

**INTEGRATED COASTAL ZONE MANAGEMENT IN INDONESIA:  
FRAMEWORK ASSESSMENT AND COMPARATIVE ANALYSIS**

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## Abstract

Integrated Coastal Zone Management (ICZM) is the approach to achieve sustainable use of marine and a coastal resource which is suggested by Agenda 21 and widely accepted in many countries and regions include the United States, the European Union, Vietnam and Indonesia. This new approach is replacing traditional sectoral approach which to some extent inadequate to address the complex problems of coastal environment degradation and marine and coastal resources depletion and users conflict. ICZM in simple term is an integration of laws and policy and cooperation of all stakeholders on the management of marine and coastal resources.

This thesis examines the challenges toward integrated coastal zone management in Indonesia especially in regard to overlapping and conflicting laws and legislations related management of marine and coastal resources. In this regard, the overlapping and conflicting laws and legislations lead to unsustainable pattern of development in coastal areas. The main aspect of this research paper is to review these laws and regulations especially on three aspects namely: conservation, public participation and conflict management. Comparative study on the experiences of the European Union, the United States and Vietnam on ICZM is also taken into consideration.

The study found that at this stage, the Integrated Coastal Zone Management in Indonesia still remains in infancy. To some extent, there is an improvement to the good will of the government to establish coordination office in central and local Government level. However, there still many aspects need to improve to integrate the management of marine and coastal resources in Indonesia. These include: harmonization of the laws and legislations between sectoral laws (horizontal) and between central legislation and local legislation (vertical); strengthening collaborative and partnership between central Government and local Government on the management of conservation in marine and coastal resources; and the improvement of public participation in decision making especially the involvement of local community.

**Key words:** *Integrated Coastal Zone Management (ICZM), conservation, public participation, conflict management, ecosystem based approach, community based coastal management.*

## **SUMMARY**

**Working Title:**

Integrated Coastal Zone Management in Indonesia: Framework Assessment and Comparative Analysis

**Supervisors:**

Prof. John Duff

Dr. Francois Bailet

## ACRONYMS

AOP	Australia Ocean Policy
Bappeda	Badan Perencanaan Pembangunan Daerah (Regional Body for Planning and Development)
BAPPENAS	Badan Perencanaan Pembangunan Nasional (National Planning Development Board)
BPPT	Badan Pengkajian dan Penerapan Teknologi (The Agency for the Assessment and Application Technology).
BSPA	Baltic Sea Protected Area
CBCM	Community Based Coastal Management
CEPI	Collaborative Environmental Project in Indonesia
Coremap	Coral reef rehabilitation and management program
CTI	Coral Triangle Initiative
CZMA	Coastal Zone Management Act
CZMP	Coastal Zone Management Program
DISHIDROS	Dinas Hidro Oceanografi (Indonesian Hydro-oceanographic Service)
DOALOS	Division of the Law of the Sea
DKI	Daerah Khusus Ibukota (Special Capital Area)
DPR	Dewan Perwakilan Rakyat (People Representative Council)
EEOS	Environment Earth and Ocean Science
EIA	Environment Impact Assessment
EU	European Union
FAO	Food and Agriculture Organization
GESAMP	Group of Experts on the Scientific aspects of Marine Environmental Protection
Helcom	Helsinki Commission
HP3	Hak Penguasaan Perairan Pesisir (Concession rights on marine and coastal areas)
HPH	Hak Pengelolaan Hutan (Forest Concession)
ICZM	Integrated Coastal Zone Management
InteCoReef	Integrated Coral reef Management Plan
IPB	Institute Pertanian Bogor (Bogor Agriculture Institute)
IUCN	International Commission on Conservation of Nature
KKLD	Kawasan Konservasi Laut Daerah (Local Marine Protected Area)
KP3K	Kelautan Pesisir Dan Pulau-Pulau Kecil (Coastal and small islands)
LAPAN	Lembaga Penerbangan dan Antariksa Nasional (Institute of Aeronautics and Space)
LIPI	Lembaga Ilmu Pengetahuan Indonesia (Indonesian Institute of Sciences)
MAMTI	Marine Aquarium Market Transformation Initiative

MPA	Marine Protected Area
MPRS	Majelis Permusyawaratan Rakyat Sementara (People's Consultative Assembly)
NGO	Non Government Organization
Poskamladu	Pos Keamanan Laut Terpadu (Sea controlling Unit)
P2O	Pusat Penelitian Ocenografi (Research Center of Oceanography)
PPNS	Penyidik Pegawai Negeri Sipil (Civil servant who has the right to search and seizure)
UNCED	United Nations Conference on Environment and Development
UNCLOS	United Nations Convention on the Law of the Sea
USA	United States of America
USAID	United States Agency for International Development
VASI	Vietnam Administration of Seas and Islands
WHS	World Heritage Sites

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## CHAPTER 1. INTRODUCTION

Indonesia as an archipelagic State still faces many problems regarding management of marine and coastal resources. One of the main problems is degradation of coastal ecosystems including the damage of mangrove ecosystems<sup>1</sup> and coral reefs. According to the Minister of Forestry almost 70 % of the potential mangrove areas of 9.4 million hectare in Indonesia is damage because of development, either through shifting mangrove areas into shrimp farms, housing and industries or cutting for wood for local needs<sup>2</sup>. This data is slightly bit higher compare with the data taken from 10 year period (1982-1993): 50 % of mangrove areas is damage or reduce from 4 million hectare to only 2.5 million hectare.<sup>3</sup> The huge and massive conversion of mangrove into shrimp farms or aquaculture occurs in North Sumatera, Lampung, West Java, Central Java, East Java, and South Sulawesi<sup>4</sup>. Meanwhile the conversion of mangrove areas into housing or industries is occurring in DKI Jakarta, Tangerang, Bekasi, West Java, Central Java, East Java and Lampung. The damage of coral reefs is also similar to mangrove areas, almost 71 % are damaged and only 7 % remains in good condition<sup>5</sup>. This damage is a result from destructive fishing activities which had been frequently practiced in the 1970s. The fisherman use bomb blast fishing or cyanide for taking ornamental fish. Furthermore, the mining of coral reef for building houses is also contributing to the damage of coral reefs. These destructive fishing activities are not only conducted by traditional fisherman but also modern ones.<sup>6</sup> However, according to a recent survey the condition of coral reefs is

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<sup>1</sup> Mangrove forests provide both direct benefits from the utilization of mangrove ecosystem as fishing, and indirect benefit include coastal protection and the prevention of sea water infiltration as well as the biodiversity benefits of fish breeding grounds and the provision vital habitat

<sup>2</sup> Minister of Forestry, M S Kaban's statement as cited in Antara News 15 April 2008

<sup>3</sup> Dahuri 1998

<sup>4</sup> Department of Marine Affairs and Fisheries, Academic Draft on the management of coastal areas, 2001, p P II-1- II-2

<sup>5</sup> Ibid

<sup>6</sup> Ibid



improving with the good condition increasing to 25 % and the bad condition 31 %.<sup>7</sup> This improvement is basically because of the effort of Indonesian Government to restore the coral reefs since 1998 and the increasing community education and awareness on local fisherman not to undertake destructive fishing activities. Moreover, the degradation of coastal ecosystems also resulted from land-based marine pollution. Waste and garbage from domestic and industrial waste from the river end up in the sea. To some extent, this land based pollution has caused an increased mortality of fish and resulted in damage to sea farming. The problem is not only in the implementation but also in the regulation. There is unclear responsibility as to who manages this transboundary land based marine pollution between provincial and municipals level and central Government.

Overfishing or fisheries resources over-exploitation is one of the problems facing in several Indonesian waters. This overfishing is caused by overcapacity, open access and the use of unfriendly fishing gear. Too many vessels catch the fish intensively in several waters such as in Java and Bali which has resulted in these areas being declared as overfished areas.<sup>8</sup>

The other problem is the conflict of utilization and management of coastal areas. This conflict is a either user conflict or a jurisdictional conflict. The conflict of utilization of coastal areas usually happens between Government central and local, provincial and municipal levels, industries or companies and local people and the Government and local people. For example, the conflict in the utilization of Pantai Indah Kapuk in Jakarta between the interest to protect mangrove areas and development of housing and a golf course. The other example is the development of Lamong Bay, where here is conflict between conservation areas (provincial level) and the extension of a port (municipal

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<sup>7</sup> Lembaga Ilmu Pengetahuan Indonesia (LIPI) (Indonesian Institute of Sciences), P2O (Research Center for Oceanography), 2009

<sup>8</sup> Suara Merdeka Cyber News, 2006

level).<sup>9</sup> In this regard, the economic interest always wins over the conservation and environment interest. The conflict between the fisherman and the owner of villas in Bali regarding no more space for local fisherman to put their boats on shores is another example. And the recent is the conflict between the Government and local peoples in the management of marine and coastal resources especially in regard to the conservation issue versus access of local people to marine and coastal resources. The issue lies in the need to more public participation in decision making and access of local people on marine and coastal resources is raising especially to the establishment of marine protected areas (MPAs).

The Government can not solve these problems effectively because there are overlapping and conflicting laws regarding the management of marine and coastal resources; lack of law enforcement mechanism; unclear roles and responsibility of institutions who manage marine and coastal resources, lack coordination between sectoral Government, and a lack of capacity of local Government and lack public participation. This paper will analyze the roles of regulatory framework and institutional framework in promoting sustainable use of marine and coastal resources. This includes promoting conservation, public participation and reducing conflict between stakeholders.

#### ***4.4 Background and Context***

The need to integrated coastal management, especially at the provincial and local levels in Indonesia is hampered by the current sectoral approach to the management of marine and coastal resources. In addition, overlapping and conflicting laws and regulations on the management of marine and coastal resources have created confusion, unclear mandates, roles and responsibilities of institutions who manage marine and coastal ecosystems. This has lead to unsustainable patterns of development in coastal areas.

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<sup>9</sup> In this case the municipal level win over conservation interest to built the extended port in Lamong Bay, despite with the protests of environmentalist and academic

There is an urgent need for a more integrated approach and more public participation in decision making in the management of marine and coastal resources. Integrated coastal zone management is widely endorsed by the international community as the approach to conservation and development of coastal zone which is necessary to assure sustainable development.<sup>10</sup> A sectoral approach to the management of resources and development has proved inadequate in response to the complexities arising from the interaction between human and nature.<sup>11</sup>

There are more than 14 sectors which directly or not directly govern the coastal resources of Indonesia.<sup>12</sup> This includes the land sector, mining, transportation, tourism, forestry, agriculture, fisheries, industries, conservation and environment, spatial planning, public works, defense, monetary and local Government. There are approximately 22 statues and hundreds of regulations governing those 14 sectors.<sup>13</sup>

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<sup>10</sup> AGENDA 21, Introduction, Chapter 17, para. 17.1 “The marine environment – including the oceans and all seas and adjacent coastal areas forms an integrated whole that is an essential component of the global life-support system and a positive asset that presents opportunities for sustainable development. International law as reflected in the provision of the United Nations Convention on the Law of the Sea 1/, 2/ referred to this chapter of the Agenda 21, set forth rights and obligations of States and provides the international basis upon which to pursue the protection an sustainable development of the marine and coastal environment and its resources. This requires new approaches to marine and coastal area management and development, at the national, sub regional, regional and global levels, *approaches that are integrated in content and are precautionary and anticipatory in ambit*, as reflected in the programme area: integrated management and sustainable development of coastal areas.” See also Donna R Christie, Legislation, Policies and Regulation Relevant to Coastal Zone Management in Belize: A Review and Proposal for Better Implementation of The Coastal Zone Management Act 1998, Public Law and Legal Theory Working Paper, February 2006, (A report for the United Nations Development Program and the Belize Coastal Zone Management Authority and Institute, August 1, 2001) p 1

<sup>11</sup> Agenda 21, Section II, Chapter 17, para. 17.4 Conservation and Management of Resources for Development “Despite National, sub-regional, regional and global effort current approaches to the management of marine and coastal resources have not always proved capable of achieving sustainable development, and coastal resources and the coastal environment are being rapidly degraded and eroded in many part of the world”

<sup>12</sup> Jason M Patlis, The role of law and legal institutions in determining the sustainability of integrated coastal management projects in Indonesia, *Ocean and Coastal Management* 48, 2005 (450-467), p 451

<sup>13</sup> *Ibid* p 451

The conflicting laws mainly occur with respect to natural resources, including the coastal resources sector. This is because the statute or the act is drafted by sectoral ministries.<sup>14</sup> For example, the mining act is drafted by Ministry of Mining and Energy, the fisheries act and coastal management and small island act is drafted by ministry of Marine Affairs and Fisheries. The forestry act and the biodiversity Act are drafted by The Ministry of Forestry. According to the review conducted by the Ministry of Environment, there are 12 acts governing natural resources which conflict and created inconsistency which has a normative and implementation impact.<sup>15</sup> These acts are as follow:

- Act No 5/1960 on Land Law
- Act No 11/1967 on Mining law
- Act No 5/1990 on Conservation on Living Natural Resources and their Ecosystems
- Act No 23/1997 on Environment Management
- Act No 41/1999 on Forestry Law
- Act No 7/2004 on Water Resources
- Act No 26/2007 on Spatial Planning
- Act No 27/2007 on Coastal Management and Small Island Law
- Act No 31/2004 on Fisheries Law
- Act No 18/2008 on Waste Management
- Act No 22/2001 on Oil and Natural Gas
- Act No 23/2003 on Natural Heat.

The recommendation of this review is that there is a need for coordinating body on natural resource management to coordinate and integrated the interest to the exploitation and utilization of natural resources.

It is argued that harmonization of sectoral laws is needed to ensure the sustainable development of coastal areas. In this regard, harmonization of law aims to ensure consistency and eliminate overlap or conflicts of sectoral laws. This is because law and regulation are the most important instruments for transforming development and

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<sup>14</sup> Jason M Patlis describe that each agency champions for its own statute, so that the laws develop not to serve the national interest but rather than to serve administrative bureaucracy.

<sup>15</sup> Ani Purwati, 12 Acts Govern Natural Resources is conflicting and inconsistent, March, 2009

environment policies into action.<sup>16</sup> Without coherent laws and regulations uncertainty in the implementation will remain. It has also been pointed out that the complicated and inappropriate legal framework currently in place in Indonesia has contributed to serious degradation of coastal and marine resources.<sup>17</sup> Of course, harmonization is not a single solution to the complex issues of degradation of the marine and coastal ecosystems and resources and conflict on the utilization of coastal resources. At least it will create certainty in the law and its implementation and there will be a clear authority who has responsibility to manage marine and coastal resources. Furthermore, with the assessments or reviews of laws governing marine and coastal resources gaps, overlaps, redundancies, conflicts within the legal framework will become clear. The work of this harmonization will provide a solution in support of better management and integrated approach on management of marine and coastal resources. In this regard, a comparative study is beneficial, especially with the country which has similar problems with Indonesia such as Vietnam. In addition, a comparative study with a developed country such as the United States is also taken into consideration as lessons learned and to find best practices may be applicable.

## **1.2 Scope and Objective**

The scope of this research is the review of laws and the regulations relating to the management of marine and coastal resources. The main aspect of this research paper is to review on these laws and regulations particularly those related to three aspects, namely: conservation, public participation and reducing conflict among stakeholders. It also has to be stated clearly that this research will not examine all 14 sectoral laws and regulations governing the marine and coastal resources outlined above. This research will only examine 6 laws and regulations relating to marine and coastal resources, as these 6 laws

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<sup>16</sup> Agenda 21, Chapter 8, para. 8.13

<sup>17</sup> D Dirhamsyah, *Indonesian legislative framework for coastal resources management: A Critical Review and Recommendation*, Ocean and Coastal Management 49 (2006) pages 68-92, p 68

are identified as closely related to conservation and public participation issues and identified conflicting with each other. These include:

- The law on Fisheries, Act No 31/2004
- The law on Management of Coastal and Small Island, Act No 27/2007
- The law on Decentralization, Act No 32/2004
- The law on, Conservation on Living Natural Resources and their Ecosystems Act No 5/1990
- The law on Spatial Planning, Act No 26/2007
- The law on Environment Management, Act No 32/2009

The objective of this research is to provide solutions and recommendation for the Government or policy makers for the improvement of legislation, regulations and policy to achieve better management of marine and coastal resources in the future.

### ***1.3 Overview of Report***

This report consists of four Chapters. The first chapter contains the present introduction, it presents a brief background and outlines aims of the research. Second Chapter it presents the conceptual and theoretical framework of Integrated Coastal Zone Management and case study of ICZM in Indonesia. The third Chapter examines the laws and regulation relating to management of marine and coastal resources in Indonesia. It reviews the gaps, overlaps and conflicting laws governing marine and coastal resources. Chapter Four, it reviews and comparative study on the laws and legislations in the United States and other countries regarding management of marine and coastal resources. Finally, Chapter Five provides conclusion and recommendation for Government and policy makers for the improvement of management of marine and coastal resources.

## **CHAPTER 2. THEORITICAL FRAMEWORK OF INTEGRATED COASTAL ZONE MANAGEMENT: CASE STUDY IN INDONESIA**

Integrated Coastal Zone Management is widely recognized as the concept to achieve sustainable coastal development. It is practiced in many parts of the world including the United States, Europe, and Australia. This chapter analyses the concept of integrated coastal zone management, through its definition, history and its evolution, ICZM framework, implementation and its challenges, and finally it will present a case study in the implementation of ICZM in Indonesia and its challenges.

### **2.1 Definition**

What is Integrated Coastal Zone Management (ICZM)? There are many definitions of ICZM provided by several documents and scholars. These include the definition from European Commission which defines ICZM as:

A dynamic, multi disciplinary, and iterative process to promote sustainable management of coastal zones. It covers the full cycle information collection, planning, decision making, management, and monitoring of implementation.<sup>18</sup> ICZM uses the informed participation and cooperation of all stakeholders to assess the societal goals in a given coastal areas and to take actions toward meeting these objective. ICZM seek over the long term, to balance environment, economic, social cultural and recreational objectives, all within the limits set by the natural dynamic.<sup>19</sup>

Integrated ICZM refers to the integration of objectives and the integration many instruments needed to meet this objective. It means the integration of all relevant policy areas, sectors, and level of administrations.

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<sup>18</sup>Proposal for Parliament and Council recommendation concerning the implementation of integrated coastal zone management in Europe: COM (2000) 545, Annex 1 as cited in Mina Council Advice about ICZM, 2001

<sup>19</sup> Ibid

The other definitions of ICZM are from Cicin-Sain and Knecht which give definition of ICZM as “continuous decision making process aimed at maintaining, restoring or improving specified qualities of coastal ecosystems and the associated human societies.”<sup>20</sup> While Mark Frost defines ICZM more as conflict resolution tools, he defines ICZM as “a management model that had its beginning in the practice of conflict resolution which was employed at regionally local levels in attempt to mediate dispute between coastal zone stakeholders.”<sup>21</sup> In addition, IPCC believes and defines ICZM as the “most appropriate process to address current and long term coastal management issues, including habitat loss, degradation of water quality changes in hydrological cycle, depletion of coastal resources, and adaptation to sea level rise and other impact of global climate change.”<sup>22</sup> On the other hand, UNEP defines ICZM as “An adaptive process of resources management for environmentally sustainable development in coastal areas. It is not substitute for sectoral planning but focuses on the linkages between sectoral activities to achieve more comprehensive goal”.<sup>23</sup> Ruppert Consult and International Ocean Institute gives more complete definition of ICZM similar to the European Union, They define ICZM as follow:

Strategy for integrated approach to planning and management, in which all policies, sectors and, to the highest possible extent individual interest are properly taken into account, with the proper consideration given to the full range of temporal and spatial scales and involving stakeholders in a participative way. It demands good communication among governing authorities (local, regional and national), and promises to address all three dimension of sustainability: socio/cultural, economic and environmental. It thus provides management instruments that are not per se included or foreseen in different policies and directives in such comprehensiveness.

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<sup>20</sup> Cicin-Sain, B Knecht, 1998, Integrated Coastal and Ocean Management: Concept and Practices, Island Press, Washington DC

<sup>21</sup> Mark F Forst, The Convergence of integrated coastal zone management and the ecosystem approach, Ocean and Coastal Management 52 , 2009, 294-306, p 294

<sup>22</sup> [http://www.coastalwiki.org/coastalwiki/Some\\_definitions\\_of\\_Integrated\\_Coastal\\_Zone\\_Management\\_%28ICZM%29](http://www.coastalwiki.org/coastalwiki/Some_definitions_of_Integrated_Coastal_Zone_Management_%28ICZM%29)

<sup>23</sup> Ibid



Similar definition on ICZM with the EU is provided by Alejandro Yanes Arancibia<sup>24</sup> which stated that ICZM is as following:

Dynamic process by which decision are taken for taken for the use, development and protection of coastal areas and resources, to achieve goal established in cooperation with user groups and authorities. ICZM recognizes the distinctive character of coastal zone, is multi-purposes-oriented, analyzes implications of development, conflicting uses, and interrelationship between physical processes and human activities, and promote linkages and harmonization among sectoral, coastal and ocean activities. There are at least seven different kinds of integration: a. intergovernmental, b land-water interface, c. intersectoral, d. interdisciplinary, e. interinstitutional, f. intertemporal, and g. managerial.

There are many elements in those definitions of ICZM. However, those elements to some extent has similarities which can be concluded that ICZM is multi disciplinary and continues decision making process which involved active participation of all stakeholders to achieve the goals of sustainability to balance socio, economic and environment on management of coastal resources and mediate dispute between stakeholders.

## ***2.2 History and Evolution of ICZM***

The degradation of coastal ecosystem is a common public concern in many parts of the world, including the developed countries like the United States, and Australia. This concern can be shown in the document of United Nation Conference on Human and Environment 1972 (Stockholm Declaration) which stated that “we see around us growing evidence of man made harm in many region of the earth: dangerous pollution in water,

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<sup>24</sup> Alejandro Yanes-Arancibia, John W Day, The Gulf of Mexico: toward an integration of coastal management with large marine ecosystem management, *Ocean and Coastal management* 47 (2004) 537 – 563, p 541

air, earth and living beings; major and undesirable disturbance to the ecological balance of the biosphere; destruction and depletion irreplaceable resources.”<sup>25</sup>

Thus, in Principle 13 of the Stockholm Declaration, its mentioned that in order to achieve a more rational management of resources and thus to improve the environment, States should adopt and integrated and coordinated approach to their development planning so as to ensure that development is compatible with the need to protect and improve environment for the benefit of their population.<sup>26</sup> This is the international document stating that something should be done to reduce environmental degradation, this includes coastal degradation by using an integrated and coordinated approach in development planning. In addition, Principle 10 of the Rio Declaration (1992) indicating the importance of public participation to handle environmental issues. It further states that environmental issues are best handled with the participation of all concerned citizens, at the relevant level. At the national level, each individual shall have appropriate access to information concerning the environment that is held by public authorities including hazardous materials and activities.<sup>27</sup>

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<sup>25</sup> Declaration of the United Nations Conference on the Human Environment, 1972, proclaim 3, “Man has constantly to sum up experience and go on discovering, inventing, creating and advancing. In our time man’s capability to transform his surrounding, if used wisely, can bring to all peoples the benefits of development and the opportunity to enhance the quality of life. Wrongly or heedlessly applied, the same power can do incalculable harm to human beings or human environment. We see around us growing evidence of man made harm in many region of the earth: dangerous levels pollution in water, air, earth and living beings; major and undesirable disturbance to the ecological balance of the biosphere; destruction and depletion of irreplaceable resources; and gross deficiencies, harmful to physical, mental and social health of man, in the man made environment, particularly in the living and working environment.”

<sup>26</sup> Ibid

<sup>27</sup> See, Report of the United Nations conference on Environment and Development (Rio De Janeiro, 3-14 June 1992) A conf.151/26 (Vol 1). Rio Declaration Principle 10, Environmental issues are best handled with participation of all concerned citizens, at the relevant level. At the national level each individual shall have appropriate access to information concerning the environment that is held by public authorities, including information on hazardous materials and activities in their communities, and the opportunity to participate in decision-making processes. State shall facilitate and encourage public awareness and participation by making information widely available. Effective access to judicial and administrative proceedings, including redress and remedy, shall be provided.

The concept of ICZM dates back to 1969 when the Report of the US Federal Commission (The Stratton Commission) highlighted the importance of and national value of coastal areas and drew attention to the inadequacy of existing programs at national and local levels to ensure protection and wise use.<sup>28</sup> As a matter of fact, ICZM predates 1969, as it is reported that the first ICZM program was established in 1965 (The San Francisco Bay Conservation and Development Commission).<sup>29</sup> The concept of ICZM dates back to the history of ICZM in the United States because the United States are the major participants to this issue including Australia and UNEP.<sup>30</sup> The United States Coastal Management Act (1972) is an example of the earliest national legislation on coastal management with its collaborative and voluntary Federal-State Coastal zone management Program (CZMP). In Australia, integrated coastal zone management is a central theme of Australia's Ocean Policy (AOP).<sup>31</sup> Improving integration across sector and jurisdictions has been identified in a number of Australian initiatives in coastal and marine policy developed in past decade.<sup>32</sup> While in Indonesia, the legislation on coastal management and small islands was newly enacted in 2007. Integrated coastal management becomes international common measure from mid 80s. In 1992, 108 cases of ICZM have been recorded in 42 countries.<sup>33</sup> In 1993 the number of the nations practicing ICZM increased to 150 cases in 60 countries.<sup>34</sup> Below is the chart of history of ICZM.

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<sup>28</sup> Sarah Humphrey, *et al*, US lesson for coastal management in the European Union, 1999, marine policy, p275-286

<sup>29</sup> M. Rafiqul Islam Towards Institutionalization of global ICZM efforts, Integrated Coastal Zone Management, in RR Krisnamurthy, Integrated Coastal Zone Management 2008, Research Publishing Singapore, p 26

<sup>30</sup> Port and Maritime Organization website: see: <http://iczm.pmo.ir/portal/default.aspx?tabid=1543>

<sup>31</sup> Elizabeth G foster, Marcus Haward, Integrated Management Councils A conceptual model for Ocean Policy conflict management in Australia, *Ocean and Coastal Management* 46, 2003, 547-563, p 547

<sup>32</sup> Ibid

<sup>33</sup> Intercoast, 1992 see the website: <http://iczm.pmo.ir/portal/default.aspx?tabid=1543>

<sup>34</sup> Ibid

Table 1.1 History of ICZM

1965	The first ICZM program is established (The San Francisco Bay Conservation and Development Commission)
1968	Stratton Commission Report, "Our Nation and Sea" A recommendation was made for the creation of a National coastal zone management Program)
1972	Publication of the first academic journal devoted to ICM, the Coastal Zone Management Journal. The name is later changed to the Coastal Management Journal.
1973	Until 1982 Preparation by the United Nations of the Law of the Sea Treaty. Creation of UNEP and its Regional Seas Programme
1974	Creation of the US National Estuaries Program within the US EPA
1976	Protocol on Integrated Coastal Zone Management in the Mediterranean adopted in 16 February 1976 Amended on June 1995
1977	Costa Rica becomes the first developing nation to initiate an ICM program
1978	First US Coastal Zone Conference (CZ'78). It was held in San Francisco. Eleven subsequent conference have been held
1982	Law of the Sea Convention adopted by the United Nations. The process of adoption by the world's nations begin
1983	USAID become the first international assistant institution to create an ICZM program to assist developing nations. Equador, Srilangka, and Thailand were chosen for preparation pilot ICZM project
1984	First conference on ICZM in South and Central America was convened in Mar del Plata, Argentina
1992	UN Conference on Environment and Development (UNCED) was held in Rio de Janeiro. The Conference produced Agenda 21. Chapter 17 mainly focuses on ICZM)
1996	The first international conference focused on assessing the successes and failures of ICZM efforts was held in Xiamen China
1997	Canada enacts the National Ocean Act European Commission (Directorate XI) initiatives a major program on ICM
2001	Marine and Coastal Resources Management Project (MCRP) (2001-2006) was conducted in Indonesia. The project was funded by ADB
2002	In the beginning 2002, 145 countries had established 622 cases on ICZM issue in national and sub national scale

Source: modified from M Rafiqul Islam (2008) as adapted from Sorensen, 2002

Agenda 21 is the international document which is adopted by the plenary Rio de Janeiro 1992 which provides the basis of integrated approach. It recognizes and urges many countries to integrate environment and development into decision making. This document also provides the basis for an integrated coastal management approach which is prescribed in Chapter 17. It is mention that in order to pursue sustainable development of marine and coastal environment and its resources which set forth in UNCLOS, there is a need for new approaches to marine and coastal area management and development, at

the national, sub-regional, regional and global levels approaches that are integrated in content and are precautionary and anticipatory in ambit.<sup>35</sup> The key to sustainable use and development of coastal zone is on the full integration of economic, physical planning and environmental policies.<sup>36</sup> Thus, decision making is the key to determine whether the development will be sustainable or not. Agenda 21 has recognized that the current practice of many countries in decision making tend to separate economic, social and environment into the policy of planning and management.<sup>37</sup> This separation has created negative impacts on the environment. Thus, Agenda 21 calls for a fundamental reshaping of decision making which is more integrated and new forms of dialogue between stakeholders. To make the integration effective, it is reported that some Governments have begun to make significant changes in institutional structures in order to enable more systematic consideration of economic, social, fiscal, energy, agriculture, transportation trade, and other policies as well as the implication of these policies on the environment.<sup>38</sup>

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<sup>35</sup> Agenda 21, Chapter 17, para. 17.1

<sup>36</sup> Council Resolution of 25 February 1992 on the future community concerning the European Coastal Zone, Official journal of the European Communities C 1992;59:1

<sup>37</sup> Agenda 21, Chapter 8, para. 8.2 Prevailing system for decision making in many countries tend to separate economic, social and environmental factor at the policy , planning and management levels. This influence the action of all groups in the society, including Government, industry, and individuals and has implications for the efficiency and sustainability of development. An adjustment or even a fundamental reshaping of decision making, in the light of country-specific conditions, may be necessary if environment and development is to be put at the center of economic and political decision making, in effect achieving full integration of these factors. In recent years, some Government have also begun to make significant changes in the institutional structures of Government in order to enable more systematic consideration of the environment when decisions are made on economic, social, fiscal, energy, agricultural, transportation, trade and other policies, as well as the implications of policies in these areas for the environment. New forms of dialogue are also being developed for achieving better integration among national and local government, industry, science, environmental groups and the public in the process of developing effective approaches to environment and development. The responsibility for bringing about changes lies with Governments in partnership with the private sector and local authorities, and in collaboration with national, regional and international organizations, including in particular UNEP, UNDP, and the World Bank. Exchange of experience between countries can also be significant. National plans, goals and objectives, national rules, regulations and law, and the specific situation in which different countries are placed are the overall framework in which such integration takes place. In this context, it must be borne in mind that environmental standards may pose severe economic and social costs if they are uniformly applied in developing countries.

<sup>38</sup> See, Agenda 21, Chapter 8, para. 8.2

It is interesting to note how decision making, planning and management systems are improved. Agenda 21 provides the examples of how to improve decision-making process by following activities:

- Ensuring the integration of economic, social and environmental consideration in decision making at all level and all ministries;
- Adopting domestically formulated policy framework that reflects a long perspective and cross sectoral approach as the basis for decision;
- Establishing domestically determine ways to ensure the coherence of sectoral, economic, social and environmental policies including fiscal measures and the budget;
- Monitoring and evaluating development process by conducting review state human resources and state environment and natural resources;
- Ensuring transparency and accountability for environmental implication of economic and sectoral policies; and
- Ensuring the access by public to relevant information, facilitating the reception of public views and allowing for active and effective participation.<sup>39</sup>

In improving planning and management systems there are following activities can be undertaken:

- Improving the use of data and information at all stages of planning and management;
- Adopting comprehensive analytical procedures for prior and simultaneous assessment of the impact of decision;
- Adopting flexible and integrative planning approaches; and
- Adopting integrated management system including management of natural resources.<sup>40</sup>

The idea of a new approach that is integrated approach is necessary because the current approach cannot effectively address the issue of coastal resources and environmental degradation. According to Agenda 21 stated that despite national, sub-regional and global efforts, current approaches to management of marine and coastal resources have not

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<sup>39</sup> Agenda 21, Chapter, para. 8.4

<sup>40</sup> Agenda 21, Chapter 8, para. 8.5 especially subparas. (a), (b), (c), and (d)

always proved capable of achieving sustainable development.<sup>41</sup> And coastal resources and coastal environment are being rapidly degraded and eroded in many parts of the world. Thus, there is a need for new mechanisms to address this issue. The integrated here means that the decision making process should involve all stakeholders. To integrate this decision making process there is a need for coordinating body to coordinate this decision making and planning. As Agenda 21 states that each coastal State should consider establishing, or where necessary strengthening, the appropriate coordinating mechanism (such as a high level policy planning body) for integrated management and sustainable development of coastal and marine areas and their resources, at both national and local levels. Such mechanisms should include consultation, as appropriate, with the academic and private sectors, non-governmental organizations, local communities, resource user groups and indigenous people.<sup>42</sup> Such coordinating mechanism could provide:

- Preparation and implementation of land and water use and sitting policies;
- Implementation of integrated coastal and marine management and sustainable development plans and programmes at appropriate levels;
- Preparation of coastal profiles identifying critical areas, including eroded zones, physical processes, development pattern, user conflicts and specific priorities for management;
- Prior environmental impact assessment, systematic observation and follow up of major projects, including the systemic in-cooperation of result in decision making;
- Contingency plans for human induced and natural disaster, including likely effects of potential climate change and sea level rise as well as contingency plan for degradation pollution of anthropogenic origin, including spill oil and other materials;
- Improvement of coastal human settlements, especially in housing, drinking water, and treatment and disposal of sewage, solid wastes and industrial effluents;
- Periodical assessment of the impacts of external factors and phenomena to ensure that the objectives of integrated management and sustainable development of coastal areas and marine are met;
- Conservation and restoration of altered critical habitat;

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<sup>41</sup> Agenda 21, Chapter 17, para. 17.3

<sup>42</sup> Agenda 21, Chapter 17, para. 17.6

- Integration of sectoral programmes on sustainable development for settlement, agriculture, tourism, fishing, ports and industries affecting the coastal areas;
- Infrastructure adaptation and alternative employment;
- Human resources development and planning;
- Public education, awareness and information programmes;
- Development and simultaneous implementation of environmental quality criteria.<sup>43</sup>

### **2.3 ICZM Framework, Implementation and Its Challenges**

Integrated coastal zone management is a process that unites the Government and the community, science and management, sectoral and public interest in preparing and implementing an integrated plan for the protection and development of coastal ecosystems and resources.<sup>44</sup> The central defining concept of integrated coastal management is the effective integration across sectors, disciplines, agencies and stakeholders for the sustainable use of coastal areas and resources.<sup>45</sup> However, in the implementation it is not easy to unite and make a decision with multiple stakeholders and different interest. The disadvantage of involving many stakeholders in decision making is that it takes a long time to reach the consensual and mutually agreed decision. There are always pros and cons, conflicts and challenges. This is because, conflicts is very natural and very typical phenomenon in every type of human relationship at every level.<sup>46</sup> People or institutions get involved in conflict because their interests or their values are challenged, or because their needs are not met. That is why the role of integrated coastal zone management model was to arbitrate conflict between stakeholders in natural

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<sup>43</sup> Agenda 21, Chapter 17, para 17.6

<sup>44</sup> Robert E Bowen, Foundations Policy and Environmental Decision making, Sustainable Development-ICM Precaution, Presentation of for class EEOS 616, 2009

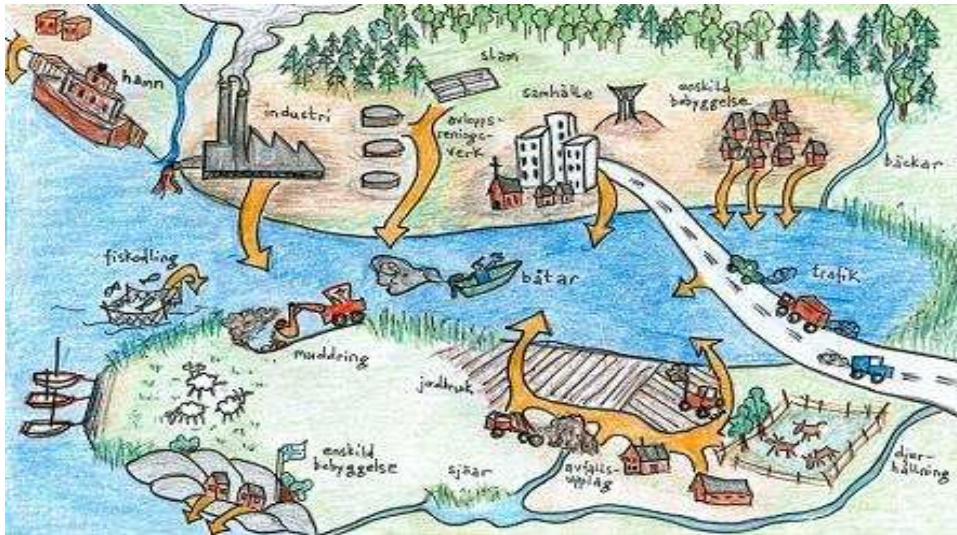
<sup>45</sup> Jean Poitras, Robert Bowen, Jack Wiggin, Challenges to the use of consensus building in integrated coastal management, *Ocean and Coastal Management* 46 (2003) 391-405, p 391

<sup>46</sup> Benhard Muller, Conflict resolution in Planning and development, Presentation in 47th International Short course on Urban Environment Governance, Dresden-Germany, September 2009.



resources characterized by common property and open access.<sup>47</sup> The figure 2.1 below illustrates the multiple of interest and uses in coastal zone.

Figure 2.1. Multiple Interest and uses of Marine and Coastal Areas



Source: Naturvårdsverket (Swedish Environmental Protection Agency), 2009<sup>48</sup>

The overall goal of ICM is to improve the quality of life of human communities who depend on coastal resources while maintaining the biological diversity and productivity of the ecosystem.<sup>49</sup> Thus, in this matter, there are two goals which ICZM seeks to achieve. Firstly, the improvement of the bio-physical environment, for example mangrove areas or coral reefs, the control of coastal erosion or the improvement in water quality. Secondly, the improvement of quality of life of the human population, for example greater equity of how coastal resources are allocated, improved livelihood,

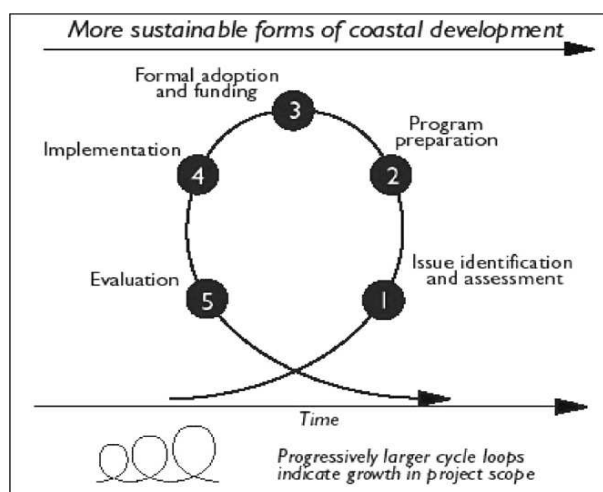
<sup>47</sup> Mark F Frost, The Convergence of Integrated Coastal Zone Management and the ecosystem approach, *Ocean and Coastal management* 52, 2009, 294-306, p 294

<sup>48</sup> Jorid Hammersland, Challenges in integrated marine ecosystem management, presentation in International Training Program (ITP) on Marine Management and Good Governance in practice Sweden 9 March-3 April 2009

<sup>49</sup> Mark F Frost, The Convergence of Integrated Coastal Zone Management and the ecosystem approach, *Ocean and Coastal management* 52, 2009, 294-306, p 294

reduced conflicts among user groups and control of destructive forms of behaviour.<sup>50</sup> How does ICZM work or is being implemented? GESAMP has developed a model which was modified by Olsen who suggested that a typical ICZM requires 18-15 years from identification to evaluation. Thus it is a long term and continuous program in improving and restoring the marine and coastal resources and the environment. There are five phases or stages within one ICZM cycle, which are illustrated in Figure 2.2 below:

Figure 2.2 ICM Policy cycle



Source: S.B Olsen Ocean and Coastal Management 46 (2003) adapted from GESAMP

The above figure shows stage 1 as the issue identification and assessment stage. In this stage there are three major kinds of assessments that should undertaken. This includes, firstly the assessment of the condition of the coastal ecosystem (for example characterization of significant habitat, species and biological communities, identification of trends in the condition and use of resources and amenities, identification of particular areas of the priority of ICM). Secondly, the assessment of the policy and institutional context (for example roles and responsibility of agencies as they relate to priority of ICM issue, assessment of institutional capability, capacity and credibility of addressing this

<sup>50</sup> Olsen, B Stephen, Frameworks and indicator for assessing progress in integrated coastal management initiatives, Ocean and Coastal management journal 46 (2003) 347-361, p 348

issue, identification of existing policies and goals relevant to these issues). Thirdly, assessment of the development context, this includes assessment trends in quality of life indicators, identification of stakeholders for priority of ICZM issues, their values and interest, initial assessment of societal perceptions of issue and their implication.<sup>51</sup> In this stage already involves the active participation of stakeholders in the assessment and setting up of the goal.<sup>52</sup>

Stage 2 is program preparation and involves consultative and planning process. The main purpose is to develop a management plan. It contains the vision or goal for the future, it should be realistic, tangible, and specific, for example the quality of the environment to achieve and maintain (restoring coral reef, mangrove areas, erosion). It also develops changes in resource use and human behaviour. At this stage it is important to involve stakeholders from the community level. It is better to allocate more time for actively involving of the community so that the program will be supported at the ground level.

Stage 3 is the formal adoption and funding. Formal adoption will require high level administrative decisions, for example, by the head of government agency, a Minister, a Cabinet or Presidential endorsement include agreement of budget and source of funding. In this stage, it is expected that the pros and cons from sectoral Governmental agencies and commercial interest will be affected by the programme will emerge. There will thus be a process of bargaining and accommodation and revision of the ICZM plan.<sup>53</sup>

Stage 4 the implementation stage, is the operationalization of the management plan becomes operational. It emphasizes on the introduction of new forms of resource development, new institutional arrangements, a monitoring system, regulation and

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<sup>51</sup> Robert E Bowen, Foundations Policy and Environmental Decision making, Sustainable Development-ICM Precaution, Presentation of for class EEOS 616, 2009

<sup>52</sup> Olsen, op cit, p 11

<sup>53</sup> Robert E Bowen, Foundations Policy and Environmental Decision making, Sustainable Development-ICM Precaution, Presentation of for class EEOS 616, 2009

incentives.<sup>54</sup> Enforcement is an essential element of this stage. Priority activities conducted at this stage include, for example conflict resolution, public education, inter-agency coordination, training of management or enforcement personnel, infrastructure construction, planning and research on new planning and problems.<sup>55</sup> The enforcement is a significant challenge one especially in developing countries where a lack enforcement and implementation resource is one of the problems.

Stage 5, evaluation, in this stage the evaluation begins with looking into the changes since the program was initiated especially on priority issues and environment governance.

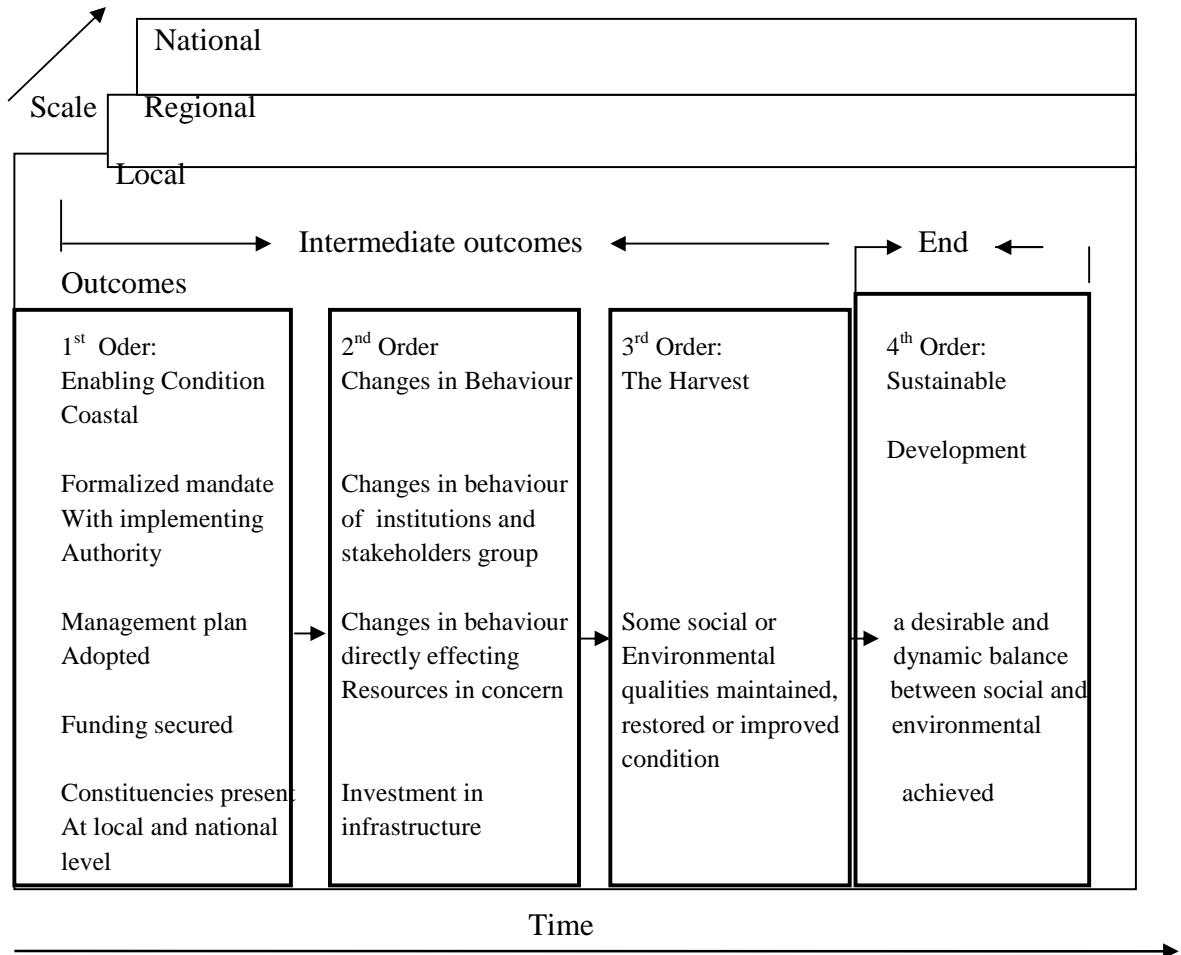
The question how to measures the progress of ICZM has been addressed by Olsen who developed an outcome model of ICZM initiatives (Figure 2.3).

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<sup>54</sup> Ibid

<sup>55</sup> Ibid

Figure 2.3 The Four Order of Coastal Governance Outcome



Source: Adopted from S.B Olsen, 2003

According to Olsen, the result of ICM initiatives in 95 nations identified by Sorensen primarily only reach the First Order outcomes.<sup>56</sup> This is due to the reality of the context of implementation, there is a gap in the implementation and many laws, policies and regulations, plans are only good on paper. In addition, even with a lot of funding from international organizations the result is still often disappointing. It is not reaching the

<sup>56</sup> Olsen, op cit, p 349

target as it is planned to change the behaviour of institutions and other stakeholders. Olsen again suggested that funding is not the main factor that limits the progress in coastal management, but lack of coordination and capacity in the institutions are the main challenges.<sup>57</sup> These two factors most directly influence the efficiency and effectiveness of coastal management and sustain integrated and adaptive forms of management.<sup>58</sup> However, long term funding is needed to sustain ICZM projects. If this funding can not be secured, will also become an obstacle. Olsen stated that in developing nations only modest evidence of sustained progress to the Second Order, that is changes in behaviour, show that this level of implementation is reached.<sup>59</sup>

What are the factors for successful ICZM and what are the challenges? There are many factors which contribute to the success of ICZM. Some has compiled the factors as follow in alphabetical order<sup>60</sup>:

Table 2.2 Factors for Successful ICZM

Factors	Sub Factors	Factor	Sub Factor
1. Accountability		25. Interdisciplinary	
2. Adaptivity		26. Inventiveness	
3. Cooperation	Coordination Collaboration	27. Learning	
4. Comprehensiveness (Geographical)		28. Legitimacy	
5. Comprehensiveness (Interests)	Representative	29. Long Termism	
6. Comprehensiveness (relevant issue)		30 Monitoring/assessment	
7. Conciliatory		31. Multi disciplinary	

<sup>57</sup> Olsen, op cit, p 349

<sup>58</sup> Ibid, p348

<sup>59</sup> Ibid, p 349

<sup>60</sup> Tim Stojanovic, Rhoda C Ballinger, Chandra S Lawlani, Successful integrated coastal management: measuring it with research and contributing to wise practice, Ocean and Coastal Management 47 (2004), 273-298, p 280

8. Consistency		32. Networking	
9. Contingency		33. Participation	Pluralism
10. Education		34. Practical Application	
11. Effectiveness		35. Precautionary	
12. Efficiency		37. Productivity	
13. Enforcement		38. Quality	
14. Equity		39. Rationality	
15. Flexibility		40. Relevance	
16. Focusing		41. Responsibility	
17. Government Backing		42. Scientific input	
18. Holism		43. Structure of decision making	
19. Incrementalism		44. Subsidiarity	
20. Institutional issue	Governance capacity	45. Sustainability	
21. Instruments and policies		46. Transparency	
22. Integrated knowledge		47. Technical capacity	
23. Integration			
24. Ethical			

Source: adopted from Tim Stojanovic *et al*, 2004

In the approach of ICZM which involves multiple stakeholders, there is also the challenge especially to establish consensus decision making. As mention earlier, public participation with multiple stakeholders is time consuming. Challenges to build consensus decision making have been identified to include challenges related to participants and challenges related to process. In the table below shows the challenges to consensus building.

Table. 2.3 Challenges of Consensus Building

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*Challenges related to parties*

Identifying and including all interested parties  
Dealing with unrealistic expectation from parties  
Dealing with parties hidden agenda  
Having consensus –building process understood by the parties  
Getting parties to negotiable table

*Challenges Related to Process*

Dealing with the time consuming nature of consensus building  
Finding skilled facilitator to shepherd the process  
Having a common set of facts in the hands of the parties  
Emphasizing the best management solution  
Integrating science into the consensus building dialogue

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Source: Adopted from Jean Poitras *et al*, 2003

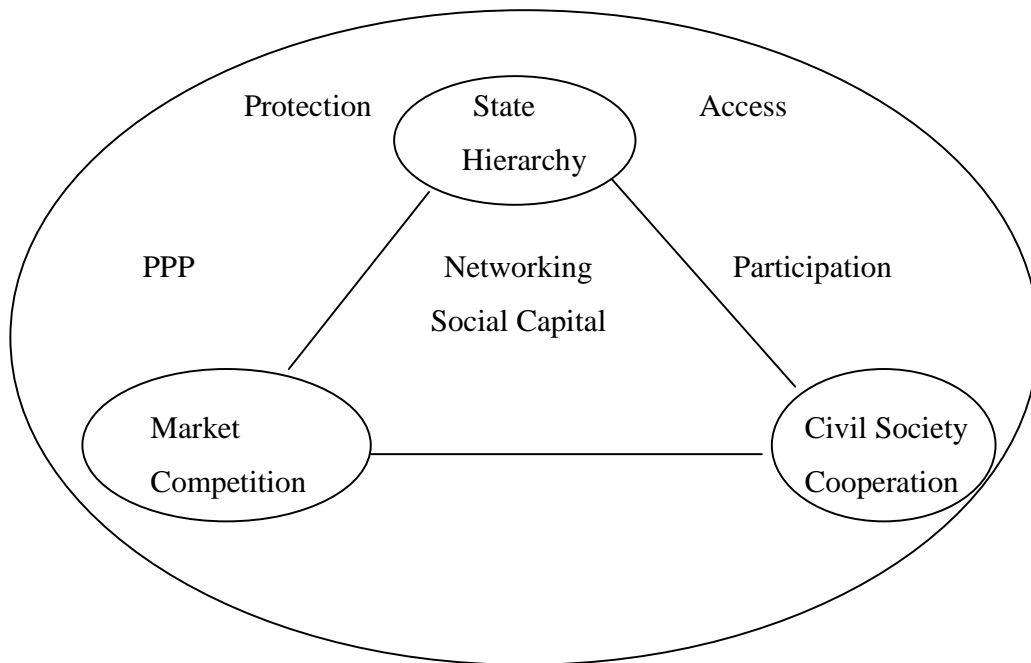
To govern the environment it involves not only Government or State but also market and civil society. Thus, multiple stakeholder involvement is critical. Governance means individuals and institutions manage their common affairs.<sup>61</sup> In the theory there is an ideal framework for achieving environmental sustainability, which includes multiple stakeholders, networking/informal processes, building consensus or trust, cooperation and joint learning, coordination of goals, interactive and informs decision making, information and communication, cooperation in decision making and implementation. However, in practice it is really hard to implement this approach because there are always different interests and uses, or unequal power and positions between stakeholders, dispute between parties and population. The table below shows the relationship between stakeholders in environmental governance.

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<sup>61</sup> Commission on Global Governance 1995



Figure 2.4 Environmental Governance



Source: adopted from Bernhard Muller

From the picture above, the State has the obligation to protect the environment and establish public private partnerships with the market. Civil society also has a right to access to natural resources and participate in environmental governance. However, in some countries there is a case when the State cannot protect the environment because lack of law enforcement or it can call State failure. The market is too dominant and strong, and the civil society is too weak so they can not effectively participate in decision-making. Thus, ICZM should bear in mind the condition of the society. In some societies the public participation or community based is strong but in others is not.

## **2.4. ICZM in Indonesia the implementations and its challenges**

There was no national framework and policy on Integrated Coastal Management in Indonesia before the enactment of law No 27/2007. The coastal management in Indonesia was sectoral in approach and the coastal management program is not sustainable and continues and not to be comprehensive in geographical (it is not cover the entire coastal areas in Indonesia). It has been suggested that the sectoral nature of coastal resources management in Indonesia is the greatest single factor impeding better, sustainable and integrated resource management.<sup>62</sup> This is because many agencies have implemented their own development which may conflict with other agency programs and interests. For example, recently there has been a bribery case relating to mangrove forest (department of forestry interest) which was converted into a port (provincial government interest) in Tanjung Api-Api Banyuasin-South Sumatera, the conversion of Lamong Bay (mangrove conservation area, Provincial level interest) for port (municipal level interest), the conversion of mangrove forest (forestry agency who manage mangrove) in Pontianak into sea farming (marine and fisheries agency who issued licensing for farming).<sup>63</sup> There is a trend of competition between sectoral agencies with mandates in coastal resources or natural resources management in Indonesia. The difficulties are compounded in coastal management in Indonesia because of the competition for limited resources in limited space, with the collision of laws from various sectors which further strains the legal system.<sup>64</sup> This sectoral approach on management of marine and costal resources creates an unsustainable pattern of development.

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<sup>62</sup> Jason M Patlis (CRM Project II), The role of law and legal institutions in determining the sustainability of integrated coastal management projects in Indonesia, *Ocean & Coastal Management* 48 (2005) 450- 467

<sup>63</sup>

<http://regional.kompas.com/read/xml/2008/09/10/15485381/7.000.hektare.mangrove.diusulkan.untuk.tambak>

<sup>64</sup> Eisma RV. This issue of OCM legal issues affecting sustainability of integrated coastal Mangement see: Jason M Patlis, The role of law and legal institutions in determining the sustainability of integrated coastal managements projects in Indonesia volume 48 issue 3-6, 2005, p 450-467

The evolution of coastal management initiatives in Indonesia was mostly triggered by international and bilateral donor agencies through their programs and projects and executed by different agencies and or organizations.<sup>65</sup> These include: CEPI Collaborative Environmental Project in Indonesia(CEPI) is funded by CIDA Canadian International Development Agency(CIDA) in (1996-2001) and executed by Indonesian Environmental Impact Management Agency(BAPEDAL);Coral Reef Rehabilitation and Management Program(COREMAP) is designed for 15 years I & II (1998-2015) is funded by Ausaid for Coremap I and executed by Indonesian Institute of Sciences(LIPI), World Bank & Asia Development Bank for Coremap II and is executed by Ministry of Marine Affairs and Fisheries and LIPI; Integrated Coral reef Management Plan (InteCoReef) (2000-2002) in North Sulawesi is funded by JICA is executed by Local Planning and Development Agency (Bappeda); Marine Coastal Resources Management Project (MCRMP) is designed for 5 years (2001-2006) is funded by USAID and executed by Ministry of Marine Affairs and Fisheries; Marine Aquarium Market Transformation Initiative (MAMTI) is designed for 5 years (2005-2009) is funded by Global Environment Facility (GEF) and executed by Marine Aquarium Council(MAC), Reef Check Foundation and Conservation and Community Investment Forum (CCIF), and the latest one is Coral Triangle Initiative(CTI) which is signed in Manado in 2009 by six head of Governments participating in CTI, to be funded by GEF and will be implemented by World Wildlife Fund (WWF) and The Nature Conservancy (TNC).<sup>66</sup>

Most of the projects are pilot projects and do not cover all the coastal areas of Indonesia. For example, COREMAP project only covers several areas in the western part and the eastern part of Indonesia. Eastern part namely: Selayar, Pangkajene South Sulawesi,

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<sup>65</sup> Hendra Yusran Siry, Decentralized Coastal Zone Management in Malaysia and Indonesia: A Comparative Perspective, *Coastal Management*, 34:267-285,2006 as cited in ASEAN-USAID CRMP DGF, 1992; Rais 1993;Soendro 1994; Dahuri 1996;Soegiarto, 1996;Idris and Siry 1997; Dahuri and Dutton, 2000.

<sup>66</sup> See: <http://www.coremap.or.id/>, <http://www.kp3k.dkp.go.id/>, [www.gefweb.org](http://www.gefweb.org), [www.cti-secretariat.net](http://www.cti-secretariat.net)

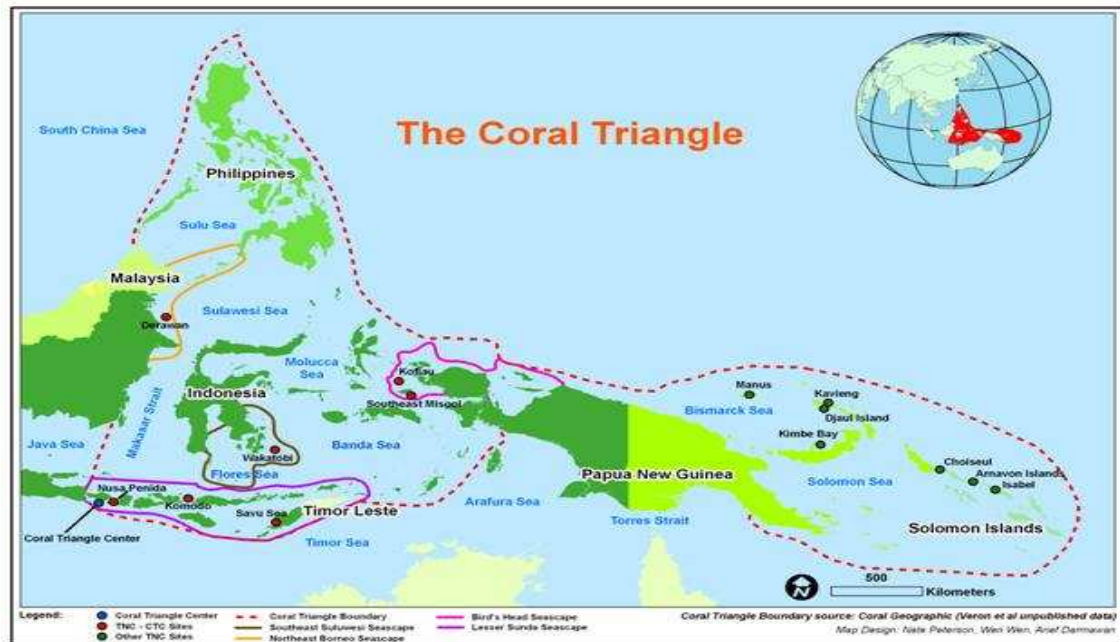
Buton Southeast Sulawesi, Sikka East Nusa Tenggara, Biak Papua, and Raja Ampat Papua. These sites are under the auspices of the World Bank. The Western parts cover Batam, Riau, Bintan (Riau Island), Natuna Riau, Nias and Tapanuli North Sumatera, and Mentawai West Sumatera. And CTI is only covered Eastern part of Indonesia such as Sulawesi, Papua, Bali, West Nusa Tenggara and East Nusa Tenggara, Maluku and East Kalimantan. There are many coastal areas that not covered by this project. Below is coverage of sites covered by COREMAP II and CTI.

Map 2.1 COREMAP Sites



Source: Coremap website

Map 2.2 Coral Triangle Initiative  
Sites



Source: CTI website

Most of the projects lifecycles are limited to only several years, beyond which they are not continued and sustained for long term. Olsen has suggested that ICZM cycle needs a long period, 16-18 years, to achieve the sustainable coastal management. In addition, according to Jason M Patlis there is a challenge to sustain ICM project in Indonesia due to limitations within the legal framework.<sup>67</sup> Until now there is no comprehensive and integrated national policy framework on coastal management in Indonesia. Most of the legislation is sectoral, and conflicting and overlapping. Jason M Patlis concluded that Indonesian laws and legal framework are characterized by horizontally, the laws governing coastal resources are sectoral which resulted in series of gaps, overlaps,

<sup>67</sup> Jason M Patlis, The role of law and legal institutions in determining the sustainability of integrated coastal management projects in Indonesia, *Ocean & Coastal Management* 48 (2005) 450-467, Elsevier, p451

redundancies and conflicts.<sup>68</sup> This is because most of the legislations are being drafted by each line of agency before being submitted to People Representative Council (DPR). Jason M Patlis has suggested that many laws are serving the administrative bureaucracy rather than the national interest.<sup>69</sup> That is why there are many inconsistencies in law or what Jason suggested that there are disconnects in legal framework.<sup>70</sup> Vertically, the laws governing regional autonomy have provided overly broad provisions, unclear mandates and few guidelines, which have encouraged regional Governments to quickly impose their own regulatory framework for natural resource management.<sup>71</sup> It also pointed out that Indonesia has insufficient legal provision for ICM and the absence of clear mandates of designated institutions.<sup>72</sup> Given these observations, there should be an improvement to legal framework and comprehensive effort from central Government to give an incentive to local Government and local communities to manage and improve the quality of the environment and the resources coastal areas. There are two urgent issues that need to be addressed by the Indonesian Government. First, is to improve the livelihood of people in coastal areas because until now many of them are traditional fisherman with low income and live in poverty. Second, is to restore and improve the quality of coastal environment and its ecosystem and resources.

There is also an effort and initiative from Government using Government funding to reduce the degradation of the marine and coastal resources. However, it has been observed that most of the projects are small and scattered along the very extensive coastline of the country.<sup>73</sup> These include Sustainable Marine Resources Development

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<sup>68</sup> Ibid, p 451

<sup>69</sup> Ibid, p 453

<sup>70</sup> Ibid

<sup>71</sup> Ibid

<sup>72</sup> Hendra Yusran Siry, Making Decentralized Coastal Zone Management Work for The Southeast Asean Region: Comparative Perspective, UNDOALOS, New York, 2007, p 45

<sup>73</sup> Deny Hidayati, Coastal Management in ASEAN Countries, the struggle to achieve Sustainable Coastal Development, UNU Tokyo, 2000, p 30-32

Program (*Program Laut Lestari*) established by Ministry of Environment<sup>74</sup>; a national strategy and action plan for coral reef ecosystem conservation and management established by the Ministry of Environment in 1992; *Mitra Bahari* (Maritime Partnership) Program was launched by the Ministry of Marine Affairs and Fisheries in 2003.<sup>75</sup>

In fact, while there are advantages to pilot projects funded by international donors to trigger the coastal protection in other areas as best practices and improving capacity building in some areas of local Governments and local communities, the results are not so satisfactory. For example, as reported in the MAMTI project evaluation, the overall project was marginally satisfactory. However, the participation of stakeholders was unsatisfactory.<sup>76</sup> There is low engagement of stakeholders in the project implementation.<sup>77</sup> The project ownership is weak.<sup>78</sup> It is similar with the outcome of the COREMAP. While the outcome of the project was mainly satisfactory, it was only modestly effective in establishing a viable framework for national coral reef management in Indonesia.<sup>79</sup> The key elements of supportive legal framework have been drafted but not officially approved and enacted.<sup>80</sup>

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<sup>74</sup> Program Laut Lestari established by Ministry of Environment. This program focuses on five activities: 1. Marine biodiversity management, 2 mangrove ecosystem management, 3 coral reef management, 4 marine pollution prevention and control and 5. Coastal community development See: Deny Hidayati, Coastal Management in ASEAN Countries, The struggle to achieve Sustainable Coastal Development, UNU Tokyo, 2000, p 32

<sup>75</sup> The Mitra Bahari (Sea Partnership) Program is an initiative sponsored by the General Director for Coastal Areas and Small Islands at the Department of Marine Affairs and Fisheries of the Republic of Indonesia. Mitra Bahari aims to maximize the utilization and management of marine and coastal resources by regional government in the era of regional autonomy. Article 41 the law no 27/2007 on management of coastal and small island suggested that Mitra Bahari is established to empower the capacity of stakeholders on management of coastal zone and small island. It is a partnership forum between central Government, local Government, university, NGOs, professional organizations, local community leader and private communities. Mitra Bahari activities are focus on assistantship, education, training, campaign, applied research and policy recommendation.

<sup>76</sup> Jean Joseph Bellamy, Mid Term Review of the IFC/GEF project MAMTI, April 2008, pv

<sup>77</sup> Ibid, pv

<sup>78</sup> Ibid, pv

<sup>79</sup> World Bank, Project Performance Assessment report Republic of Indonesia, Coral Reef Rehabilitation and Management Project Phase I, March 2004.

<sup>80</sup> Ibid

### 2.4.1 Legal and Institutional Framework

Now how is marine and coastal management in Indonesia? How is the legal framework? Before the enactment of the law no 22/99 and it was revised by the law no 32/2004 on autonomy act, marine and coastal resources management in Indonesia was centralistic in approach. Almost 32 years (1967-1998) of management of coastal resources in Indonesia was centralistic in approach. It has been observed that the centralization of fisheries management in Indonesia was characterized by the existence of national policy that all marine waters are State property and to be managed centrally, through the provincial, regency and village offices of the central Government, for the benefit of the entire nation.<sup>81</sup> During this period the policy and management remained at the central level, with the local Government only following the central Government's policy. There had been no significant roles for local Governments and local people in marine management and coastal resources.<sup>82</sup> Thus, this created a lack of capacity at the local Government level and local people to manage marine and coastal resources. There was no responsibility, participation and sense of stewardship within local people to conserve and protect marine resources from destructive activities.<sup>83</sup> For example, most ornamental fishermen in the 1970s used bombs and poisons to catch ornamental fish. This destructive fishing activity has resulted in enormous damage to the coral reef ecosystem and the fish. According to an interview with local fisherman in Bondalem village in 2008, it was stated that due to bomb and poison practices many coral reefs had been damaged and many fish died.

There are much legislation directly or indirectly governed marine and coastal resources. However, to some extent these legislations are not comprehensive. Ocean and coastal

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<sup>81</sup> Ruddle, K. (1999) 'The role of local management and knowledge systems in small scale-fisheries', *The Journal of Policy Studies*, Vol. 7. see also: Arif Satria *et al*, Politic of marine conservation area in Indonesia: from centralised to a decentralised system, *Int J Environment and Sustainable Development*, Vol 5 No 3, 2006.

<sup>82</sup> Ibid

<sup>83</sup> Ibid



resources governance are regulated scattered in many legislations. There are some opinions from academics that there should be a legislation to govern sea in comprehensive way. The bright side is the Government is now in progress to prepare the draft of law on sea and ocean policy. Below are the lists of legislations concerning marine management and costal resources.

Table 2.4 The law related marine and Coastal Management

<ul style="list-style-type: none"> <li>• The Act No 23/1997 it revised by the Law No 32/2009 on Management and Protection of Environment</li> </ul>	It governs the prevention and protection of environment inside Indonesian jurisdiction including marine and coastal environment
<ul style="list-style-type: none"> <li>• The Act No 31/2004 on Fisheries</li> </ul>	It governs fisheries resources in Indonesian
<ul style="list-style-type: none"> <li>• The Act No 5/1990 on Conservation Living Natural Resources</li> </ul>	It governs and protect living natural resources including mangrove, coral reefs
<ul style="list-style-type: none"> <li>• The Act No 32/2004 on Autonomy Law</li> </ul>	It govern devolution of power from central Government to local Government including the authority to manage marine resources 4 nautical miles for municipal level and 12 miles for provincial level
<ul style="list-style-type: none"> <li>• The Act No 26/2007 on Spatial Planning</li> </ul>	It governs zoning and spatial planning including coastal areas
<ul style="list-style-type: none"> <li>• The Act No 27/2007 on Management of Coastal Areas and Small Island</li> </ul>	It governs management of coastal areas and small islands
<ul style="list-style-type: none"> <li>• The Act No 6/1996 on Indonesian Territorial Water</li> </ul>	It governs 12 nautical miles of the territorial waters of Indonesia including innocent passages and conservation
<ul style="list-style-type: none"> <li>• The Act No 5/1983 on Indonesian EEZ</li> </ul>	It governs 200 miles of the economic exclusives zone include the exploitation and preservation of its resources
<ul style="list-style-type: none"> <li>• The Act No 1/1973 on Indonesian Continental Shelf</li> </ul>	It governs the continental shelf of Indonesia 200 nautical miles include exploration and exploitation of sea bad and prevention of pollution

Before the establishment of the Ministry of Marine Affairs and Fisheries in 1999, there was no specific legislation concerning coastal resource management. Thus, marine and coastal management was sectoral in approach. The regulation regarding marine management and coastal areas is heavily based on three regulations, namely the Fisheries Act no 9/1985 which has been revised by the law no 31/2004; the Law no 5/1990 on conservation of living natural resources; and the Law no 23/1997 on environment management. After the enactment of the Law no 5/1990 on conservation living natural resources, six national marine parks have been established. These include:

- Kepulauan Seribu
- Karimun Jawa
- Takabonerate
- Bunaken
- Wakatobi
- Cendrawasih
- Togian Marine National Parks.<sup>84</sup>

These six marine national parks are under the management of Ministry of Forestry who become the designated institution in managing marine parks under the Law no 5/1990 and the Law no 41/1999 on forestry. However, with the enactment the Law no 31/2004 and the Law no 27/2007, this responsibility was transferred to the Ministry of Marine Affairs and Fisheries. However, the management of the six marine national parks still lies with the Ministry of Forestry. While the Ministry of Forestry is only transferred the eight marine conservation areas to be managed by the Ministry of Marine Affairs and Fisheries.<sup>85</sup> There is conflict and inconsistency between the previous legislation, the Law no 5/1990 and Law no 41/1999, and the recent the Law no 31/2004 and the Law no 27/2007. This overlapping legislation has created a dualism and unclear mandates and responsibilities in marine management. These two institutions always refer to the

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<sup>84</sup> Arif Satria *et al*, Politic of Marine Conservation area in Indonesia: From centralised to Decentralised, 2006, p245

<sup>85</sup> See: [www.dephut.go.id](http://www.dephut.go.id)

conflicting legislation to maintain their respective authority. In addition, with the “sectoral ego” makes the management conflict is more difficult to resolve and to make the situation even more complex many institutions are involved in marine and coastal resources management. Table 2.5 below lists the national institutions who have a marine and coastal management mandate.

Table 2.5 National Institution and their roles in Marine and Coastal Management

Institution	Role
<b>Coordinating Agencies</b>	
Ministry for State Environment	National coordination of environment policy and impact assessments. This include policy on marine environment
National Development Planning Board (Bappenas)	Draft, Coordinates, and implements national five years development plans
Department of Home Affairs	Regional development policy, planning, and coordination from national perspective
Ministry of State for Science and Technology (BPPT)	Natural resource inventory, evaluation and technology coordination
National Coordinating Agency For Data Survey and Mapping (Bakosurtanal)	Land including coastline mapping, receive data from other agency such as DEHIDROS
Indonesian Institute of Science (LIPI)	Marine research, data coordination and scientific advise for other agencies
Coordinating Committee for National Sea Bed Jurisdiction	National Marine Boundaries, Jurisdiction and the law of the sea issue
Coordinating Board for Marine Security (BAKORKAMLA)	Security issue such as piracy, foreign fishing intrusion, pollution and smuggling
<b>Line Agency</b>	
Department of Marine Affairs and Fisheries	Management of marine and fisheries resources, conservation of marine and coastal areas including marine protected areas
Department of Forestry/Directorate General of Forest Protection and Nature	Marine conservation, mangrove conservation and management of national

Conservation	marine protected areas
Department of Mining and Energy	Regulate oil & Gas exploration and production on sea bed and oil industry safely, sand sea mining licensing
Department of Industry	Administer industrial development and management
Department of Trade	Administer and regulate trade, export and import including sea sand export
Department of Public Works	Coastal Engineering, infrastructure and erosion control
Department of Tourism	Marine Tourism development and management
Department of Transportation Directorate General of Marine Transportation	Regulate transportation in sea, port, vessels

Source: Modified from Dahuri, Sloan Sugandy, Deny Hidayati

There is no institution who coordinates and arranges cross sectoral approaches to the management of marine and coastal resources. National Development Planning Board its to broadly coordinate all development sector for Indonesia. There is no specific body mandated with the sectoral coordination in marine and coastal resources, both at the national level or the local level. If we look to the experience of Vietnam, it also has similar problem as its management is characterized by overlapping and fragmented sectoral approach.<sup>86</sup> To overcome this problem, the Vietnam Government issued the “Strategy of Vietnam’s Seas toward 2020” in 2007 which consisting the requirement to establish the powerful governmental organization of Seas and Island Affairs.<sup>87</sup> Agenda 21 calls for States to consider establishing or strengthening appropriate coordinating mechanism (such as high-level policy-planning body) for integrated management and sustainable development of marine and coastal areas at both national and local levels. It has been pointed out that some options for achieving intersectoral integration may

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<sup>86</sup> Mr Dai presentation from VASI in Marine management and good governance in practice training, Vietnam, SIDA, 4-9 October 2009

<sup>87</sup> Ibid

include naming a lead agency, creating a new agency and training agency personnel. For example, the creation of special inter-Ministerial coastal coordinating council or commission; Assignment to an existing planning, budget or coordination office; and designation of an existing line ministry to act as lead ministry.<sup>88</sup>

With the decentralization process, is marine and coastal resources management in Indonesia getting better? This is hard question to answer. In fact, until now the problems of coastal environment degradation and depletion of coastal resources continue. CZM in Indonesia is not working effectively because there is ambiguity and overlap with respect to various laws and jurisdiction issues.<sup>89</sup> In addition, a lack of capacity of local Government level in most of the archipelago hampers the implementation of ICZM. It has been proposed that integrated coastal zone management in Indonesia is still remains in infancy.<sup>90</sup> This despite the long standing interest in improving national capacity for the development of the vast marine and costal resources of the Indonesian archipelago,<sup>91</sup> active involvement in various pilot scale integrated coastal management initiatives,<sup>92</sup> and recent investment in large scale planning initiatives (ADB,1992).<sup>93</sup> The concept of ICZM is being codified in new legislation on the management of coastal areas and small islands such as the Act no 27/2007 which states that the management of coastal area and small islands is conducted by integrated activities: between national Government and local Government; between local Government; between sectors; between Government, industries and communities; between terrestrial ecosystem and marine ecosystem; between science and management principles.<sup>94</sup> However again, this regulation does not

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<sup>88</sup> Bilina Cicin-Sain and Robert W Knecht, *Integrated Coastal and Ocean Management Concept and Practices*, 1998, p157

<sup>89</sup> Hendra Siry, *Op Cit*, p21

<sup>90</sup> J. Johnnes Tulungen, Priciellia Kussoy and Brian R Crawford, *Community Based Coastal Management in Indonesia: North Sulawesi Early Stage experience*, a paper presented at Convention of Integrated Coastal Management Practitioners in the Philippines, 1998, p2

<sup>91</sup> Bappenas, CIDA 1997

<sup>92</sup> USAID, ASEAN CRMP: Chou et al 1991, ASEAN/US-CRMP DFG, 1992

<sup>93</sup> J. Johannes Tulungen, *et al*, 1998, p2

<sup>94</sup> See: Article 6, The law No 27/2007 on Coastal Management and Small Island

provide a framework and a mechanism on how the decision making is integrated between sectors. The lack of coordination between sectors and stakeholders for the management of marine and coastal resources is because there is no system and agency to coordinate every activity in the marine and coastal areas.<sup>95</sup> In addition, until now most local Governments tend to prioritize terrestrial planning rather than marine space planning. They do not have any mapping and zoning for marine areas, this is because development in Indonesia has favoured the terrestrial areas rather than marine areas. Most spatial planning is intended for the zoning of terrestrial areas while in marine areas zoning is limited to marine protected areas. Many local Governments do not have any capacity in marine zoning and mapping.

With the euphoria of decentralization, many local Governments enacted local regulations regarding the management of marine resources. This local regulation sometimes is not consistent with the pre-existing central law, even with pre-existing provincial laws. However, within the hierarchy of the Indonesian legal system, lower regulation can not be inconsistent or contradict higher level law. The Ministry of Home Affairs may review the local regulations and if these contravene higher regulation it will be revoke. However, according to the data Department of Home Affairs has estimated that more than 7000 provincial or Regency regulations in mining, forestry, trade and industry have not complied with higher level regulations.<sup>96</sup> Most of these regulations usually favour Government revenue rather than conservation. Thus, it is hard task for the Ministry of Home Affairs to assess, monitor and revoke all the local regulations at the provincial and district levels which contravene higher regulation. Below is the hierarchy of the Indonesian legal system and administrative levels.

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<sup>95</sup> Dahuri, Reoriented the development based on Maritime sector, 2003  
[www.tokohindonesia.com/ensiklopedi/.../rokhmin-dahuri/wawancara2](http://www.tokohindonesia.com/ensiklopedi/.../rokhmin-dahuri/wawancara2).

<sup>96</sup> Depdagri assess that 7000 local regulations are not valid, Kompas Daily News 14 Agustus 2003 as cited in Dirhamsyah, Analysis of the effectiveness of Indonesia's coral reef management framework, University of Wollongong, 2005

Table 2.6 The Hierarchy of Indonesian Legal System Based on MPRS Decree 1966

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MPRS Decree No XX/MPRS/1966

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- Basic Constitution
  - General People Assembly Decree
  - Laws and Acts
  - Government Regulation substitute Law or Act
  - Government Regulations
  - Presidential Decrees
  - Ministerial Decrees
  - Provincial Government Regulations
  - District or City Regulations
  - Village Regulation
- 

Source: MPRS Decree No XX/1966

Table 2.7 The Hierarchy of Administrative Level in Indonesia

- 
- National Level (Central Government) in Jakarta
  - Provincial Level (Local Governments) in 33 provinces
  - District/Municipal level (Local Governments)
  - Village Level
- 

However, most of the local regulations (district regulations) contain rules on licensing and retribution in the fisheries sectors. This regulation is intended to increase the local Government revenues in fisheries sectors, especially the revenue from the fee of licensing to fish and retribution and licensing in sea farming. There are not many local Government enacted regulations for the management of coastal resources which are intended to protect the marine and coastal areas. It has been proposed that local acts are more concerned with revenues rather than with ecological and sustainable principles.<sup>97</sup> For example, too many sand mining licenses issued by the local Government in Riau has

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<sup>97</sup> Hendra Siry, Op Cit, P 51

caused significant environment degradation in coastal areas.<sup>98</sup> With this massive coastal degradation phenomenon, the export of sea sand mining is prohibited under the decision of Ministry of Trade No 117/2003 and No 2/2007. However, illegal sea sand mining still occurs. This phenomenon occurs because the devolution of power from the central Government to the local Government is very fast and does not take into account the capacity of the local Government. It is argued that without capacity building greater decentralization is not effective. The World Bank has gone further and stated that decentralization is not convinced to have positive effects or positive impacts still very limited.<sup>99</sup> With the decentralization, the local Government has been given the authority for the management of marine and coastal resources, except for the sea bed which remains under the central Government control: Article 18 the law no 32/2004

- (1) The local region who have sea is given the authority to manage marine resources in their area
- (2) Local region will be given the share from the utilization and management of marine resources in sea bad accordance with the law.
- (3) The authority to manage marine resources. This includes:
  - a. Exploration, exploitation, conservation and management of marine resources
  - b. Administrative function
  - c. Spatial planning
  - d. Law enforcement of the local regulation and central legislation
  - e. Support central Government in Security issue
  - d. Support central Government in Defense

Based on this regulation, the management of marine and coastal resources is decentralized to local Government. However, local Governments seem to only prioritize the exploitation of marine resources. They do not have enough capacity to undertake marine conservation. All the conservation initiatives, planning, funding and the implementation is mostly done by central Government especially with respect to the establishment of local conservation areas both through the Ministry of Forestry and the

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<sup>98</sup> See: Illegal Sand Mining is Robust, [www.kapan.lagi.com](http://www.kapan.lagi.com) , [www.antara.co.id](http://www.antara.co.id)

<sup>99</sup> Ibid



Ministry of Marine Affairs and Fisheries. Both institutions have the authority to manage marine conservation but with different approaches and different criteria in assessing marine conservation areas. For example, in Buleleng Bali, the Ministry of Forestry has assessed and intended to include all 144 km<sup>2</sup> coastline in Buleleng Bali become a conservation areas. However, according to the Ministry of Marine Affairs and Fisheries only three designated areas in Buleleng Bali namely Gerokgak, Lovina and Tejakula are suitable and thus to be designated as marine conservation areas within the zoning system. There are two systems of marine conservation areas centralized: the Ministry of Forestry as the leading institution and decentralized with Ministry of Marine Affairs and Fisheries as the leading institution.<sup>100</sup> It has been suggested that the Ministry of Forestry does not believe that the local Government is capable of handling the management of conservation areas so centralized approach is still conducted.<sup>101</sup> On the other hand, the Ministry of Marine Affairs Fisheries has begins to decentralize the management of conservation areas to local Governments with the development of local marine conservation areas and is attempting to involve the local people.<sup>102</sup> Even though, this involvement is still limited in only to community socialization: a process of informing local people on the program and project of marine conservation areas which will be conducted in their areas. It is conducted by series of meeting and discussions with various social groups to inform them about the projects goals and process.<sup>103</sup> In this top down approach there is limited participation of the local people particularly local people do not participate in planning, implementation and monitoring.

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<sup>100</sup> Arif Satria, Op Cit, p 25

<sup>101</sup> Ibid

<sup>102</sup> Ibid

<sup>103</sup> J.J Tulungen, Priciellia Kusoy, and Brian R Crawford, Community Resources Based Management in Indonesia: North Sulawesi Early Stage Experiences, A paper presented at: Convention of Integrated Coastal Management Practitioners in the Philippines, Davao City Philippines , 10-12 November, 1998, p 9

#### **2.4.2 Public Participation in Marine and Coastal Management**

Under decentralization the management of marine and coastal resources is decentralized to the municipality or regency, and of course the village level. The current institutional framework of openness and reform has created windows of opportunity for establishing community based management approach.<sup>104</sup> Community based coastal management (CBCM) is recognized globally as an integral feature of integrated coastal management.<sup>105</sup> CBCM is people centered, community-oriented and resources based. It starts from the basic premise that people have the innate capacity to understand and act on their own problems.<sup>106</sup> It begins where the people are, i.e. what the people already know, and build on this knowledge to develop further their knowledge and create a new consciousness.<sup>107</sup> It strives for more active participation of stakeholders in the planning, implementation and evaluation.<sup>108</sup> There is a global trend toward increased community involvement in coastal management processes.<sup>109</sup> Many international donors for marine and coastal projects emphasize community based coastal management approaches. They choose the village as pilot project and try to establish effective models of participatory and community based coastal resources management.<sup>110</sup> For example, Pesisir Project (Coastal Resources Management Project-Indonesia) in North Sulawesi funded by USAID. This project tried to identify a model and best practices for management of marine resources. This includes the formulation and the implementation of village based integrated coastal management plans, community based marine sanctuaries, village ordinance and participatory early action such as beach clean up and mangrove planting.<sup>111</sup> Actually, in Indonesia there already exists community based marine

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<sup>104</sup> J.J Tulungen, *et al*, 1998, p1

<sup>105</sup> Nick Harvey *et al*, The role of Australian Coastcare Program in Community Based Coastal Management: A case study fro South Australia, *Ocean and Coastal Management* 44 (2001) 161-181, p 163

<sup>106</sup> *Ibid*, p163

<sup>107</sup> *Ibid*, p 163

<sup>108</sup> *Ibid*, p 164

<sup>109</sup> *Ibid*

<sup>110</sup> J Johness Tulungen *et al*, 1998, p2

<sup>111</sup> *Ibid*

management based adat, for example, sasi in Maluku<sup>112</sup>, Mane'e in Sulawesi, panglima laot in Aceh, and awig-awig in Bali and Lombok which contribute to conservation programs.

There is no explicit regulation on community based coastal management in the new law on management of coastal resources and small island no 27/2007, It is only stated in Article 28 (7) that the initiation of conservation areas can come from individual and community, without any further stipulations. There is absolutely a needed for clear legislation on how marine protected areas or conservation areas are managed with the involvement of all stakeholders. Because in top-down approaches in marine protected areas create conflicts with the communities and local fisherman. For example, on the establishment of marine protected areas in Sepanjang island in Sumenep, Madura, East Java the local people rejected to the idea of the local Government to establish marine protected areas in their marine coastal areas and fishing grounds. They are afraid they could not fish anymore and that this would have negative impacts to their livelihoods.

Community based management approaches are mainly triggered by international donors and projects in marine management. For example, in Bondalem village Buleleng Bali, where the community established marine protected areas, enacted village regulations and planted coral reefs with the assistance of NGOs and funded by international donors. While there is a growing of the value and benefit of working at the community level, this community based approach still faces many challenges and obstacles. These include:

- The gap in implementation

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<sup>112</sup> Sasi is a local traditional fisheries management system in Maluku. It can be defined as set of rules and regulations that govern resources use, that is: sasi regulations prohibit premature harvesting of forest and marine products. With regard to marine resources there are regulations on the use of poisonous plants and other chemical, destructive nets and intensive gear such as the lift-net. There are also regulations concerning access to the sasi area, activities allowed in sasi area and seasonal rules of entry and harvest. All these regulation enforced by institution called Kewang which the function as local police force. More detail on sasi see: Ingvild Harvest, An institutional of Sasi Laut, a fisheries management system in Indonesia prepared for International workshop on fisheries co-management 23-28 August 1999, Penang, Malaysia

- Lack of law enforcement to the village regulation<sup>113</sup>
- The sustainability of funding<sup>114</sup>
- Lack of government support<sup>115</sup>
- Lack of public awareness.<sup>116</sup>

It has been observed is point out that externally funded projects generally have been the main means of implementation of ICM within developing countries.<sup>117</sup> The dependence on external financial and technical assistance creates unsustainable institutions and policies as project are terminated and support staff and funding are withdrawn.<sup>118</sup> For example, in the Philippines the majority of marine protected areas are not maintained for an appreciable amount of time.<sup>119</sup> The example of abandoned marine protected areas may also occur in Indonesia. This because the local communities have difficulties to secure sustain funding, and it is made worse by the lack of Government support and incentives to maintain marine protected areas that have been established by local people. The lack of Government support also occurs in Proyek Pesisir marine sanctuaries in North Sulawesi. Even though line Government, such as the Forestry and Fisheries agency has been fully informed and supported the activities.<sup>120</sup> However, they only occasionally

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<sup>113</sup> In case of Bondalem village the community become angry if they warned by pecalang laut not to take sand or stone from the sea. The pecalang laut who consisted only 6 peoples are rarely in the sites when the violation to the village regulation occurs especially in destructive fishing practices. The law is only good in paper but lack enforcement in practice.

<sup>114</sup> According to the interview with the head of the village they have difficulties in maintaining the coral reef that have been planted due to lack sustain financial support from the government or donor. The donor is contribute to the establishment of marine protected area only.

<sup>115</sup> The funded from the local government is only occasionally. It just only a gift to the establishment and the opening of marine protected areas.

<sup>116</sup> People are still unaware to the important of protection of marine and coastal resources. This is shown by the behaviour of local people who still throw the rubbish directly to the river or in the beach. This behaviour has caused the beach is full of waste especially in the rainy season when the rubbish from the river run off to the sea. There is absolutely public awareness campaign and education is needed.

<sup>117</sup> Patrick Christie, *Is Integrated Coastal Management Sustainable?*, Ocean and Coastal Management 48 (2005), p 208-232

<sup>118</sup> Ibid

<sup>119</sup> Ibid

<sup>120</sup> J Johnnes Tullungen, *op cit*, p31

involved their staff in actual field activities. These agencies lost the opportunities to learn about the marine sanctuary planning process.<sup>121</sup>

Community based coastal management should be improved and supported by Government. Bottom-up community based approaches should be supported by Government and top-down approaches should also included local people in its planning and implementation. Many marine protected areas are not successful because local people not included in the planning, implementation, monitoring, and evaluation process. Many local Governments remain confused about the model of management of conservation areas and not sure how to involve local people in management of marine conservation area. Moreover, community based is not only limited to the management of the conservation areas or marine protected areas but also includes zoning, coastal resources management and other problems that need to be address and managed in coastal areas. For example, beach management and coastal erosion, wetland protection, land-based pollution, sea level rise adaptation, coastal and estuaries water quality, and threatened and endanger species.<sup>122</sup>

### **2.4.3 Conflict Management**

Risk of conflict on the uses of marine and coastal resources is an issue of increasing importance in Indonesia. The limited coastal space, relatively high population density, diverse marine and terrestrial habitats in close proximity, and the many economic and social interest all increase the potential conflict over coastal space and resources.<sup>123</sup> The conflict of interest and uses between different stakeholders has created unsustainable development and management of marine and coastal resources. It has been proposed that

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<sup>121</sup> Ibid

<sup>122</sup> Biliana Cicin Sain, op cit, p 178

<sup>123</sup> Daniel Suman, Case studies on coastal conflicts: Comparative US/European Experience, Ocean & Coastal Mangement 44 (2001), p 1-13

the basis of conflict between uses/user may be anchored in one or more following reference points:<sup>124</sup>

- Incompatible uses of coastal space and/or resources because one use fully occupies the space, completely utilizes the resources, or damage the resource for the other user.
- Different environmental values and world views, particularly the balance between development versus conservation
- Level of government, the public authority, or the institutional arrangement that makes the allocation regarding resources use
- Involvement of public in the decision making process
- Use and interpretation of scientific and technical information in decision making
- Allocation of funding for the government action or intervention.

The conflict in Indonesia is basically because management of marine and coastal resources sectoral in approach. The conflict in the coastal areas mainly between different stakeholders such as conflict between agencies of local Government or authorities, conflict between different levels of Government (central, provincial and municipal) and conflict between company and local people. It has been observed that national, provincial and local Governments tend to play different roles, address different public needs, have different perspectives. These differences often pose problems in achieving harmonized policy development and implementation between national and sub-national level.<sup>125</sup> The other conflict is between local people and private sector or investors. This conflict is trigger because there are overlapping regulations between the provincial level and the municipal or regency level, especially regarding spatial planning law. For example, in Bali the provincial level has set up regulations prescribing that no development is allowed less than 100 meters from the beach in order to conserve and prevent the beach from further erosion. This 100 meters is allocated as green space areas. However, in Buleleng Regency under the regulation on spatial planning, they are allowed to develop near the beach or between 25 meters and 50 meters from it. This regulation has allowed

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<sup>124</sup> Ibid

<sup>125</sup> Biliiana Cicin-Sain and Robert W Knecht, *Integrated Coastal Zone Management Concepts and Practices*, 1998, p 45

many resorts to be constructed close to the beach. This development has caused many beach considered as private beaches, local people and local fisherman do not have space anymore to enjoy the beach or put their boat on shore. Overlapping regulations, lack coordination between Government institutions and lack of public participation in decision making is the cause of such conflict of uses. There should be a harmonization of the law and legislation in order to reduce conflict between stakeholders. If this harmonization of the law is not conducted, there will be further riot and social unrest in the community. In environment governance and integrated coastal zone management all the stakeholders should be involved, especially on zoning or marine spatial planning. Integrated policy and regulation is absolutely needed where there is intergovernmental integration or integration among different levels of Government (national, provincial, local).<sup>126</sup> The requirement for consistency in the action and policy of all levels of Government participating in ICM programs is of key importance.<sup>127</sup>

The other conflict is in the allocation of funding of Government action. This is again because there is overlapping regulations between higher level regulations with the sub-level legislation for the implementation of the law. For example, on the management of mangrove areas, the higher level regulation namely the fisheries law and the coastal management and small islands law has appointed the Ministry of Marine Affairs and Fisheries to manage mangrove areas. However the sub-level regulation namely regulation from the Ministry of Home Affairs has appointed the Ministry of Environment and the local agencies in environment to manage mangrove areas. Thus the allocation of funding will be done to the Ministry of Environment. There is unclear and inconsistency between higher level and the sub-level of legislation in Indonesia. There is absolutely need for improvement of the legal framework in Indonesia.

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<sup>126</sup> Biliana Cicin-Sain and Robert W Knecht, *Integrated Coastal Zone Management Concepts and Practices*, 1998, p45

<sup>127</sup> *Ibid*, p 135

The conflict also occurs in the uses of marine areas between stakeholders such fisherman, sea farmers, tourism agencies and local Governments. The cause of this problem is mainly because there is no zoning or marine spatial planning. For example, in Buleleng Bali because there is no zoning and marine spatial planning, the risk of conflict is increasing between fisherman, seaweed farmers, pearl farmers and tourism agencies especially on the utilization and designation of marine space.<sup>128</sup> The other conflict is conflict on the utilization of fishing grounds or resources use conflict between local fisherman small and traditional fisherman and the fisherman from outside using modern boat and modern fishing gear i.e. using trawl and purse seine. For example, the conflict in Masa Lembu island Madura between local fisherman and the fisherman from Java. The local fishermen argue that their waters belong to them and the fishermen from Java have taken their fishing ground. However, the fishermen from Java argue that the water is outside the 12 miles which is considered as open access. It is argued that this kind of conflict is arising because of the decentralization. Arif Satria pointed out that during the implementation of the decentralization policy there were some problems and negative effects on marine fisheries management.<sup>129</sup> These problems are related to the false perception and misunderstanding of the meaning of “management authority” as codified in the local autonomy law.<sup>130</sup> Some local Government and local people assume the term authority has a similar meaning to sovereignty over territorial water, which are 12 miles for the provincial authority and 4 miles for the municipal authority.<sup>131</sup> The only way to resolve the conflict is through coordination between the local Governments; in Masa Lembu case, coordination between the Local Government East Java and the local Government of Central Java is important, especially regarding the management of fisheries in both regions and the conflict management and resolution. Integrated coastal

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<sup>128</sup> Bali Post, Marine Spatial Planning is not clear in Buleleng has increasing the risk of conflict, 15 May 2009

<sup>129</sup> Arif Satria, Yoshiaki Matsuda, Decentralization of fisheries management in Indonesia, Marine Policy 28 (2004), p437-450

<sup>130</sup> Ibid

<sup>131</sup> Ibid



zone management is absolutely needed to reduce the conflict. Coordination and harmonization of sectoral policies are a simple mechanism of ICZM management, as FAO proposed for Chapter 17 of Agenda 21 at the Earth Summit.<sup>132</sup>

A viable ICM Program must be comprehensive but its content and complexity will vary from area to area according to development trends, conservation need, tradition, norms, governmental systems and current critical issues and conflicts. Compatible multiple use objectives should always be the main focus. If human and financial resources are limited, ICZM programs can be simplified to be include only the following components: (i) harmonization of sectoral policies and goals; (ii) cross sectoral enforcement mechanism; (iii) a coordination office and, (iv) permit approval and Environmental Impact Assessment Procedures (EIA).

## **2.5 Conclusion**

There are two urgent issues that need to be addressed by the Indonesian Government. First, is to improve the livelihood of people in coastal areas because until now many of them are traditional fisherman with low income and live in poverty. Second, is to restore and improve the quality of coastal environment and its ecosystem and resources. To address both issues above, Agenda 21 Chapter 17.1 has suggested that there is “a need for new approaches to marine and coastal area management and development, at the national, sub-regional, regional and global levels approaches that are integrated in content and are precautionary and anticipatory in ambit.” The overall goal of ICM is not only to improve the quality of life of human communities who depend on coastal resources but also maintaining the biological diversity and productivity of the ecosystem. GESAMP has developed a model which was modified by Olsen who suggested that a typical ICZM requires 18-15 years from identification to evaluation. Thus it is a long term and continuous program in improving and restoring the marine and coastal resources and the

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<sup>132</sup> FAO, 1991 see: Biliانا Cicin Sain and Robert W. Knecht, Integrated coastal and ocean management: Concepts and Practices, 1998

environment. This type of ICZM requires a lot of funding for the implementation. However, FAO proposed “if human and financial resources are limited, ICZM programs can be simplified to include only the following components: (i) harmonization of sectoral policies and goals; (ii) cross sectoral enforcement mechanism; (iii) a coordination office and, (iv) permit approval and Environmental Impact Assessment Procedures (EIA)”. That kind of approaches on ICZM proposed by FAO is more suitable to implement in Indonesia considering that human and financial resources in Indonesia are limited. Based on FAO approach on ICZM that should be harmonization of sectoral policies and goals, the next chapter will review the laws and regulations relating management of marine and coastal resources. The purpose of this review is to harmonize the laws and policies on management of marine and coastal resources which is to some extent overlaps.

## CHAPTER 3

# OVERVIEW OF THE LAW AND REGULATION RELATING TO MANAGEMENT OF MARINE AND COASTAL RESOURCES IN INDONESIA

### ***3.1 Introduction***

Many sectoral legislations regulated marine and coastal resources in Indonesia, to some extent these laws in Indonesia are overlapping, conflicting and suffer from lacunae. The conflicting and overlapping laws are not only between sectoral laws (horizontal) but also between higher level laws and lower level laws (vertical). These overlaps, gaps, and redundancies have not only created an unsustainable pattern of development in coastal areas but also uncertainty, confusion and conflict in the implementation. This chapter will examine the laws and regulations relating to the marine and coastal resources management in Indonesia. It will further examine the role of these laws and regulations into conservation, public participation and conflict management of marine and coastal resources management. It will argued that there is an urgent need to harmonize the laws and regulations for the management of marine and coastal resources. There are 14 sectors addressing some aspects of coastal resources and approximately 22 statues and hundreds of regulations governing those 14 sectors.<sup>133</sup> This review will examine 6 legislations concerning marine and coastal resources management which are closely related to conservation, public participation and planning, zoning and management of conflict.

In general, there are problems of coastal degradation and depletion of marine resources in Indonesia. Conservation is the way to control and reduce this environmental degradation of marine and coastal resources. Some legislation which governs this conservation is:

- The law on Environment Management no 23/1997

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<sup>133</sup> Jason M Patlis, Op cit, p22

- The law on the Living Natural Resources Conservation and their Ecosystems no 5/1990
- The law on Autonomy no 32/2004
- The law on Fisheries no 31/2004
- The law on Management of Coastal and Small Island no 27/2007
- The law on Spatial Planning no 26/2007.

All These legislations also prescribe the public participation. However, to some extent many of the legislations are not clear about public participation mechanism. It has been noted that public participation in Indonesia is still weak, there is lack of standards and criteria for decision making in most legislation.<sup>134</sup> The Government sometimes does not conduct public participation in decision making. There is an urgent need for more accountability and transparency in Government decision making. Conflicts arising from the utilization of marine and coastal resources have also become a problem and needs conflict resolution mechanism to resolve that. Some of the legislation is overlapping and discriminates against poor fisherman and local communities which result in potential conflicts in their implementation. For example, the new law on the management of coastal areas and small islands no 27/2007 has triggered rejection and controversy (pros and cons) in the society, especially on the issue of marine tenure rights or concession rights. Some have argued that this legislation favours the private sector which has lot of money to invest, secure the marine tenure rights, and creates disadvantages for the local community and traditional fisherman especially with respect to the privatization of marine and coastal areas. Local people or traditional fisherman will have limited access to the resources that already has marine tenure title. This marine tenure rights has the potential to create conflict in its implementation. On the other hand, some of the supporters of this legislation argue that this legislation has recognized community/local

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<sup>134</sup> The same case also happened in Belize. See: Donna R Christie, *Legislation, Policies and Regulations Relevant To Coastal Zone Management in BELIZE: A review and Proposals For Better Implementation of The Coastal Zone Management Act Of 1998*, 2006, FSU College of Law, Public Law Research Paper No. 187. Available at SSRN: <http://ssrn.com/abstract=882453>

customary rights over marine resources which is stipulated in article 61 on the law No 27/2007.<sup>135</sup>

### **3.2 The Law on Management of Coastal and Small Island (No 27/2007)**

This is the new law enacted by the Government to govern the management of coastal areas and small islands. It is intended to integrate the management of the coastal zone in Indonesia. However, this regulation is still regarded as sectoral legislation. It is drafted by the Ministry of Marine Affairs and Fisheries. The idea to enact this legislation is that marine and coastal resources are a common property, and there is an increasing coastal environment degradation and depletion of marine resources. Thus, the Government has shifted from open access policy to a privatization or concession regime to individual or legal entity for marine resources. The Government argues that with this privatization it will conserve the coastal and marine resources because the holder of the marine tenure right will use the resources wisely and protect the resources. There is a feeling of stewardship. The shifted to a concession regime is probably based on the theory of Hardin: on the “tragedy of the Commons” which proposes that when a resource has no property right or no one owns the resource, it tends to be overused and overexploited. Thus, by giving the title to property right will prevent the overuse and over-exploitation. Despite a strong theoretical justification for the concession regime, some academic still believe that the approach will have bad impacts on the local people and local fisherman. Arif Satria pointed out that the concession holder can transfer his/her right to others,<sup>136</sup> and thus there is a chance that the local community rights will be transfer to the private sector.<sup>137</sup> In light of this possibility a licensing regime instead of concession right regime has been suggested.<sup>138</sup> To reduce complications in the implementation of this approach

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<sup>135</sup> See: Article 61, Act no 27/2007 “Local Government will use this customary local people as the guidance on management of marine and coastal resources”.

<sup>136</sup> Sudirman Saad, The allocation of the sea remove the fisherman

<sup>137</sup> Ibid

<sup>138</sup> Sudirman Saad, The allocation of the sea remove the fisherman, 24 Sep 2009 see: [http://www.kp3k.dkp.go.id/index.php?option=com\\_content&task=view&id=299](http://www.kp3k.dkp.go.id/index.php?option=com_content&task=view&id=299)

lie in the requirements of the local Government to firstly undertake zonation and marine spatial planning.

### **3.2.1 Purposes and Definition**

The purposes of this act as codified in article 4 is as follow:<sup>139</sup>

- To protect, conserve, rehabilitate, utilize and enhance coastal resources and small island and its ecosystem in sustainable manner
- To develop the synergy between central government and local government on the management of coastal areas and small islands
- To strengthen the participation of community and government institution on the management of coastal resources and small island to achieve justice, balance and sustainability.
- To increase social, economic and culture value through public participation on the community on management of coastal resources and small island

It is clear from the purposes of this act there are three broad aspects it seeks to achieve, namely: to promote conservation, integration and public participation. The purpose of this act is thus sound. However, there are still weaknesses and questions, particularly regarding the mechanism of integration between stakeholders on decision making and mechanisms of public participation. Moreover, if we look at to the definition there is an inconsistency with respect to the purposes of this act to promote public participation and the definition of management of coastal resources and small islands. Management of coastal resources and small islands is defined as:

a process of planning, utilization, monitoring and control of coastal resources and small island between sectors, between central government and local government, between land ecosystem and sea, and between science and management to improve the community livelihood.<sup>140</sup>

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<sup>139</sup> Article 4, Coastal Management and Small Island Act No 27/2007

<sup>140</sup> See: article 1.1, Coastal Management and Small Islands Act No 27/2007

The definition is missing public participation. It should be involved all stakeholders<sup>141</sup> including local community, local fisherman, business sector not only between sectors and between different levels of Government. It is interesting to note also here the definition of coastal zone (the interface between the land and water) and coastal meadow. Coastal zone is defined as the transition areas between land ecosystems and sea ecosystems and influenced by the changes in land and sea.<sup>142</sup> Coastal meadow is defined as minimum 100 meters from the highest water mark to the land.<sup>143</sup> The Government set 100 meter of coastal meadow as a non-development area. This area is intended to prevent coastal erosion and to mitigate natural disaster if it occurs, such as flooding due to sea level rise. However, because of decentralization some local Governments in Bali especially at the municipal level set different criteria in their local regulations which contravene the national legislation.<sup>144</sup> At the local level set coastal meadow varies between 50 meters and 25 meters.<sup>145</sup> This clearly contravenes the higher level legislation and according to the hierarchy of law in Indonesia it is not allowed and can be revoked.<sup>146</sup> However, legal mechanisms to resolve inconsistencies have not been invoked and do not yet exist.<sup>147</sup> The only mechanism is through the Ministry of Home Affairs who can revoke the regulations but this is not so effective due to the ministry can not control many municipal legislations. In addition, the current legislation on spatial planning only prescribes of sanction for authorities who grant licences for the development contravene which with spatial planning.<sup>148</sup> However, this sanction is rarely implemented. The provincial level just makes a recommendation to the municipal level to revoke this legislation. This

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<sup>141</sup> It is suggested in Article 1(30) that the main stakeholders are local fisherman, modern fisherman, fish farmers, tourism agents, and local communities in coastal areas

<sup>142</sup> See: article 1(2) Coastal Management and Small Island Act No 27/2007

<sup>143</sup> See: article 1(21) Coastal Management and Small Island Act No 27/2007

<sup>144</sup> The central Government has an authority to make policies, standards and guideline for natural resources management and conservation. Regional Government were required to manage natural resources in accordance with existing laws

<sup>145</sup> Masyhuri Imron, Sudiyono, Surmiati Ali, Laely Nurhidayah, Management of Marine and coastal resources in the autonomy perspective (Case study in Lampung and Bali), LIPI Press, 2008

<sup>146</sup> The central government had an authority to review and reject regional laws violate existing laws.

<sup>147</sup> Jason M Patlis, op cit, p 22.

<sup>148</sup> See: article 73, Spatial Planning Act No 26/2007

recommendation may or may not be considered by the municipal level. This is due to the provisions of the autonomy law no 32/2004 on decentralization which place greater emphasis on the municipal level. The municipal level has been given greater authority than the provincial level in the autonomy law. In addition, the municipal level argues that their policies are based on the local needs (economic needs), even though, the local need is still questionable. Who defines local needs, local communities or local business entities. The municipal level can justified their policies based on Article 31(1) the law no 27/2007 on management of coastal areas and small island which stipulate that local government can decide the limit of coastal meadow in accordance to topography characteristic, bio physic, hydro oceanography, *the need of economic* and social and the other measures. This article has given flexibility to the local Government to set their coastal meadow size and limits. In contrast, the definition of this legislation has set up the limit of coastal meadow to exactly 100 meter.<sup>149</sup> Thus there is inconsistency between the definition and the article in the legislation on management of coastal areas and small islands.

### **3.2.2 Institutional Arrangement**

In the definition article 1(40),(41),(42) the Act No 27/2007 there are several authorities who have responsible to implement this legislation. This includes central Government (Ministry of Marine Affairs and Fisheries) and local Government (provincial and municipal level).<sup>150</sup> The Ministry of Fisheries and Small Island has the responsibility to set the norms, standard and guidelines for the planning and management of coastal areas and small islands by Ministry decree.<sup>151</sup> There are two guidelines already issued by Decree of the Ministry of Marine Affairs and Fisheries, namely: Ministry of Marine Affairs and Fisheries Decree No 16/2008 on planning of management of coastal resources and small islands, and Ministry of Marine Affairs and Fisheries Decree No

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<sup>149</sup> See: Article 1(21) the Coastal Management and Small Islands Act No 27/2007

<sup>150</sup> See: Article 1(40),(41),(42) the Act No 27/2007

<sup>151</sup> See: Article 7(2) the Act No 27/2007



17/2008 on the conservation areas in coastal areas and small islands. On the other hand, local Government has an obligation to make management plans (strategic planning, zoning, action plan) with the involvement of local people or communities which are based on the guidelines of the Ministry of Fisheries Decree.<sup>152</sup> Strategic planning should be in accordance with national strategic planning and zoning should be in accordance with provincial and municipal spatial planning.<sup>153</sup> In this planning, the Government has an obligation to allocate space and access for communities to fulfill their economic and social needs.<sup>154</sup>

There is a gap and shortcoming in this legislation on institutional arrangements and mechanism to coordinate and integrate decision between sectors. If the aim of this Act is to integrate sectors and different level of government, why is the Ministry of Marine Affairs and Fisheries designated to implement this regulation. The designation of Ministry of Marine Affairs and Fisheries as the single authority has caused this legislation to be regarded as sectoral legislation and as such does not achieve its purpose to integrate decision making between sectors. Article 53 prescribes that at the national level the management of coastal areas and small islands is coordinated and lead by the Ministry of Marine Affairs and Fisheries. However, no detail on the mechanism to integrate sectors for the management of coastal and small islands is provided. There should be another board or agency who has full authority to coordinate a cross sectoral planning and policy for the management of marine and coastal resources. For example, the creation of special inter-Ministrial coastal coordinating council or commission; Assignment to an existing planning, budget or coordination office; and designation of an existing line ministry to act as lead Ministry.<sup>155</sup> This is because there is an underlying problem of sectoral ego between line agencies in Indonesia regarding the management of natural resources. Every Ministry wants to be the champion of its own statue and secure

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<sup>152</sup> See: Article 7(4) Management of coastal and small island Act

<sup>153</sup> See: Article 9 Management of coastal and small island Act No 27/2007

<sup>154</sup> See: Article 9(3) c Management of coastal and small island Act

<sup>155</sup> Biliana Cicin Sain, Op cit, p45

their department interest. More mandates, authority and money allocated from the Government allocation budget to execute the mandates in their department is much better for them. This is why it is hard to resolve the overlapping authority between the Ministry of Forestry and the Ministry of Marine Affairs and Fisheries on the management of national marine parks and MPAs. The only board relating to the management of coastal and marine affairs that is already established by Presidential Decree No 161/1999 is the Indonesian Maritime Board (DMI). However, this maritime board, which was subsequently changed to the Indonesian Ocean Board by Presidential Decree No 21/2007 has limited power and authority and no significant hierarchy in Government This Board is just like a consultation forum lead by the Ministry of Marine Affairs and Fisheries and the members of the Board include:

- Minister of Home Affairs
- Minister of Foreign Affairs
- Minister of Defense
- Minister of Transportation
- Minister of Finance
- Minister of National Education
- Minister Head of BAPPENAS
- Minister of Environment
- Minister of Research and Technology
- Head of National Police Republic Indonesia
- Head of Marine Force
- Expert team
- Representative from University/Academic
- Representative from Business entity
- Representative from NGO.<sup>156</sup>

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<sup>156</sup> Article 4, Presidential Decree No 21/2007

This Board has the duty to provide recommendations to the President on general policy in ocean affairs.<sup>157</sup> Its duties and functions also include consultation with Government institutions, representatives of community to integrate the policy, give a solution to the ocean problems and evaluate policy on the development of ocean sectors.<sup>158</sup> It is very different with Vietnam, for example, which has already establish a cross sectoral institution to integrate and manage all propose activities relating management of marine and coastal resources.<sup>159</sup> All proposals regarding the utilization of marine and coastal resources from other Ministries and Departments should be sent and reviewed by the VASI before they are an approved by Prime Minister.<sup>160</sup>

### **3.2.3 Conservation**

Conservation is governed in Chapter 3 Articles 28 to 31of the law no 27/2007. The objective of conservation is codified as follows: to protect the coastal ecosystem and small islands; to protect fish migration and other species; to protect sea biota; and to protect traditional cultural sites.<sup>161</sup> To achieve this conservation goal the Government designated some coastal and small island areas to be allocated as conservation areas.<sup>162</sup> The management of these conservation areas is managed by the central Government or local Government. However, the proposal or request to conservation areas can come from individuals or local communities.<sup>163</sup> It is clear that there is no current community-based coastal management (community-based coral reef rehabilitation, community based marine protected area) recognized under this legislation because the conservation area are managed by either central Government or local Government and not managed by the local people or co-management. The only recognized community based management approaches are the existing ones based on traditional customary law or adat law, for

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<sup>157</sup> Article 2, Presidential Decree No 21/2007

<sup>158</sup> Article 3, Presidential Decree No 21/2007

<sup>159</sup> Dai, Vietnam Adminsitration of Seas and Island (VASI) an institutional arrangement of Cross Sectoral coordination inVietnam, Presentation in ITP tarining, Vietnam 2009

<sup>160</sup> Ibid

<sup>161</sup> Article 28, The law on Management of Coastal Areas and Small islands No 27/2007

<sup>162</sup> Ibid see : Article 28 (2) The law No 27/2007

<sup>163</sup> Id, See Article 28 (7) The law No 27/2007

example, sasi, mane'e, awig-awig and panglima laot.<sup>164</sup> This regulation is not so as to accommodate the trend of community-based coastal management which is increasingly supported by international donors and also increasing in numbers in some regions of Indonesia. For example, community based protected areas in Spermonde archipelago<sup>165</sup>, community based coral reef rehabilitation in Bondalem Bali,<sup>166</sup> and community based marine protected area in Buton Distric South Sulawesi.<sup>167</sup> All these conservation areas have been initiated and managed by local people assisted by NGOs. Below is the model of existing marine conservation area in Indonesia.

Tabel 3.1 The Type of Marine Conservation in Indonesia

<i>Level</i>	<i>type</i>	<i>Management Authority</i>	<i>Approach Model</i>	<i>Supporting Agency</i>
National	Marine National Park (TNL)	Balai Taman Nasional (BTN-MF)	Government-Based Management	Ministry of Forestry
	Aquatic National Park (TNP)	BBKSDA-MF *	Government Based Management	Ministry of Forestry
Local	Local Marine Conservation Area (KKLD)	Local Government (Municipal level)	Government Based Management	MMAF**
	Fish Sanctuary	Local People Local Government	Co-Management	MMAF & ADB
	Marine Protected Area (DPL) ***	Local People	Community-Based	Local People
	Sasi, Awig-Awig**** Panglima Laot Mane'e	Local People		

Source: Modified from Arif Satria, 2006

\*Later this year the management authority was transferred from Ministry of Forestry to Ministry of Marine Affairs and Fisheries

\*\*Ministry of Marine Affairs and Fisheries

<sup>164</sup> See: Article 28 (3) c The law No 27/2007

<sup>165</sup> Wasistini Baitoningsih Master Thesis, Uni Bremen, 2009

<sup>166</sup> Masyhuri Imron, *et al*, 2008

<sup>167</sup> Maruf Kasim, Coremap

\*\*\*Increasingly in numbers nowadays

\*\*\*\*Traditional management practices based on customary law

There is a need to govern clear for mechanism to enable local communities and fisherman to be involved, manage, and obtain funding from marine conservation area initiatives. The incentive from the Government will make local people more interested in conserving their waters. This is because in practice there is some rejection to the idea of establishment of local marine protected areas by local communities and local fisherman, for example, the rejection of marine protected areas in Sepanjang Madura. So far the efforts of local government to reduce this opposition are only with giving and information and educate people on the importance of MPAs for the recovery of fish resources and its environment. Moreover, with the zoning system in the marine protected areas the fisherman still can catch the fish. There are three zones in marine protected areas: core zone, buffer zone, transition zone or utilization zone.<sup>168</sup> Nowadays the local Government still confuses with the model of the involvement of local people in local conservation area (marine protected areas) because there is no guidelines from the legislation. Coastal resources Management Project-Indonesia funded by USAID actually have been tested three models of CBCM. These include: community based village-level marine sanctuaries, community based village level integrated coastal management plans, and community-based village-level ordinances and policies.<sup>169</sup> However, these models do not adopted into legislation. To some extent to make the MPAs effective the local Government should involve local people on the planning, implementation and monitoring which is as part of ICZM approach. However, due to there is no clear legislation governing the involvement of local people on MPAs, for example, with co management, the approach of MPAs still government based where Local Technical Service Agency (UPTD) is established and appointed to manage MPAs. This is the finding of fieldwork research I conducted through interviews with local Government in Jawa Timur.<sup>170</sup>

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<sup>168</sup> See: Article 29, Coastal Management and Small Islands Act no 27/2007

<sup>169</sup> J. Johnnes Tulungen *et al*, Op cit, p8

<sup>170</sup> See: Masyhuri Imron *et al*, 2009

Without local involvement marine protected area will not be successful because the local community is one of the main stakeholders in the marine conservation area. The success of MPAs will be greatest when communities collectively support them.<sup>171</sup> The role of community and local fisherman in support of this marine protected area is important. Especially their support not to fish in core zone areas and their support in monitoring illegal fishing in marine protected areas because local fisherman are always on site or going fishing everyday in their areas. While the local Government officer is rarely on site, usually the Government has limited budget to undertake monitoring activities. The other reason why the fisherman is the main stakeholder is because the Government should provide alternative livelihood for fisherman to compensate for loss of income in no take zones. For example, involve local fisherman in tourism activities (rent boats for tourist to see dolphins, seaweed farming, crab farming, and small business activities (i.e. production of fish crackers)).<sup>172</sup> Thus there is a need for legislation on how local conservation areas are to be managed with the involvement of all stakeholders and the role of local people in the management of MPA must be clearly codified. There should be a clear mechanism for local community involvement in planning, implementation and monitoring. In practice, the local Government is still seeks on the effective model of local involvement in the management of MPAs because there is no guidance this in the legislation.

Regarding the conservation in coastal areas Article 31 governs on the coastal meadow. It specifies that local Government should establish the limit of coastal meadow considering the areas characteristics and needs, and should follow the guidelines, namely:

- The protection from earthquake and tsunami,
- The protection of beach from erosion and abrasion,
- The protection of coastal infrastructure from natural disaster (flooding, typhoon),

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<sup>171</sup> SC Jameson, Mark H Tupper, Jonathan M Ridley, The three screen doors: Can marine protected areas be effective? *Marine Pollution Bulletin* 44 (2002) 1117-1183, p 1179

<sup>172</sup> Suraji, Conservation area should not be a nightmare for fisherman, 29 Sep 2009, <http://suraji78.blogspot.com/2009/09/kawasan-konservasi-perairan-tak.html>

- The protection of coastal ecosystem (mangrove, coral reef, sea grass, estuaries, delta), the regulation of public access, the regulation of sewerage.<sup>173</sup>

However, in some local regions, especially at the municipal level the flexibility to regulate the coastal meadow means they can be regulate fully depend on the local needs. However, the local needs are often those of private sector and not those of the local people. Local Government revenue is the main consideration of local Government in establishing the limits of coastal meadow. For example, in most of the region in Bali most of coastal areas contain resorts, villas and hotels. These villas are established around less then 25 meters from the high water mark to the land. In fact, the central and provincial regulation on spatial planning establishes up 100 meter of coastal meadow but the municipal regulation is set the coastal meadow at less than 25 meters.<sup>174</sup> As a result the local people, especially fisherman, do not have enough space to put their boats on shore. The access of local people to the beach is also limited because the owners of the villa consider the beach as their backyard or private areas. Thus there is a trend that local Government tends to consider Government revenue rather than give access to local fisherman and local people to enjoy the beach. The trend to exclude local people will increase with the concession regime on the management of coastal areas which is being implemented. Concession regime is in is much more favourable for private sector.

Relating to conservation this legislation also governs the rehabilitation and reclamation of coastal areas. It stated in article 34 states that reclamation must consider the following:<sup>175</sup>

- The livelihood of local community
- The balance between the utilization and conservation
- Technical requirements

The Environmental Impact Assessment (EIA) should also include the requirement to reclamation because in practice many reclamation projects have caused the lost of

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<sup>173</sup> See: Article 31, Management of Coastal and Small Islands Act No 27/2007

<sup>174</sup> See: Masyhuri Imron *et al*, 2008

<sup>175</sup> See: Article 34, Management of Coastal and small island Act No 27/2007

mangrove ecosystem,<sup>176</sup> flooding because sea levels rise,<sup>177</sup> and the removal of local people or fisherman from their livelihood.<sup>178</sup>

In order to reinforce conservation measures the legislation also governs several activities which are prohibited:<sup>179</sup>

- Coral reef mining;
- Taking coral reef in conservation area;
- Using bomb or poison in taking fish;
- Using equipment, method which caused damage to coral reef;
- Using equipment, method which caused damage to mangrove;
- To convert mangrove ecosystem in the area or farming zone without taking into consideration the sustainability of coastal ecosystem;
- To cut the mangrove in conservation area for industry or housing;
- Using method which damage the sea grass;
- Conducting sand mining in the area which is technically, ecologically and socially causing damage to the environment and society;
- Conducted gas and oil mining in the area which is technically, ecologically and socially causing damage to the environment and society;
- Conducted mineral mining in the area which is technically, ecologically and socially causing the damage ;
- Conducting development that causing the damage to environment and society.

Sanctions for the violation of these provisions on prohibited activities include imprisonment for a minimum of two years and a maximum ten years and penalty maximum 10 billion rupiah or 1,052,631 US Dollar.<sup>180</sup>

This legislation to some extent is good on paper although it does lack provisions for public participation in planning, implementation and monitoring of conservation areas. However, in fact there is lack of implementation of this regulation. This is due to lack of

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<sup>176</sup> Walhi, antara news Walhi force government to revoke presidential regulation on the reclamation of north Jakarta beach 6 Februari 2006. 5 ha mangrove areas and sea grass is threatened by the reclamation and development of housing settlement, industry in Jakarta, Padang, Makassar and Menado

<sup>177</sup> For example, the housing in North Jakarta beach resulted from reclamation were accused to be the caused of flooding in that area. ( Liputan 6.com, 8/2/2008)

<sup>178</sup> Walhi has claimed that million of fisherman has remove from their livelihood from the reclamation projects. In the development of Pantai Indah Kapuk in Jakarta itself 125.000 fisherman is being removed.

<sup>179</sup> See: Article 35, Coastal Management and Small Island Act No 27/2007

<sup>180</sup> Article 73, Coastal Management and Small Island Act No 27/2007, 1 US Dollar equivalent to 10.000 rupiah



enforcement mechanism because the Government is more in favour of economic development rather than conservation.

### **3.2.4 Public Participation**

Public participation of local community in the management of marine and coastal resources is important. This because the local community is one of the main stakeholders and is sometimes marginalized by the Government policy and decision making. Local community, especially traditional fisherman, live mostly in poverty and lack education, they are unaware of their right to public participation. There is a lack of public participation in decision making. The poor traditional fishers are very vulnerable. Every decision or policy made by the Government in marine and coastal management will have direct impacts on them. For example, reclamation of the coastal areas in Pantai Indah Kapuk Jakarta has forced 125,000 fishermen to relocate or be removed.<sup>181</sup> Thus, it is important to strengthen their public participation in decision making especially the local community and traditional fisherman. Note that in Indonesia public participation is still weak. All stakeholders deserve to be heard in the decision making process including coastal communities (fisherman) and business people. The government is much in favour of securing the interest of private sector rather than that of the local people. Again local Government revenue is the main consideration in securing the interest of private sector.

Chapter XI, article 60 of the law no 27/2007 stipulates rights, obligations and public participation of local community in the management of marine and coastal resources. This chapter on public participation is important considering the give Concession Rights regime to the business entity and company in order not to disadvantage and marginalized local communities and local fishermen. What is a concession right? Concession Rights (HP3) are regulated by article 16-22 and governs utilization of the coastal areas for business activities in the marine and fisheries sector. This is a new regime introduce in the management of marine and coastal resources. There is a similar concession rights

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<sup>181</sup> Walhi, Op Cit, p 46

regime previously implemented for the management and utilization of forest which is called (HPH). HP3 is given to individuals, business entities and local communities.<sup>182</sup> HP3 is given for 20 years period and can be renewed for first stage a 20 year and for a second term in accordance with the law and legislation.<sup>183</sup> HP3 is transferable and can become debt collateral. The authority empowered to grant this concession right is the Ministry of Marine Affairs and Fisheries for the area between provincial waters, Governor for the HP3 in 12 miles and the City Major for HP3 in 1/3 of the coastal water managed at the provincial level.<sup>184</sup> Article 21 suggested that public participation begin with the application to HP3, the granting of HP3 should begin with public consultations.<sup>185</sup> This is a good and clear signal that the Government wants to involve all stakeholders. But again the weakness of this legislation is that it no detail provides on mechanism for public consultation on the proposal of HP3. For example, invitation to review the proposed plan of HP3 in media and for how the local community may submit their objection to the plan and how long does the public consultation last. In addition, the good indication that the Government respected local people and protect their interest is stipulated under article 21: the company has the obligation to empower the local community, for example by involving the local community as a workforce in their business activities; respect, recognize and protect the right of the local customary rights and local people; giving the access of local people to coastal meadow and estuary.<sup>186</sup> However, that who will guarantee the companies grants these to local people. Considering the failure of the HPH Regime (Concession right in forestry sector) which resulted in many conflicts between local people and companies throughout the archipelago (Sumatera, Kalimantan, Papua, NTB, NTT, Bali). Even though, there are sanctions to the non compliance of this obligation under article 75, which states that imprisonment for 6 months or penalty for 300 million rupiah. This is because there is lack

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<sup>182</sup> See article 18, Coastal Management and Small Island act No 27/2007

<sup>183</sup> Ibid article 19, Coastal Management and Small Island act No 27/2007

<sup>184</sup> Ibid article 50(2), (3), Coastal Management and Small Island act No 27/2007

<sup>185</sup> Ibid article 21, Coastal Management and Small Island act No 27/2007

<sup>186</sup> Ibid article 21(4), Coastal Management and Small Island act No 27/2007

of enforcement in the implementation. In fact, there is a regulatory captured phenomenon that is the Government captured by the regulatory they are supposed to be regulating. The Government tends to promote the well being of the private sector rather than to prosecute for non compliance. This situation is presented as bleak as, so far there are many cases relating to the conflict between private sector who have concession rights and the local people who claim traditional customary land rights (*ulayat right*). Most of the cases involve property right claims issue between local people and companies who have concession rights (HPH) granted by the Government for forestry, mining, and agriculture activities, for example, the case between Kelian Equatorial Mining (PT KEM) versus Tutung local community. The case involved the removal of local people from mining areas (concession areas) and the conflict began when the compensation to these people was not settled even now after the closure of mining activities. The local community felt that they did not get enough compensation which is what the company promise to give them.<sup>187</sup> Thus, in this regard, the Government monitoring of compliance of the companies to fulfill their obligations under article 21(4) is important. There should also be a mechanism through which individual or communities can redress damages if any.

Now what are the rights, obligations and the role of the local community which is stipulated under article 60. It is stated that in the management of coastal areas and small islands communities have the follow rights:<sup>188</sup>

- Given the access to the coastal areas that have given concession rights (HP3);
- Receiving compensation for loss of access to coastal resources and small islands which are the source of their livelihood because the grant of HP3 accordance to the law;

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<sup>187</sup> Based on the interview with local people in Tutung village in July 2009

<sup>188</sup> See: Article 60, Coastal Management and Small Island Act No 27/2007

- To undertake activities on the management of coastal resources and small islands based on the existing customary law and not contravene with the existing national law.
- To derive benefits from the implementation of management of coastal areas and small island
- Obtain information related to the management of coastal areas and small island
- Submit report and complaint to the designated authorities on the damages suffered as the result of the implementation of the management of coastal areas and small island;
- Objecting to plans announced on a specific time.
- Report to the police on the pollution or destruction of coastal areas and small island that damaging their quality of life.
- File the suit to the court with many problems of coastal areas and small island that damage their livelihood.
- Obtain Compensation

It is clear from the rights of the community enumerated that above the Government try to protect the coastal communities and local fisherman from the damages to their livelihood as a result of the introduction of HP3. It is not purely reflecting public participation in decision making on management of coastal resources, because it is not stipulated how the local community can be actively involved in planning. How local people can express their interest in planning of coastal management in their area. With the introduction of HP3 and its potential bad impact on fisherman and local coastal communities who will lose their jobs or lose access to the sources of their livelihood which is stipulated in article 60(h) that is potentially a violation of human rights despite provision for compensation. How much compensation will the local fisherman or community get from lose of access to the sources of their livelihood is still questionable. Is the compensation enough to support their livelihood for the rest of their lives, or should the Government

force them to move from their place because there is no job or nothing they can do because they can not fish anymore in that area or they should go fish much further away from the coastal areas. As a result it contradicts the purpose of this legislation which is to strengthen the local communities' role in the management of coastal areas and small island if they lose access to the coastal resources. So far, the displacement and compensation of the local people always creates conflict and violations of human rights. Local people are always marginalized and disadvantaged. For example, the case of KEM vs Tutung Local community in West Kalimantan.

The government plan to implement HP3 in 2011.<sup>189</sup> However, the controversy and the objection still exist. The controversy and the objection to the implementation of HP3 is also triggered by the issue of the “sale<sup>190</sup>” of several islands in Indonesia to foreigners (direct or indirect)<sup>191</sup> by local people<sup>192</sup> which is boosted by the media. For example, what the media called the “sale” of Siloinak island, Kandui, Makaroni<sup>193</sup> in Mentawai Island.<sup>194</sup> It is argued that with the implementation of HP3 the “sale” of the island to a foreigner is justified.<sup>195</sup> With the privatization of the island local people will automatically have limited access to the area of HP3. Furthermore, It has been pointed out that HP3 is considered as a “pro rich policy” because only investors or business entities who have adequate finance may obtain concession rights.<sup>196</sup> It is unreasonable for local community or local fisherman to enter the HP3 scheme with such an expensive

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<sup>189</sup> Kompas 28/8/2009

<sup>190</sup> The term sale is rejected by Sora Lokita who stated that it is not sale but only the utilization or management

<sup>191</sup> The sale of the island is prohibited under Indonesian Constitution especially to the foreigner. Basically, the foreigner is prohibited to own the land under Agrarian law Act No 5/1960. They only allowed to rent or utilize it. The indirect means the land is own on the name of local people but the funds or money is from the foreigner. The foreigner usually buy the land from local people with cheap price. They built a resort and hotel in this island.

<sup>192</sup> Local government claimed that they do not know about this sale of the land case to the foreigner.

<sup>193</sup> Formerly these three island are claimed to have ulayat right belong to local mentawai people

<sup>194</sup> PK2PM, Sale of the island, HP3 and The sovereignty of the Nation, 5 September 2009

<sup>195</sup> Ibid

<sup>196</sup> Mova Al Afgani, Coastal Management law Review?, Jakarta Post 15/4/2008

administrative cost,<sup>197</sup> most of the local people or local communities living in coastal areas are in low income.

### 3.2.5 Conflict Management

The increasing concern over the utilization of the coastal zone and small island is leading to potential access conflicts between investors and local people. Most of the conflict is associated with tourism versus traditional fisheries, for example, the conflict between local fisherman and PT Wakatobi Dive Resort (Swiss) on the access of coastal water.<sup>198</sup> The case involved the limitation of local fisherman to fish in the area that was used by PT Wakatobi Dive resort as diving area.<sup>199</sup> The conflict between fisherman and the owner of resort in Bondalem Buleleng Bali on the utilization of space in the coastal area for private beach versus the space for placing traditional fishing boats (jukung).<sup>200</sup> The conflict of Togian local community with PT Walea (Italia).<sup>201</sup> The local Government seemed unaware of the potential conflict in the utilization of this coastal resource. It is indicated by the lack of law enforcement regarding the non compliance of the development in coastal meadow. Looking at conflicts between local communities and investors or businesses recently before the implementation of HP3, the Government should have anticipated that concession rights could possibly increase the potential for conflict. Thus, conflict management is important to reduce this conflict. How can the Governments address the issue? Examining conflict management conducted in Bondalem village, Buleleng Bali. It is interesting to learn how the local community solved this conflict between the owners of a villa and the fishermen. Based on the fieldwork in Bondalem village Bali the conflict resolution is based on negotiations or consensual approach. The leader of the village, leader of adat pakraman, the owners of the villa, and the fisherman

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<sup>197</sup> Ibid

<sup>198</sup> Kompas, 20 March 2009 Artikel oleh Yurnaldy "Baru sekedar sadar potensi"

<sup>199</sup> Yunalrdi, Kompas 20 March 2009, Is just only limited to Potential aware.

<sup>200</sup> Masyhuri Imron *et al*, 2008: In Bali most of the investor built the resort in coastal meadow area which is according to provincial regulation is clasified as non development area. The result of this development is there is limitation to the access of community to the public beach

<sup>201</sup> Yulinardi, Op cit, p 51

discuss the problems and negotiate a win-win solution. Several options resulted from this discussion and negotiation: first the fishermen are allowed to place their boats on shore in the area owned by the fisherman must collect the waste and garbage regularly around this place.<sup>202</sup> The other option is the owner of the villa may request the fisherman to lend their boat to the owner of the villa to see the dolphin (tourism activities purposes).<sup>203</sup>

Now how the law on Management of coastal area and small islands manage the conflict. Chapter 13, Article 64, of the law on management of coastal and small islands stipulates that conflict resolution is conducted through court and outside court.<sup>204</sup> Class action is also permitted under this legislation.<sup>205</sup> However, filling a suit to the court is costly and lengthy, and the compensations awarded are sometimes unsatisfactory. The best ways to reduce the conflict in the utilization of coastal areas are through:

- Zoning (resources use designation) and marine spatial planning.
- Harmonization between national, provincial, and municipal level spatial planning legislation and policy is critical.
- Involvement of stakeholders include local people, local fishermen, and business entities.
- Strengthening of the local community actively involved in planning, implementation and monitoring of coastal management.
- Establishing clear mechanism of community involvement in decision making, including written comments, formal procedures of public participation, workshop, advocate planning, and planning cell.

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<sup>202</sup> Masyhuri Imron *et al*, Op cit, p 52

<sup>203</sup> Ibid

<sup>204</sup> See : Article 64, Coastal Management and Small Island Act No 27/2007

<sup>205</sup> See: Article 68, Coastal Management and Small Island Act no 27/2007

### **3.3 The Law on Fisheries (Act No 31/2004)**

Overfishing, illegal fishing, destructive fishing and poverty of traditional or artisanal fishermen are the major problems in the fisheries sector in Indonesia today. The fisheries law no 31/2004 is enacted to replace the old fisheries law no 9/1985. The new fisheries law no 31/2004 emphasizes two aspects, namely the optimal utilization or exploitation of fisheries resources and their conservation. While this legislation governs the conservation of marine resources, it is not comprehensive and adequate in addressing the issues of overfishing and illegal fishing. Furthermore, it has been pointed out that even though the fisheries act provides great improvement in conservation-based fisheries management, but it does not specifically address coastal resources fisheries in a meaningful way except in broad language to empower and enhance the livelihood of small scale fishers,<sup>206</sup> which may actually entail greater strain on the resources.<sup>207</sup> The law on fisheries also created an overlap regarding the institutional framework on the management of conservation areas with the previous legislation the law no 5/1990 on conservation living natural resources and its ecosystem. This problem is difficult to resolve in the implementation. In addition recent effort to address the problem of illegal fishing, the Government enacted the revision to the law no 31/2004 with a focus to stricter the enforcement by copying the practice of Australian authorities in rapidly burning illegal fisher's vessels. To some extent this practice is generating criticism because it is conducted before the judgment of the court. It has been suggested that the automatic forfeiture regime has potential to upset the balance established in article 73 of 1982 the Convention on the Law of the Sea.<sup>208</sup> The balance between the coastal State to exercise its sovereign rights to explore, exploit, conserve and manage the living resources and the exercise to enforce the law and take measures including boarding, inspection, arrest and judicial proceeding, and the balance between law enforcement and the protection of human rights. The automatic forfeiture regime such as rapidly burning illegal fisher's vessels is afraid violating human rights.

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<sup>206</sup> Article 60-63, the law No 31/2004 concerning fisheries law

<sup>207</sup> Jason M Patlis, *Op cit*, p 22

<sup>208</sup> Rachel Baird, *Australia's Response to Illegal Foreign Fishing: A Case of winning the battle but losing the law*, *International Journal of Marine and Coastal Law*, Volume 3 No 1 2008, p 95-124 (30)



### 3.3.1 Purposes and Definition

The purposes of this act, as stated in article 3, are to:

- Increase the livelihood of fisherman and small scale sea-farmer
- Increase the government revenue
- Increase and expand job opportunity
- Increase the supply and consumption of fish
- To optimalize the management of fish resources
- To increase productivity, quality, value added, and competitiveness
- To increase the supply raw fish material for fish industries
- To achieve sustainable use of fish resources, sea-farm and its environment
- To guarantee the sustainability of fish resources, sea farm area and spatial planning.

It is clear from the above that this legislation seeks to achieve two broad objectives: this legislation, the welfare of traditional fishers, and sustainable use of marine resources. These objectives are sound, especially the good will of the Government to increase the livelihood of traditional fisherman. However, to some extent this legislation does not reflect its purposes to increase the livelihood of small-scale fisherman. The Government does not recognize Community-Based Fisheries Management (CBFM) systems which have as *de facto* existed over a hundred years in Indonesia.<sup>209</sup> CBFM are rooted from in traditional fishing communities, which are scattered in many islands of Sumatera, Java, Sulawesi, Maluku, Papua and Nusa Tenggara Barat.<sup>210</sup> The recognition of this CBFM is important considering the recognition of the role of the local people as resource managers. As pointed out that there is no article within the revised Fisheries Law No 31/2004 that explicitly addresses devolution to the local people as recognition of CBFM systems.<sup>211</sup> It is pointed out that CBFM has many positive roles, including livelihood security, access equity and conflict resolution, resources conservation, and ecological

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<sup>209</sup> Arif Satria, Decentralization of property right in Marine Fisheries: Indonesia Perspective, 2004, p2

<sup>210</sup> Ibid, p2

<sup>211</sup> Ibid, p2

sustainability.<sup>212</sup> If the Government wants to increase the livelihood of the fisherman, it should recognize and support CBFM systems which exist in local communities. In addition, many policies on the implementation of this legislation are creating controversy and are seen by some as disadvantaging small scale fishers, including through the provisions of Ministry Decree No 6/2008 on the permit trawl<sup>213</sup> and Ministry Decree No 5/2008 on fisheries cluster.<sup>214</sup> Moreover, the legislation is unclear on definition of traditional fisherman or small scale fisherman. Traditional fisherman is defined as a person who has a job to catch fish as their daily activity. But this definition does not include what type of vessel may be used, nor type of fishing gear. The clarity of this definition is important because traditional fisherman have the right to fish in all areas of Indonesian jurisdictional waters.<sup>215</sup> If this definition is not clarified, it could become a source of conflict between local traditional fisherman with traditional and friendly fishing gear and “modern” fisherman which are using trawl or purse seine. The revision of the law no 31/2004 clarified the definition of traditional fisherman the traditional fisherman are using boats of a maximum weight of 5 gross tonnage.<sup>216</sup> However, again the legislation does not mention and clarify which fishing gear is categorized as appropriate for traditional fisherman.

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<sup>212</sup> Berkes *et al.* (1989:11-13) see also Arif Satria, Decentralization of property right in Marine Fisheries: Indonesia Perspective, 2004, p4

<sup>213</sup> Trawling is prohibited under previous regulation Presidential decree No 39/1980. This is due to in the past this trawl created conflict between traditional fishers and modern fishers. The traditional fishers can not compete with this modern fishers uses trawl, they catch reduce significantly due to the existence of trawling. In addition, environmentalists argue that trawling caused physical damage to seabed and coral reefs. FAO code of conduct of responsible fisheries prescribe that the performance of all existing fishing gear should be examined and measures taken to ensure that fishing gear, method and practices which are not consistent with responsible fishing are phased out and replaced with more acceptable alternatives. In this process particular attention should be given to the impact of such measures on fishing communities, including their ability to exploit the resources.

<sup>214</sup> The grant of fisheries cluster to private entity for 30 years period is threaten the small traditional fisherman due to their access to fish will be limited. Some scholar argue that this policies contravene with Code of Conduct for Responsible Fisheries (CCRF) which prescribe state should provide measure that interest of fishers including those engaged in subsistence, small scale and artisanal fisheries, are taken into account.

<sup>215</sup> Article 61, the Act No 31/2004 on fisheries law

<sup>216</sup> Revision to the Act no 31/2004

### **3.3.2 Institutional Arrangement**

In the definition of this regulation there are several authorities responsible for the implementation of this legislation namely: the central Government, the Ministry of Marine Affairs and Fisheries and the local Government. The Ministry on which is mandated in this regard is the Ministry of Marine Affairs and Fisheries has the duty to decide on the policy regarding the management of fisheries. This includes plans for fisheries management, potential and allocation to the fisheries resources, total allowable catch, potential and allocation to aquaculture, type amount and size of fishing gear, location, area, time and season of fishing, fisheries conservation area, type of fish being protected.<sup>217</sup> To help the Ministry in making decisions, article 7(3) mandates the National Commission on the Assessment of fisheries stock which has the duty to give recommendations on potential and total allowable catch (TAC). This Commission actually already established in 1996, with the initiation of National Board of Planning and Development (BAPPENAS) and its membership includes Indonesian Institute of Sciences (LIPI), Institute of Aeronautics and Space (LAPAN), The Agency for the Assessment and Application Technology (BPPT) and Bogor Agriculture Institute (IPB). However, in this legislation there is no commission on the assessment of fisheries stocks at the local level. This type of commission is needed at the local level because the local level has been given the authority to manage marine and coastal resources. So far, the local Government has difficulties in obtaining valid data on fisheries stocks. Thus, it is hard for them to decide in a timely manner on the on fisheries sector policy. For example, on the ban of fishing gear, or a close season in several waters which are already overfished, or to reduce the number of fishing vessels. According to interviews conducted with the fisherman in Buleleng Bali they complaining about the reduction of the fish stock and there is no policy from the Government to recover these resources. The Government should thus strengthen the capacity of local Government agencies so they are able to conduct assessments of fisheries stocks in their area.

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<sup>217</sup> See: Article 7, Fisheries Act No 31/2004

Article 7(6) prescribe that to enhance the development of fisheries in Indonesia, the Government establish the National Board of Fisheries Development lead by the President and composed of representatives from the relevant ministries and fisheries associations. However, until now this National Board of Fisheries Development has not been established. Some scholars urge the Government to establish this board of fisheries because there is trend that fisheries policy issued by the Ministry of Marine and Fisheries tends to favour and advantage large scale fisherman rather than small scale traditional fisherman.<sup>218</sup> For example, with the enactment of the Ministry of Marine and Fisheries Decree No 6/2008 on the usage of trawl in East Kalimantan. It is indicated that in the future in all areas of Indonesia trawling. According to this decree, the fisherman can use trawling in this area. However, to some extent this decree contravenes with the previous legislation the Presidential decree No 39/1980 on the prohibition on the using of trawl in the Indonesian territorial water.<sup>219</sup> In the past, trawling created conflicts between small scale fisherman and modern large scale fisherman. The small scale fisherman using traditional fishing gear suffered a lot because their catch was significantly reduced because of large scale trawl. The small scale fisherman can not compete with the large scale trawl. Moreover, the trawlers practiced unsustainable fisheries because they damaged the coral reefs and took small fish. However, the Government argued that the prohibition of trawling was an obstacle to developing the technology and revenue in the fisheries sector.

Another controversial policy issued by the Ministry of Marine and Fisheries is the enactment of Ministry Decree No 5/2008 on fisheries business. In this decree, the pattern of fisheries businesses is based on cluster. The government grants the licences to company to get the fishing ground based on clusters. Scholars argue that with this cluster it will threaten and marginalize the small traditional fishers fishing ground,

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<sup>218</sup> Suhana, Sinar Harapan News, 2008

<sup>219</sup> Presidential Decree No 39/1980 concerning phase out of trawl

creating conflict between the business entity who has a licence and small fisherman, threaten the sustainability of fish resources and the monopoly of fisheries business.<sup>220</sup> Thus, the National Board of Fisheries would probably assess the pros and cons of the policies issued by the Ministry of Marine Affairs and Fisheries and minimize the pro industry policy.

The other authority designated by the legislation is the Fisheries Control which is the PPNS (Government official who has authority to investigate, seize and seizure) and the Police. However, to some extent in practice at the local level there are not many Government officials who want to be PPNS, for example in the local Government in Sumenep Madura there is no PPNS.<sup>221</sup> This is because the job to control fisheries is full of risk.<sup>222</sup> They do not train to be brave and capable as police. Thus, in practice they let the police to do fisheries control and they just give an opinion in court if fisher has been caught fishing illegally.<sup>223</sup>

### **3.3.3 Conservation**

Conservation in this regard relates to the measures to prevent fish stocks from being over-exploited. This includes the protection of the ecosystem.<sup>224</sup> However, to some extent this legislation does not exclusively govern conservation measures in a special chapter. The provisions on conservation measures are broadly and scattered in several articles. For example, to prevent the fish stocks from being overexploited this legislation provides conservation measures that include: Total Allowable Catch,<sup>225</sup> Technical measures (size, type of fishing gear), minimum landing sizes, and fishing season.<sup>226</sup> However, this

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<sup>220</sup> Dahuri Rokhmin, Suara Pembaharuan, 13 October 2009

<sup>221</sup> Base on the interview conducted in 2009 with the official from the local agency of marine affairs and fisheries

<sup>222</sup> Ibid

<sup>223</sup> Ibid

<sup>224</sup> See: Definition of fisheries conservation in the Act no 31/2004

<sup>225</sup> See: Article 7(j) the law no 31/2004 on Fisheries

<sup>226</sup> See: Article 7(c), (p), (h), (f) the law no 31/2004 on Fisheries

legislation does not govern several conservation measures which are applied in some countries such as Sweden and Australia. This includes: closed season, by catch limit, limiting fishing effort, fixing the number and type of fishing vessel authorized to fish. This regulation on closed season and fixing the number of fishing vessels is important, considering that Indonesia has a problem with overfishing and fishing fleet management (over capacity). For example, in East Java of some 8500 vessels only 10 % have licence to fish.<sup>227</sup> Over fishing is deeply rooted in fleet over capacity. Too many vessels fish intensively in some waters. For example, the overfishing of lemuru in Bali strait is due to too many vessels fishing in lemuru season; 400 vessels fish in the lemuru season but the quota is only 150 vessels.<sup>228</sup>

In addition, the conservation measures on the protection of fish habitat, including the establishment of marine conservation areas is also regulated.<sup>229</sup> However, there is no detail in the provisions on marine conservation areas and fish habitats. It is stated in article 7(5) that the Ministry of Marine and Fisheries may decide what type of fish and the waters are protected. This includes marine conservation areas for the purposes of research and development, tourism and fish habitat.

There are weaknesses in this legislation regarding conservation. It is not clear and in systematic in its regulation on fish habitat protection. The provisions on conservation area are too broad. Thus, it does not provide the appropriate framework for conservation area in meaningful way. None of the legislation both the law on coastal management and small island and the fisheries law govern the conservation in meaningful way in regards to the involvement of local people. However, the detail on the guidance of the establishment of conservation areas is govern by the Ministry of Marine Affairs and Fisheries Decree No 2/2009 on the procedure on the establishment of marine

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<sup>227</sup> See: Masyhuri Imron *et al*, 2009

<sup>228</sup> Ibid

<sup>229</sup> See: Article 7(q) the law no 31/2004 on Fisheries.

conservation area. In this decree the involvement of local people is limited on the education and public consultation. There is no provision on the involvement of local people or fisherman on the management of marine conservation area. For example, co-management and partnerships, this includes the participation of local people in this fish habitat protection. The active involvement of local people in the management of MPAs is important so as to increase their stewardship over marine resources and not to marginalize them. It is pointed out that the success of Marine protected area lies in the management system and in particular ensuring the system incorporates stakeholders in its decision making process.<sup>230</sup>

What needs to be clarified in this legislation is the conservation model that should include local people and local fisherman in decision making. Since without the active involvement of local fisherman (centralized system) there is a trend of conflict between local fisherman and the authorities who monitor and control the MPAs or marine conservation areas. Another issue to address is the overlapping mandates of the institutions which manage marine conservation areas. According to the legislation no 5/1990 and Act no 41/1999 on Forestry, the Ministry of Forestry is authorized to manage marine conservation areas. However, according to Act no 27/2007 and Act no 31/2004 on fisheries the management, marine protected areas are managed by Ministry of Marine Affairs and Fisheries. Even with the rule of law *lex posteriori derogate legi priori* that the newest law sets aside the older previous law. However, in the implementation its hard to resolve the conflicting authorities between the Ministry of Forestry and Ministry of Marine Affairs and Fisheries. Below is the list of marine conservation area established between 2002-2004 after the establishment of Ministry of Marine Affairs and Fisheries.

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<sup>230</sup> EJ Hind, M.C. Hiponia and T.S Gray, From Community based to centralised national management- a wrong turning for governance of the marine protected area in Apo island Philiphines? Elsevier, 2009, p 54

Table.3.2 Marine Conservation Areas in Local Area 2002-2004

No	Area	Hectares	Regency	Ecosystem
1.	Marine Park of Selat Pantar	21.850	Alor Nusatenggara Province	Coral reef Whaling
2.	Marine Tourism Area of Pulau Penyu	733	South Coast, West Sumatra	Turtle Coral reef
3.	Marine Tourism area of Pulau Kakaban	2489	Berau, East Borneo	Turtle
4.	Marine tourism area of Pulau Biawak	720	Indramayu, West Java	Coral reef
5.	Marine Tourism area of Tiworo	27,396	Muna, South East Sulawesi	Coral reef
6.	Marine Tourism area of Gililawang	5.807	East Lombok, West Nusatenggara	Coral reef
7.	Conservation and Marine Tourism Park Bengkayang	15.300	Bengkayang, West Borneo	Coral reef
8.	Marine Tourism area of Togeang	113,171	Poso, Central Sulawesi	Coral reef
9.	Marine Tourism area of Selat Lambeh	1294	Bitung, North Sulawesi	Coral reef
10.	Marine Tourism area of Rataotok	330	Minahasa, North Sulawesi	Coral reef
11.	Marine Park of Banggai Kepulauan	275,839	Banggai, Central Sulawesi	Coral reef Banggai Cardinal fish
12.	Marine area of Cijulang	1449	Ciamis, West Java	Coral reef Mangrove
13.	Conservation and Marine Tourism area of Pulau Gili Banta	43,750	Bima, West Nusatenggara	Coral reef
14.	Marine Tourism area of Pulau Sembilan	22,099	Kotabaru, South Borneo	Coral reef Mangrove Ornamental fish
15.	Marine Tourism area and Marine Protected area Buleleng	18,970	Buleleng, Bali	Coral reef Mangrove Ornamental
16.	Marine Wildlife Reserve Park of Pasoso	313	Donggala, Central Sulawesi	Coral reef
17.	Lingga	-	Lingga, Kepulauan Riau	
18.	Sepanjang	-	Sumenep Madura	Coral reef



Source: adapted from Arif Satria, 2006<sup>231</sup>

In addition, in order to protect the fish habitat and its ecosystem, this legislation prescribes the prohibition of destructive fishing practices such as the use of bombs and poison for which the penalty is six years imprisonment and a fine of 1.200.000.000 rupiah or 120.000 US Dollar.<sup>232</sup> However, at some provincial, municipal, even village level the regulations prescribe different sanctions and penalties for the destructive fishing activities. For example in Bali the provincial regulation no 3/1985 on the protection of fish call for 6 months imprisonment and 50.000 rupiah or US\$ 5 fine for the violation of destructive fishing activities using bombs or poison.<sup>233</sup> In addition, the Bondalem village regulation no 5/2006 set different sanctions and penalties which include warning, search and seizures and fine 100.000 rupiah or US\$ 10 for this destructive fishing activities.<sup>234</sup> This difference sanctions creates uncertainty in the implementation.

Another weakness of this legislation is that it does not explicitly govern mangroves and coral reefs which are part of the fish habitat and its ecosystem. Instead, it uses broad language to govern mangrove ecosystems. Article 12 prescribes that every person is prohibited to undertake activities which cause pollution and destruction of fish resources and their environment within Indonesian jurisdiction. Violations will be met with the sanctions of 10 years imprisonment and a fine 2.000.000.000 rupiah or US\$ 200.000.<sup>235</sup> Fish resources and “its environment” here probably mean coral reefs and mangrove areas.

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<sup>231</sup> Arif Satria *et al*, politics of marine conservation area in Indonesia: from a centralised to a decentralised, 2006, p248

<sup>232</sup> Article 8, the law no 31/2004

<sup>233</sup> Article 4 , Local regulation Provincial Bali No 3/1985 on the protection of fish

<sup>234</sup> Masyhuri Imron *et al*, 2008

<sup>235</sup> See: Article 12 and article 86, Act no 31/2004 on fisheries

### 3.3.4 Public Participation

Public participation for small scale fishers is important for the fisheries sectors of Indonesia. 90 % of fishers in Indonesia are small scale fishers.<sup>236</sup> Moreover, most of the traditional fishermen still live in poverty. Most of the fisherman lives near the coast, they tend to depend on fisheries resources for their daily lives. Usually the fisherman go fishing at night and come back in the morning to sale their catch at the market with the earnings from this activity being just enough for basic needs. Sometimes the catch does not cover the cost of fuel. This is why one of the purposes of the fisheries act is to improve the well being of small scale fishers. Every decision and policy of the Government on the management of the fisheries sector will influence them. It must be kept in mind that they are vulnerable, they can not compete with the large scale fishers. So how does this legislation govern public participation in decision making? Chapter 4 on the management of fisheries article 6 states that the management of fisheries and aquaculture should consider adat law or customary law and or traditional knowledge and consider the role of the community.<sup>237</sup> However this article does not clearly recognize community based fisheries management. The term adat law or traditional knowledge is not defined in the definition. To some extent, this article is important as it represents the recognition of Government of local customary law and the role of communities in the management of fisheries resources. Customary law includes, panglima laot,<sup>238</sup> sasi,<sup>239</sup> manee,<sup>240</sup> and awig-awig.<sup>241</sup> However, the recognition of these customary or local traditional practices in the management of fisheries is not fully adopted in the policy and

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<sup>236</sup> Ministry of Marine Affairs and Fisheries, 2004

<sup>237</sup> Ibid article 6 the law on Fisheries No 31/2004

<sup>238</sup> Panglima laot is structural institution based on customary law among fisherman in Aceh. This adat institution is manage the security of ocean, marine resources and its environment. This institution establish the rule of fishing activities in Aceh. This include the season of fishing, ceremonies before fishing, the way and technique to catch the fish and to resolve conflict among fisher.

<sup>239</sup> Sasi is a set of rules and regulations that govern resources use in Maluku , that is sasi regulations prohibit premature harvesting of forest and marine products. There are also regulation concerning access to the sasi area, activities allowed in sasi area and seasonal of entry and harvest

<sup>240</sup> Mane'e is a traditional harvesting fish together in Sulawesi

<sup>241</sup> Awig-awig is a local rule to govern local activities this include fishing activities and management of marine and coastal areas.

its implementation, especially recently with respect to the policy of fisheries clusters which is feared to threaten small scale fishers. The cluster management system has granted the licence holders the right to manage and fish in clusters fishing ground area. This approach licencing is favoured by business entities and not local fisherman, due to the high administrative costs to obtain this licence which are unreasonable for local fisherman. It should be noted that small scale fisherman, under the fisheries law article 48, do not have an obligation to pay “retribution” (amount of money pay to the Government as a tax) like large scale fishers.<sup>242</sup> Also the small scales fishers in some regencies for examples in Buleleng are not obliged to obtain a licence due to the high licence cost but must register their vessels and activities.<sup>243</sup> This fisheries cluster management is centralized in approach where the Direktorat Jenderal issued licences with the approval of the Ministry.<sup>244</sup> This centralized phenomenon to some extent is not accordance with the devolution of power to local Government as established by the autonomy law. The statement might be true that in Southeast Asia the role of national Government in the management of coastal fisheries is increasing.<sup>245</sup> In the management of fisheries there should be more of a local approach than a national one especially through the local Governments’ involvement of the local people in decision making and management of the fisheries sector. With the autonomy law there is devolution of power to local government. However, this devolution does not reach the local people.<sup>246</sup>

Recently the knowledge of fishers and the recognition of special value culture and practices have not been given systematic attention from the Government.<sup>247</sup> Local

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<sup>242</sup> See: article 48, Act no 31/2004 on fisheries

<sup>243</sup> Masyhuri Imron *et al*, 2008

<sup>244</sup> See: Ministry Decree No 5/2008

<sup>245</sup> Robert S Pameroy, Community-based and co-management institution for sustainable coastal fisheries management in Southeast Asia, *Ocean and Coastal Management*, Volume 27, No 3, 1995, pp 143-162, p144

<sup>246</sup> Arif Satria, Decentralization of property right in marine fisheries: Indonesia Perspective, 2006, p2

<sup>247</sup> Jesper Rakjaer Nielsen, Poul Degnbol, K Kuperan Viswanath, Mahfuzuddin Ahmed, Mafaniso Hara, Nik Mustafa Raja Abdullah, *Fisheries co management – an institutional innovation? Lesson learn from South East Asia and Southern Africa*, Elsevier, 2004, 151-160, p156

fisherman are rarely involved in the decision making process. Their lower education levels make them not aware on their public participation rights. For example, in the establishment of maximum sustainable yield by the central Government little participation or effective consultation with the fishers are occurs. To some point local participation in decision making especially the recognition and the use of local knowledge is beneficial and important in promoting sustainable fisheries and monitoring resources. It has been observed that fishers participation in the management can provide a wealth of local and indigenous knowledge to supplement scientific information, to help monitor the resources and to improve overall management.<sup>248</sup> Based on fieldwork research, the fishermen know whether stocks are already overfishing or not. In addition, the traditional fishermen already practice traditional management of fisheries resources which is sustainable practices. For example, in the Bondalem village of Bali one group of fisherman has set their own rules and enforces these rules regarding fish catch in their fishing ground. The fishers are prohibited to use selected fishing gear such as nets. They are only allowed using hooks.<sup>249</sup> If the fishers that not belong to this community want to take fish in this fishing ground they must pay a percentage of the fish they captured. A communal property use right of the resources which is controlled by identifiable group. As it has been observed that in Southeast Asia communities of fishers can regulate access and enforce rules through community institutions and social practices to use fisheries resources sustainably.<sup>250</sup> Thus, community based fisheries management should be recognized explicitly by the Government in legislative frameworks and the role of traditional knowledge should also be considered in decision making in fisheries. There should be detail regulation governing community based fisheries management or co-management (partnership between local fishers and Government). It is argued that there is need of the recognition of communal property rights over marine resources.<sup>251</sup> Below is

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<sup>248</sup> Robert S Pomeroy, Community-based and co-management institution for sustainable coastal fisheries management in Southeast Asia, *Ocean and Coastal Management*, Volume 27, No 3, pp 143-162, 1995

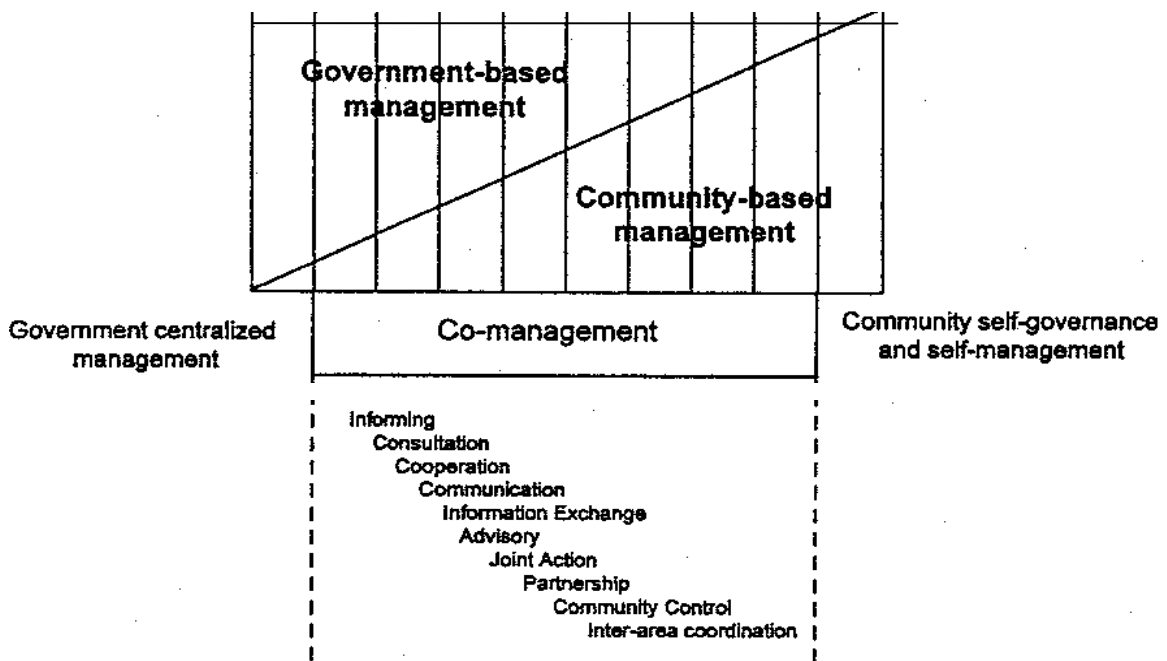
<sup>249</sup> Based on the interview with local fisherman leader.

<sup>250</sup> Robert S Pameroy, 1995, p144

<sup>251</sup> Arif Satria, Decentralization of property right in marine fisheries: Indonesia perspective, 2006

the hierarchy of a co-management initiative. It has been observed that “co-management can serve as mechanism for both of fisheries management and for community and economic development by promoting participation of fishers and the community in actively solving problems and addressing needs”.<sup>252</sup>

Figure 3.1 A Hierarchy of Co management arrangements



Source: Berkes, 1994<sup>253</sup>

In addition, community based fisheries management has a great role in promoting sustainable use and reducing destructive fishing activities. Raising awareness and education of fisherman is one way to reduce these destructive fishing activities and shift to more friendly harvesting of ornamental fish. For example, the fisheries community

<sup>252</sup> See: Robert S Pameroy, Community based and co-management institutions for sustainable coastal fisheries management in Southeast Asia, Ocean and Coastal Management, volume 27 No 3, pp 143-162, 1995, p 150

<sup>253</sup> Berkes, F., George, P & Preston, R.J., Co-management: bringing the two solitudes. Northern Perspective, 22 (2-3) (1994)18-20

group “Mina Bakti Soansari” which later became a local company in Les Village in Bali with the assistance of NGOs. This approach has led to the development of a sense of stewardship within the fishing community and the behaviour of local fishers the use of bombs and poisons in catching the ornamental fish has shifted to more friendly method. This community economic institution also helps local people to generate more income. It is clearly shown that community based management not only improves resource management but also helps to alleviate poverty. An empowered community can address both the needs for economic development and conservation of natural resources.<sup>254</sup>

### **3.3.5 Conflict Management**

The conflict between fisherman in the autonomy era is still a problem. Mainly the conflict between the fisherman is because of resources use conflict; i.e. fishing grounds and the different types of fishing gears (trawl versus traditional fishing gear). For example, the conflict between Masalembu local fisherman versus the fisherman from Central Java. The conflict is because Central Java fisherman (outsiders) considered taking local Masalembu fishing ground. In this regard, Central Java fisheries use trawl and modern fishing gear to catch fish which thus their harvest is more than local fisherman who is only use traditional hook fishing gear. The local fisherman feels that the outsiders exploit their marine resources.

There are 4 types of fishers conflict:

- Class conflict between traditional and modern fisher,
- The orientation conflict between friendly fishing gear and destructive fishing gear uses,
- The agrarian conflict: the conflict over fishing grounds,
- Primordial conflict, the conflict of ethnic, identity of the fishers.<sup>255</sup>

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<sup>254</sup> Robert S Pomeroy, op cit, p147

<sup>255</sup> Arif Satria, Pengantar Sosiologi Masyarakat Pesisir, 2002

Below are outlined examples of these types of conflicts between fishermen:

Table 3.3 Conflict between fisherman

No	Incident	issues	Location	time	source
1.	The burning of 6 boats of Central Java fisherman By Masalembu fisherman	fishing ground fishing gear differences	Masa Lembu east Java	2000	Republika news
2.	The arrest of 8 fisherman from Cilacap by by Pangandaran fisherman	fishing ground fishing gear differences	Pengandaran West Java	2002	Kompas news
3.	The burning of mini trawl of Lamongan fisherman by Gresik fisherman	fishing gear	Gresik East Java	2002	Kompas news
4.	Maduranese fisherman taken hostage by Tegal fisherman	fishing ground	Brebes and Tegal	2002	Kompas news
5.	The conflict between fishers uses nets with the Bengkalis fisherman	Destructive fishing	Bengkalis Riau	2006	Riau news
6.	Conflict between sea stars catcher with Gili island's Fishers and Bawean island	Destructive fishing	Bawean & Gili island	2009	Antara News

Adapted from: Dedi S Adhuri, 2009<sup>256</sup>

To some extent this legislation does not provide the basis for conflict reduction and conflict management mechanisms. Even some scholars argue that article 61 of this legislation creates conflict between fishermen. Article 61 states that small scale fisherman can catch fish everywhere in the Indonesian jurisdiction.<sup>257</sup> They argue that this policy does not recognize the local fishing right or community based fisheries which has exist in

<sup>256</sup> Dedi S Adhuri , Chapter 7, Social identity and access to natural resources: ethnicity and regionalism from a maritime perspective, University Hawai Press, December 2009

<sup>257</sup> See: Article 61 Fisheries Act no 31/2004

the community. However, this conflict can be reduced if outsider fishers respect the local customary law on the management of fisheries. This provision is not explicitly mentioned in this legislation. For example, if the local fisherman is disturbed by outsiders fishers' activities who use excessive lamps in the night to catch fish. So the outsiders should respect the local customary law and follow what the tradition of the local fishers. To some extent, according to the interviews with fisherman in Bali the local fishers can not ask the outsiders not to use excessive lamps because there is no regulation to prohibit this fishing technology.

Thus, the responsibility for conflict management now rests with the provincial and regency level, for example, in the case of conflict between Masa Lembu and Central Java fisherman. The Central Java Provincial Government held coordination meeting with East Java Government to solve the conflict.<sup>258</sup> Based on this coordination meeting there were several approaches undertaken:

- The socialization (to educate fishers) of the fisheries act
- To improve the coordination between institutions.
- To mediate between the fishers in conflict
- To establish poskamladu (station of monitoring and controlling).
- The empowerment of pokwasmas (the community monitoring group)
- The cooperation on monitoring with the Indonesian Navy and Police
- The monitoring and controlling together between two provincial levels.
- The implementation of an agreement between East Java and Central Java which establishes actions to be taken by each provincial and regency levels in Central Java and East Java as follow:<sup>259</sup>
  - Improve management of fishing fleet ( vessel license issue)
  - To educate outsiders fishers

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<sup>258</sup> The meeting between Central Java provincial Government and East Java provincial Government, 24 March, 2009

<sup>259</sup> Minute of the meeting



- To control of rumpon license<sup>260</sup>
- To improve the environment the outsiders fishers should follow legislation and follow the local customary law.
- To response fastly with the coordination between authorities involved to solve the conflict between fishers

This kind of coordination and cooperation between Government institutions is one of the solutions to solve conflicts. However, there are already some instruments providing the basis to reduce conflict between fishers, such as the Ministry of Agriculture Decree No. 392.Kpts.IK.120/4/1999 on the zoning of fishing activities which divides into 3 levels of zoning:

- 0-3 mile for traditional fisherman,
- 3-6 mile for purse seine max 150 meter and
- 6-12 mile purse seine with the length 600-1000 m.

However, to some extent many vessels violate this regulation, as there is a problem of monitoring and law enforcement.

### **3.4 The law on Conservation of Living Natural Resources and their Ecosystem (Act No 5/1990)**

#### **3.4.1 Overview**

This act is a framework for the conservation of biodiversity resources and their ecosystem. Biodiversity resources include plants and animals. The conservation of natural resources includes both natural resources on land and in the sea. The legislation's definition of plant and animal resources includes both land and water or sea.<sup>261</sup> There are several approaches are taken in the conservation of living resources including the protection of life support systems, the conservation of plants, animals and their ecosystem and the sustainable use of these resources.<sup>262</sup> The examples of conservation efforts include establishing national parks (forest and marine), biosphere reserves, botanical

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<sup>260</sup> Place to attach the fish

<sup>261</sup> See: Definition article 1 the law no 5/1990

<sup>262</sup> See: Article 5 The law no 5/1990

gardens, sanctuaries, and natural reserves. The authority responsible to implement this legislation is the Ministry of Forestry.

### **3.4.2 Discussion**

The importance of this legislation concerning marine and coastal resources is that it provides a basis for protection and conservation of marine and coastal ecosystems including mangroves and coral reefs. Even though the legislation uses broad language which does not explicitly prescribe the protection of mangroves, coral reef, and sea grass. However, this legislation has successfully provided the basis for the establishment of six marine national parks which are under the management of the Ministry of Forestry.<sup>263</sup> On the other hand, to some extent the centralistic approach on the management of marine national parks in this legislation is considered a failure. This is due to the centralistic approach creating conflict and rejection from the local fishers. The centralistic approach contained in this legislation is not suitable and contravenes the autonomy law no 22/1999 enacted in 1999 and revised with the law no 32/2004 in 2004. The Ministry of Forestry is still using the centralistic approach in the management of conservation areas but public participation is needed for effective management of marine conservation areas. This is because local fishers depend on marine resources. The establishment of marine protected areas has an impact on their livelihood. Thus, there should be revision of this legislation which included the decentralization on the management of conservation areas to local Government is needed. Lack capacity of local Governments in the management of marine conservation areas is due to the centralistic approach taken by the central Government and can be overcome.

The other concern of this legislation is the overlapping authorities responsible for marine conservation areas. Based on this legislation, the Ministry of Forestry is appointed as authorities in the management of marine conservation areas. However, in the new

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<sup>263</sup> Arif Satria, Op cit, p 25

legislation, the law no 31/2004 on fisheries and the law no 27/2007 on management of coastal zone and small island the responsible authority for marine conservation areas is the Ministry of Marine Affairs and Fisheries.<sup>264</sup> Note that those legislations also govern marine conservation areas with a different approach which is to also included decentralization approaches to the local Government. However it does not include devolution to local people: community based marine conservation areas. Thus, to some extent the overlapping legislation creates confusion and overlap in the implementation through the local Government. Two different authorities manage the same targeted conservation areas with different approaches: centralistic approach (Ministry of Forestry) and decentralistic approach (Ministry of Marine Affairs and Fisheries) and different criteria: ecosystem approach (Ministry of Forestry) and zoning system modification from IUCN (Ministry of Marine Affairs and Fisheries).<sup>265</sup> This despite *lex posteriori derogates legi priori* and thus, a revision of the law no 5/1990 is needed to clarify this overlap.

### **3.5 The Law on the Protection and Management of Environment (Act No 32/2009)**

#### **3.5.1 Overview**

This legislation provides framework for the protection and the management of environment in Indonesia. This new legislation was drafted and enacted in early October 2009 by the House of Representative to replace a previous Environment Management Act no 23/1997. The purposes of this act are in addition to protecting Indonesian environment from pollution, also anticipated global environment issues.<sup>266</sup> This legislation provides a basis for protection of the environment from pollution including air, water and land pollution. Environment Impact Assessment (EIA) and licencing are the tools in reducing the impact of human activities and development on the environment. In addition, this new legislation also governs economic instruments on environment including internalize the

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<sup>264</sup> See: Article 1(24) the law no 31/2004 on Fisheries and article 1 (44) the law no 27/2007 on Management of Coastal and Small Island.

<sup>265</sup> See Masyhuri Imron *et al*, 2008

<sup>266</sup> See: Article 3, the law no 32/2009

externalities, environment funds and incentives and disincentives.<sup>267</sup> The authorities appointed by this legislation to manage the environment are the central Government (president), local Government (governor, mayor) and the Ministry of Environment.

### 3.5.2 Discussion

There are many improvements in this new legislation, including new provisions on eco-regions. Eco-regions are developed as an aid in biodiversity conservation planning. The provision on eco-region is promising considering it also can be used for marine ecosystem conservation, even though, it is not stated explicitly. Marine eco-regions are areas of relatively homogeneous species composition, clearly distinct from adjacent systems.<sup>268</sup> This marine eco-region is defined by WWF and TNC to aid in conservation activities for marine ecosystems.<sup>269</sup> The strength and improvement of this legislation is also stated clearly on the protection of marine ecosystem which is in previous legislation is not explicitly regulated. This is a significant improvement in the legal basis for the protection of marine ecosystem. The protection includes seawater quality, mangrove, coral reef, and sea grass.<sup>270</sup> With the sanction and penalty for violations of this provision ranging from 3 to 10 years imprisonment and 3 billion to 10 billion fine.<sup>271</sup>

According to this legislation, the central Government has an authority to make and implement the policy on the protection of the marine and coastal environments.<sup>272</sup> However, article 64 prescribes the delegation of this duty to the Ministry of Environment.<sup>273</sup> In this regard, it is clear that the policy and implementation of the protection of marine and coastal ecosystems is the responsibility of the Ministry of Environment. However, to some extent there is an overlap in the designation of lead

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<sup>267</sup> See: Article 42, the law no 32/2009

<sup>268</sup> <http://en.wikipedia.org/wiki/Ecoregion>

<sup>269</sup> Ibid

<sup>270</sup> See: Article 20 & 21 the law no 32/2009

<sup>271</sup> See: Article 99 the law no 32/2009

<sup>272</sup> See: Article 63 (1) the law no 32/2009

<sup>273</sup> See: Article 64 the law no 32/2009

authorities for management of marine and coastal resources between the law no 32/2009 and the law no 27/2007. The law no 27/2007 on management of coastal zone and small island appoints the Ministry of Marine Affairs and Fisheries as lead agency to coordinate management of coastal zone and small island. Thus this Ministry evaluates every proposal regarding activities in these coastal areas. However, this coordination is intended to reduce the impact on the coastal environment. It means at the end this coordination is intended to protect the coastal environment. On the other hand, the Ministry of Environment is the lead agency that makes policy on marine and coastal environment protection and implements this policy. This includes the protection of mangroves, coral reefs and sea grass beds. The policy on the protection of marine and coastal environment should also include the assessment on the activities who may have a big impact on this marine environment. In this regard there are two lead agencies on the management of marine and coastal environment. However, to some extent this overlap creates confusion in the implementation and with respect to the propose of the program at the local level. In the course of the interviews with a local Agency official for Marine Affairs and Fisheries in Sumenep Madura, the individual stated that there was confusion as the propose of the program in the Department of Coastal Zone and Small Island because many programs have been taken over by the other Departments. For example, the protections of mangrove and coral reefs have become a program of the Agency of Environment. The Agency of Marine Affairs and Fisheries can not undertake programs for mangroves and coral reefs because the budget for this program was allocated to the Agency of Environment. It could be argued that the lead agency for the management of marine and coastal resources should not be the Ministry of Marine Affairs and Fisheries and local Agency of marine Affairs and Fisheries as they issue the licenses for aquaculture and sea farming. Many mangrove areas are shifted and converted to sea farming and causing coastal ecosystem degradation. The agency that has capability to undertake effective environment impact assessments is the Ministry of Environment.

### **3.6 The law on Autonomy Law (Act No 32/2004)**

#### **3.6.1 Overview**

This legislation is the basic framework for decentralization of authority from central Government to the local Government. The act No 32/2004 is the revision of the law no 22/1999 on autonomy law. Local government in this regard is the provincial level and the regency level. Regarding the management of marine and coastal resources, article 18 stipulates the authorities of local Government for marine and coastal resources. It is stated that every local region that has sea in their area is given the authority to manage this marine and coastal resource.<sup>274</sup> However, in this regard the authority on the seabed still remains that of the central Government. As stated in 18(2), that local level is given a share of the benefit from the management and utilization of resources in seabed or in the bottom of the sea accordance with the law.<sup>275</sup> The authority of local Government on the management of coastal resources includes:<sup>276</sup>

- Exploration, exploitation, conservation and the management of marine resources
- Administrative function
- Marine spatial planning
- Law enforcement of local regulation and central legislation
- Support defense maintenance
- Support national sovereignty

The regional delimitation of the authority of the provincial level and the regency or municipal level over marine resources is also prescribed in article 18(4). It is stated that provincial level has authority to manage 12 nautical miles seaward from the shoreline. While the regency or municipal level is granted authority four miles seaward from shoreline.<sup>277</sup> If between 2 provincial levels the marine area is less than 24 nautical miles, it will be divided equally with the median principle, from this delimitation the regency level is given 1/3.<sup>278</sup> This regulation on regional delimitation does not apply to small

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<sup>274</sup> See: Article 18(1) the Act No 32/2004

<sup>275</sup> See: Article 18(2) the Act No 32/2004

<sup>276</sup> See: Article 18(3) the Act No 32/2004

<sup>277</sup> See: Article 18(4) the Act No 32/2004

<sup>278</sup> See: Article 18(5) the Act no 32/2004

scale fisherman.<sup>279</sup> The EEZ more than 12 miles up to 200 miles is governed by the central Government level.

### **3.6.2 Discussion**

There are several issues arising from this delimitation of regional Government over marine areas. To some extent this delimitation provides the local Government opportunity to manage and conserve the marine areas in sustainable manner. It has been observed that this sea regional delimitation is a victory for localized integrated coastal zone management.<sup>280</sup> In addition, it is seen that the law no 32/2004 is a vast improvement over law No 22/1999 with respect to marine resource management.<sup>281</sup> It clarify the ambiguity of the authority of provincial level over marine resources which is inherent in the law no 22/1999. In addition, the law no 32/2004 also clarifies the authority for the seabed which is not stipulated in previous autonomy law. However, in the implementation there are some problems and challenges to this regional delimitation especially with respect to the conflict of utilization of this resource. First, there is a perspective from the local Government that they have full authority or sovereignty over the area of marine resources thus they undertake the delineation of their marine areas. This limit, to some extent is argued to be the cause of conflict between fisherman (local and fishers from other regions). The outsider fishers are considered taking the local fisheries resources. But some argue that this latent conflict has been ongoing for a long time before the autonomy began. Secondly, to some extent this regional delimitation creates conflict over utilization of natural resources especially with the adjacent regions or on the outer limit of this marine area. For example, the conflict between local Government in Anabas, Natuna and Kepri on benefit sharing of off shore oil exploitation. However, the central Government argues that none of those conflicting local

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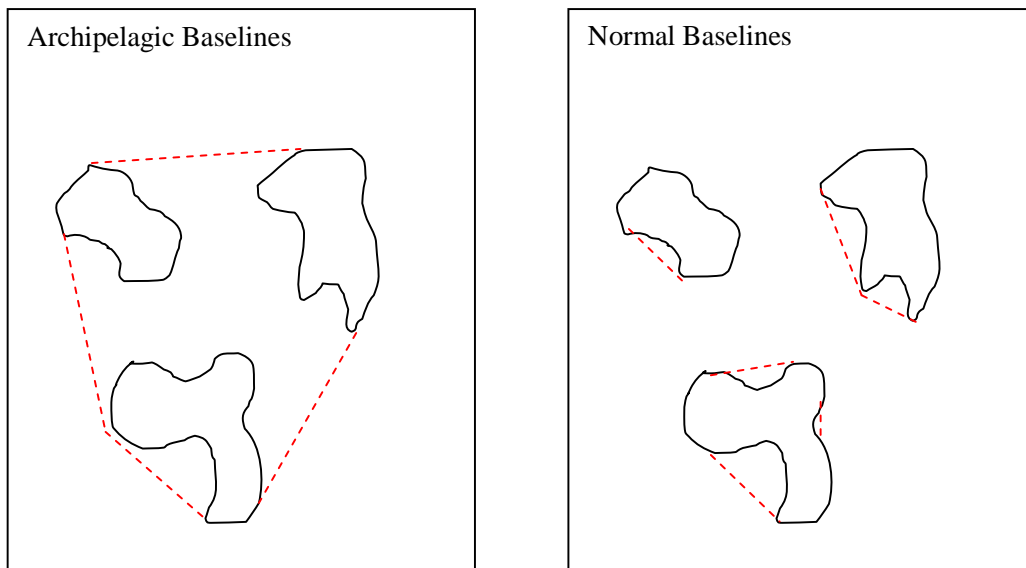
<sup>279</sup> See: Article 18 (6) the Act no 32/2004

<sup>280</sup> Jason M Patlis, op cit, P 22

<sup>281</sup> Ibid

Governments have a requirement to manage this mining because the area of mining is outside 12 nautical miles which is managed by the central Government.<sup>282</sup> Thirdly, some municipal levels are not clear on the concept of this regional delimitation. The local municipal Governments do not have capability to measure their marine areas. Some of the local Governments, for example in Sumenep Madura have different mapping of their marine areas with the mapping of the central Government. The mapping of marine area conducted by the local Government in Sumenep is based on archipelagic baselines while the central Government used normal baselines. Thus, consequently the area generated by this archipelagic baseline is double than of the central Government mapping data. The doubling of this marine area has a direct consequence on the national budget subsidies to the local Government to manage this marine area. Below is a figure depicting the difference between archipelagic baselines and normal baseline method.

Figure 3.2. Type of Baseline



Source: Francois Bailet, 2010

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<sup>282</sup> Tribun Batam, Share benefit become polemic, 16 July 2009



To some extent, the devolution of management of marine and coastal resources to the local Government had positive effects with respect to stewardship. However, there are many aspects which need improvement to make decentralization successful. The success of decentralization is not taken for granted but there is a prerequisite to be considered.<sup>283</sup> First is the improvement of regional legislation, there is a need for more recognition of local people in the management of marine and coastal resources in the legislation. It means there is to some extent devolution of power to the local people in the management of marine and coastal resources especially considering to the trend towards community based coral reef rehabilitation and community based fisheries management. Second, the improvement of local Government capacity. Third, improving coordination between sectoral agencies and coordination between adjacent provincial Governments.

### **3.7 The law on Spatial Planning (Act No 26/2007)**

#### **3.7.1 Overview**

The purpose of this act is to seek harmony between the natural environment and the man-made environment. It is intended to reduce the negative impacts of development on the natural environment. This is based on the principle of this spatial planning and the coherence and integrated planning between national, provincial and municipal actions. As it is prescribed in article 20, 22, 25 of law no 26/2007 on spatial planning. It is stated that national spatial planning is used as guidance for spatial planning at the provincial and municipal levels.<sup>284</sup> In addition, municipal spatial planning should refer to national and provincial spatial planning.<sup>285</sup> In this legislation there is no specific regulation governing marine spatial planning or coastal zoning. It tends to focus on spatial planning in terrestrial areas such as cities, villages. This despite that the definition of space in this regard includes land, marine and air space.<sup>286</sup> In addition, article 6(3) national spatial

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<sup>283</sup> Arif Satria, Op cit, p 25

<sup>284</sup> See: Article 20 2 (g)The law No 26/2007 on spatial planning

<sup>285</sup> See: Article 25 (1) a the law no 26/2007

<sup>286</sup> See: the definition article 1 the law no 26/2007

planning includes land space, marine space and air space.<sup>287</sup> Unfortunately marine and coastal areas are not specifically regulated by this legislation. As it is specified in article 6 (5), marine space and air space are regulated by other specific regulations.<sup>288</sup> As a matter of fact, this specific regulation on marine spatial planning is not yet enacted. The existing law no 27/2007 governs zoning and planning in coastal areas and small island, and provides the technical guidance on spatial planning and zoning in small islands.

### **3.7.2 Discussion**

The issue of marine spatial planning lies in that the regulation has not been enacted yet. This is due to the recent approach in spatial planning adopted by many regions which is based mostly on terrestrial areas thus zoning and marine spatial planning remain mostly absent in the local planning documents. For example, in Buleleng Bali they do not have marine spatial planning and zoning of coastal areas.<sup>289</sup> This is why conflicts exist between marine users, and it is increasing largely because there is no clear designation or marine spatial planning from the Government.

The other problem is that the principle of coherence and integrated planning which is stipulated in the law no 26/2007, is not implemented by the local Government. For example, in Buleleng Bali where the municipal Government has set different measures on the limit of coastal meadow. According to provincial spatial planning document the Government should provide a coastal meadow of 100 meters from the highest water mark to the land. This non-development area is intended for conservation, disaster reduction, and reduction of erosion. However, in Buleleng and Karangasem municipal Governments they have set 25-50 meter wide coastal meadow. This inconsistency between provincial

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<sup>287</sup> See: Article 6 (3) the law no 26/2007

<sup>288</sup> See: Article 6 (5) the law no 26/2007

<sup>289</sup> This is based on the interview with the local Government official of Local Planning Agency in Buleleng Bali August 2008.

spatial planning and municipal spatial planning is causing some problems, including worsening erosion, limited access of local people to the beach and increasing conflicts between fisherman and owners of villas and resorts erected near the beach. There is no mechanism for resolving the overlapping regulations, except through the recommendation by the provincial level to the municipal level to revoke its regulation. The provincial Government can not enforce the law because the enforcement mechanism is at the municipal level. Thus, there should be a mechanism in this legislation to resolve overlapping and conflicting legislations between the provincial level and the municipal level. In fact, according to the hierarchy of law in Indonesia, the lower level legislation should be in accordance with the higher level legislation. But there are few mechanisms to resolve this situation except by revocation by the Ministry of Home Affairs which is to some extent, not really effective due to the vast areas of Indonesia. They can not control all overlapping legislations.

## CHAPTER 4

# COMPARATIVE STUDY ON ICZM IN THE UNITED STATES, THE EUROPEAN UNION, AND VIETNAM: A LESSON LEARN FOR INDONESIA

### ***4.1 Introduction***

The deteriorating coastal environment is not only a major concern to Indonesia but also a growing concern in many parts of the world including in the European Union, the United States and Vietnam. The growing concerns over the deteriorating state of European coast, environmentally, socio-economically and culturally have prompted the European Commission and Member States since 1996 to introduce a range of measures. In the United States, widespread public concern about the degradation of the natural environment including coastal areas has led to the enactment of the Coastal Zone Management Act in 1972.<sup>290</sup> Meanwhile, degradation of marine ecosystems and coastal destruction also became a concern for Vietnam.<sup>291</sup> To overcome this problem, the Government enacted the “Strategy of Vietnam’s Seas Toward 2020” in 2007 and established Vietnam Administration of Seas and Islands (VASI) a powerful Governmental organization for seas and island affairs.<sup>292</sup> In this chapter a comparison efforts and measures from different regions (the European Union, the United States and Vietnam) to address the issues and challenges to coastal environment degradation, overfishing, and sectoral approaches to the management of marine and coastal resources. Of course that would be different approaches and measures taken in different regions and each not always appropriate and necessarily transferable to the other regions. However, to some extent, comparing these approaches and measures can be beneficial to learn about

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<sup>290</sup> Sarah Humphrey, Peter Burbridge and Caroline Blatch, US Lessons for coastal management in the European Union, *Marine Policy* 24 (2000) 275-286

<sup>291</sup> Mr Dai, Vietnam Administration of Seas and Island (VASI) an Institutional arrangement of Cross Sectoral coordination in Vietnam, Presentation in ITP Training 2009, 5-9 October 2009

<sup>292</sup> Ibid

best practices, between successes and failures. Furthermore, observations will be made by examining the similarities and differences between approaches in addressing similar problems in coastal and marine environment degradation. In this regard, Vietnam probably is the most appropriate country to compare with Indonesia because of the similarity in problems as developing countries in the degradation of marine and coastal environment and resources.

## **4.2 The European Union**

### **4.2.1 Overview to ICZM in EU**

ICZM initiative of in Europe started in 1992 when the European Council in its resolution on the future community policy concerning the European Coastal Zone recognized that “the key to sustainable use and development of coastal zone lies in full integration of economic, physical planning and environmental policies.”<sup>293</sup> In this resolution, the Council invited the European Commission to propose a community strategy for ICZM which would provide a framework for conservation and sustainable use of coastal areas.<sup>294</sup> The ICZM initiative was conducted due to several considerations including concerns because of coastal environment degradation as almost 70 % the European coast suffers problems of loss of natural habitats; loss in biodiversity; and cultural biodiversity; decline in water quality; predicted sea level rise; the diversity of human activities; competition for space;<sup>295</sup> and seasonal variations in pressure.<sup>296</sup> Several arguments have

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<sup>293</sup> CEC Council resolution of 25 February 1992 on the future community policy concerning the European Coastal Zone, Official Journal of the European Communities C 1992, 59.1

<sup>294</sup> Sarah Humprey *et al*, US lesson for coastal management in the European Union, Marine Policy, 2000, 275-286

<sup>295</sup> A lot interests compete for the same marine space. This include marine conservation, recreation activities, maritime traffic, infrastructure and constructions, fishing, aquaculture, hunting, dredging, extraction, mining, and military activities

<sup>296</sup> EC Communication from the Commission to the Council and European Parliament on the integrated management of Coastal Zone. European Commission, 1995

been observed for the developments of a European Union level strategy for coastal management have included:<sup>297</sup>

- Number issues of concern in coastal management are transnational in nature for example fisheries and nature conservation.
- Coastal areas are seriously affected by tourism which is an EU wide if not global phenomenon.
- There is a need to coordinate existing EU policies and programmes which affect coastal areas.
- The EU can play an important role in influencing activities in Member States.

In the 1994 resolution on a community strategy for integrated coastal zone management the Council invited the European Commission to prepare:

A community strategy for the integrated management of the whole of the Community coastline, while taking account of specific problems and potential of different zones, will provide a framework for its conservation and sustainable use.<sup>298</sup>

In 1996, the European Commission established the European Demonstration Programme on Integrated Coastal Zone Management to provide information of how member States deal with coastal development issues and to provide examples of good practice that could be embodied into a Community-wide integrated coastal management strategy.<sup>299</sup> There are 35 demonstration projects and 6 thematic studies. These programs were aimed to provide concrete technical information about the factors and mechanisms which either encourage or discourage sustainable coastal zone management. Stimulate a broad debate and exchange of information among the various actors involved in the planning, management or use of European coastal zone (political authorities, administrations, economic operators, scientists and general public).<sup>300</sup> The underlying principles of the demonstration programme are improved cooperation between all concerned which is the

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<sup>297</sup> As cited in Sarah Humprey *et al*, Op cit, P 76

<sup>298</sup> Ibid

<sup>299</sup> Ibid

<sup>300</sup> <http://ec.europa.eu/environment/iczm/overview.htm>

basis for sustainable development. This cooperation can be developed from full, comprehensive information on the State of the environment and cooperation has to be organized and maintained.<sup>301</sup> The working hypothesis of this demonstration programme was that sustainable development and environmental policies are being implemented too slowly, mainly because the processes influencing the development of the coastal zone are insufficiently coordinated.<sup>302</sup>

There is similarity if we compare the problems of coastal degradation and resource depletion in Europe and Indonesia. As there are similarities in the underlying cause to these problems: lack of knowledge, inappropriate and uncoordinated laws, a failure to involve stakeholders and lack of coordination between relevant administrative bodies.<sup>303</sup> The European Union's point of view to address this issue is similar to that outlined above in regard to Indonesia's case: that there is no simple, legislative solution to these complex problems. Thus, the response taken by the EU to this problem is based on a flexible strategy focus in addressing the real problem on the ground.<sup>304</sup> An integrated and participative territorial approach is required to ensure that the management of the European coastal zone is environmentally and economically sustainable.<sup>305</sup> The EU has recognized the approach of governance by partnership with civil society.<sup>306</sup>

Based on experiences of a Demonstration Program (1996-1999) eight principles of good ICZM were agreed as part of the EU ICZM Recommendation of May 2002, namely:

- principle 1 a broad overall perspective;
- principle 2 a long term perspective;
- principle 3 adaptive management;
- principle 4 local specificity and the great diversity of European Coastal zone;

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<sup>301</sup> Ibid

<sup>302</sup> Ibid

<sup>303</sup> CEC, Communication from the Commission to the Council and the European Parliament on Integrated Coastal Zone Management: A strategy for Europe, 2000

<sup>304</sup> Ibid

<sup>305</sup> Ibid

<sup>306</sup> Ibid

- principle 5 working with natural processes and respecting the carrying capacity of ecosystem;
- principle 6 involving all the parties concerned in the management process;
- principle 7 support and involvement of relevant administrative bodies at national, regional and local level;
- principle 8 use of a combination of instruments designed to facilitate coherence between sectoral policy objectives and coherence between planning and management.<sup>307</sup>

In addition, all member States were requested to undertake a national stocktaking exercise and to develop national strategies; intensive cooperation on the European level was also agreed.<sup>308</sup> However, this recommendation is purely advisory and no binding legislation. Some of countries (Greece and Ireland) want to have stronger legislation in the form of a Directive. It has been observed that European needs a legal framework designed to establish stricter environmental framework for coastal development.<sup>309</sup> In addition, financial assistance is needed to improve infrastructure for the purposes of environmental protection and monitoring. Basically, the existing legislative framework in the EU is protected areas according to environment Code (Natura 2000),<sup>310</sup> Water Framework Directive,<sup>311</sup> and Marine Directive.<sup>312</sup> Below is the chronology of EU maritime and marine policy documents and regulations.

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<sup>307</sup> Ibid

<sup>308</sup> Ibid

<sup>309</sup> Cited in Sarah Humprey, *et al*, Op Cit, p 76

<sup>310</sup> Council Directive 92/43/EEC of 21 May 1992 on the Conservation of Natural Habitats and of Wild Fauna and Flora (OJ L 206, 22.7.1992,P.7)

<sup>311</sup> Directive 2000/60/EC of the European Parliament and of the Council of 23 October establishing a framework for Community action in the field of water policy (Official Journal L 327, 22/12/2000 p0001-0073)

<sup>312</sup> Directive 2008/56/EC of the European Parliament and of the Council of 17 June 2008 establishing a framework for community action in the field of marine environmental policy (Marine Strategy Framework Directive)



Table 4.1 EU Maritime and Marine Policy document

Usual short title	Title	Type of document	Date	Reference
2002 ICZM Recommendation	Recommendation of European parliament and council concerning the implementation of integrated coastal zone management in Europe	recommendation	30/5/2002	2002/413/EC
	Communication from the Commission to the Communication Council and European Parliament "Thematic of the Commission Strategy on the protection and conservation of marine environment"	Communication of the Commission	24/10/2005	Com(2005)504
Proposal for Marine strategy Directive	Proposal for Directive of European Parliament and of a council establishing a framework for community action in the field of marine Environment policy (Marine Strategy Directive)	Proposal of the Commission	24/10/2005	Com(2005)505
(2006) 275 Green Paper	Green Paper toward a future maritime policy: A European vision for the Oceans and seas	Communication: of the Commission	7/6/2006	Com (2006)275
Blue book	Communication from the Commission to the European Parliament, the Council, the European Committee of the region and integrated Maritime Policy for the European Union Conclusion from the Consultation on European Maritime policy	Communication of the Commission	10/10/2007	Com(2007)574
Marine Strategy Framework Directive	Directive (2008)EC of the European Parliament and the council establishing a framework for Community action in the field of Marine environmental Policy (Marine Strategy Framework Directive)	Directive	17/6/2008	OJ.L 164

Source: B Queffelec, *et al.*, 2009

While there is uniformity in the acceptance of ICZM in the United States, the response to ICZM in Europe is largely fragmented.<sup>313</sup> Based on an evaluation conducted in 2006, no country has implemented an ICZM national strategy as prompted by EU ICZM recommendation.<sup>314</sup> In seven countries, namely: Finland, Germany, Malta, Portugal, Spain, Romania, and United Kingdom the implementation of a national ICZM strategy is pending.<sup>315</sup> In six further countries, namely: Belgium, Cyprus, France, Greece, Netherlands, and Slovenia documents considered as equivalent to a national ICZM strategy has been developed, or coastal management strategies have become an integral part of its spatial planning processes.<sup>316</sup> In eleven countries, namely: Bulgaria, Croatia, Denmark, Estonia, Ireland, Italy, Latvia, Lithuania, Poland, Sweden, and Turkey no ICZM equivalent policies are in advanced stages of preparation only fragmented tools are in place to address coastal issues.<sup>317</sup> To some extent, even though no ICZM programmes are implemented in some European countries (for example Sweden),<sup>318</sup> the traditional approach to coastal management and planning has been very successful from an environmental conservation standpoint.<sup>319</sup> Thus, the need to introduce ICZM approaches to planning may not be considered a priority in Sweden, at least not from the environmental point of view.<sup>320</sup> Finally, the ICZM evaluation team has recommended the approach to solve coastal degradation and resource depletion should be based on regional seas approach which is argued to be the most effective method of governance for the European coastal areas.<sup>321</sup> The ICZM approach encourages cross-border cooperation, it makes good sense for countries sharing a coastline in the same sea to make efforts to

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<sup>313</sup> Ibid

<sup>314</sup> Rupprecht Consult-Forschung Beratung GmbH, International Ocean Institute, Evaluation of Integrated Coastal Zone Management (ICZM) in Europe Final Report, 18 August 2006, Executive summary, p 9

<sup>315</sup> Ibid

<sup>316</sup> Ibid

<sup>317</sup> Ibid

<sup>318</sup> The coastal governance in Sweden is very centralized giving only very limited room for regional and local initiatives that goes beyond the relatively strict national regulation.

<sup>319</sup> [http://ec.europa.eu/environment/iczm/evaluation/iczm\\_national\\_reporting\\_sweden.htm](http://ec.europa.eu/environment/iczm/evaluation/iczm_national_reporting_sweden.htm)

<sup>320</sup> Ibid

<sup>321</sup> Rupprecht consult-Forschung Beratung GmbH, International Ocean Institute, Evaluation of integrated Coastal Zone Management in Europe, Final Report, 18 August 2006

coordinate their activities. These regional seas in Europe include the Baltic sea,<sup>322</sup> the North Sea,<sup>323</sup> the Atlantic,<sup>324</sup> the Mediterranean sea,<sup>325</sup> and the Black Sea.<sup>326</sup>

#### 4.5 Marine Conservation

The framework for marine conservation areas in Europe is based on the Habitat Directive (1992).<sup>327</sup> A coherent European ecological network of special areas of conservation this includes the conservation to marine environment. The approach of this Habitat Directive is based on bio-geographical regions. Under the Habitat Directive, Natura 2000 sites, sites with high conservation interest in the European Union are selected. The purpose of this Natura 2000 network is to prevent reduction of natural habitats and to protect animal and plants from extinction.<sup>328</sup> Natura 2000 sites are selected on the basis of selected

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<sup>322</sup> Helsinki Commission (Helcom) works to protect the marine environment of the Baltic Sea from all sources of pollution through intergovernmental co-operation between Denmark, Estonia, The European Community, Finland, Germany, Latvia, Lithuania, Poland, Russia and Sweden. Helcom is the governing body of the “Convention on the Protection of the Marine Environment of the Baltic Sea Area.” In addition, Helcom Baltic Sea Action Plan (BSAP) is an ambitious programme to restore the good ecological status of the Baltic marine environment by 2021. see: [http://www.helcom.fi/helcom/en\\_GB/aboutus/](http://www.helcom.fi/helcom/en_GB/aboutus/), [http://www.helcom.fi/BSAP/en\\_GB/intro/](http://www.helcom.fi/BSAP/en_GB/intro/)

<sup>323</sup> OSPAR is the mechanism by which fifteen Governments of the western coasts and catchments of Europe together with the European Community cooperate to protect the marine environment of the North East Atlantic including the North Sea. The fifteen Governments are Belgium, Denmark, Finland, France, Germany, Iceland, Ireland, Luxembourg, The Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and United Kingdom.

See: [http://www.ospar.org/content/content.asp?menu=00010100000000\\_000000\\_000000](http://www.ospar.org/content/content.asp?menu=00010100000000_000000_000000)

<sup>324</sup> The North–East Atlantic under OSPAR include: Region I Arctic Waters, Region II Greater North Sea, Region III, Celtic Seas, Region IV Bay of Biscay and Iberian coast, Region V Wider Atlantic.

See: [http://www.ospar.org/content/content.asp?menu=00500215000000\\_000000\\_000000](http://www.ospar.org/content/content.asp?menu=00500215000000_000000_000000)

<sup>325</sup> Protocol on Integrated Coastal Zone Management in the Mediterranean was signed in Madrid on 21 January 2008 at the Conference of the Plenipotentiaries on the Integrated Coastal Zone Management Protocol. The contracting parties to this protocol namely: European Community, Albania, Algeria, Bosnia and Herzegovina, Croatia, Cyprus, Egypt, France, Greece, Israel, Italy, Lebanon, Libya, Malta, Monaco, Montenegro, Morocco, Slovenia, Spain, Syria, Tunisia and Turkey. <http://ec.europa.eu/world/agreements/prepareCreateTreatiesWorkspace/treatiesGeneralData.do?step=0&redirect=true&treatyId=7405>

<sup>326</sup> There are several Regional organizations in Black Sea. These include: Black Sea Economic Cooperation (BSEC), GUAM organization for Democracy and Economic Development, Community of Democratic Choice (CDC), and Black Sea Forum for Partnership and Dialogue (BSF) see:

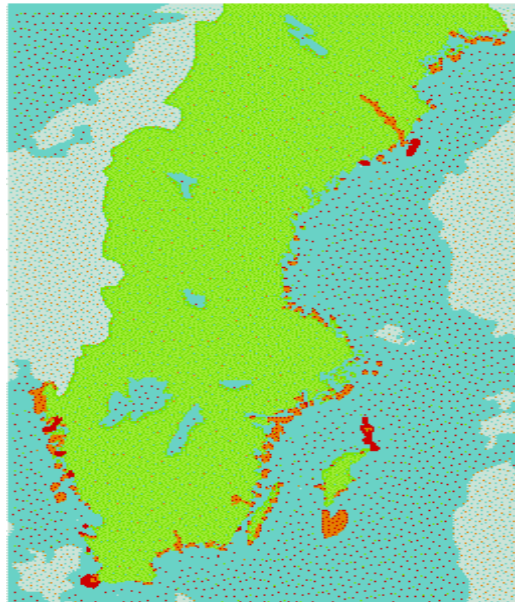
[http://en.wikipedia.org/wiki/Black\\_Sea](http://en.wikipedia.org/wiki/Black_Sea)

<sup>327</sup> Council Directive 92/43/EEC of 21 May 1992 on the conservation of natural habitats and of wild fauna and flora (OJ L 206, 22.7.1992,P.7)

<sup>328</sup> Jorid Hammersland, Swedish Environment Protection Agency, 22 November 2007

national lists proposed by Member States. The sites then designated by the European Union as Special Areas of Conservation. For example, Sweden has listed some 275 marine Natura 2000 sites. However, only a small proportion has sufficient marine protection as MPA.<sup>329</sup> In this Natura 2000 network all activities that can have significant impact on the listed habitat has to apply for permission, even if the activity is situated outside the boarder of the Natura 2000 site.<sup>330</sup> All sites shall have a management plan for obtaining favourable conservation status.<sup>331</sup> Below is a map showing distribution of the marine Natura 2000 sites in Sweden most this marine conservation areas are located in coastal areas.

Maps 4.1 Sweden Marine Natura 2000 sites



Source: Swedish Environment Protection Agency

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<sup>329</sup> Ibid

<sup>330</sup> Ibid

<sup>331</sup> Ibid

Besides the Habitat Directive initiated by the EU, the conservation of marine areas in Europe is also based on the regional initiative. For example, in the Baltic Sea, and North Sea. In the Baltic Sea there is the Helsinki Commission (Helcom Regional Convention)<sup>332</sup> and the Oslo and Paris Commissions (OSPAR regional Convention)<sup>333</sup> for North East Atlantic (Arctic Waters, Greater North Sea, Celtic seas, Bay of Biscay and Liberian coast, and wider Atlantic). Both HELCOM and OSPAR conventions regulated marine protection issue by aiming to establishing a representative ecologically coherent and well managed network of Marine Protected Areas by 2010 in Baltic Sea Protected Area (BSPA) and North East Atlantic.<sup>334</sup>

There are strengths and weaknesses in both HELCOM and OSPAR conventions. The strengths it lies in that international political commitment, regional representative system and common assessment and common guidelines and criteria.<sup>335</sup> On the other hand, the weaknesses lie in that it is not legally binding legislation and there is no national implementation and criteria and guidelines are not always adjusted to national legislation and management of organization.<sup>336</sup> However, some pointed out that these two conventions are an important driver for better marine protection.<sup>337</sup> Thus, all EU recommendations and regional conventions are only drivers to more and better management of marine areas, the important aspect is the domestic implementation and legislation. Below is the map of Baltic Sea Protected Areas. Note that the network of marine of marine and coastal Baltic Sea Protected Areas is not fully implemented.<sup>338</sup> In

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<sup>332</sup> Helsinki Commission works to protect the marine environment of the Baltic Sea from all sources of pollution through intergovernmental cooperation between Denmark, Estonia, the European Community, Finland, Germany, Latvia, Lithuania, Poland, Russia and Sweden

<sup>333</sup> OSPAR is the mechanism by which fifteen governments of Western coasts and catchments of Europe together with the European Community cooperate to protect the marine environment of the North East Atlantic. It started in 1972 with the Oslo convention against dumping.

<sup>334</sup> [http://www.helcom.fi/BSAP/en\\_GB/intro/](http://www.helcom.fi/BSAP/en_GB/intro/),

[http://www.ospar.org/content/content.asp?menu=00180302000011\\_000000\\_000000](http://www.ospar.org/content/content.asp?menu=00180302000011_000000_000000)

<sup>335</sup> Jorid Hammersland, Op cit, p80

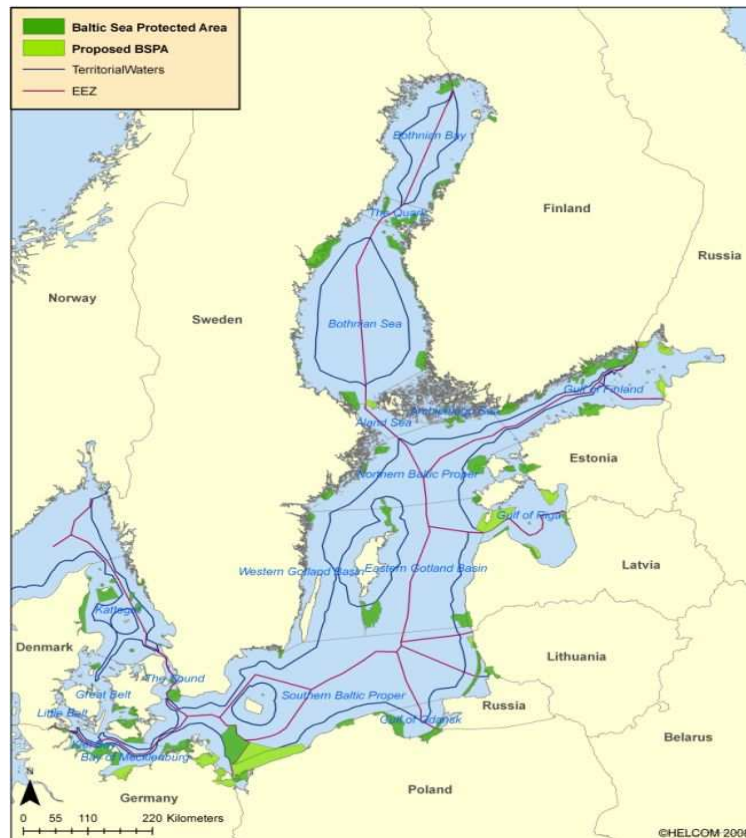
<sup>336</sup> Ibid

<sup>337</sup> Ibid

<sup>338</sup> [http://www.helcom.fi/environment2/biodiv/en\\_GB/intro/](http://www.helcom.fi/environment2/biodiv/en_GB/intro/)

many cases, the contacting parties have not yet managed to demarcate Baltic Sea Protected Areas (BSPAs) or prepare management plans.<sup>339</sup>

Map 4.2 Baltic Sea Protected Area (BSPA)



Source: HELCOM, 2008

One of the efforts of the EU in addressing the declining fisheries stocks (for example cod species) is through the Common Fisheries Policy (CFP). Common Fisheries policy was entered into force in 2003, with the objective of conservation and sustainable exploitation of fisheries resources. According to the basic regulation before the end of 2012 the

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<sup>339</sup> Ibid

Commission shall report to the European Parliament and the Council on the operation of CFP with respect to conservation and sustainability, adjustment of fishing capacity as well as rules on access to waters and resources.<sup>340</sup> The CFP has some guided principles of good governance which include broad involvement of stakeholders at all stages of the policy from conception to implementation. However, some argue that the EU CFP has been a dismissal failure because thousand of tonnes of fish are dumped over board every year due to lack of discard regulation.<sup>341</sup> The Commission have vision of the CFP 2020 is namely: to have the fishing industry is economically viable, overfishing is a thing of the past, stock have been revived and the policy is less expensive and manageable. However some argue that this vision is far from reality due to the current situation in Europe characterized by overfishing, economic instability, over-sized fleet, massive subsidies and falling catches.<sup>342</sup>

### **4.3 The United States**

#### **4.3.1 Overview of ICZM in the United States**

Coastal management initiative in the United States started much older than in the European Union. In 1972 the Federal Government enacted Coastal Zone Management Act (CZMA), which establish collaborative and voluntary Federal-State coastal zone management program. Section 302 prscribe:

The key to more effective protection and use of land and water resources of coastal zone is to encourage the States to exercise their full authority over the lands and waters by assisting the State in cooperation with Federal and local Government and other vitally interests in developing land and water use programs for the coastal zone, including unified policies, criteria, standards, methods, and processes for dealing with land and water use decision more than local significance.

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<sup>340</sup> Gunilla Creig, review of the Common Fisheries Policy, 2008

<sup>341</sup> <http://euobserver.com/7/28987>, EU fish decision should taken closer to home, 17.11.2009

<sup>342</sup> <http://euobserver.com/7/28987>, EU fish decision should taken closer to home, 17.11.2009

This legislation is considered to be the earliest legislation on the management of marine and coastal resources. The spirit of ICZM in CZMA is lies in on the Congressional declaration of policy to encourage coordination and cooperation with and among the appropriate Federal, State and local agencies and all stakeholders.<sup>343</sup> In addition, Congress also encouraged the participation and cooperation of the public,<sup>344</sup> State, local Government, interstate and Federal agencies.<sup>345</sup> While it is difficult to assess and evaluate the outcomes, based on the persistence and broad adoption at State level, the US Coastal Zone Management programme is generally acknowledged to have been a success.<sup>346</sup> At present 29 States including States bordering the Great Lakes and five territories have developed or developing coastal management programs which together cover more than 99 % of the nations's coast line.<sup>347</sup> This can be contrasted to the response of member States of the European Union which still remain largely fragmented. The Federal CZMA was passes to preserve, protect, develop and where possible to restore and enhance the resources of the nation's coastal zone for this and succeeding generation.<sup>348</sup>

The CZMP scheme is voluntarily, where the State and territories are provided with technical<sup>349</sup> and financial support to implement national policies for coastal areas through the development and implementation of coastal management programs. Even though this initiative is voluntary, it has encouraged the States to implement the program because there are two powerful incentives namely: the provision of Federal grants (on the cost share basis)<sup>350</sup> and the Federal consistency provision.<sup>351</sup>

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<sup>343</sup> 16 U.S.C 1452 Congressional Declaration of Policy. Section 303 (5) CZMA

<sup>344</sup> Public participation include the use of public notices, and opportunities for comment, nomination procedures, public hearings, technical and financial assistance, public education and other means

<sup>345</sup> Section 303 (4) CZMA

<sup>346</sup> Sarah, Humphrey *et al*, op cit, p275

<sup>347</sup> Ibid

<sup>348</sup> CZMA, 16 U.S.C.A 1451-1464

<sup>349</sup> Technical support include assistance in developing ordinance and regulations, technical guidance, modeling to predict and assess the effectiveness of such measures, training, financial incentives, demonstration projects and other innovations to protect coastal water quality and designated uses

<sup>350</sup> Section 305 CZMA



The CZMP initiative was undertaken in response to the concern from Congressional findings regarding the loss of living marine resources, wildlife, nutrient rich areas, permanent and adverse changes to ecological systems, decreasing open space for public use and shore line erosion<sup>352</sup> and inadequacy in existing program at State and local levels to ensure protection and wise use.<sup>353</sup> With this CZMA the involvement of the Federal Government which was previously limited to navigation and coastal defense has now increased. The State has the authority to manage up to three nautical miles from shore and the remaining 197 miles is managed exclusively by the Federal Government. With CZMA, the Federal Government extended its role in protecting the coastal waters which had been exclusively managed by the State. CZMA provides federal funds to States to manage their coastal areas in accordance with a set of federal guidelines.<sup>354</sup> The CZMA does not mandate state participation but rather makes States an offer.<sup>355</sup> The benefits of this cooperative and contractual federalism lie not only in protecting the individual State but also the entire nation's coastal zone.<sup>356</sup>

It is interesting to see how the incentives work. To qualify for Federal funds the State must meet the requirements set out in the CZMA.<sup>357</sup> This serves incentives and regulates

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<sup>351</sup> Section 307 CZMA. This consistency provision allows the State to have voice in activities outside the state territory, but may affect the State's coastal zone.

<sup>352</sup> 16 U.S.C 1451, Congressional finding, Preamble section 302, CZMA

<sup>353</sup> Stratton Commission, 1969

<sup>354</sup> John Duff, The Coastal Zone Management Act, Reverse pre-emption or contractual federalism, *Ocean and Coastal Law Journal*, 2001, p1

<sup>355</sup> Ibid

<sup>356</sup> Ibid

<sup>357</sup> 16 U.S.C 1545 submittal of State program for approval Section 305 Any coastal state which has completed the development of its management program shall submit such program to the Secretary for review and approval pursuant to section 306 of this Act . 16 U.S.C 1455, Administrative Grants Section 3. 16 U.S.C 1455 (d) Mandatory adoption of State Management program for coastal zone. Before approving a management program submitted by a coastal state, the Secretary shall find the following: the state has developed and adopted a management program for its coastal zone in accordance with the rules and regulations promulgated by relevant Federal Agencies, State Agencies, local governments, regional organizations, port authorities and other interested parties and individuals, public and private, which is adequate to carry out the purposes of this Act and its consistent with the policy declared in section 303 of this Act. The management program includes each of the following required program elements: an identification of the boundaries of the coastal zone subject to the management program; a definition of

the state program. The State should demonstrate that the funds would be used appropriately to develop coastal management programs. And to qualify for implementation assistance the State programs are required to have met the approval of Federal Office of Ocean and Coastal Resources Management (OCRM).<sup>358</sup> The approval is based on conformity with national policies and plan.<sup>359</sup> The Federal consistency provision set out in section 307 emphasizes coordination and cooperation between federal and State levels.<sup>360</sup> It stated that:

Each Federal Agency activity within or outside the coastal zone that affects any land or water use or natural resource of the coastal zone shall be carried out in a manner in which is consistent to the maximum extent practicable with the enforceable policies of approved State management programs. A federal agency activity shall be subject to this paragraph unless it is subject to paragraph (2) or (3).

The CZMA is dynamic and evolved: In 1980, there was an amendment to the CZMA: the Coastal Zone Management Improvement Act. This Act required all participating States to address nine specified areas of national interest, namely:

- Natural resources protection,
- Hazard management,
- Siting of major facilities,
- Public access,
- Urban waterfront and port development,
- Simplification of decision procedures,
- Intergovernmental coordination,
- Public participation
- Living marine resources conservation.<sup>361</sup>

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what constitute permissible land uses and water uses within the coastal zone which have a direct and significant impact on the coastal waters.

<sup>358</sup> 16 USC 1456 (d) Application of local Governments for Federal assistance, relationship activities with approved management programs, 16 USC 1453(6a) CZMA Act 1972

<sup>359</sup> 16 U.S.C 1455 (d) CZMA Act 1972, See also: Sarah Humphrey *et al*, op cit, p276

<sup>360</sup> 16 U.S.C 1456 (C), Consistency of Federal activities with State management programs, Presidential exemption and certification CZMA Act 1972

<sup>361</sup> Ibid

In 1990, other amendments were made to the CZMA adding coastal wetland management and protection, natural hazards management, including the potential of sea level rise; public access improvements, reduction of marine debris, assessment of cumulative and secondary impacts of coastal development, special area management planning, ocean resources planning, and siting of coastal energy and government facilities.<sup>362</sup>

Even though, the CZMP is considered successful, but there are still shortcomings in the US approach. The most notable of which is the lack of overall national perspective or vision. It is pointed out the policy is fragmented and dispersed over several different Federal Agencies and Departments. There is no single Federal agency in charge of implementing all different programs and laws and no comprehensive, unified national coast management plan or program.<sup>363</sup>

#### **4.3.2 Marine Conservation**

There are several legislations regulating marine conservation. These include the conservation of fisheries resources, namely:

- Magnuson-Stevens Fishery Conservation and Management Act 1976<sup>364</sup> and revised in 1999 by Sustainable Fisheries Act (SFA) and revised again in 2006 by the Congress with “Fisheries Conservation and Management Amendments of 2006;”
- Marine Mammal Protection Act;
- The Endangered Species Act;
- The Coastal Zone Management Act; and
- The National Marine Sanctuaries Act.

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<sup>362</sup> Ibid

<sup>363</sup> Beatley T *et al*, An Introduction to Coastal Zone Management, Washington DC, Island Press, 1994

<sup>364</sup> The Magnuson Act is the principal law governing marine fisheries in the United States. It was originally adopted to extend control of the US waters to 200 nautical miles in the ocean and to phasing out foreign fishing activities within this zone; to prevent overfishing, especially by foreign fleets; to allow the overfished to recover; and to conserve and manage fisheries resources.

The National Marine Sanctuaries Program was created in 1972 as part of the Marine Protection, Research and Sanctuaries Act. The purpose of the program is:

To identify marine areas of special national or international significance due to their resources or human use values and to provide authority for comprehensive conservation and management of such areas where existing regulatory authority is inadequate to assure coordinated conservation and management.<sup>365</sup>

This act particularly identifies the importance of maintaining and restoring living resources by providing places for species that depend on these marine areas to survive and propagate. Designation of marine areas as sanctuary does not prohibit all development, but requires special use permits from the Department of Commerce to authorize specific activities that are compatible with the purpose of the sanctuary. At first, the sanctuary program was a slow to start and had relatively small designated areas. Eight sanctuaries were established in the first phase.<sup>366</sup> Criticism served to improve the second phase both in terms of areas and new and management approaches based on ecosystem approach.<sup>367</sup>

Millions of coastal acres have been designated for conservation by various levels of government. There are several programs at the Federal level that are conducted to conserve the marine environment. The National Oceanic and Atmospheric Administration (NOAA) is one of federal agencies authorized to develop and implement marine protected areas through several programs. NOAA manages thirteen marine

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<sup>365</sup> Donna R Christie *et al*, Coastal and Ocean Management Law, West Group, 1999

<sup>366</sup> The USS Monitor, Key Largo and Looe Key Off Florida, Gray's Reef off Georgia, the Channel Island, Gulf of Farallones and Cordell Banks in California, and the Fagatele Bay in the American Samoa

<sup>367</sup> The second phase marine sanctuaries are the Florida Keys, Monterey Bay, Stellwagen Bank, the Hawaiian Islands Humpback whale, the Flower Garden Banks and the Olympic Coast national marine sanctuaries.

protected areas as part of its National Marine Sanctuaries Program.<sup>368</sup> The agency also manages a variety of fishery zones and area closures to protect critical habitat for threatened or endangered species.<sup>369</sup> The Department of the Interior (DOI), through the National Park Service (NPS), NPS manages the National Park systems, which include national parks, monuments and preserve in ocean areas. The U.S. Fish and Wildlife Service (USFWS) is also authorized to create and manage marine protected areas and the US Environmental protection Agency's (EPA's) National Estuary Program.<sup>370</sup>

Again the conflicting interest and controversy in marine protected areas stem from the impacts their restrictions can have on stakeholders not only in Indonesia but also in the United States and the European Union. There are always pros and cons to establishing marine protected areas. Some recognize the benefits and some are oppose their establishment due to limitation of activities in the areas. In order to reduce the potential of such conflicts when designing and implementing marine protected areas, the approach of the United States is to engage all regional and local stakeholders to build support for the proposed protected area and to ensure compliance with the restrictions it may impose.<sup>371</sup> The U.S commission on Ocean Policy thus recommended the Regional Ocean Councils or other appropriate regional entities, should actively solicit stakeholder participation and lead the design and implementation of marine protected areas.<sup>372</sup>

It is interesting to note here the success of the Florida Keys National Marine Sanctuary, which may provide good examples to draw from in the use of the ecosystem based approach and integrated management. The Florida National Keys National Marine Sanctuary is managed by the National Ocean Service of the National Oceanic and

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<sup>368</sup> <http://sanctuaries.noaa.gov/about/faqs/welcome.html>

<sup>369</sup> Governors' Draft, Preliminary Report of the U.S Commission on Ocean Policy, Washington DC, April 2004 see: <http://oceancommission.gov/documents/prelimreport/welcome.html#full>

<sup>370</sup> Ibid, Chapter 11, p126

<sup>371</sup> Ibid

<sup>372</sup> Ibid, Chapter 6 Coordinating Management in Federal Water, p 69

Atmospheric Administration (NOAA) in the United States Department of Commerce and managed with co-trustee partnership with the State of Florida. This marine sanctuary is rich in marine biodiversity including sea grass meadows, mangrove islands and extensive living coral reefs. These marine environments represent extensive conservation, recreational, commercial, ecological, historical, research, educational, and aesthetic value that give the area national significance.<sup>373</sup> The establishment of the Florida Marine Sanctuary was pursuant to the Law the Florida National Keys National Marine Sanctuary and Protection Act (FNKMS Act) of November 1990. The designated marine sanctuary encloses about 9,600 square km of coastal water. There are almost 22 local, State and federal jurisdictions who share authority in the Keys.

Problem emerged when land-based sources of pollution affected the coral reefs in the marine sanctuary located off shore. There is evidence that the water quality is declining and affecting the health of the coral reef and thus commercially and recreational resources. The source of pollution is storm water runoff containing heavy metals, fertilizer and insecticides. To eliminate this threat from outside the marine sanctuary boundary, an ecosystem approach has to be implemented.<sup>374</sup> The FKNMS called the for the Secretary of Commerce in consultation with appropriate Federal, State and local Government authorities and with a Sanctuary Advisory Council to develop a comprehensive management plan. A-23 member Advisory Council was selected by the Governor of Florida and the Secretary of Commerce. The sanctuary called the public to be part of planning process through numerous public workshops. The development of final management plan took six years to be utilized. In parallel to that there is Water Quality Protection program and South Florida ecosystem Restoration program.

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<sup>373</sup> Billy D, Causey, D, Ecosystem management: An essential approach when establishing network of marine zones, p1 see: [http://oceancommission.gov/meetings/feb\\_22\\_02/causey\\_statement.pdf](http://oceancommission.gov/meetings/feb_22_02/causey_statement.pdf)

<sup>374</sup> Billy, Causey, D, Ecosystem management: An essential approach when establishing network of marine zones see: [http://oceancommission.gov/meetings/feb\\_22\\_02/causey\\_statement.pdf](http://oceancommission.gov/meetings/feb_22_02/causey_statement.pdf)

The lesson that can be learned from this ecosystem approach is that conservation should be based on natural and physical processes not on political boundaries and jurisdictional and administrative barriers should be eliminated as much as possible.<sup>375</sup> Management plan development and implementation should involve all levels of Government in the planning process. In addition, it is essential to bring socio economic information into the planning process and utilize marine zoning as a tool to minimize the user conflicts.<sup>376</sup>

## **4.4 VIETNAM**

### **4.4.1 Overview of ICZM in Vietnam**

Vietnam has a coastline that extends 3,440 km from the Chinese border in the north to the frontier with Cambodia in the Gulf of Thailand. It has similar problems to Indonesia on a number of environmental and resources problem in the coastal areas. These include loss of biodiversity, degradation of the marine ecosystem, land-based pollution, overfishing and conflict users.<sup>377</sup> Before 2007 the seas and island management overlapped and was fragmented due to sectoral approach to this development. There was no ICZM program.<sup>378</sup> In 2007, the government enacted the strategy of Vietnam Seas toward 2020 with the requirement to establish a powerful Governmental organization to coordinate cross-sectoral activities in sea and islands. Vietnam Administration of Seas and Islands (VASI) was established by the Decree No 25/2008/ND-CP signed by the Prime Minister with the merger of the existing institutions belong to Ministry of Natural Resources and Environment (MONRE). The establishment of this new institutional framework to coordinate sea and island management was because there were problems and difficulties in the management of these resources: unclear roles and responsibilities of institutions in local government in managing coastal areas and seas, the cooperation of different sectors

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<sup>375</sup> Causey statement, Ecosystem Management: An essential approach when establishing a network of marine zone

<sup>376</sup> Ibid

<sup>377</sup> Ca, Vu Tant, Integrated governance Policy and cross sector coordination of coasts and seas in Vietnam, Presentation in "Marine management and good governance in practice", SIDA, Vietnam, 5-9 October 2009

<sup>378</sup> Nagothu Udaya Sekar, Integrated Coastal Zone Management in Vietnam: Present potentials and future challenges, Ocean and Coastal Management 48 (2005) 813-827, 2005

was difficult, the management of natural resources and environment protection was not effective and conflict between different existed users.<sup>379</sup> The function of this new institution is to advise and assist the Minister of Natural Resources and Environment of Vietnam (MONRE) in the implementation of an integrated governance of seas and islands. MONRE is in charge, in cooperation with other ministries, sectors, and provincial authorities to make and implement plans for natural resource use and environmental protection for the Prime Minister's approval.<sup>380</sup> Planning period is 10 years, 20 years with a 5 year assessment interval. In addition other ministries, sectors and provincial authorities must implement approved plan and make their own plan and submit to MONRE for processing before submitting to the Prime Minister. With this new institution acting as cross-sector coordination, the traditional sector by sector approach with large autonomous institutions (fisheries, agriculture, tourism, development) has become a thing of the past. However, according to Deputy Director of VASI, current capacity of VASI is not suitable for its mission in developing institutions, planning, and elaborating policy and legislation.<sup>381</sup> There is however an improvement in marine and coastal resources management in Vietnam. This is demonstrated by the adoption of several principles of ICZM by the government. These include integrated, cross-sector and cross-regional management of natural resources, protection of the environment, and harmonization of the interest of different stakeholders in the use of natural resources.<sup>382</sup> The principles of ICZM are also codified in the fisheries laws, but the actual implementation of this legislation has not yet materialized.<sup>383</sup> The development toward ICZM framework in Vietnam is following a similar path as in Indonesia with the create

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<sup>379</sup> Ca, Vu Tanth, Integrated Government Policy and Cross sector Coordination of Coasts and Seas in Vietnam, Marine Management and Good Governance Practice training, SIDA, Vietnam, 5-9 October, 2009

<sup>380</sup> Ibid

<sup>381</sup> Minutes of ISGE Policy dialogue platform, 2009,

[http://www.isge.monre.gov.vn/download/dialogue\\_capacity/Workshop\\_17.3.2009/Minute\\_Meeting.17.03.2009\\_en.pdf](http://www.isge.monre.gov.vn/download/dialogue_capacity/Workshop_17.3.2009/Minute_Meeting.17.03.2009_en.pdf)

<sup>382</sup> Ibid

<sup>383</sup> Bui Thi Thu Hien, Role of ICM in MPA management, Ha long Bay WHA case study, Marine management and good governance in practice training, 8 October 2009



on of a body or the appointment of an existing body to coordinate cross-sectoral activities in the management of marine and coastal resources.

#### **4.5.2 Marine Conservation**

Recently there has been a trend toward the establishment of MPAs in Vietnam based on ICZM and ecosystem approaches and the establishment of a network of MPAs, for example in North Tonkin Archipelago. The two neighboring provinces of Quang Ninh and Hai Pong share management responsibility throughout the North Tonkin coastal region of Vietnam from Hai Pong to the border with China. The coastal area lies in the dynamic Hai Pong-Quang Ninh Hanoi development triangle. It consists of 2000 islands and islets most of limestone and representing high national conservation values.<sup>384</sup> There are several protected areas in the North Tonkin Gulf region, namely:

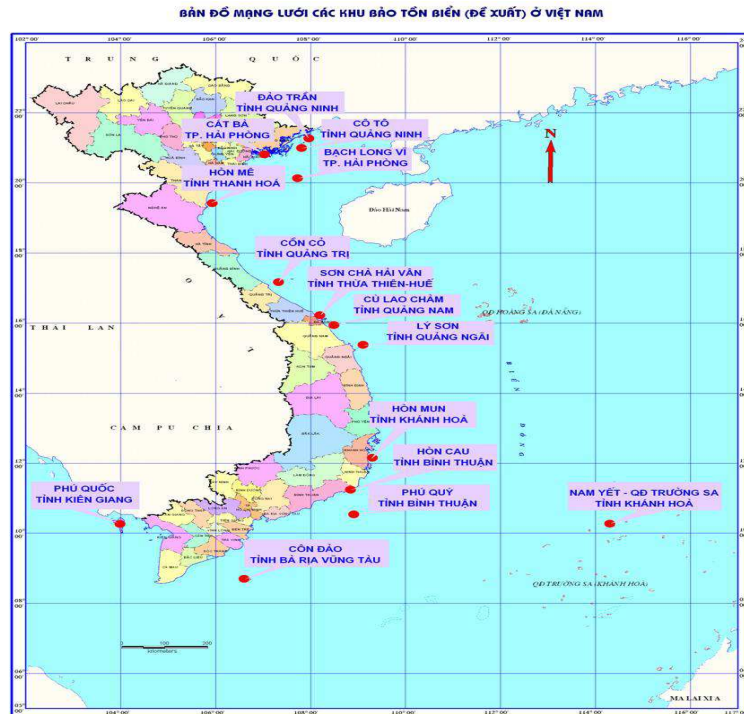
- Ha Long Bay World Heritage Site (WHS),
- Cat Ba Biosphere reserve,
- Cat Ba National Park (MPA),
- Bai Tu long National Parks (MPA),
- Dao Tran MPA,
- Dao Co To MPA,
- Bach Long Vi MPA.

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<sup>384</sup> Ibid



Map 4.4 Network of MPA in Vietnam



Source: Vu Thi Hoai Thu

The ICZM approach to MPA management was adopted due to the significant impacts from human activities outside the boundaries of the MPA, for example, land-based activities, aquaculture, tourism, agriculture, urban development, port development and maintenance (dredging and dredged material disposal).<sup>385</sup> It is argued that MPAs can not be managed effectively in isolation from their surroundings in the coastal zone. This argument is based on the lesson learned from the management of the Nha Trang Bay MPA and the Ha long Bay World Heritage Sites. Despite the high conservation potential of the Ha Long Bay World Natural Heritage site, the development of the mainland and coastal zone are strongly increasing and have significant impacts on the bay. For example, approximately 30 % of the sewage from houses in Ha long City and on the

<sup>385</sup> Ibid

coastal zone discharge into drainage channels via septic tanks. The source of pollution in Ha Long Bay is not only domestic waste but also industrial waste, coal mining activities, commercial waste water and livestock waste.<sup>386</sup> The coastal areas in Ha Long Bay have multi use and to some extent this has create conflict among the users. The Ha Long Bay is significant economic development zone with economic activities such as sea ports, coal mining industry, the development of aquaculture and near shore fishing, and the development of tourism. In addition, in the area of Ha Long Bay there is a coastal community named Hung Tang of which half of the population lives in a floating fishing village in the core zone of the natural heritage site. The community's main activities are fishing, aquaculture, coral exploitation, tourism and transportation. With this multi-use of the marine and coastal areas in the Ha Long Bay, there is absolutely needed to balance between economic development, social issues and environment. The primary challenge of managing Ha Long Bay is to conserve the area is ecological integrity and unique cultural value while providing an international standard and ensuring that tourism activities benefit locals.<sup>387</sup> It is worth noting that in Vietnam every World Heritage Site is managed at the local level by the province in which the property is located on behalf of the State. In regard to the management of Ha Long Bay, the Ha Long Bay Management Department (HLBMD) was established by the Quang Ninh provincial PC Decision 2796-QD/UB of 9<sup>th</sup> Dec 1995. HLBMD is responsible for the management, protection and conservation of world cultural and natural heritage and to promote education and awareness of heritage values among local communities.<sup>388</sup> On the management side HLBMD is not alone as it collaborates with other relevant agencies such as Ha Long City, Cam Pham Provincial Town, Von Don District, Marine Police, Department of Natural Resources and Environment (DONRE), Department of Agricultural and Rural Development (DARD), Department of Trade (DOT), (Department of Cultural and

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<sup>386</sup> Ibid

<sup>387</sup> Ibid

<sup>388</sup> Ibid

Information (DOCI), and other agencies.<sup>389</sup> Several actions have been undertaken in the NTA region which are consistent with the ICZM approach:

- Establish an NTA ICM coordination council/network,
- Signed inter-provinces governance agreement,
- Develop action plan for the ICM framework with the involvement of stakeholders namely: coal mining sector, existing and expected industries, national parks, world heritage sites, marine protected areas, biosphere reserve, seaport and ship building industry, tourism sector, fisheries sector, agriculture and rural development, construction sector, scientific research institution, coastal communities, provincial people communities and NGOs.

The lesson learned from Vietnam is that should be noted is to incorporate MPAs into the broader framework of ICZM. Planning of individual MPAs should be participatory and integrated within broader spatial management.

#### **4.6 Similarities and Differences**

After analyzing the problems and approaches to marine and coastal management in the European Union, the United States and Vietnam, it is worth to note the similarities and difference in their approaches to address the problems of marine and coastal degradation, resource depletion, and conflict amongst users. There is a similarity in the recognition and use of ICZM approach to address those issues. Even though, to some extent the response of member States to the EU's recommendation on ICZM is largely fragmented. The other similarity is the recognition of the importance of the ecosystem based approach on the conservation of marine and coastal resources. In the EU for example the regional-based approach HELCOM (Baltic Sea) and OSPAR Convention (North East Atlantic sea) have recognized and are applying the ecosystem based approach in conservation of

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<sup>389</sup> Ibid

marine ecosystem through collaboration and cooperation between countries in the regional sea (i.e. Baltic sea and North sea). The ecosystem based approach is also recognized in the EU Marine Strategy Framework Directive 2008:

By applying an ecosystem based approach to the management of human activities while enabling a sustainable use of marine goods and services, priority should be given to achieving or maintaining good environmental status in the Community's marine environment, to continuing its protection and preservation and to preventing subsequent deterioration.

The ecosystem based approach is taken into consideration because, for example, the Baltic Sea is semi closed, shallow, and brackish water sea with the problem of eutrophication and water turnover.<sup>390</sup> In addition, the Sea is very vulnerable to ship discharge. The pollution in one region will consequently affect other regions. It is unavoidable that there should be cooperation and collaboration between States.

In the US ecosystem based approaches and integrated management are also used in the management of the Florida Keys National Marine Sanctuary to address the problem of the pollution coming from outside the boundaries of the marine sanctuaries. In Vietnam, the Nha Trang Bay MPA and the Ha long Bay World Heritage Sites also ecosystem based approaches and an integrated approach in the management of MPAs to reduce the pollution emanating from outside the boundaries of the MPAs.

There is thus a recognition and acceptance that these tools can be used in the context of MPAs so as to ensure sustainable use, protection and conservation of marine biological diversity and its ecosystems. In the European Union, the recognition of MPA is clearly stated in Marine Strategy Framework Directive stated that “the establishment of marine protected areas is an important contribution to the achievement of good environmental

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<sup>390</sup> See: <http://www.unu.edu/unupress/unupbooks/uu15oe/uu15oe0m.htm>

status under this Directive”.<sup>391</sup> The establishment of MPAs for the European Union, is also pursued so as to fulfill its commitments to the World Summit on Sustainable Development and the Convention on Biological Diversity.<sup>392</sup> In the US, Marine Protected Area is an umbrella term used for a wide range of approaches to the US area based conservation and management.<sup>393</sup> In the USA there are different names for MPAs such as sanctuaries, parks, preserves or natural areas.<sup>394</sup> Moreover, the establishment of MPA is not only inside national jurisdiction but also outside national jurisdiction. OSPAR for example, has agreed to establish a MPA beyond national jurisdiction (ABNJ). OSPAR 2008 has agreed to take forward work seeking to establish an OSPAR MPA for the Charlie Gibbs Fracture Zone on the Mid Atlantic Ridge.<sup>395</sup> The practice of is ranging from multiple uses to restricted areas. It is recognized that the establishment of MPAs is best managed through the ICZM approach. This is because to sometimes problems are outside the boundaries of MPAs and effect the MPAs itself, for example in the Florida Keys Marine Sanctuary, Nha Trang Bay MPA, and the Ha Long Bay World Heritage Sites in Vietnam. In addition, ICZM approaches also reduce conflict among stakeholders in the designation of MPAs and generate support from the stakeholders for the compliance with rulse in effect within the MPAs.

While there are many similarities in the approaches to address marine and coastal environment and resource degradation, there are also differences in the approaches and instruments for the management of marine and coastal resources. This is due to different systems of governance in different regions. In the EU, initiatives are based on treaties and legal instruments of the EU come in three forms: regulations,<sup>396</sup> directives,<sup>397</sup> and

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<sup>391</sup> OJ L 164/19, Directive 2008/56/EC (Marine strategy Framework Directive)

<sup>392</sup> OJ L 164/19, p 7 ,Directive 2008/56/EC (Marine strategy Framework Directive)

<sup>393</sup> [http://mpa.gov/pdf/helpful-resources/factsheets/final\\_class\\_system\\_1206.pdf](http://mpa.gov/pdf/helpful-resources/factsheets/final_class_system_1206.pdf)

<sup>394</sup> [http://mpa.gov/pdf/helpful-resources/factsheets/final\\_class\\_system\\_1206.pdf](http://mpa.gov/pdf/helpful-resources/factsheets/final_class_system_1206.pdf)

<sup>395</sup> [http://www.ospar.org/content/content.asp?menu=00180302000011\\_000000\\_000000](http://www.ospar.org/content/content.asp?menu=00180302000011_000000_000000)

<sup>396</sup> Regulation is legislative act of the European Union which becomes immediately enforceable as law in all member state simultaneously.

decisions<sup>398</sup> which are legally binding. In regards to ICZM the position of the EU is only to address this issue in a form of recommendation for member States to implement ICZM in their national legislations. This Recommendation is not legally binding thus it is not an obligation for member States to implement ICZM. This instrument is not as strong as a Directive. However, to address environment degradation issues and as a means of conservation policy in the EU region, it enacted the Habitat Directive (1992), Water Framework Directive (2000) and the Marine Strategy Directive (2008). These three Directives are connected and interrelated and provide coherent framework in achieving environmental objectives. This is a reflection of ICZM, and a coherent framework is shown by the integration of environmental concerns and objectives in these three Directives. The coherent legislative framework is reflected in Marine strategy Directive:

In order to achieve those objectives, a transparent and coherent legislative framework is required. This framework should contribute to coherence between different policies and foster the integration of environmental concern into other policies such as the Common Fisheries Policy, the Common Agricultural Policy and other relevant Community policies. The legislative framework should provide overall framework for action and enable the action taken to be coordinated, consistent and properly integrated with action under other Community legislation and international agreements.<sup>399</sup>

In the United States, the approach to the conservation and management of ocean and coastal resources is also different. It is based on collaborative and voluntary approaches between the federal and the states. The US is a constitutional republic comprising fifty States and a Federal district. In the American federal system there are three levels of Government: Federal, State and local. The State level has the jurisdiction to manage 3 miles of the sea while the remaining 197 miles fall under the Federal jurisdiction.

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<sup>397</sup> Directive is legislative act of the European Union which require member States to achieve a particular result without dictating the means of achieving the result.

<sup>398</sup> Decision is legal instrument available to the European institutions for implementing community policies with specific addresses. i.e. for the purpose of competition policy.

<sup>399</sup> Directive 2008/56/EC



However, the fact that activities on land are affects the sea and vice versa,<sup>400</sup> but the Federal government does not have the authority to manage 3 mile zone. Thus, with this authority Federal Government may not adequately protect Federal interest and State law may be insufficient to protect the state coastal zone from activities outside state jurisdiction.<sup>401</sup> To address these challenges, the CZMA provides a framework for cooperation through partnership contract arrangements.<sup>402</sup> These arrangements are voluntarily, the are an offer from the federal to state levels. It is up to the State to accept this contract or not. However, there are incentives to this offer: first the CZMA provides federal funds to the State to manage their coastal areas in accordance with a set of federal guidelines.<sup>403</sup> Another incentive lies in the consistency provision which allow the State to have a voice in activities that are outside of the state territory but may affect the State's coastal zone.<sup>404</sup> As the result in, 1999 29 States and five territories entered into this contractual partnership agreement on coastal management program which together cover more than 99 percent of the nations's coast line.<sup>405</sup> The greatest achievement of this CZMA is the high level of participation of the States. To date, the participation of States has increased to 34 which are all creating coastal laws and regulations to improve the condition of and protect the wetlands, and address public access and coastal hazards.<sup>406</sup>

In Vietnam, the approach to ICZM is by establishing a powerful Governmental organization to coordinate cross-sectoral activities in the sea and islands.<sup>407</sup> It is very similar to the Indonesian, the approach who appoints an institution as the lead agency to

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<sup>400</sup> Jhon Duff, *The Coastal Zone Management Act: Reverse preemption or contractual federalism?*, *Ocean and Coastal Law Journal*, 2001, p1

<sup>401</sup> *Ibid*

<sup>402</sup> *Ibid*

<sup>403</sup> *Ibid*

<sup>404</sup> *Ibid*

<sup>405</sup> Sarah, Humphrey, *et al*, 2000

<sup>406</sup> Dusty Crisler see: <http://www.oso.tamucc.edu/coastal/crisler.pdf>

<sup>407</sup> Ca, Vu Tant, *Integrated governance Policy and cross sector coordination of coasts and seas in Vietnam*, Presentation in "Marine management and good governance in practice", SIDA, Vietnam, 5-9 October 2009

coordinate cross-sectoral activities.<sup>408</sup> Even though, it is not yet implemented as details of the mechanism have not yet been enacted. The difference is that Vietnam establishes a new institution while Indonesia appointed an existing line ministry as the lead agency. The establishment or strengthening of appropriate coordinating mechanism is actually suggested in Agenda 21 which purposes that “each coastal State should consider establishing, or where necessary strengthening, appropriate coordinating mechanism (such as a high level policy planning body) for integrated management and sustainable development of coastal and marine areas and their resources, at both national and local levels”.<sup>409</sup>

A table highlighting similarities and differences in the management of marine and coastal resources is presented below: the European Union, the United States and Vietnam and Indonesia.

Table 4.2 Similarities and Differences EU, The United States and Vietnam

No	The European Union	The United States	Vietnam
Differences Instruments or approaches	<ul style="list-style-type: none"> <li>• Recommendation EU on ICZM (not binding)</li> <li>• Habitat Directive (Binding)</li> <li>• Water Framework Directive (Binding)</li> <li>• Marine strategy Framework Directive (Binding)</li> <li>• Our common Fisheries Policy</li> </ul>	<ul style="list-style-type: none"> <li>• Collaborative and voluntary approach between federal and states.</li> <li>• Incentives: federal funds and consistency provision</li> </ul>	<ul style="list-style-type: none"> <li>• Establishing new institution as cross sector coordination</li> </ul>

<sup>408</sup> It is mandated in law no 27/2007 on management of coastal zone and Small Islands.

<sup>409</sup> Agenda 21, Chapter 17, para 17.6

Similarities	<ul style="list-style-type: none"> <li>• Recognition of Integrated Coastal Zone Management (ICZM) approach</li> <li>• Recognition and application of ecosystem based approach</li> <li>• Recognition and acceptance of MPA (Marine Protected Areas as tools to ensure sustainable use of ocean and coastal resources</li> </ul>		

#### 4.7 Lesson learned for Indonesia

After examining approaches in the European Union, the United States, and Vietnam, there are lessons that can be learned from their approaches in management of marine and coastal resources. It is not necessarily that these approaches from are all applicable to other regions, one size does not fit all. One best practice in other region can not simply applicable to another region. There are differences in culture, economics, politics and the system of governance.

One aspect that can learn from other approaches is the application of ecosystem-based approach in MPAs. This ecosystem-based approach is not explicitly and clearly mentioned and recognized under the current law no 27/2207 on the management of Coastal Zone and Small Island.<sup>410</sup> In addition, the fisheries law does not mention the ecosystem-based approach clearly. It just states that for the purpose of fisheries management the conservation of the ecosystem will be conducted.<sup>411</sup> There is no definition of conservation of ecosystem. According to the US Fish Wildlife Service, ecosystem is a geographic area including all the living organisms (people, plants, animal and microorganism).<sup>412</sup> The ecosystem approach is comprehensive.<sup>413</sup> According to the

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<sup>410</sup> An ecosystem based approach requires attention to ecosystem integrity, interagency cooperation spatially explicit management measures, and time series data for multiple species and habitats. There are three dimensional of ecosystem based approach decision: 1. include stakeholders, perspectives, and human goals, 2. consider the health and vitality of ecosystems into the indefinite future, and 3. Include the larger landscape and connections among other landscape.

See: [http://www.nmfs.noaa.gov/ocs/mafacs/meetings/2003\\_05/mafacs\\_rev\\_5th\\_7Finalwref.pdf](http://www.nmfs.noaa.gov/ocs/mafacs/meetings/2003_05/mafacs_rev_5th_7Finalwref.pdf)

<sup>411</sup> Article 13(1) the law no 31 /2004 on fisheries

<sup>412</sup> <http://www.fws.gov/ecosystems/>

Convention on Biological Diversity (CBD) ecosystem approach is a strategy for the integrated management of land, water and living resources that promotes conservation and sustainable use in an equitable way.<sup>414</sup> However, the most notable improvement is on the law on the protection and management of the environment (No 32/2009). This law is recognized the eco-region based approach which is more concerned with the ecosystem considerations and socio-economic rather ones than political boundaries or jurisdiction. Note that with the decentralization there is a trend of political boundaries and jurisdiction over the management of marine and coastal resources. This has limited the conservation of marine and coastal resource is due to boundaries or jurisdiction issues, while the trend in Europe, the United States and Vietnam is to develop more regional conservation even over boundaries of jurisdiction. With the recognition of eco-region conservation has moved from being limited to boundaries based on the autonomy law to beyond local boundaries or jurisdictions.

Another lesson learned lies in the clarity of the authorities, mandates and the relationship between Federal and State levels in the management of conservation. For example, in the United States the conservation at the local level is the authority of the State level. However, in order to protect Federal interest in State's water the Federal level offers the state cooperation with incentives: Federal funds and consistency provisions. It is different in Indonesia as there is no clarity regarding the mandates on authorities on managing conservation. This is because in the 32 years centralization era, all the conservation was managed and conducted by the central Government. For example, national parks, marine national parks are managed by the central Government even though they are located in the jurisdiction of the local Government authorities. With decentralization, conservation becomes the authority of the local Government. However, there are challenges to implement this mandate. First is the lack of the capacity of local Government. This is due to long term centralization. Secondly is the lack of local Government budget for

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<sup>413</sup> <http://www.fws.gov/ecosystems/>

<sup>414</sup> [http://www.gpa.unep.org/documents/ecosystem-based\\_management\\_english.pdf](http://www.gpa.unep.org/documents/ecosystem-based_management_english.pdf)

conservation. In addition, the confusion begins when the local Government also wants to manage this conservation area in their areas which are already managed by the central Government. Thus, the United States model of establishing collaborative partnerships with incentives between the Federal level and the State level has potential to improve marine conservation in Indonesia. The problem is that the central government may not have the funds for this kind of incentive. But at the end, collaborative partnerships between the central Government, the local Government and the local community is the best solution for addressing the problems of the degradation of the marine and coastal resources in Indonesia.

## CHAPTER 5

### CONCLUSIONS AND RECOMMENDATIONS

Coastal environment degradation, resources depletion, conflict of users are all common problems in many countries and region including Indonesia, the United states, European Union and Vietnam. One of the approaches to address these issues is through shifting from the traditional sectoral approach to Integrated Coastal Zone Management (ICZM) which has been suggested by Agenda 21. ICZM is very obvious for many countries, and at this stage it still remains in infancy in Indonesia. Even though, to some extent there are improvements in the good will of the Government to establish a coordination office for cross-sectoral activities in coastal areas at the central and local levels. A coordination office is one of the simplified programs of ICZM.

There are still many aspects that need to be improved to integrate the management of marine and coastal resources in Indonesia. First is the harmonization of the laws and legislation between sectoral laws (horizontal) and between central legislation and local legislation (vertical). In ICZM, a coherent legislative framework is required because a conflicting and incoherent legislative framework is causes confusion and ambiguity and creates unsustainable development. ICZM should be reflected in the legislative framework that can contribute to coherence between different policies and foster the integration of environmental concerns into other policies.<sup>415</sup> The conflicting laws and legislations between sectoral laws and between central and local Government levels remains a challenge to the implementation of ICZM in Indonesia. It is quiet difficult to harmonize laws and legislation as many of the legislations are drafted by sectoral ministries which to some extent are sectoral ministries tend to maintain the sectoral interest rather than national interest. Moreover, with decentralization the local

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<sup>415</sup> As it is suggested in Marine Strategy framework Directive 2008

Government has the authority to enact law which is may or may not be coherent with the central legislation. Thus, there should be a mechanism to resolve these overlapping and conflicting legislative issues. For example, the provincial level can revoke the municipal legislation that is not coherent with central and provincial legislation.

Secondly, strengthening collaborate on and partnerships between the central Government and local Government in the management of conservation of marine and coastal resources. To some extent, the devolution of conservation authority to local Government is halfhearted in its implementation. The central Government still manages conservation area located in local jurisdiction. In addition, lack of capacity and funds of local Governments to implement this mandate has negative impacts on the conservation efforts. The US model of a voluntary collaborative approach with incentives (funds and technical assistance) is a good example of how conservation is conducted through partnerships between Federal and State Governments. The advantage of this collaborative partnership approach is that there are standards applied in the management of coastal areas. In order to get the funds, the State must manage their coastal areas in accordance with a set of Federal guidelines. Through the uniform application this standards and guidelines, it will increase the protection of not only individual local coastal areas but also whole coastal zone of the entire of the nation.

Third, is the improvement of public participation in decision making. ICZM should include all stakeholders, including local communities in the planning, implementation and monitoring. As a matter of fact, the public participation in Indonesia still weak. This remains a challenge to the implementation of ICZM. In addition, to some extent there is a view from scholars and academics that the legislations and policy on the management of marine and coastal resources favours of private sector rather than the well being of local communities. For example, concession rights, trawl, fisheries cluster policy. This is absolutely contradicts the purpose of many legislations which is to benefit local people

and to advance their livelihood. In addition, in environment governance civil society has the right to access natural resources and participate in decision-making. Thus, the policy makers should bear in mind the interest of the local communities and local fisherman in making policy. In addition, the Government should also taken into consideration traditional knowledge in making decision regarding management of marine and coastal resources. Traditional knowledge is usually rich with sustainable practices and can beneficial as supplement to scientific information, to help monitor the resources and to improve overall management.<sup>416</sup>

In regard to conservation, the current legislative framework provides somewhat a framework for the conservation efforts of the central Government and the local Governments. However, weaknesses include a lack of a clear basis for the implementation of ecosystem based-approach. Based on the experience in the United States, the European Union, and Vietnam ecosystem based-approaches are tools that can be used to manage MPAs effectively. In addition, the current legislation does not accommodate community based coastal management which, in fact, has significantly increased at the community level. These initiatives absolutely need the recognition in the legislative framework and support of the Government, in terms of both funding and technical assistance. This is because the community based coastal management will result in increasing the ownership of local people of their coastal areas and also benefit local people.

The conservation on marine and coastal resources is basically regulated under several legislations namely the law no 5/1990, the law no 27/2007, the law no 31/2004 and the law no 32/2009 and the law no 32/2004. To some extent these legislations conflict with each other on the ground with centralization (law no 5/1990) and decentralization (law no 32/2004) conservation approach. In addition, this conflicting legislation also creates

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<sup>416</sup> Robert S Pomeroy,



confusion and ambiguity with regard to which authorities have the responsibility to manage marine and coastal resources (mangrove, coral reef): the Ministry of Forestry, the Ministry of Marine Affairs and Fisheries, and Ministry of Environment. The cooperation of these three institutions is needed to ensure the sustainable use of marine and coastal resources. For example, this cooperation is needed for example at the local level in the permit approval process for activities which have significant impacts on marine and coastal areas, and for which the Marine Affairs and Fisheries Ministry released the permits but the Environment Ministry issues the EIA. In fact, the permit approval is sometimes issued before the EIA has been conducted.

Regarding public participation, the current legislative framework does not provide a clear mechanism for public participation. Most of the detail regarding a public participation mechanism is regulated through the sub-legislation, such as (Government or Ministerial decrees). None of the main legislations include details or specify formal procedures for public participation or complaints, for example: written comments and submissions, workshop, advocate planning, planning cell, charette, mediation and moderation. In addition, the weakness of the current legislation is that it does not specify the types of policy and project-level decisions which require public notice and comment.<sup>417</sup> Most of the legislation just regulates the general rights of public participation. In addition, the Indonesian Constitution does not explicitly guarantee the right to public participation in decision making.<sup>418</sup> In fact, public participation may lead to more legitimacy, more support, activation of local resources, and easier implementation.<sup>419</sup> As matter of fact, the difficulty of public participation is still found in the local community. For example, based on the interviews with fisherman in Bondalem Bali, it is clear that there are difficulties as to which authorities fishers could report massive bomb blast fishing in coastal areas. Thus, in regard to public participation in the fisheries sector community based fisheries

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<sup>417</sup> UNESCO, World Water Assessment Programme, 2006

<sup>418</sup> UNESCO, World Water Assessment Programme, 2006

<sup>419</sup> Prof Muller, Public participation in planning and development, 2009

management should be recognized explicitly by the Government in the legislative framework and the role of traditional knowledge should also be consider in making decisions in on fisheries. There should be detailed regulations governing community based fisheries management or co-management (partnership between local fishers and Government). There is also a need for the recognition of communal property rights over marine resources.<sup>420</sup>

In regard to conflict management, the current legislation provides mechanisms for conflict resolution both outside and inside the court system. However, to file a suit in the court is costly and lengthy and the negotiation on the compensation sometimes also leads to unsatisfactory results. In addition, to some extent, the overlapping laws and legislations between sectoral and vertical laws has created, or has the potential to create, conflict. For example, the central and provincial legislation has set the coastal meadow to 100 meters for non development areas, while the municipal level set it at 25-50 meters. as coastal meadow. This conflicting law is creating conflict in the community between fisherman who have interests in the beach for their boats, local people who need public access to the beach, and the private sector who has interest to build villas near the beach and to include beach as limited access. Thus, there are several aspects which need to be address to reduce conflict of utilization of coastal areas:

- Zoning (resources use designation) and marine spatial planning.
- The harmonization between national, provincial, and municipal level spatial planning legislation and policy.
- The involvement of stakeholders includes local people, local fisherman, and business entity.
- The strengthening to the local community active involvement in planning, implementation and monitoring of coastal management.

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<sup>420</sup> Arif Satria, 2006

- To establish clear detailed mechanisms for community involvement in decision making processes.
- To improve coordination and cooperation between Government institutions at the central, provincial and local levels.

Finally, in regard to institutional arrangements, the good will of the Government to create a coordination office and appoint a Ministry of Marine Affairs and Fisheries as the lead agency for the cross-sector coordination of activities both at the central and local levels can boost and improve the implementation of ICZM. However, to some extent, the challenge remains where there is still sectoral ego between Government institutions. In addition, with the enactment of law no 32/2009 on the protection of the environment, there are two lead agencies in the management of marine and coastal resources: the Ministry of Environment is appointed as the coordinating institution that makes policy and implement policy on marine and coastal environment protection and the Ministry of Marine Affairs and Fisheries which is appointed as lead institution based on the law no 27/2007 on Management of Coastal Zone and Small Island to coordinate activities in coastal areas. Again cooperation between these two leading agency on the protection and conservation of marine and coastal environment is needed.

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