



Protecting and Empowering Coastal Indigenous communities under Mangrove Essential Ecosystem Regulation in West Papua Province

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Abstract: West Papua province has the second largest mangrove resource in Indonesia after Papua province, and is surrounded with 4,514 small to big islands where coastal communities are live in and relied on this resource for their livelihoods and shelters. Following the Manokwari declaration for protecting and sustaining 70% of forest cover area including mangrove, a provincial regulation is substantially needed in order to shield and sustain this fragile and extremely valuable resources. This mangrove regulation is designed to conserve, protect and utilize biotic and abiotic coastal ecosystem with highly emphasized to improve the indigenous coastal prosperity, integrity, to acknowledge their local wisdom, culture and facilitate direct participation in sustainable development in this province. Various consecutive methods were employed, from literature review, focus group discussion, public consultation, harmonization, local house of representative hearing and consultation with three ministry at national level. The results indicated that Mangrove Essential Ecosystem is the name of the West Papua provincial regulation with four main concerns, to protect mangrove resources; to shield, coaching and empowering mangrove ecosystem with its biotic and abiotic constituents including local communities lived, owned and used this ecosystem; to safeguard sustainable existence, solidity, functionality, and usefulness of mangrove ecosystem for local, national and international agenda, and customary rights of the indigenous communities, and to offer a justice and ownership to the customary clans/tribes related to their indigenous knowledge practices, life and livelihood dependency. This provincial regulation is officially recorded as Peraturan Daerah No 5 tahun 2022. Even though, several challenging tasks are faced, such dissemination to all stakeholders from the all level coastal communities, regional and national official representative, funding sources, and others. This provincial regulation is a step forward to implement the Manokwari declaration agendas 2018.

Keywords: *protecting; empowering; indigenous communities; mangrove; essential ecosystem, and mitigation.*

1. INTRODUCTION

Indonesian archipelago has mangrove covered area of 2,547,556.25 ha [1], and Indonesian New Guinea has the largest mangrove in this country of 1,324,800 ha, which is 841,000 ha at Papua Province and the rest of 483,800 ha is at West Papua province [2]. It is spread out through eleven of thirteen districts except for Pegunungan Arfak and Maybrat. The West Papua province has 4,514 small to big, habited to inhabited islands [3], where indigenous coastal communities or ethnics are mostly live in and heavy relied on the coastal resources for daily activities, shelter and future life.

For local coastal communities in West Papua Province, mangrove resources have played key roles ranging from traditional medicine [4], sources of foods, informal works[5], essential nutrients, shelter and environmental protection[6]–[8], and socio-cultural heritage[9], and environmental services for ecotourism[10].

These invaluable contributions of the mangrove resource to the indigenous coastal communities are substantially vital for their livelihood not only for today but also tomorrow. Studies has reported that the indigenous coastal communities have their local wisdoms in managing and utilizing mangrove resources inherited from their ancestors[6], [8]. Also, they have various cultural and socio values, cultural products of handicraft, folk songs, dancing, and others [9]. Varieties of the local wisdom mentioned previously have to be protected and acknowledged by the provincial government through Mangrove Essential Ecosystem (MEE).

Essential Ecosystem Area (EEA) is non conservation areas, nature Reserve area, nature conservation area, and Hunting park, or territory with uniqueness and important habitat or species functions and ecologically important for biodiversity values[11]. It is a policy formulation shifting natural resources and biodiversity management from the central to local scheme or decentralization [12]. The EEA has distinguished into four main design for wetland ecosystem base, wild animal corridor, high conservation value forest/area, and uniqueness of geomorphology landscape. The West Papua's mangrove resources regulation of the MEE, therefore, could be both for wetland ecosystem base and high conservation value forest/area.

Recently, West Papua province has declared as the first conservation province in Indonesia with officially being regulated with special provincial regulation or Perdasus No.10 2019 [13], where sustainable development base, green economy commodity based local products orientation and 70% of forest cover area existence are amongst the Manokwari declaration milestone agenda[14]. The West Papua specific provincial regulation respected and acknowledged the indigenous culture, society, landlord ownership, protection and empowerment has been officially accommodated in Perdasus No. 9 2019 [15]. The local and indigenous coastal communities living in and depending on the mangrove resource are facing uncertainty with the climate change consequences and other threaten development programs from local, regional and national agenda.

The sustainable functionality and existence of this resource for local and indigenous coastal communities could be achieved when the mangrove resource is managed with respect to the local wisdom of the coastal community through the MEE regulation. Also, it will be indirect involvement and active participations of the local coastal communities to sustainable development programs in the West Papua province.

2. GOALS

The West Papua provincial's Mangrove regulation, namely as Mangrove Essential Ecosystem is designed for has four main goals. The first goal is to protect mangrove resources with regulation form land conversion, exploration and exploitation with local communities as the leading actors using their local wisdoms. The second goal is to shield, coaching and empowering mangrove's biotic and abiotic ecosystem constituents including local communities lived, owned and used this ecosystem with multiple methods, participations, and partnerships. The third goal is to safeguard sustainable existence, solidity, functionality, and usefulness of mangrove ecosystem for local, national and international agenda mainly for climate mitigation, livelihood independence, and sustainable development goals. The last goal is to offer a justice and ownership to the customary clans/tribes related to their indigenous knowledge practices, life and livelihood dependency.

3. METHODOLOGY

Sixth different and consecutive approaches or processes were employed to finish this MEE's provincial regulation, covering from literature review, focus group discussion, public consultation, harmonization, local house of representative hearing, and national consultation with three ministry offices. Firstly, expertized team conducts a literature review. The literature

review is conducted to collect as many data, information and regulations at local and national level related to the provincial regulation being constructed. Specific attentions are intended for roles of mangrove to local and coastal indigenous communities in West Papua province, national regulation focusing on empowering coastal and indigenous community concern, and other regulations related. The expertized consultants are then analysis the gathered data and synthesized the provincial MEE regulation outline. Two different documents, namely academic paper and designed MEE West Papua province regulation, respectively are planned. Secondly, focus discussion group was conducted to gain and gather any advices, concerned specific issues, and objection for the outlines being presented by the expertized team. Thirdly, public consultation was held to present the first draft of the two documents, academic paper and designed MEE West Papua Provincial Regulation.

After been re-written with adding, deleting or expanding the first draft regulation, the final draft regulation is then presented again in the final public consultation. The fourth approach was harmonization, where national representative law and human right office in West Papua province identify and inspects the draft MEE West Papua provincial regulation, and facilitated by the Law/Legal Bureau from the Regional Secretary of West Papua provincial. The fifth is the hearing process with the Local house representative of the West Papua Province. The sixth or last approach was consultation at national level, mainly with ministry of home affair, ministry of environment and Forestry, ministry of Marine Affair and Fisheries.

3. COVERAGE

This MEE West Papua Provincial regulation has various subjects, and could be summarized into the following coverages. The first is protection and management Mangrove ecosystem spaces covering mitigation from any climate change and degradation, existence, sustainable utilization local wisdom based products, flora and fauna protection. Management ecosystem spaces is intended to improve livelihood quality and direct participation of the local coastal communities on the sustainable development based programs the West Papua Province. The second is biodiversity conservation and indigenous communities empowerment. The MEE provincial regulation is an actualization of the West Papua province sustainable development and Manokwari declaration based agenda, conserving biodiversity richness, social culture, genetic plasms, and local wisdom with direct participation of the local communities. This provincial regulation is a direct empowerments of the local government to the existence, contributions and roles of local community for government program. They will build a character building on basic health and education, skill and training, gender issues, entrepreneurship and others. The third coverage is utilizations.

Through MEE regulation, the mangrove resource could be managed and utilized for various purposes, such as environmental services, creative economy-based products, and other activities initiated by personal, group, local cooperation, cultural non-formal institutions, and small and micro entrepreneurship. These utilizations are designed to improve livelihood, create formal and informal jobs, stimulate entrepreneurship and local based products innovation. Prohibition is applied for any activities classified as exploration and exploitation of the mangrove resource under the MEE permit. Several documents are required to get MEE permit from the West Papua provincial governor, and collaborative field survey have to be conducted for feasibility study.

The MEE's permit is valid for ten years, and an extension could be applied after the first permit was evaluated with good performance in general. The fourth is human resources development, which could be prepared from non-formal and informal such as field training and short intensive courses, and formal education, which will be mangrove studi program managed by the Faculty of Forestry University of Papua Manokwari. Mangrove resources center will be established and supervised by the West Papua Research and Innovation Agency to accommodate, facilitate and coordinate a global mangrove researchers wishing to study mangrove in West Papua area. The fifth is funding from different funding either from local, national government and green funding sources from the oversea. The sixth covers for auditing, taxation,

reporting, sanctions, prohibition, monitoring and supervising, organization, intern government cooperation, and mangrove resource center establishment.

4. CHALLENGING IMPLEMENTATION

This MEE provincial regulation could be faced various difficulties such as socialization to all stakeholder amongst the local, regional, national official governments, disseminating and elaborating the MEE permit to indigenous community, ensuring fund rising, and fund accessibility, and promoting products. However, this is a real chance to protect, coaching and empowering mangrove resources including the indigenous communities lived and heavily depending on these resources. Also, it is widely expected that this regulation is a new line to build a trust between government and the local communities, their indirectly involvement and participation in sustainable development program in West Papua Province, and acknowledged their local wisdoms in conserving their natural resources.

5. CONCLUSION

The MEE West Papua provincial regulation is a step a head to support and actualizing the Manokwari declaration, with main emphasizing to protect, conserve and to empower the coastal indigenous communities, acknowledged their local wisdom, culture and roles in managing and utilizing their mangrove. These missions will parallely contribute to climate change mitigation. Even though, several difficulties will be faced ahead, this MEE is an official direction, missions and actions of the West Papua province to fulfill the sustainable development based with focusing on local wisdom practice and based products orientation and further in lined implementation of the Manokwari declaration agendas.

Conflicts of Interest: The authors declare no conflict of interest and the founding sponsors had no role in the design of the study; in the collection, analyses, or interpretation of data; in the writing of the manuscript, and in the decision to publish the results”.

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