

MAKING DECENTRALIZED COASTAL ZONE MANAGEMENT WORK FOR THE SOUTHEAST ASIAN REGION: COMPARATIVE PERSPECTIVES

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ABSTRACT

This present study examines comparatively one of current issues in coastal zone management (CZM) in Southeast Asian region, decentralized policy on CZM, through an overview of the approaches taken by Malaysia, Indonesia and Philippines. It analyzes the theoretical and practical aspects of decentralized CZM. This present study is one of few studies to date to analyze a wide variety of contemporary approaches to decentralized CZM and its major emerging trend in three States. Some part of this present study benefits from the authors previous work which was published at the Coastal Management journal, especially for Malaysia and Indonesia sections, with minor modification.

In this comparative research, the Federal system in Malaysia is argued to be able to influence more decentralized CZM and to promote community-based management approaches. The large diversity of coastal resources and communities combined with a still as yet tested decentralization policy in Indonesia is argued to bring more challenges in implementing the decentralization and community-based approaches in coastal zone. Meanwhile, the 25 years Philippines' experience in devolution of responsibility to manage coastal resources is argued to provide more familiarities on making decentralized CZM work.

In applying the basic concepts of CZM in the three States, this present study yielded a mixed experience in decentralization and the implementation of CZM. Indonesia and Philippine assume that decentralization of CZM is necessary to deal with its extensive geographical problems and its tremendous social and cultural diversity. The legal framework and the states' initiatives clearly show the political will of the Indonesian and Pilipino Governments to apply decentralized CZM. Meanwhile, Malaysia considers that decentralized CZM does not match its Government system. The Malaysian federal system is not necessarily suited to the decentralization process, as it requires significant adjustment to the Government structure and its internal relationships, including the state-society relationship. Therefore, as a political process, decentralization is not considered to be necessary unless there is significant political will.

ACRONYMS

AMFR	Agency for Marine and Fisheries Research
ASEAN	Association of Southeast Asian Nations
CZM	Coastal Zone Management
EEZ	Exclusive Economic Zone
FAO	Food and Agriculture Organization
GNI	Gross National Income
ha	hectares
ICM	Integrated Coastal Management
ICZM	Integrated Coastal Zone Management
IUU	Illegal Unreported and Unregulated
LGC	Local Government Code
LGU	Local Government Units
LOSC	Law of the Sea Convention
MCS	Monitoring, Control and Surveillance
MHWM	Mean High Water Mark
MLWM	Mean Low Water Mark
MMAF	Ministry of Marine Affairs and Fisheries
MPAs	Marine Protected Areas
MSY	Maximum Sustainable Yield
RM	Malaysian Ringgit
TACs	Total Allowable Catches
UN	United Nations
UNCED	United Nations Conference on Environmental and Development
UNCLOS III	Third United Nations Conference on the Law of the Sea
USAID	United States Agency for International Development
USD	US Dollar

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SUMMARY

WORKING TITLE:

Making Decentralized Coastal Zone Management Work for the Southeast Asian Region:
Comparative Perspectives

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1 INTRODUCTION

One of the current issues in CZM in Southeast Asian region is finding appropriate and suitable ways to apply decentralized policy. The current debate in contemporary literature on decentralization and CZM focuses on the exploring enabling conditions for making decentralized CZM prove most effective instead of examining the validity of decentralized policy it self. The present paper will analyze decentralized CZM and conditions for effective decentralization in three selected States in the Southeast Asian region: Malaysia, Indonesia and the Philippines. This research is an empirical grounded contribution to the debate over decentralized CZM in developing States.

1.1 Context and rational

Coastal zones in the Southeast Asia region (Map 1.1) contain some of the most extensive coastlines and diverse valuable coastal resources ¹. These rich coastal biodiversity and their invaluable support to multiple uses of human activities for many centuries remain the challenges to manage in appropriate ways. One way to manage coastal zones is to devolve responsibility and authority as well as decision-making processes from central to local Government, and placing the local community as an important player in regional development ². The huge range in biodiversity, the large variation in the types of coastal zones within a State, varied human populations and diverse regional economies among regions within States are the main reasons why CZM needs to be decentralized^{a 3, 4}.

^a Decentralized approach can be referred to the transfer of authority and responsibility from the central to local government. As confirmed by the World Bank (2002), it is an extremely broad development strategy, which covers a wide spectrum of general development policy goals, and highly considers to various stakeholders in its implementation. In this sense, adaptation and adoption of decentralization must be carefully analyzed in any state before determining if decentralization applies as the main policy for local government administration.



Map 1.1. Southeast Asian region ⁵

Coastal zones have clearly suffered as a result of, but not limited to, inadequate institutional and management capacity ^{4, 6-9}, lack of a decentralization mechanisms and ignorance of the role of the community in implementing integrated coastal management ¹⁰⁻¹⁸. Such a situation demands improvement.

One way to improve these situations is through systematically analyzing the way in which it is possible to make decentralized CZM work. There is a need for research that analyzes the processes of decentralized CZM policy. This study is a response to the need for more information on the extent to which decentralized CZM has taken place in Malaysia, Indonesia and the Philippines.

It is argued that the Federal system in Malaysia is able to promote more decentralized CZM and to promote community-based management approaches. The large diversity of coastal resources and communities, combined with a still as yet tested decentralization policy in Indonesia, is argued to bring more challenges in implementing the decentralization and community-based approaches in CZM. Meanwhile, the 25 years of the Philippines' experience in the devolution of responsibility to manage coastal resources is argued to provide more familiarities on making decentralized CZM work.

Thus, a comparative analysis of decentralized CZM in these three neighboring States provides a greater understanding of the diversity of management application. The lessons learned from this study will further contribute to the development of a wider understanding of CZM processes and cross-regional knowledge sharing in Southeast Asia. It enhances a comparative understanding of decentralized CZM process, and at the same time, contributes to current and important shifting policy in the natural resources management framework.

1.2 Research questions

This research aims to understand the governance system and decentralized practices in CZM, and to explore the lessons learned, the principal attributes/forces, and the implications for decentralized CZM policy and research in three selected States. The research also explores the areas of the institutional performance. To do so, this research focuses on examining and comparing the effectiveness of decentralized CZM.

The research addresses the following research questions:

- a. What are the theoretical and practical requirements for effective decentralized CZM?

- b. What are the existing policy and management practices in CZM in Malaysia, Indonesia and the Philippines?
- c. Does the decentralization of CZM improve management effectiveness? What are the consequences of this policy?
- d. What are the existing institutional arrangements and mechanisms that govern the process of decentralization? What kind of institutional arrangements are needed to enable decentralization to work?
- e. What lessons can be drawn from a comparative review of each State's experience in the process of implementing decentralized CZM?

In order to explore the above research questions, this research uses desktop review approach, which consists of collecting, compiling and analyzing related literature and documents which focus on CZM practices, current policies and programs, and laws and regulations related to decentralized CZM.

1.3 Structure of the report

This report consists of four parts, formed by moving from the three States' outlook to the comparative perspectives and then to the reflecting of policy implication into the larger and wide horizon perspective, the Southeast Asian region setting.

The first part examines the basic concepts of the decentralization process, current CZM in practice and the nature of the governance system. It presents a theoretical framework and working definitions of decentralization, the coastal zone, CZM and decentralization of CZM.

The second part describes context information on three selected States in decentralization and the evolution of decentralized CZM. This part also examines the debate of decentralized CZM as well the challenges of the new management strategy for coastal resources. This chapter also assesses the workable condition and outcomes, and includes a general description of the past and current patterns in CZM.

The third part provides comprehensive review of CZM policy in the study areas. This chapter explores some of the problems associated with the legal complexity in the extraction and management of the coastal zone in these States. Theoretical and practical requirements for decentralized CZM are also highlighted in this part.

The last part provides comparative analysis of the theoretical and practical aspects of decentralized CZM, and an overview of the approaches taken by Malaysia, Indonesia and Philippines.

2 BASIC CONCEPTS IN DECENTRALIZED COASTAL ZONE MANAGEMENT

This chapter discusses the concept of decentralized CZM, a concept of managing one of dynamic natural resources into more effective and efficient. This chapter then defines several important terms, including decentralization, coastal zone, and CZM. This chapter also reviews the literatures related to decentralization, coastal zone, CZM, integrated coastal management and decentralized CZM. This chapter is divided into four sections following the division of main part of literature review.

2.1 *Decentralization*

Decentralization is a broad concept in development and governance strategies¹⁹⁻³⁰, including managing natural resources³¹⁻⁴³. There are wide spectrums of general development and governance policy goals involved with this concept.

Decentralization has been exercised through many cross-disciplinary approaches⁴⁴. Correspondingly, the study of decentralization gathers a variety of disciplines such as economics, public policy, political science, sociology, anthropology and public administration. In many cases, the concept of decentralization has emerged from these fields, or the analyses of the same. This variety is at the core of the debates on decentralization. In most cases “[d]ecentralization means different things to different people”⁴⁵.

There are various definitions of decentralization in the literature which cover the range of perspectives and dimensions. In the broad sense, the variety of definitions centres on the stratification of Government systems and strategies to distribute power. Among the various definitions of decentralization, there are at least three commonly accepted interpretations. The United Nations (UN)’s definition on decentralization which appears in the UN report, *Decentralization for national and local development* (ST/TAO/M/19), in 1962 has become the standard and even refined since then by various scholars³⁰. The United Nations defined decentralization as “the transfer of authority on a geographic basis whether by de-

concentration (i.e., delegation) of administrative authority to field units of the same department or level of Government or by the political devolution of authority to local Government units or special statutory bodies”⁴⁶.

The key commonality amongst the various definitions of decentralization lies in the notion of a certain transfer of power from upper level to lower of governance. Most definitions define the term decentralization in term of how it is being implemented. However, the most widely accepted definition of decentralization is the Rondinelli and Cheema’s, which has become a cornerstone and cited by many scholars. They provide the term of decentralization as “the transfer of responsibility for planning, management, and resource-raising and allocation from the central Government to its field organizations, local Governments, or non-governmental organizations”²⁶. The present study will also adopt this definition.

The World Bank also provides a definition for decentralization: “the transfer of authority and responsibility for public functions from the central Government to subordinate or quasi-independent Government organizations and/or the private sector”⁴⁷. This definition considers the private sector as an actor of decentralization, which itself is driven by the concept of market-based decentralization¹⁹. In most current literature on decentralization, this market-based decentralization is categorized as economic decentralization^{19, 44, 47}. However, certain scholars argue that this type of decentralization is not formally defined as decentralization⁴¹. The argument refers decentralization as “only refers to transfers of power within the political-administrative hierarchy of the State”⁴¹ as implied by the definitions provided in Figure 2.1.

The World Bank divides decentralization into four broad categories, namely: political, administrative, fiscal, and market decentralization⁴⁷. These categories are based on dimension and public-private spectrum. Each category has “different characteristics, policy implications and conditions for success”⁴⁷. Table 2.1 presents the main ideas, attributes and requirements of each category of the types of decentralization.

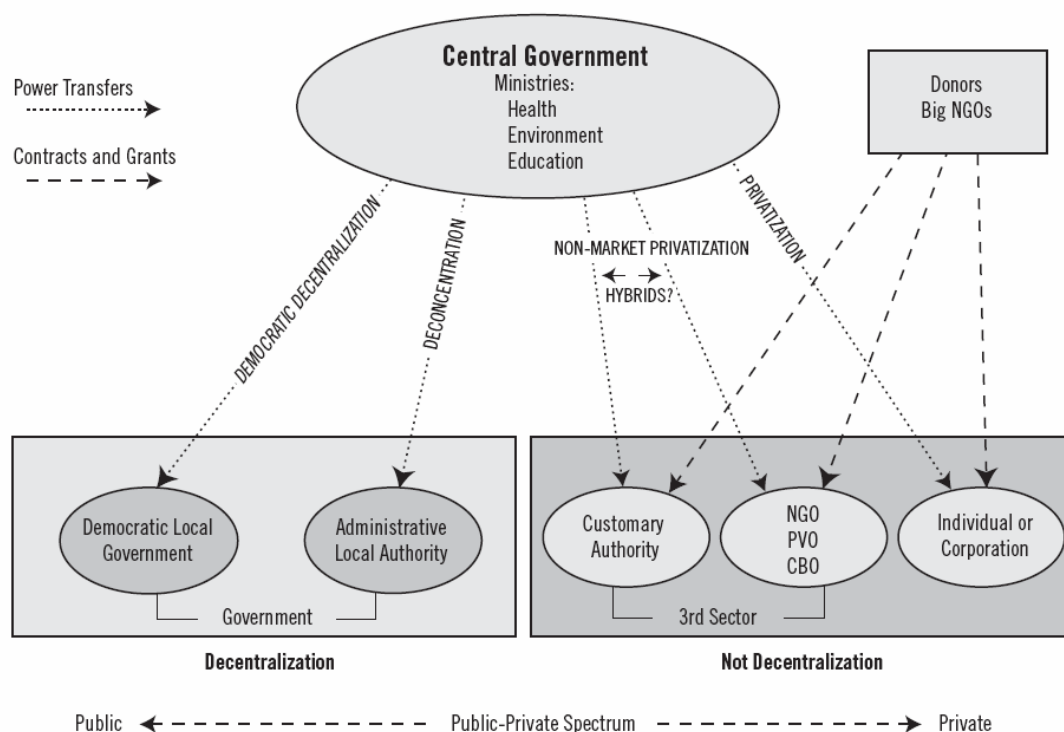


Figure 2.1. Formal definitions: decentralization, not decentralization ⁴¹.

The first two types of decentralization, political and administrative, have been frequently cited in public administration reform and political discourses. Political and administrative decentralization are primary forms of decentralization⁴¹. Political decentralization is also called democratic decentralization or devolution. Administrative decentralization is also known as de-concentration. The main theme of these types of decentralization is the transfer of power to lower levels of authorities, while the difference is the level of empowerment of the local people⁴¹. Political decentralization allows greater participation of the local people in decision making process through their local representative authorities. While administrative decentralization aims to better the delivery of services from public institutions.

Decentralization has become a global phenomenon in the reform of governance structures^{30, 46, 48-54}. As the United Nations pointed out, “[a] large number of developing and transitional

[States] have embarked on some form of decentralization programs”^b as they embark on governance reforms. The reforms become more significant as they shift models of governance from bureaucratic and centralized to participatory and localized structures. This is a changing of the 20th century governance character into 21st character. The change of governance characters in the 20th compared to the 21st centuries, which most of the characters are key elements of good governance, is illustrated in Figure 2.2 below ⁴⁸.

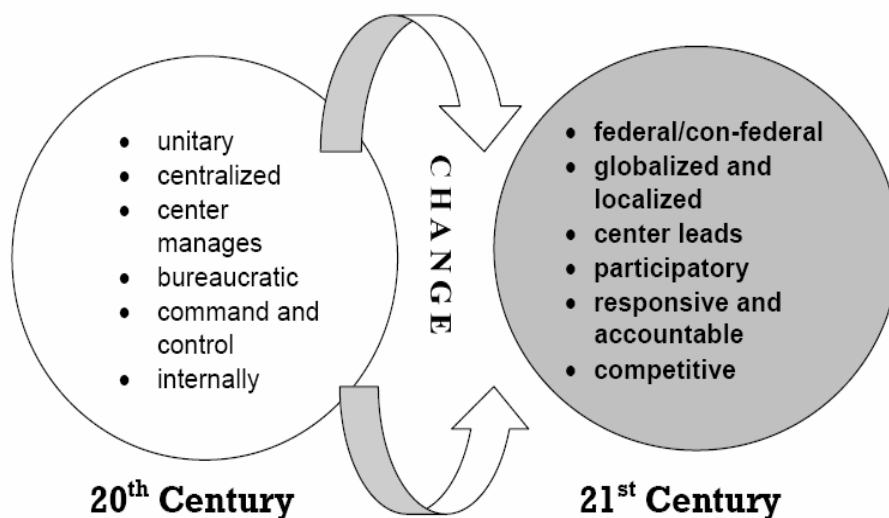


Figure 2.2 Governance Structure: 20th and 21st Century ⁴⁸

Many scholars and organization emphasized that decentralization is the process leading to good governance ^{48, 50-53}. Through the process of structural and policy reforms towards a decentralized system, decentralization brings improvements in local governance, delivery of services, allocation of fiscal resources, and promotes public participation as well as enhance Government responsiveness ^{48, 50}. This process is shown in Figure 2.3. In this sense, it will lead to more creative, innovative and responsive programs by allowing local experimentation and citizens to better control public programs at the local level ⁴⁷. As the UNDP pointed out, decentralization is “the logical application of the core characteristics of good governance at the sub-national and local levels which ensures that political, social and economic priorities are based on broad consensus in society and that the voices of the poorest and the most vulnerable are heard in decision-making over the allocation of development resources” ⁵⁰.

^b See: United Nations, 1996. Report of the United Nations Global Forum on Innovative Policies and Practices in Local Governance, Gothenburg, Sweden, 23-27 September 1996, ref St/Tcd/Ser.E/46, p. 7.

Table 2.1. Main ideas, attributes and requirements of four types of decentralization ⁴⁷.

Category	Main ideas	Attributes	Requirements
Political decentralization	to give citizens or their elected representatives more power in public decision-making	<ul style="list-style-type: none"> • pluralistic politics and representative Government • more influence of society in the formulation and implementation of policies • greater participation • local electoral jurisdictions 	<ul style="list-style-type: none"> • constitutional or statutory reforms • development of pluralistic political parties • the creation of local political units • strengthening of legislatures • encouragement of effective public interest groups
Administrative decentralization	<ul style="list-style-type: none"> • to redistribute authority, responsibility and financial resources for providing public services among different levels of Government • to transfer of responsibility for the planning, financing and management of certain public functions 	<ul style="list-style-type: none"> • Deconcentration redistributes decision making authority and financial and management responsibilities • Delegation, transfer responsibility for decision-making and administration of public functions • Devolution devolve functions, they transfer authority for decision-making, finance, and management 	<ul style="list-style-type: none"> • redistribution system among different levels of the <i>central</i> Government. • semi-autonomous organizations not wholly controlled by the central Government, but ultimately accountable to it • quasi-autonomous units of local Government with corporate status
Fiscal decentralization	to transfer of responsibility for the financial responsibility	<ul style="list-style-type: none"> • self-financing or cost recovery through user charges, • co-financing or co-production arrangements through which the users participate in providing services and infrastructure through monetary or labor contributions; • expansion of local revenues through property or sales taxes, or indirect charges; • intergovernmental transfers • authorization of municipal borrowing and the mobilization of either national or local Government resources 	<ul style="list-style-type: none"> • adequate level of revenues –either raised locally or transferred from the central Government • authority to make decisions about expenditures • mechanisms to shift general revenues from taxes collected by the central Government to local Governments for general or specific uses; • loan guarantees mechanism for local Governments
Market decentralization	to shift responsibility for functions from the public to the private sector	<ul style="list-style-type: none"> • Privatization by allowing private participation, contracting, financing public sector through the capital market, transferring responsibility for providing services • deregulation 	<ul style="list-style-type: none"> • economic liberalization and market development policies • reduction of the legal constraints on private participation in service provision • enabling competition among private suppliers for services

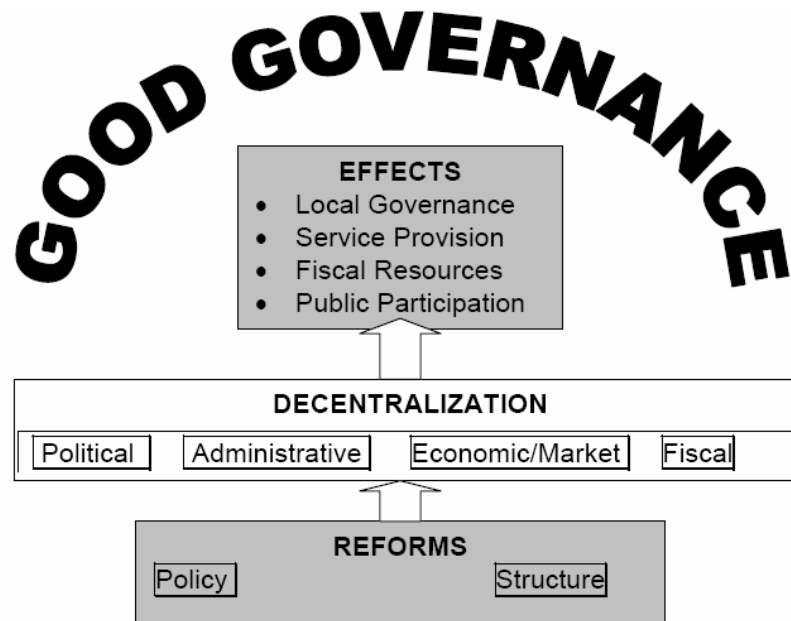


Figure 2.3: Schematic framework of decentralization and good governance⁴⁸

The practice of decentralization has so far produced both successes and failures. There are arguments for and against decentralization as summarized, at Table 2.2. Both arguments are frequently based on the “cross-disciplinary claims about the effects of administrative measures on the quality and efficiency of both Government and social interaction”⁴⁴. These arguments reflect the intensive debates on decentralization which “show that decentralization has achieved moderate success in some countries, moderate failure in others, and both in many”⁴⁴. The debates have examined arguments both from theoretical and empirical studies on the efficient and effectiveness decentralization. Political and economic theories dominate the debates, which represent “broad and often frustratingly imprecise [and varieties] backgrounds of those whose participate [in the debates of decentralization]”⁴⁴.

The arguments for decentralization lie mainly in the idea that closer Government level to beneficiaries will be more effective in providing better services to beneficiaries^{3, 20-22, 24, 27, 44, 47-49, 55-58}. The arguments are led by the premise that to govern effectively large areas and diverse populations in a State by a centralized approach is costly and resources intensive³. Similarly, the closer Government units are to the local people, the “better able to make choices that reflect the needs and priorities in their jurisdiction than is a remote central Government;

and that it is easier to hold local elected representatives and officials accountable for decisions and performance than those at the centre”^c. Thus, decentralization may “alleviate the bottlenecks in decision making [process by] cut[ting] complex bureaucratic procedures”⁴⁷.

Table 2.2. Compilation of arguments for and against decentralization^{22, 44, 47, 50, 53, 56, 59-63}.

Pro-decentralization	Contra-decentralization
<ul style="list-style-type: none"> • broadening participation in political, economic and social activities • alleviate the bottlenecks in decision making that are often caused by central Government planning and control of important economic and social activities • cut complex bureaucratic procedures • increase Government officials' sensitivity to local conditions and needs • help national Government ministries reach larger numbers of local areas • allow greater political representation for diverse political, ethnic, religious, and cultural groups in decision-making; • relieve top managers in central ministries of routine tasks to concentrate on policy. • create a geographical focus at the local level for coordinating national, State, provincial, district, and local programs more effectively • provide better opportunities for participation by local residents in decision making • lead to more creative, innovative and responsive programs by allowing local experimentation and innovation. • increase political stability and national unity by allowing citizens to better control public programs at the local level 	<ul style="list-style-type: none"> • not always be efficient, especially for standardized, routine, network-based services • loss of economies of scale and control over scarce financial resources by the central Government • less efficiently and effectively of service delivery in the absence of strong administrative or technical capacity at local level • make coordination of national policies more complex • vulnerable to local patronage and corruption • potentially create opportunities for local elites to play a disproportionate role in planning and management of projects • intends to create greater inequities among communities and regions with different levels of organizational capacity • led to disappointing results in absence of or weakness in supporting institutions • vulnerable to political judgments which led to unexpected results.

Proponents of decentralization also advocate that decentralization will accommodate local differences and preferences for better services^{3, 30, 46, 48-54}. This process may increase political stability and national unity³, and lead to more creative, innovative and responsive programs through local experiments⁴⁷.

Arguments against decentralization are much more influenced by empirical studies and evidence on the failure of decentralization. These studies propose that decentralization may

^c See: N. Devas and U. Grant, 2003. "Local government decision-making - citizen participation and local accountability: some evidence from Kenya and Uganda". Public Administration and Development (23). p. 352.

not always be efficient and effective ⁶⁴, especially in the absence of a strong capacity of local or supporting institutions and enabling conditions required for decentralization to work. Decentralization is seen as a transfer of inefficiency, and carries a high economic cost which leads to a loss of economies of scale and central Government control over scarce financial resources. Decentralization has the potential to fail where formal local Government units are large and too remote from local communities, as in many developing States ²² including Malaysia, Indonesia and Philippines. From the political point of view, this situation can create an opportunity for “local elites to play a disproportionate role in the planning and management of projects [or programs] ⁴⁴”.

Furthermore decentralization “may create expensive layers of Government while reducing the benefits of economies of scale” ⁶¹. In most cases, central Government decentralizes several administrative tasks and power to local Governments without proper design, and local Governments do not have enough capacities to handle the new mandates. This causes under-performing even non-performing, a local Governments units. By using Ribot’s⁴¹ IF-THEN proposition^d, it can be analogized as follow : IF decentralization fails to address accountable institutional arrangements of local authorities who represent and the local population and who hold discretionary powers over public resources, THEN the decentralization will lead to more inefficient and inequitable outcomes than if central authorities do.

To better deliver similar services more effectively and efficiently than the central Government, local Governments need larger budget and additional resources. For example, local Governments in Latin America required more resources to conduct shared responsibilities with the central Government, and these resources were taken from unclear areas of joint jurisdiction ⁶⁵. Cross-country study proved that decentralization in most States faces serious problems of implementation⁶⁴. In many instances, decentralized policy faced with a slow pace of implementation and organization reforms ⁴⁷. There are several reasons to explain this failure.

^d Ribot’ proposition refers to the theory “IF institutional arrangements include local authorities who represent and are accountable to the local population and who hold discretionary powers over public resources, THEN the decisions they make will lead to more efficient and equitable outcomes than if central authorities made those decisions”.

Perhaps the best summary observation is provided by Smoke ⁶⁶, who explains that the common root of the failure of decentralization especially in developing States:

“[r]ecent decentralization and local Government reform programs in developing countries have often been undertaken during domestic political or economic crises, and some have been externally imposed or influenced by donors. Such efforts have been undertaken by central Governments because they may feel they have no choice when faced with structural adjustment programs, poorly performing economies, declining public service levels, and political unrest”^e

When decentralization takes place within the context of political unrest like in Indonesia, mostly it often neglects the “careful, rational and orderly process of decentralization” ⁶⁷, and it is also proposed that “[e]ven where decentralization happens in a less dramatic context, question of strategy and timing still arise” ⁶⁷. Another reason is related to no existence of “autonomous elected sub national Governments [which are] capable of taking binding decisions in at least some policy areas”^{47, 68}. Insufficient in capacity of local institutions and lack of bureaucratic support causes serious problems of implementation of decentralization policy ⁵⁸. In the same way, the “ingrained centrist attitudes and behavior on the part of political and administrative leaders” caused the failure of decentralization ⁶⁹. Placing decentralization under ego centrist^f leads to unexpected results and failure of decentralization policy ⁶⁶.

The failure of decentralization also can arise when decentralization is seen as the only alternative solution to address the failure of centralization ⁵². This misperception presents decentralization as a magic potion or mantra, for reforming governance structures and achieving better service delivery. Decentralization is not a stand-alone panacea for management of any public resources ^{41, 47}. Decentralization and centralization are indispensable, thus national and sub national actors whether governmental, private sector or

^e See: P. Smoke, *Beyond Normative Models and Development Trends: Strategic Design and Implementation of Decentralization in Developing Countries*, (New York 2000), p. 4.

^f Such ego-centrism is the competition to control elements of the decentralized program. This competition's origin is putting the program “under the leadership of a single central agency that is perceived as a rival by other agencies whose cooperation is required for success” (Smoke 2000: 6). For example, Smoke pointed out the competition for control of the World Bank's Second Urban Project in Indonesia during the late 1980s. This competition led to a project design that inappropriately gave substantial control to a technical ministry (p. 26 – 27).

civil society, play complementary roles⁵². The careful and rational analysis of responsibilities and duties of every actor provides the opportunity to achieve the desired intention of decentralization. To analyze the most appropriate shared responsibilities and duties, requires innovative approaches and the fully understanding of the potential outcomes of different local Government systems in public service delivery and in private sector development⁴⁷. In other words, the analysis should respect the diverse policy influences.

The approach to choose the most appropriate form of decentralization relies heavily on how to balance power as well as knowledge, and the ability to understand when the distribution of power is in balance⁴⁷. In fact, the process of decentralization is extremely complex and takes a long time^{47, 50-54}. State political and economic settings influence the complexity and the manner in which to balance decentralization and centralization.

State political and economic settings differ from State to State, as does the mechanisms through transfers of power or authority are pursued^{47, 48}. Despite wide and State-specific of decentralization term, there are certain similarities in the process toward decentralization⁴⁸. In many cases, decentralization is “mostly driven by the central Government’s prerogative, although the force and needs from sub-national, civic, and business groups could generate and force the process of power transferring”⁴⁷. The central Government’s prerogative places the local leaders as “communicators and solicitors of support for national policies, rather as channels through which the conditions and needs of local communities were articulated and made known to central planners and policy makers”^g.

State political and economic settings determine the application and combination form of decentralization and centralization. Therefore, to choose the most appropriate form of decentralization, two important questions should be considered: (i) when centralization should apply, and (ii) how to apply. The way to apply should not be the decision of central Government per se. It should be carefully analyzed before the question such as when the decentralization should apply. The way to apply has to be agreed upon the implementation by

^g See: Mokhsen, N. 2003. Decentralization in Indonesia. Thesis Ph D, Research School of Pacific and Asian Studies (RSPAS) Australian National University, Canberra. p. 32.

both local and central Governments. A working paper from the joint UNDP-Government of Germany evaluation of the UNDP role in decentralization and local governances in 1999 proposed a practical framework analysis to define the application of decentralization. The framework contains the 6-Wh basic questions (who, what, when, where, why and how) which associate with the description and the way to elaborate the questions (Table 2.3).

Table 2.3. A framework for defining the application of the concept decentralization ⁶³

	<i>Description</i>	<i>Elaboration</i>
<i>Who</i>	Describes who would be responsible for the decentralization and who would be impacted by it (the 'decentralizers and decentralizees')	In broader definitions, would cover the categorization and breakdown of s-called 'stake-holders', knowing in advance that different groups, organizations or segments of society will have differing relationships to the decentralization initiative. There may be different layers of accountability, as well as a specific governance structure.
<i>What</i>	Describes what is to be decentralized. This could be an organizational entity, a function, a process, a service to the public.	Some of the definitions in the preceding parts of this paper identify higher level 'forms' of decentralization, such as administrative or fiscal or political, and these do broadly define the 'what'. But much more specificity would need to be required. Typically, there is overlap across the major forms.
<i>When</i>	Describes the time that decentralization is planned, is to begin implementation, and how long it would take.	It is important here to note that time is an important variable. Timeframes for decentralization are long, extending to a generation. Decentralization processes are process of major change. Time periods may be sub-divided, inter-dependencies noted, milestones established and so on. These may be linked to other time-sensitive initiatives or events
<i>Where</i>	Describes the geographic or spatial dimensions of decentralization	Decentralization can be hierarchical, but still in the same geographic area (e.g. decentralizing from a central ministry to line ministries), or they can be spatial in terms of decentralization to local and lower levels of Government.
<i>Why</i>	Describes the 'big reason' to decentralize.	There are all sorts of internal and external factors compelling a Government, or society, to decentralize. The 'why' addresses purpose or objective, outcome, impact, result.
<i>How</i>	Describes the mechanical, technical and methodological means of decentralization.	Many of the different forms of decentralization (e.g. ASD, devolution, etc.) really define the means by which decentralization is to be implemented.

State political and economic factors have some bearing on motives for decentralization. In many cases, especially in developing States, the motives are much more influenced by political rather than technical factors ²⁹. Political forces and unrest and economic crises are two main motives for choosing and implementing decentralization. For example, in part of Africa, the motives for decentralization were led by the intension to create "political entities in the territories that were formerly administered by the central Government", while in Asian

developing States economic crisis and the creation of agents of the central Governments are the primary motives ⁶⁹. These motives have potential disadvantages such as measuring decentralization based on the political views ⁴⁴. Political justification often do not take the efficient and effectiveness into the account. Technically, decentralization should be provoked by the scheme to achieve more efficient and effectiveness in service deliveries, as the way decentralization is defined.

In current public management, decentralization has been seen as the way to transfer program and services for continued better delivery of programs, services and benefits. This means decentralization should explore how to achieve better delivery of programs, services and benefits, and become an effective mechanism through which to do so. One of the valuable mechanisms in decentralization is Alternative Services Delivery (ASD). This approach has spread across States under many names and forms, such as Public Private Partnership ⁶³. It has become a worldwide phenomenon since it was introduced by the Canadian public sector and emerged with ideas of new public management in the 1990s ⁷⁰.

Public Private Partnership (PPP) has been defined as “a creative and dynamic process of public sector restructuring that improves the delivery of services to clients by sharing governance functions with individuals, community groups and other Government entities”^h. The main idea of PPP is how to address and deliver the needs for better services at a lower cost to the public ⁷¹. The services delivered should not only rely on the Government sector, due to relatively higher costs and potential time consuming and bottleneck decision making processes. There are chances for non-governmental and private sectors to take part in delivering some programs and services ⁶³. Therefore, the role of Government in service deliveries should be rethought and alternative deliveries should be reinvented. There are several empirical studies showing that non-governmental entities and the private sector can provide better and cheaper services than those delivered by Governments ⁶³.

^h See: R. Ford and D. Zussman (eds.), *Alternative Service Delivery: Sharing Governance in Canada*, (Toronto 1997). p.6.

2.2 Coastal Zone

The most accepted definition of coastal zone refers to the transitional region between the land and the ocean. The transitional refers to the two main environments, terrestrial and marine, and their main influences to coastal zone. In the coastal zone, the terrestrial environment influences the marine environment and vice versa⁷²⁻⁷⁵.

The term of coastal zone has been associated with a variety of programs, concepts, projects and activities from local, national to international. Some scholars use the term coastal area to refer the similar regions, with the distinction between terms being negligible^{74, 76}. This study uses the term coastal zone.

As the transitional region, the coastal zone is a unique system because it is subjected to dynamic influences from land and ocean ecosystems. Each ecosystem has its specific characteristic and the interaction between these remains ever changing with natural fluctuation in the biological, chemical and geological attributes. The complex and dynamic character of the coastal zone has the physical action on the area, as well as the interaction of three bio-ecological systems: land and sea, sea and air, and sea and sediments^{72, 73}.

The uniqueness makes the coastal zone one of most productive ecosystems which abounds with natural resources, and is often considered highly scenic⁷⁵. The coastal zone has several valuable and important resources both in economic and biological terms, such as coral reefs, mangroves, and sea-grass beds. These resources provide numerous functions and services to support a variety of livelihoods and provide the backbone to many local economies.

Coastal zones have been used for different purposes including tourism, fisheries, transportation, mining, and communication^{2, 4, 7, 8, 77-79}. The multiple functions and services supported by the coastal zone have lead to highly intensive exploration and exploitation. These multiple uses, combined with rapid economic and industrial growth in recent decades, have attracted an increasing percentage of the population to live in coastal areas⁸⁰. This increased population has led to a significant impacts on the coastal zone⁸⁰⁻⁸².

Expanding on the above definition of the coastal zone, covers coast, beach or shore and near shore zone⁷²⁻⁷⁵. Figure 2.4 below defines the various physical characteristics of the area. The seaward area beyond the coastal area is known as the offshore, where the oceanic influence is predominant. The area beyond the backshore in the landward direction is known as the coast. The coastal region extends inland in several ways including tidal mark, tidal influence, salinity mark and seaward extent of the permanent vegetation. The characteristics of this region are marked by the direct physical influence (tidal, salinity, coastal flooding) of coastal waters, the inland boundary of a local unit of Government, or all lands, the use of which may have a direct and significant impact on coastal waters.

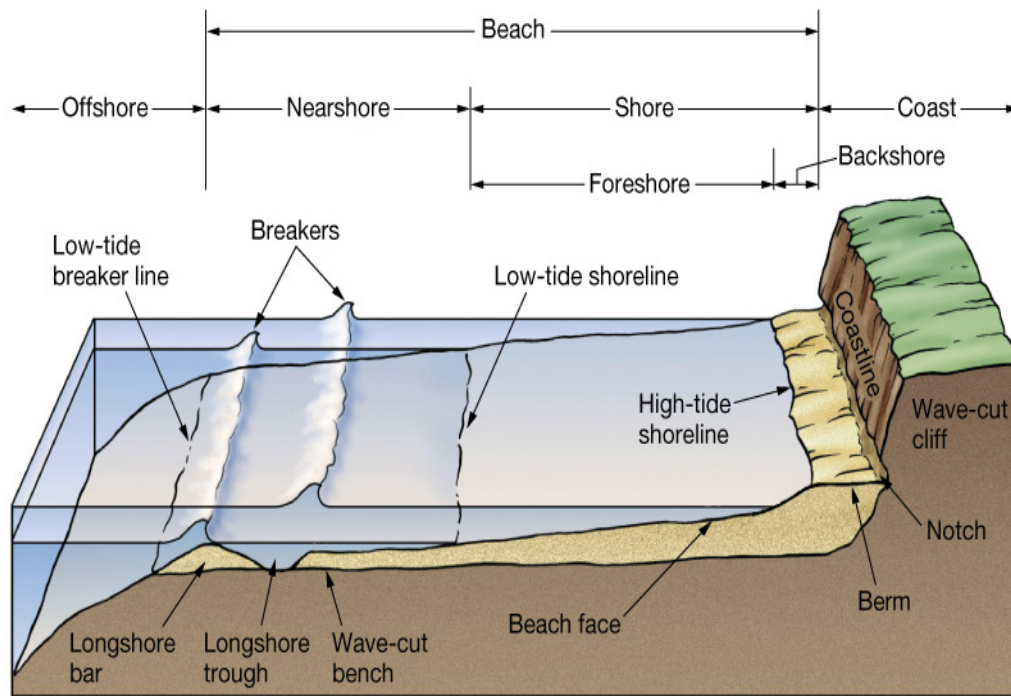


Figure 2.4. Landforms and terminology in coastal zone⁸³

The area between high and low tides is called as coastline. It can extend seaward to the extreme low tide mark and extend inland to include the area covered by extreme high tides and/or coastal flooding events, as well as the most seaward extent of permanent vegetation. The beach or shorelines are often subject to extensive Government control. Exclusion areas are sometimes imposed in this region to prohibit various activities in wetlands, beaches, or to guarantee unrestricted public access to the shore. The near-shore and beach environments have

the direct relation with the coastal waters. Coastal waters are often measured from the physical environment of coastal zone such as tidal, tidal influence mark, salinity mark. Within these waters many chemical changes can occur in response to the salinity gradient⁷².

Beside the natural features of the landscape, the coastal zone have been defined for management and administrative purposes in various ways, often varying from State to State, and its boundaries highly influenced by the political context and local conditions attached (Table 2.4). The boundaries of coastal regions may well be pragmatically defined to include areas and activities that are related to the management issues and focus of the program. For example, in Indonesia, according to Law 32/2004, the coastal zone boundary for *kabupaten*/municipality to manage is the one third of provincial authority area (12 nautical miles) seaward, while the landward boundaries follow the administrative boundaries of the *kabupaten/kota*.

Table 2.4. Definition of coastal zone and its boundaries in Malaysia, Indonesia and Philippines⁸⁴⁻⁸⁶.

Country (Source)	Landward Boundary	Seaward boundary
Malaysia <ul style="list-style-type: none"> (ASEAN/US CRMP) ICZM Sarawak ICZM Sabah ICZM Penang TWG-1 	<ul style="list-style-type: none"> District boundaries Edge of tidal boundary 60 meters contour line Entire island and mainland 5 km 	<ul style="list-style-type: none"> Up to 20 km off shore to include islets off Mersing EEZ 12 Nautical miles
Indonesia (Law 32/2004)	Administrative and selected environmental units	12 nautical miles for provincial waters, and one third of provincial waters for regency or municipality.
Philippines <ul style="list-style-type: none"> (ASEAN/US CRMP) (ADB) 	<ul style="list-style-type: none"> Boundaries of coastal municipalities and inland municipalities with brackish water aquaculture Inner regions on marine dependant systems or 1 km whichever is the greatest 	<ul style="list-style-type: none"> 100 fathom isobaths Outer reaches of fisheries resource systems which are associated with or influenced by the coast

2.3 *Coastal Zone Management and Integrated Coastal Management*

The concept of CZM is classified as the process to control the utilization of coastal zone for various activities and purposes, and has been defined as “[a] production function that combines inputs (labor, natural resources, capital, time) to produce desired outputs, such as public beaches for recreation, navigation facilities, a specified level of water quality, mean annual fish harvests, the preservation of a marine sanctuary”⁷³.

In line with the above definition, CZM is characterized by a system of relationships among:

- (1) people who live, use, or otherwise are concerned (in their beliefs or behaviors) with the coastal environment,
- (2) policy makers and managers whose decisions and actions affect the behavior of coastal peoples, and
- (3) members of the scientific community: natural scientists who study the coastal environment and social scientists who study human behavior in coastal zones^{73, 84}.

These relationships are complex and often not limited to administrative boundaries of coastal zone *per se*. The linkage between the coastal zone and other resources and activities are inherent in the complexity.

The approaches to CZM programs has been described in three simple and logical taxonomic levels: approaches, strategies, and tools⁸². Management approaches mean the ways to define the appropriate management actions for addressing such issues in the coastal zone. There are two classic approaches to resource management, either centralized (i.e., top-down or command-and-control management authority), and community based (i.e., ‘bottom-up’ or ‘grass-roots’ management authority).

Management strategies are defined as a kind of management actions and strategies. Traditionally, there are four strategies in CZM, namely: direct protection, legal regulation and policy, economic incentives, and education and awareness. The current, and well-known modern management strategies limit human access and to prevent certain human impacts on

the coastal zone. This is normally implemented through the designation of specific areas under direct a centralized approach led by regional, national, and provincial Government agencies.

Management tools are characterized through the specific approach employed and the actions taken to manage coastal resources under each of the four strategies. The approaches should address the broad range of issues as they apply direct protection management strategies, legal concerns, economic considerations, and effectiveness of education and awareness.

Managing the coastal zone while maintaining environmental, social and economical needs, is, in fact, an integrated approach. The coastal zone will remain productive only if there is a holistic and comprehensive approach ⁷³. A current integrated approach in CZM is the concept of integrated coastal management (ICM). This approach provides a conceptual framework for ecologically sustainable use of coastal resources, thus meeting the overall objective of ICM which is to provide for the best long-term and sustained use of coastal natural resources and for perpetual maintenance of the most beneficial natural environment ⁸². ICM also incorporates modern principles of planning and resource management, intensive information bases and interdisciplinary processes toward an effective general framework for dealing with conflicts arising from interactions of the various uses of coastal areas.

There are several definitions of ICM ^{73, 84, 87-96}, but perhaps the most accepted one is the following:

ICM is a continuous, dynamic, iterative, adaptive, and participatory process in which an integrated strategy is developed and implemented for the allocation of environmental, socio-cultural, and institutional resources to achieve the conservation and sustained multiple use of the coastal zone while taking into account traditional cultural and historical perspectives and conflicting interests and uses.ⁱ

The present study makes use of this definition which includes the main elements of ICM.

ⁱ See: S. Westmacott, "Where should the focus be in tropical Integrated Coastal Management?" (2002) Coastal Management 30. p.69.

The milestones for the foundation of an ICM definition were provided by the 1982 Law of the Sea Convention and Chapter 17 of Agenda 21 of United Nations Convention for Environment and Development (UNCED) entitled "Protection of the Oceans, All Kinds of Seas, Including Enclosed and Semi-Enclosed Seas, and Coastal Areas and the Protection, Rational Use and Development of Their Living Resources". These two international treaties give the necessary prescriptions for ICM as the way forward in addressing the increasing pressures on the coastal zones⁸⁴.

Chapter 17 of Agenda 21 also provides a series of suggested actions, which coordinating institutions should consider undertaking, such as preparation of coastal and marine use plans (including profiles of coastal ecosystems and of user groups), environmental impact assessment and monitoring, contingency planning for both human-induced and natural disasters, improvement of coastal human settlements (particularly in terms of drinking water and sewage disposal), conservation and restoration of critical habitats, and integration of sectoral programs (such as fishing and tourism) into an integrated framework. Strongly acknowledged is the fundamental role of cooperation among States in the preparation of national guidelines for ICM and the undertaking of measures to maintain biodiversity and productivity of marine species and habitats under national jurisdiction⁸⁴.

Another milestone came with the World Coast Conference (WCC) 1993 which was held in Netherlands and brought together over 90 coastal States, 20 international organizations, and 23 nongovernmental organizations. The fundamental statement of the conference was "coastal States that are in the process of defining and implementing a national program for integrated CZM have encountered obstacles that constrain the effective development of national program"⁹⁷. This underline was based on the information produced both during the conference and prior to the conference during the preparatory activities. The collected information found the facts that worldwide, nations are having difficulty implementing an integrated form of management in the coastal zone.

The latest milestone in ICM is the Johannesburg Plan of Implementation (JPoI), the outcome of the World Summit on Sustainable Development (WSSD) which was held in Johannesburg,

South Africa on August 26-September 4, 2002. Partnership initiatives are the key outcomes emanating from the WSSD which is in line with the strengthening effort on the implementation of Agenda 21. Partnership highlights the commitments and action-oriented coalitions focused on the contribution in translating political commitments into action.

Surveys conducted in 1993 and again in 2000 indicate a the significant increase in ICM programs during the survey period, approximately two and half fold an increase of 267 % (Figure 2.5) ^{93, 98}. This increase accelerates with the rise in interdisciplinary research and its integration into management as well as the use of traditional knowledge and management systems, and local participation in the ICM efforts ⁹⁹.

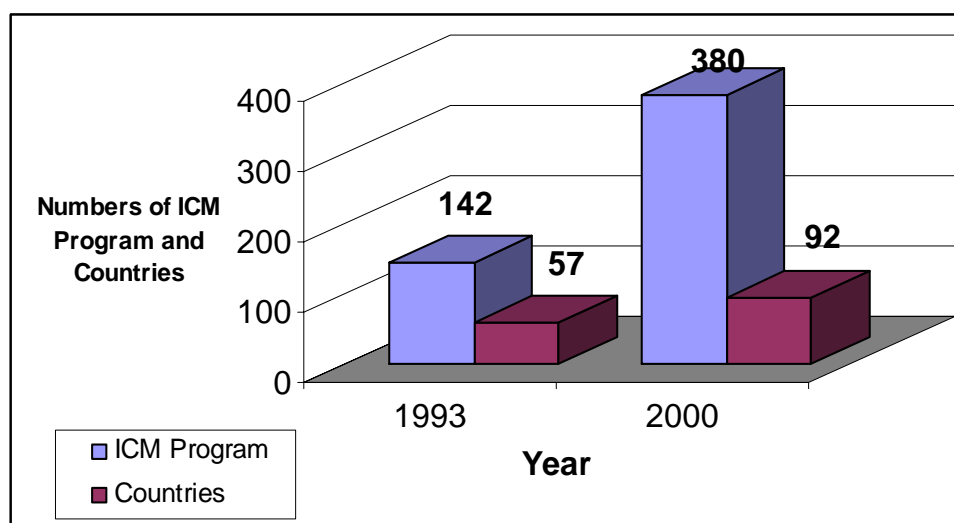


Figure 2.5. Increase in ICM programs from 1993 to 2000 ^{93, 98}

As a continuous, dynamic, iterative, adaptive, and participatory process, ICM covers the cycle of managing the coastal zone including how to prepare, initiate, develop, adopt, implement, refine and consolidate the programs or projects. This complex cycle has been summarized and illustrated drawing on the experience and lessons learned from demonstration sites as well from other national and international initiatives (Figure 2.6) ¹⁰⁰. It has further been proposed that the cycle may be replicated into other coastal areas, because the essential elements of the ICM process had been refined, tested, incorporated and packaged into a working model ¹⁰⁰. The cycle can provide the ability to assess ICM progress and performance.

As a management approach, ICM covers all aspects of the coastal zone, such as the existing economic activities, planned developments, natural resource conservation and utilization, and addressing multi-stakeholders and conflicts. It requires an inter-disciplinary approach to effectively engage the complex economic and ecological, terrestrial and marine issues specific to coastal zones ¹⁰¹. ICM may provide a process through which multi-objective decision-making may be undertaken incorporation different management sectors and local and national governmental levels.

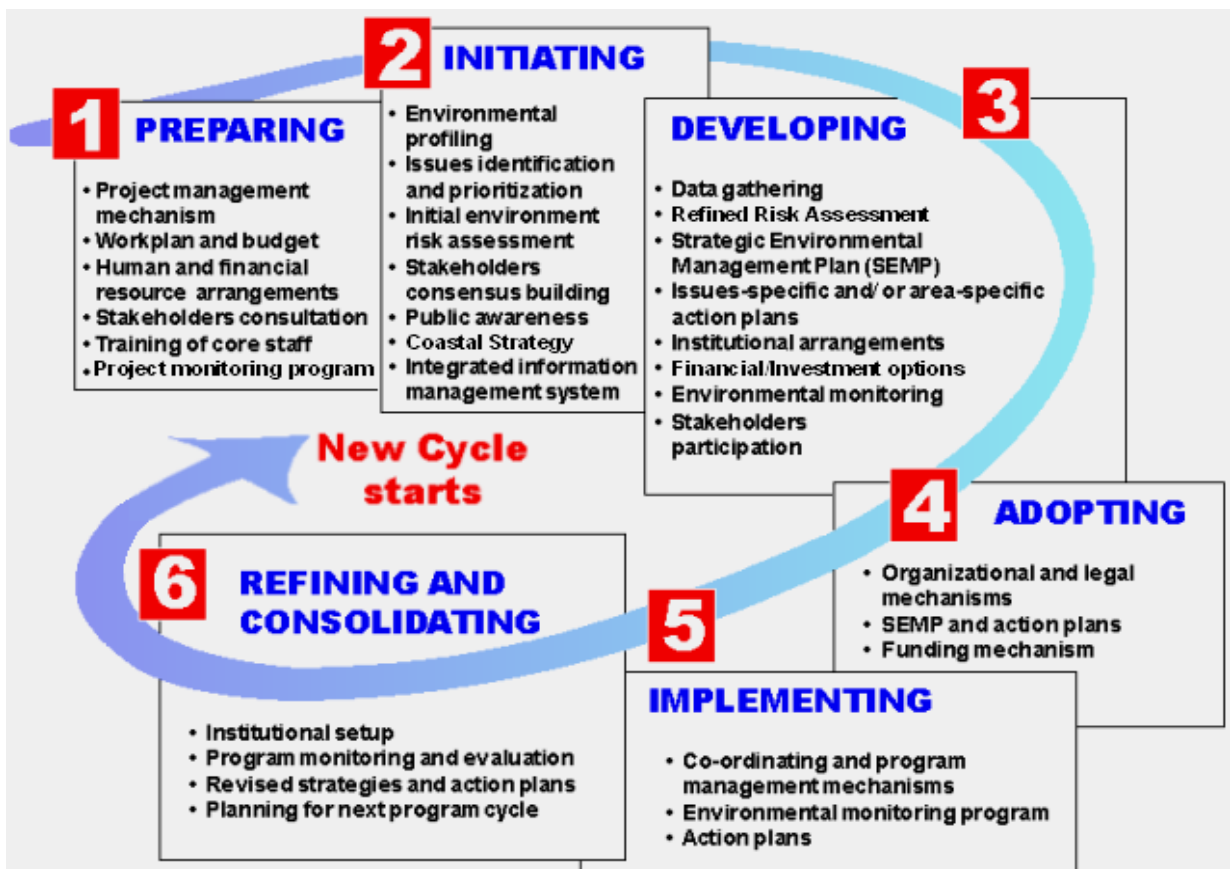


Figure 2.6. The ICM Program Development and Implementation Cycle ¹⁰⁰

ICM is often built on many existing regulatory frameworks of the early top-down coastal resource management approaches. As a component of the mechanisms, ICM also requires decision-makers to consider coastal resources as an integrated part of – and subject to – surrounding marine and terrestrial ecosystems ⁸². Indeed, the key principle of ICM is providing enabling conditions through institutional systems designed to facilitate interaction among stakeholders.

ICM is easier said than done. The reality of implementation is often very different as compared to the theory. Implementation is often complicated by personal relationships and interests, or gaps within the data and information chain may break the links. Only few examples of successful implementation can be shown ¹⁰¹. For example an evaluation on eight ICM programs in Southeast Asia found only one program had achieved most of the implementation criteria ¹⁰².

However, the success of ICM program implementation has been the subject of debate due to the lack of common evaluation criteria and lack of measurable objectives¹⁰². Evaluations also found that the project design and strength the role of the Government are key factors in success of ICM programs. The assessment of the effectiveness and successes of ICM must rely on a defined set of objectives and measurable criteria on which it can be evaluated. In the absence of such objectives and measurable criteria, evaluation of programs has been based on the number of project components implemented rather than the success of each component. Agreement on the objectives for ICM programs can often be the first stumbling block in a standardize environment.

Effectively addressing with the standardize decision making environment of ICM is an ambitious task which requires stakeholders consensus through a wide common vision ^{102, 103}. But even with consensus, ICM program implementation requires appropriate financial and human resources. The effectiveness of program implementation if further challenged as poor communication among agencies responsible for managing the coastal zone of then leads to conflicts of interest, a common results of lack of coordination and integration. This constraint occurs quite often in developing countries and particularly at the local level where the Government overestimates their effectiveness in managing resources ^{102, 103}. It implies a lack of capacity to adequately enforce and leads to consequences such as unregulated access system to property rights in the coastal zone.

Currently recognition on most effective mix and adaptive application of management approaches is growing in the Southeast Asian region. It was initiated by the lessons learned

from ICM successes and failures, and based on early insights and practices. This current approach is known as adaptive management, and has been defined as “a mix of management strategies” which relies on the systematic and efficient application of conservation science ⁸².

Adaptive management also goes one step further, as it relies on systematic feedback learning, thus decreasing barriers and building bridges between research and management ¹⁰⁴. This approach is critical in working with the complex and uncertain nature of CZM ¹⁰⁵. Adaptive management also has the advantage of systematic experimentation and the incorporation of scientific research into the overall management scheme ¹⁰⁶. Feedback and learning, the progressive accumulation of knowledge, are two key features of adaptive management, and require a continuous probing process. The central argument for this approach is that effective learning occurs not only on the basis of management successes but also failures ¹⁰⁴.

There are three dimensions of adaptive management ¹⁰⁵. The first dimension is adaptability, or continuously learning from ongoing management activities and systematically applying this to provide the best possible decisions, appropriate actions and management strategies in light of new information and changing circumstances. Second is active experimentation and scientific trial and error tests to determine the feasibility and effectiveness of management techniques and strategies for replication on a larger scale. Third dimension is participatory processes which actively engage relevant stakeholders in management processes, collective inquiry, and decision-making. The last dimension is particularly important in problem solving, conflict resolution and empowering stakeholder thus fostering a sense of ownership of solutions.

2.4 Decentralized Coastal Zone Management

Decentralized CZM is the combination of decentralization and CZM approaches. This concept intends to maximize performance of delegated responsibilities for managing the coastal zone. It can be seen as a substitute for the intergovernmental model of decentralization, which is in some cases involves no direct political or democratic accountability to electors in order to achieve the performance standards set for the service, and operating within specified financial and other constraints ²². This means decentralized CZM deals with the design of

intergovernmental relationships within a State, evolving civil society in governance, management capacity, accountability issues and commitments ¹⁰⁷.

There are five types decentralized CZM according to the administrative arrangements put in place ¹⁰⁷. This division is based on the level of national to sub national engagements and arrangements, which include the level of management capacity, accountability and commitment. The five types are (i) classic deconcentration, (ii) coercive devolution, (iii) cooperation devolution, (iv) devolved experimentation, and (v) local entrepreneurship. Each type implies various levels of relationships and flows of power, is outlined below at Table 2.5.

Table 2.5. Types of decentralized CZM ¹⁰⁷.

Type	Level of relationship	Flow of power	Remarks
Classic deconcentration	One way; top-down	Direct from upper level to lower level of Government	<ul style="list-style-type: none"> • Need high knowledge and skill of upper level. • Top-down review
Coercive devolution	One way; treated the lower level as the regulating agents	Direct from upper level to lower level, but more diverse	<ul style="list-style-type: none"> • Higher understanding among the level of Government is essential • Required sufficient knowledge from lower level, and sophisticated design from upper level
Cooperative devolution	Two ways; bottom up and top down	Two ways with the partnership treatment	<ul style="list-style-type: none"> • Lower level must have management capacities, and upper level must have power to assure legal devolution. • Two ways accountability mechanisms. • Building lower level commitment by on-going interaction.
Devolved experimentation	Two ways; bottom up and top down	Two ways with more concern to local capacities, resources and solutions. Special treatments apply for experimentation.	<ul style="list-style-type: none"> • Required strong leadership from lower level and community. • Accountable upward to upper level. • Need collective self management
Local entrepreneurship	One way: bottom-up	Less power influences from upper level. Rely on the initiative and capacity of lower level to manage	<ul style="list-style-type: none"> • Need strong local knowledge, leadership and readiness from community and lower level of Government to implement the programs. • Accountable applies to lower level by local resource users and community residents.

Implementing decentralized CZM has several challenges ¹⁰⁷, but some circumstances have been observed to facilitate decentralized CZM implementation. Decentralized CZM should be pursued through systematic and harmonious interrelationships resulting from the balancing of power and responsibilities between central Governments and other levels of Government and non-governmental actors. It also should strengthen the capacity of local bodies to carry out their decentralized responsibilities using participatory and responsive mechanisms.

These challenges in many ways put decentralized CZM in undesirable choice. For example, research findings from a recent study find that high numbers of dilemmatic issues in decentralized CZM in Lombok Barat, West Nusa Tenggara, Indonesia ¹⁰⁸. The issues include “[mis]perception and misunderstanding of the meaning of management authority as mentioned in the [Decentralization] Law”, lack of qualified human resources at the district level, unrealistic development targets, limited supporting data and information, and limited technology capabilities ¹⁰⁸.

Furthermore, implementing decentralized CZM requires a shift in management regimes from conventional management, with its maximizing the exploitation of resources, into a more participative decision-making and interactive development process to sustain the coastal zone. Applying this policy shift calls for appropriate rules and regulations in order to accommodate the different interest and participative dimension of decentralized CZM. There are two approaches to achieving this through more individual or collective involvement in CZM; community-based management and co-management. Each approach has distinct characteristics which are summarized at Table 2.6 below.

The community-based management approach is defined as an approach on pursuing and managing the development of activities in the coastal zone in a people oriented and holistic approach so as to achieve better results as compared to management dominated mainly by Government. This approach has become popular during the 1990s due to the previous absence of communities and other stakeholders in the planning, implementation and management of the coastal zone. The concept of community-based approach has been an important approach as it encourages greater community’ responsibilities over activities to sustain the use and

management of economically and ecologically valuable resources in the coastal zone. In this scheme, communities are given a certain level of management responsibility, including the ability to regulate and control access and use of the resources.

Table 2.6. The variable characteristics of community-based and co- management ⁸²

Characteristic	Community based management	Co-management
Spatial Application	Site-specific (small)	Multiple networked sites
Primary Authority	Local decision making structure and residents	Shared; national Government with ultimate authority
Responsible Parties	Communal; local decision making bodies	Multiple stakeholders at local and national levels
Participation Level	High at a local level	High at multiple levels
Timing of Efforts	Rapid initiation; required broad buy-in, slows decision making process	Moderate initiation; slow decision making process with all stakeholders
Management Flexibility	Highly adaptive; sensitive and responsive to changes in natural surroundings	Moderately adaptive; responsive to changes in natural surroundings with adequate time
Human and Financial Investment	Uses existing human resources; moderate to low financial costs	Builds human resources at multiple levels; moderate to high financial costs
Sustainability of Efforts	Short time frame without ongoing external support	Ongoing if effective, equitable coalitions built
Procedural Orientation	Impact oriented over the short term; designed for local site conditions only	Impact oriented over the long term, process oriented over the short term; designed for multiple sites
Legal Orientation	<i>De facto</i> resource control; <i>res communes</i> or private property rights	<i>De jure</i> resource control; communal, private, or public property rights

Co-management is defined as the sharing of responsibility between the Government, fishermen, local community, non-governmental organizations (NGOs) and other stakeholders in the management of the coastal resources fishery ¹⁰⁹. As a partnership arrangement, co-management aims to achieve joint responsibility and authority for resource management through cooperation between the Government and local resource users. Co-management emphasizes the significant upgrading of community involvement in the management process.

3 CASE STUDIES IN DECENTRALIZED COASTAL ZONE MANAGEMENT

Malaysia, Indonesia and the Philippines vary greatly in geography, population, history, economic structure, and political and institutional dynamics, all of which influence the form that decentralization one should take. This chapter provides background information on the three selected States, by providing a general description of the past and present CZM approaches.

3.1 Malaysia

Malaysia is the only constitutional monarchy (*kerajaan berperlembagaan*) in Southeast Asia with a Federal system. Malaysia occupies the Malay Peninsula (West Malaysia) and the northern one-third of the island of Borneo (East Malaysia), bordering Indonesia to the south, the South China Sea to the north, and the Sulu Sea and Celebes Sea to the east. The total population of Malaysia in 2005 was 25.3 million with average annual population growth rate of 1.8 % ¹¹⁰.

According to World Bank classification, Malaysia has been classified as one of the Upper Middle Income Economies States. In 2005, the Gross National Income (GNI) per capita in Malaysia reached USD 4,960 ¹¹⁰. These economic performances placed Malaysia second in GNP per capita, after Singapore, among the Southeast Asian States. Malaysia is also one of successful States to manage the 1997 financial crisis. Much of Malaysia's impressive economic performances, over eight percent growth per year is due to its relative political stability, and good economic management ¹¹¹.

The Malaysian economy has experience significant changes in its structure ¹¹², as it was transformed from an agricultural based economy to an industrial one. From a heavy reliance on agriculture and primary commodities, today Malaysia has become a global leader in the export of semiconductors and air conditioners ¹¹¹. Contributions from the agricultural sector

have decreased significantly, from 55 % of employment in 1965 to 16% in 2000, while a significant increase in the manufacturing sector saw a rise from seven to 27 % ¹¹²

In accordance with its Federal Constitution (1957), Malaysia has a three-tier type of Government: the federal, state (*negeri*), and local Government (*kerajaan tempatan*). There are 13 states, two federal territories, and 138 local Governments. Eleven states and the federal capital territory of Kuala Lumpur and Putra Jaya are in West Malaysia. In East Malaysia, there are two autonomous states of Sabah and Sarawak, and the federal territory of Labuan (Map 3.1).



Map 3.1. Malaysia ¹¹³

Malaysia is currently implementing its Ninth Malaysia Plan (2006-2010) and the Third Outline Perspective Plan (OPP3 2001-2010). The Ninth Malaysia Plan represents the first of three Malaysia Plans that form the National Mission to achieve Vision 2020 (Box 3.1) as outlined by Prime Minister Abdullah Ahmad Badawi during at the launching of the plan at the parliament (*Dewan Rakyat*) on 31 March 2006:

As such, the Ninth Malaysia Plan is consistent with the ambition to build a country with an advanced economy, balanced social development and a population which is united, cultured, honorable, skilled, progressive and farsighted. To deliver the Ninth Malaysia Plan, we need to multiply our efforts towards achieving greater success in order to build a civilization that will elevate the nation's dignity.

Box 3.1. Vision (Wawasan 2020) ¹¹⁴

Vision 2020 based on the Working Paper - The Way Forward presented by former Malaysian Prime Minister, Dato' Seri Dr Mahathir Mohamad at the Malaysian Business Council. The purpose of this paper is to present some thoughts on the future of Malaysia and how the Malaysian should go about to attain the objective of developing Malaysia into an industrialized country. Also outlined are some measures that should be in place in the shorter term so that the foundations can be laid for the long journey towards that ultimate objective.

Dr. Mahathir also emphasized in his speech some important points as follows:

Hopefully the Malaysian who is born today and in the years to come will be the last generation of our citizens who will be living in a country that is called 'developing'. The ultimate objective that we should aim for is a Malaysia that is a fully developed country by the year 2020. What, you might rightly ask, is 'a fully developed country'? Do we want to be like any particular country of the present 19 countries that are generally regarded as 'developed countries'? Do we want to be like the United Kingdom, like Canada, like Holland, like Sweden, like Finland, like Japan? To be sure, each of the 19, out of a world community of more than 160 States, has its strengths. But each also has its fair share of weaknesses. Without being a duplicate of any of them we can still be developed. We should be a developed country in our own mould. Malaysia should not be developed only in the economic sense. It must be a nation that is fully developed along all the dimensions: economically, politically, socially, spiritually, psychologically and culturally. We must be fully developed in terms of national unity and social cohesion, in terms of our economy, in terms of social justice, political stability, and system of Government, quality of life, social and spiritual values, national pride and confidence.

Dr. Mahathir also launched the concept of Malaysia as a Fully Developed Country - One Definition, and pointed out Some Key Public Sector Economic Policies for the Foreseeable Future. The main thrust of this vision is to see Malaysia a united nation by 2020, with a confident Malaysian society infused by strong moral and ethical values, democratic, liberal and tolerant, caring, economically just and equitable, progressive and prosperous, and in full possession of an economy that is competitive, dynamic, robust and resilient.

Dr. Mahathir outlined the contribution of the private sector in achieving the vision. He proposed key economic policies should be put forth in place to accelerate the Malaysian drive towards a competitive economy and prosperous. He also put that Malaysia cannot rely on the private sector as the primary engine of growth if the private sector is inefficient and lethargic. Thus, the private sector must be strong and dynamic, robust and self-reliant, competent and honest. Malaysia cannot deregulate if bankers eventually behave like banksters, if the freedom afforded to enterprise becomes merely a license to exploit without any sense of social responsibility. Malaysian companies must have a high sense of corporate duty. The private sector should have the same sense of duty to ensure social justice - to uplift the position and competitiveness of the *Bumiputeras* and to achieve social objectives.

Source: Office of the Prime Minister of Malaysia, 1991. Vision 2020. Putra Jaya.

Two thirds of the Malaysian territory is covered by water^j. The length of coastline in Malaysia is estimated at 4,810 km. Coastal zone in Malaysia lies along the Malay Peninsula (West Malaysia), Sabah and Sarawak. It also covers the southern part of South China Sea, one of the world's most fascinating and productive seas. In the western part of the Malay Peninsula lies the Strait of Malacca, one of the world's busiest sea lanes for crude oil and cargo. The coastal zone land mass is estimated at 4,416,292 hectares or 13.35 % of the total land area of Malaysia.

Malaysia's coastal zones also have been experienced a strong urbanization process, with 22 major urban settlements located along the Malaysian coastal zone which range in population 10,000 to 300,000. Fourteen of these major urban settlements are located along the coastal zones of the Malay Peninsula, while six are in Sabah and two in Sarawak.

The coastal waters of Malaysia are mostly influenced by a mixed tide: either diurnal dominant or semi-diurnal dominant ¹¹⁵. Malaysia is also subjected to two annual monsoons, which impact the seasonal sea current. The combination of these oceanographic features and the geo-physical characteristics of the coastal areas has made Malaysian coastal waters home to about 4,000 of the 20,000 fish species; 22 of the 50 species of sea snakes; and a nesting area for four of the seven sea turtles of the world ¹¹⁵. Malaysia also has 240 species of seaweed, 13 of the 67 sea grasses species, 64 genera of hard coral and 200 species of soft coral presently known worldwide. It also has 634,000 ha of mangrove ecosystem.

Coral reefs and mangrove forests are important ecosystems in Malaysia as they support fish breeding, serve as nursery grounds, feeding grounds for fisheries, host tourism and provide other services ^{90, 115}. Coral reefs ecosystem mostly found in the South China Sea and the Sulu Sea. These two seas are relatively clearer and have higher salinity levels thus providing ideal conditions for fringing reefs ¹¹⁵. Mangrove ecosystems are mostly located in West Malaysia which has about 400,000 ha of the total cover.

^j Malaysia has a land area of 329,758 km²; about 150,000 km² of territorial waters; 450,000 km² of EEZ; and 1,007 islands.

Coral reefs and mangrove ecosystems contribute significantly to the Malaysian economy. Coral reefs ecosystems through marine tourism activities (snorkeling, diving, and sand-bathing) attracted about 5.5 million tourists in 1998 ⁹⁰. Mangroves ecosystems provide 87,806 tons of mangrove-dependent fish in 1997 or 32 % of all fish landings ⁹⁰. Every hectare of mangrove ecosystem is estimated to earn USD 3,300 (for firewood) to USD 9,000 (for charcoal) per year ⁹⁰.

Coastal zones in Malaysia are spots for oil and gas activities. Several oil and gas refineries are located along the busiest coastal zone, the Malacca Strait, which produced 1.54 million barrels per day of refined oil in 1995 ⁹⁰. PETRONAS Petroleum Industry Complex (PICC), one of the main contributors to Malaysia's revenue is located on the Kerteh coast, Terengganu. PETRONAS's overall contribution to Malaysian Government revenues in 2005 accounted for RM 31.2 billion (USD 8.9 billion) and was mostly generated from petroleum activities along the coastal zones ¹¹⁶.

The above outlined ecological and socio-economic characteristics of Malaysia's clearly underline its critical importance. However, the combination of increased coastal population, rapid urbanization, expanded tourism development, and various economic activities has also brought numerous environmental and ecological problems in Malaysia's coastal areas. These problems include beach erosion, resource depletion and environmental degradation, and destruction of natural habitats ⁸⁴.

Mangrove areas, which cover only two percent of the land area of Malaysia have been converted to an airport in Pulau Pinang, an aquaculture pond in Kedah, and a rice fields in other areas ¹¹⁵. About 11,000 hectares of mangrove areas in Malay Peninsula have been converted to other uses between 1955 and 1980. Similarly 4,000 ha of Sarawak's mangrove have been converted into paddy fields during the last five decades ¹¹⁵. Most of the coral reefs are also in fair condition. Data from the 1997 Malacca Strait Environmental Profile shows there is no coral reef area characterized as in excellent condition (coral covers more than 75%). Current data from reefs surveyed indicate that the majority of coral reefs in Malaysia

are in fair condition ¹. Aware of the nature and impact of these issues, the Malaysian Government is pursuing a CZM approach.

There are nine regulations related to the coastal zone, which still reflect a sectoral approach and remain based on interests and priorities of the different major stakeholders in the coastal zone ⁹⁰. These legislations include:

1. Environmental Quality Act 1974;
2. Town and Country Planning Act 1976;
3. Merchant Shipping Ordinance 1952;
4. Land Conservation Act 1960;
5. National Land Code 1965;
6. Street, Drainage and Building Act 1974;
7. Fisheries Act, 1985;
8. General Administrative Circular No. 5 of 1987: Guidelines for the Approval and/or Implementation of Development Projects within the Coastal Zone; and
9. National Forestry Act 1984.

Malaysia has also made the policy commitments and developed corresponding initiatives related to CZM. Currently, eight policy commitments and initiatives can be identified: the Malaysia Plans, National Coastal Erosion Strategy 1987, State Structure Plans and Local Plans, National Agriculture Policy 1990-2010, National Forestry Policy 1978, National Biodiversity Policy 1998, Draft National Tourism Master Plan, and Draft Policy on Integrated Coastal Zone Management ⁹¹. These policies are either cross sectoral or sectoral in nature and are in line with international commitments on protecting coastal resources and implementing a sustainable development approach ⁹¹.

The evolution of CZM initiatives in Malaysia is driven by a problem-based and reactive approach to resource degradation and international commitments ^{91, 117-119}. Prior to 1980, the management pattern of coastal resources, such as fishery resources, was more problem-based, and programs and schemes remained reactive ¹¹⁷. This approach lacked a framework with an overall plan for optimum utilization of resources. The approach was also lacking sensitivity to socio-economic needs for sustainable fishing and resource management ¹¹⁷.

In 1981, the Malaysian Government introduced a Fisheries Comprehensive Licensing Policy (FCLP)^k as part of the New Economic Policy¹²⁰. This policy was more comprehensive and addressed the imperative issues in fisheries, such as over-exploitation, poverty, income disparity and regional and racial imbalances in the fishing industry¹¹⁷. The key feature of this policy is a zoning system for fishing grounds to prevent conflicts among fishermen. Four zones were established to regulate the fishing activities and maximum sustainable yields (MSY) which employed to determine the number of vessels that could operate in each zone¹¹⁷. This policy has resulted in an increase in productivity and in catch per unit effort (CPUE)¹¹⁷.

With regard to the growing need for the conservation of the fisheries resources, the Government, through the Fisheries Department and the Fisheries Development Authority (LKIM), has launched artificial reefs (ARs) or *tukun tiruan* and fish aggregating devices (FADs) or *unjam-unjam* programs¹²¹. These two approaches are intended to enhance the productivity of the biomass and to rehabilitate and conserve marine and coastal habitats adversely affected by unsustainable fishing activities. These approaches are expected to provide for the recovery of marine and coastal resources, and to then ensure the conservation and enhancement of the fisheries resources. While the *unjam-unjam* project became popular for managing fishery resources, it also brought up several significant issues related to ownership, accessibility, user rights and the overall management of fisheries resources¹²¹. In other words, the *unjam-unjam* program had the potential to convert an open-access regime into an appropriate property rights management regime.

The growing need for CZM in Malaysia began when the Federal Government's response to coastal erosion caused by a variety of natural and anthropogenic processes. As a subject of major national concern, the Malaysian Government launched the National Coastal Erosion Study during 1984-1985¹²². The study concluded inter-alia that there was a need for

^k According to FAO (2001), the FCLP aims "at ensuring a more equitable allocation of resources, reducing conflict between traditional and commercial fishermen, preventing the overexploitation of the inshore fisheries resources, restructuring of the ownership pattern of the fishing units in accordance with, and promoting deep-sea and distant-water fishing".

implementing proper long-term planning to prevent coastal erosion. In addition, two important institutions related to CZM were established in 1987⁸⁴: the Coastal Engineering Technical Center (CETC) and the National Coastal Erosion Control Council (NCECC). Clearly, the initial response and initiatives of Malaysia to manage the coastal zone was driven by engineering, and was reactive. This approach is quite similar the prevailing in CZM during that decade^{123, 124}.

The CETC¹ is an important unit for preventing coastal erosion by providing technical input to the national Government. This unit is in charge of implementing coastal erosion control, designing engineering works for critical erosion areas, providing technical support to the NCECC, providing technical advisory services to other Government agencies and collecting coastal engineering data⁹⁰.

The NCECC is a multi-agency council composed of representatives from several federal Government agencies, professional institutions and universities⁸⁴. For the day-to-day management, the Government appointed a Director-General of the Implementation Coordination Unit (ICU) within the Prime Minister's Department as the chairman of NCECC. The main outcome of this council was the General Administrative Circular No. 5 (1987) which stipulates that every development proposal in the coastal zone must receive approval and comment before proceeding from the CETC⁸⁴. Due to the lack of integration and coordination, and the ambiguity in the implementation of this circular, the administrative circular has not achieved its aims¹²⁵.

Between 1986 and 1992, Malaysia, with the assistance of the United States Agency for International Development (USAID) conducted a comprehensive integrated and multidisciplinary coastal resource management enquiry both at the federal and state levels using as a pilot project a CZM study in the southern part of Johor. The outcome of this study was a formal document and guide in matters relating to coastal reclamation, development of

¹ The centre is now known as the Coastal Engineering Control Unit (CECU) within the Department of Drainage and Irrigation (DDI) in the Ministry of Agriculture.

coastal swamp forest and other development activities in coastal areas ¹²⁶. Another outcome was the enhancement of the federal-state coastal resources management planning process and reinforced collaboration through the establishment of two committees, the National Steering Committee (NSC) and the Johor State Consultative Committee (JSCC). The project also brought together collaborative researchers and technical assistance by resource managers and university-based research scientists ¹²⁶.

In 1992, Malaysia created a National Policy on Coastal Resources Management as the product of an Inter-Agency Planning Group (IAPG) with EPU's Agriculture Section as the secretariat. The IAPG began work on examining issues related to coastal resource management focusing on the development of a coastal resources program in a more integrated, systematic, and scientifically sound manner. The intention of the group was the establishment of effective, coordinated institutional mechanisms at the federal and state levels, and enhancement of the human resources of relevant agencies involved in CZM ⁹⁰.

The most recent initiatives in implementing ICZM in Malaysia are the pilot projects being undertaken in Sabah, Sarawak and Pulau Pinang (Penang) to formulate programs at the State level ⁹⁰. Another ongoing effort is the development of a National Coastal Zone Management Policy ¹¹⁸ which is a mandate of the Seventh Malaysia Plan (7MP) 1996 -2000.

Furthermore, the Malaysian Government, with the support of the Danish Government through the Danish Cooperation for Environment and Development/DANCED, conducted the Integrated Coastal Zone Management Project with the objective to build local capacity in environmental administration and organization. The main aim of the ICZM project was to have all states in Malaysia replicate the effort of the pilot projects and produce their respective ICZM plans. The project has also been designed to prepare a complete Integrated Coastal Zone Management system, including updated coastal zone profiles. To reach this objective, the project conducted several institutional strengthening and capacity building initiatives to institute proactive CZM.

The project consists of a Federal Component, with the aim to develop National Policies for CZM, and three State Components which seek to establish ICZM in Penang, Sarawak and Sabah. The Federal Component includes providing instrumental experience in the development of national policies on ICZM while the State Components are pilot projects developed and implemented under the Federal Component. At the state levels, the projects are considered as independent, full scale projects addressing management requirements in their respective coastal areas. For instance, in Sabah, the project was implemented with the adoption of the concept of a Task Force^{m 127}. The evolution of CZM initiatives is outlined at Table 3.1 below.

In response to coastal resources degradation, Malaysia also promoted the idea of shared responsibility for monitoring, control and surveillance (MCS) with local communities in managing coastal resources. Under the proposed MCS system, the community fishers' organizations and NGOs will also have increased responsibility for monitoring and surveillance. The federal Government will maintain responsibility for control and law enforcement. At the state level, ad hoc working groups, or committees, have been established to examine coastal management and development. The states have also assigned a desk officer to be in charge of coastal area management in each economic planning unit.

By looking closely at the evolution of CZM initiatives, it is apparent that the strategy adopted in Malaysia is still being conducted on a project-oriented basis, and remains problem-driven with the absence of a single institution specifically in charge of managing the coastal zone.

CZM in Malaysia is distinguished by the involvement of a variety of agencies that each operate on coastal management¹²⁸. For example, the Coastal Engineering Division of the Department of Drainage and Irrigation is solely responsible for engineering design for coastal

^m The Task Force system is a new approach for most stakeholders in the ICZM project in Malaysia. Numbers of Task Forces have already been mobilized under the project to carry out the different tasks involved in the ICZM Plan preparation process and to address particular coastal management issues as they emerge. The Task Force system is argued to be the most important single element of the ICZM project. It is considered as the main engine to achieve the immediate objectives of the project. It is a supporting strategy of the project through which all key activities related to the preparation of an ICZM Plan will be carried out by the Task Forces which is composed of representatives selected from Government agencies, private stakeholders and community.

protection. Currently, the EPU of the Prime Minister's Department plays an important role in coordinating development planning. This agency has the responsibility for planning and monitoring mechanisms in the coastal zone.

Table 3.1. Important moments of CZM in Malaysia ¹²²

Year	Important moments
1984–1985	National Coastal Erosion Study
1986–1992	South Johore coastal resource management project with United States Agency for International Development (USAID)
1987	<ul style="list-style-type: none"> • Government circular on coastal development • Environmental Impact Assessment Order 1987
1991–1996	National Coastal Resource Management Policy
1993	National Conservation Strategies prepared by WWF
1995	Study towards developing a National Integrated Ocean Policy by Maritime Institute of Malaysia
1996	National Aquaculture Guidelines
1997	<ul style="list-style-type: none"> • Town and Country Planning Department Guidelines on Coastal Development • Department of Irrigation and Drainage Guideline on CZM • Integrated Management Plan for sustainable use of Johore Mangrove Forests • Environmental Profile of the Malacca Straits under the GEF/UNDP/IMO Regional Programme
1997–2000	Pilot integrated CZM projects in Sabah, Sarawak and Penang
1998–present	Drafting of the National Wetlands Policy
1999	Department of Environment Guideline for environmental impact assessment in coastal zone development projects
1999–present	National coastal zone policy initiative
2001–present	Preparation of an Integrated Shoreline Management Plan for beach conservation and Restoration
2001–2004	Integrated Coastal Management pilot study in Klang, Selangor under the GEF/UNDP/IMO/PEMSEA Regional Programme

In the absence of an agency with an overall management responsibility, it has recommended that the establishment of a supervisory Cabinet Committee on Maritime Affairs (CCMA) could greatly enhance the effectiveness of policy development and implementation ^{118, 129}. The High Level Officials Committee (HLOC) on maritime economics and security could also support such a committee. The establishment of a National Ocean Council has also been proposed to support an integrated approach in marine and CZM in Malaysia ^{118, 129}.

However, there are still strong centralist political influences in CZM in Malaysia, which has resulted in the lack of coastal community-based management practices. The current administrative arrangements have led to the lack of organizational capacity within important institutions that should support community based and collaborative management. There is also a lack of self-management capability within the communities themselves.

3.2 *Indonesia*

Indonesia is a unitary state and the world's largest archipelagic nation with diverse coastal resources, coastal communities, cultures and customs^{7, 8, 11, 130, 131}. According to World Bank classification, Indonesia has been classified as one of the Lower Middle Income Economies states. Indonesian Gross National Income (GNI) per capita in 2005 is USD 1,280 with 13.7 % annual inflation¹¹⁰. Indonesia experienced growing GNP per capita until 1997.

However, this trend reversed between 1997 (USD 1,100) and 1998 (USD 640) due to the regional recession of 1997. Moreover, Indonesia also suffered from the twin interrelated crises namely a political crisis and an economic crisis fueled by an inflated economy, a fragile financial sector, and inadequate monetary and exchange rate policies¹³². The interrelated crises worsened with the slow response and policy mistakes. In year 2000, Indonesian per capita GDP reached USD 750, which indicates continued slow economic growth.

About 78 % of the Indonesian territory is covered by waters with shallow seas in the western and eastern parts. Indonesia is stretching 3,200 miles from Australia into South East Asia (Map 3.2), with more than 17,000 islands. Indonesian has the fifth largest population in the world at 220.6 million people in 2005, and with an annual population growth of 1.4%¹¹⁰. Most of the state's population lives on Java and Sumatra, and more than 60% of Indonesia's population lives in coastal areas (50 km from the coast).

Indonesia has a four-tier Government system: central, provincial and local (districts and cities) and *desa* (village) Governments. There are 33 provinces, of which three have special status (Acheh, Yogyakarta and Papua), and a special capital region (DKI Jakarta). There are 440

districts, or regencies, as key administrative units responsible for providing most Government services. The new local governance acts (Act 32/2004) revitalized the village administration level as competent in matters at the village or neighborhood levels. The Act also provides for an elected *lurah* or *kepala desa* (village chief) to govern the village.



Map 3.2. Indonesia ¹³³

Indonesia had elements of decentralization during its Dutch colonial period. As in many ethnically diverse countries colonized by European powers, building national unity through greater centralization was the post-independence goal. Weak attempts to decentralize in the 1970s and 1980s did not gain political momentum. The East Asian economic crisis of 1997 hastened the fall of the Soeharto regime, and growing complaints from resource rich provinces about insufficient revenue led to an increase in pressures for reform, including greater autonomy.

The 1999 decentralization legislation was a direct response to this political crisis and the perceived need to hold the diverse and tenuously unified country together. The reform devolved power primarily to sub-provincial Governments, largely because of the fear among national leaders that empowered provinces could fuel regional ethnic and political conflicts,

leading to further separatism or federalism ¹³⁴. The Government revised the initial decentralization framework legislation in 2004 and increased higher-level control but left unresolved important aspects of the intergovernmental system. Local capacity is deficient in many areas, and citizens and Government officials, both elected and appointed, are still learning to function in the evolving democratic environment ¹³⁴.

Decentralization reforms in Indonesia include both devolution of authority as well as de-concentration of functions, albeit to a lesser extent. Devolution of power to provincial authorities was the dominant form of decentralization up to 1999, after which the emphasis shifted to devolution to city and district Governments. Local Governments have broad functions and receive substantial intergovernmental transfers, but have limited revenue authority. The State has increasingly developed the legal framework (most recently through Laws 32 and 33 of 2004), but functional responsibilities and sub-national revenues require further elaboration and regulation.

Indonesia has the second longest coastline in the world (about 81,000 km). Indonesia marine waters are home to 25% of the world's fish species, 80 genera and 452 species of reef building coral, and approximately 70 genera of hard coral with more than 350 species ¹³⁵. Over 50% of Indonesian's protein intake is from marine resources. The Indonesian coastal zone is composed of rich ecosystems, such as estuarial beaches, mangroves, coral reefs, sea grass and algal beds, as well as many small island ecosystems. Each of these ecosystems, with its associated habitats, supports a wealth of marine resources with very high biodiversity.

Indonesia has the largest concentration of mangrove forests in Southeast Asia with an estimated area of 3.8 million ha. Mangroves are mostly found in Irian Jaya, Sumatera, Maluku, Kalimantan, Sulawesi, Java, and Nusa Tenggara ^{1, 131, 135}. There are at least 89 mangrove tree species in mangrove ecosystems which are dominated by the genera *Rhizophora*, *Avicenia*, *Sonneratia*, *Bruguiera*, *Xylocarpus*, *Ceriops*, and *Exoecaria*. Mangroves grow well in the estuaries and deltas of large rivers forming the main supporting ecosystem for marine and coastal areas. These forests function as breeding areas for numerous fish species and invertebrates. The long and submerged roots of mangrove trees help prevent erosion and

coastal damage. The forests are a source of income for local communities through fishing, firewood, timber and medical extracts.

Indonesian waters hosted 12 species of six genera of sea grass beds which serve as habitat, feeding and nursery grounds for fish, invertebrates, turtles and dugong ¹³¹. The Indonesian waters are a global centre of coral species diversity, with fringing reefs as the most common. There are an estimated 85,000 square kilometers of coral reefs representing approximately 14% of the world's total distribution⁸². The sea grass form dense beds which cover very wide areas of the Indonesian coastal waters and perform a wide spectrum of biological and physical functions, serving as habitat, feeding and nursery grounds for fish, invertebrates, turtles and dugong.

Pressures on coastal and marine resources in Indonesia have increased in the last three decades as marine and land-based activities expanded to support development. Erosion, pollution and sectoral use conflicts have become major problems in most of the State's coastal zone. Less than 7% of Indonesian reefs are in pristine to excellent condition, with over 75% of the State's coral reefs considered damaged or in critical condition ¹³⁵. Fisheries stocks are generally over-fished and the value added from both capture- and culture-fisheries is below optimal levels ^{4, 8}. These problems are associated with the negative impacts of land-based activities such as deforestation, pesticide use in agriculture, and waste disposal. The situation is further aggravated by inappropriate fishing practices such as the use of dynamite, poisonous chemicals, and small mesh size gill nets ^{4, 8}. Other contributing factors include pollution from marine transportation, coral reef mining, and exploitation of mangroves by local communities and the private sector.

In order to address these problems, Indonesia has pursued institutional strengthening in support ICM. However, the Indonesian experienced suffers from insufficient legal provisions for ICM and the absence of clear mandates of designated institutions. Limited administrative capacity and capability of central and local Governments has also been a common issue in CZM programs ^{136, 137}.

For almost five decades now, CZM in Indonesia has suffered from a certain level of ambiguity with respect to various laws and jurisdictional issues ^{108, 138-142}. There are approximately 22 laws that affected the coastal zone ¹⁴¹, all of which need to be harmonized so as to prevent ineffective and incompetent management ¹⁴³. These are sectoral-based lacking integration and remain unconcerned with broader sustainability principles. The lack of enforcement of results in ineffective management, conflict, redundancy and gaps among the development sectors of the State ¹⁴⁴. This all leads to increase conflicts of interests among different users, often resulting in increased threats to coastal resources.

Previously, CZM was pursued through a centralistic system, which exerted significant pressure on the democratization process and the establishment of good governance principles. Under the centralist administrative approach, coastal management policies were designed to be applied and implemented in all regional areas of Indonesia regardless of their local problems and the complex social, economic and cultural diversity that existed across the archipelago. Centralization clearly discouraged the traditional community-based management system and caused endemic conflicts in the fisheries sector ¹⁴⁵.

Implementing this centralistic system approach resulted in a heavy handed approach, which limited the ability of local Governments and communities to think and act creatively, especially in times of social and economic crisis ¹⁴⁶. Indonesia's experience in responding to the massive economic crisis of 1997 is a good case in point. Decentralization is in part a response to that period when local Governments that lacked administrative skills failed "to help manage the impact of the crisis in their own regions and territories" ¹⁴⁶.

The evolution of the CZM initiatives in Indonesia was triggered by international and bilateral donor agencies through their programs and projects, including the Asian Development Bank (ADB), United Nations Development Programs (UNDP), United States Agency for International Development (USAID), World Bank-IBRD, Global Environmental Facilities (GEF), AusAID and JICA ^{4, 7, 11, 147-151}. Major stages of CZM evolution in Indonesia are summarized at Table 3.2.

These initiatives were directed at establishing the concept of ICZM and were accompanied by efforts to improve the administrative capacities of local Governments in the coastal zones ¹¹. Decentralized coastal management and community-based approaches were the main themes promoted by donor agencies.

Table.3.2. Important moments of CZM in Indonesia ^{4, 152}

Year	Important moments
1982	<ul style="list-style-type: none"> Indonesia has ratified the 1982 United Nation Convention on the Law of the Sea (UNCLOS). Announcement of Indonesia Government target to set aside 10 million ha of marine waters (5% of the total marine territory) as marine conservation zones by the end of the year 2003. Integrated coastal management studies have been conducted as pilot project areas such as Segara Anakan - Central Java; Coastal Environmental Management and Planning (CEMP) and Buginesia-South Sulawesi.
1987	Marine science and marine technology education have been established at six universities (UNRI, IPB, UNDIP, UNHAS, UNSRAT and UNPATTI)
1989	Collaborative research and education programs with various research institutions, such as the Asian Living Coastal Resource Program, cooperation between CSIRO – LIPI, and AIMS – CRIFI MMAF in Bali.
1993-1998	The Marine Resource Evaluation and Planning (MREP) project was started as the first initiative on decentralized CZM
1997	A postgraduate program in Integrated Coastal Management Studies was set up in IPB Bogor, followed by UNHAS and UNDIP.
1998	The commencing of multilateral Coral Reef Rehabilitation and Management Program Phase I (COREMAP I) after three years project design and preparation.
1999	<ul style="list-style-type: none"> Establishment of Ministry of Marine Affairs and Fisheries Involvement some international NGO in marine conservation projects Strengthening bilateral aid program such as CRMP (Coastal Resource Management Project) USAID, INTECOREEF (Integrated Coral Reef Management Project) JICA, and Collaborative Environmental Project in Indonesia (CEPI) CIDA.
2001	Enactment of two decree of the Minister of Marine Affairs and Fisheries Ministerial Decree on Integrated Coastal Management and Sustainable Small Island Management.
2002	Implementation of Marine and Coastal Resource Management Project' (MCRMP) in 15 provinces and 43 districts
Mid 2003	Implementation of Coral Reef Rehabilitation and Management Project Phase II (COREMAP II) in 7 provinces and 12 districts.

The *Reformasi* era, which commenced in 1999, has brought a new model for managing the coastal zone in Indonesia ¹⁸. CZM in Indonesia is entering a new phase as a result of two new

Local Governance acts (Laws 22 and 25/1999, subsequently revised as Law 32 and 33/2004ⁿ). The laws emphasize the decentralization process and enhance the community's role in managing resources. These laws readjusted the hierarchical relationship between the provincial and the local Governments. The local Governments, both *kota and kabupaten* (cities and districts), have become autonomous and are no longer bound to the hierarchy of the provincial Government.

The endorsement of the Local Governance acts brought an opportunity to revitalize and institutionalize traditional rights and norms into local governance systems. It also seeks to encourage community-based and collaborative management, such as *sasi* (open-closed system in Maluku), *panglima laut* (traditional resource manager in Aceh), *malimau pasie*, *malimau kapa and alek pasie* (traditional fishing ritual in West Sumatera) processes. The law recognizes local community-based resource management systems in coastal zone and fisheries. The recognition of local authorities and the concepts of customary law and local territorial rights, which have a long history of practice in Indonesia, allow for their adoption and adaptation into local governance policy.

The Local Governance acts also give more authority to local Governments to manage their resources in a sustainable way. This reflects a trend to grant management autonomy to organizations and units providing direct services to local communities and requiring the implementation of agreed-upon performance indicators (managerial decentralization). More community and stakeholder involvement in the management of local public services is an important concern in the decentralization context^{153, 154}. Decentralization in Indonesia is seen as a vital pillar in the movement towards democratization following a long period of

ⁿ The revision of these two laws is a response to the current political requirements, such as direct election for local leaders (*Bupati and City Mayor*). There has been no change in the title of these two laws. However, articles concerning to the coastal issues in the previous law (Law 22/1999), articles 3 and 9, were merged into a single article (Article 18). The enactment of Law 22/1999 was in response to the need for decentralization in Indonesia. Large populations and huge coastal and marine areas in Indonesia require decentralization because it is too difficult and too costly to govern effectively from the center. Indeed, each region requires a tailored management strategy since no two coastal areas are alike. Large variations among regions in climate, geography, and economic base, make centrally mandated uniformity in the provision of government services inefficient. Moreover, centralization results in high bureaucratic costs, delays in decision-making and problems of communication.

repressive rule. Decentralization of CZM is fundamental in giving greater opportunities for local Governments and communities to manage their own resources.

The Local Governance acts also completely repeals Act 5/1979 regarding Village Administration, which served to accelerate the erosion of traditional institutions, rights and norms. In many aspects, the previous law damaged the diversity of traditional values and created uniformity in village administration. This law failed to acknowledge the autonomous village level systems, such as *nagari* system in West Sumatra or *krama desa* in West Nusa Tenggara¹⁵⁵.

Act 32/2004 devolves the management of coastal zone to provincial administration up to 12 nautical miles from the coastal shoreline, and one-third of the provincial administration is under local Government administration. Under this law, the central Government has authority and jurisdiction to explore, conserve, process and exploit the resources beyond the 12 nautical miles and up to 200 nautical miles, specifically within the Exclusive Economic Zone (EEZ). The central Government also has the right to enforce laws and regulations related to waterways. The law also clearly notes that traditional fishing rights are not to be restricted by the decentralized coastal zone delimitation. This means that the traditional fishermen can access fishing grounds beyond the decentralized coastal zone^o.

According to Article 18 of the act, both provincial and local Government administrations have six tasks to undertake in the management of their decentralized zones namely:

- (i) exploration, exploitation, conservation and management of coastal resources;
- (ii) administrative affairs;
- (iii) zoning and spatial planning affairs;
- (iv) law enforcement of the regulations issued by the regions or delegated by the central Government;

^o Traditional fishermen are defined as traditional people who use traditional fishing gears, and operate without a business license and are not taxable. In regard to their activity for subsistence and daily consumption, they are entitled to fish in all fishing zones.

- (v) participation in the maintenance of security; and
- (vi) participation in the defense of State sovereignty.

The law also establishes the respective authority of and mandates for both provincial and district/cities administrations; these differing only in scale^p. There are sixteen mandatory tasks under these regulations^q. However, the province still holds authority in three primary areas: (i) cross-jurisdictional districts and cities, (ii) authority not yet, or not able to be, handled by the city and district administration; and (iii) administrative authority delegated from the central Government.

Accordance with this law, and to determine the distribution of power, the previous principal regulation: Government Regulation (*Peraturan Pemerintah*) No. 25/2000^r has to be revised. The revised regulation should address many of the administrative gaps, and clarify scales of authority in the mandate of the central, provincial and local Governments. It also establishes policies, guidelines, criteria, standards and supervision on a host of issues.

^p Articles 13 and 14.

^q The sixteen mandatory tasks are as follows:

- (i) development planning and control;
- (ii) planning, utilization, and supervision of zoning and spatial planning;
- (iii) providing public security;
- (iv) providing public infrastructure and facilities;
- (v) providing health services;
- (vi) providing education and resources allocation of potential human resource;
- (vii) handling of social issues;
- (viii) administering manpower sector;
- (ix) facilitating the development of cooperatives, small and medium businesses;
- (x) environmental management;
- (xi) agrarian services;
- (xii) citizenship and civil registration;
- (xiii) administrative affairs;
- (xiv) administering capital investment
- (xv) providing other basic services; and
- (xvi) other mandatory affairs as instructed by the laws and regulations.

^r The Government Regulation No. 25/2000, as Patlis *et.al* (2001 p.3) point out, states the role of the central government is “primarily one of indirect action rather than direct regulation and control, with specific action to follow at the regional level”. It means the central government will take administrative action against a local government that fails to implement existing laws or regulations.

However, as Indonesia is still experimenting with democratic governance, the process of decentralization is a real risk ¹⁸. The success of decentralization will be measured not just in the movement of the structures of power and finance to the regions, but in the provision of effective and efficient services. Currently, the regions of eastern Indonesia show a critical lack of capacity and this is one area that must be addressed by both national and local administrations.

Nevertheless, the process of decentralization of CZM in Indonesia is still in its infancy. It requires central and local Governments to ensure that decentralization does not lead to an initial breakdown or disruption of public services. A new system and corresponding set of values for policy formulation and implementation must be created. Central and local Governments must comprehend that while there will be new benefits, there will also be constraints. Unless these are understood, decentralization will fail. This failure may be rooted in the persistence of the previous centralist approach to coastal and fisheries management in Indonesia ¹⁵⁶.

In the current process of decentralization of CZM in Indonesia, there are already examples of uncoordinated actions by local Governments eager to claim rights on coastal resources. They are already establishing their local acts (*Peraturan Daerah/Perda*), which are more concerned with revenues than with ecological and sustainable principles. Examples include the unsustainable mining of coral and sand ¹⁵⁷. The initial euphoria in the creation of local legislation corresponds with a World Bank warning about the decentralization process, which comments that key players are not “convinced that greater decentralization [will] have a positive effect” ⁴⁷. The lack of capacity of local Government administrations in taking effective coastal resource management initiatives still remains a major obstacle. Other potential barriers are the diverse opinions and interpretations of the process, even within individual Ministries and major Government agencies at the central level.

In addition, conflicts over management of coastal resources still occur. Each development sector has set its own objectives, targets and operational plans. These primarily aim to increase economic benefits. However, objectives and targets of different sectors often overlap and are

incompatible. Most of these sectors do not have common goals and objectives to sustain the coastal resources. At the same time, local Governments set ambiguous objectives because they did not have any clear authority to manage coastal resources until 2000. In most cases, they have extremely limited direct revenues, which leave them dependent on allocations from central Government.

All the major areas of decision-making are either in the hands of the central Government or, to a far lesser extent, at the provincial Government level. Without any integrated and sustainable order, the conflicts will continue and increase while becoming more complex. Clearly, decentralized CZM must address these conflicts over management and the ambiguities of various laws applicable to the coastal zone.

With regards to providing a coordinated and integrated program, the Ministry of Marine Affairs and Fisheries (MMAF) is in the process of enacting the *RUU Pesisir*, which aims to have a pivotal role in addressing the decentralization of coastal zones. It encourages local Government to manage their coastal zone and recognizes local communities and traditional rights. This proposed act focuses on three major topics:

- (i) development of a framework for coordination, integration and consistency in management and planning decisions;
- (ii) creation of a voluntary, incentive-based program for local integrated coastal management at city and district level; and
- (iii) general provisions relating to administration and implementation, such as monitoring and evaluation, conflict resolution and funding ¹⁵⁸.

The *RUU Pesisir* is expected to fulfill the challenge in responding to local environmental conditions and involve stakeholders in the development process. The *RUU Pesisir* indicates that the coastal zone will continue to receive more intense environmental pressures from a wide range of users, especially development activities ¹⁵⁹. The *RUU Pesisir* will obviously have a strategic role as the limited administrative resources will not allow Indonesia to address every coastal and marine management issue with the same degree of urgency. In additions, most coastal environmental problems occur at the local level and require solutions tailored to

local conditions. Therefore devolution of authority and responsibility to local Governments for managing their coastal zone in Indonesia is necessary.

3.3 *The Philippines*

The Philippines is an island State with a long history on managing its coastal and marine resources. According to World Bank classification, Philippine has been classified as one of the Lower Middle Income Economies States. The GNI per capita of the Philippine in 2005 was USD 1,300, with 6 % annual inflation ¹¹⁰. The Philippines also experienced the regional



recession in 1997. The Philippines is located in the western Pacific Ocean and is composed of 7,107 islands (Map 3.3) with a total land area 298,170 square kilometer ¹⁶⁰. This island State is grouped into three island groups: Luzon (Regions I to V, NCR and CAR), Visayas (Regions VI to VIII) and Mindanao (Regions IX to XIII and ARMM).

The 2005 total population of the Philippines was 83.1 million people, with a 1.7% annual population growth. About two thirds of the Pilipino population lives in coastal areas and about 15% of the total population lives in the National Capital Region (Manila and surrounding areas).

Map 3.3. Philippine ¹⁶⁰

The Philippines is a presidential unitary republic which administratively characterized by a five-tier type of Government: national, provinces, cities, municipalities and *barangay* (village). There are 79 provinces, 117 cities, 1501 municipalities, and 41,982 *barangays*^s in the Philippines¹⁶⁰. Each level of Government is an active Government unit.

The Philippines has the strongest history of democratic and decentralized governance in the Southeast Asian region. The State's colonial heritage established limited democratic roots, and a series of presidential decrees enacted under the autocratic Marcos Government including the Local Tax Code, the Real Property Tax Code, and the Local Fiscal Administration Code, laid the institutional foundation for decentralization. The State reestablished democracy after the fall of Marcos in 1986, and decentralization and local autonomy were among the fundamental principles embodied in the 1987 Constitution. The Aquino administration launched a pilot decentralization project and established autonomous regions in Muslim Mindanao and the Cordilleras.

The Philippines has inter-jurisdictional structures designed to meet specific needs. The Integrated Reorganization Plan of 1972 has designated 11 (later 16) planning regions, including the Autonomous Region of Muslim Mindanao (ARMM)^t. These regions are summarized at Table 3.3. Each region has its administrative authority, and is governed by a Regional Development Coordinating Council composed of provincial governors, city mayors, and representatives from national agencies and the private sector. These inter-jurisdictional structures represent a de-concentration mechanism in Pilipino governance, a historically important approach.

^s The *barangay* is the lowest formal political unit in the Philippines. According to the Local Government Code (LGC), the *barangay* has an important role in planning and implementing Government policies. However, in practice, the *barangays* have little policymaking or planning capacity, although they have significant fiscal resources in comparison to their responsibilities.

^t ARMM contains four non-contiguous provinces that approved the autonomy arrangement by referendum, and replicates most functions of the central Government at the regional level. Regarding fiscal affairs, only income taxation is omitted from the AARM mandate. Importantly, ARMM keeps 60% of all internal revenue taxes collected within its borders, in contrast to the Internal Revenue Allotment (IRA)'s formula-driven distribution of 40% to other Local Government Units (LGUs). ARMM is required by the Organic Act to devolve powers to lower levels, but has not effectively done so.

Table 3.3. Region division in the Philippines ¹⁶¹

Region	Designation	Government center
Ilocos Region	Region I	San Fernando City
Cagayan Valley Region	Region II	Tuguegarao City
Central Luzon Region	Region III	City of San Fernando
CALABARZON Region	Region IV-A	Calamba City
MIMARO Region	Region IV-B	Calapan City
Bicol Region	Region V	Legazpi City
Western Visayas Region	Region VI	Iloilo City
Central Visayas Region	Region VII	Cebu City
Eastern Visayas Region	Region VIII	Tacloban City
Zamboanga Peninsula Region	Region IX	Pagadian City
Northern Mindanao Region	Region X	Cagayan de Oro City
Davao Region	Region XI	Davao City
SOCCKSARGEN Region	Region XII	Koronadal City
Caraga Region	Region XIII	Butuan City
Autonomous Region in Muslim Mindanao	ARMM	Cotabato City
Cordillera Administrative Region	CAR	Baguio City
Metropolitan Manila Development Authority	MMDA	Manila

The Philippines is well known for its great diversity and well documented marine and coastal resources. The resources have been source of livelihood and fundamental support for its economic development activities^u. Three important tropical coastal ecosystems, coral reefs, mangroves and sea beds, are widespread throughout the islands State.

There are 27,000 km² of coral reef ecosystems which can be found almost throughout the entire State ¹⁶², with the areas of Sulu Sea and the South China Sea containing the most well-

^u For example; White and Cruz-Trinidad (1998) provided the estimation of coral reefs contribution, which is accounted for at least US\$ 1.35 billion annually to the Philippines national economy.

developed reefs¹. The Philippine waters are home to at least 410 coral and 1,030 coral reef fish species¹⁶³.

Mangrove ecosystems cover in Philippines is estimated at 1,607 km²¹⁶⁴ with the largest concentrations in west Visayas and west of southern Luzon¹. The Philippines has 16 out of the 20 East Asian sea grass species, and is considered to have the second highest species richness in the world after Western Australia¹⁶⁵. Sea grass ecosystems in Philippines are nursery and feeding grounds for dugongs and turtles¹. The presence of these valuable marine and coastal resources has led to the establishment of more than 500 marine protected areas (MPAs)¹.

Managing and protecting the extensive and diverse marine and coastal resources and their services has also been the main motivation behind the Philippines CZM program⁹⁶. The Philippines invested about US\$ 230 million in the CZM program since 1974, of which about two thirds has been provided by international donors⁹⁶.

However, this long experience in managing coastal resources has not necessary served as a guarantee for success. Although the Philippines' CZM initiatives and programs are probably some of the most advanced in the Southeast Asian region, there remains a number of serious issues to resolve such as coastal resources degradation, conflict of interest and jurisdiction, and impractical marine and coastal policies.

The Philippines is still facing broader coastal management problems such as unfriendly/unsustainable resources harvesting (illegal and destructive fishing, *muroami*, coral mining), marine and land-based pollution, rapidly degrading coastal resources rate (over fishing, alarmed rate of coral reef and mangrove), increasing poverty among coastal communities, and inadequate policies and programs to address the problems. These problems are related to, and have led to, a decline in the productivity and integrity of coastal ecosystems which supply essential food, livelihood and other forms of income to coastal communities.

Poor integration of management objectives and overlapping jurisdictions over MPAs has resulted in “paper park”^v.

The Philippines has only about five percent of its coral reefs in excellent condition¹⁶⁶. Lack of economic alternative of coastal communities is an important variable which drives many of the coral reef management problems¹, including marine and land-based pollution, illegal and destructive fishing practices.

Similarly, mangrove ecosystems are experiencing serious degradation with loss of over 33,000 km² since 1920^{1, 167}. This is as a result of mangrove conversion into mariculture ponds, clearing for settlements, and lack of green-belt policies. The Philippines has also lost 20-30% of its sea grass beds due to dredging activities, pollution and sedimentation. Parallel pictures can also be painted with respect to fisheries which are being over-exploited.

In attempt to address these issues, the Philippines has applied an integrated and decentralized CZM. The Local Government Code (Republic Act 7160, hereafter: LGC) of 1991^w is one of the main elements of the legal framework for decentralized CZM in the Philippines. The LGC provides for a decentralized framework for certain Government functions, including marine, coastal and fisheries management, through a process of devolution. The LGC mandates of devolution include many responsibilities, personnel, and resources from central to local Governments. The enactment of the LGC allows the local Government units (LGUs) to have some revenue authority, but most resources are subject to central control.

^v According to UP-MSI et.al (2002 p.72), paper park means the marine and coastal resources “have been legally designated on paper, but for which insufficient resources have been allocated to implement the protected area management strategy”

^w The Local Government Code, Republic Act 7160 of 1991 (hereafter: LGC) of 1991 implementation started in 1992-93. It significantly increased the responsibilities and resources of sub-national Governments. In addition, it mandated regular elections for local executives and legislative bodies. It also devolved basic services to local governments including marine, coastal and fisheries management. Local Government units (LGUs) have the authority to create their own revenue sources (within firm limits), as well as to enter into international aid agreements. The President exercises general supervision of the legality and appropriateness of LGU actions, and the execution of this function serves as the basis for central government suspension of local administrations.

Under the LGC, the LGUs have extensive power and new mandates to be “more responsive and accountable local Government structure”^x for specified functions, including assessment, planning, regulation, legislation, enforcement, revenue generation and monitoring of their marine and coastal resources out to 15 kilometers offshore. However, the granting of these new mandates to local Governments is not accompanied by the requisite level of local awareness and concerns. The LGUs’ capacity and budget for delivery of these new mandates are far from ideal with respect to the expected level of service delivery.

The local Government’ capacity “to undertake [new] mandates however has only recently begun to develop as coastal municipalities and cities have become aware of their mandate and the importance of coastal resources to local economic and development”^y. This gap was not immediately addressed through CZM programs and projects. Early Philippines CZM programs and projects neglected the importance of capacity building for local Governments to become more responsive, accountable, and capable to undertake mandates. Early Philippines CZM programs and projects “focused more on NGO-led community based initiatives” ¹⁶⁸.

Despite this lack of capacity, there is significant growth in the numbers of municipal and *barangay* MPAs ¹⁶⁹ as a result of the LGC adoption ^z. The Fisheries Code^{aa}, which enacted in

^x Local Government Code, Section 2, 1991

^y See: C. A. Courtney, A. T. White and E. Deguit, (2002). "Building Philippine local government capacity for coastal resource management" Coastal Management 30 p. 28.

^z Under the LGC, the establishment of MPAs at the municipal or *barangay* levels can be done by LGUs without being hindered by lengthy processes at the national level. In addition, fisheries management within municipal waters (out to 15 kms offshore) such as imposing fishery license fees, enforcement of fishery laws, and the granting of fishery privileges, are devolved to LGUs. Funding for fisheries and environmental management may be taken from the LGUs internal revenue allotment (IRA) specified by the LGC.

^{aa} As C. A. Courtney, A. T. White and E. Deguit, (2002 p. 30) explained that the Fisheries Code (Republic Act 8550) provides a framework for the development, management and conservation of the country’s fisheries. It reaffirms the jurisdiction of the municipal and city Governments over municipal waters and their important roles in enforcing fishery laws and managing coastal resources. It also provides for the establishment of closed seasons for areas with strong conservation and ecological values, as well as to declare closed seasons for rare, threatened and endangered species. The Code also specifies the authority of the LGUs to prohibit or limit fishery activities in over fished areas. These provisions support MPA establishment and give LGUs the authority to declare and manage areas as MPAs. The Fisheries Code specifies that at least 15% of bays, foreshore lands, continental shelf or any fishing ground and habitat area, may be declared as a sanctuary. No fishing is allowed in these areas.

1998, reaffirms and reinforces these mandates and powers with respect to the establishment of MPAs ¹⁶⁸.

The first year's implementation of the LGC on decentralized CZM progressed steadily starting in 1995, when the momentum of "municipalities and cities became more aware of and concerned with their responsibilities in environmental management" took place ¹⁶⁸. However, it took four years for the national Government policies to formally recognize the growing concerns and awareness of the local Government in CZM. The national Government passed the Medium Term Development Plan (1999 to 2004) in 1999 to recognize the role of LGUs as important stakeholders in marine and coastal resources management and in achieving the national target of ICM ¹⁶⁸. A summary of the most important CZM initiatives of the Philippines is summarized at Table 3.4 below.

The concept of "coastal management as basic service of local Government" has been promoted by the Department of Environment and Natural Resources (DENR) as part of the daily functions and operations of local Government ¹⁶⁸. The main idea of this concept is to emerge coastal management as an integrated part of basic service delivery which is reflected in local legislation, regulation, coastal law enforcement, budgeting and programs ¹⁶⁸. The implementation of this approach remains ongoing.

A close examination of the evolution of decentralized CZM in the Philippines reveals that the legal support mechanisms have progressed from a predominately open access regime under national Government to a more localized management framework ⁸⁹. The formal decentralization framework is essentially complete, but much effort remains in its full implementation.

Table 3.4. Important moments of CZM in Philippines^{168, 170}

Year	Important moments
1930–1960s	Resources considered unlimited in supply not requiring management
1946–1960s	Blast fishing became common after World War II
1960–1970s	Robust expansion and development in fisheries and aquaculture
1974	First municipal marine reserve established around Sumilon Island, Cebu
1975	<ul style="list-style-type: none"> • Fisheries decree promoted optimal exploitation of fisheries under central control • Forestry Code established the need to protect mangrove forests
1976	<ul style="list-style-type: none"> • Fisheries Environmental Impact System established • National Mangrove Committee established • Commercial fishing limited to areas beyond 7 km of the shoreline
1976–1981	5-year assessment of coral reef resources by UP-Marine Science Center
1978	<ul style="list-style-type: none"> • Coral gathering limited to scientific research • Marine Parks Task Force created to recommend sites for marine parks • The Philippine Extended Economic Zone established
1979	Coastal Zone Management Committee with 22 agencies formed
1979–1982	First integrated small-scale fishery study of San Miguel Bay showed overfishing
1981	Philippines becomes signatory to CITES
1983–1987	Government embarked on Expanded Fish Production Program
1984–1992	Central Visayas Regional Project begins community-based ICM supported by World Bank
1985–1986	Marine Conservation and Development Program of Silliman University and USAID establishes Apo, Pamilacan, and Balicasag, Islands as marine reserves
1986	<i>Muro-ami</i> and <i>Kayakas</i> fishing methods banned in Philippine waters
1986–1992	First bay-wide management program in Lingayen Gulf with multiple academic and Government partners supported by USAID
1987	Bureau of Fisheries and Aquatic Resources moves from the Ministry of Natural Resources to the Department of Agriculture
1988	<ul style="list-style-type: none"> • First National Marine Park established at Tubbataha Reefs, Sulu Sea • San Salvador Island marine sanctuary, Zambales initiated by Haribon Foundation
1990–1997	Fishery Sector Program of DA-BFAR initiates bay-wide management by ADB
1991	<ul style="list-style-type: none"> • Passage of the Local Government Code • Southeast Asian Fisheries Development Center launched project on Malalison Island for community-based fisheries management
1992	<ul style="list-style-type: none"> • “Wait and see” attitude of newly elected local Government officials toward implementation of the new Code • Philippine Council for Sustainable Development created • Philippines becomes a signatory to Agenda 21 • National Integrated Protected Areas System (NIPAS) Act passed
1993	<ul style="list-style-type: none"> • Implementation of the Local Government Code begins • Administrative problems in personnel devolution being solved • Financial systems began to function • Coastal Environment Program (CEP) of DENR established
1994	Increased momentum for implementation of Code as LGUs gain success through experimentation
1994–2005	Regional Program on Partnerships in Environmental Management for the Seas of East Asia with projects in Batangas and Manila Bays

Table 3.4. *Continued*

Year	Important moments
1995	<ul style="list-style-type: none"> Increased local resource mobilization and improved service delivery Increasing concern of local Government for environmental management Fisheries and Aquatic Resources Management Councils authorized
1996	<ul style="list-style-type: none"> Diversity of experimentation as decentralization diffused across all classes and types of local Government Low priority and limited awareness of local Government mandate for managing coastal resources and municipal waters
1996–2004	<ul style="list-style-type: none"> Coastal Resource Management Project of DENR supported by USAID
1997	<ul style="list-style-type: none"> New participatory style in local leadership emerging under successes of decentralization Increasing programs and budget for the environment Condition of coastal resources assessed and issues and obstacles to CRM implementation identified and prioritized by coastal mayors
1998	<ul style="list-style-type: none"> Continued success in local governance and local ownership of appropriate national programs Some national Government agencies begin to redesign how they relate to local Government elections resulted in an 80% turnover of mayors in the Philippines Passage of the Philippine Fisheries Code International Year of the Ocean Increasing demand for technical assistance and training from local Government to develop CRM programs and plans First national coastal Mayors conference held to discuss ICM issues
1998–2005	Fisheries Resource Management Project builds on lessons of FSP for bay-wide coastal management supported by ADB and Japan
1999	<ul style="list-style-type: none"> Local Governments and communities introducing innovative mechanisms for effective resource management Local Governments are using inter-Government agreements and public-private partnerships to co-manage resources across jurisdictions CRM implementation by local Government increasing as assessed by coastal mayors 15-point national CRM agenda developed and adopted by coastal municipalities Proclamation of the Month of the Ocean in Philippines (May)
2000	<ul style="list-style-type: none"> Tangible improvements of decentralization visible at the barangay level Local Governments request national Government to fast-track issuance of guidelines on delineating municipal waters CRM being articulated by local Government as a basic service DA and DENR sign joint Memorandum on implementation of Fisheries Code
2001	<ul style="list-style-type: none"> More than 100 municipalities and cities allocate budget for ICM Southern Mindanao Integrated Coastal Zone Project starts
2002	Coastal and Marine Management Office replaces CEP in DENR
2003	CRM Certification System for coastal municipalities and cities adopted, Inabanga, Bohol and Hagonoy, Davao del Sur first CRM certified municipalities
2003–2004	National Coastal Management Policy reviewed at national level
2004	<ul style="list-style-type: none"> More than 20 supporting organizations (academic, NGO, and Government) endorse a standard system to monitoring and evaluating MPAs nationwide Fisheries Improved for Sustainable Harvests (FISH) Project initiated by USAID

3.4 *Comparative Digest*

In their pursuit to develop and implement ICZM, Malaysia, Indonesia and the Philippines have all adopted different intergovernmental structures, proceeded at uneven paces, and adopted a wide range of implementation strategies. The comparative settings of these three States are summarized at Table 3.5. Malaysia operates under a federal system, in which the relationship between federal-state-local Government and the allocation of powers, “tends to be heavily biased toward the federal government”¹⁷¹. The Federal Constitution enables this bias by providing avenues of federal influence over the state Governments. The Federal Government led the important councils for local Governments in the name of improving and enhancing coordination within the Government machinery. The three other national councils, the National Council for Local Government (NCLG)^{bb} under article 95A, the National Land Council (NLC) under Article 91, and the National Finance Council (NFC) under Article 108, are chaired by the Prime Minister or his appointee¹⁷².

In Malaysia, the states and local Governments are politically and economically subordinate to the federal Government. Local Governments fall under the exclusive jurisdiction of the state Governments; they are not political subdivisions but are merely administrative organs of the state Governments. The state Governments are still in a strong position to dictate policies to the local Governments through the appointment of district and municipal councilors. Therefore, decentralization in Malaysia is limited to de-concentration and co-administration of tasks and services including managing the coastal zone. Indeed, the recent developments on CZM in Malaysia and limited to functional de-concentration practices and seem to indicate a reversal in the process towards “recentralization” of powers.

One important structural problem in the administrative process is that fiscal decentralization in Malaysia is characterized by a lack of fund transfers from the federal to the state Governments.

^{bb} The National Council for Local Government (NCLG) has a strategic role in empowering local Government. The main task of this council is to formulate policies and provide advice on local Government matters as well as to act as a communication forum and a conduit between the state and federal governments. However, this council has been incompetent as a local Government liaison. Indeed, the Federal Government has seldom consulted the NCLG with respect to local government matters.

The Federal Government obtains between 84% and 88% of total Government revenues, while the thirteen states obtain only 12 % ¹⁷². Local Governments greatly depend upon assessment rates (property tax) imposed on the improved or market value of property, as their main source of income or revenue. These transfers from the federal consist of less than one-fifth of the total revenues of local Governments ¹⁷³. The state Governments are not in a position to provide financial support to their constituent local Governments, and this constitutes a significant bottleneck in the implementation of decentralization in the state ¹⁷⁴. This situation has resulted in local Governments being under-financed for their assigned functions ¹⁷³. Meanwhile, local Governments require additional funds to carry out their mandated tasks. This is one of several issues in the state-local Government relationship that still requires resolution.

All these conditions illustrate that federalism as a system of Government does not necessarily lead to the level of decentralization specified in the Federal Constitution, nor does it provide for the autonomy of local Governments ¹⁷³. Indeed, local Governments, in Malaysia is not precisely defined ¹⁷⁴ although a broad understanding is implicit in state practice. The absence of a clear definition brings a high toned dependency of the local Governments on the State Governments ¹⁷⁴. To some extent, centralization gives the impression that things are working well in Malaysia. This is evidenced by high levels of economic development. It appears that there is little need to decentralize the CZM in Malaysia.

Indonesia has the formal legal basis for decentralization through a set of laws which define the decentralization framework. The enactment of two acts^{cc} on local Government and its fiscal relationship have paved the way for a decentralized policy in Indonesia. The acts provide the readjustment and change in the governance organizations and relationship in several fundamental ways. However, there still needs to be a clear demarcation of power, since the

^{cc} First, Law 22/1999 (UU PD) on Regional Governance replaces both Law 5/1974 on the Basics Provision of Governance for the Region and Law 5/1979 on Village Governance. Second, Law 25/1999 (UU PKPD) replaces Law 32/1956 on the Fiscal Balance between the State and the Regions. Law 22 on Regional Government of 1999 (revised as Law 32 of 2004) eliminated hierarchical relationships between cities and districts and higher levels of government, granting the former autonomy and broad responsibilities. This act allows for the direct election of sub-national leaders beginning in 2005, reestablishes central control over the hiring and firing of civil servants, and requires ex ante approval of sub-national budgets. Law 25 on Fiscal Balance of 1999 (revised as Law 33 of 2004) modified the intergovernmental transfer system and provided for limited local revenue authority.

acts do not clearly provide provisions with respect to goals of implementation³. The unclear demarcations appear as result of inadequate general framework of decentralization and wave of reform shock^{134, 175-179}. The 2000 amendments to the Indonesian Constitutional provided a constitutional basis for decentralized policy and consolidated certain decentralization reforms. As a constitutional matter, this policy cannot be changed or amended by the President.

Decentralization in Indonesia is a result of a breakthrough in the governance system after three decades under a highly centralized system. It is often referred to as a “Big Bang” because significant resources and functions were devolved so quickly in a crisis situation^{3, 134}. It is a response to the changing and emerging political situation from crisis to a renewed political commitment for a new regime of decentralized governance.

As decentralization was adopted quickly and with little debate, the Big Bang was accompanied by weak implementation strategies¹³⁴. Indeed, it is noted that the process of decentralization in Indonesia lacks specifics and is weak in the coordination of operational details on many of the legally devolved functions. This is as a result of inadequate coordination of the key actors in the decentralization process¹³⁴. Therefore, there are still many implementation issues in the Indonesian decentralized policy.

Similarly, decentralization in the Philippines also emerged from crisis. The distinction of Philippine decentralization is that the Philippine’s constitutional and legal bases for decentralization and sub-national Governments are stronger and more specific as compared to Indonesia’s. Articles II and X of the 1987 Constitution establish the autonomy of local Governments and give them the power to create their own sources of revenue. The LGC provides for substantial devolution of services, including coastal management, and creates local institutions. The Philippines also attempted to promptly develop a strategy for decentralization albeit only on paper¹³⁴. Within two years of the passage of the LGC, Philippine pass a Master Plan for the Sustained Implementation of the LGC (1993–98) as blueprint for decentralization reform¹³⁴. This blueprint provided a three phase step by step guidance for decentralized governance to local Government unit. Phase one (1992–93) involved the transfer of functions, which varied by type of local Government. Phase two

(1994–96) gave local Governments time to adjust to their formal responsibilities. Phase three (1997 onward) provided for a more stable system, with a focus on building local capacity through technical assistance from national agencies. However, the slow devolution process, inconsistent monitoring, political difficulties, instability in some regions, and limited resources limit the implementation of this blue print.

Despite such constraints, the Pilipino experience in decentralization, especially in CZM, indicates that the Philippines has established a fairly strong local autonomy, in principle, and are managing the valuable coastal resources. The Philippines have gone further in defining and implementing functional assignment on coastal management. The Pilipino experience provides for the shifting of local Government capacity on coastal management from a high dependence on national Government, to a more decentralized responsibility and authority. The important lesson learned in this shift is that the institutions and organizations at central level and strong political will play important role.

Table 3. 5. Comparative analysis of Malaysia, Indonesia and Philippine in decentralized policy and coastal management^{45, 84, 110, 134, 172}

	Malaysia	Indonesia	Philippines
General information			
Total population	25.3 million	220.6 million	83.1 million
Percentage of population on the coast	70 %	60 %	80 %
Per capita GNI ¹	\$ 4,960	\$ 1,280	\$ 1,300
Major ethnic groups and religions	59% Malay, Chinese, Indian 53% Muslim, remainder Christian, Hindu	45% Javanese 14% Sundanese, several others; 87% Muslim	91.5% Christian, Malay, 4 % Muslim Malay; 92% Christian, predominantly Roman Catholic
Political system characteristic			
Type of Government	Constitutional monarchy federation	Unitary republic	Republic
Colonial heritage	British	Netherlands	Spanish/US
National level of Government	<ul style="list-style-type: none"> Effectively a one-party State (Barisan Nasional) although applying multi-party system 	<ul style="list-style-type: none"> Competitive multiparty system House of Representatives and Senate largely directly elected Direct elected for President and Vice President 	<ul style="list-style-type: none"> Competitive multiparty system House of Representatives and Senate largely directly elected President elected directly by the people
Concentration of power among national level institutions	Some pluralism	Very concentrated	Very concentrated
Autonomy of sub-national levels of Government	States and local Governments are primarily sub-ordinate of federal Government.	Substantial autonomy	Substantial autonomy, especially at the regional and community levels
Intergovernmental disciplines	Prime Minister can supervise and review the LGUs subject to review by NLGC and endorsed by the Supreme Court and <i>Yang Di-pertuan Agong</i>	President can take over district LGU enactments subject to review by supervening level and central oversight bodies	President can supervise and suspend LGUs Central oversight bodies, onerous audits LGUs can legally hold center accountable
Civic disciplines	<ul style="list-style-type: none"> Population politically less-active Limited media widely available and affect outcomes 	<ul style="list-style-type: none"> Population politically active Patrimonial tradition, spoils system Media widely available and affect outcomes 	<ul style="list-style-type: none"> Population politically active Patrimonial tradition, spoils system Media widely available and affect outcomes

	Malaysia	Indonesia	Philippines
Component of decentralization			
Sub-national levels of Government	Three levels: <ul style="list-style-type: none"> • States (11 states and 2 federal territories) • Local Governments (<i>kerajaan tempatan</i>) (138): municipal council (23) and district council (135) • Kampung (villages) 	Three levels (de jure): <ul style="list-style-type: none"> • Provinces (33), special regions (2), and capital city (1) • Local Governments: kotamadya (cities) and kabupaten (districts) (440) • Desa (villages) 	Four levels: <ul style="list-style-type: none"> • Provinces (79) • Cities (112) • Municipalities (1,496) • Barangays/villages (41,944)
Political authority devolved	<ul style="list-style-type: none"> • Limited de-concentration • Applying co-administration with top-down approach 	<ul style="list-style-type: none"> • Substantial autonomy • Executive and legislature elected (province and district) • Basic services devolved • Devolution mainly to district 	<ul style="list-style-type: none"> • Substantial autonomy, especially at the regional and community levels • Executive and legislature elected (province and municipality) • Basic services devolved (not education) • Devolution to both province and municipality • ARMM: devolution to region
Policy orientation	Focus on co-administration and de-concentration to state Government with limited to local Governments	Focus on substantial devolution to cities and districts, which replaced earlier emphasis on de-concentration to provinces; limited formal role at lowest levels; 2004 reforms, increased the role of higher levels.	Focus on devolution to subprovincial units, but provinces still play a significant role.
Basis for decentralized policy	Constitutional (Federal Constitution article 95A). Legal bases (Local Government Act 1976, Act 181 and 245)	Legal basis (Law 33 and 34/2004) and constitutional amendment.	Constitutional (Constitution 1987) and legal basis (Local Government Code 1991) and various Marcos-era and post-Marcos laws define aspects of the intergovernmental system.
Fiscal authority devolved	<ul style="list-style-type: none"> • State get small proportion of taxes collected • Federal control local revenues and expenses 	<ul style="list-style-type: none"> • Formula transfers (DAU and DAK) as main revenue. • Revenue sharing for natural resources with subject to some central Government control 	<ul style="list-style-type: none"> • Create own taxes within limits SEF earmark • Unfunded mandates Tax recovery and revenue autonomy low
Grant mechanisms	Annual Equalization Grant by Federal Government and State Grants	DAU and DAK	IRA: largest share to municipalities but base varies “Pork” allotments

	Malaysia	Indonesia	Philippines
Marine and coastal information			
Maritime jurisdictions	12 NM territorial sea, 200 NM EEZ	Archipelagic baseline; 12 NM territorial sea, 200 NM EEZ	100 NM territorial sea (285 NM in South China Sea); 200 NM EEZ (1978)
Major coastal and ocean issues	Erosion, mangrove loss, coral reef destruction, pollution from tourism and industry	Over-fishing and destructive fishing, habitat destruction, marine pollution, conversion of mangrove forests and wetland areas, coral mining	Fishery depletion through over-fishing, use of dynamite and habitat destruction, coral depletion through mining; loss of mangrove forests and wetland through expansion of human settlements
Primary level of Government concerned with ICM	National, state	National, provincial	National, local
Nature and timing of ICM efforts	1984, national coastal erosion study; 1992, national and coastal resources management policy; 1992, South Johore Coastal Plan	1990, Conservation of Living natural Resources and Their Ecosystem Act (marine parks); 1992, pilot study integrated management plan for Segera Anakan Cilacap; 1993 – 1997, 1998-2002, marine resources and evaluation project	1975, Fishery Act, 1976, Coastal Zone Management Committee of National Environmental protection Council; mid-1980s, ASAN/US Coastal Resources Management Project, Lingayen Gulf pilot study; 1990 – 1994, fishery sector programs (includes coastal management aspects)
Overall approach to ICM	Top-down, bottom-up	Top-down, bottom-up	First top down, then bottom-up
Type of approach to ICM	Regulatory-for erosion and mangrove forests	Planning	Regulatory, planning, participatory
Extent of implementation of ICM	Partial implementation (erosion, mangrove forests)	Partial implementation	Partial implementation
Importance of external assistance	Moderately important (ASEAN/US)	Very important	Very important
Important of UNCED influence	Very important	Moderately important	Of little important
Effectiveness of ICM	Appears good for erosion issues-unknown otherwise	Unknown	Reported highly effective
Movement toward policy integration	Some, in pilot study	Some	Some

Note: GNI per capita (formerly GNP per capita) is the gross national income, converted to U.S. dollars using the World Bank Atlas method, divided by the midyear population. GNI is the sum of value added by all resident producers plus any product taxes (less subsidies) not included in the valuation of output plus net receipts of primary income (compensation of employees and property income) from abroad. GNI, calculated in national currency, is usually converted to U.S. dollars at official exchange rates for comparisons across economies, although an alternative rate is used when the official exchange rate is judged to diverge by an exceptionally large margin from the rate actually applied in international transactions.

4 CONCLUDING REMARKS ON DECENTRALIZED CZM: FROM CONCEPT TO SUCCESSFUL IMPLEMENTATION

This present study has thus far analyzed the theoretical and practical aspects of decentralized CZM, including through an overview of the approaches taken by three States in Southeast Asia. In applying the basic concepts of CZM in the analysis of such practices in Malaysia, Indonesia and Philippines, it has been possible to not only gain significant insight into a wide variety of contemporary approaches to decentralized CZM, but also to understand the major emerging trends in decentralized CZM. This concluding chapter reviews the case studies' contributions to understanding drivers, implications and overarching considerations for the development and implementation of decentralized CZM.

4.1 Drivers of decentralized coastal management

The previous analysis of the three States suggests a mixed experience in decentralization and the implementation of CZM. In Malaysia, decentralization appears as the devolution of several mandates from the federal to the state and the local Governments (de-concentration practices), rather than the building of capacity of the sub-national Government in managing its own resources. Decentralization efforts in Indonesia and the Philippines are led primarily by political reforms, namely the fall of Soeharto' and Marcos' regime. Local Governments dissatisfaction on central Government was the main driver of decentralization policy. Political decentralization has been the main agenda of the policies, empowering local Governments and communities to be part of the governance system. However, in the absence of clear demarcation and legal provisions, political decentralization also created some side effects such as populous and opportunistic actors in governing local Government, which are counter-productive with the expectation of decentralized policy.

The main expectation of decentralized policy in Indonesia and the Philippines is to improve resource allocation and accountability. As previously outlined, their legal and constitutional

bases, the expectation of decentralized policy are based on assumption that local Government has a better understanding of local needs and preferences, which allows the application of more effective management. Furthermore, decentralized policy gave more awareness and opportunities for local communities to be actively involved in local Government activities. However, there are also some indications that the above is not realized.

Indonesia's five year experience on decentralization has resulted in conflicting interpretations of the law in absence of a well articulated legal and policy framework. Lack of legal clarity potentially creates legal ambiguities, which can harm the process of decentralization. This is because it allows the national Government to maintain control on local Government and ignore local inputs. It also creates uncertainty in local Government action because their actions can be classified as illegal. Legal ambiguities have the potential to create conflict and prompt a race to gain as much revenue as possible in the transition period through uncertain situations. Therefore, there are grey areas in the legal framework which need to be clarified so as to avoid ineffective decentralization and conflicts.

As the process of transition towards a more decentralized Indonesia has just begun, there is a variety of local Government approaches to the implementation of their mandates. Some local Governments have understanding on their mandates with little concern for managing coastal resources. Some are unclear about their mandates and how to accomplish them. Others are involved in the race to gain local revenue by legalizing a proliferation of permits and rights for extracting coastal resources with little interest in resources conservation and sustainability¹⁷. These experiences indicate that decentralization in Indonesia has taken place without adequate and appropriate institutional arrangements, including civil society.

The Pilipino experiences shows that decentralization without appropriate and immediate capacity building for local Governments leads to incomplete and uneven decentralized policy, even for basic service delivery^{dd}. Although the Philippines has more than a decade of

^{dd} Azfar, Kähkönen, and Meagher (2001) give the example of how decentralized health policy does not necessarily promote efficiency, reduce corruption and facilitate cost recovery.

experience in exercising decentralized governance in CZM, there are remains great demands for local Government capacity improvement in managing coastal resources.

The decentralization experiences of Indonesia and the Philippines suggest the importance of formal institutional arrangements and the role of civil society greatly influence the implementation of decentralized CZM. Institutional arrangements address the issues of power distribution among levels of Government, the disciplines operating from within and outside Government (e.g., hierarchical oversight and voting), as well as principal-agent information flows (e.g., sources of citizen perceptions of corruption) ¹⁸⁰.

There are three disciplines required for effective decentralized policy and with successful delivery of public services, namely: civic, intergovernmental, and public sector management ¹⁸⁰. Civic disciplines refer to the capacity of individual citizens, media, and NGOs to make their views known to the relevant Government officials and bodies. This could include voting, an action which induce officials to take these views into account in their decision making. Intergovernmental disciplines are those exerted between different levels of Government: for example, central Government oversight of local Government operations, or budgetary constraints (or limits to taxing authority) imposed by the central Government on lower levels of Government. Disciplines related to public sector management include the ways in which each Government body regulates and constrains the behavior of its own officials: for instance, anti-corruption provisions, performance-based recruitment and promotion, and provisions for periodic audits. These three disciplines combine to determine the level of success in decentralization and the quality of governance practices ¹⁸⁰.

Theoretically, the quality of governance has a strong positive correlation with decentralization. The widely accepted governance indices ¹⁸¹are:

- (i) voice and accountability;
- (ii) political stability;
- (iii) Government effectiveness;
- (iv) regulatory quality;
- (v) rule of law; and

- (vi) control of corruption.

Through the application of these governance indices, Malaysia emerges as possessing a better quality of governance as compared to Indonesia and the Philippines (Table 4.1 and Figure 4.1). However, closer examination indicates a lack of correlation between the quality of governance and decentralization (in terms of both administrative decentralization or de-concentration, and political decentralization or devolution). Malaysia with high governance indices has been strongly oriented towards centralization until recently. On the other hand, Indonesia and the Philippines, with lower governance indices, are more oriented towards decentralization. Indonesia and the Philippines have moved towards political decentralization.

Table 4.1. Malaysia, Indonesia and Philippine governance indices ranking ¹⁸¹

Governance Indices	Malaysia	Indonesia	Philippine
Voice and accountability	+	++	+++
Political stability	+++	+	++
Regulatory quality	+++	+	++
Government effectiveness	+++	+	++
Rule of law	+++	+	++
Control of corruption	+++	+	++

These facts indicate that decentralization experiences have resulted in highly context-specific outcomes that are often paradoxical in nature and may contradict theory.

4.2 Toward workable decentralized CZM

To make decentralized approaches work for designing new management structures for coastal management requires creating more effective intergovernmental relationships to support coastal management. Decentralized approaches to managing coastal resources is more than just a general transfer of responsibilities, and requires more than just political will. It is the combination of building trust, strengthening local Government capacity, handling multiple

users, interest and stakeholders, and enhancing upwardly and downwardly accountability mechanisms among local Government in the governance system. In most cases, decentralized coastal management addresses behaviors of governance actors (local and national), establishing the common accepted rules of the system, and assigning adequate and appropriate responsibilities, authorities and resources.

To achieve workable decentralized CZM, there are several requirements. Decentralized CZM needs understanding and awareness of why and how decentralized policy is essential to manage coastal resources. Through understanding and awareness, it can determine the scale of local management capacity in fulfilling the mandates. Decentralized natural resources management, including CZM, must adopt the best management practices of local Government and non governmental units. Adopting such practices will be useful for allocating management tasks, authority and resources among levels of Government to respond to the challenges of coastal management¹⁰⁷. Through this process, decentralized CZM can be more effective and efficient.

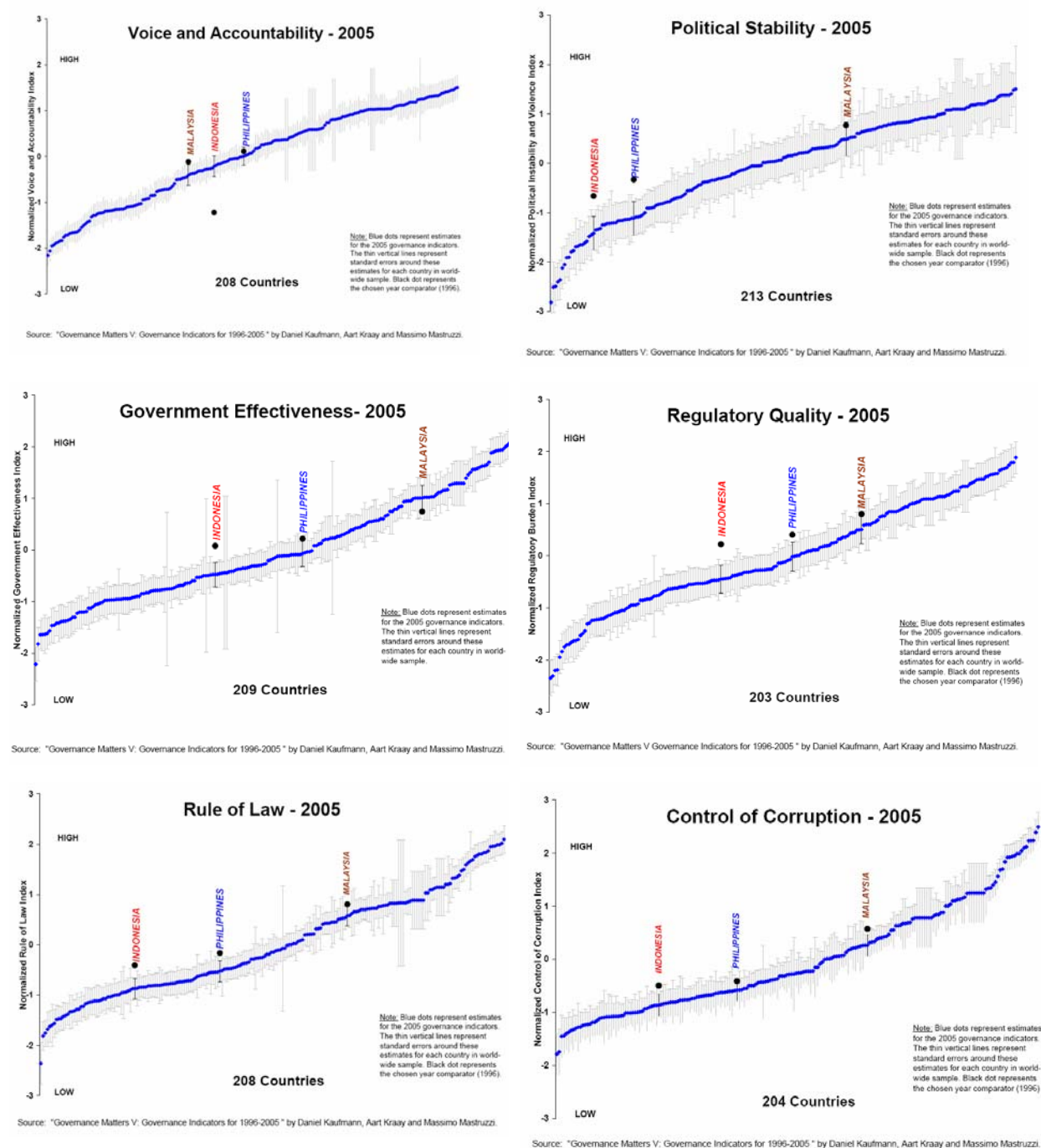
In sum, making decentralized CZM work requires careful consideration of at least three factors, namely:

1. Understanding and awareness on decentralized policy for managing coastal resources;
2. Mechanisms for upwardly and downwardly accountability;
3. Mechanisms for assigning responsibilities, authorities and resources.

Effectively addressing the above considerations can only be accomplished when both the central and the local Governments are working in tandem to support and develop management strategies for better coastal resource. The management strategies development process must create enabling conditions for decentralized CZM. This process should include:

- (i) learning by doing;
- (ii) team-work building;
- (iii) building durable institutions beyond leadership change; and
- (iv) educating multiple stakeholders at different levels of involvement.

Figure 4.1. Governance indices of Malaysia, Indonesia and Philippine ¹⁸¹



4.3 Overarching considerations for decentralized CZM

The approaches to development and implementation of CZM in the three States examined above are significantly different. Indonesia and Philippine assume that decentralization of CZM is necessary to deal with its extensive geographical problems and its tremendous social and cultural diversity. The legal framework and the States' initiatives clearly show the political will of the Indonesian and Pilipino Governments to apply decentralized CZM. Meanwhile, Malaysia considers that decentralized CZM does not match its Government system. The Malaysian federal system is not necessarily suited to the decentralization process, as it requires significant adjustment to the Government structure and its internal relationships, including the State-society relationship¹⁸². Therefore, as a political process, decentralization is not considered to be necessary unless there is significant political will.

In political terms, decentralization is a process involving competition among competing vested interests¹⁴³. It places political will, rational choices and sometimes pragmatic calculations as key considerations. However, the choice between either decentralized or centralized policies does not need to be "either-or"⁴⁷. However, the essential ingredients for a successful decentralization policy remains the effective and efficient functioning of Government¹⁸³. This means that not all functions can, or should, be financed and managed in a decentralized fashion.

By using the classification of decentralized CZM¹⁰⁷ as presented above at Table 2.6, Malaysia appears as a State which practices *classic de-concentration* with limited or almost no amount of administrative discretion granted to lower level officials. State and local Governments in Malaysia are seen as branches of the Federal Government, and not autonomous units. Indonesia falls in the category of *cooperative devolution*, as it treats its provinces, districts and cities as partners, albeit junior ones, of the national Government. Currently, Indonesia provides a full range of planning, design and implementation responsibilities, authorities and resources to local Governments. Indonesia's central and local Governments are exploring with a common view the causes and consequences of resource management issues at the local level, and developing consensus views through collaborative planning and problem-solving. This

approach seeks to build local commitment through on-going interaction with national officials and incentives for local officials such as funds and increased authority for management.

Within the same classification system, the Philippines' approach can be categorized as: ***devolved experimentation***. As compared to Malaysia and Indonesia, the Philippines are more advanced in providing a mandate to local Governments to manage their own resources, and the approach satisfies five requirements get firth for successful CZM practices:

- (i) adequate existing local knowledge;
- (ii) the ability to recognize resource problems and effectively mobilize resources;
- (iii) the skills and knowledge to assess community conditions and determine readiness for extended self-management;
- (iv) knowledge and skills associated with planning and implementation; and
- (v) the political and legal authority to encourage compliance with both laws and resource user group rules of self-governance and to identify and sanction non-compliance.

The examination of decentralized CZM approaches of the three States suggests that creating and maintaining enabling conditions that allow local units of administration or non-Government organizations to take more responsibility is a vital success factor. Indeed, decentralized CZM requires greater concern for, and understanding of, the relationships among stakeholders ¹⁸.

Furthermore, State practice also indicates the importance of the central Government (especially line ministry) as crucial actor in promoting the decentralized CZM. The crucial roles of the central Government in decentralized CZM are to promote and provide capacity building for all levels of Governments and civil society, and to ensure the progress of building durable institutions beyond leadership change. The experience of Indonesia and the Philippines clearly demonstrate critical role of the central Government institutions in successful decentralized policy implementation. In Indonesia, central Ministries and agencies, such as MMAF, Ministry of Home Affairs, Ministry of Finance, and National Planning and Development Agency (Bappenas), as well as the newly established Regional Autonomy

Review Board (DPOD), are key player in decentralized CZM. Similarly, the Pilipino decentralized coastal policy benefits from central level organizations, such as the Department of Environment and Natural Resources, National Economic and Development Authority, Department of Budget and Management, and Department of Interior.

Indonesia and Pilipino experiences also reaffirm the significance of people-oriented, community-oriented and resource-based principles. These principles are related to the involvement of various stakeholders through to idea of shared responsibilities and authorities. By applying these principles, it is useful to prioritize partnerships among local Governments, related stakeholders and communities which are essential in a State with the diversity of Malaysia, Indonesia and the Philippines. The Pilipino experience also demonstrates that a share of the responsibilities in managing coastal zone makes for better decentralized CZM. This approach is called co-management ¹⁸⁴, specifically, and is an alternative solution for managing natural resources which has had some successes in its application 2, 6, 78, 184-195.

Co-management can be very empowering for communities just entering the democratization process, such as Indonesia which is in the process of adjusting to a new social and political environment after three decades of centralized governmental control. Co-management allows for learning and adaptation processes for communities and a broad range of stakeholders. It also empowers them to participate equally in negotiation and management decisions, and ensures room for all to “negotiate from strength rather than from an underdog position” ¹⁹⁶. This is an important element of empowerment and durable institutions building, particularly through leadership change.

However, self-regulation and active participation in local management strategies at the local community level have not yet occurred in Indonesia. This must change so as to ensure a significant improvement in community and stakeholder involvement in CZM processes. Empowerment and the adjustment of community and stakeholder roles in decision-making process are important factors for local communities in addressing evolving Indonesian policy on CZM.

Finally, there is a need for further identification of the enabling and constraining issues in the implementation of both decentralized policy and co-management approach. Further examination of the appropriate indicators for measuring the effectiveness of decentralized coastal management and co-management approaches will be useful in assessing the success of, and adjusting accordingly, the implementation of these two important approaches.

5 REFERENCES

- 1 UP-MSI, ABC, ARCBC, DENR and ASEAN, Marine Protected Areas in Southeast Asia., (Los Baños, Philippines 2002), p. 142 pp 10 maps.
- 2 R. S. Pomeroy, "Community-based and co-management institutions for sustainable coastal fisheries management in Southeast Asia" (1995) 27 Ocean & Coastal Management 143-162.
- 3 J. Alm and R. Bahl, Decentralization in Indonesia : Prospect and problems. PEG Report No. 12, ECG, USAID/Jakarta, (Atlanta 1999), p. 55.
- 4 R. Dahuri and I. M. Dutton, Integrated coastal marine management enters a new era in Indonesia, vol. 2005, (Narragansett 2000), pp. 11 - 16.
- 5 Central Intelligence Agency, South East Asia, *The World Factbook*, vol. 2007d, (Washington D.C 2007).
- 6 B. Crawford, I. M. Dutton, C. Rotinsulu and L. Z. Hale, Community-based Coastal Resources Management in Indonesia: Examples and Initial Lessons from North Sulawesi, In I. Dight, R. Kenchington and J. Baldwin (eds.), *International Tropical Marine Ecosystems Management Symposium (ITMEMS)*, (Townsville, Australia. 1998).
- 7 R. Dahuri, Coastal zone management and transmigration in Indonesia, *International Workshop on Integrated Coastal Management in Tropical Developing Countries: Lessons Learned from Successes and Failures*, vol. 2005, (Xiamen, Peoples Republic of China 1996), pp. 11 - 16.
- 8 R. Dahuri, J. Rais, S. P. Ginting and M. Sitepu, *Pengelolaan sumber daya wilayah pesisir dan lautan secara terpadu*, Cet. 1. ed., (Jakarta 1995), pp. xxiv, 305.
- 9 R. G. Hildreth and M. Gale, Institutional and legal arrangements for coastal management in the Asia Pacific Region., In K. H. a. I. M. Dutton (ed.), *Coastal management in the Asia-Pacific region: Issues and approaches*, (Tokyo 1995).
- 10 Andiko and R. Seprasia, Nagari Punggasan, In Z. Pador (ed.), *Kembali ke Nagari: Batuka Baruak jo Cigak*, (Padang 2002), pp. 89 - 126.
- 11 I. Idris and H. Y. Siry, Indonesian Integrated Coastal Zone Planning and Management : An Institutional Perspectives. Paper prepared at Regional Workshop on Partnerships in the Application of Integrated Coastal Management, 12 - 15 November 1997, Chon Buri, Thailand., (Jakarta 1997), p. 12.
- 12 R. Indrawasih, A. Wahyono and D. S. Adhuri, Pengelolaan Sumberdaya Laut di Kabupaten Bangka Belitung, In D. S. Adhuri and R. Indrawasih (eds.), *Pengelolaan sumber daya alam secara terpadu (co-management sumberdaya alam) : pelajaran dari praktek pengelolaan sumberdaya laut di Bangka-Belitung, Jawa Tengah dan Jawa Timur serta pengelolaan Taman Nasional Lore Lindu di Sulawesi Tengah*, (Jakarta 2003), pp. 20 - 87.
- 13 Kusnadi, *Akar kemiskinan nelayan*, (Yogyakarta 2003).
- 14 Kusnadi, *Polemik kemiskinan nelayan*, (Bantul 2004).

- 15 Z. Pador and F. Zakir, Pola Partisipatif: Alternatif Kembali ke Sistem Nagari, In Z. Pador (ed.), *Kembali ke Nagari: Batuka Baruak jo Cigak*, (Padang 2002), pp. 89 - 126.
- 16 H. Y. Siry, A comparative study of the Negeri Serantau (Malaysia and Indonesia) on decentralization and community-based approach in coastal zone management., *Third International Convention of Asia Scholars*, (Singapore 2003).
- 17 H. Y. Siry, Challenges for Community-Based and Co-management Approaches in Coastal Zone Management in Indonesia, *The 6th Doctoral Students Conference, Moving Toward a Sustainable Future: Multidisciplinary Perspectives from the Pacific Rim*, (University of Oregon, Eugene, USA 2005).
- 18 H. Y. Siry, "Decentralized coastal zone management in Malaysia and Indonesia: A comparative perspective" (2006) 34 *Coastal Management* 267-285
- 19 R. J. Bennet, *Decentralization: Local Governments and Markets: Toward a Post Welfare Agenda*, (London 1990).
- 20 Commonwealth Secretariat, *Decentralisation for Development: A Bibliography*, (London 1983).
- 21 D. Conyers, "Decentralisation: the latest fashion in development administration?" (1983) 3 *Public Administration and Development* 97- 109.
- 22 N. Devas, "Indonesia: what do we mean by decentralization?" (1997) 17 *Public Administration and Development* 351-367.
- 23 J. Lauglo, "Forms decentralisation and their implications for education" (1995) 31 *Comparative Education* 5 - 29.
- 24 P. Mawhood, *Local government in the Third World : the experience of tropical Africa*, (Chichester West Sussex ; New York 1983), pp. xiii, 261.
- 25 P. Mawhood, *Up-grading regional centres in the Indonesian administration : a report to the Government of Indonesia*, (Birmingham 1986), p. 43.
- 26 D. A. Rondinelli and G. S. Cheema, Implementing decentralization policies: An introduction, In G. S. Cheema and D. A. Rondinelli (eds.), *Decentralization and Development: Policy Implementation in Developing Countries*, (Baverly Hills 1983), pp. 1 - 34.
- 27 D. A. Rondinelli and J. R. Nellis, "Assessing decentralization policies in developing countries: the case of some cautious optimism " (1986) 4 *Development Policy Review* 3 - 23.
- 28 J. Samoff, "Decentralisation: the politic of intervention" (1990) 21 *Development and Change* 513 - 530.
- 29 B. C. Smith, *Decentralization: The Territorial Dimension of the State*, (London 1985).
- 30 A. Kumssa, J. Edralin and W. O. Oyugi, A Needs Assessment Mission Report on Capacity Development in Local Governance: Africa-Asia Co-operation, (New York 2003), p. 43.
- 31 A. Agrawal, "The regulatory community: Decentralization and the environment in the van of *panchayats* (forest council) of Kumaon" (2001) 21 *Mountain Research and Development* 208 - 211.

- 32 A. Agrawal and C. C. Gibson (eds), *Communities and Nature: Ethnicity, Gender and the State in Community-based Conservation* (Piscataway, N.J 2001).
- 33 A. Agrawal and J. C. Ribot, "Accountability in decentralization: a framework with South Asian and African cases" (1999) 33 *Journal of Developing Areas* 473 - 502.
- 34 A. E. Ahmed and J. S. Mbwambo, Does decentralization have a positive impact on the use of natural resources?, *Term Paper for the Interdisciplinary Course, International Doctoral Studies*, (Bonn 2004), p. 22.
- 35 N. Bazaara, Decentralization, politics and environment in Uganda, *Environmental Governance in Africa Working Paper No. 7*, (Washington, D.C 2003).
- 36 T. A. Benjaminsen, "Natural resource management, paradigm shifts, and the decentralization reform in Mali" (1997) 25 *Human Ecology* 121 - 143.
- 37 P. Bigombe-Logo, The decentralized forestry taxation system in Cameroon: Local management and state logic, *Environmental Governance in Africa Working Paper No. 10*, (Washington, D.C 2003).
- 38 D. Brown, Principles and practice of forest comanagement: Evidence from west-central Africa, *European Union Tropical Forestry Paper No. 2*, (London 1999).
- 39 I. A. P. Resosudarmo, Closer to people and trees: Will decentralization work for the people and the forests of Indonesia?, In J. C. Ribot and A. M. Larson (eds.), *Decentralization of natural resources: Experiences in Africa, Asia and Latin America*, (London 2004).
- 40 J. C. Ribot, "Democratic decentralization of natural resources: Institutional choice and discretionary powers in sub-Saharan Africa" (2003) 23 *Public Administration and Development*
- 41 J. C. Ribot, *Waiting for Democracy: The Politic of Choice in Natural Resource Decentralization*, (Washington, D.C 2004).
- 42 J. C. Ribot and A. M. Larson, *Decentralization of natural resources: Experiences in Africa, Asia and Latin America*, (London 2004).
- 43 J. C. Ribot, "Democratic decentralisation of natural resources: institutional choice and discretionary power transfers in Sub-Saharan Africa" (2003) 23 *Public Administration and Development* 53-65.
- 44 J. Faguet, Decentralization and Local Government Performance, *Technical Consultation on Decentralization*, (Rome 1997), p. 21.
- 45 G. S. Cheema and D. A. Rondinelli, *Decentralization and development : policy implementation in developing countries*, (Beverly Hills 1983), p. 319.
- 46 United Nations, *Decentralization for national and local development. ST/TAO/M/19 United Nations*, (New York 1962), p. 246.
- 47 World Bank, Decentralization and Subnational Regional Economics-What, Why and Where, In World Bank (ed.), *Decentralization and Subnational Regional Economics*, vol. 2006a, (Washington D.C 2006a).

- 48 A. B. Brillantes, Jr., *Public Sector Reform and Poverty Reduction in Developing Asia.*, (Manila 2001).
- 49 A. Farazmand, *Administrative reform in developing nations*, (Westport, Connecticut 2002), pp. x, 269.
- 50 UNDP, *Decentralized Governance Programme: Strengthening Capacity for People-Centred Development*, vol. 2004, (New York 1997).
- 51 UNDP, *Empowering People-A Guide to Participation. Civil Society Organizations and Participation Program (CSOPP)*, vol. 2004, (New York 1998).
- 52 UNDP, *Factors to Consider in Designing Decentralised Governance Policies and Programmes to Achieve Sustainable People-Centred Development* vol. 2005, (New York 1998a).
- 53 UNDP, *Decentralized Governance Country Thematic Assessment Framework and Guidelines (Draft Work in Progress)*, vol. 2004, (New York 1998b).
- 54 United Nations, *Report of the United Nations Global Forum on Innovative Policies and Practices in Local Governance*, Gothenburg, Sweden, 23-27 September 1996, ref St/Tcd/Ser.E/46, p. 41, (New York 1996).
- 55 M. J. Balogun, "The scope for popular participation in decentralization, community governance, and development: Towards a new paradigm of centreperiphery relations" (2000) 21 *Regional Development Dialogue* 153 - 173.
- 56 N. Devas and U. Grant, "Local government decision-making - citizen participation and local accountability: some evidence from Kenya and Uganda" (2003) 23 *Public Administration and Development* 307-316.
- 57 A. Farazmand, *Modern systems of government : exploring the role of bureaucrats and politicians*, (Thousand Oaks, California. 1997), pp. xviii, 318.
- 58 N. Mokhsen, *Decentralization in Indonesia*, *Research School of Pacific and Asian Studies (RSPAS)* (Canberra 2003), pp. xiii, 302.
- 59 O. Azfar, S. Kahkonen and P. Meagher, *Conditions for Effective Decentralized Governance: A Synthesis of Research Findings*, (College Park 2001), p. 83.
- 60 R. J. May, A. J. Regan and A. Ley, *Political decentralisation in a new state : the experience of provincial government in Papua New Guinea*, (Bathurst, N.S.W., Australia 1997), pp. xi, 431 p.
- 61 I. Scott, "Changing concept of decentralization: old public administration and new public management in teh Asian context" (1997) 18 *Asian Journal of Public Administration* 3 - 21.
- 62 M. M. Turner and D. Hulme, *Governance, administration, and development : making the state work*, (West Hartford, CT 1997), pp. xv, 272.
- 63 UNDP-Government of Germany, *Decentralization: A Sampling Definitions*, (New York 1999).

- 64 D. A. Rondinelli, J. R. Nellis and G. S. Cheema, *Decentralization in developing countries : a review of recent experience*, (Washington, D.C., U.S.A. 1983), p. 93.
- 65 K. Fukasaku and R. Hausmann, *Democracy, decentralisation and deficits in Latin America*, (Paris, France 1998), p. 215.
- 66 P. Smoke, *Beyond Normative Models and Development Trends: Strategic Design and Implementation of Decentralization in Developing Countries*, (New York 2000), p. 33.
- 67 S. J. Burki, G. Perry and W. R. Dillinger, *Beyond the center : decentralizing the State*, (Washington, D.C. 1999), pp. ix, 105 p.
- 68 World Bank, *Entering the 21st century*, (New York 2000), pp. ix, 300.
- 69 N. Mokhsen, *Decentralization in Indonesia*, (2003), pp. xiii, 302.
- 70 World Bank, *Alternative Service Delivery Mechanisms*, In World Bank (ed.), *Decentralization and Subnational Regional Economics*, vol. 2006b, (Washington D.C 2006b).
- 71 R. Ford and D. Zussman (eds.), *Alternative Service Delivery: Sharing Governance in Canada*, (Toronto 1997).
- 72 B. Carter, *Coastal environments : an introduction to the physical, ecological, and cultural systems of coastlines*, (London ; New York 1988), pp. xv, 617.
- 73 J. R. Clark, *Coastal zone management handbook*, (Boca Raton, FL 1996), p. 694.
- 74 R. Kay and J. Alder, *Coastal planning and management*, 2nd ed., (London ; New York 2005), pp. xix, 380 p.
- 75 C. D. Woodroffe, *Coasts : form, process and evolution*, (Cambridge, U.K. ; New York 2002), pp. xiv, 623.
- 76 R. Kay and J. Alder, *Coastal Planning and Management*, 2nd ed., (London and New York 2005).
- 77 I. M. Dutton and K. Hotta, Introduction, In K. Hotta and I. M. Dutton (eds.), *Coastal management in the Asia-Pacific region: Issues and approaches*, (Tokyo 1995).
- 78 R. S. Pomeroy, Traditional base for fisheries development: Revitalizing traditional community-based resource management systems in Southeast Asia, In G. Robin South (ed.), *Traditional Marine Tenure and Sustainable Management of Marine Resources in Asia and the Pacific*, (Suva 1994).
- 79 UNEP, *Asia Pacific Environment Outlook 2*, (Bangkok 2001).
- 80 UNEP RRCAP, *Sustainable Development Priorities for Southeast Asia*, (Bangkok 2004).
- 81 Z. Adeel and R. S. Pomeroy, "Assessment and management of mangrove ecosystems in developing countries" (2002) 16 Trees 235-238.
- 82 L. S. Burke and M. Spalding, *Reefs at Risk in Southeast Asia*, vol. 2004, (Washington D.C 2002).
- 83 Millersville University of Pennsylvania, Lecture handout on "The Coastal Ocean", Course ESCI 104, vol. 2006, (2006).

- 84 B. Cicin-Sain and R. W. Knecht, *Integrated coastal and ocean management: Concepts and practices*, (Washington, DC and Covelo, CA 1998).
- 85 Government of Indonesia, *Law No 22/1999 on Regional Government (Regional Autonomy). Undang-undang Republik Indonesia Nomor 32 tahun 2004 tentang Pemerintahan Daerah*, (Jakarta 1999a).
- 86 Government of Indonesia, *Law No 32/2004 on Regional Governance. Undang-undang Republik Indonesia Nomor 32 tahun 2004 tentang Pemerintahan Daerah*, (Jakarta 2004a).
- 87 P. Christie, "Introduction to the integrated coastal management sustainability research project theme issue" (2005a) 48 *Ocean & Coastal Management* 205-207.
- 88 P. Christie, "Is Integrated Coastal Management Sustainable?" (2005b) 48 *Ocean & Coastal Management* 208-232.
- 89 C. A. Courtney and A. T. White, "Integrated coastal management in the Philippine: Testing new paradigms" (2000) 28 *Coastal Management* 39-53.
- 90 EPU and DANCED, *Integrated Coastal Zone Management, Status Document.*, (Kuala Lumpur 1999), p. Various.
- 91 M. B. Mokhtar and S. A. G. Aziz. , *Integrated Coastal Zone Management Using the Ecosystem Approach: Some Perspectives in Malaysia. Report of Research Grant No. XX-3-2001*, (Bangi 2002), p. 14.
- 92 J. M. Patlis, R. Dahuri, M. Knight and J. Tulungen, "Integrated coastal management in a decentralized Indonesia: How it can work" (2001) 4 *Jurnal Pesisir dan Lautan* 24 -39.
- 93 J. Sorensen, "The international proliferation of integrated coastal zone management efforts" (1993) 21 *Ocean & Coastal Management* 45-80.
- 94 J. Sorensen, "The international coastal and ocean organization (ICO)" (1993) 21 *Ocean & Coastal Management* 368-370.
- 95 A. Vallega, "From Rio to Johannesburg: The role of coastal GIS" (2005) 48 *Ocean & Coastal Management* 588-618.
- 96 A. T. White, P. Christie, H. D'Agnes, K. Lowry and N. Milne, "Designing ICM projects for sustainability: Lessons from the Philippines and Indonesia" (2005) 48 *Ocean & Coastal Management* 271-296.
- 97 Secretariat WCC 93, *Preparing to Meet the Coastal Challenges of the 21st Century. Report of the World Coast Conference 1993*, (The Hague 1994), p. 59.
- 98 J. Sorensen, *Baseline 2000: Background Report - The Status of Integrated Coastal Management as an International Practice*, (Boston 2000.).
- 99 P. Christie and A. T. White, "Trends in development of coastal area management in tropical countries: from central to community orientation" (1997) 25 *Coastal Management* 155-181.
- 100 C. Thia-Eng, *Coastal strategy: A holistic, integrative approach for sustainable coastal development, The Coastal Zone Asia Pacific conference (CZAP 2002)*, (Bangkok, Thailand 2002).

- 101 S. Westmacott, "Where should the focus be in topical integrated coastal management?" (2002) 30 Coastal Management 67 -84.
- 102 C. Thia-Eng, "Lessons learned from practicing integrated coastal management in South East Asia" (1998) 27 Ambio 599-610.
- 103 C. Thia-Eng and L. R. Garces, "Regional efforts in the management of the coastal and marine environments in the asean region" (1993) 19 Ocean & Coastal Management 190-195.
- 104 F. Berkes, R. Mahon, P. McConney, R. Pollnac and R. Pomeroy, *Managing Small-scale Fisheries: Alternative Directions and Methods*, (Ottawa 2001).
- 105 J. Tobey and R. Volk, "Learning frontiers in the practice of integrated coastal management" (2002) 30 Coastal Management 285-298.
- 106 S. R. Tyler, *in focus: Comanagement of natural resources : local learning for poverty reduction*, (Ottawa 2006), p. 104.
- 107 K. Lowry, Decentralized Coastal Management, *Working Paper Proyek Pesisir*, (Jakarta 2000).
- 108 A. Satria and Y. Matsuda, "Decentralization of fisheries management in Indonesia" (2004) 28 Marine Policy 437-450.
- 109 R. S. Pomeroy and M. J. Williams, Fisheries co-management and smallscale fisheries: a policy brief, (Makati 1994).
- 110 World Bank, World Development Indicators Database, April 2006 vol. 2006, (Washington 2006c).
- 111 V. Kanapathy, Industrial Restructuring in Malaysia: Policy Shifts and the Promotion of New Sources of Growth, In S. Masuyama, D. Vandebrink and S. Y. Chia (eds.), *Industrial Restructuring in East Asia*, (Singapore 2000), pp. 139-165.
- 112 P. Athukorala, *Crisis and Recovery in Malaysia: The Role of Capital Controls*, (Cheltenham 2001).
- 113 Central Intelligence Agency, Malaysia, *The World Factbook*, vol. 2007b, (Washington D.C 2007).
- 114 Office of the Prime Minister of Malaysia, Vision 2020, vol. 2006, (Putra Jaya 1991).
- 115 J. E. Ong and W. K. Gong, *The Seas*, vol. 6., (Singapore 2001), p. 144.
- 116 M. F. M. Amin, Fossil Fuel (oil and Gas). Scenario for Malaysia, *Seminar on National Convention for Energy Professionals 3. "Achieving Sustainable Development through Fossil Fuel Conservation"*, (Kuala Lumpur 2005).
- 117 H. B. Ahmad, Socio-economic Issues in the Management of Coastal Fisheries in Malaysia, *Symposium on Socio-economic Issues in Coastal Fisheries Management*, 1994/8 ed., (Bangkok 1994), pp. 130 - 137.
- 118 M. N. Basiron, Malaysia's experience in the development of a national ocean policy, In F. M. Yusoff, M. Shariff, H. M. Ibrahi, S. G. Tan and S. Y. Tai (eds.), *Tropical Marine Environment: Charting Strategies for the Millenium*, (Serdang 2002), pp. 53-60.

- 119 B. Cicin-Sain, R. W. Knecht, D. Jang and G. W. Fisk, *Integrated coastal and ocean management : concepts and practices*, (Washington, D.C. 1998), pp. xxvi, 517 p.
- 120 FAO, Fishery Country Profile: Malaysia, *FID/CP/MAL*, (Rome 2001).
- 121 J. Yahaya, Fish Aggregating Devices (FADs) and community-based Fisheries Management in Malaysia, In I.-P. F. Commission (ed.), *Symposium on Socio-economic Issues in Coastal Fisheries Management*, (Bangkok, Thailand 1993), pp. 315 - 326.
- 122 M. B. Mokhtar and S. A. A. Ghani Aziz, "Integrated coastal zone management using the ecosystems approach, some perspectives in Malaysia" (2003) 46 *Ocean & Coastal Management* 407-419.
- 123 Coast Conservation Department, Coastal Zone Management Plan, Sri Lanka 1997, (Colombo 1997).
- 124 S. B. Olsen, "Frameworks and indicators for assessing progress in integrated coastal management initiatives" (2003) 46 *Ocean & Coastal Management* 347-361.
- 125 A. R. H. Ahmad, Public Access To Beaches: An Issue In Coastal Management In Malaysia?, (Kuala Lumpur 2001).
- 126 ASEAN-USAID CRMP, The coastal environmental profile of South Johore, Malaysia. ICLARM Tech. Rep. No. 24, (Manila 1991).
- 127 ICZM Sabah, Sabah Coastal Zone Profile, 1998, vol. 2002, (Sabah 2002).
- 128 A. H. Saharuddin, "National ocean policy--new opportunities for Malaysian ocean development" (2001) 25 *Marine Policy* 427-436.
- 129 M. N. Basiron, "The implementation of Chapter 17 of Agenda 21 in Malaysia challenges and opportunities" (1998) 41 *Ocean & Coastal Management* 1-17.
- 130 N. A. Sloan and A. Sugandhy, "An overview of Indonesian coastal environmental management" (1994) 22 *Coastal Management* 215-233.
- 131 T. Tomascik, *The ecology of the Indonesian seas*, (Hong Kong 1997), pp. xiv, 642.
- 132 A. Nasution, Meltdown of the Indonesian Economy: Causes, Impacts, Responses, and Lessons, In A. L. Smith (ed.), *Gus Dur and the Indonesian Economy*, (Singapore 2001), pp. 25-48.
- 133 Central Intelligence Agency, Indonesia, *The World Factbook*, vol. 2007a, (Washington D.C 2007).
- 134 P. Smoke, The rules of the intergovernmental game in East Asia: Comparing decentralization frameworks and processes, *Decentralization in East Asia and the Pacific: Making Local Government Work* (Washington D.C 2005).
- 135 M. K. Moosa, Indonesian Marine and Coastal Biological Diversity : A Country Report, *The Marine and Coastal Biodiversity Experts Meeting*, (Jakarta, Indonesia 1997).
- 136 R. Dahuri, *Pengelolaan sumber daya wilayah pesisir dan lautan secara terpadu*, Cet. 1. ed., (Jakarta 1996), pp. xxiv, 305.

- 137 R. Dahuri and I. M. Dutton, Integrated coastal marine management enters a new era in Indonesia, vol. 2005, (Narragansett 2000), pp. 11 - 16.
- 138 J. Alder, N. Sloan and H. Uktolseya, "Advances in marine protected area management in Indonesia: 1988-1993" (1994a) 25 Ocean & Coastal Management 63-75.
- 139 J. Alder, N. A. Sloan and H. Uktolseya, "A comparison of management planning and implementation in three Indonesian marine protected areas" (1994b) 24 Ocean & Coastal Management 179-198.
- 140 M. Kusumaatmadja and T. H. Purwaka, "Legal and institutional aspects of coastal zone management in Indonesia" (1996) 20 Marine Policy 63-86.
- 141 J. Patlis, M. Knight, D. Silalahi, S. P. Ginting, W. Siahaan, G. Hendrarsa and A. Wiyana, The process of developing Coastal Resource Management Laws, In M. Knight and S. Tighe (eds.), *Coastal Legal Reform Series* (Narragansett, RI 2003).
- 142 T. H. Purwaka, Policy on marine and coastal resource development planning. Occasional Paper Series No. 8, (Bandung 1995.).
- 143 H. E. Fox, P. J. Mous, J. S. Pet, A. H. Muljadi and R. L. Caldwell, "Experimental assessment of coral reef rehabilitation following blast fishing" (2005) 19 Conservation Biology 98-107.
- 144 S. Putra, Conflicts of Coastal Management in North Sulawesi, *TESAG*, (Townsville 2003), p. 233.
- 145 C. Bailey, *Government Protection of Traditional Resource Use Rights-The Case of Indonesian Fisheries*, (Bloomfield 1986).
- 146 M. R. Rasyid, The policy of decentralization in Indonesia, *The GSU Conference, 'Can Decentralization Help Rebuild Indonesia?'* (Atlanta, USA 2002).
- 147 N. M. R. Abdullah, K. K. Viswanathan and R. S. Pomeroy, "Transaction costs and fisheries co-management" (1998) 13 Marine Resource Economic 103 - 114.
- 148 ASEAN-USAID CRMP and DGF, The Integrated Management Plan for Segara Anakan-Cilacap, Central Java, Indonesia. ICLARM Tech. Rep. No. 34, (Manila 1992).
- 149 J. Rais, Marine Resource Evaluation and Planning Project for an integrated coastal zone planning and management in Indonesia, In Secretariat WCC 93 (ed.), (The Hague 1993).
- 150 A. Soegiarto, Integrated coastal zone management in Indonesia: problems and plans of action, *International Workshop on Integrated Coastal Management in Tropical Developing Countries: Lessons Learned from Successes and Failures*, (Xiamen, Peoples Republic of China 1996).
- 151 T. Soendoro, The Indonesian experience in planning and management of coastal zone through MREP project, *The IOC-WESTPAC Third International Scientific Symposium*, (Bali, Indonesia 1994).
- 152 W. A. Pratikto, Learning through partnerships in the context of decentralized integrated coastal management policy in Indonesia, *Forum Kemitraan Bahari 2001*, (Jakarta 2001).

- 153 UNDP, Empowering People-A Guide to Participation. Civil Society Organizations and Participation Program (CSOPP), vol. 2004, (New York 1998c).
- 154 N. Uphoff, Community-based natural resource management: Connecting micro and macro processes, and people with their environments, *International CBNRM Workshop*, (Washington D.C 1998).
- 155 J. Haba and L. Mulyani (eds.), *Nagari dan Krama Desa: Studi mengenai pemilihan struktur antara perilaku elit dan masyarakat lokal di Sumatera Barat dan Nusa Tenggara Barat*, (Jakarta 2001).
- 156 K. Ruddle, "External forces and changes in traditional community-based fishery management system in the Asia Pacific Region" (1993) 6 *Maritime Anthropological Studies* 1-37.
- 157 I. M. Dutton, If only fish could vote: The enduring challenges of coastal and marine resources management in post-Reformasi Indonesia, In B. P. Resosudarmo (ed.), *The politics and economics of Indonesia's Natural Resources*, (Singapore 2005), pp. 162 - 178.
- 158 MMAF, The Need for a new Coastal Zone and Small Island Management Act in National Sustainable Development, (Jakarta 2002), p. 4.
- 159 S. Hasan, Personal communication. Staff at Directorate of Coastal Affairs, Directorate General for Coastal and Small Island, and Core Team for RUU Pesisir., (Jakarta 2003).
- 160 Central Intelligence Agency, Philippines, *The World Factbook*, vol. 2007c, (Washington D.C 2007).
- 161 Wikipedia contributors, Philippines, *Wikipedia, The Free Encyclopedia.* , vol. 2007c, (2007).
- 162 A. T. White and A. Cruz-Trinidad, The values of Philippine coastal resources: Why protection and management are critical., (Cebu City, Philippines 1998).
- 163 G. L. Jacinto, P. M. Alino, C. L. Villanoy, L. Talaue-McManus and E. D. Gomez, The Philippines, In C. Sheppard (ed.), *Seas of the Millennium: An environmental evaluation*, (Oxford 2000), pp. 405-423.
- 164 M. Spalding, C. Ravilious and E. Green, *World Atlas of Coral Reefs*, (Berkeley, CA 2001).
- 165 M. Fortes, Seagrass resources of ASEAN, In C. R. Wilkinson (ed.), *Living Coastal Resources of Southeast Asia: Status and Management*, (Townsville 1994), pp. 106-109.
- 166 E. D. Gomez, P. M. Alino, H. T. Yap and W. Y. Licuanan, "A review of the Philippine reefs" (1994) 29 *Marine Pollution Bulletin* 62-68.
- 167 World Bank, Philippines: Environment and natural resources management study. Final Report, (Washington D.C 1989).
- 168 C. A. Courtney, A. T. White and E. Deguit, "Building Philippine local government capacity for coastal resource management" (2002) 30 *Coastal Management* 27-45.
- 169 M. Pajaro, F. Olano and B. San Juan, Documentation and review of marine protected areas in the Philippines: A preliminary report, (Manila 1999).

- 170 A. T. White, E. Deguit, W. Jatulan and L. Eisma-Osorio, "Integrated coastal management in Philippine local governance: evolution and benefits" (2006) 34 Coastal Management 287-302.
- 171 A. Kumssa, J. Edralin and W. O. Oyugi, A Needs Assessment Mission Report on Capacity Development in Local Governance: Africa-Asia Co-operation (New York 2004), p. 43.
- 172 UNESCAP, Local Government in Asia and the Pacific, (Bangkok, Thailand 1999).
- 173 A. B. Calestino, Malaysia. Does it really need decentralization, In A. B. Brillantes Jr and N. G. Cuachon (eds.), *Sourcebook on Decentralization in Asia. Decentralization and Power Shift: An Imperative For Good Governance*, vol. A Sourcebook on Decentralization Experiences In Asia,, (Manila 2001), pp. 121 - 130.
- 174 P. S. Nooi, *Financing Local Government in Malaysia*, (Kuala Lumpur 1997).
- 175 Y. M. A. Aziz, *Titik balik demokrasi dan otonomi : pikiran-pikiran kritis di saat krisis*, (Yogyakarta 2002).
- 176 E. Effendi, *Tuntutan itu masih menyala : delapan indikasi kuat otonomi daerah terancam gagal*, (Jakarta 2001).
- 177 H. Hendrawan, *Tinjauan kritis respon parlemen terhadap masalah otonomi daerah : bom waktu yang ditinggal*, Cet. 1. ed., (Jakarta 2001), pp. v, 62.
- 178 S. Hidayat, *Kegamangan otonomi daerah...?*, (Jakarta 2004).
- 179 H. D. Sudantoko, *Dilema otonomi daerah*, (Yogyakarta 2003).
- 180 O. Azfar, S. Kähkönen and P. Meagher, Conditions for Effective Decentralized Governance: A Synthesis Of Research Findings *IRIS Center, University of Maryland - The World Bank Working Paper No. 256*, (College Park, Maryland 2001), p. 81.
- 181 D. Kaufmann, A. Kraay and M. Mastruzzi, Governance Matters V: Governance Indicators for 1996-2005, *World Bank Policy Research*, vol. 2006, (Washington D.C 2005).
- 182 A. A. Hezri and M. N. Hasan, "Towards sustainable development? The evolution of environmental policy in Malaysia" (2006) 30 Natural Resources Forum 37-50.
- 183 C. Silver, "Do the donors have it right? Decentralisation and changing local governance in Indonesia" (2003) 37 Annals of Regional Science 421-434.
- 184 G. Borrini-Feyerabend, M. T. Farvar, J. C. Nguingiri and V. A. Ndangang, . Co-management of natural resources: Organising, negotiating and learning-by-doing, (Heidelberg 2000).
- 185 F. Berkes, *Common property resources : ecology and community-based sustainable development*, (London ; New York 1989), pp. x, 302.
- 186 F. Berkes, Property rights and coastal fisheries, In R. S. Pomeroy (ed.), *Community Management and Common Property of Coastal Fisheries in Asia and The Pacific: concepts, methods and experiences. . ICLARM Conference Proceeding 45*, (Mania 1994), pp. 51-62.
- 187 F. Berkes, Rethinking Community-Based Conservation. Draft Paper for Conservation Biology, (Manitoba 2003).

- 188 M. Butarbutar, I. Idris, S. Putra and H. Y. Siry, The Decentralization of integrated coastal and marine resource management, In J. Rais, I. M. Dutton, L. Pantimena, R. Dahuri and J. Plouffe (eds.), *International Symposium Integrated Coastal and Marine Resource Management*, (Batu Malang 1997), pp. 37-40.
- 189 B. R. Crawford, A. Siahainenia, C. Rotinsulu and A. Sukmara, "Compliance and enforcement of community-based coastal resource management regulation in North Sulawesi, Indonesia" (2004) 32 Coastal Management 39 - 50.
- 190 K. Crean, "Centralised and community-based fisheries management: case studies from two fisheries dependent archipelagos" (1999) 23 Marine Policy 243 -257.
- 191 G. Elliott, B. Mitchell, B. Wiltshire, A. Manan and S. Wismer, "Community participation in marine protected area management: Wakatobi National Park, Sulawesi, Indonesia" (2001) 29 Coastal Management 295 - 316.
- 192 D. C. Israel, Review of Methods for Assessing Community-based Coastal Resources Management in the Philippines, *Discussion Paper Series No. 2001-26.*, (Makati, Phillipines 2001).
- 193 K. Kuperan, N. M. R. Abdullah, R. S. Pomeroy, E. Genio and A. Salamanca, Measuring transaction costs of fisheries co-management. Paper presented at the Seventh Common Property Conference of the International Association for the Study of Common Property (IASCP) Conference in Vancouver, BC, Canada., (Manila 1998).
- 194 J. R. Nielsen, P. Degnbol, K. K. Viswanathan, M. Ahmed, M. Hara and N. M. R. Abdullah, "Fisheries co-management-an institutional innovation? Lessons from South East Asia and Southern Africa" (2004) 28 Marine Policy 151 - 160.
- 195 C. Thorburn, "Regime change-prospects for community-based resource management in post-New Order Indonesia" (2002) 15 Society and Natural Resources 617-28.
- 196 S. Jentoft, "Beyond fisheries management: The Phronetic dimension" (2006) 30 Marine Policy 671-680.