

Green Coast

For **nature** and **people**
after the tsunami



THE DOCUMENT OF ANALYSIS ON POLICIES FOR THE MANAGEMENT OF FISHERY AND MARINE RESOURCES OF NANGGROE ACEH DARUSSALAM PROVINCE



for a living planet



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FOREWORD

The wish of Government of Nanggroe Aceh Darussalam Province as well as various parties to make Aceh a Green Province through rehabilitation and reconstruction process after devastating earthquake and tsunami has been a positive breakthrough. Its natural resources such as forest and marine resources remain preserved including its biodiversity and other potentials to provide significant support to such a plan.

The genesis of Law No. 11/ 2006 on Governance of Aceh grants power to provide access and opportunity to accelerate the realization of Aceh as a Green Province. Action and commitment of Nanggroe Aceh Darussalam Governor are evidence for a strong desire to make the province green. Therefore, Aceh Government and other components have made every effort to organize and establish several policies holding high justice and sustainability principles. Without fully supports and policies which ensure Aceh moves on the right direction, the desire is possibly too hard to achieve.

This document, *Policies Analysis on Marine and Fishery Resources of Nanggroe Aceh Darussalam Province*, completed by WWF-Indonesia along with Wetlands International Indonesia Programme (WIIP) within Green Coast Program is one among initiatives expected to provide contribution to the establishment of Aceh as Green Province.

During its completion, this document had gone through a long process counting public consultation which involved multi-parties both governments and society at large. This document is expected to enable helping Aceh Government and Aceh Parliament in taking decision. The document can also be one of references in developing and producing policies, particularly those that relate to sustainable marine and fishery management across NAD Province's jurisdiction.

Banda Aceh, December 2007

CHAPTER I

PREFACE

A. Introduction

The high-scale tsunami hit on 26 December 2004 in Nanggroe Aceh Darussalam devastated heavily its coastal areas. The catastrophe did not only ruin infrastructures, settlements, and public facilities, but also took away hundred-thousands of human lives. It also destroyed a wide-ranged coastal ecosystem such as sea-water intrusion and muddy sediment over the vast areas, destruction of coral reef and coastal vegetations, shifts of coastline and wetland morphology. These biophysical devastations, in turn, are leading to social, economic, and cultural unrests.

In rehabilitating and reconstructing the ravaged areas are simply not straightforward and short-time efforts. On the other hand, it requires a strong commitment from multi-parties, a well-thought and precise planning and designing, and definitely a great deal of investment. The works ask for a long period and, during its implementation, both studies and assessments of multi dimensional aspects incorporating social, economic, cultural, environmental, ecological aspect should be altogether integrated in planning and implementation

One amongst the marine and fishery rehabilitation and reconstruction projects implemented in Aceh is the **Green Coast**. The project is organized as joint project between WWF, Wetlands International, Both ENDS and IUCN, whilst the financial sponsorship run by Oxfam Novib.. The project aims at protecting the uniqueness of coastal ecosystem and improving income of the coastal villagers. The main target is to recover coastal ecological functions and to provide sustainable income sources for the villagers struck by the tragedy. The project's outputs are to get coastal areas rehabilitated new or renewed income sources accessible, community's means of livelihood (mainly fishery and ecotourism) re-established, renewable resources through coastal communities' participative focusing on planning and women's roles become useable.

The executing of marine and fishery rehabilitating and reconstructing efforts unavoidably needs far-reaching appraisals, either on national level or local/regional one. The comprehensive policy assessments will uncover wheter or not the existing policies have been accommodating enough to regulate the efforts, or an additional policy required.

B. The followings are objectives of the analysis:

1. To analyze both government policies and marine customary laws (*hukum adat laot*) in managing marine and fishery resources.
2. To evaluate the relevance or significance between the policies and the customary laws dealing with the marine and fishery resources condition after tsunami.
3. To ensure the availability of coastal and marine resources management policies which incorporate sustainable livelihood for coastal villagers.

C. Focus and Parameter of the Policy Analysis

This analysis divides the period of laws into 2 (two) phases:

- a. Pre-tsunami. The phase splits into 2 phases:
 1. During a period of 1956-1998, the episode discerned authorities governing Aceh from its establishment through the period before the reformation era.
 2. During a period of 1999-2004, the episode was the preliminary period of decentralization or autonomy which local/regional governments owned greater portion of authority to administer marine and fishery resources.
- b. Post-Tsunami. Between 2004 and 2006 period.

During the episode, Law No. 11/2006 on Governance of Aceh issued as part of Helsinki peace treaty.

The analysis restricted to a set of parameters in order to achieve its objectives. Following are few of parameters set:

1. Do the policies put conservation principles forward?
2. Does the government have authority to control its marine and fishery resources?
3. Do the policies acknowledge marine customary rights on communities' management (*marine customary laws*)?
4. What is the proportion between the policies and the *marine customary laws*?

CHAPTER II

PROBLEMS IN MANAGING MARINE AND FISHERY

Administratively, the jurisdiction of Nanggroe Aceh Darussalam (NAD) Province is encircled by seas and ocean i.e. Malaka Straits and Andaman Sea in the North, Malaka Straits in the East, and Indonesian Ocean in the West and South. The coastal regions that stretch along 1,660 km covering up to 57,365.57 km². Earlier than the devastating tsunami, the province had enormously depended on three major resources, i.e. *renewable resources* (such as various kinds of fish and shrimps, seaweed, and *coast-culture* and *mariculture* activities); *non-renewable resources* include assorted kinds of minerals, petroleum oil and natural gas; *environmental services* contain tourism and transportation. (Dahuri, 2000; Halim, 2003).

Again, prior to the harmful catastrophe, the marine and fishery resources had played very important roles and been exploited more beyond the capacity, thus the rate of destruction come to a critical level. Such coastal ecosystem destruction has direct effects on quality degeneration of fishery habitat and aesthetic degradation of coastal environment as well. In addition, pollution and sedimentation result in serious threats as to more accumulative degradation of coastal ecosystem¹. Towards the end, all these impacts are responsible for decreasing local villagers' income.

Identification of existing problems precedes the analysis. There are at least two most important problems which are (1) *physical destruction of coastal ecology*; and (2) *social and institutional*. Both problems have been long recognized as primary constraints to the establishment of sustainable management of fishery and marine.

The following bullets are identified problems pertaining to the management of marine and coastal region in Nanggroe Aceh Darussalam:

- Destruction of coral reef and mangrove ecosystems.
- Sedimentation and coastal abrasion.
- Seawater pollution due to domestic and ships waste.

¹ In theory, there are two forms of regulations in managing marine and fishery resources, i.e. *open access* and *controlled access regulation*. *Open access* is regulation that permits fishermen to fish and exploit biodiversity any where and any time, no matter how much it is and what kind of device being used. This regulation is much like "law of the jungle" or "free market". Empirically, this regulation causes negative impacts such as *tragedy of common* either damage on marine and fishery resources or conflict among fishermen. The *controlled access regulation* is controlled regulations that can be (1) *input restriction*, i.e. to restrict number of actors, kind of boat, kind of fishing device; (2) *output restriction* i.e. to restrict amount of fishing crops by quota. One of the formulations of input restriction is *territorial use right* that puts high emphasis on *fishing right* in certain region with exact jurisdiction. *Fishing right system* allows the *fishing-right* holder to conduct fishing activity in a certain area while those without *fishing right* are not permitted to operate in that area. This regulation also manages schedule and device the fishing can be operated. A system that leading to parceling of sea places protection the importance of weak fishermen operating in the neighborhood of coastal areas and the importance of conservation. Law 11/2006 on Government of Aceh that specifies restrictions about jurisdiction of provincial sea (12 miles) and district/municipal (4 miles/one-third of the provincial jurisdiction) indicates that this law product is based on parceling of sea concept. That concept is an instrument of *controlled access regulation* in *territorial use right*. Law 11/2006 is basically an *entry point* implementation of *territorial use right* in Aceh.

- Practice of unfriendly catching devices, such as large trawling net (*pukat harimau*).
- Low human resources capacity in fishery and marine management.
- Lack of coaching and training intended for local fishermen.
- Overlap of authorities responsible for managing marine and fishery sector.
- Overlap of exploitation permits.
- Short of land-use planning for cultural events.
- Definite directive that regulating conversion mangrove forest areas intended for pond development not available.
- Conflicts between usage and different levels of authority (among sectors, among level of governments).
- Conflicts amongst fishermen groups (between traditional and modern fishermen).
- Low competence of governmental institutions and law enforcement.
- No financial institutions to provide loans and working capitals for fishermen groups, particularly the traditional ones who are poverty-stricken.
- A collaborative institution for government and other parties dealing with resources management of marine and fishery not available.

Thus, the crisis on account of tsunami stroke on 26 December 2004 added up a complete destruction to the entire state of Aceh's marine and its fishery. The Ministry of Environment affirmed negative impacts on coastal regions and the seas of NAD Province down to tsunami as follows:

- Coast and seas become polluted, including surface and ground water; coastline shifted.
- Loss of natural protection (mangrove) defending immediate areas from wave and wind and acting as spawning, nursery and feeding grounds for countless marine creatures counting fish as well.
- Coral reef providing shelter and spawning ground become polluted and spoiled.
- Loss of fish resources and coastal species (potential biodiversity).
- Wetlands ecosystem damaged; artificial ecosystem (cultivation, seaport, and local residence have been providing significant contribution to the local economy improvement) broken down.

The Rehabilitation and Reconstruction Agency (BRR) NAD-Nias the officially received-mandate institution to put into service the rehabilitating and reconstructing in Nias and Aceh released more specific data on coastal region destruction. According to the BRR, tsunami has generated mangrove forest destruction up to 174,590 ha, coral reef in so far as 19,000 ha, and coastal forest as many as 50,000 ha. In the meantime, Suryadiputra from Wetlands International Indonesia Programme (WIIP) in 2005 claimed that tsunami took place on wetlands in the NAD province (in particular, those located in south west, north west, and north coasts of Aceh), was greatly responsible for shifts of formation, size, water quality, and basic substratum. For instance, wetlands such rice field, freshwater swamp or ponds that in the past were deep and freshwater, currently shallow or even covered up with mud and get salty, and get contaminated with both organic and inorganic pollutants. Wetlands that formerly narrow, at present becoming a laguna with much wider, salty flooded area. In spite of this, Seumeulue Island experienced upturned incident. This land presumably lost some 25,000 ha of its coastal wetlands as the island was lifted up to 1 and 1.5 m, for that reason its coastline become shorter. Accordingly, scores of mangrove trees dried to death as the basic substratum no longer converged the water but had become hard as concrete.

CHAPTER III

ANALYSIS ON POLICIES FOR THE MANAGEMENT OF FISHERY AND MARINE RESOURCES OF NANGGROE ACEH DARUSSALAM PROVINCE

A. Pre-Tsunami (between 1956 and 2004 period)

1. During 1956 - 1998 Period

In Law No. 24/1956 -on The Establishment Of Autonomy For Aceh Province and Regulation Amendment Of North Sumatera Province Establishment-stipulated administrative jurisdiction of Aceh province², although not exactly pointed at its authority over waters territory. Thus far, according to the TZMKO (*Territoriale Zee en Maritime Kringen Ordonantie*), that had been developed since 1939, the authority for Indonesian waters was only as far as 3 miles away. In the progress, the regional territory has been changed in an adjustment to some new regulations and declaration such as Juanda Declaration in 1957, Law No.4 Prp/1960 on Indonesian Waters Territory, Law No. 17/1985 on the Assignment Of United Nations Convention on the Law of the Sea, and Law 6/1966 on Indonesian Waters.

Both TZMKO and Law No. 17/1985 give more emphasis on the size of Indonesian sea territory, while the utilization, management, and conservation of the seas environment regulated under Indonesian legislation regulations³. Regulations having power over Indonesian fishery are initially found in Law No. 9/1985 on Fishery which encompassed: (a.) Indonesian waters; (b.) Rivers, lakes, dams, swamps, and other basins within Indonesian Republic; (c.) Indonesian Exclusive Economy Zone. For that reason, the Indonesian fishery territory is more sizeable than the Indonesian waters territory.

During the period, Indonesian government released different policies to preside over regional authority. A number of Laws were established including Law No. 1/1957, Law No. 18/1965 on Regional Government. However, both Laws are not discussed in this study. The establishment of new order regime had given power to Law No. 5/1974 to be directives to the implementation of regional government for a quarter of century. The Law No. 5/1974 had put emphasis on sharing authority which adopted principles of deconcentration, decentralization, and provision of assistance.

In actual fact, the last two principles were more conspicuous and had forceful effect on the authority controlling by sector that in the period was very centralistic. The regional authority much more substituted for administrator of either decentralization or provision of assistance. The regional authority on marine and fishery resources was regulated via certain by-sector legislation regulations as shown in the following tables.

² Accordance with Law 24 / 1956, Aceh consisted of districts i.e. 1. Aceh Besar, 2. Pidie, 3. North Aceh, 4. East Aceh, 5. Central Aceh, 6. West Aceh, 7. South Aceh and Kutaraja Municipality.

³ Article 23, verses (1) Law 6 /1996 on Indonesian waters territory: Utilization, Management, Protection, and Conservation of Indonesian waters territory founded on both national and international laws and regulation.

Table 1. Matrix. The Local Government Authorities Over Marine and Fishery Resources Based on by Sector Laws

Law No. 24/1956 on Establishment of Autonomy of Aceh Province and Amandment on Establishment of North Sumatera Province		
Strategic Issue(s)	Content	Explanation
Conservation	Conservation during this period was not considered important and urgent, however several conservation areas were assigned by Dutch colonist.	Majority of the assigned areas are mainland conservation areas.
Local/Regional Authority	The Law clearly states that Aceh Government has authority, rights, tasks and obligations of fishing in the vicinity of coastal areas.	
Acknowledgment to customary laws-based local management rights		
Law No. 1/1973 on Indonesian Continental Shelf		
Strategic Issue(s)	Content	Explanation
Conservation	This Law stipulates that Indonesian Republic has sovereignty over natural resources on its continental shelf. In exploring, exploiting, scientific studying on the resources, the country is <i>obliged to</i> preventing seawater pollution as well as the air over it. In addition, marine reserve has to be under a protection.	
Local/Regional Authority	Not explicitly stated the authority of regional government in executing management on the continental shelf.	The law basically affirms internationally the Indonesian's sove-reignty over the continental shelf, and becomes fundamental justification to Indonesian's rights to manage it.
Acknowledgment to customary laws-based local management rights	It is normal that this issue is never conversed within the Law as it simply talks about the country's sovereignty over the continental shelf.	

Law No. 5/1974 on Basics of Regional Government

Strategic Issue(s)	Content	Explanation
Conservation	The issue is not regulated in the Law, but whether it is there or not the authority of regional government in conservation is regulated in by-sector laws.	
Local/Regional Authority	Regional governments as the executive responsible for carrying out principles of decentralization, deconcentration, and provision of assistance are regulated in by-sector legislation regulations.	During the period, by-sector legislation that regulating marine and fishery resources are widespread.
Acknowledgment to customary laws-based local management rights	The issue is relevant to this law.	

Law No. 5/1983 on Indonesian Exclusive Economic Zone

Strategic Issue(s)	Content	Explanation
Conservation	It clearly mentions that the state has power to conduct protection and conservation on its sea environment. Protection can be done through several methods, such as controlling permits, upholding rights to pollution cases within EEZ, and ensuring maximum, sustainable yields.	Implementation methods are based on by-sector laws.
Local/Regional Authority	Not regulated	
Acknowledgment to customary laws-based local management right	Not regulated	

Law No. 9/1985 on Fishery (withdrawn and replaced with Law No. 31/2004 on Fishery)

Strategic Issue(s)	Content	Explanation
Conservation	The law regulates the management of fishery resources. The Law states that the management shall be integrated and directed. Also, it mentioned about establishing sanctuary and reserve to protect endangered fishes.	

Local/Regional Authority	Regional government as the executive to implement principles of deconcentration and provision of assistance.	
Acknowledgment to customary laws-based local management rights	According to the law, management and organization of fishery resources are government's absolute domain. The government employs the same administration to all aspects of organization, so that no space allowed for customary laws.	
Law No. 5/1990 on Conservation of Bio-resources and the Ecosystem		
Strategic Issue(s)	Content	Explanation
Conservation	The law is to regulate conservation areas and conservation of each protected animal and plant including water conservation. There are three issues mainly discussed here, i.e. protection, preservation, and utilization. Regulations contained in the Law is applicable for both mainland and marine conservation.	Protection for protected species is further regulated in Government Regulations No. 7/ 1999.
Local/Regional Authority	Local authority act as the responsible executive of some the delegated affairs and tasks. Also, to conduct the provision of assistance from central government.	
Acknowledgment to customary laws-based local management rights	Acknowledgment is not explicitly mentioned, but if widely interpret, within a nature recreational areas is permitted cultural preservation activity.	
Law No. 21/1992 on Shipping		
Strategic Issue(s)	Content	Explanation
Conservation	In order to maintain marine and fishery resources, law maker has prepared particular Chapter on Preventing and Mitigating Pollutions by Ships. The chapter contains several rules as follows: <ul style="list-style-type: none"> ▪ Each ship is forbidden to dispose garbage or other substances other than decided conditions. ▪ Each ship being operated is obliged to be equipped with devices of contamination and pollution prevention as part of the condition to proper sailing. 	

	<ul style="list-style-type: none"> ▪ Each ship's captain and/or the crew is obliged to halt any kind of pollution sourced from his ship. ▪ Each ship's captain or other appointed leader is obliged to mitigate pollution sourced from his ship. ▪ Each ship's captain or other appointed leader is obliged to immediately report to the nearest authorities if there is pollution sourced from his ship . <p>The owner or ship's operator is responsible to any pollution or contamination derived from his ship.</p>	
Local/Regional Authority	There is no any article explains about delegated authority to regional government	In order to conduct the implementation of sailing, the Law provides opportunities to government to collaborate with state-owned enterprises.
Acknowledgment to customary laws-based local management rights	There is acknowledgement to community sailing.	

Law No. 24 /1992 on Spatial Planning (withdrawn and replaced with Law No.26/2007 on Spatial Planning)

Strategic Issue(s)	Content	Explanation
Conservation	The term space here is including land space, <i>sea or marine space</i> , and air space that are as one united areas, space for human race and other living creatures to perform activity and maintain the existence. The objective of this organization is to manage relations between various activities and the available space functions, so that quality space use is established. One of them is protection areas that contain conservation, rehabilitation, research, recreational objects, etc.	
Local/Regional Authority	The regional government has authority to design the spatial planning of its territory. The spatial planning includes land, marine, and water up to certain limits that all regulated in legislation regulations.	

Acknowledgment to customary laws-based local management rights	This issue is not relevant.	
Law No. 6/1996 on Indonesian Waters		
Strategic Issue(s)	Content	Explanation
Conservation	Utilization, management, protection, and conservation of Indonesian waters are conducted in reference to legitimate national legislation regulations and international laws.	
Local/Regional Authority	This issue is not relevant	
Acknowledgment to customary laws-based local management rights	This issue is not relevant	This law regulates the sovereignty, rights, obligations and authority of Indonesia regarding to the sove-reignty.
Law No. 23/1997 on Management of Environment		
Strategic Issue(s)	Content	Explanation
Conservation	Environment management is done integrated amongst spatial planning, protection of non-biological resources, artificial resources, <i>conservation of biodiversity resources and the ecosystem</i> , culture reserve, biodiversity, and climate change. The law has made every person obliged to maintain preservation, to prevent and mitigate pollution and destruction on the environment including marine environment.	
Local/Regional Authority	The involvement of regional government managing the regional environment through delegating mechanism some of central govt.'s liabilities to local government to become the local's domestic affairs.	
Acknowledgment to customary laws-based local management rights	National policies on management of environment and spatial planning keep on respecting religious values, traditional customs, and values living among the communities.	

**Governmental Regulation No. 15/1984 on Management of Biodiversity Resources
in Indonesian Exclusive Economic Zone**

Strategic Issue(s)	Content	Explanation
Conservation	To conserve biodiversity resources, this regulation has banned fishing activity within Indonesian EEZ using explosion, poison, electrification, harmful substance or device. In the framework of conservation, the regulation gives authority to Minister of Agriculture (currently Minister of Marine and Fishery) to assign allowable fishing yields by kinds or groups of biodiversity resources in partly or entire Indonesian EEZ. The quota is based on data from research, survey, evaluation and/or yields of fishing activities. Furthermore, the minister assigns allocation of fishing ships along with type of equipments of each ship by considering permitted quota.	
Local/Regional Authority	The regulation indicates that managing of biodiversity in EEZ is under the authority of central government.	
Acknowledgment to customary laws-based local management rights	Not regulated.	

**Governmental Regulation No. 15/1990 jo Governmental Regulation No.46 /1993
on Fishery Enterprise**

Strategic Issue(s)	Content	Explanation
Conservation	In order to control the fishery resources, therefore used controlling mechanism i.e. review on fishing assignment and or type of fishing device by the authority releasing the permits.	
Local/Regional Authority	1. Releasing Fishery Enterprise Permit (IUP) and Fishing Certificate (SPI) to fishery enterprises domiciled and have headquarters in its jurisdiction based on certain rules.	Permissible restrictions include fishing boats that without motor, or with external or internal motors but using no less than 30 GT or 90 HP, and no foreign capital and no workers involved.

	<ol style="list-style-type: none"> 2. Releasing Fishery Enterprise Permit (IUP) and Fishing Certificate (SPI) to fishery enterprises who conducting freshwater, brackish-water, and seawater fish farming that not using foreign capital or employing foreign people. 3. Obtaining retribution as much 2.5% of total sale of captured yields and 1% of total sale of fish farming that obtained permits from the local government. 4. Obtaining revenues as much 30 % central govt.'s fishery retributions. 	
Acknowledgment to customary laws-based local management rights	Not regulated.	
Governmental Regulation No. 68/1998 on Nature Sanctuary and Nature Preserve		
Strategic Issue(s)	Content	Explanation
Conservation	As implementation regulation of Law No. 5/1990, contains detailed rules on conservation areas management.	
Local/Regional Authority	Give consideration to assign buffer zone and nature sanctuaries.	
Acknowledgment to customary laws-based local management rights	Not regulated	

From the table above, it can be concluded three essential subtractions as the following lines:

1. In reference to legislation regulations above, throughout the episode, marine and fishery management extensively dominated by governmental departments/institutions such as Agriculture Dept., Indonesian Marine Corps/TNI-AL, Ministry of Environment, Forestry Dept., and Transportation Dept.
2. Regional/provincial power to conduct the management of its marine and fishery resources limited to authorization discharged by central government. Moreover, meticulous assessment on the government regulations/PP proved that the local/regional governments' power to release licenses permissible to local fishery industries

domiciled in the administrative region only. It is obviously that the power or authority received was not intended for controlling its marine territory.

3. Almost no acknowledgment to customary laws-based management during this period.

2. During 1999 - 2004 Period

The year 1999 was recognized as decentralization milestone with the genesis of Law No. 22/1999 on the subject of Regional Government. The law made radical alteration in Indonesian governance system. Several profoundly changing dimensions comprise:

1. Scheme. The historical format put much emphasis on efficiency and uniformity of regional government functioning, quite the reverse, the present format cracks down on democracy and diversity.
2. Centralization decadence. The new format stands up for decentralization.
3. Dependence and organization. The primarily deep-seated relationships between District and Provincial government was dependence and subordinate. A new and radical system ensures independence and coordination.
4. Responsibility distribution. The earlier sharing affairs method had been initiated with specifying regional (district or provincial) government dealings, but now it changed to firstly specifying all government dealings belong to the central government authority and next hand over every single responsibility beyond its power to be regulated by the regional government.

Law No. 22/1999 confines regional government to unambiguous authorization in managing either marine or fishery resources within its jurisdiction. At the same year, for Aceh province in particular, was published Law No. 44 to legalize the implementation of special province of Aceh. The law formally stated that the self-government or autonomy organization of Aceh abides by Law No. 22/1999, over and above for given Aceh is granted special authority to individually conduct its religiousness existence, traditional persistence, and education and to entirely control the role of its spiritual leaders in formulating the provincial policies. Traditional or customary laws understood by rules or department founded on Islam law which consistently obeyed, respected and honored as philosophy of life since centuries. The establishment of the law has instituted traditional laws as lawful element of rules and regulation effective in across Aceh. Again, in 2004, regulation changes on local or regional government and administration of fishery and marine resources took place by the issuance of Law No. 32/2004 and Law No. 31/2004, these laws regulate local or regional government and fishery respectively.

In addition to the two laws, in the same year was established Law No. 18/2004 on Special Autonomy for Special Region Aceh as Province of Naggroe Aceh Darussalam that released earlier than Law No. 32/2004 so that still founded on Law No. 22/1999. Law No. 18/2004 specifies that the law principally legalizes government authority in Special Region Aceh Province which is exceptionality of the local or regional government besides other determination established on Law No. 22/1999 on Local Government and Law No. 25/1999 on Financial Balancing between Central and Local Government.

The most fundamental issue of the Law is giving of more extensive possibility to administer its domestic affairs including economic resources, to empower and explore human resources and natural resources, to extensively develop aspiration, creativity, and democracy, to enhance local people' involvement, to implement social structure that consistent with glorious values of Aceh's people, to optimally function Provincial/District House of Representatives (DPRD) of Nanggroe Aceh Darussalam both in improving governmental services and putting on Islamic laws.

By implementing diferent authorities, in the framework of exceptionality, Indonesian Government opens opportunity to increase the revenues of Provincial Government of NAD including potential additional revenues other than those governed in the law. The exceptionality has been precious chances to conduct adjustments on structure, organization, formation and name of government at the lower levels relevant with the soul and spirit of nasionalism that firmly united in glorious values of Aceh's people. These adjustments officially administrated in regional or local regulations known as *Qanun*. The Qanun is the Local Regulations of NAD that able to set aside other legislation regulations based on principle of *lex specialis derogat lex generalis*, and the Supreme Court is authoritative to examine substance of Qanun. The most common issue associated with managing resources of marine and fishery regulated in Law No. 18/2004 is the financial balancing, the profit sharing of fishery sector to be received by Aceh government is mentioned as much 80%.

The following tables discover legislation regulations during a period of 1999-2004 associated with to a-three-key issues of the assessment, i.e. conservation of marine and fishery resources, regional authority to manage the resources, and aknowledgment to customary laws-based local management rights.

Table 2. Matrix. Products of Laws between 1999 – 2004 period about Marine and Fishery Issues

Law No. 22/1999 on Regional Government (to withdraw Law No. 5/1974)		
Strategic Issue(s)	Content	Explanation
Conservation	Authority to conduct conservation is stated as other authority of central government. However, except for marine conservation, local government has certain authority to administer seas in its territory only.	
Local/Regional Authority	Authorized region for province ranges mainland and sea as far as 2 miles sea that measured from coastline to open sea and or to islands' waters. Local government's rights upon the seas comprise: a. Conducts exploration, exsploitation, conservation, and management of the marine resources within the seas.	

	<ul style="list-style-type: none"> b. Organizes administration matters. c. Designs spatial planning. d. Law enforces to issued regulations either by regional govt or delegated by central government, and e. Assists security and and upholds the state's sovereignty. <p>District government's authority is as to one-third of province's sea boundary.</p>	
Acknowledgment to customary laws-based local management rights	Not regulated.	

Law No. 44/1999 on Implementation of Exceptionality for Aceh Special Region Province

Strategic Issue(s)	Content	Explanation
Conservation	The issue is not relevant	
Local/Regional Authority	Authority of governmentis based on Law No. 22/1999.	
Acknowledgment to customary laws-based local management rights	Regional governmentcan assign numerous policies in order to empower, preserve, and develop the customs and its institution in its administrative territory. Regional governmentcan also develop traditional institution and or acknowledge the existing traditional institution that already fit inits position at provincial, district/municaipal, subdistrict, village or gampong levels.	

Law No. 18/2001 on Special Autonomy For Aceh Special Region As Nanggroe Aceh Darussalam Province

Strategic Issue(s)	Content	Explanation
Conservation	Bide by Law No.22/ 1999.	
Local/Regional Authority	Bide by Law No.22/ 1999.	
Acknowledgment to customary laws-based local management rights	<i>Wali Nanggroe and Tuha Nanggroe</i> are institutions symbolize implementation of <i>adat</i> , culture, and unifying forces	

	among communities in NAD Province. Both institutions are no political and governmental institutions within the NAD Province.	
Law No. 31/2004 on Fishery		
Strategic Issue(s)	Content	Explanation
Conservation	There are different efforts on ecosystem conservation, fish conservation, fish genetic con-servation. Conservation areas associated with fishery such as coral reef, mangrove forest, swampy areas, lakes, rivers, etc are considered essential for conservation efforts. Types of conservation areas consist of marine reserve, marine park, marine recreational park, and or fishery sanctuary.	
Local/Regional Authority	Delegation some of fishery affairs from central governmentto regional governmentand the withdrawal are regulated in government regulation. Central government can delegate local governmentto carry out provision of assistance.	
Acknowledgment to customary laws-based local management rights	Management on fishery for fishing and farming or cultivating has to consider customary laws and/or local wisdom as well as the local community's participation.	
Law No. 32/2004 on Regional Government (to withdraw Law No.22/ 1999)		
Strategic Issue(s)	Content	Explanation
Conservation	Authority to conduct conservation is stated as other authority of central government. However, except for marine conservation, local government has certain authority to administer seas in its territory only.	
Local/Regional Authority	Regional government has seas is given authority to manage its marine resources.	Rules in the law is effective for Jakarta, Nanggroe Aceh

	<p>Regional government obtains profit-sharing on the management of natural resources contained in under the basin and/or on the basin of its seas according to laegislation regulations.</p> <p>Authority of regional governments mentioned in verse (1) consists of :</p> <ol style="list-style-type: none"> Conducts exploration, exsploi-tation, conservation, and management of the marine resources within the seas. Organizes administration matters. Designs spatial planning. Law enforces to issued regulations either by regional govt or delegated by central government. Assist security upholds, and Assists defense and upholds the state's sovereignty. <p>The authority to manage the resources as stated in verse (3) is as far as 12 (twelve) miles sea, measured from the coastline to the open sea and/or towards islands' waters for province's and 1/3 (one-third) of authorized province's areas for district/municipal.</p>	Darussalam, Papua, and Yogyakarta as long as not regulated specifically in separate law.
Acknowledgment to customary laws-based local management rights	The state acknowledges and respects unities of traditional community and the traditional rights forevermore that relevant to the state's principles.	
Governmental Regulation No. 19/1999 on Controlling Sea Pollution and or Destruction		
Strategic Issue(s)	Content	Explanation
Conservation	In the form of protecting of sea quality which consists of efforts or actions to control and/or destruction. The efforts are to prevent or decrease the quality and/or destruction degree of marine resources.	
Local/Regional Authority	Decides sea quality status that based on technical guidelines of sea quality status assignment established by responsible agency.	

Acknowledgment to customary laws-based local management rights	This issue is not relevant.	
Governmental Regulation No. 25/2000 Central Govt's Authority and Provincial Govt's Authority as Autonomous Region		
Strategic Issue(s)	Content	Explanation
Conservation	Provided special space to discuss on marine resources and fishery management.	
Local/Regional Authority	<p>Provincial Government's authority in managing marine and fishery resources is on:</p> <ol style="list-style-type: none"> a. Arrangement and management of waters under provincial sea waters. b. Exploration, exploitation, conservation, and management marine resources under the province's sea authority. c. Conservation and management of germ or sperm plasma specific to location as well as fishery sanctuary within its jurisdiction. d. Provision of permits to fish farming and captured fishing within the province's authority. e. Monitoring of fish resources utilization under the province's authority. f. Management of mineral resources and non-oil and gas energy except radioactive under sea territory in between 4 and 12 miles. g. Organization of environment management in utilizing marine resources in between 4 and 12 miles. <p>The district/municipal government's authority is outside the provincial and central government.</p>	
Acknowledgment to customary laws-based local management rights	This issue is not relevant	

**Governmental Regulation No. 141/2000 on Second Amendments of
Government Regulations No.15/1990 on Fishery Enterprise**

Strategic Issue(s)	Content	Explanation
Conservation	Not regulated	
Local/Regional Authority	<p>Devide government authority into 2, i.e the provincial govt.'s authority and district/municipal government's authority. The province's authority consists of :</p> <ol style="list-style-type: none"> 1. Issuing Fishery Enterprise Permit (IUP), Fishing Certificate (SPI), Fish Transporting Ship Certificate (SIKPII), and Fish Transporting and Fishing Ship Certificate (SIKPPII) to fishery enterprises or individual conducting fishing in the sea under 12-miles regulations that domiciled in the administrative territory, that using inboard motor ships that below 30 GT and or below 90 Horse Power and have headquarters in its administrative territory, and do not use both foreign capital and employee. 2. Issuing IUP to Indonesian fishery enterprises that conducting fish farming in freshwater, in brackish water, and in the sea that do not use both foreign capital and employees. <p>The district/municipal's authority consists of :</p> <ol style="list-style-type: none"> 1. Issuing Fishery Enterprise Permit (IUP), Fishing Certificate (SPI), Fish Transporting Ship Certificate (SIKPII), and Fish Transporting and Fishing Ship Certificate (SIKPPII) to fishery enterprises or individual conducting fishing in the its sea territory that domiciled in the administrative territory, that using inboard motor ships that below 10 GT and or below 30 Horse Power and have headquarters in its administrative territory, and do not use both foreign capital and employee. 	

	2. Issuing IUP to Indonesian fishery enterprises that conducting fish farming in freshwater, in brackish water, and in the sea that do not use both foreign capital and employees.	
Acknowledgment to customary laws-based local management rights	Not regulated.	
Governmental Regulation No. 54/2002 on Fishery Enterprise		
Strategic Issue(s)	Content	
Conservation	Not regulated	
Local/Regional Authority	<p>The province's authority consists of:</p> <ol style="list-style-type: none"> 1. Issuing Fishery Enterprise Permit (IUP), Fishing Certificate (SPI), Fish Transporting Ship Certificate (SIKPII), and Fish Transporting and Fishing Ship Certificate (SIKPPII) to fishery enterprises or individual conducting fishing in its sea territory that domiciled in the administrative territory, that using inboard motor ships that below 30 GT and or below 90 Horse Power and have headquarters in its administrative territory, and do not use both foreign capital and employees. 2. Issuing IUP to Indonesian fishery enterprises that conducting fish farming in freshwater, in brackish water, and in the sea that do not use both foreign capital and employees. <p>The district/municipal's authority consists of :</p> <ol style="list-style-type: none"> 1. Issuing Fishery Enterprise Permit (IUP), Fishing Certificate (SPI), Fish Transporting Ship Certificate (SIKPII), and Fish Transporting and Fishing Ship Certificate (SIKPPII) to fishery enterprises or individual conducting fishing in 	One of the laws stated in consi-deration is Law No. 22/1999.

	<p>the its sea territory that domiciled in the administrative territory, that using inboard motor ships that below 10 GT and or below 30 Horse Power and have headquarters in its administrative territory, and do not use both foreign capital and employee.</p> <p>2. Issuing IUP to Indonesian fishery enterprises that conducting fish farming in freshwater, in brackish water, and in the sea that do not use both foreign capital and employees.</p>	
Acknowledgment to customary laws-based local management rights	Not regulated	

The tables above indicate that significant alteration over politic of laws has taken place. Conservation matters and acknowledgement to customary laws and rights have attained a formal legalization. For Aceh alone, the Qanun is admitted to have formal legalization for the existing traditional laws and has a binding authorization as well.

B. Post-Tsunami (between 2004-2007 period)

During the period government had released a number of policies to rehabilitate and reconstruct Aceh, among which are Perpu No. 2/2005, Presidential Regulation No. 30/2005, Law No.10/2005 on Board of Rehabilitation and Reconstruction of Areas and Livelihoods of NAD and Nias Island of North Sumatera, Presidential Regulation No. 69/2005 on Participation of Institution/Individual in terms of Grants for rehabilitating and Reconstructing Areas and Livelihoods of NAD and Nias of North Sumatera. Quite the reverse, there was change on law politic in Aceh with the ratification of an MoU between Indonesian Government and Freedom Aceh Movement in Helsinki. The MoU had promoted the release of Law No. 11/2006 on Governance of Aceh. The law had called off Law No. 18/2001. Thus, in governing its province the Government of Aceh has no longer conformed to Law No. 32/2004 jo Law No. 18/2001, but the Law No.11/2006 as instead. Besides, the government has also released Law No.27/2007 on Management of Coastal areas and Smaller Islands that signed on 17 July, 2007.

1. Rehabilitation and Reconstruction

In the framework of rehabilitation and reconstruction, the central government founded on Perpu No.2/2005 has developed a formal agency (the BRR NAD-Nias)- it aims at accelerating rehabilitating and reconstructing efforts on regions post-tsunami in both Aceh and Nias- that is directly responsible for and under the Indonesian President. Institutionally, the BRR

can be comprehended as a constituent of central government organization, but according to Perpu No. 2/2005 the regional (district/provincial) government is also the ingredient of the BRR. Out of three positions in the BRR, Directive Council, Supervisory Council, and Executive Board, local or regional government occupies two positions, i.e. member of Directive Council and vice chairman of Executive Board (ex-officio); the last position held by Governor of NAD Province. As per Perpu No.2/2005, the BRR shall accomplish the liabilities in four years and be extended when necessary. It is therefore expected that the efforts to rehabilitate and reconstruct Aceh be coordinated and integrated within the regional policies and not simply central government's program.

The Perpu has only been effective to **Post-Disaster Regions** which covering *neighborhood of Nanggroe Aceh Darussalam Province and Nias Island of North Sumatera Province* crashed by the earthquake and tsunami. Such restrictions have become imperative seeing that in addition to the Perpu No.2/2005, soon after turned into Law No.10/2005, Law No. 32/2004 on Regional Government and Law No. 18/2001 on Special Autonomy for Aceh Special Region as Nanggroe Aceh Darussalam Province have been in effect. These restrictions justified the extent of BRR's authority by Perpu No.2/2005 where the agency has been just authoritative to post-disaster neighborhoods whereas the other areas outside its power have absolutely gone to Aceh regional government's power.

There are two issues pertaining to marine and fishery management presented in Perpu No.2/2005:

- a. Spatial planning;
- b. Environment arrangement and natural resources management.

Rehabilitation and reconstruction program as mentioned in Perpu have been in accordance with the master plan arranged in Presidential Regulations No. 30/2005 on Master Plan of Rehabilitation of Region and Community's Existence in NAD Province and Nias Island of North Sumatera Province.

Four major policies referred to as character for rehabilitation and reconstruction program on environmental and natural resources comprise: (1) *restoring environmental capability and securing existing resources*; (2) *revitalizing natural resources based-economic activities of local community*; (3) *involving local people and empowering social institutions and local culture in order to address either calamities or regional development activities*; and (4) *re-establishing institutional system of natural resources and environment at government levels*. These four policies widely known as "**Blueprint**" is contained in Master Plan of Rehabilitation of Region and Community's Livelihoods in NAD Province and Nias Island of North Sumatera Province.

1. Policy on restoring environmental capability and securing existing resources.

The huge scale of destruction due to the quake and tsunami, mostly in coastal regions, needed particular attention and unfathomable consideration in succeeding rehabilitation and reconstruction. The environmental capabilities has to be better restored than those before the tragedy. Meanwhile, some other natural resources and potency, and circumstances as well that locked from the chaotic situation shall be protected and

prudently utilized seeing that re-development phases of restoration and reconstruction will demand a great deal native resources as basic substances of the development.

Strategic of restoring the nature's capacity of coastal areas and marine is as follows:

- Recover coral reefs.
Focal actions encompass re-collecting and re-naming coral reefs, and re-structuring organizational mechanisms.
- Rehabilitate and develop green-belt zone, pond areas and recreational forest areas that as regulated in the Spatial Planning and the coastal characteristics.

The green-belt zone is spreading-out trees that projected to keep alive and grown within a particular extent by the sides of waters. The green belt can exist by the seashores, by the rivers, by the lakes or basins or dams which intended for securing all shorelines or edge lines of sort types of waters from any violently natural power, *e.g.* abrasion, erosion, wave, wind, etc.

The green-belt zone concept has long been presented in the form of policies by all sorts of linked governmental institutions, for instance, the General Directorate of Fisheries through a Decree of General Directorate of Fisheries No. H.I/4/2/18/1975 that determines the width of green belt as 400 m of the average lowest tide lines; the General Directorate of Forestry through a Decree of General Directorate of Forestry No. 60/Kpts/DJ/I//1978 that decides the width of green belt as 50 m of the coastlines or 10 m of the riverbanks. Then, in 1984, through a joint decree between Indonesian Minister of Forestry and Minister of Agriculture, No. KB 550/246/Kpts/1984 and 082/Kpts-11/1984 that agrees on the width of green belt as 200 m along the seashores, forbids the cutting of mangrove in across Java Island, and commands to conserve all mangroves in all smaller islands (less than 1,000 ha in size). In addition, in 1990, a Presidential Decree No. 32/1990 that determines the width of green belt as 130 times of a difference of maximum height of the rise and fall of the tides headed for the land.

From the all above policies, in context of coastal regions, it is perceptible that government owns planning or efforts to preserve the coastlines or coastal regions, although measurements of the green belts are varied and implementation in the field frequently deviated or even completely disobeyed. Nevertheless, the tsunami tragedy has made all of us to accept how those concepts still relevant.

Activities:

- To conduct rehabilitation on mangrove trees in the neighborhood where the plants previously planted.

Objective:

To rehabilitate and develop mangrove as up to 164,840 ha in NAD Province and 9,750 ha in North Sumatra within a period of 2006 and 2010 in order to protect coastal areas or other benefits such as spawning grounds, sustainable fishery development and new ecosystem as well.

Completed activities consist of:

- Mapping condition of mangrove ecosystem both in NAD and Nias.
- Conducting assessment in relation to character and potency of coastal regions.
- Developing planning on the implementation of mangrove forest rehabilitation and other coastal re-greening.
- Formulating medium-term technical planning for rehabilitation of mangrove forest and reforestation of other coastal plants.
- Conducting rehabilitation of mangrove forest in coast and pond areas (conforms the spatial planning) with applying silvo-fishery method (environmentally sound fishery farming) either in separate or in integrated way.
- Developing institutional mechanism with the intention of guarding, monitoring, and evaluating results of mangrove forest rehabilitation.

- To rehabilitate pond areas and critical habitat ecosystems.

Objective:

To restore ecological functions of both coastal ecosystem and critical habitats in order to improve values and functions.

Completed activities consist of:

- Integrating land-use spatial planning of pond farming or cultivating into general provincial spatial planning.
- Establishing guiding principles for pond farming that based on sustainable marine resources potency.
- Designing detailed planning on coastal zone that serves as protection, ponds, and city recreational forest.
- Rehabilitating and re-arranging coastal ecosystem including pond farming ecosystem via community's participation.
- Organizing master plan and detailed design of every single area intended for developing pond farming or cultivation.
- Carrying out rehabilitation on pioneering vegetation other than mangrove in coastal regions corresponding to the character and aspiration of coastal villagers.
- Performing monitoring and keeping on biodiversity values within critical habitats.

2. Policy on revitalizing natural resources based-economic activities of local community, strategy employed is:

- Restoring and improving fishery activity

Focal actions encompass restoring catching fishery, rehabilitating pond-farming areas of local villagers and other fish-farming, and facilitating economic activity of coastal villagers.

In order to accelerate the local fishermen's and fish farmers' livelihoods, as well as other coastal villagers, the Dept. of Marine and Fishery has striven thoroughly planned measures, mainly are directed to provide urgent economic activities or temporary livelihood to immediately develop job opportunities to afford each family. This form of facilitation was carried out in the first year. The economic activities encompassed repairing vessels, cleaning up ponds, fixing either structures or infrastructures.

The need of working capital in the preliminary step of economic restoration, either for fishermen or fish farmers, has been sourced from certain allocated budget by the governments (National/Regional Budgets) or foreign grants. These funds, in turn, have been focused on empowering economic activities of coastal villagers, fish farmers, and small-scale fishing.

Still in attempts to quickly restore the economic, the private sectors have been provided with technical assistance including structures and production structures for restoring the spawning industries such as fish processing unit, pumps, boats, catching equipments, dockyards, etc. but continual investments call for banking sectors' or other private investment sectors' partaking.

In the mid-term reconstruction phase, measures are concentrated on re-developing the whole system of processing industries and marketing of fishing venture, fish cultivation, and alternative livelihoods development.

Extension efforts on fishery executed through major activities, among which are:

- Rehabilitating captured fishery.
Policies on provision for structures or facilities, for the first year, prioritized to small-scale catching are to stimulate the fishermen to go back to the sea.
 - Rehabilitating fish farming or cultivating.
This activity conducted by way of restoring and re-arranging ponds. Provision for cultivating facilities, in particular, salty and brackish water cultivating, granted to the farmers as working capital. The aids found in the form of seeds, woof, fertilizer, pesticide, medication, and cultivating equipment.
 - Rehabilitating both structure and infrastructure of fishery.
Department of Marine and Fishery has planned to re-establish the training facilities- cultivation shops, SUPM (a school for middle-scale fishery enterprise), spawning center, and other amenities- cracked up by the tsunami.
3. Policy on involving local people and empowering social institutions and local culture in order to address either calamities or regional development activities. Strategy employed is:
- Engaging local community in the development implementation of marine and fishery.
Focal actions encompass empowering social and traditional institutions in both the planning and implementing process, and developing monitoring mechanism relevant to social, cultural, and local aspiration values.

2. Laws No. 11/ 2006 on Governance of Aceh

Laws regulating the governance of Aceh grant authority to the local government of Aceh to manage both of its marine and fishery resources as to the following lines:

1. Provincial government and district/municipal government has the power to administer natural resources living in the seas of Aceh territory.
2. The authority to administer natural resources inhabiting seas of Aceh's territory include:
 - a. Conserving and administering natural resources within the seas.
 - b. Organizing administration and permits of catching and/or fish cultivating.
 - c. Organizing marine, coastal, and smaller islands land-use spatial planning
 - d. Law enforcement towards regulations issued on sea or marine authority belong to its authorization.
 - e. Maintaining customary laws and security, and
 - f. Actively participating in maintaining the sovereignty of Unitary State of Indonesian Republic.
3. Provincial and district/municipal government of Aceh are authoritative to release permits on fishing and other marine resources cultivation in seas in the vicinity of Aceh relevant with the owned authority.
4. Management of natural resources in the seas conducted with thoroughly considering sustainable development principles.
5. Permits for fish catching only valid for 12 miles away measured from coastline towards the open sea and or towards waters territory of islands (for province), and one-third of provincial authoritative territory (for district/municipality).

Unless stated in Article 165 verse 3, part c, not explicitly specified in the laws sea territory to be under Aceh's authority. However, if take notice of some regulations, for instance Article 1 No. 2 and Article 1 No. 4, there are repetitive clauses strongly state that Aceh is a province and the government of Aceh is provincial, thus it is very clear that seas territory belong to Aceh's authority is equal to those of other provinces, that is 12 sea-miles. Law No. 11/2006 approves adequate open-space and recognizes customary or traditional institution and social institution.⁴

3. Law No. 26/2007 on Spatial Planning

Law No. 26/2007 on Spatial Planning replacing the previous regulation, Law No. 24/1992. The law stipulates the authority of regional or provincial governments as the following lines:

1. Authority of the provincial government in organizing land use or spatial plans includes:
 - a. To organize, develop, and supervise the implementation of spatial plans for province, district/municipality, and the implementation of land uses of strategic areas for both province, and district/municipality.

⁴ Between Article 96 and 99, Law No. 11/2006.

- b. The implementation of provincial spatial planning.
 - c. The implementation of provincial strategic land uses, and
 - d. To cooperate a joint spatial planning with other provinces, and to facilitate joint spatial plans with other districts/municipalities.
2. Authority of provincial government in the implementation of its provincial spatial planning as mentioned in Verse (1) point b includes:
 - a. To plan spatial for its provincial areas.
 - b. To use or utilize its provincial land, and
 - c. To control utilization of its provincial land.
 3. In planning land use for provincial strategic areas as stated in Verse (1) point c, the provincial government makes:
 - a. Assignment on its strategic areas.
 - b. Spatial plan for its strategic areas.
 - c. Land use of its strategic areas, and
 - d. Control of its strategic land uses.
 4. The implementing of land uses and controlling of its strategic areas as intended in Verse (3) point c and d can be performed by district/municipal government through a provision of assistance.
 5. In term of implementation of provincial land uses, provincial government can organize implementing instruction on land use for province and district/municipality.
 6. In holding authority as stated in Verse (1), (2), (3), (4), and (5), provincial government:
 - a. Disseminates informaton relating to:
 1. General and detailed of spatial plans in the frame of provincial land-use implementation.
 2. Directive on zoning regulations for province that arranged for controlling provincial land uses, and directive on implementing spatial planning.
 - b. Provides standard minimum service on spatial field.
 7. In case provincial government is not available to perform a standard minimum service for spatial planning field, the central government shall take completeing measures appropriate to prevailing laws.

Meanwhile, the law also regulates authority of district and municipal government which are:

1. Its authority to conduct spatial planning includes:
 - a. To organize, develop, and supervise the implementation of spatial plans for district and municipality, and the implementation of land uses of strategic areas for both district and municipality.
 - b. The implementation of district and municipal spatial planning.
 - c. The implementation of district/municipal strategic land uses, and
 - d. To cooperate a joint spatial planning among districts/municipalities.

2. Authority of district/municipal government in the implementation of its spatial planning as mentioned in Verse (1) point b includes:
 - a. To plan spatial for its district/municipal areas.
 - b. To use or utilize its district/municipal land, and
 - c. To control utilization of its district/municipal land.
3. In planning land use for district/municipal strategic areas as stated in Verse (1) point c, the provincial government makes:
 - a. Assignment on its strategic areas.
 - b. Spatial plan for its strategic areas.
 - c. Land use of its strategic areas, and
 - d. Control of its strategic land uses.
4. In executing its authority as mentioned in Verse (1) and (2), district/municipal government shall refer to guidelines of spatial plan and its implementing directive.
5. In executing its authority as mentioned in Verse (1), (2), (3), and (4), district/municipal government:
 - a. Disseminates information relating general and detailed of spatial plans in the frame of its land-use implementation, and
 - b. Provides standard minimum service on spatial field.
6. In case district/municipal government is unavailable to perform a standard minimum service for spatial planning field, the provincial government shall take completing measures appropriate to prevailing laws.

The law has provided an adequate amount of authority to each provincial, district/municipal government to plan its own spatial. The authority agrees with that owned by Aceh Province Government and other districts/municipalities as mandated in Law No. 11/2006 on Governance of Aceh. Affairs relating to spatial planning are obligation of NAD Government and its districts/municipalities.

4. Law No. 27/ 2007 on Development of Coastal Areas and Smaller Islands

The law, in view of conservation, gives a breathing space to ecosystem protection for both coastal areas and smaller islands, migration pathway safeguard for fish and other marine biotics and also the habitats, and the traditional culture situs preservation as well.

Meanwhile, in consideration of authority, the law gives the go-ahead to local government to:

1. Establish sea border that has been adjusted to characteristics of topography, biophysical, hydro-oceanography, economic and cultural needs, and other stipulations.
2. Organize and/or make plans for accreditation of coastal areas and smaller islands development program within his/her power in accordance with the existing standard and guidelines (for Governor).

3. Organize and/or make plans for accreditation of coastal areas and smaller islands development program within his/her power in accordance with the existing standard and guidelines (for district head/mayor).
4. Release HP-3 within a provincial jurisdiction up to a 12-mile away (for Governor).
5. Release HP-3 up to a one-third coastal areas of its provincial jurisdiction (for district head/mayor).
6. Manage the coastal areas and the smaller islands within its administrative territory along with central government

Then, in a perspective of acknowledgment on customary laws-based community rights, the law has allotted space and access among traditional and local communities in coastal regions to keep on managing marine resources and coastal areas consistent with their traditional systems maintained for generations. In a general stipulation the term local and traditional community is explicitly stated and re-stated with Article 61. This is evidence for a recognition to their existence.

Quite the opposite, the presence of the law can trigger contradiction among other regulations, for instance: Law No. 11/2006 on Governance of Aceh. The law authorizes great power to it including to manage its coastal areas and the smaller islands. Meanwhile, Law No. 27/2007 on Development of Coastal Areas and Smaller Islands presents great authority to the Minister of Marine and Fishery.

More to the point, HP-3 concept results in uncertainties on exploitation and distraction of coastal areas if controlling efforts are not seriously reinforced.

CHAPTER IV

CUSTOMARY LAWS (*HUKUM ADAT LAÔT*) FOR MARINE IN DEVELOPING THE MARINE AND FISHERY RESOURCES OF NANGGROE ACEH DARUSSALAM PROVINCE

A. Hukum Adat Laot Developing Marine and Fishery Resources

In the concept of Aceh's customary laws, environment or living space is a gift from the God that possesses strategic values for human race and other living creatures. The existence of environment has become an integral part to the entire continuation of the living organisms, including the human race. It is therefore indisputable that the existence of the living space have to always remain sustainable. Administering living environment in intelligent and prudent measures have been put into practice since many centuries and even been bequeathed to many generations. In implementing the management of marine environment, traditional institution of Panglima Laot applies values and concepts of local wisdom. This concept has been prolonged and preserved up till now.

B. Panglima Laot Institution

Speaking of designation, the title *panglima* (commander) for the top leader of *adat laot* institution is an exceptionality. At least, the title has revealed a function filled with power and position. It is demonstrated in daily roles he plays, firm attitude, even sometimes strict in making decision.

There is no clear explanation on how long the *Panglima Laot* Institution has entered the traditional system of Aceh. According to several sources, the institution has long developed along with the Aceh Sultanate era, where one of the governmental proponent is the traditional institution. .

Because of its independence, the Sultan Iskandar Muda (1607-1636 AD) officially appointed *Panglima Laot*. Besides his chief responsibility to economy empowering of marine areas was also securing and defending the seas. In order to expand the tasks, to the Panglima Laot is given authority to organize court and execute every verdict it made. (T. Mohd. Juned: 2001:3)

In the book "De Atjehers", Snouck Hurgronje simply mentioned that *pawang*s (experts in catching fish) led the event in the sea was directed by a *panglima* (a commander). He and his men were elected by the *pawang*s in each *teupin*. The traditional land, where traditional laws are acknowledged, a panglima is called *Lhok*. Each *Lhok* seperated by natural boundaries (Snouck : 1985:318).

C. Role of Panglima Laot in Administering *Lingkungan Laot* (Marine or Sea Environment)

Panglima Laot Institution is powerful over the seas and functions to organize the management of natural resources of coastall and marine regions. In addition, the Panglima Laot is

responsible for assisting local govt in succeeding fishery development, preserving traditional laws and customs within community of fishermen. In conducting his liability, Panglima Laot has responsibilities, among which are: to maintain and control stipulations of adat laws and adat-laot laws, to organize and monitor every fishing activity on the seas, to resolve argument/dispute among fishermen and the groups, to arrange and organize traditional ceremonies associated with adat laot; to guard/watch over trees by the seashores from cutting; to act as bridging agent/mediator between fishermen and govt.; and to improve standard living of coastal fishermen.

In carrying out management of coastal and marine environment, the Panglima Laot is strict to customary or *adat* -laot laws. These laws contain traditional rules that have been maintained and taken care by fishing community to keep in order either the fish catching activity or the living of coastal fisherman community. Additionally, the laws can also role as filler to national positive laws, when the national laws lacks in the above stipulations.

The authorized regions of Panglima Laot ranges from coastal areas to the open sea. Physical space of coastal areas under the authority of Panglima Laot include *bineh pasie* (coast), *leun pukat* (areas for pulling land trawl), *kuala and teupian* (edges for landing boats, either nearing bay or river mouthes), and *laot luh* (open sea). According to Djuned, authority Panglima Laot over the the open seas, basically, follows the legal norms as to what extent marine resources can be economically managed by the institution. Physical spaces connected to coastal ecosystem comprises *uten bangka* (mangrove forests), *neuheun* (ponds), and *lancang sira* (salt field).

Bineh pasie (coast) is counted from a spot where the wave firstly breaks to a place where annual vegetation do not grow, unless *tapak kuda plants*. It is a land area under the supervision of *adat laot*, therefore land-use utilization and alteration for the importance of community other than the fisherman shall be on the agreement of local fisherman.

Bineh Pasie is prone to natural factors such as abrasion. One of the factors that accelerates the abrasion is cutting down of guarding vegetations- the vegetations have been protected for generations - along the coast due to wood demand for charcoal industry, construction, and community ponds. Abrasion has been mostly responsible for narrowing of this area.

Leun Pukat area of *Bineh Pasie* used for pulling land trawls (either *pukat banting* or *pukat Aceh*). *Leun Pukat* stretches out from the shoreline to the sea, while measurement has been based on the need of a land trawl to arrive fish on the land. *Leun Pukat* is a protected area under customs and not permissive to other uses without agreement from local fisherman community. *Teupien* is area where fishermen disembark their boats. Landing boats can be done in a river mouth or *Bineh Pasie*. The river mouth under the authority of marine customs is a spot that traditionally operated for landing boats used as traffic lanes towards the seas from a landing edge. As one of the activity center for the fishermen on the way home from the sea, the utilization of this area is regulated and protected by customs. For that reason, the importance of the fishermen over the area is continued and guaranteed

Uteun Bangka (mangrove forest) is buffer zone to the existence coastal areas. The vegetation has multitude purposes, for instance providing spawning grounds, preventing abrasion and

intrusion of salty water as well. In some other places like Aceh Besar and West Aceh, there is a customs that to whosoever has grown mangrove trees in certain area is given absolute right to own them. Yet, due to disarranged management the mangrove planting goes extensively and ownerships cannot be well recognized. One by one grown-up mangrove trees are cut down by the owner for preparing *neheun* (ponds), as a result, traditional mangrove forest get sharply shrinking. Hence, conserving mangrove for protecting coastal ecosystem is hard to be done since ownership changes on mangrove forest take place.

Uteun Aroen (pine forests) is a buffering zone for the coast containing pine trees. Waters near coastal areas with many pine trees, based on local fishermen's experience, are believed to be the most preferred place by certain fish, mostly mollusk, *kakap* (kind of large fish), *kerapu* (kind of sea fish), etc. as favorable temperature and climate nearby coastal area, that grown pine trees, has attracted those living creatures to inhabit it.

Uteun pasie (coastal forests) is a term for crown of forest trees growing along the seashore. *Uteun pasie* is forest area under protection for ecology balancing in coastal areas.

Coastal villagers in Aceh own local wisdom that organizes utilization of coastal areas, such as green belt protection. In the old times, the green belt was of *bak aroen* (pine trees) and protected by the custom. The customs claims that to whoever has dared to cut down the *bak aroen* will be sentenced to customs' fines.

In the present time, customs on maintaining and protecting *bak aroen* has taken less notice, and more *bak aroen* has been logged. In fact, as to *pawang's* experience, it has ecological function to keep the balance of ecology across the coastal areas. The high adaptation ability to the coastal climate and seawater has made the *bak aroen* stays longer although its grounds swamped with seawater mostly when the tide rises. The most important economic benefit of the green belt is to make certain kinds of fish approach the coast. Such condition has been exceptionally beneficial to the fishermen since they can fish in neighboring waters. In addition, *bak aroen* or sea pine trees can strengthen steeply sloping area or soil bond along the seashore they grow. Anchored in experience post-tsunami, the *bak aroen* can defend against flooded area caused by tsunami. These can be witnessed in the vicinity of Lhoknga Beach-Lampuuk, sub-district of Lhoknga Aceh Besar.

Other than *bak aroen*, according to respondents, there are other kinds of vegetations appropriate for the buffer zone (coastal area), i.e. *bak siron*, *bak bunot*, *bak seukee*, and *bangka*. These vegetations grow either on dried soil or on tide areas. On dried land by the seashore can be planted with *bak siron*, *bak bunot*, and *bak seukee*, whereas on swampy or brackish water, mangrove is suitable. Planting method for all vegetations above is made in various forms, either homogeneous or mixed belts. If using homogeneous belt method, the arrangement should be *bak aroen* (in inner row), *bak bunot* mixed with *bak siron* (middle row), and *bak seukee* (outer row, directly facing against the sea). This method will be marked with *tanoh jeut* - soil that emerges or added up by the riverbanks or seashore due to natural process- and immediately followed by natural growth enlarging of *bak seukee*, and *tanoh jeut* will gradually get stronger and be ready for other kind of crops.

According to growing pattern, *bak aroen* grows vertically and forms strong trunk, *bak siron* forms shady crown sometimes with trunk bowing towards the sea. Roots of *bak siron* tightly grasp the soil to the side then stretch along the steeply sloping terrain and strengthen the steep terrain and the coastal areas. Economic benefit of this vegetation is not widely studied, yet the bark has been used for fiber to make rope. If *bak siron* massively developed, it is possible to make them used in certain industries.

Out of some vegetation proper for developing green belt in buffering zone is *bak bunot*. The vegetation is one of most strategic vegetation in the future with its great contribution to ship construction industry since *bak bunot* is one among the best wood for both boat and ship. Boat makers have been much depending on *bak bunot manee* for making framework of ships although it is getting rare. It is different than *bak bunot* that can grow by the coast even by coastal area with splash of seawater. The trunk still can get bigger and give added value if used for protecting in buffer zone.

There is no prohibition for the fishermen to fish in a *lhok* during this time, unless rules on exploration of fishing which regulate fishing time, fishing methods and permitted fishing devices according to local the customary regulations. For fishermen coming from outside the *lhok* must obey all customary regulations where they conduct current fishing. Stipulations regulated in customary regulations are as follows:

D. Pantang Laot Days (days when fishermen prohibited go to sea)

- *Kenduri adat laot*
This is a ritual feast held every 3 years or depending on agreement and capability of local fishermen. Three days prohibited go to sea is counted from the dawn on the first day of the festive to the sundown on the third day.
- *Hari Jum'at* (Friday)
Prohibition is valid for all day long from the dawn on Thursdays to the sunset on Fridays.
- *Hari Raya Iedul Fitri* (Ied El Fitr Holiday)
Not going to sea for 2 days from the dawn on *Meugang* day to the sunset on second day of *Hari Raya*.
- *Hari Raya Iedul Adha* (Ied El Adha Holiday)
For 3 days from the sunset on *Meugang* day to the sunset on the third day of *Hari Raya*.
- Indonesian Independence Day, August 17th.
For 1 day, from the sunset on August 16th to the sunset on to the sunset on August 17th.
- 26 December
For 1 day from the sunset on 25 December to the sunset on 26 December. This restriction is to commemorate tsunami hit on 26 December 2004.

E. Penalty

For every fisherman disobeys the *pantang laot* days is sentenced to fines, i.e. confiscation on all catching and prohibition to go to sea between 3 and 7 days.

F. Customs on Maintaining Sea Environment

- It is prohibited to conduct explosion, poison, anesthetization, electrification, taking off coral and other substances that endanger living space of fish and other organism.
- It is prohibited to cut/destroy woody trees along the seashore such as *aroen*, pandan, ketapang, mangrove, and other kind of trees growing by the seashore.
- It is prohibited to catch fish/other organism that protected, for instance dolphins, sea turtles, etc.
- It is prohibited to use dragnet in coral reefs area (spawning ground)
- Rules on catching tagging fish

These restrictions are still in effect among the fishermen groups.

Although the customs regulates maintaining of living space is still effective among fishermen, but according to research and studies reported that widespread destruction in different sites in coastal areas. As said by respondents such damage was already there prior to tsunami since the coming of foreign ships with sophisticated technology. On the other hand, the development of fishing methods against the customs and spoils the living space by local fishermen such as fishermen in Kuala Bubon of West Aceh that using trawls.

The increasingly plundering by foreign ships carrying out harmful methods of fishing has close relation with the weakening of traditional control on the areas and less support from the authorities. In addition, lack of resources both fishermen and *panglima laot* to overcome the destructive activity have become another problematic that until now still unresolved and unfinished.

Just the opposite, in *adat laot* areas where *panglima laot* and the fishermen have adequate resources, resisting actions against trawling net (*pukat harimau*) use (the most forbidden fishing method and device) keep on going. Such thing has become possible when the fishermen have strong fleet and better livelihood. Meanwhile, there is also community of fishermen that finally cannot hold out in facing such destructive activities in their areas. Although both *panglima laot* and the fishermen have make lot of efforts to halt destructive activities in the neighborhood but their efforts become useless without support from the authorities.

G. Marine Ecosystem Management by *Lembaga Panglima Laot*

On the word of customary or traditional laws, marine management entrusted to Panglima Laot institution. This institution chaired by a public figure with an approved expertise. In carrying out the responsibilities, the chairman, who locally called Panglima Laot, helped by Pawang Pukat and Aneuk Pukat. These three foremost positions are recognized in the organization structure.

Adat Laot Institution is an alliance of marine customary laws, *adat laot*. As a law institution, the *adat laot* has legal power to organize exploitation and environment protection, and

marine biodiversity within areas under his authority. Such authority is autonomous and does not depend on other authority.

The power of *Panglima Laot* includes three divisions such as marine security, social partnership, and marine maintenance.

The management of marine ecosystem supervised by the *Lembaga Panglima Laot* is as follows:

a. Arranging lawful rules that regulate marine environment management.

All aspect of activities that taking place on the sea regulated by *Adat Laot*. Some of those rules are old but still preserved and some others are newly made following the advancement of law demand of the fishermen community.

Some of the old rules are prohibition on cutting trees growing along the seashore and going to sea on certain days. Principally, every person is free to go to sea and work for livelihood, however, the laws -after considering Islam laws and the safety for every fisherman- has agreed on banning certain days for going to sea, i.e. Fridays - referred to religion laws that the day is for performing ritual Friday prayer-, Islam holidays, August 17th the Indonesian independence day, other decided days.

The rules also regulate the fishing method. If a boat is almost ready to capture a flock of fish, the *pawang* has to give sign, by raising hands or sun hat, to other boats. The sign means that the boat has permission to capture the fish and at same time, the other boats are prohibited to approaching the spot for the fish.

In general, the rules contain banning on fishing methods, i.e. without trawl, explosive substance, electrification, poison, and on garbage disposal such as setting out used lubricating oil in the sea.

b. Appointing a leader to run *Adat Laot* Laws

Law without power is no law because power is there to make the law functioned. In system of marine environment management, *Panglima Laot* is appointed leader to organize.

Power to administer marine and the environment is done by a vertically structured organization, i.e. *Aneuk Pukat, Pawang Pukat, and Panglima Laot*. The *Panglima Laot* is the highest leader and responsible for whole implementation of the management, it is therefore principles of environmental preservation are unquestionably maintained, and all govt.'s laws and regulations are well implemented.

Accordingly, all fishermen together with *Aneuk Pukat, Pawang Pukat, and Panglima Laot* jointly oversee the implementation of the management that sticks to *Adat Laot* laws.

c. Conducting court to uphold *Adat Laot* laws

Every action against the customary laws presented to the court and presided over by the *Panglima Laot*. The outlaw will be sentenced to customary fines. The customary fines are not physical punishments but to take over all the catching or banning on going to sea for certain periods.

d. Developing relation to linked government.

Panglima Laot in carrying out his tasks works with Marine and Fishery Agency, harbormaster, and harbor police. All *adat laot institution's* functionaries get various trainings from the Agency. The trainings cover fishing technology and government regulations implementation mostly concerning with management of marine environment such as fishing equipments, trawls and dragnets, that are harmless to environment and fishing areas.

Harbormaster, as the person responsible for every single sailing in the sea, has a strong dependence on *Panglima Laot*. Thus, permits to construct vessels and sailing-post are delegated to *Panglima Laot* and the implementation is jointly monitored. Harbormaster gives directions over permitted-to sail and fishing areas, and the weather. Crimes or violations that cannot be decided by *Panglima Laot* are handed over to harbor police. For instance, foreign ships fishing in Indonesian waters that ignoring *Panglima laot's* warnings. Seeing that of *Panglima laot* plays very important role, therefore its institution maintained by community. This means that the authority of *Panglima laot* is widely acknowledged.

Adat laot laws have developed reporting system. When fisherman or other villager witnesses an outlaw or disobedience, he is obliged to immediately report to *Panglima Laot* or the authorities.

Panglima Laot institutionally administers marine environment with rules that not only prohibit people to do something, but also organize people on how to behave towards limited space based on possessed power. Such rules cause the laws on environment management to be more effective.

CHAPTER V

COMPARISON BETWEEN INDONESIAN GOVERNMENT POLICIES AND THE *HUKUM ADAT LAOT*

This comparison is between *Qanun* and *Adat Laot* Laws. As previously mentioned above that *since the effectiveness of Law No. 18/2001 on Special autonomy for Province of Special Area of Aceh as Province of Nanggroe Aceh Darussalam*, it has power over its sea territory. Based on the laws the government of Aceh has established some *Qanuns* relating to the fishery and marine resources development.

Table 3. Matrix. Comparison Between *Qanun* and *Adat Laot* Laws

Conservation of marine and fishery resources			
Issue	Qanun	Adat Laot Laws	Remarks
Conservation	Consists of efforts or actions to sustainably protect, preseve, and utilize germ or sperm plasma specific to location and waters sanctuary in public waters.	The laws devided into three major issue of conservati-on, i.e. protecting (restrictions on using explosion, poison, etc), preserving (protection to <i>uteun pasie</i> areas, etc), and utilizing.	Qanun No. 20/ 2002 on Natural Resources Conservation.
Conservation Organization	Rules comprise: a. Equipments and methods. b. Amount, kinds and size of fish permitted to be captured. c. Areas, pathways, and time or fishing season. d. Preventing pollution, and damage, rehabilitating, improving fish and environment resources. e. Spreading certain sorts of fish either new or exotic. f. Preventing and halting microbes and disease commonly infected fish.	Prohibited to explode, poison, anesthetize, electrify, exploit coral reef, and other substances that can endanger the environment. Prohibited to cut down/ destroy trees by the seashore such as <i>arun, pandan, ketapang</i> , mangrove, and other trees growing there. Prohibited to catch fish/ other marine organism that protected (dolphins, sea turtle, and others). Prohibited to use dragnet in coral reef (spawning ground).	Qanun No.20/ 2002 on Natural Resources Conservation.

	g. Every people or corporate body is prohibited to fish in public waters using explosion, poison, electrification, or other substance device that can endanger the fish resources.	Rules on fishing tagging-fish. Prohibited to use trawls and similar equipments.	
Conservation Institution	<p>Governmental organizations associated with natural resources conservation.</p> <p>NGO both local and national, and international directly work on conservation of natural resources and or involved in managing natural resources.</p> <p>Every people or manager carrying out activities either directly or indirectly regard to natural conservation and or involved in natural resources management.</p> <p>Autonomous traditional institution linked to natural resources in <i>gampong</i> and <i>mukim</i>.</p>	<i>Hukom Adat Laôt/Panglima Laôt</i> Institution.	<p>Qanun No. 20/ 2002 on Natural Resources Conservation.</p> <p>One of the functions of conservation institution is to provide inputs and suggestions to head of regional government concerning conservation control of natural resources.</p>
Management of marine and fishery resources			
Issue	Qanun	Adat Laot Laws	Remarks
Jurisdiction	<p>Territorial sea waters as 12 miles.</p> <p>Province between 4 and 12 miles sea</p> <p>District/municipal between 0 and 4 miles sea</p>	Stretching along from coastlines to open sea that consisting of <i>bineh pasie</i> , <i>leun pukat</i> , river mouth, <i>teupien</i> , and <i>laot luah</i> to some extent where the marine resources can be economically managed by traditional community.	Qanun No. 16/2002 on Management of Marine and Fishery Resources.

		Other physical spaces comprise <i>uteun bangka</i> , <i>uteun pasie</i> , <i>uteun aron</i> , <i>neuheun</i> , and <i>lancang sira</i> .	
Management of fishery resources	<p>Government has decided certain rules to regulate :</p> <ol style="list-style-type: none"> Fishing equipments. Technical conditions for proper sailing. Amount, types and size of fish to be captured. Areas, pathways, and time or fishing season. Preventing pollution, and damage, rehabilitating, improving fish and environment resources. Spreading new species of fish. Farming fish and the protecting. Preventing and halting microbes and disease commonly infected fish. <p>Other issues necessary for achieving the objective of the management.</p>	<p><i>Hukom Adat Laot</i> also regulates principles that are similar to those of government laws.</p> <ol style="list-style-type: none"> Fishing equipment, as long as not destroy marine organisms and the environment are permitted. <i>Panglima Laot</i> supports government policies including the issuing of fishing permit. Fishing areas, pathways, and time for <i>panglima laot</i> is made based on his expertise. Pollution and destruction are also regulated in customary laws. 	
Protection to natural resources	<p>Every people are prohibited to conduct activity that leads to pollution and destruction on natural resources and the environment that can endanger the sustainability.</p> <p>Provincial government can establish protection areas and or nature reserve in order for maintaining natural resources and the biodiversity as well as the germ or sperm-<i>nutfah</i>-plasmas.</p>	<p>Prohibited to explode, poison, anesthetize, electrify, exploit coral reef, and other substances that can endanger the environment.</p> <p>Prohibited to cut down/destroy trees by the seashore such as <i>arun</i>, <i>pandan</i>, <i>ketapang</i>, mangrove, and other trees growing there.</p>	Qanun No. 21/2002 on Natural Resources Management.

		<p>Prohibited to catch fish/ other marine organism that protected (dolphins, ea turtle, and others).</p> <p>Prohibited to use dragnet in coral reef (spawning ground).</p> <p>Rules on fishing tagging-fish.</p>	
<p>Involvement of local community in managing natural resources</p>	<p>Community can conduct natural resources management in fair, democratic, and sustainable ways that parallel with traditional wisdoms.</p> <p>Community in the neighborhood of natural resources location has first priority to participate in managing the resources.</p> <p>Prior to conduct an activity related to natural resources management, the managers are obliged to disseminate their objectives to traditional community and or local villagers in order to obtain inputs that can be taken into consideration in making decision that fair for all sides.</p> <p>Those inputs have to be valued objectively either by qualitative or quantitative approaches.</p>	<p>Management is done collectively by coastal villagers. Started out with designing plans, implementing, and monitoring under <i>panglima laot</i>'s control.</p>	<p>Qanun No. 21/2002 on Natural Resources Management.</p>

Looking at tables above, basically the management of marine and fishery resources contained in Qanun is also regulated in marine customary laws, both written and unwritten. Fundamental problem is that Qanun does not explicitly specify sea-use planning, as instead it only states

that regional government is authorized to make the spatial planning⁵. This is different than marine customary laws that, in operation, divide physical space in spatial planning by adat laws that consider spaces into two, i.e. conservation (uteun pasie, uteun aroen, bineh pasie), and farming/cultivating (leun pukat, teupien, laot luah). There are also regulations on fishing areas by fishing equipment, e.g. pukat aceh area, and palong area.

⁵ Article 7 Qanun No. 16 /2002 tentang on Natural Resources Management.

CHAPTER VI

RECOMMENDATIONS

1. Policies in the form of regulation underscoring the resources conservation of marine and fishery, and the advantage of local villagers are high priority. The most urgent regulations shall be launched at this time are:
 - a. Qanun revision on Marine and Fishery Resources Management adheres to Governance of Aceh Laws and Law No. 31/2004 on Fishery that highlight conservational and sustainable aspects within a social, cultural, economic, ecological, and institutional dimension.
 - b. Qanun on Sea Spatial Planning, Coastal Regions, and Small Islands which integrated in General Spatial Planning of Mainland. Mandate to design spatial planning for sea and coastal regions has been consent to Law No. 2/2004. Nevertheless, until entering the third year, significantly follow-up attempts do not come up. In the Law on Aceh Governance similar issue is regulated again. It is correct that if message contained in the Law on Aceh Governance immediately responded. Reward to coastal spatial planning developed by traditional law is imperative so that it is essential to adjust a sea-use spatial planning to that already been developed by customary laws.
 - c. Assigned number of sea conservation areas managed by provincial and or district and municipal government. According to the message of sea and coast management mandated in Law No. 32/2004. The assignment ought to involve *panglima laot* institution as the representative of community.
 - d. Qanun on Fishing Permits and Enterprising Marine Resources.
 - e. Governor Regulation on Mechanism and Utilization Organization of Marine Resources and the Environmental Services.
 - f. Governor Regulation on Funding for Conservation and Rehabilitation Marine and Fishery Resources.
 - g. Governor Regulation on Monitoring and Control Team of Marine and Fishery Resources.
 - h. Governor Regulation on Acknowledgement and Protection of Rights and Local Customary Laws as mandated in Law No.11/2006.
 - i. Governor Regulation on Institutional and Coordination System of Coastal and Marine Areas Management.
2. An exclusive financial institution, that is effective and taking side with small-scale fisherman, to distribute capital loans with lower interest is highly preferred.

3. Policies on management system of coastal and marine areas that integrated and environmentally sound at provincial and district/municipal levels are urgently needed. Also, to conduct synchronization on law system (rules, policies, organizations and institutions) as pillar of marine and coastal management. Management that continuing this model has been using *community-based management* approach. The approach is proven to be more efficient and gets strong legitimacy from the community, and consequently, its success degree is likely higher. Local wisdoms that adopted by marine customary laws have to be profound substance in the planned management system.
4. Government's policies which put more emphasis on institutional quality with certain authority should be integrated with the marine customary laws that prioritize safeguarding and preserving efforts to the local marine and fishery resources.
5. It is urgent to optimize and make effective the Coordinating Team for Management of Rehabilitating Ecosystem in Coastal Areas which has been assigned through decree SK No. 522.5/092/2005 on 25 March 2005. It is expected that through the instrument can be done mechanism of communication, coordination, consultation, and consolidation to plan, manage, and make budget for sea and coastal areas at both district/municipal, and provincial levels that integrated with national budget and planning development. In addition, in future, the institution can be sponsored by either provincial or district/municipal APBD (local budget).
6. Revitalizing and strengthening institutional mechanism for *Panglima Laot* thus a social system gets stronger to execute management mechanism (i.e. planning, implementing, and evaluating) of marine and coastal resources are highly required.

GLOSSARY OF TERMS

Ecosystem: unity among vegetation, animals, organisms and non organisms, as well as each linking process in developing stability, and productivity.

Environmental capacity: capability of living space to maintain life of humans and other living creatures.

Coastal area: transitional area between land ecosystem and marine ecosystem that affected by changes either in land or in sea.

Sedimentation: separation of heavier suspension particles from water within liquid by gravitation.

Abrasion: a weathering process by friction or water movement (river or sea water, rain, ice, or wind).

Decocentration: authority delegating by central govt. to governor as the government's representative and/or to vertical institution within a particular region.

Autonomous area: rights, authority and obligations of autonomous region to manage and develop its own domestic affairs and its community's importance appropriate to prevailing laws.

Lex specialis derogat lex generalis: Legislation with specific characteristics disregarding the universal regulations.

Qanun: Legislation similar to regional/local regulations (provincial/district/municipal) that regulates the governance and existence of Aceh

Blue print: Master plan for rehabilitation and reconstruction of areas and livelihoods of NAD Province and Nias Island of North Sumatera Province. The blueprint is designed by both central and local government.

PP: Governmental Regulation.

PERPU: Governmental Regulation as Replacement to Laws.

SK: Decree.

KB: Joint decree.

APBN: National Budget and Revenue.

APBD: Regional Budget and Revenue.

HP-3: It is a short form for *Hak Pengusahaan Perairan Pesisir* or Coastal Areas Utilization Permit, is a utilization permit over certain parts of coastal areas for marine and fishery enterprises and other associated ventures relating to coastal resources and smaller islands development. The permit allows the its holder to manage a certain extent of the sea concession from the surface to the bottom.

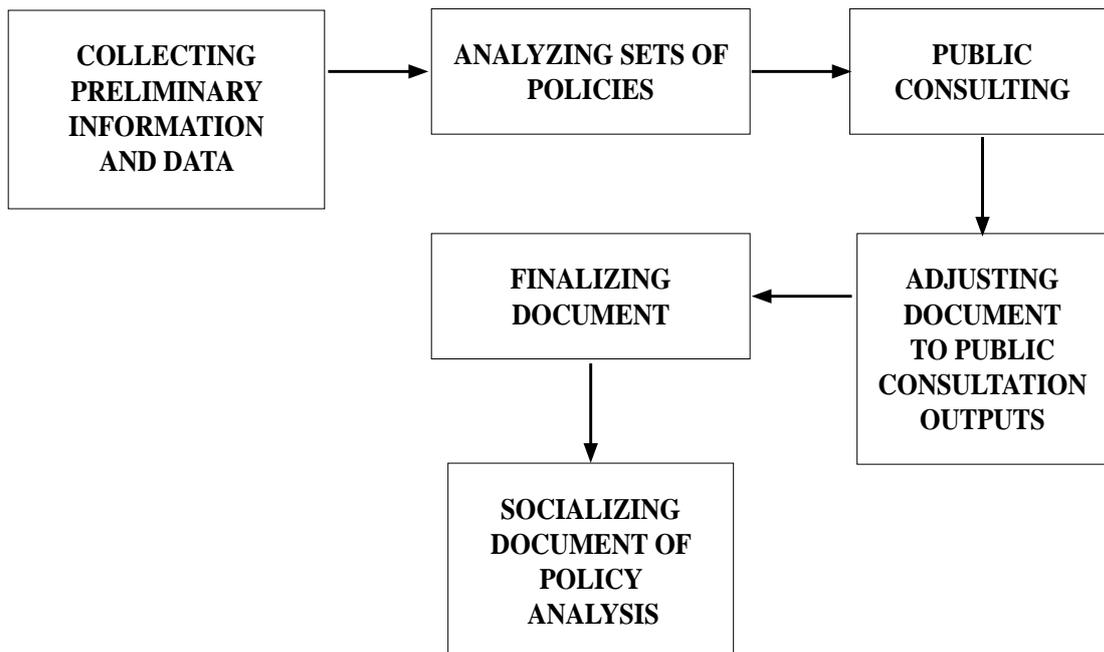
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APPENDIX

IMPLEMENTATION PHASE OF POLICY ANALYSIS, AND PARTIES PARTICIPATED

The policy analyses conducted by WWF-Indonesia Aceh Program Office has come to several phases as outlined below:



PARTIES PARTICIPATED

The study has involved numerous parties of different representations i.e. provincial governments, district and municipal, traditional institutions, and other sides as well. The followings are list of the parties took part in the study:

Provincial, district and municipal governments:

- BAPPEDA or Regional Board for Planning and Development.
- Marine and Fishery Regional Office.
- BAPEDALDA or Regional Board for Mitigating Environmental Impacts.
- DPRD or Regional Parliament House.
- Forestry Regional Office.
- BKSDA or Conservation and Natural Resources Agency.
- POLAIR
- Loka Budidaya Air Payau or Salty Water Cultivation Shop.
- *Panglima Laot* of NAD Province.
- District *Panglima Laot*.
- MAA
- Local institutions.

Work areas of participated governments:

- Province of NAD
- Banda Aceh city
- District of Aceh Besar
- Sabang city.
- District of Pidie
- Sigli city
- District of North Aceh
- Lhokseumawe city
- District of East Aceh
- Langsa city
- District of West Aceh
- District of Nagan Raya
- District of Aceh Jaya
- District of Sim