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FROM CUSTOMARY GOVERNANCE TO BIODIVERSITY CONSERVATION: LEGAL PROSPECTS FOR COMMUNITY-BASED COASTAL RESOURCE MANAGEMENT AS OECMs IN INDONESIA

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Abstract

This study examines the legal challenges and necessary measures for recognising community-based coastal resource management practices in Indonesia as Other Effective Area-Based Conservation Measures (OECMs). As the Kunming-Montreal Global Biodiversity Framework requires the conservation of at least 30 percent of terrestrial, inland water, coastal, and marine areas by 2030, OECMs have become an important instrument for expanding conservation beyond formal protected areas. Indonesia has significant potential to implement OECMs because many coastal and customary communities have long maintained local resource management systems, such as sasi, panglima laot, awig-awig, egek, parimpari, papadak, and other customary practices. These systems reflect community stewardship, ecological sustainability, local wisdom, and social legitimacy. However, their integration into the formal OECM framework remains legally and institutionally complex. Using a non-doctrinal research design with a socio-legal approach, this study draws on in-depth interviews with customary leaders from Wakatobi Island, the Kei Islands, and the Jambi Malay Customary Institution, supported by participant observation and secondary legal and policy analysis. The findings show that the recognition of community-based coastal resource management as OECMs is constrained by the absence of specific OECM regulations, fragmented natural resource governance, overlapping sectoral authority, reduced district and municipal roles in marine management, limited legal recognition of customary law communities, and weak community capacity in documentation, monitoring, and reporting. The study also finds that government policy risks treating OECMs as an administrative tool for meeting global conservation targets rather than as a substantive framework for biodiversity protection and community empowerment. This study argues that effective OECM implementation requires a comprehensive legal framework, harmonised conservation and natural resource regulations, accelerated recognition of customary law communities, meaningful participation based on Free, Prior and Informed Consent, and capacity-building support for local communities. Recognising community-based coastal management practices as OECMs can strengthen biodiversity conservation, provide legal certainty and protection, and affirm communities as legitimate rights holders in sustainable coastal governance.

Keywords: OECMs; Coastal Management; Customary Law Communities; Legal Recognition; Biodiversity Conservation.

A. Introduction

The global community is currently confronting an ecological crisis characterised by the accelerated loss of biodiversity, a predicament that has catalysed the development of novel approaches to strengthen conservation strategies (Armstrong, 2024; Upreti, 2023). In relation to

this, the 15th Conference of Parties (COP15) to the UN Convention on Biological Diversity (CBD), held in Montreal, Canada, on December 7-19, 2022, adopted the Kunming-Montreal Global Biodiversity Framework (GBF) (Stephens, 2023; Zhang et al., 2025). The GBF consists of four long-term goals for 2050 and 23 targets for 2030. The convention reflects the contentious conservation context of the past century and decades, as well as the 3.5 years of Global Biodiversity Framework (GBF) negotiations leading up to COP15 (Obura, 2023). The GBF's 2030 mission is to halt and reverse biodiversity loss whilst promoting nature recovery for the benefit of people and the planet (Amos, 2025; Odia, 2025). Target 3 – frequently termed the '30x30' target – stipulates the conservation of at least 30 percent of the planet's terrestrial, inland water, and coastal and marine areas by 2030 through protected area systems and OECMs (CBD, 2022; Jonas et al., 2024; Shen et al., 2023). Therefore, signatory nations, including Indonesia, are compelled to align their national strategies to meet these obligations.

Other Effective Area-Based Conservation Measures (OECMs) represents a new approach to expanding conservation areas outside protected areas, serving as a primary instrument for countries to fulfil the targets of the Global Biodiversity Framework (GBF) 2030. In other words, the development of an OECM system is considered a key mechanism for supporting these global conservation targets under the Kunming-Montreal Global Biodiversity Framework (Shuyu et al, 2026). Although the concepts of OECMs was actually introduced into the Convention on Biological Diversity in 2010, a formal definition was published at the 14th Conference of the Parties to the Convention on Biological Diversity in Sharm El-Sheikh, Egypt, from November 17-29, 2018 (CBD, 2018). The OECMs are defined as geographically defined areas outside formal protected landscapes that are governed and managed in a manner that delivers effective and long-term biodiversity conservation outcomes (Cook et al., 2026). These areas also contribute to the protection of ecosystem functions and services while preserving cultural, spiritual, socio-economic, and other values that are relevant to local communities (CBD, 2018). OECMs can also be described as a non-protected geographic sites that achieve sustained biodiversity conservation under equitable governance and management (Lalonde et al., 2022).

This inherent flexibility of the OECMs framework facilitates recognition of a diverse management regimes that contribute to biodiversity conservation, irrespective of their primary objectives. This open-door policy provides an avenue to validate and strengthening existing management practices, including those led by communities (Dudayev et al., 2025; Dudley et al., 2018; Maini et al., 2023). Therefore, OECMs have great potential to be implemented in Indonesia, given that various community-based coastal resource management practices. However, integrating these localised coastal resource management practices into the formal OECMs framework presents distinct challenges, primarily due to conceptual divergence traditional community management and OECMs' criteria (Estradivari et al., 2024).

While community-based coastal resource management practices are managed by local communities or customary law communities, while OECMs accommodate a broader variety of rights holders and actors including customary law communities, local communities, government agencies, as well as sectoral actors, private organisations, and individuals (Fitzsimons et al., 2024; Rodríguez-Rodríguez et al., 2021). A defining characteristic of OECMs is that they permit sustainable utilisation and diverse resource management goals, provided that the overarching governance effectively secures long-term *in situ* biodiversity outcomes (Garcia et al., 2022; Hoesen et al., 2023). Furthermore, Indonesian community-based coastal resource management practices employ a resource management approach prioritising community-based welfare an ecosystem sustainability; conversely, OECMs are explicitly designed to deliver targeted biodiversity conservation outcomes. This fundamental misalignment in primary objectives complicates the formal designation of community-based coastal resource management practices as OECMs (Hasan et al., 2026).

Community-based coastal resource management is a concept of coastal resource governance in which communities act as primary agents throughout the management process (Berkes, 2006; Fabricius & Collins, 2007; Kearney et al., 2007). In this context, this active engagement spans the planning, implementation, supervision, and the utilisation of management outcomes (Dewi, 2016). Such initiatives are typically sustained by customary law communities *(masyarakat hukum adat)* or local communities *(masyarakat lokal)*. Based on Law No. 27 of 2007, customary law communities are defined as coastal communities that have inhabited specific geographical areas due to ancestral ties, strong relationships with coastal resources and small islands, as well as the existence of value systems that shape their economic, political, social, and legal institutions (Pradhani, 2018). Conversely, local communities comprise a group of people whose daily lives are guided by normative, widely accepted local customs, but who lack total structural or existential dependence on certain Coastal Resources and Small Islands.

Customary law is fundamentally rooted in the values, norms, and traditions that develop within customary law communities (Dahwal & Fernando, 2024; Diala, 2017; Erwin & Yusriyadi, 2024). Therefore, it is widely recognised as a 'living law' owing to its community-centred, reflecting the immediate social realities and cultural practices of the communities it governs (Lestarini, 2023; Lubis, 2026). This legal tradition comprises a set of behavioural rules that possess coercive force despite being generally uncodified. In the context of natural resource management, customary law emphasises the principles of communal stewardship and ecological balance (Jayantiari et al., 2025). These norms have evolved through communities' long-term interactions and adaptation to their surrounding environment. Violations of customary law are subject to customary sanctions, which are enforced through traditional mechanisms administered by local customary institutions (Erniwati et al., 2025; Sartini et al., 2026).

The legal recognition of community-based coastal resource management practices is closely related to legal certainty and legal protection. Otto (2012) conceptualised legal certainty as a condition in which legal rules are available, clear, consistent, easily accessible, and are issued by legitimate state authorities. In addition, this framework requires that government institutions must apply these legal rules consistently, that the populace broadly accepts the substance of the regulations by aligning their conduct accordingly, that independent, impartial judges are effectively executed in practice (Shidarta, 2006). Meanwhile, Rahardjo (2000) defined legal protection as the systematic efforts to protect human rights against infringement by external actors, thereby ensuring that individuals and communities can fully exercise and enjoy the rights granted upon them by the legal system.

Although the literature surrounding Other Effective Area-Based Conservation Measures (OECMs) is expanding rapidly, research directly addressing the legal recognition of community-based coastal resource management as OECMs remains sparse. However, prior studies have highlighted the role of OECMs in supporting the existence of customary law communities in land and marine resource management (Gurney et al., 2021). Previous research has also underscored the necessity of strong identification guidelines, monitoring systems, and periodic reporting mechanisms to guarantee OECMs efficacy (Alves-Pinto et al., 2021). The similarities between OECMs and Marine Protected Areas (MPAs) are to protect biodiversity and promote ecosystem sustainability (Gonçalves, 2023). Meanwhile, the implementation of OECMs must integrate strategies including the protection of customary law communities and cross-sectoral collaboration (Petza et al., 2026). For instance, various land-use categories and conservation mechanisms in Australia can be assessed to fulfil the OECMs criteria, particularly in conserving biodiversity (Fitzsimons et al., 2024). While China needs to actively develop governance approaches, strengthen *in-situ* conservation systems, and create adaptive management mechanisms to support the achievement of the "30×30" target (Hou et al., 2026). The main challenges in identifying OECMs are associated with threat management, sufficient resources, and the capacity to

demonstrate that governance and management systems can achieve effective and long-term conservation outcomes (Cook et al., 2026).

The existing studies on OECMs primarily focus on conservation policy, area classification, conceptual comparisons, or implementation strategies, leaving rigorous legal analyses concerning the recognition of community-based practices as OECMs limited. Conversely, this study focuses on the legal dimension of recognising community-based coastal management practices as OECMs. Specifically, this study examines the challenges in legal recognising community-based coastal resource management practices as OECMs and the efforts required to address these challenges. The novelty of this research lies in its capacity to provide contribution in the implementation of OECMs in Indonesia by connecting local governance practices with global conservation frameworks.

B. Method

This study employed a non-doctrinal research design with a socio-legal approach to examine the challenges associated with the legal recognition of community-based coastal resource management practices as Other Effective Area-Based Conservation Measures (OECMs), as well as the efforts required to address such challenges. The research integrated both primary and secondary data. Primary data were collected through in-depth interviews with customary leaders from Wakatobi Island in Southeast Sulawesi, the Kei Islands in Southeast Maluku, and the Jambi Malay Customary Institution in Jambi Province. These interviews aimed to obtain a deeper understanding of local community-based coastal resource management practices and the obstacles encountered in securing their legal recognition. Participant observation was also conducted in all three locations to provide a more comprehensive understanding of the social, cultural, and legal dynamics surrounding the recognition of these practices as OECMs.

Secondary data were gathered through an extensive literature review, including academic journals, previous research, case studies, books, OECM guidelines, and relevant reports. Additional information was obtained from government ministries and non-governmental organisations concerning community-based coastal resource management, OECMs, conservation policies, and applicable regulations. All data were analysed using a qualitative descriptive method by systematically organising, interpreting, and presenting the findings in a coherent, logical, and structured manner. This analytical process enabled the study to address the research questions and formulate conclusions regarding the legal recognition of community-based coastal resource management practices as OECMs.

C. Results and Discussion

1. Global Policy Frameworks for OECMs

The concept of Other Effective Area-Based Conservation Measures (OECMs) represents a new conservation approach in the global conservation regime (Fitzsimons et al., 2024). This approach stems from the growing realisation that biodiversity cannot depend exclusively on conventional, formally designated protected areas (PAs) or Marine Protected Areas (MPAs) (P. Jones, 2014; Jones, 2007). Indeed, the integration of OECMs has become essential because protected areas are insufficient to meet biodiversity conservation goals. One of the fundamental distinctions between OECMs and protected areas lies in their conservation orientation (Brodie et al., 2025; Stier et al., 2025). Protected areas are specifically established with biodiversity conservation as their primary objective, whereas OECMs are assessed based on their ability to achieve effective and long-term *in-situ* biodiversity conservation outcomes, regardless of their original management objectives (Sinthumule, 2025). Therefore, a major challenge in the implementation of OECMs is ensuring that these areas genuinely provide effective conservation outcomes for biodiversity (Himes-Cornell et al., 2022; Lemieux et al., 2022). The OECMs hold

significant potential to act as a cross-sectoral bridge, uniting environmental authorities, health and veterinary institutions, communities, local governments, and development partner (International Union for Conservation of Nature, 2025). By expanding conservation networks beyond traditional borders, OECMs offers an alternative solution to bridge the gap between socio-economic feasibility and bold conservation targets (Bhola et al., 2021; Shiono et al., 2021). Therefore, the formal recognition of pre-existing community-based coastal resource management practices emerges as a viable pathway for territorial expansion.

The OECMs was initially proposed in the Convention on Biological Diversity (CBD) at the 10th Conference of the Parties (COP10), held on October 18th to 29th 2010 in Nagoya Japan (Corson et al., 2025). The term 'biodiversity' was broadly conceptualised as the planetary diversity of life and ecological processes that exist on Earth, encompassing all living organisms ranging from tiny microorganisms to plants, animals, and humans (de Freitas & Junior, 2025; Díaz & Malhi, 2022; Jayaramaiah et al., 2024). Formally, the CBD defines biodiversity as the variability among living organisms originating from all types of ecosystems – including terrestrial, marine, and other aquatic environments, as well as the ecological systems in which they exist (Cochrane et al., 2016; Ekardt et al., 2023). It encompasses genetic diversity within species, diversity among species, and diversity across ecosystems (Mace et al., 2010). COP20 culminated the adoption of landmark decisions across three key areas: participants agreed on new global biodiversity targets and an ambitious strategy on global biodiversity conservation from 2011 to 2020, established binding funding targets for their implementation, and adopted the access to genetic resources and benefit-sharing (ABS) protocol internationally binding rules for access to genetic resources as well as the fair and equitable sharing of benefits arising from their use (Xu et al., 2021). Moreover, regarding OECMs, at the concept was first articulated within Decision X/2.Strategic Plan for Biodiversity 2011-2020 under Aichi Biodiversity Target 11. This target dictated that by 2020, at least 17 per cent of terrestrial and inland water areas, and 10 per cent of coastal and marine areas, should be conserved through effectively and equitably managed, ecologically representative and well-connected systems of protected areas and other effective area-based conservation measures, and integrated into the wider landscapes and seascapes (CBD, 2010). However, at that time, the operational definition of OECM remained entirely ambiguous, with the formal conference proceedings omitting any baseline criteria or definitions for the mechanism.

The OECMs were then officially defined at the 14th Conference of the Parties (COP 14) CBD on November 17th – 29th, 2018 in Sharm El-Sheikh, Egypt (China Council for International Cooperation on Environment and Development (CCICED) Secretariat, 2023; Garcia et al., 2022). In Decision 14/8 about Protected Areas and Other Effective Area-Based Conservation Measures in point 2, it stated that "Other Effective Area-Based Conservation Measure" identifies as "a geographically defined area other than a Protected Area, which is governed and managed in ways that achieve positive and sustained long-term outcomes for the *in situ* conservation of biodiversity, with associated ecosystem functions and services and where applicable, cultural, spiritual, socio–economic, and other locally relevant values" (Cook et al., 2026; Sato et al., 2023). At this conference, participants are encouraged to identify OECMs in their various forms and ways of management within the jurisdiction of each country. They also must submit data on the OECMs to the United Nations Environment Programme's World Conservation Monitoring Centre to be included in the World Database on Protected Areas (Dudley, 2024). This provision reflects international efforts to strengthen the recognition, data collection, and integration of area-based conservation outside formal protected areas into global conservation monitoring systems.

The implementation of OECMs gained significant international attention during the 15th Conference of the Parties (COP15), held from December 7 to 19, 2022, in Montreal, Canada. The summit culminated in the adoption of the Kunming-Montreal Global Biodiversity Framework (KM-GBF) on December 19, 2022. Through this framework, participating states committed to conserving at least 30 percent of terrestrial, inland water, coastal, and marine ecosystems by 2030,

primarily through protected areas and OECMs. Consequently, OECMs have increasingly been recognised as an important instrument for achieving global biodiversity conservation targets. However, despite the acceleration of area-based management targets, concerns remain as to whether global conservation ambitions will adequately acknowledge all contributions to the effective and equitable protection of important areas, and whether these targets can ultimately be achieved (Himes-Cornell et al., 2022).

2. National Policy Frameworks for OECMs

Indonesia has formalised its support for these global conservation target through the Indonesian Biodiversity Strategy and Action Plan (IBSAP) document 2025–2045. This document is integrated into the National Long-Term Development Plan 2025–2045 and the National Medium-Term Development Plan 2025–2029, aligning domestic policy with the global framework. This integration adheres to Presidential Instruction of the Republic of Indonesia No. 1 of 2023, which mandates the mainstreaming of biodiversity into sustainable development. The IBSAP 2025–2045 is guided by the vision of "living in harmony with nature for the sustainability of all forms of life in Indonesia" (Naparin et al., 2025; Nugroho et al., 2023). This vision is supported by a mission to manage biodiversity through protection, sustainable utilisation, the advancement of science and technology, and the strengthening of resources and governance.

To realise this vision and mission, the IBSAP sets out three main goals, 13 strategies, 20 national targets, and 95 action groups. These goals aim to strengthen ecosystem integration and resilience in biodiversity management, reduce the risk of species extinction, maintain genetic diversity, optimise the sustainable use of biodiversity for present and future generations, and strengthen biodiversity governance and means of implementation. This includes advancing science and technology, improving human resource capacity, strengthening financing mechanisms, enhancing regulations, and reinforcing law enforcement.

In addition, the implementation of the IBSAP is guided by five principles of biodiversity management: sovereignty, equity, precaution, systematic and measurable approaches, and participation. Serving as a strategic guideline for the next two decades the IBSAP functions both as a national guideline and an instrument for Indonesia's biodiversity diplomacy in the global arena (National Development Planning Agency, 2024). To maintain its relevance amid evolving biodiversity conditions in Indonesia, the IBSAP is subject to a quinquennial review. Its implementation is supported by several operational frameworks, including institutional, regulatory, financial, monitoring, evaluation and reporting, as well as communication, education, and public awareness frameworks. Furthermore, the strategy is accompanied by several supporting documents, including biodiversity status reports across seven ecoregions, guidelines for monitoring and evaluation, and a comprehensive biodiversity funding framework (National Development Planning Agency, 2024).

Meanwhile, the Ministry of Marine Affairs and Fisheries enacted Regulation No. 31/Permen-KP/2020 concerning the Management of Conservation Areas. Article 2 stipulates that the management of conservation areas aims to support the protection, preservation, and sustainable utilisation of biodiversity and/or fish resources, as well as the protection, preservation, and utilisation of traditional cultural sites. This regulation covers the planning, designation, utilisation, supervision, evaluation, and funding. Conservation areas are categorised into parks, sanctuaries, and marine conservation areas – the latter of which includes customary marine protected areas and marine area protection zones. However, this specific regulation does not specifically address or mention OECMs. Despite this omission, the Ministry of Marine Affairs and Fisheries has established targets and strategies for achieving the expansion of conservation areas and the potential of OECM to realise the 30x45 target. In the document, it is stated that the post-2020 global biodiversity framework target three, includes an ambitious plan to protect 30 percent of the world's oceans by 2030 through a network of marine protected areas and OECMs. Therefore,

Indonesia has a 30x45 target as a manifestation of the global 30x30 target, which is to set aside 30 percent or 97.5 million hectares of Indonesia's coastline and sea for conservation and sustainable use (Ministry of Maritime Affairs and Fisheries, 2025b). According to the Ministry of Maritime Affairs and Fisheries, national achievements in conservation policy include that Indonesia succeeded in establishing a conservation area in waters covering an area of 17.3 million hectares or about 5.3 percent of the total area of Indonesia's seas. Next, in 2020, Indonesia succeeded in establishing a conservation area of 23.1 million hectares or around 7.1 percent of the total area of Indonesia's seas. In 2023, Indonesia succeeded in establishing a conservation area in waters covering an area of 29.3 million ha or around 9 percent of the total area of Indonesia's seas (Ministry of Maritime Affairs and Fisheries, 2025b).

The draft OECMs policy prepared by the Ministry of Marine Affairs and Fisheries outlines several criteria for the designation. These include areas that are not formally designated as conservation areas, must be managed by specific actors, and must demonstrate the potential to yield long-term conservation outcomes, and contribute to ecosystem functions as well as cultural, spiritual, socio-economic, and other societal values. The draft policy further identifies several OECMs, categories, including buffer zones surrounding conservation areas, ecological corridors, areas with high conservation value, community-managed conservation areas, local wisdom protection areas, waters surrounding marine infrastructure (including converted structures), customary marine protection areas, religious or belief-based protection areas, and maritime cultural protection areas. The recognition process for OECMs consists of several stages: a proposal for OECM designation is submitted to the Governor by individuals, local communities, research institutions, educational institutions, or non-governmental organisations. Then, potential OECMs are identified and inventoried based on ecological, cultural, and economic considerations. The results of the identification and inventory process are then reported to the Minister of Maritime Affairs and Fisheries for formal registration and integration of OECMs into relevant spatial planning and zoning frameworks. OECMs are subject to periodic evaluation by the Minister every five years, or more frequently if necessary. Where an area experiences a decline in its ecosystem protection function, its OECM status may be revoked or removed from the national registry (Ministry of Maritime Affairs and Fisheries, 2025a).

In addition, the National Development Planning Agency provides the blue economy development framework. It is intended to support global efforts toward achieving the 2030 Sustainable Development Goals, particularly those related to the conservation and sustainable utilisation of marine and ocean resources for sustainable development (National Development Planning Agency, 2021). This blue economy consists five strategic policies designed to maintain healthy marine ecosystems and ensure the long-term sustainability of fish stocks and other environmental services – including the expansion of marine conservation areas, the implementation of quota-based fishing systems to prevent over-exploitation beyond maximum sustainable yield levels, the promotion of sustainable marine, coastal, terrestrial aquaculture development, the enhancement of monitoring and control mechanisms in coastal and small island regions, as well as the strengthening of marine plastic waste management initiatives (Ministry of Maritime Affairs and Fisheries, 2025b).

From the above description, it shows that the Indonesian government's follow-up actions regarding OECMs remain limited. To date, there is no specific regulation governing OECMs, resulting in an unclear national legal framework for OECMS recognition and implementation. The government appears to have adopted a cautious approach, leading to relatively slow progress in the implementation of OECMs. Thus, government efforts have primarily focused on identifying and collecting data on potential OECMs dan make draft OECMs policy. Nevertheless, in the context of the implementation of OECMs, Indonesia is supported by various international and non-governmental organisations which working in the fields of conservation and environmental protection. They are include Conservation International, World Wide Fund for Nature, The Nature

Conservancy, Ocean 5, The David and Lucile Packard Foundation, Blue Action Fund, and Ocean Kind (Yuniarti, 2024). Other organisations include Yayasan Pesisir Lestari, Rekam Nusantara Foundation, Yayasan Konservasi Indonesia, Yayasan Konservasi Alam Nusantara, and Rare Indonesia. They have an important role in conservation initiatives, community-based environmental programs, sustainable resource management, and biodiversity protection strategies that are aligned with OECMs principles.

3. The Challenges in Legal Recognising Community-Based Coastal Resources Management Practices as OECMs in Indonesia

OECMs provide significant opportunities for the formal recognition of community-based coastal resource management practices, which are generally managed by local and customary law communities (Grorud-Colvert et al., 2026; Paterson, 2023; Techera, 2010; Trialfhianty et al, 2025). OECMs are well-suited to coastal waters within three nautical miles, as marine resource management in these areas is predominantly influenced by customary rights, community stewardship, and the practices of small-scale fishing communities (Hasan et al., 2026). Given this context, OECMs hold substantial implementation potential across the Indonesian archipelago due to its rich tapestry of community-based coastal resource management practices. Notable empirical examples include *sasi* in Maluku (Persada et al., 2018; Sueni et al., 2025; Vindy & Subroto, 2024), *panglima laot* in Aceh (Rahmawati & Afriandi, 2024; Susetyo et al., 2023; Wilson & Linkie, 2012), *awig-awig* in Lombok Island (Satria et al., 2006; Satria & Adhuri, 2010), *egek* in Papua (Patma & Kambuaya, 2024), *parimpari* in Wakatobi, Southeast Sulawesi (Ananingsih et al., 2025), *papadak* or *hoholok* in East Nusa Tenggara (Oktavia et al., 2018; Ramadhan et al., 2025), *rompong* in South Sulawesi (Satria & Adhuri, 2010; Shepherd & Terry, 2004), *seke* in Sangise Talaud Island, *subak* in Bali (Natalis, Asy'Arie, et al., 2025), *tana ulen* in Kalimantan (Eghenter, 2000), *mondau* in Tolaki tribe, Konawe Regency and *rumpon* in Lampung. Most of them are carried out by customary law communities, and others are carried out by local communities. Customary law communities employ customary law in the governance of natural resources such as land, forest, and water resources (Adjakloe, 2021; Chun, 2014; Natalis, Wibowo, et al., 2025; Tobin, 2014). Customary law deploy these uncodified legal systems to govern natural resources – such as land, forests, and water bodies – effectively steering environmental protection and sustainable resources utilisation for centuries (Trialfhianty et al, 2025). Customary law is recognised as a living law because it grows, develops, and evolves organically in accordance with the cultural dynamics, social needs, and worldview of the community (Diala, 2017; Perreau-Saussine & Murphy, 2007). Despite its unwritten nature, it remains structurally bonding, and infractions trigger traditional sanctions enforced by local customary institutions.

However, the recognition of community-based coastal resource management practices in Indonesia continues to face considerable challenges (Crawford et al., 2004; Nugraha, 2024). One of the main challenges is the absence of a clear legal framework specifically regulating OECMs. The existing regulations also fail to provide sufficient legal certainty regarding the rights and mechanisms through which local communities may manage marine resources in areas that have traditionally been utilised and governed. Currently, the regulation most closely related to OECMs is Regulation of the Minister of Marine Affairs and Fisheries No. 31 of 2020 concerning the Management of Conservation Areas and Law No. 5 of 1990, as amended by Law No. 32 of 2024 concerning the Conservation of Biological Natural Resources and their Ecosystems. Article 5A of Law No. 32 of 2024 stipulates that conservation activities are to be executed within nature reserve, nature conservation, conservation areas in marine waters, coastal areas, small islands, and preservation areas. However, the law completely omits explicit reference to community-based management practices for OECMs. Nonetheless, the draft policy formulated by the Minister of Maritime Affairs and Fisheries indicates an intention to formally designate these statuary 'preservation areas' as OECMs (Ministry of Maritime Affairs and Fisheries, 2025a).

Instead, Law No. 32 of 2024 restricts its engagement with customary law communities to a single provision on natural resources conservation participation through Article 37 paragraph (3). But according to Jong (2024), the participation of customary law communities is often merely formal, as various laws do not contain specific provisions clearly regulating their legal position and rights. In this regard, Pavarala (2026) argued that the concept of "community participation" is frequently employed instrumentally to legitimise development initiatives. In practice, such participation is often limited to information dissemination and consultation, rather than genuinely involving communities in decision-making processes, policy formulation, and actual control over development policies and practices. Despite all of that, customary wisdom reflects deeply rooted sustainability values and provides adaptive natural resource management practices, these knowledge systems remain structurally underrepresented in formal state policymaking – a persistent issue in culturally diverse nations with strong indigenous traditions, including Indonesia (Pellini et al., 2018). Community participation, as stipulated in laws and regulations, should extend beyond procedural formalities and information-sharing mechanisms to ensure meaningful involvement in decision-making processes that directly impact local rights, interests, and welfare of the communities concerned (Hamzani et al., 2025; Syamsiyah et al., 2025).

Finally, relying on untested frameworks introduce a variety of risks – such as the lack of clear administrative standards and mechanisms for the designation and management of OECMs. This has led to highly divergent international responses to OECMs. According to Maini et al. (2023), although the concept of OECMs has been recognised for several years, Target 3 of the post-2020 global biodiversity framework was still being negotiated at that time. Furthermore, many countries lagged significantly in systematically identifying or mapping potential OECMs, which can include diverse types of areas ranging from military zones to partnerships with Indigenous Peoples. Other countries, such as China, has not yet formally established an OECMs system at the national level, and research related to OECMs remains largely exploratory (Hou et al., 2026). In contrast to Australia, it demonstrated rapid operationalisation; since June 2022, reported 167 new conservation areas – including 11 indigenous protected areas and the expansion of two protected areas (UNEP-WCMC, 2026).

Meanwhile, the Indonesian government has begun to support the implementation of OECMs by incorporating the concept into national policy documents, including the IBSAP 2025–2045 and the blue economy. Furthermore, several issues related to OECMs have only been indirectly accommodated within conservation law through Law No. 5 of 1990 in conjunction with Law No. 32 of 2024 concerning the Conservation of Living Natural Resources and their Ecosystems as well as the Regulation of the Minister of Marine Affairs and Fisheries No. 31 of 2020 concerning the Management of Conservation Areas (Nugraha, 2021). Therefore, the government should immediately establish OECMs regulation as an instrument capable of strengthening the legitimacy of a government policy (Rahmah & Harahap, 2025). Its existence is important to ensure a strong legal foundation, legal certainty, and guarantee legal protection, especially for communities implementing community-based coastal resource management practices. The existence of this regulation can provide stability, predictability, and legal security for the public, enabling communities to plan and carry out their activities based on rules (Baldwin et al., 2011; Ebbesson, 2010; Ogus, 2004).

Another challenge relates to the negative impact of changes in regional governmental authority on resource management. Under Law No. 32 of 2004 concerning Regional Government, the central government was granted authority to manage marine areas beyond 12 nautical miles from the coastline, while regional governments, including provincial and districts-cities, are authorised to manage marine areas within 12 nautical miles. This decentralised governance arrangement provided opportunities to districts and cities to supervise coastal resource more directly, allowing for management that was responsive to local conditions and community dynamics (Maharbhakti et al., 2025). Furthermore, Law No. 32 of 2004 was revoked and replaced

by Law No. 23 of 2014, which transferred the exclusive authority to manage marine resources within 12 nautical miles solely to provincial governments. This provision change removes the authority of districts and cities, thereby reducing their involvement and concern in managing their own marine and coastal areas. Such condition may weaken supervision of coastal and marine areas at the local level, consequently increasing the potential for violations, such as environmental pollution, illegal logging, the use of prohibited fishing gear and the over-exploitation of marine resources. In the long term, these violations can damage marine ecosystems and threaten the sustainability of the fisheries sector. To date, customary and local communities often have frequently encountered structural limitations in enforcing customary rules and conservation measures, particularly when violations are committed by outsiders or large-scale fisheries business actors. In such instances, local governments frequently hesitate to intervene due to a perceived or actual lack of formal authority, creating a regulatory vacuum that fosters conflict and threatens the viability of community-based resource management practices.

Another issue concerns the limited of formal recognition of customary law communities. Some of the community-based coastal resource management practices in Indonesia are maintained by these group, whose existence predates the independence of Republic of Indonesia. Therefore, their existence represents a historical and sociological reality that cannot be denied by the state. As such, they constitute an integral part of the social structure and cultural diversity of Indonesian society (Imamulhadi et al., 2025; Trialfhianty et al, 2025). Moreover, the rights of these communities are constitutionally guaranteed under Article 18B paragraph (2) of the 1945 Constitution of the Republic of Indonesia, which states that "The State recognises and respects traditional communities along with their traditional customary rights as long as these remain in existence and are in accordance with societal development and the principles of the Unitary State of the Republic of Indonesia, and shall be regulated by law. In addition, this is reinforced by Article 28I paragraph (3), which states that "cultural identity and the rights of traditional communities are respected in harmony with the development of the times and civilization" (Sukirno & Natalis, 2025). These articles reflect the state's commitment to protecting the existence and rights of customary law communities, particularly regarding the resources management.

However, globally, the recognition of customary law communities and their participation in environmental governance remain inconsistent (Arizona & Cohen, 2024; Bedner & Arizona, 2019; Schwaiger et al., 2024). These population have frequently been excluded from opportunities to exercise, transmit, and benefit from their ecological knowledge, belief systems, and sustainable resource management practices. This marginalisation has perpetuated long-standing patterns of exclusion, inequality, and power imbalances within conservation governance and implementation (Ting, 2026). In Indonesia, such situation is reflected in the implementation of sectoral laws governing natural resource management. Laws regulating to forestry, mining, energy, environmental protection, and agrarian affairs each operate under their own regulatory frameworks, which are frequently inconsistent with one another. As a result, overlapping claims and jurisdictional conflicts are common (Suparto et al., 2025). For example, an area protected as customary territory and designated as a conservation area by the Ministry of Environment and Forestry may overlap with a mining concession licensed by the Ministry of Energy and Mineral Resources. In such circumstances, the interests and rights of customary law communities are often subordinated to state-issued permits. The theory of legal pluralism posits that multiple legal systems, including state law and customary law, coexist within the same social space, despite often operating within unequal power structures (Benda-Beckmann & Turner, 2018; Griffiths, 1986). Accordingly, legally recognised rights may remain ineffective in practice without customary recognition as a concrete legal norm recognised in local practice (Boucher, 2011; Fitzpatrick, 2005).

These overlapping claims have the potential to generate conflicts over land tenure and natural resource governance (Natalis, Wibowo, et al., 2025; Riggs et al., 2016). Data from the Agrarian

Reform Consortium indicate that throughout 2024, at least 295 agrarian conflicts were recorded across 34 of Indonesia's 38 provinces – an increase from 241 cases in 2023. South Sulawesi recorded the highest number of cases (37), followed by North Sumatra (32), East Kalimantan (16), West Java (16), East Java (15), Central Sulawesi (13), West Sumatra (12), South Sumatra (11), Special Capital Region of Jakarta (11), and Jambi (10) (Konsorsium Pembaruan Agraria, 2025). These figures underscore the persistence of structural challenges in land tenure and natural resource governance. Therefore, the principles enshrined in Article 18B paragraph (2) and Article 28I paragraph (3) of the Constitution must serve as the philosophical and juridical foundation for the formulation of laws, regulations, and policies governing natural resources in relation to customary law communities (Jayus, 2020).

The legal recognition of these communities is often characterised by protracted procedures, administrative complexity, and bureaucratic challenges. According to data from Aliansi Masyarakat Adat Nusantara, as of August 2022, 1,119 maps of customary territories covering approximately 20.7 million hectares had been registered; however, around 17.7 million hectares of these territories remain formally unrecognised by the state. It means that only approximately 15 percent of customary territories in Indonesia have obtained legal recognition from local governments (Badan Registrasi Wilayah Adat, 2022). Whereas, this deficit persists despite the existence of seven ministerial-level regulations and over 160 regional regulations concerning customary rights. The implementation of these regulations is frequently hindered by structural challenges, including competing claims agrarian reform initiatives, social forestry programmes, and large-scale commercial interests, which is often culminate in unresolved conflicts of interest (Kartodihardjo, 2022).

These regulations are not adequately harmonised, leading to inconsistencies and difficulties in implementation. For example, Article 67 of Law No. 41 of 1999 on Forestry stipulates that the recognition of customary law communities must be formalised through regional regulations. In contrast, Regulation of the Minister of Home Affairs No. 52 of 2014 concerning Guidelines for the Recognition and Protection of Customary Law Communities allows such recognition to be granted through a decision of a Regional Head (Regent, Mayor, or Governor). Such situation is further complicated by overlapping spatial planning frameworks and regulatory authority between the central and regional governments. Moreover, disparities in access to data and information concerning agrarian reform and social forestry areas at the local level continue to impede effective governance and community participation (Kartodihardjo, 2022). Ideally, the existence of these legal instruments should simplify and facilitate the process of obtaining formal legal recognition for customary law communities rather than creating additional administrative complexity. Nonetheless, in practice, the recognition process remains procedurally complicated and bureaucratic for many customary law communities.

Meanwhile, various studies and international data indicate that customary law communities have long demonstrated their capacity to implement sustainable conservation practices. One example is the existence of 497,000 hectares of high-biodiversity areas in South Sorong Regency, West Papua, consisting of 288,000 hectares of forest and peatland areas, as well as 77,000 hectares of mangrove forests. These areas are estimated to store approximately 200 million tons of carbon, of which around 112 million tons are identified as irrecoverable carbon. Similarly, data from the World Resources Institute indicate that approximately 80 percent of the world's terrestrial biodiversity is located within customary law territories, where biodiversity decline tends to occur at a slower rate than in other areas. In addition, data from the World Resources Institute (WRI) revealed that Amazonian forests managed by customary law communities function as significant carbon sinks, removing approximately 340 million tons of carbon dioxide from the atmosphere annually. Conversely, forests located outside customary law community territories in the Amazon have been found to release more carbon dioxide than they absorb (Jong, 2024). According to the Intergovernmental Platform on Biodiversity and Ecosystem Services, approximately 35 percent of

officially protected areas and 35 percent of lands with minimal human disturbance are traditionally owned, managed, used, or occupied by customary law communities (Nitah, 2021). Moreover, they further recognise that customary law communities and local knowledge holders serve an important role beyond providing ecological knowledge. They possess relational worldviews, traditional governance mechanisms, and place-based practices that are critical to sustainable environmental governance and human nature interactions (Singh et al., 2026). These data indicate that communities of customary law communities have demonstrated their capacity to implement sustainable conservation practices effectively both in Indonesia and global conditions.

In the absence of a strong state presence, customary authorities and their governance systems frequently exert greater influence at the local level. Their authority is grounded in local legitimacy, which manifests as the community's broad acceptance of their leadership and custodianship over communal resources (Osei-Tutu et al., 2021). Although primarily recognised within localised jurisdictions, these authorities have demonstrated significant contributions to the sustainable conservation of natural resources. They play an important role in strengthening social resilience, supporting local economies, and enhancing the capacity of customary institutions. The legal recognition of local and customary law communities with their institutions within national and global conservation frameworks is essential for achieving inclusive and effective environmental governance. Rather than serving as a symbolic gesture, such recognition should guarantee the active involvement of local and customary law communities in policy formulation, monitoring mechanisms, and governance processes. Their inclusion acknowledges their enduring role as environmental stewards and knowledge holders, echoing successful models in community-conserved areas in Namibia and the Philippines, where local governance institutions have been formally integrated into national conservation policies and strategies (Gupta et al., 2026).

Based on Regulation of the Minister of Home Affairs No. 52 of 2014, the process of recognising customary law communities generally involves several stages – including identification, verification, participatory mapping of customary territories, validation, and legal recognition by local governments through regional regulations. The identification stage encompasses the assessment of the community's historical background, customary institutions, communal assets, customary territories. The regulation also provides mechanisms for dispute resolution; Article 7 stipulates that if a customary law community objects to the results of the verification and validation process, it may submit an objection to the committee. The committee is subsequently required to conduct a further verification and revalidation of the objections raised. Furthermore, if the customary law community remains dissatisfied with the decision issued by the Regional Head, it may challenge the decision before the State Administrative Court.

As noted by Kasmita Widodo, the recognition of customary law communities faces several significant challenges, including the lack of responsibility and commitment on the part of local governments, as well as limited governmental support for them in conducting participatory mapping and preparing the necessary supporting data (Widodo & Cahya, 2023). In addition, regulatory uncertainty regarding the integration of participatory maps produced by customary law communities into official spatial planning frameworks remains a major obstacle. Other challenges include the absence of institutions responsible for facilitating the recognition and protection of customary law communities and their customary rights, as well as the difficulties these communities experience in fulfilling the various legal and administrative requirements for recognition (Kartodihardjo, 2022).

This lack of legal recognition ultimately deprives customary law community of legal certainty and legal protection over their existence as legal subjects and also customary territories. It also creates conditions that are not conducive to fulfil their economic, social, and cultural rights. It is contradictory with the spirit emphasised in the first paragraph of Preamble of the United Nations Declaration on the Rights of Indigenous Peoples "highlights the urgent need to recognise and promote the inherent rights of indigenous peoples, which stem from their own political, economic,

and social structures, cultures, spiritual traditions, histories, and philosophies. It specifically emphasises their rights to their lands, territories, and resources" (Soelistyowati, 2024). Resolving this recognition deficit represents a primary structural hurdle in the implementation of OECMs in Indonesia.

Another challenge relates to the limited quality of human resources within customary law communities and local communities, a variable heavily depressed by surrounding socioeconomic conditions. Historically, customary law communities living in coastal and islands areas often related with underdeveloped economic conditions and limited access to various essential services – including education (Capistrano & Charles, 2012; Hviding, 1998). That condition places them in a cycle of poverty not only by cultural factors but also by structural inequalities. Based on data from the Central Statistics Agency (BPS) in 2022, the number of people living in poverty in coastal areas reached 17.74 million, including approximately 3.9 million people categorised as extremely poor. Poverty in coastal areas accounts for around 68 percent of the national poverty rate (Ministry of Maritime Affairs and Fisheries, 2024). These unfavourable economic conditions significantly affect the quality of human resources within coastal communities. Despite these limitations, communities usually possess local institutions and traditional systems that regulate various aspects of their lives, including the management of natural resources (Yusuf et al., 2018). The implementation of these customary institutions and traditional systems is generally based on customary law, which is mostly unwritten. Conversely, the implementation of OECMs requires formal administrative and bureaucratic mechanisms, including systematic documentation, monitoring, and periodic reporting to verify that community-managed areas continue to be recognised as effective conservation areas. If this requirement becomes one of the requirements to be able to become OECMs, local communities will inevitably face insurmountable difficulties in achieving formal compliance.

Furthermore, another challenge is defined in the tendency of government policies to be implemented merely as administrative formalities without substantive implementation. Many parties question the government's seriousness in implementing this policy substantively and effectively. In practice, the government often focuses primarily on collecting administrative data regarding community-based coastal resource management practices that have the potential to be recognised as OECMs. The main objective appears to be the fulfilment of the global conservation target of 30 percent in administrative terms, rather than ensuring effective and sustainable conservation management. As a result, community-based resource management practices are frequently treated as reporting instruments to satisfy global commitments. This administrative approach is often implemented without adequate guarantees of legal certainty, justice, as well as the protection of the rights of local communities and their territories. This approach may undermine the effectiveness of OECMs implementation and has the potential to create new conflicts between the government and local communities as the primary actors managing community-based coastal resource management practices.

4. The Efforts to Anticipate Challenges in Recognising Community-Based Coastal Resource Management Practices as OECMs

Ideally, OECMs are intended to expand biodiversity conservation areas and strengthen community-based coastal resource management practices. For local populations, the benefits of OECMs include securing livelihoods and food security, strengthening local governance, promoting more inclusive conservation practices, enhancing resilience to climate change, expanding access to funding opportunities, fostering social cohesion, and safeguarding traditional cultures and practices (Bhatnagar & Kumar, 2025; Diz et al., 2018). For governments, OECMs contribute to the achievement of global conservation commitments, strengthen fisheries management and food security, promote inclusive and equitable conservation, enhance climate change resilience, and support disaster risk reduction efforts. Therefore, the Indonesian

government must undertake several critical interventions, most notably the formulation of a comprehensive legal and policy framework for OECMs. It is essential to distinguish between these two components: legal frameworks are prescriptive and normative in nature, regulating and guiding actions and decisions, whereas policies are generally informative and may take the form of guidelines, strategies, frameworks, and standard operating procedures (Nurhidayah, 2013; Yustitianingtyas et al., 2025).

The establishment of legal frameworks through regulations constitutes an important government policy instrument. One of the main advantages of regulations is their ability to provide strong legal certainty – a condition where legal rules are available, clear, consistent, and easily accessible, and are issued by legitimate state authorities (Berkel et al., 2022; Carlsson, 2025). In the Indonesian context, public policies implemented without strong legal certainty tend to face numerous challenges, particularly in terms of sustainability and effectiveness (Alicia, 2024; Dirhamsyah, 2006; Nugraha & Chen, 2023). To date, inadequate government policies have become one of the major obstacles to the strategic management of coastal and marine resources. This situation is further exacerbated by government policies that are often sectoral and formulated through a top-down approach, resulting in policies that frequently fail to adequately reflect the interests and needs of coastal communities and coastal areas (Ferrol-Schulte et al., 2015; Wuwung et al., 2024). Consequently, the government also needs to harmonise regulations related to conservation and resource management. This becomes an important issue in preventing overlapping regulations that may lead to ineffective implementation. In addition, harmonisation can help prevent conflicts and create greater legal certainty. Given the absence of specific regulations, OECMs have yet to receive strong recognition within national and regional marine spatial planning frameworks. Meanwhile, various community-based coastal resource management practices have proven effective in maintaining ecological balance.

Furthermore, accelerating the legal recognition of customary law communities is essential. As the communities are the primary protagonists in local coastal management practices, their recognition as legal subjects in natural resource management can provide greater legal protection and legal certainty because there is a recognition of their rights, authority, and interests within the legal system (Long, 2018; Schwarz et al., 2020; Tjiptabudy, 2025). Such recognition strengthens their legal standing to participate in decision-making processes, claim, and defend their customary territories, and seek legal remedies when their rights are violated. It also reduces the prevalence of overlapping claims and conflicts with state agencies or private actors by clearly defining the legal status and rights of customary communities in relation to natural resources. Legal recognition promotes accountability in resource governance by requiring government institutions and other stakeholders to respect and consider customary rights in policy-making and development activities. Therefore, the awareness and commitment of local governments to support the recognition process of customary law communities within their territories are also essential.

In addition, the ratification of the Bill on Customary Law Communities is urgently needed. Although this bill has been included in the 2026 National Legislation Program and has existed since 2010. – and remains in 2026 queue – it has remained unresolved for more than 16 years without being passed by the House of Representative. The existence of a law on customary law communities is important as it provides them legal protection, prevents criminalisation, and helps reduce conflicts. The draft law on customary law communities seeks to establish a comprehensive legal framework for the recognition, protection, and empowerment of customary law communities. It affirms their rights to customary territories, natural resources, cultural identity, spirituality, development, and environmental protection, while also imposing obligations to preserve customary territories, protect environmental sustainability, and comply with applicable laws and regulations. In addition, the draft law clarifies the distribution of authority between central and regional governments, ensuring that empowerment programmes are implemented in a manner that respects local wisdom and fosters community self-reliance.

These provisions indicate that the draft law is intended to recognise customary law communities as legal subjects, obligations of local governments, and also asserts the rights of customary law communities. The draft law establishes a clearer institutional framework for their protection and empowerment. If enacted, the law could help address the current fragmentation of regulations governing customary law communities and provide greater legal certainty regarding their rights and responsibilities in natural resource governance. Legal certainty becomes a fundamental principle in the legal system that ensures the law could be implemented fairly, consistently, and predictably. In the context of the rule of law, legal certainty is the main foundation for protecting the rights of individuals and ensuring that every action of the government or citizens is in accordance with applicable legal norms. Therefore, legal certainty requires a clear and consistent set of laws and regulations.

To anticipate potential challenges in the identification and designation of OECMs, the government must exercise careful consideration throughout the identification and designation process. Given the diverse manifestations of community-based coastal resource management across the Indonesia archipelago, these existing practices must first be properly classified. Such classification can be delineated by either the governance subject of management or the level of biodiversity conservation objectives, namely ancillary objectives (where biodiversity outcomes arise as by-products), secondary objectives (where biodiversity outcomes constitute secondary management objectives), or primary objectives (where biodiversity conservation constitutes the primary management objective. Furthermore, because the notification and reporting of a location as an OECMs is voluntary, the entire process must be conducted by and/or with the consent of the authority or community managing the areas.

All of process must be carried out in accordance with the OECMs guidelines that have been developed at the international level. Specifically, Annex III of CBD Decision 14/8 addresses four binding criteria for identifying OECMs, namely: the area is not currently recognised as a protected area; it must be geographically defined and systematically managed; the area achieves sustained and effective contribution to in situ conservation of biodiversity; and the associated ecosystem functions and services and cultural, spiritual, socio-economic and other locally relevant values are respected, upheld, and supported. In practice, identifying and designating OECMs requires competent human resources. Considering this, the process is carried out through an in-depth study of the OECMs area to produce valid and accurate data. Finally, the data will be sent to the World Database on OECM as a global database managed by the UN Environment Programme World Conservation Monitoring Centre (UNEP-WCMC).

In addition, the government should promote community participation in the management of OECMs to strengthen their effective implementation. Strengthening community participation is part of providing opportunities for local communities to manage their own natural resources. Community participation should encompass all stages of OECMs management –include planning, identification, designation, monitoring, handling of violations, and policy evaluation. A high levels participation of community from the planning to the evaluation stage will help ensure that OECM programs genuinely reflect and fulfil community needs. In this way, communities will have a stronger sense of ownership, responsibility, and commitment toward the implementation and sustainability of OECMs. This is in accordance with instruments of The United Nations Declaration on the Rights of Indigenous Peoples (UNDRIP) and the principle of Free, Prior and Informed Consent (FPIC), both of which mandate that sovereign states secure the substantive involvement of customary law communities in the management of natural resources.

Furthermore, the implementation of OECMs must continue to respect community autonomy, customary rights, and existing local governance systems in coastal resource management. In this regard, the Indonesian government must learn from the implementation of the coral reef rehabilitation and management (COREMAP) program in coral reef management on Buton Island, Southeast Sulawesi. Although the overarching COREMAP program formally recognised the

customary rights and social institutions of customary law communities involved in coral reef management practices, this recognition was explicitly stated in the general guidelines for coral reef management, which emphasised that one of the principles of national coral reef management policy include the recognition of customary rights and social institutions of customary law communities as important actors in coral reef management practices. However, in practice, the involvement of customary law communities was not implemented seriously or effectively (Zaelany & Wahyono, 2010). This failure highlights the inherent risks of the centralised planning and top-down approach; when local communities are not meaningfully integrated into management planning, the resulting policies and programs may become counterproductive to the intended conservation goals and may even negatively affect both communities and ecosystems. The COREMAP experience on Buton Island can serve as an important lesson for the Indonesian government in implementing OECMs. The government must demonstrate strong commitment and consistency in managing OECMs, not only at the policy and administrative levels, but also in practical implementation. Genuine community participation, recognition of customary rights, and the inclusion of local knowledge should become essential components of OECMs governance to secure resilient ecological outcomes.

To bridge the gap between traditional practices and state administrative requirement, the government must provide community-based capacity-building programs for communities. Although customary law communities or local communities are increasingly recognised as important actors in biodiversity management, conservation strategies are still predominantly driven by scientific approaches developed outside customary law communities. As a result, they are often perceived as lacking the technical and managerial capacities required for managing biodiversity according to formal conservation standards (Schofield et al., 2026). Targeted capacity-building programmes are therefore essential to empower communities to independently gather spatial data, conduct monitoring activities, handle violations, and report on the condition of OECMs areas systematically and periodically. In addition, communities should be granted sufficient authority to manage OECMs in order to minimize potential conflicts with third parties. This approach can enhance community trust and strengthen public acceptance of OECMs implementation.

According to Ameyali Ramos, an acute challenge for community-based resource management practices is the heavy burden of monitoring and reporting at the OECM. Customary lands under OECM management can have higher reporting standards than government parks that are currently not monitored at all. Therefore, to strengthen monitoring mechanisms, the government may provide support in the form of information technology and participatory mapping tools, such as Geographic Information Systems (GIS) and drones. The use of these technologies is essential for enhancing the transparency, accountability, and accuracy of OECMs data and management processes. Monitoring activities should also adopt a participatory approach that actively involves local communities. In addition, oversight mechanisms may include external stakeholders, such as village government representatives and relevant security institutions, to ensure broader accountability and effectiveness. Furthermore, community participation should be ensured throughout the evaluation process, given its central role in the establishment and management of OECMs. Such involvement enables communities for better insight in the implementation process and contribute valuable local knowledge and perspectives. Equally important is the dissemination of evaluation results, which can facilitate knowledge sharing and the exchange of best practices among regions. These experiences can serve as valuable lessons and references for improving the governance and management of OECMs in other areas.

Through these efforts, integrating traditional coastal practices into the OECMs will obtain legitimacy, legal certainty, and legal protection, particularly for communities as the primary actors managing these practices. Otto, as cited in Adriyanto et al., explained that legal certainty can be achieved when legal substance is aligned with the needs and realities of society. Laws capable of

creating legal certainty are those that emerge from and reflect the culture and social values of the community. This form of legal certainty is referred to as actual legal certainty or realistic legal certainty. Meanwhile, formal legal protection refers to efforts to protect human rights that are violated by others. Such protection is intended to ensure that individuals and communities are able to enjoy the rights granted to them under the law. Therefore, validating coastal resource management practices as OECMs also reinforces the constitutional recognition of customary law communities. Both of legal certainty and legal protection are essential in the recognition of community-based coastal resource management practices as OECMs to ensure that communities are not merely treated as objects of conservation policies, but are recognised as legitimate rights holders and active participants in implementation of OECMs. In other words, through these efforts, OECMs are expected to function as instruments for achieving the global target of protecting 30 percent of land and marine areas by 2030, as well as to serve as a means of socio-ecological learning that strengthens community-based coastal conservation governance.

D. Conclusion

OECMs offer an important opportunity to expand biodiversity conservation beyond formally designated protected areas while recognising the long-standing contributions of local and customary communities in managing coastal and marine resources. In the Indonesian context, this opportunity is particularly significant because many coastal communities have developed community-based resource management practices that have functioned for generations through customary norms, local institutions, collective stewardship, and place-based ecological knowledge. Practices such as sasi, panglima laot, awig-awig, egek, parimpari, papadak, and other local systems demonstrate that biodiversity conservation does not always emerge from state-led conservation areas, but may also be produced through everyday community governance rooted in social legitimacy, cultural values, and ecological responsibility. Therefore, recognising these practices as OECMs can strengthen Indonesia's contribution to the Kunming-Montreal Global Biodiversity Framework, particularly the 30x30 target, while also affirming the role of communities as rights holders and active conservation actors.

However, the legal recognition of community-based coastal resource management practices as OECMs in Indonesia remains constrained by several structural and regulatory challenges. The absence of a specific legal framework on OECMs creates uncertainty regarding the criteria, procedures, authority, rights, obligations, monitoring mechanisms, and legal consequences of OECM designation. Existing conservation and coastal management regulations have not yet provided sufficient clarity for integrating community-based practices into the national conservation system. This condition is further complicated by fragmented sectoral regulations, overlapping authority among government institutions, and the transfer of marine resource management authority from district and municipal governments to provincial governments, which has weakened local supervision and reduced responsiveness to community-based governance realities. In addition, the limited formal recognition of customary law communities remains a major obstacle. Although their existence and traditional rights are constitutionally acknowledged, recognition procedures are often lengthy, bureaucratic, inconsistent, and highly dependent on local government commitment. Without clear recognition as legal subjects and without secure rights over customary territories and resources, communities remain vulnerable to exclusion, overlapping claims, criminalisation, and marginalisation in conservation policy.

The implementation of OECMs must therefore not be reduced to an administrative exercise aimed merely at fulfilling global conservation targets. If OECMs are pursued only through data collection, area registration, and reporting, they may reproduce existing inequalities and generate new conflicts between the state and communities. Instead, OECMs should be developed as a legal and governance instrument that ensures legal certainty, legal protection, ecological effectiveness, and social justice. This requires the establishment of a comprehensive OECM regulation,

harmonisation of conservation and natural resource laws, acceleration of the legal recognition of customary law communities, and the enactment of the Bill on Customary Law Communities. It also requires meaningful community participation based on Free, Prior and Informed Consent, respect for customary rights, and recognition of local governance systems.

Finally, effective OECM implementation in Indonesia depends on the state's ability to bridge global conservation standards with local socio-legal realities. Community-based coastal resource management practices must be supported through capacity-building, participatory mapping, accessible monitoring systems, adequate funding, technological assistance, and inclusive evaluation mechanisms. Through these efforts, OECMs can become more than a conservation label. They can serve as a transformative framework that links biodiversity protection, legal recognition, community empowerment, and sustainable coastal governance. In this sense, recognising community-based coastal resource management practices as OECMs is not only essential for achieving international biodiversity commitments, but also for strengthening Indonesia's constitutional obligation to protect customary communities, local communities, and the ecological foundations of coastal life.

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