

The Role of Customary Law in Natural Resource Management in Rural Areas for National Defence and The Preservation of National Sovereignty

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Abstract

This study explores customary law's role in managing natural resources in rural areas of Indonesia, focusing on its contribution to national defence and the preservation of national sovereignty. Adopting a qualitative approach based on a literature review, this research examines the interactions between customary law, state law, and local practices within the resource management framework. The findings reveal that customary law remains a vital institution in regulating access to and utilization of natural resources despite the challenges posed by modern development policies and globalization. The study identifies various adaptive mechanisms within customary law that allow it to evolve in response to socio-ecological changes, thus supporting sustainable resource management. Furthermore, the research highlights the importance of incorporating customary law into formal policy frameworks to enhance the effectiveness of natural resource management at local and national levels.

1. Introduction

National sovereignty encompasses a state's inherent right and authority to govern itself without external interference. It includes the prerogative to safeguard the nation's security, preserve its territorial integrity, and make

decisions that prioritize the welfare and development of its citizens. In the context of a sovereign state, national defence serves as a mechanism to protect, maintain, and enhance the nation's unity, integrity, and independence against internal and external threats. It entails comprehensive efforts to uphold the state's sovereignty, the Republic of Indonesia's territorial integrity, and its citizens' security from threats that could disrupt national cohesion. In line with Indonesia's Law No. 23/2019 on the Management of National Resources for National Defence, Indonesia has adopted a distinct approach to national defence.

This is articulated through the "universal defence system," which mobilizes all components and elements of the nation to contribute to defence efforts. The universal defence system is not only a strategic response but also a reflection of Indonesia's historical experiences from the colonial era through the nation's early years of independence and into the present day of nation-building. This universal defence system represents a guiding principle integrating economic, social, and political spheres. It emphasizes the collective responsibility of the nation's people to preserve their sovereignty and contribute to the defence of the state.

The management of natural resources in rural areas of Indonesia has long been a subject of intense debate within the broader frameworks of development and sustainability. Arief Fahmi Lubis (2021) asserts that customary law remains a crucial yet often overlooked element in resource governance in the context of state-driven modernization efforts and the standardization of resource management policies. Customary law a form of local knowledge and wisdom that has evolved over centuries provides a distinctive lens to understand the symbiotic relationship between humans and their environment.

This study posits that customary law holds significant potential in advancing sustainable resource management in rural communities. However, this potential is frequently sidelined in policy discourses prioritizing top-down, market-driven resource management approaches. As a result, a notable tension

exists between the Indigenous, community-based management practices embedded in customary law and the formal, state-imposed policies. These tensions often manifest in conflicts and environmental degradation. To illustrate the diversity of customary law in Indonesia and its relevance to resource management, Table 1 presents several examples of customary laws applied in different regions.

Table 1. Customary Law in Natural Resource Management in Indonesia

Region	Name of Customary Law	Focus of Management	Key Principles
Bali	<i>Subak</i>	Irrigation and Agriculture	Harmony with Nature and Cooperation
Maluku	<i>Sasi</i>	Fisheries and Forests	Conservation and Sustainable Harvesting
Sumatra	<i>Lubuk Larangan</i>	Rivers and Fisheries	Habitat Protection and Limited Harvesting
Kalimantan	<i>Hutan Adat</i>	Forest Management	Sustainable Utilization and Forest Zoning
Sulawesi	<i>Mapalus</i>	Agriculture and Mutual Cooperation	Communal Labour and Sharing of Results

Source: Adapted from various sources

Table 1 illustrates the diversity of customary laws in natural resource management across various regions in Indonesia. Each of these customary systems has unique characteristics that reflect adaptations to local ecological and social conditions. For instance, the Subak system in Bali not only regulates the distribution of irrigation water but also embodies the Tri Hita Karana philosophy, which emphasizes the balance between humans, nature, and spirituality.

The role of customary law within the framework of a universal defence system is shaped by Indonesia's historical trajectory, spanning the colonial era,

the early years of independence, and the ongoing nation-building process. At its core, this system embodies a fundamental principle that unites the nation by fostering a collective awareness of the rights and responsibilities of rural communities in safeguarding national sovereignty and actively participating in national defence. This study aims to comprehensively analyse customary law's role in natural resource management in rural Indonesia. Specifically, it seeks to address the following key research questions.

How does customary law govern access to and utilization of natural resources in rural areas to reinforce national sovereignty?

What challenges and opportunities arise in aligning customary law with modern development policies?

How does customary law evolve in response to socio-ecological transformations in resource management?

To what extent can customary law enhance sustainable resource governance and long-term economic resilience?

By addressing these research questions, this study aims to offer a more comprehensive and nuanced analysis of the role of customary law in contemporary natural resource governance. Additionally, it underscores the strategic importance of incorporating Indigenous knowledge into national resource management frameworks to enhance policy effectiveness, foster economic resilience, and promote inclusive, sustainable development in rural Indonesia.

The concept of customary law and resource management has garnered substantial attention across various disciplines, including legal anthropology, political ecology, and development studies. This literature review delves into several key themes directly pertinent to the research topic, as outlined below.

1. Indonesia's Law No. 23/2019 on National Resource Management for State Defence

This law embodies several foundational principles: purpose, universality,

resilience, solidarity, cooperation, benefit, legality, selectivity, effectiveness, efficiency, and proportionality. Its primary objective is to optimize the utilization of human, natural, artificial, and national facilities and infrastructure, effectively transforming these assets into a robust defence mechanism for national security. Moreover, this legislation champions the concept of state defence (Indonesian: Bela Negara), positioning it as a right and an obligation for all citizens. It is actualized through national defence efforts designed to safeguard state sovereignty, protect the territorial integrity of the Republic of Indonesia, and ensure the safety of the nation's population. The implementation of state defence is rooted in the civic awareness and self-reliance of citizens, whose sense of national duty is fostered through organized defence initiatives.

State defence efforts are structured through a comprehensive framework that includes civic education, mandatory basic military training, voluntary or compulsory service in the Indonesian National Armed Forces, and professional service contributions. The primary objective of these efforts is to cultivate the nationalistic spirit among citizens, ensuring they fulfil their rights and obligations towards state defence. This is achieved by fostering state defence awareness, catalysing national goals and advancing collective interests. The scope of state defence extends to physical and non-physical actions undertaken by citizens, aligned with their capacities and competencies. These activities span ideological, political, economic, social, and cultural dimensions, as well as defence and security considerations, in peaceful and wartime contexts. Central to the success of state defence is the principle of voluntarism, which embodies the citizens' commitment to national service, driven by a deep sense of loyalty and devotion to the Republic of Indonesia, rooted in Pancasila and the 1945 Constitution.

Furthermore, the execution of state defence efforts adheres to practical national resource management principles. These efforts are systematically organized, ensuring the optimal use of national resources in a goal-oriented,

measured manner. Every component of society –individuals, institutions, or organizations –is expected to demonstrate the mental fortitude, determination, dedication, and discipline necessary for service. The collective spirit emphasizes prioritizing national interests over personal or group concerns, executed with integrity, truthfulness, and fairness. Equal opportunities for all citizens to participate in state defence are fundamental to creating a unified and inclusive approach to safeguarding national sovereignty and security.

With the enactment of this law, Indonesia is advancing a strategic initiative to institutionalize and effectively implement a constructive and productive state defence framework. In light of current challenges, observing the growing narratives propagated by certain groups that undermine the sovereignty and territorial integrity of the Republic of Indonesia is deeply concerning. The introduction of this law offers a renewed sense of direction, empowering all components of the nation to collaboratively engage in state defence efforts through active participation in the national defence system outlined by the law.

This institutionalized approach to state defence goes beyond a mere theoretical construct; it represents a systematically structured and purpose-driven initiative designed to actualize defence objectives. Through this law, the unity and cohesion of the nation and the state are poised for further reinforcement, ensuring alignment with the foundational principles of the Republic of Indonesia, grounded in Pancasila.

2. Legal Pluralism and Resource Management

As conceptualized by scholars like Griffiths (1986) and Merry (1988), legal pluralism provides a robust theoretical framework for understanding the coexistence of diverse legal systems within a singular jurisdiction. In resource management, Benda-Beckmann et al. (2006) illustrate how legal pluralism shapes access to and control over natural resources, particularly in Indonesia, emphasizing its complex implications on resource distribution and governance (Berman 2020).

3. Customary Law and Ecological Sustainability

Numerous studies have underscored the valuable role of customary law in promoting conservation and sustainable resource management. Berkes et al. (2000) demonstrate how traditional ecological knowledge embedded in customary practices reflects a profound understanding of local ecosystems, contributing to sustainable resource use. In the Indonesian context, Harkes and Novaczek (2002) examine the Sasi system in Maluku, highlighting the effectiveness of customary laws in ensuring the sustainability of marine resources, particularly fisheries, by integrating cultural norms with environmental stewardship (Berkes, Colding, & Folke, 2000; Harkes & Novaczek, 2002).

4. Challenges of Modernization and Globalization

In his study of Sulawesi, Wibowo (2013) critically examines how modernization initiatives and state policies often disrupt traditional resource management systems, creating friction between economic development and customary practices. Similarly, Tsing (2005) explores the impacts of globalization on Indigenous communities and forest management in Kalimantan (Wibowo, Race, & Curtis, 2013). Moreover, Runtunuwu and Tjahyadi, as cited in Fahmi et al. (2024), argue that modernization presents opportunities and challenges, particularly in balancing economic growth with the preservation of cultural and ecological integrity (Judijanto & Lubis, 2024).

5. Adaptation and Transformation of Customary Law

Recent research has increasingly focused on how customary law adapts to socio-ecological transformations. Davidson and Henley (2007) investigate the evolution of customary institutions in the context of Indonesia's decentralization policies. In parallel, Steinebach (2013) examines the strategic use of international Indigenous rights discourse by communities in Sumatra to strengthen their resource claims (Steinebach, 2013).

6. Integration of Customary Law into Formal Policies

Integrating customary law into formal policy frameworks has garnered significant attention in legal and policy studies. Bedner and Arizona (2019) assess the legal ramifications of the Indonesian Constitutional Court's 2013 ruling recognizing customary forests. On the other hand, Safitri (2015) critically explores the opportunities and challenges in embedding customary law within the national forest management system (Bedner & Arizona, 2019).

2. Research Method

This study employs a qualitative approach through a literature review. This method was selected to comprehend the complex role of customary law in resource management by synthesising and critically analysing existing research.

The data were collected from various secondary sources, including academic journal articles (accessed via databases such as JSTOR, Scopus, and Google Scholar), textbooks and monographs (focusing on customary law and resource management), research reports (from governmental agencies and non-governmental organizations), and policy documents (related to resource management and the formal recognition of customary law).

3. Results and Discussion

This section presents a comprehensive analysis of several case studies across Indonesia to provide a more tangible understanding of the role of customary law in resource management. These case studies highlight the complexity and diversity of customary systems in managing natural resources and the positive outcomes and challenges encountered in the context of contemporary societal changes.

Table 2. Case Studies on the Role of Customary Law in Resource Management

Location	Customary System	Resource	Positive Impacts	Challenges
Bali	Subak	Water and Agriculture	Equitable Water Distribution and Conservation	Urbanization and Land Conversion
Maluku	Sasi	Sea and Forest	Sustainability of Fish Stocks and Biodiversity	Modernization of Fisheries
Kalimantan	Hutan Adat	Forest	Forest Conservation and Support for Local Livelihoods	Corporate Concessions and Conflicts
Sumatra	Lubuk Larangan	Rivers	Fish Conservation and Promotion of Eco-tourism	Pollution and Overfishing
Sulawesi	To Manurung	Land and Forest	Land Zoning and Conflict Resolution	Development Projects

Source: Wibowo (2013).

Table 2 presents the diversity of customary resource management systems in Indonesia, highlighting the positive outcomes and the challenges these systems encounter.

The analysis of these case studies reveals that customary law holds substantial potential for supporting sustainable resource management, although it is also subject to various external pressures.

In Bali, the Subak system exemplifies how customary law can effectively manage water and agricultural resources. Lansing (2006), in his comprehensive study, describes Subak as an irrigation system that regulates water distribution and embodies the Tri Hita Karana philosophy, which promotes harmony between humans, nature, and spirituality. This system has evolved over centuries, fostering a productive and sustainable agricultural landscape. Subak organizes farmers into cooperative units responsible for managing planting schedules, water distribution, and religious rituals. The success of Subak is

rooted in its ability to harmonize ecological needs with the Balinese community's social structure and religious beliefs. However, Subak faces significant challenges, including urbanization, land conversion, and climate change. Lorenzen and Lorenzen (2011) highlight that the expansion of the tourism sector threatens the preservation of rice fields and traditional irrigation systems. They point to conflicts of interest between the preservation of Subak and modern infrastructure development. Nevertheless, the UNESCO recognition of Subak as a World Heritage site in 2012 has reinvigorated efforts to preserve and adapt this system to contemporary challenges.

In Maluku, the Sasi system has long been a subject of anthropological and ecological inquiry. Harkes and Novaczek (2002) characterise Sasi as a resource management system for marine and forest resources, grounded in seasonal prohibitions and zoning. This practice incorporates customary rituals and social sanctions to regulate access to resources. Their research illustrates that Sasi plays a crucial role in maintaining the sustainability of fish stocks and preserving the health of coral reef ecosystems. Beyond its conservation function, the system also fosters social cohesion and reinforces the cultural identity of the Maluku community (Harkes & Novaczek, 2002). However, Sasi faces significant challenges in the contemporary context. The modernization of fisheries, migration, and socio-economic transformations have jeopardized the continuity of this practice in certain regions. Adhuri (2013) observes that, in some villages, Sasi has either lost its relevance or been adapted to meet the demands of modern economic systems. Nevertheless, he highlights efforts to revitalize Sasi to respond to environmental degradation and resource conflicts.

In Kalimantan, customary forests have become a central focus in sustainable forest management and Indigenous rights debates. Wibowo et al. (2017) explore how the Dayak community in West Kalimantan manages its customary forests, drawing on traditional ecological knowledge and cultural practices. The community's forest zoning system designates areas for

agriculture, settlement, and conservation, effectively balancing resource utilization with biodiversity conservation (Wibowo et al., 2013). Despite its success, customary forests in Kalimantan face significant threats from expanding palm oil plantations and mining activities. These developments often lead to conflicts between Indigenous communities, corporations, and government entities over land ownership and forest resources. Berkes (2000) critically examines the political and economic complexities surrounding the management of customary forests in the context of decentralization. His analysis highlights that although Indigenous rights are formally recognized, their implementation is frequently impeded by more extensive economic interests and the limited administrative capacity of local governments (Berkes et al., 2000).

In Sumatra, the Lubuk Larangan system, implemented along the rivers of West Sumatra, serves as a notable example of community-based aquatic resource management. Rudi and Sondri (2021) describe Lubuk Larangan as a customary practice that imposes temporary fishing bans in designated river sections. This system functions as a freshwater fish conservation mechanism and a communal economic resource, as fishing is permitted only during specific periods, generating income for local communities (Rudi & Sondri, 2021). The effectiveness of Lubuk Larangan has attracted the interest of government agencies and conservation organizations. It has been incorporated into eco-tourism initiatives in several regions, blending traditional conservation methods with local economic development. However, Syahputra et al. (2021) warn that excessive commercialization could jeopardize the practice's ecological sustainability and social integrity. They underscore the need to balance environmental conservation, economic benefits, and the preservation of cultural values in the sustainable development of Lubuk Larangan.

In Sulawesi, the To Manurung system in South Sulawesi offers a distinctive perspective on customary land governance and conflict resolution. Li (2014), in her study of Central Sulawesi, examines how local communities leverage

customary narratives and historical claims to assert their land and forest resource rights. A complex social hierarchy and the ritualization of human-nature interactions characterise this system. However, Li notes that these customary practices frequently conflict with government-led development initiatives and plantation expansion. The tension between Indigenous land claims and modern development policies underscores broader challenges in reconciling traditional knowledge systems with national economic development strategies.

A comparative analysis of these case studies reveals several critical patterns and insights, as elaborated in the following.

1. **Adaptability of Customary Law:** Despite various challenges, customary governance systems exhibit remarkable resilience and adaptability. In Bali, *Subak* has evolved to incorporate technological advancements and respond to modern economic pressures while maintaining its foundational principles. Similarly, some communities have revitalized *Sasi* in Maluku by integrating modern scientific knowledge into traditional regulatory frameworks.
2. **Integration with Modern Conservation Strategies:** Customary practices such as *Sasi* in Maluku and *Lubuk Larangan* in Sumatra have attracted increasing interest from conservation experts and policymakers. The synergy between Indigenous ecological knowledge and contemporary conservation methodologies presents a promising model for sustainable resource management.
3. **Economic Development Pressures:** Most customary systems face mounting pressures from large-scale economic activities, including infrastructure projects, plantation expansion, and mining operations. The tension between traditional resource governance and the imperatives of economic growth highlights a broader challenge in balancing heritage conservation with national development agendas.
4. **Role in Conflict Resolution:** Customary governance structures, such as *To Manurung* in Sulawesi, illustrate the potential of Indigenous legal systems in mediating resource disputes. However, competing economic interests and conflicting government policies often constrain their effectiveness.
5. **Contribution to Cultural and Social Cohesion:** Beyond their ecological and economic functions, customary resource management systems reinforce cultural identity and foster social cohesion. This is particularly evident in the cases of *Subak* in Bali and *Sasi* in Maluku.

6. **Challenges in Implementation:** Despite the formal recognition of Indigenous rights and the acknowledged value of traditional practices, implementing policies supporting customary systems remains constrained by multiple factors. Key obstacles include competing economic interests, the limited institutional capacity of local governments, and misalignment between national policy frameworks and local socio-economic realities.
7. **Potential for Sustainable Development:** These case studies illustrate the significant potential of customary practices in fostering sustainable development. Systems such as *Subak* and *Sasi* exemplify how community-driven resource management can simultaneously generate ecological resilience, economic productivity, and social cohesion.
8. **The Need for a Holistic Approach:** This comparative analysis highlights the necessity of a holistic and integrative approach to strengthening the role of customary law in resource governance. Achieving this requires acknowledging socio-ecological complexities, responding to local institutional dynamics, and strategically integrating Indigenous knowledge with contemporary policy and scientific frameworks.

The role of customary law in resource management across rural Indonesia presents significant potential but also faces substantial challenges. The success of systems such as *Subak*, *Sasi*, and *Lubuk Larangan* in maintaining ecological and social sustainability provides valuable insights for modern resource governance. However, pressures from economic development, shifting socio-cultural dynamics, and policy misalignment necessitate a more adaptive and integrative approach.

The following strategic measures are essential to fully harness customary law's potential in promoting sustainable resource management:

1. Enhancing formal recognition of Indigenous rights and the economic and ecological value of traditional practices within the national legal framework;
2. Establishing collaborative governance mechanisms that facilitate meaningful engagement among Indigenous communities, government authorities, and private sector stakeholders in the planning and execution of development initiatives;

3. Integrating traditional ecological knowledge with modern scientific approaches to strengthen conservation efforts and optimize resource utilization;
4. Building the adaptive capacity of local communities to navigate socio-ecological transformations while safeguarding the core values and economic resilience of their customary institutions.

Further research is essential to examine the adaptive capacity of customary law in responding to contemporary challenges such as climate change and economic globalization. A holistic and context-sensitive approach is crucial to ensure that customary law continues to serve as an effective mechanism for balancing resource utilization and environmental conservation in rural Indonesia while contributing to a more inclusive and sustainable development agenda.

This analysis provides a comprehensive assessment of the role of customary law in resource management across rural Indonesia, highlighting the intricate interplay between Indigenous governance systems, state policies, and modernization pressures. Key findings underscore the diversity of customary institutions across different regions, the resilience of customary law in adapting to socio-ecological transformations, and the opportunities and constraints associated with integrating traditional practices into modern resource governance frameworks.

To enhance this discussion, case studies from other countries that exhibit similar dynamics in community-based resource management and customary law can provide valuable comparative insights, as elaborated in the following.

1. The *Tagal* System in Sabah, Malaysia

In Sabah, Malaysia, Indigenous communities have established a traditional river management system known as *Tagal*, which closely parallels *Lubuk Larangan* in Sumatra. Under this system, local communities impose temporary fishing bans on designated river sections to promote ecological sustainability and long-term resource availability. *Tagal*, meaning “prohibition” in the Dusun

language, has been practised for centuries by various ethnic groups in Sabah. The Tagal system operates on well-defined conservation principles. Rivers are divided into specific zones, with some areas designated as fully protected while others allow regulated resource extraction. Decision-making regarding fishing activities—such as when and where harvesting is permitted—is conducted collectively by the community, typically under the guidance of customary councils.

In recent decades, research by Foo *et al.* (2022) highlights that the Sabah state government has increasingly recognized the *Tagal* system's value and sought to integrate it into official water resource management policies. A pivotal moment came in 1997 when the Sabah Fisheries Department formally adopted *Tagal* as a community-based freshwater fisheries management strategy, reinforcing customary governance within the formal legal framework. The success of the *Tagal* system extends beyond ecological conservation, fostering community empowerment and stimulating eco-tourism development. Several communities have successfully leveraged *Tagal* as a tourism asset, attracting visitors to experience the pristine river ecosystems and engage with native fish species, particularly the iconic mahseer (*Tor spp.*), which holds cultural and economic significance in the region.

However, similar to customary systems in Indonesia, *Tagal* faces multiple challenges. Population growth, shifts in land-use patterns, and pollution from agricultural and industrial activities pose significant threats to the long-term sustainability of river ecosystems. Concerns have also emerged regarding the excessive commercialization of eco-tourism, which risks diluting the traditional values underpinning the *Tagal* practice. Despite these challenges, the relative success of *Tagal* in Sabah offers valuable insights into the integration of customary governance within modern policy frameworks, demonstrating its potential to advance environmental conservation and local economic development simultaneously.

2. *Hima* in Jordan

The *Hima* system a traditional community-based natural resource management approach has been practised in Jordan for centuries. Derived from the Arabic word for “protected area,” *Hima* is deeply embedded in Islamic principles and Bedouin cultural traditions. Historically, it served as a governance framework to regulate grazing activities, allowing vegetation to regenerate and ensuring sustainable fodder supply for livestock during arid seasons. This system was locally administered, with enforcement mechanisms established by customary authorities.

In recent decades, *Hima* has gained renewed recognition as a viable model for biodiversity conservation and sustainable resource governance. The Royal Society for the Conservation of Nature (RSCN) in Jordan has spearheaded efforts to restore and modernize the *Hima* system, integrating it into formal conservation policies. A prominent example is the *Hima* initiative in the Dana Biosphere Reserve, where RSCN collaborates with local communities to revitalize traditional governance structures while incorporating contemporary conservation science. This hybrid approach enhances ecological resilience, supports sustainable livelihoods, and promotes ecosystem-based economic activities, including eco-tourism and sustainable grazing.

Despite its promise, implementing *Hima* in contemporary contexts faces several economic and institutional challenges. Socio-economic shifts, urban expansion, and land degradation exacerbated by climate change have placed increasing pressure on traditional land-use systems. Moreover, conflicts between customary governance structures and state regulatory frameworks often impede *Hima*’s formal institutionalization. Nevertheless, Jordan’s experience underscores the potential of integrating Indigenous conservation models into national development strategies. The relative success of *Hima* initiatives has also inspired similar efforts across the Arab world, demonstrating the transnational relevance of Indigenous resource governance in achieving sustainable economic and

environmental outcomes.

3. *Ejidors* in Mexico

The *Ejidors* system in Mexico is a significant model of community-based resource governance that has evolved in response to socio-economic and policy shifts. *Ejidors* represent a form of communal land tenure rooted in pre-colonial Indigenous traditions and later formalized through agrarian reforms following the Mexican revolution in the early 20th century. Under this system, land is collectively owned by the community and managed through participatory decision-making mechanisms. Members, known as *Ejidatarios*, hold usufruct rights to cultivate the land but are restricted from selling it. The original intent of the *Ejidors* system was to promote equitable land distribution, enhance rural livelihoods, and prevent the overexploitation of natural resources. Beyond its role in agricultural development, the *Ejidors* system has played a pivotal role in forest resource management across Mexico. Many *Ejidors* communities have adopted sustainable forestry practices, integrating Indigenous ecological knowledge with contemporary conservation strategies. Several *Ejidors* have successfully implemented community-led forest management models in states such as Oaxaca that balance commercial timber production with biodiversity conservation.

However, the *Ejidors* system in Mexico underwent a significant transformation in 1992 when constitutional reforms allowed for the privatization of *Ejidors* lands. While these reforms aimed to modernize Mexico's agricultural sector by fostering investment and improving land productivity, they also raised concerns regarding the potential loss of communal land tenure and the erosion of traditional resource governance frameworks. The effects of the 1992 reforms on *Ejidors* communities have been highly heterogeneous. In some regions, land privatization led to fragmentation, speculative land markets, and environmental degradation. However, in other areas, *Ejidors* communities successfully adapted by implementing innovative governance models that retained core principles of communal resource

management while leveraging new economic opportunities. A prominent case is *Ejido Felipe Carrillo Puerto* in Quintana Roo, where the community has effectively integrated community-based eco-tourism with sustainable forest management. By blending traditional land stewardship practices with contemporary market-driven strategies, *Ejidos* has developed a resource governance model that fosters environmental conservation while generating local economic benefits.

The evolution of the *Ejidos* system in Mexico provides critical insights into the intersection of customary land tenure, economic liberalization, and sustainable resource management. It highlights the importance of institutional adaptability and governance innovation in ensuring the resilience of communal land systems amid shifting policy landscapes and economic pressures.

4. The *Ahupua'a* System in Hawaii

The *Ahupua'a* system in the Hawaiian Islands represents a sophisticated model of integrated resource management that aligns with modern principles of sustainable development. Structurally, an *Ahupua'a* is a land division extending from the mountain peaks to the ocean, encompassing multiple ecological zones. This system is founded on a deep ecological understanding of the interdependence between terrestrial and marine environments. Each *Ahupua'a* typically consists of upland forests, agricultural lands in valley regions, and coastal fishing areas. According to Chernisky (2007), resource governance within the *Ahupua'a* system was regulated through customary laws, social norms, and taboos to maintain ecological equilibrium and ensure long-term resource sustainability. A fundamental tenet of this system is the concept of *mālama 'āina*, or "caring for the land," which embodies an environmental stewardship ethic, emphasizing collective responsibility for natural resource conservation. Key governance strategies included rotational agriculture, sophisticated water management techniques, and strict seasonal and size-based fishing regulations.

Colonization and modernization have significantly altered land governance

in Hawaii, resulting in the degradation or loss of many aspects of the *Ahupua'a* system. However, recent decades have witnessed a growing movement to restore and adapt *Ahupua'a* principles within contemporary contexts. A prominent example is the *He'eia Ahupua'a* restoration project on the island of Oahu, which represents a collaborative effort between community organizations, research institutions, and government agencies to reestablish traditional land and resource management practices. This initiative includes rehabilitating ancient wetlands for taro cultivation, restoring coral reef ecosystems, and implementing educational programs integrating Indigenous ecological knowledge with modern scientific methodologies. The revival of the *Ahupua'a* system has also shaped resource governance policies in Hawaii. For instance, the state's adoption of ecosystem-based fisheries management reflects core principles embedded in the *Ahupua'a* framework, particularly recognizing interdependent terrestrial and marine ecosystems and prioritizing long-term sustainability over short-term economic gains.

However, like other Indigenous resource governance models, efforts to reinstate the *Ahupua'a* system encounter significant economic and legal challenges. These include conflicts over land and water rights, pressures from urban expansion, and the complexities of aligning traditional practices with modern regulatory frameworks and market-driven demands. Despite these obstacles, the resurgence of the *Ahupua'a* system offers critical insights into the viability of Indigenous resource management in addressing contemporary environmental and socio-economic challenges. This case underscores the potential for integrating traditional ecological knowledge with scientific advancements to develop more resilient, holistic, and sustainable resource management models in an evolving economic landscape.

5. Community-Based Natural Resource Management (CBNRM) in Namibia

Namibia's Community-Based Natural Resource Management (CBNRM) program exemplifies how decentralized resource governance can be successfully

integrated into national policy frameworks to promote conservation and economic development. Launched in the early 1990s, this initiative is based on devolving wildlife management rights and responsibilities to local communities. According to Mosimane *et al.* (2020), this shift significantly departed from the previously dominant top-down conservation model, which often marginalized local communities and overlooked their ecological knowledge. Under the CBNRM framework, communities are legally empowered to establish conservancies – self-governing resource management units. These conservancies are granted the authority to manage and derive economic benefits from wildlife resources through regulated eco-tourism, sustainable hunting quotas, and other revenue-generating conservation activities.

One of the most prominent success stories of Namibia's CBNRM program is the *Torra Conservancy* in the Kunene region. Established in 1998, *Torra* has effectively contributed to wildlife conservation by increasing populations of key species – such as elephants and black rhinos – while generating substantial economic benefits for local communities through eco-tourism and regulated hunting initiatives. The broader impact of Namibia's CBNRM program has been significant. Since its implementation, wildlife populations have rebounded across multiple regions. For instance, the rare desert elephant population has grown from approximately 300 individuals in 1995 to over 600 by 2016. Additionally, the program has played a crucial role in rural poverty alleviation, with conservancies collectively generating an annual revenue exceeding 10 million Namibian dollars. This revenue stream has provided direct financial benefits to communities and funded local development projects. However, the program faces persistent challenges. Human-wildlife conflicts remain pressing, particularly as recovering wildlife populations encroach on agricultural land and settlements. Furthermore, disparities in benefit distribution among conservancies have raised concerns about equity, while questions surrounding the long-term financial sustainability of the model continue to be debated.

Despite these challenges, Namibia's CBNRM framework has gained international recognition for integrating conservation with local economic development. Its success underscores the critical role of community empowerment and secure resource rights in fostering sustainable development. The program demonstrates how localized governance can drive environmental conservation and socio-economic progress by aligning ecological stewardship with economic incentives.

The experiences of five case studies *Tagal* in Sabah, *Hima* in Jordan, *Ejidors* in Mexico, *Ahupua'a* in Hawaii, and CBNRM in Namibia – provide valuable insights into the role of customary governance in sustainable resource management. These cases highlight several recurring themes and key lessons relevant to Indonesia's resource governance framework.

1. Adaptability of Customary Resource Governance Systems

Each of these cases illustrates the remarkable adaptability of traditional resource management systems in response to evolving social, economic, and ecological conditions. In Mexico, specific *Ejidors* communities have successfully restructured their traditional forest management practices to leverage new economic opportunities such as eco-tourism. Likewise, revitalizing the *Ahupua'a* system in Hawaii demonstrates how Indigenous governance principles can be integrated with contemporary scientific methodologies. This adaptive capacity is also evident in Indonesia, where customary systems like *Subak* in Bali and *Sasi* in Maluku have exhibited resilience in navigating environmental shifts and socio-economic transformations. The ability of these systems to adjust to changing circumstances is critical in mitigating modern challenges such as climate change, economic globalization, and infrastructure-driven development pressures.

2. Integration into Formal Policy Frameworks

The case studies examined demonstrate varying degrees of success in

integrating traditional resource management practices into formal policy frameworks. Namibia's CBNRM program is a compelling model wherein community-based governance principles have been fully institutionalized within national policy. Similarly, in Sabah, Malaysia, the formal recognition of the *Tagal* system by the Fisheries Department represents a significant step toward incorporating customary governance within state-managed resource policies. These experiences offer valuable insights for Indonesia as it seeks to formalize customary law within its national legal framework. Notably, the success of Namibia's CBNRM program underscores how Indigenous communities can be empowered to manage their resources while ensuring alignment with national conservation and economic development objectives.

3. Challenges of Modernization and Economic Pressures

Despite their successes, these cases confront challenges from modernization, development pressures, and economic transitions. In Mexico, constitutional reforms permitting the privatization of *Ejidos* lands have introduced complexities in communal resource governance. In Jordan, rapid urbanization and shifting land-use patterns threaten the viability of the *Hima* system. Similar pressures are evident in Indonesia, where customary systems like *Subak* in Bali face mounting challenges due to urban expansion and land-use conversion. Comparative insights from these cases suggest that strategic responses – such as economic diversification, enhanced policy integration, and sustainable tourism development – may offer viable pathways for balancing modernization with preserving customary governance systems.

4. Potential for Conservation and Sustainable Development

The case studies above illustrate the significant potential of community-based resource management systems in simultaneously promoting environmental conservation and fostering local economic development. In Namibia, the CBNRM

program has led to substantial wildlife population recovery and economic benefits for local communities. Similarly, in Hawaii, the revitalization of the *Ahupua'a* system has facilitated ecosystem restoration while preserving cultural heritage. These findings are consistent with case studies from Indonesia, where traditional practices such as *Sasi* in Maluku have effectively contributed to the sustainability of fish stocks and the preservation of coral reef ecosystems. Collectively, these experiences underscore the role of customary law as a valuable mechanism for achieving sustainable development objectives.

5. The Economic Value of Traditional Ecological Knowledge

Each of these cases highlights the critical role of traditional ecological knowledge (TEK) in effective resource management. For example, the *Ahupua'a* system in Hawaii is based on a sophisticated understanding of the interdependence between terrestrial and marine ecosystems. Similarly, the *Hima* system in Jordan reflects a deep comprehension of rangeland ecosystem dynamics. These insights align with Indonesian examples, such as the *Subak* system in Bali, which integrates advanced hydrological knowledge with agricultural planning. Recognizing and incorporating TEK into modern governance frameworks can enhance the efficiency and resilience of resource management strategies, ultimately contributing to long-term environmental sustainability and economic viability.

6. Challenges in Benefit Distribution

Cases such as Namibia's CBNRM program and Mexico's *Ejidos* highlight the complexities of ensuring an equitable distribution of benefits among community members. These challenges are equally pertinent to Indonesia, where disparities in access to and allocation of natural resource benefits remain a critical concern. Insights from international experiences suggest that addressing these challenges requires institutional mechanisms that promote inclusive governance, enhance transparency, and establish clear benefit-sharing frameworks.

7. The Role of Government and National Policy

The case studies underscore the pivotal role of government intervention and an enabling policy environment in the success of community-based resource management initiatives. In Namibia, the effectiveness of CBNRM is closely linked to national policies that grant local communities defined rights and responsibilities over resource governance. Similarly, in Sabah, Malaysia, the state government's formal recognition of the *Tagal* system has reinforced its legitimacy and operational effectiveness. These cases highlight the importance of Indonesia's ongoing efforts to formalize customary governance structures within its national legal framework. Adapting best practices from international models can provide valuable insights for enhancing the institutionalization of customary resource management in Indonesia.

8. Challenges Posed by Climate Change

While not explicitly addressed in all cases, climate change presents a fundamental challenge to traditional resource management systems worldwide. In Jordan, for instance, land degradation exacerbated by climate change has significantly undermined the viability of the *Hima* system. Likewise, shifting precipitation patterns and rising sea levels threaten the ecological assumptions underpinning the *Ahupua'a* system in Hawaii. These challenges are particularly relevant to Indonesia, where climate change-induced environmental shifts threaten numerous traditional resource governance practices. Drawing from global experiences, integrating adaptive strategies can enhance the resilience of customary resource management systems in the face of environmental uncertainties.

9. Potential for Eco-tourism and Economic Diversification

Several case studies, including the *Tagal* system in Sabah and Namibia's CBNRM program, illustrate how traditional resource governance can be successfully integrated with eco-tourism to generate alternative income streams for local communities. These models align with emerging trends in Indonesia, such as

Subak-based eco-tourism in Bali and community-driven tourism initiatives centred around *Sasi* practices in Maluku. These experiences highlight the economic potential of customary institutions in fostering economic diversification, enhancing rural livelihoods, and promoting sustainable development.

10. The Role of Education and Knowledge Transmission

The revitalization of the *Ahupua'a* system in Hawaii underscores the essential role of education in preserving traditional ecological knowledge and ensuring its intergenerational transmission. This is particularly critical as rapid social and economic transformations threaten the continuity of Indigenous resource management systems. Indonesia's need to document, safeguard, and institutionalize Indigenous knowledge is increasingly recognized as a strategic priority. Integrating traditional ecological insights with modern scientific frameworks through formal and informal education initiatives can strengthen the resilience and adaptability of customary governance systems in the face of contemporary environmental and economic challenges.

In conclusion, the comparative analysis of these international cases provides valuable insights into the role of customary law in Indonesia's resource management framework. Lessons from other countries underscore the significant potential of community-based resource governance systems in promoting environmental conservation and sustainable economic development. However, these cases also reveal the complexities and structural challenges in aligning traditional practices with the imperatives of modernization, economic transitions, and global environmental change.

Preserving national sovereignty is a collective responsibility for all citizens, including rural communities. Strengthening national identity, ensuring security and social stability, investing in human capital, and fostering technological and industrial innovation are critical to safeguarding sovereignty while enhancing

national resilience and long-term economic prosperity. For Indonesia, these international experiences offer strategic guidance for developing more effective policies that acknowledge, institutionalize, and integrate customary law within the broader framework of sustainable resource management and economic governance. An approach that recognizes the economic value of local wisdom, empowers Indigenous communities, and facilitates adaptation to contemporary challenges is essential for achieving sustainable development objectives in rural Indonesia.

Moreover, international experiences underscore the necessity for further research on how customary law can evolve to address modern challenges such as climate change, economic globalization, and demographic transitions. A comprehensive comparative analysis of how countries incorporate customary law into formal legal and economic frameworks could offer valuable insights into Indonesia's policy development.

Ultimately, these case studies reaffirm that effective and sustainable resource management requires a governance approach that integrates diverse knowledge systems while maintaining national sovereignty. By harmonizing Indigenous wisdom with modern scientific advancements and adaptive policymaking, Indonesia can develop an innovative resource management model that preserves its rich biodiversity and cultural heritage and drives inclusive and sustainable economic growth in rural communities.

4. Conclusion

This study highlights the critical role of customary law in shaping rural resource governance across diverse landscapes, including coastal areas, mountainous regions, and border territories. Customary legal frameworks enhance local economic welfare and serve as a strategic mechanism for strengthening national sovereignty. A state's ability to maintain stability and prosperity depends

on prioritizing the well-being of its citizens. Governments can mitigate internal conflicts that threaten national sovereignty by fostering economic security, reducing poverty, and enhancing social cohesion. In Indonesia's rural areas, customary law remains central to resource management despite growing pressures from modernization and state-led development policies. The resilience and adaptability of customary legal systems underscore the depth of Indigenous knowledge in responding to localized socio-ecological conditions. Many community-based resource governance models rooted in customary law have effectively promoted ecological sustainability and economic resilience, reinforcing local livelihoods.

However, this study also identifies persistent challenges facing customary law, including the marginalization of Indigenous governance structures in formal development agendas and the complexities introduced by legal pluralism. While there is a growing recognition of customary law within national policy discourse, its integration into formal governance mechanisms remains uneven and fraught with institutional constraints.

These findings underscore the need for a more comprehensive and integrative approach to resource governance that systematically incorporates Indigenous knowledge within formal policy frameworks. Bridging the gap between customary and state legal systems requires targeted institutional reforms and capacity-building initiatives that empower local communities to navigate contemporary socio-ecological challenges.

This study highlights the critical need for further research on the adaptability of customary law to contemporary challenges, including climate change and economic globalization. Moreover, a more in-depth investigation is necessary to explore how modern technologies can be integrated with Indigenous resource management practices to enhance efficiency, resilience, and long-term

sustainability.

Lastly, this research underscores that recognizing and strengthening the role of customary law in resource governance is vital for preserving Indigenous knowledge systems and instrumental in advancing sustainable development objectives in rural Indonesia while reinforcing national sovereignty. By harmonizing traditional ecological wisdom with modern scientific and technological innovations, Indonesia can establish a more equitable, effective, and sustainable resource management framework that aligns with economic progress and environmental stewardship.

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