the ratification of the 1982 Law of the Sea Convention (LOSC), Act No. 5 of 1994 concerning the ratification of the United Nations Convention on Biological Diversity, and other major international conventions on marine pollution (the South East Asian Programme in Ocean Law, Policy and Management/SEAPOL and the International Convention for Prevention of Pollution from Ships/MARPOL).

- **Act No. 17 of 1985 Concerning the Ratification of the 1982 LOSC.** As a consequence of the ratification of the 1982 LOSC, there are some duties and obligations required by Indonesia as a party to the 1982 LOSC. Although, no direct reference to coral reef management was addressed by the 1982 LOSC, one chapter of it deals with conservation in somewhat general terms. Part XII of the 1982 LOSC entitled “Protection and Preservation of Marine Environment” is a legal basis for marine conservation activity related to the use and management of marine and coastal resources. It imposes a basic obligation on states to protect and preserve the marine environment, and requires them individually or jointly, to take action to prevent, reduce and control pollution from any source of pollution (Articles 192 and 194), such as from land-based sources, seabed activities, activities in the surrounding area, dumping vessels, and the atmosphere. State parties to the convention are required to conduct various measures, such as the duty to protect and preserve rare or fragile ecosystems as well as the habitat of depleted, threatened or endangered species and other forms of marine life.

- **Act No. 5 of 1994 concerning the ratification of the United Nations Convention on Biological Diversity.** The ratification of the United Nations Convention on Biological Diversity (CBD) influences the use and management of coral reefs. Act No 5 suggests that it is necessary to protect and preserve most of the ecosystems that exist in Indonesia including coral reefs. This Act also advocates that the government take action with respect to natural resource management, such as: inclusion of traditional rights, clarification and inclusion of the role of women in development, and the assurance of the sustainability of small islands’ biodiversity.

#### **B. International Conventions Regarding Prevention of Pollution of Marine Ecosystems**

61. Aside from the international conventions mentioned above, there are also a numerous international conventions and other multilateral instruments for the prevention of pollution of marine ecosystems, and the establishment of particular marine protected areas has been ratified by Indonesia. One such convention is the International Convention for Prevention of Pollution from Ships (MARPOL) of 1973 and MARPOL 1978. Annexes I and II of MARPOL, and

the Protocol 1978 of MARPOL were ratified by Indonesia in 1988 (see others conventions and agreements on Table 3).

**Table 3. List of International Conventions and Agreements Ratified by Indonesia**

No	Convention	Ratification Year
1	The International Convention for the Safety of Life at Sea (SOLAS) of 1960	1966
2	The International Agreement for the Facilitation of Search Ships in Distress and Rescue of Survivors of Ships Accidents	1976
3	International Convention on Load Lines (LL) of 1966	1976
4	The International Convention on Civil Liability for Oil Pollution Damage of 1969	1978
5	The International Convention on the Establishment of an International Fund for Compensation for Oil Pollution Damage of 1971	1978
6	Convention on the International Regulation for Preventing Collisions at Sea (COLREG) of 1972	1979
7	International Convention for the Safety of Life at Sea (SOLAS) of 1974	1980
8	The International Convention for Prevention of Pollution from Ships (MARPOL, Annexes I and II), 1973 and MARPOL Protocol 1978	1986
9	The International Convention on Standards of Training, Certification and Watch keeping for Seafarers (STCW) of 1978	1988
10	SOLAS Protocol of 1978	1988
11	International Convention for Safe Containers (CSC) of 1972	1989
12	The United Nations Framework Convention on Climate Change	1994
13	Basel Convention for the Control of Transboundary Movement of Hazardous Waste and Disposal of 1989	1994

Source: Dirhamsyah, 2005

62. Even though the MARPOL Convention only prescribed standards for the prevention of pollution from ship sources, it also **imposed stricter controls in certain ‘special areas’ from any pollution from ships** (Annex I of MARPOL). **These “special areas” include coral reef ecosystems, which are the most sensitive areas.** Similar to this, Indonesia has established several sensitive special areas for coral reef protection (marine protected areas), for a detailed explanation see also discussion of Act No. 5 of 1990 concerning Conservation of Biological Resources and Their Ecosystems.

63. The IMO has developed guidelines for the identification of fragile ecosystems, such as coral reefs and mangroves, which may be designed as ‘particularly sensitive sea areas’ susceptible to pollution from ships (Gibson and Warren, 1995). Although some Indonesian coral reefs exist close to designated Archipelagic Sea Lane areas, there are no sensitive areas declared by Indonesia to prevent coral reefs from oil pollution produced by shipping operations. Recently, the Great Barrier Reef in Australia was declared a ‘particularly sensitive area’ (Gibson and Warren, 1995). There are very few others.

### **C. Indonesian Policy Framework for Coastal and Marine Resources Management**

64. From 1969 to 1998, the Indonesian development strategy used the Broad Guidelines of State Policy (*Garis-Garis Besar Haluan Negara/GBHN*) as a national plan for the holistic development of the country at that time. This strategy was decreed by the General Peoples Assembly (*Majelis Permusyawaratan Rakyat/MPR*), which is held once every five years. However, based on the Act No 25 of 2004 concerning National Development Planning Systems (NDPS Act), the GBHN was changed to the Long Term National Development Plan (Long Term



Plan). The Long Term Plan is the vision, mission and guidelines of the national development plan that is valid for twenty years (Articles 4(1) and 1(4) of Act No 25 of 2004).

65. The NDPS Act also provides for the obligation of government to develop the Medium Term National Development Plan (Medium Term Plan) for a five-year period and the Annual National Development Plan or the Annual Government Development Plan (Articles 1(5) (8) of Act No. 25 of 2004). The Medium Term Plan also symbolized the vision, mission and program of the President of the Republic of Indonesia (Article 4(2) of Act No 25/2004). This article originally is the follow-up of the amendment of Indonesia Constitution of 1945, which dramatically changed the system of the President's election from indirect to direct election. The former Constitution arranged that the President of the Republic of Indonesia is elected by the MPR. Article 6 of the 1945 Constitution stipulates that the President and Vice President are elected as a pair and elected directly by the Indonesian people. As a consequence of the new system, this amendment was also deleted and changed Article 6 of the former Constitution regarding the rights of the MPR in establishing the GBHN.

66. **The basis of the national marine policy is Chapter X of the 2010-2014 National Medium Term Development Plan (RPJMN 2010--2014) concerning the development of natural resources and the living environment.** The RPJMN 2010-2014 is the second phase of the 2005-2025 National Long-Term Development Plan (RPJPN 2005---2025) promulgated through Law 17/2007. The RPJMN 2010-2014 is the basis for ministries and government agencies in formulating their respective Strategic Plans (RENSTRA-KL). Regional governments must also take into account the RPJMN 2010-2014 when formulating or adjusting their respective regional development plans to reach national development targets.

67. The Chapter X of the RPJMN 2010-2014 suggests that the management of natural resources and environment will be continued for improving quality water resources, rehabilitation and conservation of land and forest, management of marine resources and improvement of the carrying capacity of environment. This chapter also states the needs of adaptation and mitigation actions for addressing the impact of climate change.

68. The remaining part of this section, therefore, analyses several aspects of Indonesia's marine policy subsequent to the Chapter X of the RPJMN 2010-2014, such as, the policies of fisheries, marine environment, forestry, small island development and management, marine tourism, mining and sea transportation.

### **1. Fisheries Policy**

69. Indonesia has a large and diverse fish resource base. The Maximum Sustainable Yield (MSY) of Indonesia's fish resources was estimated in 2011 at approximately 6.5 million tons per year, of which of about 4.6 million tons can be caught in internal waters and about 1.9 tons from the EEZ (KKP, 2011). The Ministry of Marine Affairs and Fisheries has set a Total Allowable Catch (TAC) of about 5.2 million tons or 80% of total MSY. The fisheries sector contributes approximately 3.17 percent (US\$19.75 billion) to the GDP of Indonesia.

70. Currently Indonesian fisheries development is faced with micro technical and macro structural problems. The micro technical problems include the high rate of poverty of Indonesia's fishers, low productivity, over-fishing in some areas, illegal fishing by national and foreign fishers, increasing degradation of fish habitats, the use of illegal gears (fishing bomb, potassium cyanide, and other prohibited fishing gears), conflict of interest on spatial planning, lack of post-harvest production skills, all of which result in waste, poor marketing, and lack of data and

information. Macro structural problems occur due to external conditions regarding socioeconomic, political, legal and institutional arrangements. These include the lack of legal and institutional arrangements, and lack of a macro-economic policy for sustainable fisheries development; in essence a lack of political commitment to sustainable natural resource management.

71. There are three components of the fisheries policy in Indonesia. The first is the management of fish catches through the monitoring and control of catches. This requires action in the following areas:

- Limitation on development of fishing fleets in the over-fished areas;
- Strict implementation of the Total Allowable Catch (TAC) or effort controls throughout the EEZ, and particularly eastern Indonesia where intensive fisheries harvesting is ongoing; and
- An integrated regional approach to management of fisheries.

72. The second major component of the fisheries policy is the enhancement of aquaculture production. To implement this policy three strategies need to be addressed by government, including:

- Establishment of spatial planning for aquaculture purposes;
- Developing appropriate water quality and environment standards for aquaculture; and
- Establishment of a seed restocking management program.

73. The third component is to increase added value for fisheries processing. This is to be achieved through the establishment and implementation of policies for post-harvest production such as quality control standards and processing to meet international requirements.

## **2. Environmental Policy**

74. Over-fishing and other destructive fishing practices have caused degradation of coastal and marine resources (Nontji, 2000). Policy on the marine and coastal environment entails two major activities: (i) the conservation of marine resources, and (ii) the prevention of marine pollution. Both aspects are addressed by Indonesia's environment policy (PROPENAS, 2010-2014).

75. The five objectives of the Indonesian environmental policy are to:

- Enhance access to information regarding natural resources and the living environment;
- Increase the effectiveness of management, conservation and rehabilitation of natural resources;
- Prevent and control degradation and pollution of the living environment;
- Improve institutional arrangements and law enforcement for natural resources and sustainability of the living environment;
- Increase the community role in natural resource management and sustainability of the living environment.

## **3. Forestry Policy**

76. The policy of the conservation and management of coastal ecosystems, in the forestry sector, is included in the national policy for the Management of Indonesia Wetlands. The National Strategy and Action Plan for the Management of Indonesia Wetlands were developed

in 1996. However, the lack of stakeholder involvement in the preparation, and the lack of formal legislative implementation resulted in the lack of implementation. This national policy failed to address the problems associated with the management of wetlands in Indonesia (KLH, 2004). The National Strategy and Action Plan for the Management of Indonesia Wetlands of 2004 (SPNLB-2004) was developed by government to replace the former one.

77. According to the SPNLB-2004, there are five policies for the management of Indonesian wetlands. The first policy is sustainable development and use. In order to achieve this policy, there are two principles that should be adopted in utilization of wetland ecosystems. These include conservation and rehabilitation activities. The second policy is benefits and priority principles. This policy suggests that it is necessary to identify functions, values and types of appropriate management before utilizing wetlands ecosystems.

78. The third policy is community-based management. The involvement of local communities in the decision-making process in wetlands management is required. The fourth is the need to adopt an integrated management approach. This policy is to address conflict of interest among the resource users of wetlands areas. The management of coastal wetlands should be based on local culture and traditional knowledge. The fifth is the need to apply good governance principles. Coastal wetlands have important functions and values for national economy and the environment. To avoid conflict of interest, transparent and wise utilization principles are required in managing these areas.

79. To implement these policies, several strategies have been suggested in the SPNLB-2004. These include:

- To develop criteria for coastal wetlands management;
- To develop mechanisms for data access;
- To improve community awareness of the importance of coastal wetlands;
- To increase community involvement in all levels of the decision-making process;
- To conduct law enforcement consistently;
- To assess the performance of government agencies that are involved in coastal wetlands management; and
- To improve local government performance in managing their coastal wetlands.

#### **4. Small Islands Development Policy**

80. The Convention on Biological Diversity (CBD) and other results of UNCED conference (such as Agenda 21) were approved by Indonesia almost ten years ago, but there are still problems facing development of small islands in Indonesia. One program of Agenda 21 is the sustainable development of small islands. More than two-thirds of the estimated 17,506 Indonesian islands are small; they have considerable natural resources that can potentially be developed. There are two categories of small islands adopted by UNESCO in 1991. First, "small islands" are defined as those having an area equal or less than 2,000 square kilometers and a width not exceeding 10 kilometers. Second, "very small islands" include those whose surface area does not exceed 100 square kilometers or a width not greater than 3 kilometers (Tsiourtis, 2004). To date there has been little significant effort by Indonesia to develop its small islands. Most of development programs have focused on the larger islands.

81. There are two political and economic benefits that can accrue from developing small islands. Specific ecosystems and resources of small islands are a source of capital for local economic development that can contribute to the national income. The success of sustainable

development of small islands will also reduce the development gap between different regional and community groups.

82. It is not easy, however, to develop small islands. The characteristics of size, resources, remoteness and uniqueness create limitations for development. According to Kusumastanto, there are five limitations in developing small islands due to their uniqueness (Kusumastanto, 2003). The first is their size and location that create a limitation on their human resource development. Their remoteness and lack of infrastructure also result in a lack of skilled labor. The second limitation is lack of the natural resources and environmental services such as availability of fresh water, land, and stock of wild animals. These affect the carrying capacity of the islands to accommodate human activities.

83. The third limitation is the difficulty of generating profitable economic activities. The limitations of natural resources availability and the size of the island make it difficult to develop the transportation, industry and administrative sectors. The fourth limitation addresses the close linkage between natural resources productivity and environmental services. The exploitation of natural resources (such as coral reefs and mangroves) contributes to the degradation of the natural ecosystem. For example, illegal logging in Palawan Island in the Philippines and some islands in the East Caribbean caused land erosion and sedimentation in coastal areas, resulting in further degradation of coral reef ecosystems (Kusumastanto, 2003). The fifth limitation of small islands is the local community culture. It is known that some local cultures are against marine development, especially marine tourism. For example, some of Indonesia's local cultures do not permit marine tourism development such as swimming, snorkeling and other beach activities for religious reasons (Kusumastanto, 2003).

84. Although there are problems associated with small islands development, it does not mean that they cannot be developed. An integrated approach should be used to address these problems. The development should follow ecological principles, and not only be economically oriented. The change in development orientation from land to coastal and ocean development, and the political change from centralized government to local autonomy, is directly influencing the opportunity for the Indonesian government to develop its small islands.

85. The Development Strategy of the marine sector by the Ministry of Marine Affairs and Fisheries for 2010-2014 identified four main policies for small islands and coastal areas programs. These include:

- Increasing the efficiency of the utilization of coastal and marine space, to be carried out through the establishment of regulations for the spatial planning of small islands, marine and coastal areas;
- Use of a sustainable and integrated approach for small islands and coastal area management through conservation and prevention of illegal activities relating to natural resources. (This policy is focused on the establishment and management of marine conservation areas, and protected areas for fish and other marine endangered species);
- Improving and enriching the quality of human resources; and
- Empowerment of coastal communities.

86. In terms of sustainability, it cannot be denied that these programs are credible for small island development, they also relate to the use and management of coral reefs. It is necessary for the government to implement the above programs in order to achieve the desired outcomes of the country.

## **5. Marine Tourism Policy**

87. Marine tourism including seaside tourism, culture tourism, sports tourism and cruise tourism is a potential sector for the marine development in Indonesia. It is reasonable therefore, for the marine tourism sector to be expected by the Indonesian government to drive the community's economic agenda with its multiplier effects. Further, by providing and creating jobs, marine tourism can also be expected to assist with poverty alleviation of coastal communities in Indonesia. A recent study estimated the potential contribution of the marine tourism sector to the Indonesian economy at US\$ 26.56 billion in between 2004-2024 (PKSPL-IPB, 1998 in Kusumastanto, 2003). Several policies have been developed by the Indonesian government to realize this potential. Policies relating to the use and development of coral reefs include (i) to develop a model of marine tourism management that stresses sustainable development of marine ecosystems and encompasses the cultural aspects of the local community; and (ii) to increase the capacity and capability of human resource development in the management of the marine tourism industry (Kusumastanto, 2003).

## **6. Mining Policy**

88. The Indonesian mining policy applies to mining activities for all non-living resources exploitation and exploration for both land and ocean. Oil and gas are the primary mining activities of Indonesia, providing the main source of revenue for Indonesia since the 1970s (Soegiarto and Stel, 1998). The mining sector financed and fuelled Indonesia's economic development during the 1970s when oil revenue contributed over 80% to the national revenue. Almost 35% of oil production in Indonesia is derived from offshore mining activities (Soegiarto and Stel, 1998).

89. More recently economic development in other Asian countries in particular Singapore has diversified mineral exports from Indonesia. For example, sand-mining has been developed in Riau Province in order to fulfill Singapore's demand for sand for roads, building construction, and reclamation of its beaches. This is both positive and negative for Indonesia. Economically, the sea-sand mining industry contributes significant money to Indonesia's economy, but it also has a negative impact on marine ecosystems, including coral reefs. It estimates that 5 percent of Riau Province income or Rp. 26 trillion (USD\$2.8 million) come from sea-sand mining activities in that province (Jatam, 2001). The government's policy on sea-sand mining has vacillated considerably and remains unclear. This is further aggravated by lack of effective coordination among the government agencies that are mandated to coordinate this sector, although a committee was established by the government for the monitoring and controlling of sea-sand mining. By the Minister of Trade and Industry Decree No. 117/MPP/Kep/2/2003, the Indonesian government finally decided to place a moratorium on sea-sand mining activities for export.

90. Although many mining activities impacted land and marine environment in Indonesia, in fact due to the lack of law enforcement this activity in some coastal areas in Indonesia is without any appropriate penalty. Enforcement of the Mining Act is very weak. The Indonesian mining policy has focused on exploitation of non-living resources for economic purposes only and the conservation or minimizing the negative ecological impacts on coral reefs has largely been ignored.

## **7. Marine Transportation Policy**

91. It is realistic for Indonesia, as an archipelagic state, to rely heavily on the marine transportation sector. This sector has significant national political and socioeconomic

significance by providing a traditional line of communication between the central and regional governments. The development of the marine transportation sector may not directly affect the use and management of coral reefs, but this activity, if uncontrolled, can potentially create pollution that can damage coral reef ecosystems.

92. Indonesia's waters are susceptible to pollute with oil spills. It was estimated that 27% of the world's traffic or 7 million barrels of crude oil per day are transported through the Malacca Straits and other Archipelagic Sea-Lanes of Indonesia, such as the Sunda, Makassar and Lombok Straits. These are the busiest traffic of crude oil transportation in the world (Nontji, 2000). Ship transportation through Indonesian waters resulted in a number of maritime accidents and casualties. During 1975-1997, 104 shipping accidents occurred that caused marine and coastal areas to be polluted by oil spills (Nontji, 2000).

93. Even though Indonesia has ratified several international conventions that address prevention of pollution from ships, inter-agency co-operation and enforcement/implementation of the laws are weak. There is no single program within the marine transportation policy that relates directly to the prevention and rehabilitation of coastal and marine ecosystems from ship-sourced pollution. Government policy, once again is focused on the development of the shipping industry itself, and not the implementation of standards to address transportation-related pollution. There are Oil Spill National Contingency Plans, but there is no special agency that responsible for management of oil spill from ship operations.

94. In summary, it can be concluded that although Indonesia has a wide range of policies on coastal and marine management at the national level. These policies are scattered among several government institutions. This has resulted in fragmentation in planning and implementation of a marine and coastal management policy. The establishment of an integrated, sustainable national policy on marine and coastal/ coral reef resources management could be considered by Indonesia as a solution to reduce fragmentation. The establishment of a national policy should also define the rights and duties of government institutions and other stakeholders with respect to coastal and marine resources. The establishment of an effective inter-agency mechanism for the integration of development planning and implementation of such plans at all levels is urgently required.

95. As one of the instruments of coastal management, a policy cannot stand-alone; it should be given a formal legislative effect to provide it authority for implementation. The Indonesian experience shows that it is hard, if not impossible to get voluntary compliance from government agencies to an unregulated agreement or planning scheme. One cannot enforce policy; one can only enforce the law. It is therefore necessary for Indonesia to ensure that national policy is enacted into national law.

#### **D. Law Enforcement and Compliance**

96. There are some common global management strategies for coastal and marine resources management that are also used in Indonesia to enforce its law and regulations on coastal and marine resources. This section will review the practices of maritime law enforcement and the institutions involved in law enforcement in the coastal and marine areas of Indonesia.

## 1. Enforcement Authority

97. Enforcement of Indonesia's coastal and ocean resources management is a joint responsibility of several national government institutions. The two major departments are the MMAF and the MOF. Two directorates of the Directorate General for the Control of Marine Resources and Fisheries of the MMAF have functions that relate to the monitoring, control, surveillance (MCS), and enforcement of coastal and marine resources management activities 1) the Directorate for the Control of Marine Ecosystems and 2) the Directorate for the Control of Fish Resources. The control of coastal areas is one of the functions of the Directorate for the Control of Marine Ecosystems. Together with the navy and marine police, this Directorate General conducts monitoring, control, surveillance, and enforcement within the **Indonesian territorial seas and offshore waters**.

98. The Directorate General of Forest Protection and Nature Conservation of the MOF also conduct surveillance and enforcement activities in marine protected areas. To implement these functions both the Ministry of Marine Affairs and Fisheries and the Ministry of Forestry have "civil investigation officers" (Penyidik Pegawai Negeri Sipil (PPNS)), who have power to investigate illegal practices in each sector. Article 31 of Act No 31/2004 concerning Fisheries and Article 77 of Act No 41/1999 concerning Forestry provide rights to civil investigation officer of both the Ministry of Marine Affairs and Fisheries and the Ministry of Forestry personnel to investigate the illegal practices in their sectors.

99. There are also other national government agencies involved in marine law enforcement activities. These include the State Ministry for Environment, the Ministry of Communication and Transportation, the Directorate General of Immigration, the Directorate General of Customs, the Indonesian Navy, and the Indonesian Police (Marine Police). Table 4 provides a list of the central government agencies involved in maritime law enforcement in Indonesia, including the laws and regulations that provide the basis for the powers.

100. Although, the State Ministry of Environment does not conduct surveillance activities in marine and coastal areas, it is one of the principal government institutions involved in coastal environmental protection and management and the enforcement of environmental law. Similar to the Ministry of Marine Affairs and Fisheries and the Ministry of Forestry, the State Ministry for Environment also has civil investigation officers for the enforcement of environmental laws.

101. The Indonesian Marine Police is primarily responsible for the enforcement of maritime law, drug prohibition, immigration and other similar civil responsibilities. It has limited authority, and hence is responsible only for surveillance and enforcement activities in the territorial waters.

**Table 4. National Government Agencies Involved in Law Enforcement Activities**

No.	Agency	Responsibility
1	National Coordinating Body for Ocean Safety	• To coordinate maritime law enforcement activities in Indonesia
2	Ministry of Marine Affairs and Fisheries	<ul style="list-style-type: none"> <li>• To undertake fisheries management and ensure compliance by both Indonesian fishermen and foreign fishing vessel;</li> <li>• To control illegal fishing;</li> <li>• To prevent the exotic diseases through importation of infected marine species.</li> </ul>

No.	Agency	Responsibility
3	Ministry of Forestry	<ul style="list-style-type: none"> <li>• To conserve, preserve and utilize marine biodiversity and its ecosystems;</li> <li>• To establish marine protected areas;</li> <li>• Management authority for CITES.</li> </ul>
4	Ministry of Energy and Mineral Resources	<ul style="list-style-type: none"> <li>• To prevent negative impact of mining activities on Indonesian marine and coastal areas</li> </ul>
5	Ministry of National Education	<ul style="list-style-type: none"> <li>• To preserve cultural material on marine and coastal areas.</li> </ul>
6	Ministry of Transportation and Communication	<ul style="list-style-type: none"> <li>• To manage shipping activities in Indonesia;</li> <li>• To establish sea-lanes for foreign and domestic ships;</li> <li>• To conduct search and rescue operation;</li> <li>• To prevent marine pollution generated from oil spills.</li> </ul>
7	State Ministry for Environment	<ul style="list-style-type: none"> <li>• To monitor marine pollution;</li> <li>• To preserve and conserve the marine environment and ecosystems in all Indonesia territorial waters and the zones beyond its territory, including EEZ, Continental Shelf.</li> </ul>
8	Indonesian Navy	<ul style="list-style-type: none"> <li>• To enforce maritime laws only on the areas beyond territory, including EEZ, Continental Shelf.</li> </ul>
9	Indonesian Air Force	<ul style="list-style-type: none"> <li>• To conduct air surveillance in all Indonesia territorial waters and the zones beyond its territory, including EEZ, Continental Shelf.</li> </ul>
10	Marine Police	<ul style="list-style-type: none"> <li>• To enforce maritime laws in internal waters.</li> </ul>
11	Directorate General of Immigration	<ul style="list-style-type: none"> <li>• To control the entry of individuals into Indonesia.</li> </ul>
12	Directorate General of Customs	<ul style="list-style-type: none"> <li>• To control the importation of illicit drugs and illegal goods.</li> </ul>

Source:

CITES = , EEZ =

102. In an effort to streamline and coordinate surveillance and enforcement policies program in Indonesian waters, including the EEZ, the National Coordinating Body for Ocean Safety (*Badan Koordinasi Keamanan Laut/BAKORKAMLA*) was set up in 1972. Membership of the National Coordinating Body for Ocean Safety is comprised of representatives from the Navy, Police, Customs, Ministry of Judicial Affairs, and the Attorney General's Office. The Minister of Defense, the Minister of Communication, the Minister of Judicial Affairs, and the General Attorney set this up by a Cooperation Decree (*Surat Keputusan Bersama/ SKB*) in 1972. At that time, the Indonesian Government had not yet established the Ministry of Marine Affairs and Fisheries.

## 2. Enforcement Programs and Practices

103. Two modes of enforcement activities are currently being practiced by Indonesia to ensure compliance with the laws and regulations: sea patrols and aerial surveillance (maritime surveillance). The Indonesian Air Force (*Angkatan Udara Republik Indonesia/AURI*) carried out aerial surveillance flights. Maritime surveillance activity is focused on the Indonesian EEZ and Archipelagic Sea Lanes. Aerial surveillance is an important activity in the maritime law enforcement program.

104. However, the absence of integrated law enforcement activity, including the lack of a national integrated air surveillance system, has resulted in ineffective aerial surveillance



activities in Indonesia. Data and information collected from the aerial surveillance have not yet been used properly by the client agencies, such as the Ministry of Marine Affairs and Fisheries. This problem has been exacerbated by the lack of funds and infrastructure that resulted in the limited number of aerial surveillance operations. Most of the enforcement activities in coastal and marine areas are carried out by sea patrols. Aerial surveillance is employed only for emergency cases, such as safety-at-sea operations, search and rescue, "hot pursuit" for illegal foreign fishers, and piracy.

105. In terms of the object or focus of enforcement, there are several differing tasks for sea patrols that are currently practiced by government agencies to enforce maritime laws and regulations. Within the territorial/coastal waters, at least two different tasks are given to the sea patrols. The first is sea patrol focused on monitoring, control and surveillance for fisheries activities in the territorial waters. The Directorate General for the Control of Marine Resources and Fisheries of the Ministry of Marine Affairs and Fisheries, the Indonesia Navy and the Marine Police carry out this operation. There are nine surveillance vessels of the Ministry of Marine Affairs and Fisheries used for patrolling territorial waters. These vessels are equipped with radios, radar, and other navigation equipment.

106. The Directorate General of Forest Protection and Nature Conservation of the Ministry of Forestry usually control sea patrols that are focused on monitoring, control, and conservation of marine biodiversity, with support from the Indonesian Navy and the Marine Police. These are the second type of sea patrol operations in the coastal areas to protect marine parks and the environment. It should be noted that for coastal areas, the agency funding the operation controls the focus and area of patrols with the navy and marine police providing law enforcement support to the primary agency, unless the latter is so directed to take control of the primary task.

107. Several Indonesian agencies also carry out sea patrols beyond the territorial waters and into the EEZ. National sovereignty and the control of other illegal activities such as smuggling, anti-piracy, and illegal fishing activities are the main focus of these sea patrols in these areas.

### **3. Recent Developments of Law Enforcement Programs in Indonesian Coastal Areas**

108. Even though law enforcement programs face several problems, it is fair to say that some significant efforts are being made to address the problems of maritime law enforcement at both the national and local levels. These include: the introduction of the concept of community enforcement, the enactment of two decentralization Acts, and the enactment of the new Fisheries Act (No. 31 of 2004).

### **4. Community enforcement programs**

109. The growing concerns over the depletion of some key marine species have increased significantly in the world since the late 1970s. This has resulted in a shift of coastal resources management from local and central government authorities to community institutions. The community-based management concept was introduced to many regions in the world in the late 1970s and early 1980s. Many NGOs were engaged to educate the fishers and other coastal communities to assume the management of their marine and coastal resources (Flewwelling *et al*, 2002). Since then, the pendulum has swung to the opposite extreme, which has resulted in increasing the conflict between fisheries organizations, NGOs and local authorities (Flewwelling *et al*, 2002). However, the involvement of communities in natural resources management (CBM)

became a trend and an alternative management measure, after several successes in the Philippines and some other regions in the world.

110. Stakeholder involvement has become an essential element in all integrated coastal and marine resources management initiatives. These have been tempered by a “top down”, centralized regime on one hand, and a “fox minding the chickens” community-run regime on the other, to the current co-management (stakeholder and local government) regime at the community/district level. Community enforcement programs are an integration of the CBM approach and MSC system for coastal areas. This encourages the community to become involved in monitoring, control and surveillance of their surrounding marine resources and take a role in protecting these resources from illegal activities. Communities are then encouraged to be empowered with local governments to have input into the deterrent/penalty processes through traditional practices now included in law, or with respect to input for the level of fines and penalties under the law.

111. The community enforcement program in the marine sector was introduced in Indonesia in the early 1990s, during the implementation of the community-based management concept in Indonesia, as it was in other developing countries. With assistance from some international foundations and NGOs, a reef watcher, beach watcher, or coast watcher program was introduced in some coastal communities in Indonesia. The program encourages the local community to conduct regular sea patrols in the village marine protected areas or marine conservation zones near their villages. For safety reasons, the community acts as a surveillance or “watcher” only. The reef watchers report and call for assistance of authorized law enforcement officers, authorized security officers, or the village leader, if they find illegal activities in their marine areas.

112. Although this program is relatively new, the community’s sea patrols have achieved significant success in some districts in Indonesia. For example, there was a significant decrease in illegal fishing activities in the District of Biak Numfor since the implementation of the COREMAP-MCS program in that area. The success shows the important role of the community played in the MCS program. They were the “front line for conservation,” the eyes and ears of the program. Based on the community’s information, the local security officers were able to catch the alleged fishers “red-handed”, when they committed illegal fishing offences. This success has shown that the involvement of the community in law enforcement activities, particularly, in the marine sector has contributed to the decrease of the number of illegal fishing activities. Also noteworthy was the pride and confidence generated in the community through this empowerment to protect their resources. Community-based enforcement may be an effective step to address marine resources degradation in Indonesia.

## **5. Devolution of Authority**

113. With the enactment of the autonomy laws, the responsibility for law enforcement of national laws is not only the responsibility of central government, but also the responsibility of the regional governments in their areas of jurisdiction. The involvement of provincial and district/city governments in law enforcement activities is a new concept in Indonesia. For more than thirty-two years, the responsibility of law enforcement was under the central government. This shift of responsibility is a reasonable one. Besides being in a better position to recognize the problems in their areas, today the regional governments also have the financial capacity to fund the law enforcement programs in their territorial seas, and take direct action in natural marine resource management.

114. Nevertheless, the lack of detailed operational guidelines for the autonomy laws created confusion for the implementation of law enforcement programs at local sites. The involvement of regional governments in enforcement programs became contentious as some strayed into areas of national responsibility, particularly in national defense and security. A good illustration of this occurred when several 'rich' regional governments such as Riau and East Kalimantan provinces built a patrol vessel and delivered it to the navy for their operation, presumably for their respective areas. This situation was exacerbated by the fact that the enactment of the autonomy laws resulted in considerable wealth differential among the regional governments. Those with abundant natural resources receive greater income than poorer regions. For example, Riau, East Kalimantan, Aceh and Papua became richer. It is not difficult for the 'rich' regional governments to fund law enforcement programs but it is still a problem for the 'poor' regional governments to fund these programs at the same level. This has resulted in the reluctance of some regional governments to plan and implement law enforcement activities.

## **6. The enactment of the Fisheries Act No. 31 of 2004 and it revised by Act No 45 of 2009**

115. The new Fisheries Act, enacted on 15 October 2004, has provisions that will revolutionize aspects of the maritime law enforcement in Indonesia. The transformation of the existing legal enforcement institutions and increase on the maximum penalty for illegal fishing activities are two significant changes.

116. For the first time since its independence Indonesia will have a specific court to hear fisheries infractions. Five ad hoc fisheries courts have been established. At least four factors distinguish the ad hoc fisheries courts from the general courts. First, the prosecutor is required to understand marine, coastal and fisheries ecosystems with certified proofed through formal training. Second, in some circumstances, it is possible to recruit an ad hoc judge from the academia, government institutions, NGOs, and other formal fisheries associations. Third, the maximum time for the proceedings of law enforcement (from investigation to punishment) has been reduced to approximately two and half months. Fourth, in some circumstances, to speed up the court processes people can be sentenced *in absentia*. The establishment of the ad hoc fisheries courts is expected to address fisheries violations in an effective, efficient and professional manner.

117. Significantly, the new Fisheries Act has increased sanctions for fisheries violations. For example, the maximum penalty for the use of dynamite, cyanide and other illegal gear was increased significantly from Rp. 100 million (US\$12,000) to Rp. 1.2 billion (US\$133,000). However, the maximum imprisonment for the same violation was decreased from 10 years to 6 years.

## **7. Establishment of ad hoc fisheries courts**

118. Article 71 of Act No. 31 of 2004 that was added and revised by Act No. 45 of 2009 concerning Fisheries mandates the Government to establish ad hoc fisheries courts in some areas in Indonesia. The main purpose of the establishment of the ad hoc fisheries court is to improve law enforcement capacity in judicial aspect in order to speed up the fisheries violations cases. Today, there are five ad hoc fisheries courts that have been established by the Indonesian Supreme Court and the Ministry of Marine Affairs and Fisheries. The five ad hoc fisheries courts were established in Jakarta Utara (North Jakarta), Medan (North Sumatra), Pontianak (West Kalimantan), Bitung (North Sulawesi) and Tual (Southeast Maluku). However,

the existences of those courts are not stand-alone; they are integrated with state court at the local level.

119. There are several reasons that provide the basis of the establishment of the ad hoc fisheries court. The experience shows that the judicial process at ordinary court usually takes quite long time, but on the other side, due to the type of crime and evidence many cases of fisheries crime require faster action than ordinary courts provide. Therefore, it is necessary to have the special judicial system to tackle this problem. This is the first reason why the ad hoc fisheries court is needed.

120. The second reason is dealing with the penalties. The existing laws have not yet accommodated all violations or crimes that occur in the fisheries sector. This caused many fisheries violations to be punished by inappropriate punishment. The last reason is dealing with the capability of the judges of ordinary courts. It is suspected that many judges in ordinary criminal courts have no capacity in presiding over the fisheries violations. The large numbers of fisheries violations that are punished by lower punishment are an indication of this.

121. To achieve the main target and addressing the problems mentioned above, the ad hoc fisheries courts have some specific rights and authorities in performing their functions. The first is the right to recruit the ad hoc judge and public prosecutor with the educational background not from judicial background but from academia or university, nongovernment organization, and professional organizations that have experience and knowledge in fisheries aspects. The second is the right to proceed with the court action without the presence of the accused. The third one deals with the time limit. The process of investigation to the court punishment should not take longer than two and half months. Through these rights and authorities, it is expected that the fisheries crimes can be prosecuted in effective, efficient and professional ways.

## **8. Triangle Integrated Environmental Criminal Justice System**

122. The experience shows that many investigations and prosecutions of fisheries crimes cannot bring the offender to have appropriate punishment. The punishment has no undeterred aspect to the transgressor. Most of these failures may be due to the inappropriate strategy and wrong judicial technique in investigating and prosecuting used by investigators and prosecutor particularly in authentication phase and prosecuting construction. This condition caused due to the un-solid teamwork between police or PPNS in investigating phase and the prosecutor in prosecuting phase.

123. The Triangle Integrated Environmental Criminal Justice System was introduced in order to address the problem above mentioned. This model consisted of three key players that include Investigator (police), Prosecutor and witnesses for the prosecution, in this regard the expert witness. The existence of the expert witness is very critical. The expert witness can cover the lack of knowledge of the investigator and prosecutor on the importance of marine and coastal resources and ecosystems. The expert witness can assist the prosecutor in providing key evidence on complicated crime case, such as environmental pollution. The capacity and knowledge of expert witness can be used for assisting the investigator and prosecutors in formulating the type of crimes or violations that will be used prosecute the offender. Through this system, it is expected that the failure to punish the transgressor can be reduced.

## E. Institutional Arrangements for Coastal Management in Indonesia<sup>9</sup>

124. Coastal and ocean resources governance in Indonesia is the primary responsibility of the state. At the national level, the authority for coastal and ocean resources management is under the responsibility of state ministries. However, this responsibility is shared among various agencies.

125. There are three forms of ministries that are recognized in the Indonesian government system. These are: (i) ministries or line departments, (ii) coordinating agencies, which are divided into two types: coordinating ministries (*Menteri Koordinator*) and state ministries (*Menteri Negara*); and (iii) non-departmental government agencies. Line ministries have legislated responsibilities for the management of various coastal resources or sectors. Coordinating ministries have a government mandate to bring together various line agencies with other relevant parties and formulate coastal management initiatives. Non-departmental agencies have a mandate to conduct a specific government function. Indonesia has a permanent inter-ministerial council for coastal and ocean management called the Indonesian Maritime Council (*Dewan Kelautan Nasional*), similar to those in the Philippines and Thailand (Sorensen and McCreary 1990:104-105). The mandate of this council is to formulate coastal resource policy. This council was established in 1999.

126. The government reform movement so-called *reformasi*, which arose with the fall of President Suharto in 1998, has triggered a tremendous push for decentralization and democratization in Indonesia. The *reformasi* has also influenced the development of governmental system for coastal management in Indonesia, particularly, at national level. The government of Indonesia under the Abdurahman Wahid cabinet in 1999 established the Ministry of Marine Affairs and Fisheries (MMAF). Since then, all the coastal and marine management activities in Indonesia are under MMAF controlled. The establishment of the MMAF affected the major changes in governmental administrative system in Indonesia. For example, the marine fisheries management, which was previously under the Ministry of Agriculture, is now under MMAF control.

127. In theory, three main agencies are responsible for fisheries and coastal resources management and conservation. These are the MMAF, the Ministry of Forestry (MOF) and the State Ministry for Environment (SMT). Overall responsibility for the management, development and conservation of fisheries, and other coastal and marine resources lies within the MMAF, while coastal environmental protection and management is under the responsibility of the SMT and the MOF. The MOF is also responsible for the management and conservation of mangroves, and national parks including marine parks.

128. However, the Indonesian bureaucratic system is more complicated than it appears. In practice, at least nine line departments, three state ministries, one coordinating ministry, four non-departmental government agencies and one inter-ministerial council are involved in coastal management at the national level. The government enacted several new laws after the *reformasi* era, such as the autonomy law and financial balancing between central and regional governments that have also contributed to the complicated problem in marine resource management in Indonesia. Table 5 provides a list and functions of some of the major

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<sup>9</sup> The source for most of this section is the 2009 EGE Report and the Government of Indonesia websites. USAID/Indonesia, 2009. *Enhancing Government Effectiveness in Indonesia: A Study of the Ministry of Marine Affairs and Fisheries*. Produced by Management Systems International, under contract to USAID. Chapter 3: The Ministry of Marine Affairs and Fisheries: Origins and Context.

government agencies in the Megawati cabinet that had some responsibility for the management of coastal and marine resources.

**Table 5. Indonesian Governmental System for Coastal Management  
Government Agencies Major Duties and Functions in Coastal Management Line Agencies**

<b>Government Agencies</b>	<b>Major Duties and Functions in Coastal Management</b>
<b>Line Agencies</b>	
Ministry of Marine Affairs and Fisheries (MMAF)	<ul style="list-style-type: none"> <li>• Responsible for overall coastal and marine resources management, from policy development to control of implementation of the policy.</li> </ul>
Ministry of Forestry (MOF)	<ul style="list-style-type: none"> <li>• To manage and control forestry resources, including mangroves. Through the Directorate General of Forest Protection and Nature Conservation, this department also has responsibility for managing the trade and conservation of endangered plant and animal species, and (formerly) marine parks and reserve areas.</li> </ul>
Ministry of Energy and Mineral Resource (MOEMR)	<ul style="list-style-type: none"> <li>• To regulate mining exploitation activities in all Indonesian territory, including coastal areas.</li> <li>• To prevent negative impacts of mining activities on marine and coastal ecosystems.</li> </ul>
Ministry of Home Affairs and Regional Autonomy (MOHARA)	<ul style="list-style-type: none"> <li>• To coordinate national and regional policies and programs, including spatial planning. Through Directorate General of Regional Development, this ministry also has responsibility for supervising the regional government agencies.</li> </ul>
Ministry of Transportation and Communication (MOTC)	<ul style="list-style-type: none"> <li>• To reduce and prevent pollution from ship operations.</li> <li>• To supervise the development of ports, harbors, and navigational aids and safety.</li> </ul>
Ministry of National Education (MONE)	<ul style="list-style-type: none"> <li>• To manage national educational systems, through its universities, and responsibility for conducting research in marine science.</li> </ul>
Ministry of Resettlement and Regional Infrastructure (MORRI)	<ul style="list-style-type: none"> <li>• To establish national policy for water resources.</li> <li>• To develop national spatial planning.</li> <li>• To coordinate and implement coastal engineering, coastal erosion and coastal infrastructures.</li> </ul>
Ministry of Defense and Security (MODS)	<ul style="list-style-type: none"> <li>• To conduct national and regional security and defense, including in coastal and marine areas.</li> <li>• To conduct hydrographic surveys and mapping.</li> </ul>
Ministry of Trade and Industry (MOTI)	<ul style="list-style-type: none"> <li>• To regulate industrial development in coastal areas.</li> <li>• To administer trade activities of coastal and marine resources, including the trade of endangered species and sea-sand mining.</li> </ul>
<b>Coordinating Ministries or Agencies</b>	
Coordinating Ministry for Economic (MENKO ECU)	<ul style="list-style-type: none"> <li>• To coordinate and synchronize economic policy that relates to ocean and coastal activities.</li> </ul>
State Ministry for Environment (SME)	<ul style="list-style-type: none"> <li>• To develop national policy for the living environment.</li> <li>• To establish national guidelines for the management and conservation of all natural resources.</li> </ul>
State Ministry for Culture and Tourism (SMCT)	<ul style="list-style-type: none"> <li>• To develop and establish national policy for culture and tourism.</li> <li>• To encourage community involvement in eco-tourism industries.</li> <li>• To protect natural ecosystems, including coral reefs.</li> </ul>

<b>Government Agencies</b>	<b>Major Duties and Functions in Coastal Management</b>
State Ministry for Research and Technology (SMRST)	<ul style="list-style-type: none"> <li>• To develop and establish government policy on research, science and technology activities, including marine science and technology.</li> </ul>
<b>Non-Department Government Agencies</b>	
National Development Planning Agency (BAPPENAS)	<ul style="list-style-type: none"> <li>• To develop and establish national development planning.</li> <li>• To coordinate sectoral and regional development planning and institutional control for international projects.</li> </ul>
Indonesia Institute of Sciences (LIPI)	<ul style="list-style-type: none"> <li>• To establish national guidelines for basic scientific studies. Through the Research Centre for Oceanography, this institute plays an important role in coral reef management in Indonesia.</li> <li>• LIPI also is a scientific authority for biodiversity management.</li> </ul>
National Coordinating Agency for Survey and Mapping (BAKOSURTANAL)	<ul style="list-style-type: none"> <li>• To establish national guidelines for surveys and mapping.</li> <li>• To conduct surveys and mapping in all areas, including coastal areas.</li> </ul>
Board of Implementation and Assessment of Technology (BPPT)	<ul style="list-style-type: none"> <li>• To review and establish national policy for the application of technology.</li> <li>• To carry the research on technology development related to natural and energy resources.</li> </ul>
<i>National Agency for Disaster Management (BNPB)<sup>10</sup></i>	<ul style="list-style-type: none"> <li>• <i>To manage disaster response and risk reduction, including extreme waves, coastal abrasion/erosion and tsunamis as related to coasts.</i></li> </ul>
<b>Permanent Inter-Ministerial Council</b>	
Indonesian Maritime Council (DMI)	<ul style="list-style-type: none"> <li>• To establish general national policy for the maritime sector.</li> </ul>

Source:

## 1. Ministry of Marine Affairs and Fisheries Structure

### a. Background

129. Much of the institutional review of the MMAF is extracted from a formal institutional review conducted in 2008/2009.<sup>11</sup> Much of the review is still relevant; other elements have been updated.

130. The Ministry of Marine Affairs and Fisheries was proposed by Presidential decree (*Keppres* No.136/1999) in 1999 by then President Abdurrahman Wahid. Fisheries management formerly had been part of the Ministry of Agriculture. The newly formed ministry, however, was given a broader set of responsibilities than what had previously been allocated to fisheries within the Ministry of Agriculture. The additional set of functions related to the system of decentralized resource management under the first Law on Local Government (Law 22/1999) in 1999. This law was designed to increase democracy and local capacity, enhance social prosperity, and foster public participation.

<sup>10</sup> BNPB was added to this table by the Consultant who is familiar with their scope, which includes managing disaster response (e.g., for earthquakes and tsunamis that are natural hazards to the North and West Sumatran coastal areas; and for disaster preparedness and risk reduction. This is a New Agency (2008): district policy still evolving. The MMAF is named as a linked agency who is responsible for planning and controlling mitigation efforts in tsunami and coastal abrasion/erosion (<http://www.bnpb.go.id>).

<sup>11</sup> Enhancing Government Effectiveness in Indonesia: A Study of the Ministry of Marine Affairs and Fisheries, by Management Systems International under a USAID contract, 2009, 70pp.

131. The need to reverse a pattern of making economic growth dependent on natural resource extraction also drove the creation of the new ministry. Sarwono Kusumaatmadja, the respected first Minister of MMAF undertook the effort of this reversal. Recognition that reliance on non-renewable resources could not be sustained indefinitely led to the new ministry's other mandates: (i) to promote economic growth in the context of sustainable development, (ii) to establish links between environmental preservation and utilization and, finally, (iii) to reconcile environmentally sound growth while pursuing poverty alleviation. Thus, the ministry's mandates represented a significant departure from what had been considered mainstream development by previous Indonesian policy planners. It reflected the view that reconciling development and environment would require new institutions and innovation.

132. Since the ministry was created, it has made good progress towards its primary goals. But among the continuing challenges MMAF faces is the need to reduce reliance on '*maximum sustainable yield*' as a principle measure of outcome. Assuming that data and analysis are scientifically tenable, MMAF still has no management strategy in place for what to do if *maximum sustainable yield* is reached. Artisanal fishing is persistently underreported, for example, yet it continues to be responsible for a large component of Indonesia's tuna catch. Moreover, measures of the total allowable catch ignore illegal fishing.<sup>12</sup> The surveillance and regulation of offshore fisheries has been unable to prevent the persistence of destructive long-lining and trawl fishing practices.<sup>13</sup>

133. MMAF's role as the leader and caretaker of the marine and fishery sector is made more challenging by globalization. Although globalization has significantly increased the value of Indonesia's fish exports (annual estimated exports reached \$4 billion in 2012)<sup>14</sup>, the costs and benefits have not been dispersed to the greater population. Many fishing communities live in abject poverty while entrepreneurs and middlemen have enjoyed great opportunities. Clearly, an effective role in reducing poverty continues to elude the ministry. There is also an increasing pessimism about the government's ability to prevent illegal, unreported, and unregulated fishing (IUU). While many experts anticipate more marine eco-catastrophes, the public is poorly informed about these destructive trends. The ministry needs enhanced ability to inform the public and win greater support for its policies and programs.<sup>15</sup>

## b. Organizational Analysis

134. MMAF was established under the umbrella of Presidential Decree No.165 in 2000. This decree stipulated the Positions, Tasks, Functions, Organizational Structure, and ministerial governance of MMAF. The **vision** of MMAF is to conduct "the sustainable management of

<sup>12</sup> Some key officials in MMAF believe that MMAF should not be responsible for illegal fishing and that the creation of a separate coast guard combining all surveillance functions would make it easier for the Ministry to address its core objectives. Other officials in MMAF, however, believe that IUU should continue to be among the highest priorities of the ministry, if not the highest.

<sup>13</sup> Loopholes in licensing permit large shipping vessels to be registered in small villages under fictive owners when in fact the real owner and crew may be foreign. Rumors circulate of ships arraigned for lack of proper licensing that several days later acquire the necessary papers in order to be released from custody. A holder of X number licenses may use fraudulent duplications to manage a far larger number of vessels.

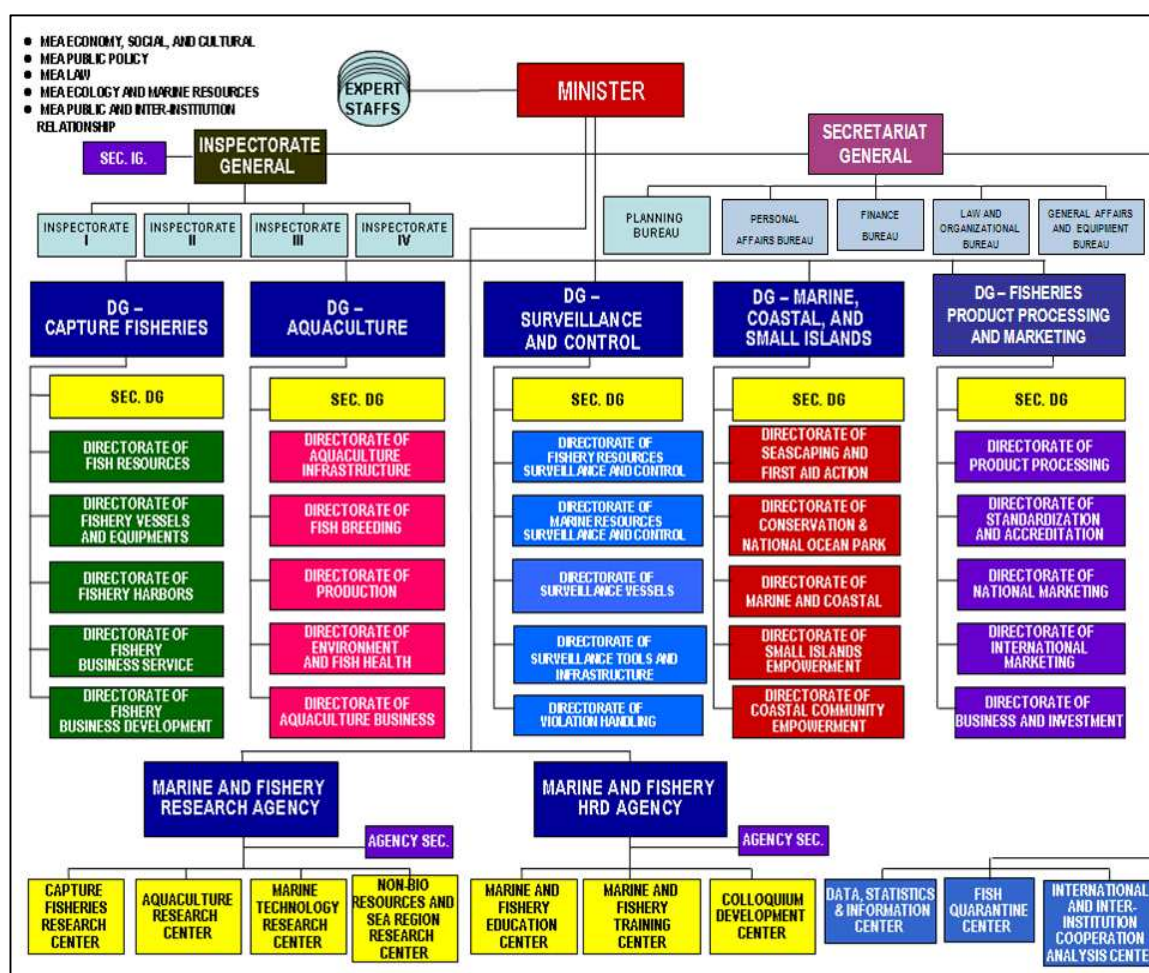
<sup>14</sup> Antara news, 14 November 2012, Quoted comments from Ministry of Marine Affairs and Fisheries Secretary General. Also Jakarta Post, 4 October 2012, quotes comments from Minister Sharif C. Sutardjo that in 2011, the export value of fish products reached \$3.5 billion. Indonesia's main markets are the US at \$1.07 billion (30.4%), Japan with \$806 million (22.9%), and Europe with 459.8 million (13.1%).

<sup>15</sup> Some of this section's content is drawn from the 2009. *Enhancing Government Effectiveness in Indonesia: A study of the Ministry of Marine Affairs and Fisheries*, written by Emil Bolongaita, David Garner, and Hilton Root, with contributions from Stacey Tighe, Tri Achmadi, and Zulficar Mochtar for the United States Agency for International Development (USAID)/Indonesia.



marine and fisheries resources to serve the prosperity of the entire country.” Its **mission** is “to improve the welfare and prosperity of fishing communities, fisheries farmers, and coastal communities.” Over time, MMAF has evolved into ten Echelon-I operating units (five Directorate Generals, three supporting agencies, the Inspectorate General, and the office of Secretary General). The five DGs include (i) DG of Capture Fisheries, (ii) DG of Aquaculture, (iii) DG of Fisheries Production and Marketing, (iv) DG of Marine, Coastal, and Small Islands, and (v) DG of Surveillance and Control. The three supporting units are (vi) the Research Agency, (vii) the Human Resource Development Agency and (viii) The Agency of Quarantine, Quality Control, and Safety. MMAF also has five (5) Minister Advisors who are officially part of the organization of the Ministry.<sup>16</sup> Figure 1 below shows the ten primary units that constitute the current core structure of MMAF, as well as the five Advisors.

**Figure 1: Organizational Structure of the Ministry of Marine Affairs and Fisheries**



Note: this structure do not yet reflect the promotion of the Fish Quarantine Center to the Agency for Fish Quarantine, Quality Control and Safety.

Source:

<sup>16</sup> Law No. PER.07/MEN/2005 covers the position of Minister Advisors, as revised by Ministerial law No. PER.04/MEN/2009.

135. The functions of the MMAF are:
- The formulation of national policy, implementation policy and technical policy in the Marine and Fisheries sector;
  - The implementation of the governance affairs in the Marine and Fisheries Sector;
  - The management of state-owned properties under MMAF;
  - The supervision of MMAF mission implementation;
  - Delivery of report to the President on the account of evaluations, suggestions and consideration on MMAF mission and Function.
136. MMAF's strategic goals of marine and fisheries development are:
- Increased role of marine and fisheries sector to national economic growth. Key Performance Indicator is the increased percentage of fisheries Gross Domestic Product (GDP).
  - Increased capacity of production centers of top commodities of marine and fisheries products. Key Performance Indicators are the increased productions in capture fisheries, fish farming, and salt.
  - Increased income. Key Performance Indicators is raised Fisherman and Fish Farmer Exchange Numbers.
  - Increased availability of marine and fisheries products. Key Performance Indicator is the increased fish consumption per capita.
  - Increased fisheries products branding and market share in foreign markets. Key Performance Indicator is the increased value of fisheries product exports.
  - Increased quality and safety of fisheries products according to standards. Key Performance Indicator is decreased the number of fisheries export products denial cases per partner country.
  - Realization of sustainable management of conservation areas. Key Performance Indicator is Water Conservation Areas managed sustainably.
  - Increased economic value of small islands. Key Performance Indicator is the number of smaller islands, including the managed outer small islands.
  - Increased Indonesian waters area supervised by Ministry of Marine Affairs and Fisheries. Key Performance Indicator is the percentage of illegal fishing non-territorial waters and destructive activities of marine and fisheries resources.
137. From an organizational standpoint, MMAF is working to increase transparency and efficiency in allocating and deploying its budget and personnel. There is a need to ensure that recruiting, assignment, and promotions are more merit-based. Job evaluations, classifications and grading need to be oriented toward international standards and norms. At the same time, financial planning remains an issue. Budget allocation is established through regulations instead of data-based negotiations.
138. Since it was established nine years ago, MMAF has added on average between 500 and 1,000 new staff per year. This pattern continues as MMAF expected to add slightly more than 700 new staff in 2009. Of these staff, approximately 3,000 are located in Jakarta, and slightly more than 6,000 are scattered across the archipelago. In terms of staff qualifications, MMAF has approximately 85 PhDs, more than 700 staff have a Master's degree, and about 2,600 employees have graduated with a Bachelor's Degree. This means that about 38% of MMAF staff (around 3,500) have a university education or higher, while about 60% are high school graduates, or have less formal education than high school. As background, Table 6 shows the size of the various DGs and other MMAF Agencies, together with the staff assigned to each unit, and their annual budgets for 2008.

**Table 6: Staff and Budgets for Components of MMAF as on 2009.**

<b>MMAF Offices</b>	<b>Staff</b>	<b>% of staff</b>	<b>Budget (Rp mil)</b>	<b>% of budget</b>
<b>Secretariat General</b>	1,611	18	327,649	11
<b>Inspector-General</b>	211	2	30,858	1
<b>DG of Capture Fisheries</b>	1,588	17	744,246	25
<b>DG of Aquaculture</b>	1,423	16	523,300	17
<b>DG of Processing and Marketing</b>	378	4	215,074	7
<b>DG of Marine, Coastal and Small Islands</b>	343	4	536,214	18
<b>DG of Surveillance and Control</b>	620	7	268,792	9
<b>Agency for Research</b>	1,183	13	137,925	5
<b>Agency for Human Resource Development</b>	1,751	19	235,081	8
<b>Total</b>	<b>9,108</b>		<b>3,019,139</b>	<b>100</b>

Source: MMAF

DG = director general

139. The organogram below shows all units reporting directly to the Minister. The Secretary General is classed as “first among equals” but does not function as a Deputy Minister, nor does he have authority to direct the work of the various DGs, or other MMAF agencies. In effect, the various units function almost as semi-autonomous entities, often with limited reference to other units of the Ministry. In some cases, some of them seem to echo the old Ministries from which they were transferred when MMAF was established in 1999.

140. This relatively young and sizable ministry continues to face the challenges of coordination and integration with respect to its various DGs and other agencies that are more or less operating autonomously. The challenge of coordination includes its working relationships with other government ministries and agencies, especially with the provincial and district decentralized offices and national field unit, because the ministry’s mandate overlaps in some ways with these other ministries, agencies and levels of government.

141. MMAF could benefit from the adoption of a unified vision that embraces sustainable use and conservation within its various departments and agencies. Sustainable fishing practices, an Ecosystem Approach to Fisheries Management (EAFM) approach, and the use of MPAs as fisheries management tools should be mainstreamed into its functions and operations. Effective management will require improved monitoring and modeling, a more precautionary approach, more effective licensing and permitting, improved enforcement, and new management approaches that create incentives for sustainable use and enhanced compliance.<sup>17</sup>

142. Decentralization has also created a large demand by district managers for capacity building. MMAF has grown quickly and has strong potential to carry out its mandate; however, there are areas for improvement in its operations and management systems and procedures. MMAF is eager to address these issues, and has requested USAID support to enhance its capacity to handle these tasks. Within the MMAF, organizational operations are still evolving

<sup>17</sup> 2009. *Enhancing Government Effectiveness in Indonesia: A study of the Ministry of Marine Affairs and Fisheries*. Jakarta>

and a new culture for individual and organization performance and responsibility needs to be institutionalized.

## 2. Ministry of Marine Affairs and Fisheries Policies<sup>18</sup>

143. There are layers of strategies and planning in MMAF, based in part on national directions and policy statements of the President, on the charter of the organization, and the National Development Plan (RPJPN); its five year segments (RPJP I, II, III, IV), and the individual strategic plans of the Directorate Generals and Agencies within the Ministry.

144. Based on MMAF's Strategic Plan of 2010–2014, the vision of MMAF is: "**Indonesia as the largest producer of marine and fisheries products in 2015.**" To implement its vision, MMAF has formulated its mission as: "**The welfare of the Marine and Fisheries Community.**"

145. To pursue the vision and mission, the "grand strategy" of the Ministry includes the following four strategic goals and their objectives for 2010-2014:

1. **Institutional and human resources strengthened in an integrated manner;**
  - a. The legislation supports and complies with the scope of MMAF's national goals and challenges and is implemented across sectors in central and local governments in a synergistic manner;
  - b. Integrated planning, implementing, controlling and reporting is conducted in an accountable and timely manner based on current and accurate data;
  - c. The human resources of the marine affairs and fisheries sector have the required competencies.
2. **Marine and fisheries resources managed in a sustainable manner;**
  - a. Marine and fisheries resources are utilized optimally in a sustainable manner;
  - b. Conservation areas and protection of aquatic biota is well managed in a sustainable manner;
  - c. Small islands are developed into Islands with of high economic value;
  - d. Indonesia is free of illegal, unreported and unregulated (IUU) fishing as well as activities that damage marine resources and fisheries.
3. **Productivity and competitiveness of knowledge-based systems improved;**
  - a. All regions that have potential fisheries are encouraged to be 'Minapolitan' regions by developing integrated business sectors;
  - b. All marine and fisheries production centers have a pre-eminent commodity that applies innovative technology for packaging and products quality guarantees;
  - c. The marine and fisheries facilities and infrastructure are capable to fulfill the sector's needs as well as be locally produced and developed in an integrated business structure.
4. **Domestic and international market access expanded.**
  - a. The entire villages have market facility that able to facilitate fisheries products trading;
  - b. Indonesia becomes the world's market leader and the main destination on marine and fisheries investments.

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<sup>18</sup> Taken from MMAF Documents, Websites, and Dadang Setiwan, 2011, *Baseline Assessment: Institutional Capacity Development* under USAID/IMACS.

**MMAF's STRATEGIES:** These are defined as the Ministry's *strategies* to achieve the various goals and objectives defined in the development and action plans. The first has an expanded description as it is a new and Indonesian-centric term, but the others are fairly self-explanatory.

1. **Minapolitan Development:** Minapolitan (Regional Development from upstream to downstream) is an effort to accelerate the development of marine and fisheries development in fisheries production centers that has the potential to be developed in order to support the vision and mission of the Ministry of Maritime Affairs and Fisheries resources.

Minapolitan development aims to (i) Increase fish production, business productivity, and improve the quality of marine and fishery products, (ii) Increase the income of fishermen, fish farmers and processors are fair and equitable, and (iii) Develop Minapolitan as the center of economic growth in areas and fisheries production centers as economic drivers of the people resources.

The Minapolitan development objectives are as follows (i) household economy of marine and small-scale fisheries is getting stronger, (ii) the business of marine and fisheries upper middle class growing and highly competitive, and (iii) marine and fisheries sector to drive the national economy resources.

2. Entrepreneurship
3. Networking
4. Technology and Innovation
5. Empowerment
6. Community Institutional Strengthening

COREMAP—CTI plans on utilizing all of these strategies in its design and implementation.

146. The national development priorities of the RPJMN II (2009-2014) framework objectives are: **(i) bureaucratic reform and good governance;** (ii) education; (iii) health; **(iv) poverty reduction;** **(v) food security;** (vi) infrastructure; (vii) investment and business climate; (viii) energy; **(ix) environment and disaster management;** **(x) underdeveloped regions which outermost zones priority, and post conflict;** (xi) culture, creativity and technology innovation.

147. The development of the marine and fisheries sector in 2010-2014 relates to the five national priorities listed below and in bold in the list above as follows:

**Priority 1: Bureaucratic Reform and Governance:** Strengthening governance through improvements in integration, integrity, accountability, transparency, and rule of law. Improvement in the quality of public services will be supported by the efficiency of government structures at both central and sub-national levels, sufficient staff capacity, and good demographic data.

**Priority 4: Poverty Reduction:** Decreasing the level of absolute poverty from 14.1% in 2009 to 8-10% in 2014 and improving the distribution of income by family-based social welfare, community empowerment and expansion of economic opportunities for low-income communities.

**Priority 5: Food Security:** Improved food security and the continued revitalization of agriculture to achieve food self-sufficiency, improving the competitiveness of agricultural products, increasing farmers' income, and the environmental sustainability and natural resources. The improvement of agricultural GDP growth is expected around 3.7% per year and FER (Fish Farmer Exchange Rate) indices of 115-120 in 2014.

**Priority 9: Environment and Disaster Management:** Conservation and utilization of the environment to support economic growth and sustain prosperity, accompanied by controlling and managing the disaster risks to anticipate changes in climate.

**Priority 10: Underdeveloped, Foremost, Outermost and Post-conflict Regions:** The action program is intended to prioritize and guarantee the growth of underdeveloped regions which outermost zones priority, and the sustainability of a peaceful life in post conflict areas.

148. In addition to these five national priorities, the MMAF is associated with issues of mainstreaming Sustainable Development, Global Climate Change and development of the Archipelagic Boundary Islands. The policy direction of MMAF in support of this national policy is:

**Pro Poor:** The pro-poor approach is done through the socioeconomic empowerment of marine and fisheries stakeholder's communities.

**Pro Job:** The pro-job approach is done through optimizing the potential of untapped aquaculture to reduce the national unemployment rate. The business job opportunities are accompanied with the support of capital development and the assurance business.

**Pro Growth:** The pro-growth approach is to realize growth in the marine and fisheries sectors as a pillar of the national economy through the economic transformation from a subsistence economy to a modern business as a result of development support for infrastructure, industrialization and modernization.

**Pro Sustainability:** The pro-sustainability approach is done through the restoration and preservation of the aquatic environment, coasts and small islands, as well as mitigation and adaptation on climate change.

### 3. MMAF Program and Activities of its Nine Working Units<sup>19</sup>

149. These policy directions are to be implemented by the following nine working units of MMAF through the following programs and activities. Activities categories relate to the directorates in the division.

#### a. Directorate General of Capture Fisheries / Program for Development and Management of Capture Fisheries

150. The purpose of this program is to increase the productivity of capture fisheries with the target of increasing catches in every fishing effort. Activities to be implemented are:

- (i) Management of fishery resources (includes habitats). (*This is the unit that will become an Implementing Agency under COREMAP—CTI*).
- (ii) Guidance and development of fishing vessels, gears, and vessel crews.
- (iii) Development, construction, and management of fishing ports.
- (iv) Fishing business services that are efficient, orderly and sustainable.
- (v) Development of fishing businesses and empowerment of small-scale fishermen.
- (vi) Enhanced support for the management and implementation of other technical tasks under the Directorate General of Capture Fisheries.

#### b. Directorate General of Aquaculture / Program for Improvement of Aquaculture Production

151. The purpose of this program is to increase aquaculture production with the target of increasing both the volume and value of production. Activities to be implemented are:

- (i) Development of fish culture production systems;
- (ii) Development of fry production systems;
- (iii) Development of fish health and the environment of fish culture systems;

<sup>19</sup> MMAF documents, websites, and Dadang Setiawan (2011), *Baseline Assessment: Institutional Capacity Development* under USAID/IMACS.

- (iv) Development of fish culture business systems;
- (v) Development of infrastructure and facilities for fish culture systems;
- (vi) Introduction and application of adaptive applied technology of aquaculture; and
- (vii) Enhanced support for the management and implementation of other technical tasks under the Directorate General of Aquaculture.

**c. Directorate General of Fisheries Products / Program for Improvement of Fisheries Product Competitiveness**

152. The purpose of this program is to increase quality and safety of fishery products; the added value of fishery products; investments; and distribution and market access for fishery products. The target is to increase volume and export value of fishery products and increase the volume of processed products. Activities to be implemented are:

- (i) Facilitate business development of the fishery products processing industry.
- (ii) Facilitate quality assurance development and security of fishery products.
- (iii) Facilitate development of domestic marketing of fishery products.
- (iv) Facilitate development of foreign marketing of fishery products.
- (v) Facilitate development of fisheries business systems.
- (vi) Facilitate business development of fish processing industry.
- (vii) Enhanced support for the management and implementation of other technical tasks under Directorate General of Fisheries Product Processing and Marketing.

**d. Directorate General of Marine and Fisheries Resources Surveillance / Program for Surveillance of Marine and Fisheries Resources**

153. The purpose of this program is to increase legal compliance and order in utilization of marine and fisheries resources with a target that Indonesian waters are free of Illegal, Unreported & Unregulated (IUU) fishing; as well as other activities that damage marine and fisheries resources. The growing problem of IUU (illegal, unregulated, and unreported fishing), the high number of fake deletion certificates, and the sharp drop in non-tax revenues from licensing suggest that the DG's regulatory capacity is challenged. MMAF regulatory capacity is affected by data deficiencies in relation to accurately estimating fishing stocks and determining total allowable catch. MMAF regulation is also challenged with respect to its work with local governments. Some regulations seem to provide inadequate guidance for local authorities. Activities to be implemented are:

- (i) Surveillance and operational improvement of fisheries resources.
- (ii) Surveillance and operational improvement of marine resources.
- (iii) Operational and maintenance improvement of the surveillance vessel.
- (iv) Development of surveillance infrastructure, facilities and vessel monitoring.
- (v) Settlement of marine and fisheries offenses.
- (vi) Enhanced support for management and implementation of other technical tasks under the Directorate General of Marine & Fisheries Resources Surveillance and Control.

**e. Directorate General of Marine, Coasts and Small Islands / Program for the Management of Marine, Coasts and Small Islands**

**f. Agency of Marine and Fisheries Research / Program for Research & Development of Marine, Fishery Science and Technology**

154. The purpose of this program is to prepare knowledge, science and technology as a basis

for development of marine and fisheries policy for use by all stakeholders. Activities to be implemented are:

- (i) Research and development of capture fisheries science and technology.
- (ii) Research and development of aquaculture science and technology.
- (iii) Research and development of marine science and technology.
- (iv) Research and development of sub-national science and technology, and dynamics of non-biological coastal and marine resources
- (v) Research and development of product processing science and technology, and biotechnology for marine resources and fisheries.
- (vi) Research and engineering in socioeconomy of the marine and fisheries sectors.
- (vii) Enhanced support for management and implementation of other technical tasks under the Agency of Marine and Fisheries Research.

**g. Marine and Fisheries Human Resources Development Agency / Program for Development of Marine and Fisheries Human Resources**

155. The purpose of this program is to improve the quality of human resources for marine and fisheries resources with a target of the increasing competence of all stakeholders. Activities to be implemented are:

- (i) Marine and fisheries education.
- (ii) Marine and fisheries training.
- (iii) Marine and fisheries Extension
- (iv) Enhanced support for management and implementation of other technical tasks under the Agency of Marine and Fisheries Human Resources Development.

**h. Inspectorate General / Program for Inspection and Improvement of Accountability of MMAF Apparatus**

156. The purpose of this program is to improve supervision of MMAF performance and accountability in order to increase the achievement (%) of MMAF development and targets. Activities to be implemented are:

- (i) Inspection the Apparatus Accountability for the Working Partners of Inspectorate I in the implementation of the Marine and Fisheries Development at the Secretariat General and the Agency of Marine and Fisheries Human Resources Development
- (ii) Inspection the Apparatus Accountability for the working Partners of Inspectorate II in the implementation of the Marine and Fisheries Development at the Directorate General of Capture Fisheries and the Directorate General of Marine and Fisheries Resources Surveillance and Controlling
- (iii) Inspection the Apparatus Accountability for the working Partners of Inspectorate III in the implementation of the Marine and Fisheries Development at the Directorate General of Aquaculture and Directorate General of Marine, Coastal and Small Islands
- (iv) Inspection the Apparatus Accountability for the working Partners of Inspectorate IV in the implementation of the Marine and Fisheries Development at the Directorate General of Fisheries Product Processing and Marketing and the Agency of Marine and Fisheries Research
- (v) Inspection the Apparatus Accountability with a specific purpose on the Implementation of the Marine and Fisheries Development and controlling on the working Unit of the Inspectorate-General
- (vi) The enhanced support for management and implementation of the Other



Technical Tasks of the Inspectorate General.

**i. Office of the Secretariat General / Program for Improvement of Management Support and Other MMAF Technical Implementation Tasks**

157. The purpose of this program is to improve the overall guidance and coordination for implementation of marine and fisheries development programs. Activities to be implemented are:

- (i) Guide and coordinate the planning, budgeting, and monitoring and evaluation of marine and fisheries development.
- (ii) Guiding and management of the MMAF employees.
- (iii) Guidance on implementation and coordination of MMAF financial Management.
- (iv) Guidance and coordination on preparation of legal instruments and structuring the MMAF organization.
- (v) Guidance to administration and management services to support implementation of MMAF tasks.
- (vi) Development and guidance on fish quarantine.
- (vii) Development of statistical data and marine and fisheries information.
- (viii) Development and guidance of international and inter-institution collaboration in the marine and fisheries sector.
- (ix) Formulation and development of marine policy.

**4. MMAF Directorate General of Marine Resources, Coasts and Small Islands**

158. This administrative unit will be the Implementing Organizations for the COREMAP—CTI, and one of the Implementing Agencies. This Directorate General will lead the Program Management Office.

159. **Vision.** Marine resources, coastal and small islands orderly, safe, clean, productive, sustainable and prosperous.

160. **Mission.** Increased regulation and utilization of marine resources, coastal and small islands in a sustainable and prosperous society.

161. **Purpose.** The purpose of the development of marine, coastal and small islands are:

- (i) Improve the management and utilization of marine biological and non-biological resources.
- (ii) Improve the quality of marine ecosystems, coastal and small islands.
- (iii) Improve the well-being of coastal communities and small islands in a sustainable manner.

162. **The Directorate General of Marine, Coastal and Small Islands** is the basis of development of Indonesian marine and fisheries sector, where marine and coastal resources, coasts and small islands are the basic capital in achieving the vision of a Future Indonesia as the world's largest producer of marine and fishery products. There are five key Directorates, their activities, objectives, and indicators.

a. Management and Development of Conservation Areas and Species

- Marine conservation areas managed sustainably
- Large increase in conservation area
- Number of species conserved/protected and used sustainably

- b. Spatial Planning of the Management of Marine and Small Islands (Areas have marine, coastal and small islands management plans). The terrestrial spatial plan (RTRW) is essential to support our COREMAP—CTI activities in particular because it has been agreed that the marine spatial plan will work from coastline seaward while RTRW works from coastline landward.
- Number of locations marine, coastal and small islands in the province / district / city that have Coastal and Small Islands Strategic Plan.
  - Number of locations of marine, coastal and small islands in the national territory, across the region, province / district / the town that have Coastal and Small Islands Zoning Plan.
  - Number of locations of marine, coastal and small islands with Detailed Zoning Plans
  - Number of locations of marine, coastal and small islands in the national territory, across regions, Provincial / District / city that have a document Coastal and Small Islands Zoning Plan legally adopted (PERDA).
- c. Small Island Development and Utilization (Increased value of small islands)
- Number of small islands that have mapped their potential, including the outer islands.
  - Number of small islands that facilitated the provision of infrastructure including the outer islands.
  - Number of small islands which facilitated environmental improvement and adaptation-based mitigation.
  - Number of small islands that facilitated investment activities.
- d. Coastal and Marine Management and Utilization (Increased resilience of coastal areas and development of marine products)
- Number of damaged coastal areas rehabilitated.
  - Number of areas in the coastal areas that facilitated increased resilience to disasters and climate change.
  - Number of marine products that facilitated development
- e. Coastal Community Empowerment and Economic (business) Development (Increased empowerment and self-reliance of micro businesses, micro-businesses operation and the achievement means salt production in coastal areas and islands - small islands)
- Number of independent micro businesses in coastal areas and small islands
  - Number of microenterprises operating in coastal areas and small islands.
  - Number of salt-processing units in the built up
- f. Secretary of the Directorate General / Other Technical Support for Performance Monitoring and Project Management for DG MCSI This office will manage and host the COREMAP—CTI Program Management Office, coordinates the budget and activities
- Percentage of budget planning and cooperation programs conducted in an integrated, accountable, and timely, based on current and accurate data within DG KP3K/MCSI.

163. The policy of the **Directorate of Conservation Areas and Fish Species** (KKJI) in developing and improving conservation of fish resources, is implemented through the following strategies:

- Development and Management of Marine Protected Areas
- Development and Conservation Management Type and Genetic

by conducting the following activities:

- Facilitate the management of marine protected areas;
- Develop and prepare a conservation management regulations;
- Facilitating the management of species conservation; and
- Develop and prepare a conservation management of species regulations.

**a. Sea Partnership Program (SPP) / (Program Mitra Bahari-PMB)**

164. The Sea Partnership Program was first developed from by the Directorate General of Marine, Coasts and Small Islands<sup>20</sup> in 2003-2005 as a mechanism to provide decentralized support to the provinces and districts in the marine and fisheries sector. However it was launched as a pilot from the DG of CMSI, and is now institutionalized in the national coastal management law<sup>21</sup>, but recent changes in the status of universities has misaligned the original mechanism and now needs adaptation. The Sea Partnership Program was utilized under COREMAP II as a source of seconded faculty to work with the district fisheries agencies, support LIPI and district coral reef and socioeconomic monitoring collection, domestic scholarship programs for undergraduate and graduate students, and demanded local applied research.

165. The Sea Partnership Program is established to support the management of coastal areas and small islands by building the capacity of the stakeholders. Below are the key principles of the program.

- (i) Sea Partnership is a forum of collaboration and a network between the national government, local governments, universities, nongovernment organizations, professional affiliations, respected members of the community, and/or the business world to support capacity building for the stakeholders in the management of coastal areas and small islands.
- (ii) The Sea Partnership Program can be established at the national (MMAF/ DG MCSI) and local levels through the provincial government Fisheries agency and co-hosted by the Fisheries faculty of the major provincial universities.
- (iii) The Sea Partnership Program is a network of stakeholders in the management of coastal areas and small islands in order to strengthen the capacity of human resources, institutions, education, practice communication, coaching, training, applied research, and policy recommendation development.
- (iv) The Sea Partnership collaboration is established with the principles of equality, transparency, participatory in the form of knowledge, skills, materials, equipment, facilities and funding integrated in synergy.

166. The membership of the National Sea partnership specified includes the Director General of MCSI as the executive chairman and universities, relevant agencies/institutions, representatives of nongovernment organizations, representatives of professional affiliations, respected members of the community and representatives of the business world as the members. The National Sea Partnership shall have the following tasks:

- (i) to prepare and formulate a master plan for the National Sea Partnership;
- (ii) to prepare and formulate works plans for the National Sea Partnership's activities;

<sup>20</sup> USAID IMACS Project, 2012: Capacity Assessment of Mitra Bahari: for Climate Change Community Resilience and Adaption Planning

<sup>21</sup> A Ministerial Regulation (No 14/2009) on the structure and operation of the SPP was created that defines National, Provincial and District SPP operating units and activities.

- (iii) to conduct field assessments in order to decide on the Sea Partnership's activities;
- (iv) to formulate and decide on guidelines and guidance for the implementation of the National Sea Partnership's activities;
- (v) to coordinate with relevant agencies/institutions in collecting data and information about coastal areas and small islands;
- (vi) to assist with the development of the partnership's network;
- (vii) to monitor and evaluate local partnerships.

167. The Governor establishes the provincial Sea Partnership. The membership of the Provincial Sea Partnership includes a representative of a local university as the chairman and relevant agencies, representatives of nongovernment organizations, representatives of professional affiliations, respected members of the community, and representatives of the business world as the members. The Provincial Sea Partnership shall have the following tasks:

- (i) to prepare and formulate a master plan for the Provincial Sea Partnership;
- (ii) to prepare and formulate work plans for the Provincial Sea Partnership's activities;
- (iii) to conduct field assessments in order to decide on the Provincial Sea Partnership's activities;
- (iv) to follow guidelines and guidance in implementing the National Sea Partnership's activities, and to formulate guidelines for the implementation of the Provincial Sea Partnership's activities;
- (v) to submit periodical reports about progress made by the Provincial Sea Partnership to the Governor with a copy sent to the National Sea Partnership;
- (vi) to coordinate with relevant agencies in collecting data and information about coastal areas and small islands;
- (vii) to assist with the development of the provincial partnership's network.

168. The district/municipal Sea Partnership is established by the head/mayor of the district/municipality. The membership of the District/Municipal Sea Partnership includes a representative of a local university as the chairman and relevant agencies, representatives of nongovernment organizations, representatives of professional affiliations, respected members of the community and representatives of the business world as the members. The District/Municipal Sea Partnership shall have the following tasks:

- (i) to prepare and formulate a master plan for the District/Municipal Sea Partnership;
- (ii) to implement work plans for the implementation of the District/Municipal Sea Partnership's activities;
- (iii) to conduct field assessment for the District/Municipal Sea Partnership's proposed activities;
- (iv) to follow guidelines and guidance for the implementation of the National Sea Partnership's activities, and technical guidelines for activity implementation from the Provincial Sea Partnership;
- (v) to coordinate with relevant agencies in collecting data and information about coastal areas and small islands;
- (vi) to assist with the development of the partnership's networks within the district/municipality.

169. The National, Provincial and District Sea Partnerships shall hold a meeting at least once in 6 (six) months. In order to build the stakeholders' capacity in the management of coastal areas and small islands, Sea Partnerships' activities shall be focused on:

- (i) Coaching and practice communication;

- (ii) Education and training;
- (iii) Applied research; and/or
- (iv) Policy recommendation.

170. The coaching and/or practice communication shall be conducted by providing technical and managerial assistance through facilitating and counseling. SPP shall conduct the education and training by preparing modules, curricula, providing visual aids, and giving education and holding training. SPP shall conduct applied research by developing concepts, methods, technology engineering, and models, and the application is matched with the users. SPP shall develop policy recommendations by conducting assessments, preparing recommendations, and/or recruiting experts to assist local governments in preparing their policies.

171. Sea Partnerships' activities, which are related to marine affairs and fisheries, include:

- (i) Fishing;
- (ii) Aquaculture;
- (iii) Fish processing and fishery product marketing;
- (iv) Research;
- (v) Human resources development for marine affairs and fisheries;
- (vi) Conservation;
- (vii) Disaster mitigation and adaptation, reclamation, and rehabilitation;
- (viii) Sea services; and
- (ix) Surveillance and control of coastal areas and small islands.

172. Relevant work units within the Marine Affairs and Fisheries Departments, local agencies and or the private sector shall decide on the SPP activities according to their authority and their priorities. In implementing the activities, Sea Partnerships must coordinate with the local marine affairs and fisheries department, the local government and/or the business world according to the authority and the type of the activity.

173. The National Government, local governments, the private sector, universities, professional affiliations, nongovernment organizations, and respected members of the community can provide the facilities for Sea Partnerships' activities. These can be in the form of funding and/or other in-kind facilities. The funding shall come from:

- (i) The national budget (APBN);
- (ii) The provincial budget and the district/municipal budget (APBD); and
- (iii) Other legal and unbinding sources of funds.

174. The other in-kind facilities can be in the form of:

- (i) Facilities and infrastructure;
- (ii) Planning;
- (iii) Support/recommendation; or
- (iv) Human resources (skills).

## **5. MMAF Effectiveness Analysis<sup>22</sup>**

### **a. Policy Effectiveness**

175. Policy effectiveness relates to a ministry's ability to develop and define policies that enables it to achieve its goals. This ability is partly contingent on how a ministry is organized to

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<sup>22</sup> These statements are taken from the 2009 EGE Institutional Assessment of MMAF.

ensure that all information needed for decision-making reaches the policymakers. In this respect, MMAF can still improve how its organizational structure can be better integrated.

176. Policy effectiveness requires a shared vision across operating units. MMAF still is working on how to build a strong, shared vision that recognizes how it is different parts can operate more effectively as one ministry. For example: MMAF has on DG is focused on capture fisheries while another in has conservation priorities. These two mandates are linked through sustainable management practices, but they are just now beginning to work together as the two DGs draft regulations under the fisheries and coastal resources management national laws two DGs that are focused on resource extraction and exports even as one DG is focused on resource conservation and another DG on resource protection. As a result, the ministry has policy gaps dealing with the different operations of these DGs. Other policy gaps also persist between MMAF and other ministries that affect the development of the marine affairs and fisheries sector. For example, MMAF's role in issuing fishing licenses overlaps with the Ministry of Transportation's role in issuing vessel licenses; MMAF's work in promoting economic development of marine, coastal and small islands overlaps with the work of other Ministries and agencies involved in subsidizing shipping routes and providing training programs in the islands. In addition, there are continuing policy gaps between MMAF and local governments regarding roles and responsibilities for coastal activities.

177. The establishment of the Bureau of Law and Organization under the Office of the Secretary-General represents a potentially positive step to help manage the policy process, and improve policy coordination within MMAF. This Bureau could analyze policies prepared by various units within MMAF, as well as policies emanating from other Ministries and agencies that affect the operations of MMAF.

#### **b. Regulatory Effectiveness**

178. Regulatory effectiveness deals with a ministry's ability to adjust and advance policies to ensure that policy goals are met. In MMAF, the various DGs are tasked to formulate their respective regulations. Their ability to do so, however, is hampered by a lack of capacity to generate accurate data and analyze them appropriately. For example, in the DG of Capture Fisheries, its regulatory work is done through licensing, setting of fees and application of fines. Problems can occur when customers seek to circumvent these fees and fines. The growing problem of IUU (illegal, unregulated, and unreported fishing), the high number of fake deletion certificates, and the sharp drop in non-tax revenues from licensing suggest that the DG's regulatory capacity is challenged. MMAF regulatory capacity is affected by data deficiencies in relation to accurately estimating fishing stocks and determining total allowable catch. MMAF regulation is also challenged with respect to its work with local governments. Some regulations seem to provide inadequate guidance for local authorities.

179. Other areas of regulatory work are those conducted by the DG of Processing and Marketing and the DG of Marine, Coastal, and Small Islands. The DG of Processing and Marketing issues health certification for fish processing plants, ensures fishery product compliance with international standards, and is also responsible for market penetration and expansion. Meanwhile, the DG of Marine, Coastal, and Small Islands is responsible for zoning authority and permit issuance related to coastal conservation. Both types of regulatory work require enhancing the capacity of these and other DGs of the Ministry.

### **c. Enforcement Effectiveness**

180. Enforcement effectiveness concerns the ministry's capability to make its policies and regulations stick. Enforcement involves detection, investigation, and prosecution of violations of policies and regulations. At present, IUU is the biggest enforcement challenge of the Ministry. The ministry deals essentially with violations in three areas: fishing vessel procurement and registration, fisheries licensing, and operation of fishing vessels.

181. IUU violations are a growing problem. In 2005, MMAF suspended issuance of licenses to foreign vessels. In 2007, a revision was made that licenses can be issued if foreign owners have foreign direct investments (FDI) in fishery sector. However, foreign vessels, registering under false pretext as being Indonesian-owned, are circumventing this policy. Thus, the FDI policy has not been effective at reducing IUU even as it has resulted in the reduction of the revenue intake of MMAF (since foreign vessels pay higher registration fees).

182. Despite increased violations, data shows that only small portion of offenders have been taken to court. The existence of only 5 courts serving the entire archipelago and the limited number of patrol vessels and investigators in MMAF, combine to make it difficult to apply the full force of the law. Nevertheless, the establishment of these Fisheries Courts is an important step that needs to be improved by field studies and comprehensive analyses, in coordination with other relevant ministries in the fields of law and justice. This will also involve working with the Supreme Court (MA) in revising the Fisheries Law and related laws and policies. In addition, cooperation will be needed between MMAF and the Supreme Court in capacity building of candidates for ad hoc judges who will have jurisdiction over fisheries cases. This process will require significant attention because the formulation and amendments of laws and policies, as well as the conduct of training programs, entail considerable bureaucratic and legislative actions.

### **d. Service Delivery Effectiveness**

183. Service delivery effectiveness relates to a ministry's direct transactions with its citizen-customers. This may be face-to-face transactions or e-government exchanges. Each of the DGs of MMAF and its other agencies perform a wide variety of services. Several DGs (notably Capture Fisheries and Aquaculture) issue licenses and permits. The DG of Processing and Marketing assists fishing enterprises in market research and export promotion. The DG of Marine, Coastal and Small Islands works with local governments to balance the development of peripheral areas. For its part, the Human Resource Agency has as their customers the participants and students of its training activities.

184. Service delivery effectiveness is not just about external customers, but also internal customers of the Ministry. The work of each of the DGs has a crosscutting effect on other DGs. This includes the Research Agency whose findings and analysis can be of great value to other DGs, as well as the Human Resources Development Agency and its task to build human capacity of the Ministry's staff.

185. In many ways, MMAF can improve its service delivery by increasing its focus on the feedback and preferences of its external and internal customers. Ways and means to solicit this feedback and understand intensity preferences need to be employed, and findings need to be integrated in planning and implementation of ministry activities.

### e. External Relations

186. Ministries are not islands of activities. Like many ministries, the work of MMAF overlaps with areas of responsibility of other ministries and agencies. MMAF faces major coordination issues with five other agencies in three key areas.

187. With respect to *fishing vessels' control and registration*, MMAF has shared authorities and activities with the DG of Sea Transportation of the Ministry of Transportation (DGST-MOT). The MOT is responsible for licensing vessels (including fishing ships), while MMAF is responsible for fishing licenses, fishing gear, fish catch, and transport of catch. Shared authorities also include the work of the Harbor Master, where the MOT's Harbor Master role overlaps with MMAF's Fishery Harbor Master.

188. Concerning *passenger marine transport services*, the issue concerns the need for greater MMAF involvement in the determination of inter-island shipping and transport routes because this matter affects one of MMAF's objectives – helping contribute to the development of remote and small islands. This issue entails the need for greater MMAF cooperation with the Fiscal Agency of the Ministry of Finance (which provides subsidies for inter-island shipping), the Directorate of Transportation of the National Development Planning Agency (which is responsible for recommending the routes to be given subsidies and incentives), and *PT. Pelayaran Nasional Indonesia* (PT. PELNI, the state shipping company which plies the passenger and cargo ships). In this regard, MMAF, through the DG of Marine, Coasts, and Small Islands, established a cooperative relationship with PT. PELNI in 2005, which continued up to 2008.

189. Regarding *education and training*, MMAF and the Research and Development Agency of the Ministry of National Education have shared responsibilities and authorities. Both conduct education and training activities for and in remote and small islands. Under COREMAP II, a curriculum of marine education for all classes of public school, including teacher's curriculum guides were produced, tested and transferred under a MOU to the Ministry of Education for replication and continuity. Around 2005, MMAF had an MOU with the Ministry of Education's DG of Higher Education regarding the university-hosted Sea Partnership Program (known in Indonesia as *Program Mitra Bahari or PMB*) when the universities were being asked to become more independent from government. Now that mandate has been reversed so the MOU is void and a new one is in development, however at present, the university Rector does not even formally recognize the SPP offices in the Fisheries faculty, and there is no formal relationship with the Ministry of Education. However, at present there is little coordination between the two agencies, and this has resulted in training programs that are not adequately responsive to the needs of small and remote islands.

## 6. Indonesia Maritime Board (*Dewan Kelautan Indonesia*)

190. With entry into force of the United Nations Convention on the Law of the Sea 1982, policy implementation needed to be comprehensive and integrated in order to further improve the utilization, conservation, marine protection and management of the national territorial waters in an integrated, harmonious, effective, and efficient manner.

191. The public policy in the area of marine policies covers a variety of areas of government agencies and levels, thus requiring integration in marine policy from the beginning. To address this diverse sector with an integrated framework of marine policy, the Indonesian Maritime Council (*Dewan Kelautan Indonesia* or DEKIN) was based on the 1960 Decree signed by then President Soekharno, and re-established established by Presidential Decree No. 161 in 1999,



and was clarified and modified to become the Indonesian Maritime Board with Presidential Decree No. 21 Year 2007.

192. **Vision of the Indonesia Maritime Board.** "Indonesia is a strong, developed, independent maritime state."

193. **Mission of the Indonesia Maritime Board.** "Integrating Policy in the Marine Sector"

194. **Functions of the Indonesia Maritime Board**

- Assessment and advisory and policy recommendations to the President in the marine sector;
- Consultation with government agencies and nongovernment and community representatives in the framework of integration and settlement policies in the field of marine issues;
- Monitoring and evaluation of policies, strategies and development of marine; and
- Other matters at the request of the President

195. **Members:**

- Minister of Maritime Affairs and Fisheries (Head of Operations)
- Minister of Home Affairs/Interior
- Minister of Foreign Affairs
- Secretary of Defense
- Minister of Transportation
- Minister of Energy and Mineral Resources
- Minister of Finance
- Minister of Education and Culture
- Minister of Tourism and Creative Economy
- State Minister for National Development Planning
- Minister of Environment
- State Minister of Research and Technology
- Head of the National Police
- Chief of Staff of the Navy
- Expert Team
- Deputy Higher Education
- Deputy of World Association of Business
- Deputy Director of community based organizations

## 7. Indonesian Institute of Sciences / LIPI

196. The **Indonesian Institute of Sciences** (Indonesian: *Lembaga Ilmu Pengetahuan Indonesia* or LIPI) is the governmental authority for science and research in Indonesia and is part of the State Ministry of Research and Technology (RISTEK). The State Ministry of Research and Technology was established in 1962 has the responsibility to assist the President of the Republic of Indonesia in formulating national policies and implementing coordination in the field of research, science and technology.

197. **Vision:** To establish Science and Technology as the main forces for sustainable prosperity and the nation's civilization.

198. **Mission:**

- To place Science and Technology as the basis for the policy of national development in achieving sustainable prosperity;
- To build ethical foundation for the development and implementation of science and Technology;
- To create solid national system of innovation for increasing the global competitive ability;
- To increase Science and Technology diffusion through the consolidation of the network of its actors and institutions, including the development of its mechanism and institutionalization of its intermediary;
- To build quality and competitive human resources, infrastructures, and institutions for Science and Technology;
- To create smart, creative, and competitive Indonesians in a Knowledge Based Society.

199. **Functions:**

- Formulation and policy making in the field of research and technology;
- Coordination and synchronization of policy implementation in the areas of research and technology;
- Asset management / wealth of the country is the responsibility of the Ministry of Research and Technology, and
- Supervision of the execution of tasks in the Ministry of Research and Technology.
- In formulating the direction and priorities of development of science and technology as well as formulation of national science and technology development strategic policy, the Ministry of Research and Technology is assisted by the National Research Council (DRN).

200. RISTEK Coordinates:

- **Indonesian Institute of Sciences (LIPI)**
- National Aeronautics and Space Institute (LAPAN)
- Agency for the Assessment and Application of Technology (BPPT)
- National Nuclear Energy Agency (BATAN)
- Nuclear Energy Regulatory Agency (BAPETEN)
- Geospatial Information Agency (BIG)
- National Standardization Agency (BSN).

The Oceanographic Center's thematic structure is reflected in the key staffing positions described below.

**Head of Research Center for Oceanography**

- Head of Administration
- Deputy of Division of Human Resources
- Deputy of Division of General
- Deputy of Division of Finance
- Deputy of Division of Services and Information
- Head of Dynamics
- Head of Marine Resources
- Head of Research Facilities
- Deputy of Field Research Facility Ship
- Deputy of Marine Dynamics Research Facility Sector

- Deputy of Marine Resources Research Facility Sector
- UPT Marine Life Conservation Center, Ambon
- UPT Loka Marine Life Conservation, Bitung
- UPT Loka Marine Life Conservation, Tual
- UPT Loka Marine Life Conservation, Biak
- UPT Loka Bioindustri Development, Mataram
- UPT HR Competency Development Workshop Oceanography, Pulau Pari

201. LIPI consists of 47 research centers in the fields ranging from social to natural sciences. LIPI has various main competences, including (relevant marine themes are in bold), Science and technology development, Geotechnology, Oceanography, Limnology, Metallurgy, Biology, Biotechnology, Biomaterial, Physics, Chemistry, Informatics, Electrical engineering and mechatronics, Electronics and telecommunication, Social and cultural sciences, Economy, Population studies, Politics, Regional resources, Instrumentation and metrology, Quality control and testing, Public services. They have one training center in western Indonesia at in Thousand Islands, and another in eastern Indonesia, in Ambon.

202. Under COREMAP I, LIPI was the primary Implementing Organization, as this program was initiated before MMAF was established. Under COREMAP II, LIPI was one of the two Implementing Agencies, with MMAF being the other IA and the home of the Project Management Unit. LIPI continued the performance ecological and socioeconomic monitoring for COREMAP II that also fed into the national monitoring programs, and developed the school curriculum and conducted with Sea Partnership Program and others targeted research activities.

**LEGAL and INSTITUTIONAL FRAMEWORK:**

**TABLE 7: Laws Relevant To COREMAP—CTI Sorted by Level, Type, Year and Number)<sup>23</sup>**

#	Level	Type	Ntl/Prov/ Min	Year	No.	TITLE IN ENGLISH	Indo Lang	Eng Lang
1	1-National	1-Law	National	1973	1	Law No.1 of 1973 on the Indonesian Continental Shelf	No	No
2	1-National	1-Law	MoHA	1979	5	Indonesian Ntl Law on Desa UU 1979 No 5 Village Government;	Yes	No
3	1-National	1-Law	National	1983	5	Indonesian Exclusive Economic Zone, UU No.5/1983	No	No
4	1-National	1-Law	For.Aff.	1985	17	Indonesian Ratification of UN Convention on the Law of the Sea Act No 17/1985	No	No
5	1-National	1-Law	MoEnv	1990	5	Law No 5 of 1990 on Conservation of Natural Resources and Ecosystems	No	No
6	1-National	1-Law	MoTourism	1990	9	Indonesian Tourism, Act No 9/1990	No	No
7	1-National	1-Law	MoAgric	1992	16	Indonesian Quarantine of Agriculture, Cattle and Fish, Act No 16/1992	No	No
8	1-National	1-Law	MoEnv	1994	5	Indonesian Ratification of UN Convention on Biological Diversity Act No 5/1994	No	No
9	1-National	1-Law	National	1996	6	Indonesian Waters, Act No. 6/1996	No	No
10	1-National	1-Law	MoHA	1999	22	Indonesian Regional Government Act No 22/1999	No	No
11	1-National	1-Law	M of Fin	1999	25	Indonesian Financial Balancing between Central and Regional Government Act No 25/1999	No	No
12	1-National	1-Law	National	2004	27	Indonesia-Law No. 27 Year 2004 on the Truth and Reconciliation Commission	No	Yes
13	1-National	1-Law	MMAF	2004	31	Law No 31 of 2004 on Fisheries as revised primarily by Law No. 45 of 2009	No	No
14	1-National	1-Law	MoHA	2004	32	Law No 32 of 2004 on Regional Government as revised primarily by Law No. 12 of 2008	Yes	No

<sup>23</sup> The PDF Files of the Laws and Regulations Noted in the Bahasa Indonesia and English Language Columns of Table are archived on file for the COREMAP—CTI Team's Use and submitted as part of the PAM.

#	Level	Type	Ntl/Prov/Min	Year	No.	TITLE IN ENGLISH	Indo Lang	Eng Lang
15	1-National	1-Law	National	2007	26	Law No 26 Year 2007 on Spatial Planning	No	No
16	1-National	1-Law	MMAF	2007	27	Law No 27 of 2007 on the Management of Coastal Areas and Small Islands	Yes	Yes
17	1-National	1-Law	MoEnv	2007	32	Law No 32 of 2009 on the Environment Protection and Management	TBD	TBD
18	1-National	1-Law	Transport	2008	17	Indonesian Shipping, Act. No 17/2008	No	No
19	1-National	1-Law	National	2008	32	Law No 32 of 2004 on Regional Government as revised primarily to Law No. 12 of 2008	TBD	TBD
20	1-National	1-Law	Mining	2009	4	Indonesian Minerals and Coal Mining, Act. No. 4/2009	No	No
21	1-National	1-Law	MMAF	2009	31	Indonesian Fisheries: Act No. 31/2004 and added or revised by Act No 45 of 2009	No	Yes
22	1-National	1-Law	National	2009	32	Law No 32 of 2009 on Environmental Protection and Management	No	No
23	1-National	1-Law	MoHA	2013	XX	Indonesian Ntl Law (DRAFT) RUU on Desa Draft 3(revised)-Jan 2013	Yes	No
24	1-National	1-Law	MoHA	2013	XX	Indonesia Ntl Law on District Government RUU- Draft Amendment-Feb 2013	Yes	No
25	1-National	1-Law	Forestry	1999/04	41	Indonesian Forestry: Act No. 41/1999 and added or revised by Act No 19 of 2004	No	No
26	1-National	2-Reg	National	2006	65	Indonesian Presidential Regulation on Land Acquisition No 65-2006 Amendment to No 36-2005	Yes	No
27	1-National	2-Reg	MMAF	2007	60	Government Regulation No 60 of 2007 on Conservation of Fish Resources	Yes	Yes
28	1-National	2-Reg	National	2012	121	Indonesian Presidential Regulation No. 121/2012 regarding Rehabilitation in Coastal Areas and Small Islands	Yes	No
29	1-National	2-Reg	National	2012	122	Indonesian Presidential Regulation No. 122/2012 regarding Reclamation in Coastal Areas and Small Islands	Yes	No
30	1-National	3-Decree	National	2007	21	Presidential Keputusan No 21-2007-establiing Dewan Maritime	Yes	No
31	2-Ministerial	2-Reg	MMAF	2008	16	MMAF Regulation No 16 of 2008 on Planning and Management of Coastal Areas and Small Islands	Yes	TBD

#	Level	Type	Ntl/Prov/ Min	Year	No.	TITLE IN ENGLISH	Indo Lang	Eng Lang
32	2-Ministerial	2-Reg	MMAF	2008	17	MMAF Regulation No 17 of 2008 on Conservation Areas in Coastal Areas and Small Islands	Yes	TBD
33	2-Ministerial	2-Reg	MMAF	2008	20	MMAF Regulation No. PER.20/MEN/2008 on Utilization of Small Islands and surrounding waters	Yes	Yes
34	2-Ministerial	2-Reg	MMAF	2009	2	MMAF Regulation PerMen No. PER.02 / MEN/2009 on Procedures for Establishment of Marine Protected Areas	Yes	No
35	2-Ministerial	2-Reg	MMAF	2009	14	MMAF Regulation Number Per.14/Men/2009 on Sea Partnership Prog-PMB	Yes	Yes
36	2-Ministerial	2-Reg	MMAF	2010	3	MMAF Regulation No Per.03/Men/2010 on Procedures for Determination of Fish Species Protection	TBD	TBD
37	2-Ministerial	2-Reg	MWECPP	2010	4	Ministry of Women Empowerment and Child Protection of Indonesia Regulation No. 04/2010 on the Organization and Administration of the Ministry	Yes	No
38	2-Ministerial	2-Reg	MMAF	2010	4	MMAF Regulation No Per.04/Men/2010 on Fish Utilization and Genetics	TBD	TBD
39	2-Ministerial	2-Reg	MMAF	2010	30	MMAF Regulation No. Per.30/MEN/2010 on Management Planning and Zonation of Aquatic Conservation Areas	Yes	No
40	2-Ministerial	2-Reg	MMAF	2010	30	MMAF Regulation No Per.30/Men/2010 on the Management Plan and Zoning of Marine Protected Areas	Yes	TBD
41	2-Ministerial	2-Reg	MoHA	2010	39	Min of Home Affairs-Natl Reg on Village Enterprises-No 39-2010	Yes	No
42	2-Ministerial	2-Reg	MMAF	2012	44	Decree of DG Marine, Coastal and Small Islands No Kep.44/KP3K/2012 on Technical Guidelines for Evaluating the Management Effectiveness of Marine, Coastal and Small Islands Conservation Areas (E-KKP3K)	Yes	Yes
43	2-Ministerial	2-Reg	MMAF	2013	2	Regulation of DG Marine, Coastal and Small Islands No 02/Per-DJKP3K/2013 on Guidelines for Boundaries Arrangement of Protected Areas in Coastal Areas and Small Islands	TBD	TBD
44	2-Ministerial	2-Reg	MMAF	2013	9	Ministerial Regulation No 9 /2013 on Competency Standards for Managing Aquatic Conservation Areas.	TBD	TBD

#	Level	Type	Ntl/Prov/Min	Year	No.	TITLE IN ENGLISH	Indo Lang	Eng Lang
45	2-Ministerial	3-Decree	MMAF	2000	41	MMAF Decree No. KP. 41 of 2000 on Guidelines for Sustainable and Community-based Management of Small Islands	TBD	TBD
46	2-Ministerial	3-Decree	MoEnv	2001	17	Ministry of Environment Decree 17/2001: Categories of Business and/or Activity Plans Requiring Environmental Impact Analysis	No	Yes
47	2-Ministerial	3-Decree	MoEnv	2001	47	BAPEDAL Decree Keputusan Head of BAPEDAL No 47-2001 on Monitoring Condition of Coral Reefs	Yes	No
48	2-Ministerial	3-Decree	MMAF	2007	32	MMAF Regulation Conservation of Fisheries, No. 60, 2007	TBD	Yes
49	2-Ministerial	3-Decree	MMAF	2009	67	MMAF Decree No 67-2009-Initiating TWP Kawasan Gili	Yes	No
50	2-Ministerial	3-Decree	MMAF	2011	35	MMAF-Anambas Decree Keputusan No 35M/2011 on Establishing Anambas National MPA	Yes	No
51	2-Ministerial	5-Guidance	MMAF	2007	Guide book	MMAF-Guide for Conservation Area Management Planning and Zoning 2007	Yes	No
52	2-Ministerial	5-Guidance	MMAF	2007?	XX	MMAF-General Guidelines for Use of Protected Areas Waters for Fishery Resources - From Law	Yes	No
53	2-Ministerial	5-Guidance	MMAF	2008	XX	MMAF-Guidelines for Preparation of Field Technical Unit for MPA in the Region-2008	TBD	TBD
54	3-Province	5-Guidance	MMAF	2010		MMAF-General Guidelines for utilization of marine reserves for Marine Tourism	TBD	TBD
55	3-Province	1-Law	NTB	2006	11	NTB-PerDa-Provincial Law No. 11/2006 on the Spatial Plan of West Nusa Tenggara Province	Yes	No
56	3-Province	1-Law	Riau	2010	3	Riau Is-PerDa-Provincial Law of Riau Islands Province No. 3/2010 on Coral Management	Yes	No
57	4-District	1-Law	W Sum	2002	16	Mentawai-District Law (PerDa) of Mentawai Islands Regency No. 16/2002 on Tourism and Retribution of Tourism	No	Yes
58	4-District	1-Law	N Sum	2007	24	Tapanuli T-District Law (PerDa) of Tapanuli Tengah No. 24/2007 on Coral Reefs Management	Yes	No

#	Level	Type	Ntl/Prov/Min	Year	No.	TITLE IN ENGLISH	Indo Lang	Eng Lang
59	4-District	1-Law	Riau	2008	12	Bintan-District Law-PerDa No. 12/2008 on Coral Reef Mgt Management	Yes	No
60	4-District	1-Law	Riau	2009	7	Batam-District Law (PerDa) No. 7/2009 on Management of Coral Reefs	Yes	No
61	4-District	1-Law	W Sum	2011	7	Pes Selatan-District Law (PerDa) No.7/2011 on Spatial Planning for District Year 2010-2030	Yes	No
62	4-District	1-Law	N Sum	2011	xx	Tapanuli T District Law (PerDa) 2011 Final Draft on the Medium Term Development Plan Tapanuli Tengah 2005-2025	Yes	No
63	4-District	1-Law	Riau	2011	xx	Anambas- Draft District Law (PerDa) of Spatial Plan Anambas District-2011 (2011-2031)	Yes	No
64	4-District	1-Law	Riau	2012	2	Bintan-District Law (PerDa) No. 2/2012 on Spatial Planning of Bintan	Yes	No
65	4-District	1-Law	N Sum	2012	3	Tapanulu T- District Law (PerDa) No. 3/2012 on the Medium Term Development Plan District Tapanuli Tengah Year 2012-2016	Yes	No
66	4-District	1-Law	W Sum	2012	5	Pes Selatan-District Law (PerDa) No.5/2012 on the Medium Term Development Plan of Pesisir Selatan Year 2010-2015	Yes	No
67	4-District	1-Law	W Sum	2012	5	Pes Selatan-District Law (PerDa) No.5/2012 (Attachment) on the Medium Term Development Plan of Pesisir Selatan Year 2011-2015	Yes	No
68	4-District	2-Reg	Riau	2009	7	Bintan-District Reg (PerBup) No.7/2009 on Establishment of UPT DKP Bintan	Yes	No
69	4-District	2-Reg	Riau	2010	18	Anambas-Regent Regulation (PerBup) No. 18/2010 on the Medium Term Development Plan Year 2011-2015	Yes	No
70	4-District	2-Reg	Riau	2010	25	Bintan-Regent Regulation (PerBup) No. 25/2010 on Zoning Plan and the Management Plan for MPA (KKLD) Bintan	Yes	No
71	4-District	2-Reg	Riau	2011	27	Batam-Mayor Regulation (PerWalik) No. 27/2011 on Strategic Planning of Coral Reefs Management Development Batam 2011-2016	Yes	No
72	4-District	2-Reg	Riau	2012	26	Batam-Mayor Regulation (PerWalik) No. 26/2012 on Establishment UPT of Batam DKP, 2012	Yes	No
73	4-District	2-Reg	Riau	2009	7	Bintan-District Reg (PerBup) No.7/2009 on Establishment of UPT DKP Bintan	Yes	No



#	Level	Type	Ntl/Prov/ Min	Year	No.	TITLE IN ENGLISH	Indo Lang	Eng Lang
74	4-District	3-Decree	S Utara	2004	136/32 40	NSum-Governor of Sumatera Utara Decree No. 136/3240.K on Strategic Planning of Sumatera Utara	Yes	No
75	4-District	3-Decree	Riau	2012	281	Batam-Keputusan-Mayor Decree -No. KPTS. 281/HK/VIII/2012 on the Establishing Marine Conservation Area of Batam	Yes	No
76	4-District	3-Decree	W Sum	2012	188.45 -142	Mentawai-Regent Decree No. 188.45-142/2012 on Establishment/Appropriation of Flowers Straits Marine Area and Surrounding Areas for Mentawai Islands Water Conservation Area	Yes	No
77	4 District	4-MoU	Riau	2012	XX	Anambas Draft MoU with MMAF- Directorate of Sm Islands	Yes	No
78	5-Village	3-Decree	N Sum	2008	1	Tapanuli T-Village Law (PerDes) of Sitardas Village, Sub District Badiri, Tapanuli Tengah No. 01/2008 on Conservation of Coral Reef-DPL	Yes	No
79	5-Village	3-Decree	N Sum	2008	1	Tapanuli T-Village Law (PerDes) of Tapan Nauli-I Village, Sub District Tapan Nauli, No. 01/2008 on Conservation of Coral Reef-DPL	Yes	No

#### IV. COREMAP—CTI Institutional Status and Context

203. The COREMAP—CTI program will be working in seven districts and then three additional districts that each host the MMAF National Marine Conservation Areas (all being developed into Tourism Nature Parks or TWP). The Components of COREMAP—CTI include several institutional and legal processes and outputs to achieve its objectives, including spatial plans that include the district's marine areas, zoning regulations that allow sustainable marine-resource-based enterprises in district waters including the MPAs, and the various documents required to promote the MPAs from their present to a more effectively managed area. Under COREMAP II, districts and provinces were supported to generate coral reef management plans and coral reef strategies, and to initiate, if not already done, the first legal step towards creating a certified effectively managed nationally recognized MPA. The move to adding the CTI themes to COREMAP will likely require the expansion of the Coral Reef strategies and management plans to become coastal strategies and plans. Similarly, through institutionalization, the government of Indonesia is not only looking for good models or case studies to launch replication at a national level, but also to work more closely with, rather than add new policy initiatives. The priorities expressed by the Government of Indonesia and MMAF are to focus on using existing policy tools, such as the Development Plans (RJPD) and Spatial Plans that are already required, but tailoring and improving them to meet the COREMAP—CTI goals.

204. To initiate that planning process for the project, the next few tables reflect the status of the various existing policy documents relating to COREMAP, MPAs, coral, fisheries and coastal management.

205. **Table 8: Status of the 10 MPAs** (7 district and 3 national). The steps to developing an MPA for national inclusion in the system are defined in the Guide (Pedoman) published by MMAF. The steps include

- A Decree (District leader for District MPA, MMAF Ministerial Decree for National MPA) that identifies and “establishes” the area to be developed; this includes a boundary defined informally (a very formal boundary survey is part of the last steps to full recognition); this feeds into the definition of this boundary in the spatial plan as a conservation zone
- Studies that create an ecological baseline for the MPA and other information and are submitted to support the nomination and endorsement of the MPA;
- The legal establishment (through a regulation) for the MPA Management Unit: this UPT is defined by the district for district MPAs and by MMAF for national MPAs;
- The establishment of staff and offices, equipment, vehicles, etc., including some formal level of competencies now being established for staff and training levels;
- Development of a MPA Management Plan that includes a zoning plan;
- A District Law (for district MPAs) to accept and endorse the authorities and budget of the MPA
- A Ministerial Regulation that (PerMen) that endorses the district MPA or the national MPA into the national protected areas system.

206. In summary, 9 of the 10 MPAs are “established” for further development into full MPAs. Lingga, the remaining one, is well on its way and may be established before the start of COREMAP—CTI. Most have already begun drafting their MPA Management and Zoning Plans, and six have established their field MPA Management Units, which means they are at least minimally operational.

207. **Table 9: List of District Strategic Plans and Regulations on Coral Reef Management:** All of the district MPAs except Lingga have a decree establishing their Coral Reef Strategic Plan (different than a spatial plan) and five have already created formal regulations for Coral Reef Management.

208. **Table 10: List of Provinces and Districts of COREMAP—CTI and their terrestrial spatial planning status as of March 2013:** Only one province (W. Sumatra) and two ADB districts (Natuna, Bintan) have formal legal (PERDA) spatial plans completed, although the other five districts are rather close. Nonetheless, not all have full included full marine components to their spatial plans.

**Table 8. Status of MPA Establishment, Management and Zoning Plans**

District Name	Legal Basis of Marine Conservation Area	Area of MPA (Ha)	Status of MPA Management Plan	Status of MPA Zoning Plan	Status of MPA Management Unit
Nias	Established: <i>Bupati</i> , Decree No. 050/139/K, 2007	29,000			
Nias Selatan	Established: <i>Bupati</i> , Decree No. 523/371/K/ 2008	56,000			
Tapanuli Tengah	Established: <i>Bupati</i> , Decree No. 1421/DKP; 2007	81,243	Draft	Draft	
Mentawai	<ul style="list-style-type: none"> <li>Established: <i>Bupati</i>, Decree No. 178/Th; 2006;</li> <li>Formally Established: Kabupaten, (District Decree) No 523/171/134P-KM/V; 2012</li> </ul>	50,532	<ul style="list-style-type: none"> <li>Final draft</li> <li>Proposed to be approved by Bupati</li> <li>The MPA is processed for Minister designation in 2013</li> </ul>		Established
Batam	Established: Mayor, Decree No. KPTS. 114/HK/VI; 2007	66,807	Draft	Draft	Established
Bintan	Established: <i>Bupati</i> , Decree No. 261/VIII; 2007	472,905	Draft	Draft	Established
Natuna	Established: <i>Bupati</i> , Decree No. 299; 2007	173,700	Draft	Draft	
Lingga	Not yet approved <sup>24</sup>	~39,000	Draft	Draft	
<b>Anambas</b>	Established by MMAF Ministerial Decree No. KEP.35/MEN/ 2011	5,901,400	Final draft Proposed to be legalized by Minister of Marine Affairs and Fisheries by 2013		LKKPN Pekanbaru
<b>Pulau Pieh</b>	Established by Forestry Ministerial Decree No: 070/Kpts-II/ 2000; plus MMAF Ministerial Decree No. 70 / 2009	39,900			LKKPN Pekanbaru
<b>Gili Matra</b>	Established by Forestry Ministerial Decree No: 085/Kpts-II/ 1993; plus MMAF Ministerial Decree No. 67 / 2009.	2,954 <sup>25</sup>			BKKPN Kupang
<b>Total</b>		<b>6,913,441</b>			

Source: Ministry of Marine Affairs and Fisheries.

<sup>24</sup> Feasibility Team Trip Report to Lingga, Dec 2012 (Interim Report Appendix 05)

<sup>25</sup> UNEP/EAS/ICRAN Workshop, Report by Ed Djuharsa, Natural Resources Officer of NTB.

**Table 9: List of District Strategic Plans and Regulations on Coral Reef Management**

District	Strategic Plan on Coral Reef Management	District Regulation on Coral Reef Management
<b>Nias (North)</b>	<i>Bupati</i> Decree No. 20/2007, dated 22 Nov 2007	Could not be enacted because Nias was further subdivided multiple districts during the life of the project. It takes a few years to fully establish the local government and legislature, and coastal management was not the highest priorities.
<b>Nias Selatan</b>	<i>Bupati</i> Decree No. 523/136/P/2007, dated 30 May 2007	Has been approved by the DPRD Parliament and has been submitted to the governor for notification
<b>Tapanuli Tengah</b>	<i>Bupati</i> Decree No. 10/2006, dated 28 December 2006	Issued by <i>bupati</i> and Parliament on 5 December 2007 through joint decrees of <i>Bupati</i> No. 05/KPTS/HKM/Th 2007 and Parliament No. 032/KPTS/DPRD/2007
<b>Mentawai</b>	<i>Bupati</i> Decree No.188.45–179, dated 5 July 2010; <i>Usulan Penetapan Kawasan Konservasi Perairan Daerah Kab Kep Mentawai No 523/171/134P-KM/V-2012</i>	Enacted on 19 December 2008 (Number 19, Year 2008)  Establishes boundaries and a few zones of district marine conservation area
<b>Batam</b>	Walikota Decree No. 27/2011, dated 6 October 2011	Enacted on 25 August 2009, (Number 7, Year 2009)
<b>Bintan</b>	<i>Bupati</i> Decree No. 13/II/2009, dated 5 February 2009	Enacted on 19 August 2008, (Number 12, Year 2008)
<b>Natuna</b>	<i>Bupati</i> Decree No. 346/2007, dated 15 Nov. 2007	Enacted on 1 September 2007, (Number 1, Year 2007)
<b>Lingga</b>	Draft has been prepared and submitted to BAPPEDA for review by District Legal Bureau prior to approval by <i>bupati</i>	Draft RANPERDA has been submitted to the DPRD. A committee has been created to review the draft and has listed the item as No. 4 in the Parliament's legislative agenda.

BAPPEDA = Badan Perencanaan Pembangunan Daerah (Regional Development Planning Agency), *bupati* = district head, DPRD = Dewan Perwakilan Rakyat Daerah (regional Parliament), RANPERDA = local regulation.

Source: Ministry of Marine Affairs and Fisheries.

Law UU No 5/1990 on natural resource conservation for turtle. This law is still operational. Other law and regulations need to be reviewed are UU 27/2007; UU 32/2004 on regional administration, where they have articles on the conservation authority.

**Table 10: List of Provinces and Districts of COREMAP—CTI and their terrestrial spatial planning status as of March 2013**

No.	Province/District	Status of Spatial Plan	Perda/ Law #/ Yr
1.	<b>Kepulauan Riau Prov.</b>	<ul style="list-style-type: none"> <li>• Not yet legalized</li> <li>• Substantially approved by the Ministry of Public Works</li> </ul>	
2.	Natuna	Legalized	Perda No. 10 / 2012
3.	Bintan	Legalized	Perda No. 2 / 2012
4.	Lingga	<ul style="list-style-type: none"> <li>• Not yet legalized</li> <li>• Substantially approved by the Ministry of Public Works</li> </ul>	
5.	Batam	<ul style="list-style-type: none"> <li>• Not yet legalized</li> <li>• Substantially approved by the Ministry of Public Works</li> </ul>	
6.	Kepulauan Anambas (where the Anambas national MPA is located)	<ul style="list-style-type: none"> <li>• Not yet legalized</li> <li>• Substantially approved by the Ministry of Public Works</li> </ul>	
7.	Sumatra Utara (North Sumatra)	<ul style="list-style-type: none"> <li>• Not yet legalized</li> <li>• Substantially approved by the Ministry of Public Works</li> </ul>	
8.	Tapanuli Tengah	<ul style="list-style-type: none"> <li>• Not yet legalized</li> <li>• Substantially approved by the Ministry of Public Works</li> </ul>	
9.	<b>West Sumatra Prov.</b>	<ul style="list-style-type: none"> <li>• Legalized</li> </ul>	Perda No. 13 / 2012
10.	Mentawai	<ul style="list-style-type: none"> <li>• Not yet legalized</li> <li>• Substantially approved by the Ministry of Public Works</li> </ul>	
11.	Padang Pariaman (P. Pieh)	<ul style="list-style-type: none"> <li>• Legalized</li> </ul>	Perda No. 5 /2011
12.	Kota Padang (where the Pulau Pieh national MPA is located)	<ul style="list-style-type: none"> <li>• Legalized</li> </ul>	Perda No. 5 /2012
13.	<b>South Sulawesi</b>	<ul style="list-style-type: none"> <li>• Legalized</li> </ul>	Perda No. 9 /2009
14.	Selayar	<ul style="list-style-type: none"> <li>• Legalized</li> </ul>	Perda No. 5 / 2012
15.	Pangkajene Kepulauan (Pangkep)	<ul style="list-style-type: none"> <li>• Legalized</li> </ul>	Perda No. 8 / 2012
16.	<b>Southeast Sulawesi</b>	<ul style="list-style-type: none"> <li>• Not yet legalized</li> <li>• Substantially approved by the Ministry of Public Works</li> </ul>	
17.	Wakatobi	<ul style="list-style-type: none"> <li>• Legalized</li> </ul>	Perda No. 12 / 2012
18.	Buton	<ul style="list-style-type: none"> <li>• Not yet legalized</li> <li>• Substantially approved by the Ministry of Public Works</li> </ul>	
19.	<b>East Nusa Tenggara (NTT)</b>	<ul style="list-style-type: none"> <li>• Legalized</li> </ul>	Perda No. 1 / 2011
20.	Sikka	<ul style="list-style-type: none"> <li>• Legalized</li> </ul>	Perda No. 2 / 2012
21.	<b>Papua</b>	<ul style="list-style-type: none"> <li>• Not yet legalized</li> <li>• Substantially approved by the Ministry of Public Works</li> </ul>	
22.	Biak Numfor	<ul style="list-style-type: none"> <li>• Legalized</li> </ul>	Perda No. 68 / 2011
23.	West Papua	<ul style="list-style-type: none"> <li>• Not yet legalized</li> <li>• Substantially approved by the Ministry of Public Works</li> </ul>	
24.	Raja Ampat	<ul style="list-style-type: none"> <li>• Legalized</li> </ul>	Perda No. 3 / 2012

209. The district heads or mayors of seven districts—Nias, Nias Selatan, Tapanuli Tengah, Kepulauan Mentawai, Batam, Bintan, and Natuna— approved the CRMPs. However, the CRMP of Nias could not be implemented due to the subdivision of this district into three new districts. As of the loan closing date, the district head had not yet approved the draft CRMP of Lingga. At the provincial level, only Kepulauan Riau has an approved provincial CRMP. As of loan closing date, the CRMPs for North Sumatra and West Sumatra had not yet been approved by their respective governors due to the election of a new governor in West Sumatra and a failure in North Sumatra to understand that the governor should approve the CRMP. The CRMPs that had been approved at the target provincial and district levels were already integrated into the Medium-term Regional Development Plan to ensure sustainable implementation and financing.

210. Regional marine management areas (RMMAs) were demarcated and their legality was reinforced by decrees of the related district heads. As of December 2011, seven RMMAs, covering 133,000 hectares (ha) of coral reefs and associated ecosystems, had been delineated and approved. Of this area, coral reefs cover 46,700 ha. Although the boundaries of the marine management area (MMA) in Lingga District have been identified and delineated, the mayor has not yet approved the MMA because he wants a review of the boundaries to consider other development plans of the district. Moreover, Bintan, Batam, and Mentawai have officially approved the creation of local technical implementing units that will serve as MMA management bodies. Meanwhile, the draft mayor's decree creating the technical implementing unit for the MMA in Tapanuli Tengah has been submitted to the district secretary.

211. The Ministry of Marine Affairs has recently (2012) defined a set of criteria and an assessment process to review and track the management effectiveness of district and national MPAs. This came out in part from a regional process under the CTI-CFF MPA Technical Working Group. The Directorate of Marine Conservation and Species has created a color-coded scale of management effectiveness, from RED to YELLOW to GREEN to BLUE to GOLD. The general summary of the criteria, indicator and activities to achieve those indicators is included below. MMAF proposes to complete the baseline assessment of all of the COREMAP—CTI target district and national MPAs prior to the start of implementation. Generally, by that time, based on the status of the tables above, it is likely that all 10 ADB MPAs will be considered to have a minimum starting management effectiveness level of YELLOW (conservation area established) and hope to achieve GREEN status by the end of the project.

**Table 11: Description, Criteria, Indicators and Activities for Color-Coded Levels of Management Effectiveness for Indonesia MPAs**

LEVEL/Criteria	ACTIVITY
<b>RED</b>	<b>(CONSERVATION AREA INITIATED)</b>
<b>1. INITIATIVE PROPOSAL</b>	Conduct Preliminary survey of MPA
Indicator: Proposal Submitted	Conduct counterpart and stakeholder Consultation
	Draft Establishment Proposal
	Conduct meetings to propose and promote
<b>2. AREA IDENTIFICATION and INVENTORY</b>	Conduct Inventory Survey
Indicator: Inventory and Analysis Published	Analyze data

LEVEL/Criteria	ACTIVITY
	Socialize results
<b>3. RESERVATION OF CONSERVATION AREA</b>	Conduct Consultation
Indicator: Decree Signed by Minister (N), Bupati (D)	Draft Decree to Reserve Area
	Meet to propose and promote
<b>YELLOW</b>	<b>(CONSERVATION AREA ESTABLISHED)</b>
<b>4. MANAGEMENT ORGANIZATIONAL UNIT AND PERSONNEL</b>	Conduct consultation with counterparts to prepare decree based on guideline
Indicator: Decree establishing unit, Budget with # of Staff assigned	Draft UPT Degree following Guideline (Preparation of Management Unit (2009)
	Assign staff and prepare budget
	Provide staff with basic conservation Training
<b>5. MANAGEMENT AND ZONING PLANS</b>	Establish Working Group
REF: Per 30/MEN. 2010	Hire consultant to prepare draft zoning and management plan
Final Document Submitted	Conduct Public consultation/workshop
	Finalize the document
<b>6. FACILITIES AND INFRASTRUCTURE TO SUPPORT MANAGEMENT</b>	(Guidance in process at KKJI in months ahead)
Indicator: Evaluation of Infrastructure sufficient to meet Guidelines	Define/Obtain main office space on site with meeting space, AV Equip, small kitchen, small public education center, small workshop
	Define and Install Initial Info of MPA Signage around area and zones
	Purchase Office Equipment (5 people)
	Purchase Vehicles for Land Transport
	Purchase small field equipment
	Purchase/equip small Lab for monitoring and testing for illegal products
	Purchase Communication equip (HP, Radios)
	Equip DLL
<b>7. MANAGEMENT FUNDING SUPPORT</b>	Define funding needs and research opportunities
Indicator: Some funding for basic needs is committed	Develop funding strategy
<b>GREEN</b>	<b>(CONSERVATION AREA MANAGED MINIMALLY)</b>
<b>4. MANAGEMENT ORGANIZATIONAL UNIT AND PERSONNEL</b>	Add operational staff

<b>LEVEL/Criteria</b>	<b>ACTIVITY</b>
Indicator: Adequate staff to implement management plan in place and trained with partners identified	Train (2 core competencies per operational staff)
	Initiate partnerships with stakeholders
<b>6. FACILITIES and INFRASTRUCTURE TO SUPPORT MANAGEMENT</b>	Purchase Vehicles for Marine operation
	Purchase Vehicles for Land Transport
	Purchase small field equipment
	Purchase/equip small Lab for monitoring and testing for illegal products
	Purchase scuba sets (5)
	Purchase Communication equip (HP, Radios)
	Purchase Surveillance Equip (Binoculars, Camera, Video)
	Equip DLL
	Build/Install observation posts
	Build Remote Surveillance Post/Office (e.g. At activity site, nesting area, etc.)
	Install Coastal boundary markers, Signage
	Purchase Office Equipment (5 people)
<b>7. MANAGEMENT FUNDING AND SUPPORT</b>	Prepare Management Funding Plan
Indicator: Funding from Government and other sources sufficient to operate MPA	Secure funding from government source
	Secure funding/implement plan from other sources
<b>8. APPROVAL OF MANAGEMENT AND ZONING PLANS</b>	Get Approval of Management and Zoning Plan by Bupati (D) or Minister (N)
Indicator: Decree	
<b>9. MANAGEMENT SOPs</b>	Develop SOPs for admin and financial management
Indicator: Sets of SOPs, Strategies, Operations Manuals	Develop SOPS for facilities and infrastructure (minimum standards)
	Develop SOPS for Field Operations/Programs (Governance, Ecosystem, Community program)
<b>10: IMPLEMENTATION OF MANAGEMENT AND ZONING PLANS</b>	Implement Institutional strengthening strategy (Training, agreements)
Indicator: New Programs and Resource Management Operations in Action	Implement Resource Management Strategy
	Conduct socioeconomic baseline survey
	Review, Approve and Conduct Utilization activities in MPA (Min = 1) Ex: Pilot project



<b>LEVEL/Criteria</b>	<b>ACTIVITY</b>
<b>11. DESIGNATION OF AQUATIC CONSERVATION ZONE</b>	Submit proposal to Minister
Indicator: Ministerial Decree	Evaluate MPA Designation documents
	Socialize Designation Plan and Present to Decision makers
	Conduct Field evaluation of MPA
	Submit recommendation fro designation to Minister
	Get approval of MPA By Minister
<b>BLUE</b>	<b>(CONSERVATION AREA MANAGED OPTIMALLY)</b>
<b>4. MANAGEMENT ORGANIZATIONAL UNIT AND PERSONNEL</b>	Assess status of management team through documentation (degrees, certificates) and on-ground skills in operations
Indicator: Documents and assessment report	
<b>6. FACILITIES AND INFRASTRUTURE TO SUPPORT MANAGEMENT</b>	Assess status of infrastructure and facilities relative to operational needs
Indicator: Reports and Physical Check	Verify with physical check
<b>7. MANAGEMENT FUNDING SUPPORT</b>	Secure and verify consistent/sustainable funding from government source
Indicator: Verification that budget needs are met	Secure and verify consistent/sustainable funding from other sources
<b>9. MANAGEMENT SOPs</b>	Verify Training and Education SOPs are in place
Indicator: Report of Document Review and interviews of their early discussions and practice	Verify Marine/Aquatic Tourism SOPs are in place
	Verify Aquaculture SOPs are in place
	Verify Fishing SOPs are in place
<b>11. DESIGNATION OF AQUATIC CONSERVATION AREA</b>	Conduct public consultations and socialization activities with stakeholders
Indicator: Documentation of Consultation and Socialization activities	
<b>12. BOUNDARY MARKINGS</b>	Install and verify boundary markings on land and sea of conservation area
Indicator: Report with photos of markings	
<b>13. INSTITUTIONALIZATION</b>	Strengthen local institutions with TA, guidance, extension, training
Indicators: Report verifying status with documentation	Assess status of enforcement of rules through monitoring and surveillance
	Assess status of community based surveillance in conservation area

<b>LEVEL/Criteria</b>	<b>ACTIVITY</b>
	Verify Conservation Area support in National and District Strategic and Development plans
	Verify/Support conservation area inclusion in Coasts and Small Islands Zoning Plans
<b>14. RESOURCE MANAGEMENT</b>	Assess the condition/status of fish habitats
Indicator: Reports of change based on field results and analysis	Document/analyze change in status of habitats in the different MPA zones (%cover, area (ha))
	Document/analyze change in physical (chemical, geologic) characteristics in the different MPA zones
	Assess the condition of fish and non-fish target species populations (#, length, weight) in MPA zones
	Assess volume of fishers' catches in sustainable use zones
	Assess number and diversity of non-fish target species in MPA zones
	Assess populations of endemic species
	Define and conduct relevant researched development to support management activities
	Assess effectiveness/impact on habitats and marine organism populations due to zoning and management actions
<b>15. SOCIOECONOMIC &amp; CULTURAL MANAGEMENT</b>	Assess status (change?) of and enhance local traditional and cultural conditions/practice due to management actions
Indicator: Physical and Document Reports, Perception Surveys	Assess and enhance community support for MPA management activities
	Assess and enhance community participating in management of conservation area
	Assess number, type and severity regulation infractions, and enhance programs that aim to reduce breaches of conduct
	Assess level of training and education activities in MPA
	Assess tourism activity and programs in and near MPA, and socioeconomic benefits to community
	Assess aquaculture activity and programs in and near MPA, and socioeconomic benefits to community
	Assess capture fisheries activity and programs in and near MPA, and socioeconomic benefits to community
<b>GOLD</b>	<b>(SELF SUSTAINING CONSERVATION AREA)</b>
<b>13. INSTITUTIONALIZATION</b>	
Indicator: Annual Reports, Interviews	Assess positive impact and strengthen partnerships with stakeholders
<b>16. IMPROVING COMMUNITY WELFARE</b>	Conduct Independent Survey on Effectiveness of Management Performance
Indicator: Reports	Assess/enhance status/change in community incomes due to MPA Management

LEVEL/Criteria	ACTIVITY
	Assess/enhance status/change in economic activity (tourism, fisheries, AQ) in MPA use zones
	Assess/Enhance Public Perception on Value of Conservation Activities due to increased incomes
<b>17. SUSTAINABLE FUNDING</b>	Assess/Enhance Sustainable Funding Activities that Engage Stakeholders
Indicator: Reports	

## V. Other Relevant Development Partners and Programs

### A. Major Development Partners: Strategic Foci and Key Activities

212. The major development parts in the coastal resources, fisheries and marine ecosystem sector are the Asian Development Bank (ADB), the World Bank (WB), the US Agency for International Development (USAID), the Japanese International Cooperation Agency (JICA), the Australian Agency for International Development (AusAID), and GTZ (German Technical Cooperation).

#### Major Development Partners (over \$3 million)

Development Partner	Project Title	Duration	Amount (\$ million)
ADB	Riau Fisheries Development	1972-xxxx	2.5
	Irian Jaya Fisheries Development	1973	7.9
	Java Fisheries Development	1975	13.2
	Sumatra Fisheries Development	1980	14.0
	Second Irian Jaya Fisheries Development	1982	34.0
	Brackishwater Aquaculture Development	1982	23.0
	Fisheries Infrastructure (Sector)	1984	50.0
	Fisheries Industries Credit	1985	65.0
	Marine Science Education	1988	73.35
	Second Brackishwater Aquaculture Development	1989	38.0
	Second Fisheries Industries Credit	1991	100.0
	Marine Resources Evaluation and Planning	1992	33.0
	Mangrove Rehabilitation and Management in Sulawesi	1993	8.08
	Segara Anakan Conservation and Development	19XX	45.6
	Coastal Community Development and Fisheries Resources Management	1997	41.0
	Coral Reef Rehabilitation Management I	1998-2001	7.0
	Marine and Coastal Resources Management	2001-2009	50.0
	Sustainable Aquaculture Development for Food Security and Poverty Reduction	2006	33.3
	Coral Reef Rehabilitation and Management Project II	2002-2012	33.0
	World Bank	Coral Reef Rehabilitation and Management Project I	1998-2004
Coral Reef Rehabilitation and Management Project II		2006-2011	53.9
USAID	Coastal Resources Management Project	1997-2003	14
	Coastal Resources Management Project II	2003-2005	6.5
	Indonesia Marine and Climate Project	2010-2014	17
	Marine Protected Area Governance	2011-2014	6
NOAA		2012-2014	0.3

ADB= Asian Development Bank, USAID=US Agency for International Development.  
Source: ADB project history.

ADB and the World Bank are working together with counterparts to create truly national programs from the two project inputs, sharing most mechanisms of project implementation as well as office space, some expertise, similar safeguard approaches and indicators.

## **B. Institutional Arrangements and Processes for Development Coordination**

213. The COREMAP—CTI approach has been designed to reflect national priorities and strategies<sup>26</sup>, as well as regional objectives of the Coral Triangle Initiative. Within this framework, COREMAP—CTI builds upon and complements not only previous COREMAP phases, but also several extant donor, bilateral and multilateral projects that address marine and coastal planning. Indonesia has a number of development coordination institutional mechanisms in place for the Marine and Fisheries Sector and the theme of the COREMAP—CTI. These include:

- **BAPPEDA (the Development Planning Agency), Office of Marine and Coastal Resources:** This coordinating agency is responsible for all review and coordination of strategic planning and budgets related to Marine and Coastal Resources.
- **Ministry of Marine Affairs (MMAF):** Secretary General's Office; Directorate for Interagency and International Cooperation: This is the office where inter-and intra departmental coordination is tracked and facilitated.
- **The Indonesia Coral Triangle Initiative's National Coordination Committee (NCC):** This office is hosted by the MMAF and is tasked with coordinating the planning and implantation of the CTI-CFF National Plan of Action. BAPPENAS is a member of the COREMAP—CTI National Steering Committee. Members include representatives from LIPI, the Ministry of Environment, the Ministry of Foreign Affairs and BAPPEDA. Outputs from the Regional CTI-CFF program, either directly or adapted, are serving as inputs to COREMAP—CTI such as the CT MPA Framework, the MPA Management Effectiveness Assessment, the CTI EAFM Framework, the CTI Regional Plan of Action for Climate Change Adaptation and the tools that have been developed by the Coral Triangle countries and their expert partners.
- **The Maritime Council (Dewan):** This Presidentially established Board is tasked with providing advice and proposals to the Government to: Determine and formulate a national maritime wisdom in the highest degree; Plan and develop maritime regulations and to supervise the implementation of maritime regulations; and Coordination in maritime duties, among others: personnel; materials, and maritime operations. It is chaired by the Minister of Marine Affairs, with rotating Vice Chairs of the Chief of Staff of the Ministers of the Navy and Marine Transportation, and members that include the senior officials of the: Ministries of Foreign Affairs, Natural Security, Distribution, Agriculture, Basic Industry and Mining, Commerce, Finance, and National Planning Council (BAPPENAS).

214. This will be a program-based approach as the objectives are to embed or institutionalize the tested interventions into the national, district and village governments and programs. The earlier phases of the COREMAP program helped to define the national and new district strategies ad programs, and this phase will be a major part of implementing those plans. The consultant project team will be small and most of the funds will be for infrastructure and activities conducted by the government counterparts, particularly for the non-routine costs of

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<sup>26</sup> National Medium Term Development Plan 2010-2014; Ministry of Marine Affairs and Fisheries Strategic Plan 2010-2014

legal institutionalization and start-up infrastructure for these management programs and marine protected areas. In addition, the leveraging and coordination for working this COREMAP program with the World Bank's program for the other part of the country, and the National CTI Program for Action requires a project approach for leveraging specific activities and approaches.

215. The key development partners and projects working in Indonesia's Marine and Fisheries Sector are:

216. **COREMAP—CTI/ WORLD BANK (\$50 Million):** The World Bank is a long-time partner with the ADB and GEF in the design, support and implementation of the COREMAP three-phase program. The World Bank has focused their sub-national COREMAP I and II activities in seven districts of eastern Indonesia. This area is known for the better health and status of its marine resources, including coral reef ecosystems, and the largest extent of mangroves in the world. Although under COREMAP I and II the ADB and World Bank worked in a coordinated fashion, under COREMAP—CTI the mandate from the Government of Indonesia is to make COREMAP—CTI an almost seamless program to the national and district users, particularly as this phase will institutionalize reforms and interventions in the governmental fabric.

217. **USAID/Indonesia Marine Program: (\$30M USD)** Building on its long partnership with the Government of Indonesia, the United States Agency for International Development (USAID) through its Marine Resources Program (MRP) is supporting Indonesia's efforts to restore and enhance the productivity of marine and coastal ecosystems for food and economic security, conserve biodiversity, and increase the resilience of coastal communities and natural ecosystems to the impacts of climate change.

218. Although only about 6,000 of its islands are inhabited, sixty-five percent of Indonesians live in coastal areas and directly depend on the oceans for their food and livelihoods. However, unsustainable and destructive fishing practices have decreased the production from fisheries throughout Indonesia. Climate change may be contributing to increased sea levels, higher water temperatures and more destructive weather patterns. Promoting sustainable fisheries management and conserving productive ecosystems such as mangrove forests and coral reefs are critical steps toward building the capacity of coastal communities to adapt to climate change.

219. The present Marine Program Strategy and projects will end in 2014 and it is likely that a new marine program will be included in the new 2015-2019 USAID/Indonesia strategy. Under the current Marine Resources Program, USAID\Indonesia provides support to projects and activities, primarily in the eastern marine waters and coastal of Indonesia, such as:

- **IMACS (Indonesia Marine and Climate Support (2010-2014; \$20M USD):** IMACS is the major USAID project supporting the Indonesian Ministry of Marine Affairs and Fisheries (MMAF) with implementation of its five-year Strategic Plan. MMAF is responsible for promoting sustainable use of fish and other marine resources for Indonesia's long-term economic prosperity. Its mandate encompasses such issues as drafting of marine and fisheries sector policies; control of overfishing, destructive and illegal fishing practices; spatial planning for resource use; management of conservation areas; data analysis and modeling for fisheries management; and promoting the long-term welfare of fishing communities. The IMACS project is supporting MMAF efforts to achieve sustainability in the marine and fisheries sector and to improve the response of coastal communities to near-term disasters and long-term impacts related to climate

change. The IMACS project has three key thematic areas: policy, sustainable fisheries; and climate change — as well as supporting overall coordination of Marine Resources Program activities.

- IMACS is supporting legal training and drafting related to coastal and small island management that is leading towards legal guidelines and templates that will assist district governments to develop and implement spatial plans in compliance with Law 27/2007 on coastal zone and small island management. IMACS and MMAF will complete these guidelines and supporting legislation during early 2013, providing a framework and tool that COREMAP-CTI can apply to assist district and provincial governments to develop and strengthen spatial plans.
  - IMACS, with support from NOAA, is assisting MMAF to strengthen fisheries data and statistics, including through the implementation of port state measures, observer programs and monitoring protocols. Of particular relevance to COREMAP-CTI is the development of sub-WPP (*Wilayah Pengelolaan Perikanan*, Fishery Management Area) scale management units and statistical reporting areas, and the development of participative assessments for data poor small-scale coastal fisheries. These approaches are being piloted and adopted by MMAF's Directorate of Fishery Resources, and COREMAP-CTI is ideally positioned to support extension, evaluation and deployment into new locations, fostering integrated and participative approaches to ecosystem-based fisheries management, democratization of fisheries information and management, and strengthening sustainability, food security and coastal livelihoods.
- **Department of Justice (US DoJ) ICITAP Program to Address Illegal, Unreported and Unregulated Fishing**
    - The Department of Justice (DOJ) International Criminal Investigative Training Assistance Program (ICITAP) Indonesian Program is implementing USAID activities to build the capacity of the Indonesian law enforcement agencies to address environmental crimes that threaten forest and marine ecosystems. DOJ will implement activities over two years, working closely with the other USAID MRP implementing partners. Reducing illegal, unreported, and unregulated fishing requires strengthened monitoring of fishing practices, investigation, and effective enforcement of laws governing fishing practices.
    - Activities under this component will develop the investigative and forensic capabilities of the Indonesian National Police (INP), the Directorate General of Monitoring and Surveillance of MMAF, and other relevant authorities. Technical assistance and training will be provided to relevant authorities to develop standard operating procedures and protocols, strengthen skills, and strengthen coordination among agencies. Trainings will address transnational crimes that focus on but are not limited to IUU, marine hazardous waste disposal, and wildlife trafficking and smuggling.
  - **Coral Triangle Support Partnership (CTSP) (2009-2011; \$2M USD):** The Coral Triangle Support Partnership-Indonesia (CTSP-I) is a collaborative five-year project to bring about the protection of marine systems and their myriad habitats for the benefit and sustainable livelihoods of communities across the Coral Triangle Region of Indonesia. USAID/Indonesia funds the Indonesia program under an overall Regional Cooperative Agreement managed by USAID RDMA to support regional work within the Coral Triangle including Malaysia, Indonesia, Philippines, Timor-Leste, Papua New Guinea, and the Solomon Islands. In Indonesia CTSP-I works with the Ministry of Marine

Affairs and Fisheries, local governments and other stakeholders to:

- Support the GOI strategy for marine protected areas (MPA) that integrates biodiversity conservation and fisheries management
  - Support the creation of a learning network and mechanisms to deliver long-term MPA capacity building
  - Support the development of MPA networks in seascapes (or parts thereof) through policy support and biodiversity and socioeconomic surveys
  - Support GOI and local stakeholders to advance conservation action in Indonesia, institutionalizing successful MPA management approaches.
  - In 2010, USAID Indonesia included two bi-lateral projects in its Marine Program Portfolio (IMACS and MPAG) and now only works with CTSP in regards to regional activities through USAID/RDMA. Partners: Yayasan WWF Indonesia, Conservation International, The Nature Conservancy, and Rare.
- **Marine Protected Area Governance (MPAG): (2012-2014; \$6 Million USD):** USAID/Indonesia's (MPAG) Program focuses on improving marine protected area (MPA) governance through strengthened data analysis, policy development and capacity building for improved marine protected area (MPA) management to yield the optimal fisheries and biodiversity conservation benefits. Specifically, the project provides technical assistance, training and other support for MMAF with the goal of strengthening marine protected area (MPA) management through the development of a national MPA system linked with priority MPA field sites in both national and local MPAs. The objectives of the MPAG project in providing support to the Ministry of Marine Affairs and Fisheries (MMAF) include achieving the following:
    - Designing a sustainably financed national MPA system that expands MPA coverage to achieve the target of 20 million hectares of MPA coverage by 2020 and includes representation of the nation's highest priority biodiversity and fisheries resources;
    - Advancing MPA effectiveness in Priority Geographies through direct field action and linking these high priority activities to national programs and to long-term sustainable sources of finance to expand and improve MPA capacity, coverage, and effectiveness.
    - Supporting the preparation of Host Country System (HCS) implementation through strengthening the government capacity, and developing the HCS design for MPA management. These systems provide the mechanism for managing foreign grants to ensure accountable, transparent and effective utilization for development goals.

Results to date for institutional capacity building include a focus on developing human resources. MPAG is supporting MMAF to identify the technical competencies required, evaluate human resource needs, and develop certified training systems. This approach aims to consolidate *ad hoc* training provided by various government agencies, NGOs and donor projects into a comprehensive and targeted national human resource development program for MPA management. Specific outcomes to date include the formation of a Capacity Development Working Group comprised of representatives from the Agency for Human Resource Development (PUSLAT-BPSDM), Directorate of Conservation for Area and Fish Species (KKJI), and MPAG consortium members; identification of core competency requirements; development of certified MPA training modules; and deployment of a human resource and training database. These achievements are directly relevant to COREMAP-CTI's MPA development and

management effectiveness goals, and provide a suite of nationally certified training tools and strategies for application at district and provincial levels. Furthermore, the process of developing these tools and strategies provides a framework upon which COREMAP-CTI can build for the development of certified training programs for coral reef ecosystem monitoring.

MPAG is supporting MMAF to establish a National MPA System, including developing a national regulation to guide MPA network design; developing a standard tool for assessing MPA management effectiveness (E-KP3K); and developing a national regulation on MPA collaborative management that will provide guidance for implementation of the Partnership Approach outlined in Law 60/2007. Implementation of these regulations and tools will require technical guidance and support at the provincial and district level, where COREMAP-CTI is ideally positioned to assist.

MPAG has assisted MMAF to establish a national trust fund for MPA management that has been endorsed via presidential decree. MPA management effectiveness components of COREMAP-CTI—including those addressing sustainable financing—must coordinate with these mechanisms, and COREMAP-CTI is ideally positioned to assist MMAF to implementation these national mechanisms at the site level.

MPAG is supporting activities within individual MPAs, including Anambas Marine Recreational Park and Gili Matra Marine Recreational Park within which COREMAP-CTI will also operate. MPAG's achievements within Anambas include a 2012 biodiversity and oceanographic survey in conjunction with national and international scientists; a socioeconomic evaluation of the Napoleon wrasse grow-out, supply-chains, and markets that are a key component of local economies; and supporting participative management planning for Napoleon wrasse fisheries. In Gili Matra MPAG supported socioeconomic, fisheries and ecological assessments in 2012; conducted human resource and capacity needs assessments in 2012; and established stakeholder dialogue and momentum towards collaborative management approaches. These outcomes will inform COREMAP-CTI implementation, and the project should prioritize aligning and integrating with existing mechanisms at these sites. Furthermore, COREMAP-CTI is ideally positioned to replicate and transfer lessons learned between these recently established national marine protected areas, and both established and recent district marine conservation areas.

Anambas National Marine Recreational Park: MPAG continues the CTSP's supports within the area, including finalization of a zoning plan. MPAG also assists in capacity strengthening programs, supports collaborative management approaches, and provides technical inputs for marine tourism development plan.

During the first 2 years, MPAG supported an MRAP Survey covering coral, fish biodiversity, oceanographic, and socioeconomic conditions. It was led by KKJI/LOKA KKPJ Pekanbaru and consisted of national and international scientists. The outputs from the survey will be the basis for management and zoning plans.

Gili Matra Marine Recreational Park: MPAG supports the finalization of management and zoning plan through the collection and analysis of biophysical, socioeconomic, and fisheries data. MPAG also supports greater stakeholders' involvements and helps establishing a sustainable financing mechanism based on tourism revenues.

In its first two years, MPAG conducted three field surveys to collect information about socioeconomic conditions, fisheries use patterns, and coral reef ecology to support science-based adaptive management.



MPAG also conducted a training needs assessment to identify and prioritize local training. Meanwhile to initiate the collaborative management in Gili Matra, a series of informal meetings and discussions were conducted to identify and map stakeholder roles, and to develop mechanisms for involving key stakeholders in management planning processes.

The project is implemented by WWF-US in collaboration with multiple NGOs in Indonesia (WWF Indonesia, The Nature Conservancy, Conservation International, Coral Triangle Centre, and Wildlife Conservation Society). Marine Coral Triangle areas of Indonesia, including: Papua, the Banda Sea, the Lesser Sundas, West Sulawesi and Sunda Shelf, Eastern Kalimantan, Anambas.

- **National Oceanographic and Atmospheric Administration (NOAA) Capacity Building and Training Program: (2009-2013; \$0.3M USD):** The National Oceanic and Atmospheric Administration (NOAA) is providing training in key areas to support Indonesia's participation in the Coral Triangle Initiative. Training focuses on developing a sustainable approach to fisheries management and strengthening management of marine protected areas.

Ecosystems Based Fisheries Management: NOAA is building capacity in Indonesia to provide comprehensive and coordinated fisheries management through enforcement, science, and resource management strengthening and coordination. The activities carried out under this program will contribute to Indonesia's efforts to reduce illegal, unreported and unregulated (IUU) fishing and to strengthen fisheries enforcement.

Marine Protected Areas (MPA): NOAA is providing technical expertise to support capacity building for: (i) the Ministry of Marine Affairs and Fisheries; (ii) for MPA practitioners in priority Indonesia landscapes; and (iii) fisheries resource managers. NOAA assistance is developing a body of curriculum and training methodology to support ongoing capacity building for MPA practitioners in Indonesia.

Location: Marine Coral Triangle areas of Indonesia, including: Papua, the Banda Sea, the Lesser Sundas, West Sulawesi and Sunda Shelf, Eastern Kalimantan.

- Grants to nongovernment organizations for climate change adaptation and disaster risk reduction activities
- Partnerships with universities for augmenting scientific research and education on biodiversity

220. **AUSTRALIA: AUSAID:** (2010-2014: 5,212,000 but not for Indonesia). Australia has been a core governmental partner in the CTI-CFF from its inception along with the USA. Australia focuses its support on regional and Pacific activities, and in a recent report (to Regional Secretariat, 2013) has no active programs in Indonesia. However, similar to other partners, it has supported the Governance Working Groups, in particular the Coordination Mechanisms Working Group with Support for implementation of the transition roadmap, including technical advisors/specialists, coordination and meeting support (\$500,000); to the Financial Mechanisms Working Group with Support for a study to support the development of the CTI Financial Architecture and Strategy (ADB) (\$250,000); and proposes support to Goal 1: Seascapes with Support for implementation of the targets and actions under the RPOA Seascapes Goal, including technical experts, coordination support and support for convening meetings and exchanges (CI) (2013-2015: \$635,000) and Collation of key regional datasets to support the CTI seascapes working group and regional initiatives (CSIRO) (2013-2014: CSIRO

\$245,000). All other work is in support of the National Plans of Action for the Solomon Islands, Timor-Leste and Papua New Guinea.

221. **ADB Coastal and Marine Resource Management in the Coral Triangle: SEA (RETA 7813)**<sup>27</sup> (2012-2016; Total for three countries and regional: Approx GEF, \$11,200,000, committed; ADB, \$1,000,000, committed). This RETA is aimed at assisting Indonesia, Malaysia, and the Philippines with implementing actions under their respective CTI national plans of action. The project targets three regional components and contributing national projects: (i) vulnerability assessment of coastal and marine ecosystems and resources and adaptation of coastal communities to climate change; (ii) addressing IUU fishing of coral reef fishes; and (iii) establishing MPA networks.

- MPA Management Effectiveness: The RETA aims to establish models for effective MPA management, including within Berau Marine Conservation Area, Indonesia and the National Integrated Marine Protected Area System, Philippines. Key priorities addressed by the RETA include strengthening management planning and capacity. Establishing linkages with this RETA will assist COREMAP-CTI to foster knowledge exchange and networking at both the national and regional level, and support Indonesia to achieve objectives specified in its national plan of action.
- Sustainable Coastal Industries: The RETA aims to support the development of sustainable coastal industries, including palm oil and marine industries in Silam and Darvel Bay, Sabah. To achieve these aims, studies will be conducted in land and marine ecosystems to inform science-based policy, regulations and integrated management planning. These objectives provide an opportunity for learning networks and exchange, with COREMAP-CTI ideally positioned to facilitate district and provincial level exchanges.

222. It includes:<sup>28</sup>

- Support to CTI Institutional Capacity and Coordination:
  - Technical, coordination and operations assistance to support Senior Official Meetings,
  - Staffing Support for a Marine and Coastal Resources Management Policy Specialist (24 p-m) and a Knowledge Management Specialist (24 p-m) in the CTI-CFF Regional Secretariat (in Indonesia).
  - Mentoring in knowledge management of NCCs in the CT3, support to NCC meetings and coordination
- Support to RPOA / NPOA Implementation
  - Goal 1: SEASCAPES: **Indonesia:** Developing Spatial Database for Sulawesi Seascape
  - Goal 2: EAFM: **Indonesia:** Establishing the EAFM: Grouper Fishery and Trade in North Sulawesi or East Kalimantan, Addressing IUU Fishing of Coral Reef Fishes in North Sulawesi (one pilot site) or East Kalimantan (Berau or Tarakan City), Pilot implementation of joint actions on IUU coral reef fishing, CT3 consultations to develop and synchronize monitoring, control and surveillance (MCS) system, Organization and training of community-based MCS;
  - Goal 3: MPA: **Indonesia:** Establishment and Effective Management of Marine Protected Areas in Northern Sulawesi, Assessment of MPA

<sup>27</sup> Please note that this is one component of the same RETA 7813 as the COREMAP—CTI.

<sup>28</sup> Taken from Project Coordination Information submitted to CTI-CFF Regional Secretariat. 2013

performance based on MMAF's MPA management effectiveness indicators, Streamlining the seascape approach with WPP (fisheries management area) approach, Conduct of study on the cost, revenues and funding gap for MPA management, Synthesizing data and development of academic paper, conduct of public consultations and codification of the proposed MPA by local governments

- Goal 4: CCA: **Indonesia**: Vulnerability Assessment (VA) of Coastal and Marine Ecosystems and Resources, and Climate Change Adaptation (CCA) of Coastal Communities in Sulawesi Seascape, Selection of subproject areas by mapping the vulnerable sites in combination with remote sensing techniques and ground-truthing activities, Conduct of vulnerability assessment (VA) and identification of CCA options, Formulation of CCA measures

**223. ADB Regional Cooperation on Knowledge Management, Policy and Institutional Support to the Coral Triangle (TA 7307-REG).** This RETA is aimed at strengthening regional policy dialogue and coordination among stakeholders of the Coral Triangle nations. It is primarily focused on cross-border issues directly affecting the sustainability of the Coral Triangle region's economy and its environment, and promotes measures for good governance in the use and management of the marine resources. Key objectives include CTI-wide information exchange and learning, and policy and program development based on scientific knowledge, global best practices, and participatory processes.

224. The RETA will build knowledge products based around the integration of coral reef conservation, fisheries management, and food security. COREMAP-CTI is ideally positioned to not only support dissemination of these products at the national, provincial and district levels in Indonesia, but also to contribute to their development through research and monitoring, lessons learned and project outcomes. A key example is the COREMAP-CTI's planned support to coastal ecosystem information systems including development of Indonesia's State of the Coral Triangle Report, directly contributing to the goals of this RETA. This RETA was also used to support early regional CTI-CFF Institutional Strengthening actions.

225. Financial Mechanisms Working Group (FMWG): (USD \$230,000 plus staff contributions) preparation of knowledge materials on Sustainable Finance and PES; in-country costing exercises and preparation of financial proposals for the High Level Financial Roundtable (HLFRT); technical support to FRWG meetings (thru participation/presentations of E Cantin, AC Trinidad, K Thapar); organization of HLFRT including travel support to ministers and SOM, meeting venue, materials and peripherals, meals and refreshments (May 2012, ADB Meeting, Manila).

- Monitoring and Evaluation Working Group (MEWG): (USD \$240,000 plus staff contribution) contributed to the identification of higher level goals of the CTI through work on national and regional SCTRs; preparation of regional SCTR; preparation of national SCTR; launching of SCTR at ICERS; support to national writer support; support to national write-shops; coordination of external review; and printing. EAFM Regional TWG: (\$150,000). Preparation of the Economics of Fisheries and Aquaculture in the Coral Triangle (EFACT) Study; Organization of two regional meetings involving Knowledge Integrators.

**226. ADB Sustainable Aquaculture Development for Food Security and Poverty Reduction Project (35183-013) (2006-2013; USD \$33.3 million).** The Project will support the Government's program to promote sustainable and community-managed freshwater, brackish

water and marine aquaculture development to reduce poverty and increase the food supply among poor fish-farming communities. It will focus on the development of small-scale and low-cost aquaculture production systems that are economically sound and environment friendly, and that can be easily replicated by fish farmers organizations and small- to medium-scale private entrepreneurs. The Project will provide technical and extension support to fish farmers in order to ensure successful project implementation. Such support will include innovative mechanisms to assist organized fish farmer groups with securing production inputs and marketing their final product. The Project will build the capacity of the Directorate General of Aquaculture (DGA) and the participating district governments to formulate policies and regulations for sustainable aquaculture development and environmental management, and to support the needs of the beneficiaries, their communities, and the country's aquaculture industry as a whole. The Project will be implemented in five districts in four provinces: namely: (i) Langkat in North Sumatera Province, (ii) Ogan Komering Ilir (OKI) in South Sumatera Province, (iii) Karawang and Sumedang in West Java Province, and (iv) Buton in Southeast Sulawesi Province. The Project will comprise three components, namely: (i) aquaculture production enhancement, (ii) aquaculture support services, and (iii) institutional strengthening and project management.

227. **Aquaculture Production Enhancement:** This core component of the Project will aim at improving the production performance of the major types of aquaculture systems in the project area through community-based management. Market-driven, sustainable aquaculture development will be made possible through (i) social preparation and community empowerment; (ii) fish production enhancement in freshwater, brackishwater, and mariculture systems; and (iii) community-based management of culture-based fisheries.

- **Aquaculture Support Services:** This component will upgrade the production techniques and quality of aquaculture products through strengthened extension services and improved post-harvest handling, processing, and marketing techniques in collaboration with the private sector and fish farmers organizations. Activities will include: (i) provision of fisheries extension services to project beneficiaries, including the establishment of site-specific demonstration and input assistance modules; (ii) upgrading or improvement of facilities and techniques for post-harvest handling, processing, and marketing of aquaculture products; (iii) expansion of markets for aquaculture commodities and promoting the consumption of identified species; (iv) improving environmental and fish health management; and (v) applied research on improved species and culture technologies. The Project will not include a credit component in support of aquaculture production but, instead, facilitate fish farmers organizations access to credit by improving their creditworthiness.
- **Institutional Strengthening and Project Management:** This component aims to enhance the institutional capability of DGA, the district fisheries services, fish farmers, and the private sector in aquaculture development.

228. This program will position provide the practical best practices that can be transferred to the COREMAP—CTI coastal enterprises and can be utilized as learning and demonstration sites by the COREMAP—CTI counterparts.

229. **GIZ: German International Cooperation:** Germany presently has nothing current in the marine and fisheries sector for assistance. They did support, however, two earlier programs. Indonesia is a priority partner country of German international cooperation. On behalf of the Federal Ministry for Economic Cooperation and Development (BMZ), GIZ has been working in Indonesia since 1975; since with an office in Jakarta. Technical cooperation with Indonesia began in 1958. GIZ employs some 350 staff members in Indonesia, including 50 field staff

members, 260 national personnel, 22 development advisors and 13 CIM experts. At the government negotiations held in October 2007 it was agreed with the Indonesian Government that bilateral development cooperation should focus on three priority areas:

- Climate change
- Private sector development
- Good governance and decentralization.

230. The official partner on the Indonesian side is the Ministry of National Development Planning (Badan Perencanaan dan Pembangunan Nasional – BAPPENAS). The GIZ office in Jakarta is also responsible for regional projects with the Secretariat of the Association of Southeast Asian Nations (ASEAN).

### 1. Projects and Programs

231. **GI-TEWS (2006-2008; \$45 million Euro/USD\$60 million):** The GITEWS project is coordinated with RISTEK and includes partnership with several national Indonesian institutions. On the national level our project has established working relations with LIPI, BMG, KOMINFO and MOHA. On the local level our direct partners are the Local Governments in the three Pilot Areas. Working relations are also established with local NGO, PMI as well as the Private Sector. The objective is to build capacity of local communities to prepare for tsunamis through developing hardware and soft-approaches (best practices) for alerting communities and helping them develop disaster risk reduction tools.

#### **SUSTAINABLE INFRASTRUCTURE**

- Regional Programme ‘Cities – Environment – Transport’
- Sustainable Urban Transport Improvement Project (SUTIP)
- **Mini Hydro Power Project for Capacity Development (MHPP<sup>2</sup>)**
- **Green PNPM Micro Hydro Power Technical Support Unit (MHP-TSU)**
- Renewable Energy Support Programme for ASEAN (ASEAN RESP)

#### **SOCIAL DEVELOPMENT**

#### **GOVERNANCE AND DEMOCRACY**

#### **ENVIRONMENT AND CLIMATE CHANGE**

- Policy advice for environment and climate change (PAKLIM)
- Forests and climate change programme (FORCLIME)
- Data and information management for adaptation to climate change (DATACLIM) (BMU)
- ASEAN-German climate change programme: agriculture, forestry and related sectors (GAP-CC)

#### **ECONOMIC DEVELOPMENT AND EMPLOYMENT**

- Supporting the Make it in Germany welcome portal (BMW*i*)
- **Sustainable economic development through technical and vocational education and training (SED-TVET) (2012-2017: USD \$27 million)- N. Sumatra is the only overlapping area.**
- Technical assistance for the EU-ASEAN statistical capacity building programme (EASCAB) (EU)
- **Local and Regional Economic Development (RED)**
- Competition Policy and Law in ASEAN (CPL)

232. **JAPAN / JICA:** In the past, Japan and JICA have had major project in the fisheries sector in Indonesia; at this point there are no active projects (per their website). There are a two

projects relating to water resources and disaster management to strengthen the young disaster management agency and to address disaster mitigation in Bandung. Their only natural resources **management project (2010-2015)**; Project on Capacity Building for Restoration of Ecosystems in Conservation Areas is working exclusively on terrestrial conservation areas. Previous key inputs from JICA have resulted in an excellent assessment of the MMAF Fisheries Sector and a Fisheries Book (in English and Bahasa) in 2009. Five recent fisheries sector projects include:

- The project for Enhancement of Marine and Fisheries Administration under Decentralization: Oct 2006-2009
- The Project for Promotion of Sustainable Coastal Fisheries (Aug 2006-2009)
- Technical Assistance to Small and Medium Enterprises in Indonesian Fish and Shrimp Industries (2007-?)
- Sustainable Indonesia Fisheries Product Competitiveness (2007-?)
- Distribution Mechanism Reform through Development of Wholesale Market (Improvement of Post-harvest Handling and Marketing Facilities') (2007-?)

## **2. Other Partners**

233. The CTI-CFF team leaders continue to make and encourage connections with representatives from ASEAN (Association of South-east Asian Nations), PEMSEA (Partnerships in Environmental Management for the Seas of East Asia), SEAFDEC, FAO (Food and Agriculture Organization of the United Nations), Mangroves for the Future, UNEP (United Nations Environment Programme), DANIDA (Danish International Development Agency), CIDA (Canadian International Development Agency), and DFID (UK Department for International Development), among others to coordinate and share information on current and possible future additional donor support for Indonesia's anticipated marine and coastal management program. A Memorandum of Understanding between SEAFDEC and the CTI-CFF Regional Secretariat for assumption of EAFM support is being explored. Additional links with the PNG National Fisheries College on monitoring and management of marine and coastal resources is being developed. Links with ASEAN are being explored both directly and through USAID/RDMA contacts. A Memorandum of Understanding between PEMSEA and the CTI Regional Secretariat are being explored. Other opportunities are expected to emerge early in Year 5.

## **3. Achievements and Issues**

234. As the third and final phase of the Coral Reef Rehabilitation and Management projects, the commitment of the Government of Indonesia, ADB and the World Bank to this extended program in order to truly embed the interventions into the country's resource management programs is a rare example of the understanding, need and benefits of sustained support in development. The district governments are all onboard and eager to continue the work, having established sizeable marine protected areas en route to making them permanent aspects of their district 'bank' of natural resources. The Coral Triangle Initiative (CTI-CFF) came into existence during COREMAP II and the Government of Indonesia took leadership of CTI to some extent based on the awareness of the importance and the success brought to the government by COREMAP, moving to the linkage of these two strategic programs.

## **4. Summary and Recommendations**

235. The development coordination for coral reefs ecosystems and coastal resources management is becoming more focused into the implementing agencies as they control the programs. Excellent examples, case studies and experienced people are present and growing

in number. Indonesia is poised for a dramatic increase in capacity to manage and further develop these activities. Other partners are becoming interested not only as donors but as peers. However, partnership coordination, as is already becoming a regular event under the CTI NCC will facilitate the coordination of these programs even better and closer.

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