

LAW & SOCIAL POLICY | RESEARCH ARTICLE

Climate Change Mitigation in the Arfak Mountains through Igya Ser Hanjob: A Legal and Socioecological Review

Musa Pandori¹, Roberth KR Hammar², Christina Samangun³

^{1,2,3} Department of Science Law, Faculty of Law, Universitas Caritas Indonesia, Papua, Indonesia.

Email: mupaxmucex@gmail.com, roberthhammar168@gmail.com, christinasamangun@gmail.com

ARTICLE HISTORY

Received: July 12, 2025

Revised: September 01, 2025

Accepted: September 02, 2025

DOI

<https://doi.org/10.52970/grlspr.v5i1.1559>

ABSTRACT

Using a juridical and socioecological approach, this study examines the role of the Igya Ser Hanjob customary legal system in mitigating climate change in the Arfak Mountains, West Papua. Igya Ser Hanjob, which literally means "guarding boundaries," is the local wisdom of the Hatam people that regulates land management and environmental conservation in a balanced, sustainable manner, and contains deep spiritual values. This system regulates no-go zones, land rotation management, prohibitions on felling large trees, and an effective community oversight mechanism for maintaining biodiversity and ecosystem stability. The study employed qualitative methods, including in-depth interviews with four Hatam tribal leaders, participant observation, and reviewing relevant national and regional legal documents. Thematic analysis was applied to uncover ecological principles, adaptation practices, and the challenges and external support faced by Igya Ser Hanjob. The results indicate that although this customary legal system has received normative recognition in the constitution and several national regulations, its implementation remains suboptimal due to obstacles to administrative recognition, the lack of specific regional regulations, and the minimal involvement of indigenous communities in the legislative process. This phenomenon has resulted in the potential of local wisdom for climate mitigation not being fully realized. At the same time, pressures of exploitation and development have the potential to threaten the sustainability of the Arfak Mountains ecosystem. Discourse analysis reveals that Igya Ser Hanjob serves as a discourse that integrates the ecological and spiritual values of indigenous communities, while also serving as a platform for negotiation between customary law and formal law, which often marginalizes the role of indigenous communities. This study emphasizes the importance of stronger integration of customary law with national climate change mitigation policies through formal recognition, participatory mapping, and strengthening the legal capacity of indigenous communities. This approach strengthens ecological protection and empowers indigenous communities as primary guardians of a sustainable environment. Thus, this study confirms the relevance of Igya Ser Hanjob as a foundation for ecological ethics and law that can serve as an effective local strategy in addressing climate change and encouraging inclusive and contextual environmental policy reform in West Papua.

Keywords: Igya Ser Hanjob, Indigenous Communities, Local Wisdom, National Law, Climate Change Mitigation, Environmental Protection.



I. Introduction

Climate change has become a pressing global issue, bringing significant multidimensional impacts. These impacts include the increasing frequency of natural disasters such as floods and forest fires, rising sea levels that threaten coastal areas, and ecosystem damage that worsens human living conditions. One area directly impacted by climate change is the Arfak Mountains in West Papua Province. This region is ecologically important and serves as a habitat for various unique, endemic flora and fauna found nowhere else. However, environmental damage in the Arfak Mountains continues to increase due to pressures from deforestation, habitat degradation, infrastructure development, and economic expansion based on natural resource extraction. These pressures are accelerating the damage, threatening the preservation of nature and the well-being of local communities. (Geneva: IPCC, 2023). In this context, development and environmental management policies in Papua often conflict with the local values of indigenous communities. Formal government policies tend to ignore the central role and proven existence of local wisdom, which has been proven to preserve the environment for centuries. For example, the Hatam indigenous community developed and practices Igya Ser Hanjob, a customary legal system that regulates the relationship between humans and nature in a balanced, sacred, and sustainable manner. This customary legal system contains strict ecological norms and rules, such as prohibitions against indiscriminate forest destruction, determining territorial boundaries based on spiritual values, and managing collective responsibility for environmental protection (Sayori et al., 2024).

Customary laws such as Igya Ser Hanjob should be recognized and incorporated into national and international legal systems within community-based climate change mitigation strategies. This approach could be an alternative to strengthening more inclusive and contextual mitigation efforts, as customary laws reflect a deep ecological understanding and time-tested sustainable practices. However, in reality, these customary legal systems remain marginalized in both the legal and political spheres. Formal policies are often top-down and technocratic, failing to accommodate the complex spiritual and ecological values inherent in these customary laws (Safitri, 2013). Recognition and protection of indigenous peoples and customary law in the national legal system are based on constitutional provisions such as Article 18B paragraph (2) of the 1945 Constitution, which emphasizes that the state recognizes and respects the unity of indigenous legal communities and their traditional rights. Furthermore, Law No. 32 of 2009 concerning Environmental Protection and Management and Law No. 6 of 2014 concerning Villages provide a legal framework for sustainable natural resource management by recognizing local wisdom and customary villages. Technical guidelines for recognizing indigenous legal communities are regulated through Regulation of the Minister of Home Affairs No. 52 of 2014, while Constitutional Court Decision No. 35/PUU-X/2012 further strengthens the rights of indigenous peoples, particularly over customary forests. At the regional level, Regional Regulation No. 3 of 2022 on the Spatial Planning of West Papua Province is evidence of the recognition of customary areas as an integral part of spatial planning, which is highly relevant in the context of climate change mitigation based on the local wisdom of Igya Ser Hanjob in the Arfak Mountains.

This phenomenon raises a serious issue: the imbalance between formal state law and the living law systems practiced by indigenous communities. The absence of a contextual and holistic legal approach threatens the capacity of local communities to maintain their environmental sustainability. However, indigenous communities have demonstrated effective ecological practices in nature management for generations. For this reason, comprehensive and interdisciplinary studies are crucial to understanding the contribution of values and norms within local wisdom systems such as Igya Ser Hanjob to environmental law reform and climate change mitigation in national and global contexts. In this regard, this research aims to explore several key issues. First, what is the legal position and protection of the Igya Ser Hanjob local wisdom within Indonesia's current national legal system? Second, to what extent can the ecological principles embodied in Igya Ser Hanjob be integrated and accommodated in national-scale climate change mitigation policies? This question is crucial given the evident gap in research and implementation: while numerous

studies on climate change mitigation and customary law exist separately, in-depth studies examining the position of customary law in the Arfak Mountains and its integration into environmental policies are scarce.

The main thrust of this research is that recognizing and integrating the Igya Ser Hanjob customary legal system into the national legal framework can strengthen climate change mitigation in the Arfak Mountains sustainably and inclusively. By adopting a legal approach that respects and integrates indigenous communities' social and ecological values, mitigation strategies can be more effective and inclusive, while empowering local communities as the primary guardians of environmental sustainability. The research gap addressed in this study is the inability of the national legal system to accommodate local wisdom specific to the West Papua region, particularly as it relates to Igya Ser Hanjob. Previous research has mainly focused on technical aspects of mitigation or on separate socio-cultural studies. However, few have systematically addressed the relationship between customary and national environmental laws and the political implications of such neglect. Therefore, this study offers an interdisciplinary perspective that combines juridical and ecological sociological approaches, simultaneously filling this gap in the literature and providing relevant policy recommendations for managing the Arfak Mountains.

This research is crucial given the increasingly apparent impacts of climate change, which threaten the sustainability of ecosystems and the lives of people in the Arfak Mountains. This region holds significant ecological potential and is a vital green lung and habitat for numerous endemic species vulnerable to development pressures and natural resource extraction. However, the mismatch between predominantly top-down development policies and the local wisdom of indigenous communities has weakened environmental protection. In this context, the Igya Ser Hanjob customary legal system, empirically proven to maintain natural and social balance, holds significant potential to become the basis for more effective and sustainable climate change mitigation. The urgency of this research is also driven by the need to address the academic and practical gaps regarding the recognition of customary law within the national legal system, particularly in West Papua. Given that the current national legal system fails to fully appreciate and integrate local values, ecosystem, and social vulnerabilities will worsen without appropriate intervention. Therefore, this research is highly relevant for providing inclusive and contextual policy recommendations while strengthening the role of indigenous communities as key partners in environmental management and climate change mitigation.

This study examines the position and legal protection of the Igya Ser Hanjob local wisdom within Indonesia's current national legal system. Furthermore, it analyzes the ecological principles of Igya Ser Hanjob and explores the potential for incorporating them into national climate change mitigation policies. It also seeks to identify challenges and opportunities in integrating customary law with the formal legal system to create a more sustainable and inclusive climate change mitigation strategy, particularly in the Arfak Mountains region. Ultimately, this study aims to provide interdisciplinary policy recommendations by combining juridical and socioecological aspects, thereby strengthening the role of indigenous communities as empowered and sustainable environmental managers in West Papua.

II. Literature Review and Hypothesis Development

Igya Ser Hanjob is a local wisdom important in managing and protecting the Arfak Mountains ecosystem (Purbokurniawan et al., 2019). Igya Ser Hanjob means "guarding boundaries" and symbolizes the principle of customary division and management of ecological space to maintain the sustainability of natural resources and environmental balance. The Arfak indigenous people have long practiced this concept through rules that regulate the use of customary territories in a measured and spiritual manner, as well as land rotation for sustainable agriculture (Sayori et al., 2024). The division of customary territories within Igya Ser Hanjob includes several zones with varying levels of management and protection, including Bahamti (primary forest that is strictly protected), Nimahamti (forest that can be utilized with the approval of traditional leaders), Susti (residential and garden areas), and Situmti (former gardens that are reused in rotation). This division system reflects the Arfak people's deep understanding of each zone's limitations and ecological functions, which must

be strictly maintained for ecosystem balance and shared survival (Purbokurniawan et al., 2019; Sayori et al., 2024).

From a socioecological perspective, the Igya Ser Hanjob practice is highly effective in preserving the Arfak Mountains environment. Communities implement sustainable agricultural methods such as land rotation (fallow), natural fertilization with litter, and selective selection of fertile land. This knowledge is passed down through generations and has become an integral part of indigenous communities' social and cultural life, particularly through the role of women as guardians of ecological knowledge. This approach aligns with the principles of LEISA (Low External Input Sustainable Agriculture), which emphasizes using local resources and environmentally friendly and sustainable planting patterns (Sari & Pratama, 2023). From a legal perspective, Igya Ser Hanjob is a customary legal system that, although not formally written, remains socially binding and respected by the community. This customary law contains norms prohibiting forest destruction and establishing boundaries based on spiritual values. However, formal recognition of this system remains limited (Safitri, 2013). Government-produced conservation area management policies often fail to accommodate or ignore this customary legal system. This creates a disconnect between formal policies and indigenous practices, ultimately leading to conflict and reducing the effectiveness of local community-based environmental management. Integrating Igya Ser Hanjob's values into national environmental policy is crucial to ensuring more inclusive and sustainable climate change mitigation (Yuliana & Hartono, 2015).

Literature, such as that written by Widodo (2020), also highlights that the Arfak people view nature and biological resources as an inseparable part of their identity and social entity. This ecological awareness manifests in a collective moral responsibility to protect and wisely utilize nature to benefit humans and other living creatures. Therefore, a management approach that combines spiritual values and ecological ethics can be an effective model for social adaptation in the face of the pressures of climate change and overexploitation of natural resources. Based on this study, the hypothesis proposed in this research is that recognizing and integrating Igya Ser Hanjob's customary law into the national legal system can strengthen climate change mitigation strategies in the Arfak Mountains. Law enforcement that respects local social norms and ecological values will increase indigenous community participation in environmental management, improve the effectiveness of mitigation policies, and maintain the sustainability of unique and vulnerable ecosystems.

III. Research Method

This study employed a qualitative method (Idrus, 2009) with a descriptive-analytical approach to deeply understand the values, practices, and challenges inherent in the Igya Ser Hanjob customary legal system in the context of climate change mitigation in the Arfak Mountains. The research location was in the Arfak Mountains region, West Papua, the center of the Hatam tribe's indigenous community, the owners of Igya Ser Hanjob. The research subjects were purposively selected: four indigenous leaders with the most in-depth knowledge and experience in preserving local wisdom and managing customary territories (Marshal, 2006). Data were collected through in-depth semi-structured interviews to explore the informants' views and narratives regarding ecological principles, forest management practices, adaptation to climate change, and external support related to implementing Igya Ser Hanjob. In addition, the researcher conducted participatory observations in the field to gain a direct understanding of customary practices and the community's territorial oversight mechanisms. This qualitative approach was also supported by document reviews, such as relevant national and regional regulations and related scientific literature (Yin, 2009).

After data collection, all interviews and observation notes were fully transcribed and analyzed using thematic analysis (Sugiyono, 2011). This method enabled researchers to identify, categorize, and interpret key emerging themes, particularly those related to the ecological principles of Igya Ser Hanjob, indigenous peoples' natural resource management practices, local wisdom-based climate change adaptation mechanisms, and external barriers and supports stemming from the national legal system and public policy. To ensure data validity, researchers conducted triangulation by comparing interviews with several informants and comparing them with secondary data and literature (Sarwono, 2006). Furthermore, researchers employed

member checking, seeking confirmation and direct input from indigenous leaders and environmental law experts on preliminary findings to ensure more accurate and reliable interpretations. Ethical research principles were also upheld by obtaining informants' voluntary consent and approval, maintaining confidentiality when requested, and respecting customary and cultural rules throughout the data collection. This methodological approach was designed to comprehensively capture the legal, social, cultural, and ecological dimensions of Igya Ser Hanjob, while also demonstrating how these local wisdom values and practices can contribute to climate change mitigation strategies, both supported and challenged by existing regulations and policies.

IV. Results and Discussion

4.1. The Position and Legal Protection of Igya Ser Hanjob Local Wisdom in the National Legal System

1. Deep Meaning of Igya Ser Hanjob

Literally, Igya Ser Hanjob means "standing firm in guarding boundaries." However, its philosophical meaning is much deeper and more complex. It is a principle of the Arfak people's customary law that functions as a system for preserving living space, regulating social relations, and expressing their spiritual beliefs in nature and their ancestors. In its implementation, Igya Ser Hanjob is not simply an ordinary customary norm but a living, ecological-spiritual legal system that effectively maintains ecological balance (Sayori, Apollos, 2024). The philosophical meaning of Igya Ser Hanjob reflects the collective awareness of indigenous peoples regarding the importance of maintaining harmony between humans, nature, and ancestral spirits. This awareness is related to the concept of cosmological law, a value system that integrates the spiritual dimension with human legal behavior in an ecological context (Hooker, MB, 2008).

2. The Multilayered Dimension of Igya Ser Hanjob in Customary Law Practice

a. Philosophical Dimension

Philosophically, Igya Ser Hanjob reflects the collective integrity and morals of the Arfak people in treating land and forests as sacred entities. Land is not only seen as a place to live, but also as part of the community's shared soul. An Arfak traditional leader stated: "Land is a mother that cannot be sold; we protect it as we protect our lives (Situmorang, 2017)." This statement aligns with the ecocentric ethical approach in environmental law, which positions nature as a normative subject that must be respected, not an object of exploitation (Keraf, AS, 2010).

b. Sociological Dimension

In the social dimension, this principle strengthens community cohesion based on deliberation (nokena), cooperation, and collective agreement. Determination of territorial boundaries, prohibited zones, and dispute resolution are carried out through customary forums, rather than formal litigation. This demonstrates the strong validity of customary law as living law, as Eugen Ehrlich argued that "law that lives in society is more influential than written law." Some concrete practices in this dimension include:

- 1) Establishment of Seasonal Hunting Ban. Used to protect wildlife populations during reproductive and migration periods, prevent species extinction, and maintain ecosystem balance. This is known as the closed season principle in conservation science.
- 2) Customary Sanctions for Violations of Customary Territory. Violations of customary territorial boundaries are subject to customary sanctions in the form of fines, apology rituals, or expulsion to protect the collective rights of indigenous communities and prevent conflict.

- 3) Regional Patrols by Indigenous Communities. Forest monitoring is carried out collectively and based on local wisdom. This has proven more effective in preventing illegal activities such as illegal logging.

c. Ecological Dimension

The prohibition of the overexploitation of natural resources is at the heart of the ecological principles of Igya Ser Hanjob. While not using academic terminology, the values espoused reflect the principles of precautionary and sustainable management. Some examples of ecological practices include:

- 1) Prohibition on Cutting Large Trees in Sacred Forests. Large trees are considered the dwelling place of ancestral spirits, so they may not be cut down. This helps preserve biodiversity and prevent deforestation (Dove, MR, 2011). Indigenous leader Luter Elimelek Waran stated, "Every large tree and sacred forest belongs not only to humans, but also to the spirits of our ancestors." (Wa-ran, Luter Elimelek, 2024).
- 2) Hunting Zones and Harvest Periods. Customary territories are divided into conservation and utilization zones, and an ecological calendar is followed to ensure resource sustainability. An example is the practice of sasi in Maluku and Papua.
- 3) Regional Rotation Management. Land and forests are used in rotation, then rested to restore fertility. This is similar to the subak system in Bali and long-rotation shifting cultivation in Kalimantan. These three practices reflect the principles of: 1) human-nature balance; 2) ecological cycles as the basis for management; and 3) spirituality in resource conservation.

d. spiritual Dimension

Spiritually, Igya Ser Hanjob believes that ancestral spirits guard customary territories, and any violations will have socio-ritual consequences for the community. Ceremonies such as Tumo and Hanjob are used to symbolically and spiritually open or close territories. This aligns with cosmological legal theory, which establishes the relationship between humans, nature, and God as the normative basis of the legal system.

4.2. Position in the National Legal System

Legally, normatively, recognition of Igya Ser Hanjob has been accommodated in various national regulations, including:

Table 1. National Regulations

Regulation	Substance
Article 18B paragraph (2) of the 1945 Constitution	The state recognizes and respects indigenous legal communities and their rights.
Law No. 32 of 2009 (PPLH)	Local wisdom as an instrument for environmental management and protection.
Law No. 6 of 2014 concerning Villages	Recognition of the existence of Traditional Villages and their authority to regulate customary areas.
Constitutional Court Decision No. 35/PUU-X/2012	Customary forests are not part of state forests and are under the authority of customary law communities.

4.3. Challenges of Implementing Igya Ser Hanjob in the National Legal System

Although the principle of Igya Ser Hanjob has received normative legitimacy through various legal instruments such as the 1945 Constitution, the Environmental Management Law, the Village Law, and Constitutional Court Decision No. 35/PUU-X/2012, the reality on the ground shows that legal recognition is

not always followed by effective implementation. The following obstacles are the leading causes of the weak implementation of this principle:

1. Not all Arfak Customary Areas Have Administrative Recognition

Minister of Home Affairs Regulation No. 52 of 2014 concerning Guidelines for the Recognition and Protection of Indigenous Communities serves as the administrative basis for recognizing indigenous communities. However, the complex and bureaucratic process has resulted in only a few Arfak communities successfully obtaining formal recognition. This administrative recognition is a prerequisite for rights to customary territories, customary forests, and local wisdom, such as Igya Ser Hanjob, to be legally protected and recorded in the national spatial plan. Without documented recognition, indigenous communities find it difficult to challenge claims by others to their lands and forests.

2. Absence of Special Regional Regulations (Perda)

To date, there is no Regional Regulation at the West Papua Province or South Manokwari Regency level that explicitly regulates:

- a. Recognition of Igya Ser Hanjob as customary law.
- b. Protection of customary areas and governance of local wisdom.
- c. Conflict resolution mechanisms based on customary law.

The absence of regional regulations causes weaknesses in the synchronization of national law with local law, even though Law No. 23 of 2014 concerning Regional Government provides legislative authority to regions to regulate customary affairs autonomously.

3. Conflict of Interest: Investment and Indigenous Territories

Many areas of Arfak have high ecological value and are targets for industrial investment, such as:

- a. Oil palm plantations.
- b. Nickel, gold, and coal mining.
- c. Tourism infrastructure and special economic zones (KEK).

Companies can freely enter with government permission when customary boundaries are not formally recognized, triggering land conflicts and socio-cultural degradation. The principle of Igya Ser Hanjob is marginalized because it is not included in the framework of state decisions. The lack of formal legal evidence weakens the Arfak community's position in the face of evictions or land grabbing.

4. Weak Participation of Indigenous Communities in the Legislative Process

Many regional policies, including those on spatial planning, forestry management, and investment, are made without meaningful consultation with indigenous communities. Law No. 12 of 2011 requires public participation in the development of regulations, but their implementation is often a formality. This results in:

- a. Local wisdom is not accommodated in regulations.
- b. Unequal representation of indigenous peoples' voices in regional legislative and executive institutions.

Implications of These Barriers:

- a. The principle of Igya Ser Hanjob has become symbolic, without absolute protection on the ground.

- b. Agrarian conflicts are increasing, especially in the West Papua region, which is the target of investment.
- c. Ecological and social sustainability are threatened because traditional conservation systems are neglected.
- d. customary law is weakened, even though it is constitutionally recognized.

Table 2. Strategic Solutions that can be Implemented

Strategy	Explanation
Issuance of Customary Regional Regulations	Urge the West Papua Regional People's Representative Council (DPRD) and related districts to ratify the Regional Regulation on the Protection of Arfak Customary Areas and Local Wisdom.
Acceleration of administrative recognition	The regional government must create an Indigenous Legal Community Inventory Team per Home Affairs Ministerial Regulation 52/2014 to quickly process recognition.
Participatory mapping of indigenous territories	Engage NGOs and indigenous communities to create a map of indigenous territory boundaries based on Igya Ser Hanjob.
Strengthening the legal capacity of indigenous communities	Legal training, advocacy, and customary governance to ensure communities have bargaining power with the state and investors.

To strengthen the legal position of Igya Ser Hanjob, it is necessary:

- a. Regional regulations regarding the Recognition and Protection of Customary Areas and Local Wisdom.

Regional regulations are legal instruments that: provide legal certainty regarding the existence of indigenous communities, their customary territories, and their local wisdom; serve as a legitimate basis for community management and control rights over customary territories; and serve as a gateway for integrating customary law into regional development policies. West Papua Province already has several regulations that can be used to strengthen Igya Ser Hanjob, namely West Papua Regional Regulation No. 3 of 2022 concerning the West Papua Regional Spatial Plan (RTRW) for 2022-2041, which recognizes the existence of customary law communities (MHA) as an integral part of provincial spatial planning. Customary territories in this regulation are categorized into three large groups, namely: 1) Domberay Customary Territory, which includes 11 regencies/cities: Sorong, South Sorong, Bintuni Bay, Wondama Bay, Raja Ampat, Manokwari, South Manokwari, Tambrau, Arfak Mountains, Maybrat, and Sorong City. 2) Bomberay Customary Territory, which includes Kaimana and Fak Fak Regencies. 3) Saireri Customary Territory, which includes Wondama Bay Regency. This regulation also states that further regulations regarding customary areas will be regulated in a Special Regional Regulation (Perdasus), which regulates the rights, boundaries, and governance of customary areas in more detail.

- b. Protection and Utilization of Customary Areas

This regulation regulates various aspects of protecting and utilizing indigenous peoples' territories, including: a). Mapping and Determination of Indigenous Areas: The regional government is responsible for identifying, mapping, and officially establishing indigenous areas in provincial spatial planning. b). Registration of Indigenous Area Maps: Drafting regulations to ensure that indigenous areas are documented and have clear legal force. c). Utilization of Natural Resources: MHA has the right to manage living and non-living natural resources per local wisdom and applicable regulations. d). Empowerment of Indigenous Legal Communities: Through capacity building, facilitating cooperation with the government and the private sector, and protecting cultural sites.

c. Integration of Customary Areas in Spatial Planning

This regulation underscores the importance of integrating customary areas into provincial spatial plans with several strategic steps: a. Preparation of Cultural Spatial Planning: Customary areas must be part of district/city spatial planning, considering social and cultural aspects. b. Sustainable Development: Indigenous Peoples are encouraged to participate in sustainable development while actively maintaining ecosystem balance. c. Protection of Customary Rights: Customary rights remain recognized and respected in regional planning, especially in environmental protection areas. West Papua Regional Regulation No. 3 of 2022 strongly recognizes the rights and roles of indigenous communities in managing their territories. This regulation emphasizes the importance of legal protection, customary rights recognition, and customary territory governance integration into regional development. The successful implementation of this regulation depends heavily on synergy between the local government, indigenous communities, and other relevant parties.

- Regional Regulation of Papua Province Number 5 of 2022 concerning the Recognition and Protection of Indigenous Legal Communities. Regional Gazette of Papua Province 2022 Number 5. Supplement to the Regional Gazette of Papua Province Number 37.
- Regional Regulation of West Papua Province Number 5 of 2023 concerning People's Mining. Regional Gazette of West Papua Province 2023 Number 5. Supplement to the Regional Gazette of West Papua Province Number 45.
- Regional Regulation of West Papua Province Number 5 of 2024 concerning the Protection of Intellectual Property Rights of Indigenous Papuans. Regional Gazette of West Papua Province 2024 Number 5. Supplement to the Regional Gazette of West Papua Province Number 50
- Special Regional Regulation (Perdatus) of West Papua Province
- Special Regional Regulation of West Papua Province Number 2 of 2019 concerning Special Autonomy Funds
- Special Regional Regulation of West Papua Province Number 9 of 2019 concerning Recognition and Protection of Indigenous Legal Communities;
- Special Regional Regulation of West Papua Province Number 10 of 2019 concerning Sustainable Development
- Special Regional Regulation of West Papua Province Number 2 of 2021 concerning Amendments to Regional Regulation Number 2 of 2019
- Special Regional Regulation of West Papua Province Number 4 of 2023 concerning Indigenous Papuans

4.4. Participatory Mapping of Customary Territory Boundaries Based on the Igya Ser Hanjob Principle

Igya Ser Hanjob is a principle of the Marind indigenous people of South Papua, meaning "to guard against trespassing," meaning to guard the boundaries of customary territories against violations. This participatory mapping:

- a. Involving the community directly in determining customary territory boundaries, using technology (GPS, GIS) and local historical narratives.
- b. Avoid overlapping concession permits, and strengthen the legal claims of indigenous peoples.
- c. Used as legal and social evidence in the process of state recognition.

Implementation example: DAMP (Democratic Alliance for Papua) has facilitated the mapping of customary areas in Boven Digoel by prioritizing the principles of Igya Ser Hanjob.

4.5. Integration of Igya Ser Hanjob Principles in Forestry, Social Forestry, and Conservation Policies

This integration enables: a) Harmonization between national policies and local values, such as protecting customary forests in the Social Forestry program. b) Development of collaborative governance models that respect customary social structures. c) It serves as the basis for the preparation of Forest Management Plans (RPH), Annual Work Plans (RKT), and conservation area management. Example: Integration of Igya Ser Hanjob values in the Cyclops conservation area in Papua through customary partnerships and the BKSDA.

4.6. Strengthening the Legal Capacity of Indigenous Communities for Litigation and Rights Advocacy

This includes: a). Legal training and paralegal assistance for indigenous communities. b). Support the formal recognition process, administratively and through litigation (courts). c). Increasing community access to national and international judicial institutions and human rights instruments. Example: The Indigenous Peoples Alliance of the Archipelago (AMAN) has developed indigenous paralegals in more than 100 communities to fight for land and territorial rights. These four points form the institutional and legal transformation framework for indigenous communities, from: (1) Legal recognition, (2) Strengthening technical capacity (mapping), (3) Integration in sectoral policies, (4) Strengthening legal access.

4.7. Ecological Principles in Igya Ser Hanjob and Their Accommodation in National Climate Change Mitigation Policies

1. Igya Ser Hanjob as the Foundation of the Ecological Ethics of Indigenous Communities

Igya Ser Hanjob originates from the Hatam indigenous people and literally means "standing guard at the boundaries." However, its philosophical meaning is much more profound. It is a life principle that embodies the values of preservation, spirituality, and ecological responsibility (Keraf, AS, 2010). The core of this principle includes: a). Maintaining the sanctity of customary territorial boundaries physically and spiritually; b). Prohibiting violations of forests, rivers, and customary lands; c). Affirming the reciprocal relationship between humans and nature and the intergenerational obligation to safeguard the continuity of life together.

Table 3. Ecological Principles in Igya Ser Hanjob can be summarized as follows:

Igya Ser Hanjob Principle	Ecological Value	Relevance to Climate Change
Maintaining customary territorial boundaries	Protection of forest ecosystems	Deforestation prevention
Prohibition of excessive exploitation	Ecosystem balance	Carbon emission mitigation
Ecological cycle-based management	Environmental resilience	Adaptation to climate change
Prohibition of entering sacred zones	Biodiversity conservation	Protection of endemic species
Spiritual attachment to nature	Ecological precautionary ethics	Sustainable consumption and production

2. The Relevance of the Igya Ser Hanjob Principle to Climate Mitigation

According to Hatam traditional leader Daniel Sayori, Igya Ser Hanjob is an ancestral instruction that must be carried out to maintain the balance between humans, nature, and guardian spirits. He stated: "We cannot open the forest carelessly; there are rules about when and where we can cut down trees or hunt (Sayori, Daniel, 2024)." Customary decisions regarding land clearing, establishing village

boundaries, or harvesting forest products are made collectively through deliberations with elders and clan heads (Aman, 2020). This aligns with the spirit of community-based conservation. Meanwhile, Apolos Sayori emphasized the principle of collectivity and intergenerational ecological education: "Every decision regarding land boundaries, hunting areas, and no-go zones must be made through a large meeting to avoid conflict and so that the younger generation understands customary rules." He also highlighted the lack of formal support from local governments through regional regulations or policies that legally recognize customary law.

3. Thematic Analysis of the Relationship between Igya Ser Hanjob and Climate Mitigation

Table 4. Igya Ser Hanjob contains key principles of climate change mitigation and adaptation

Central Theme	Explanation
Human-nature-ancestor harmony	Sacred relationships that form an integrated spiritual and ecological ecosystem
Deliberation and collectivity	Consensus-based governance and community-wide participation
Customary sanctions and spiritual prohibitions	Socio-spiritual mechanisms maintain the ecological discipline of the community.
Internal-external challenges	Modernization, economic exploitation, and weak legal recognition
Digital revitalization and adaptation	Indigenous schools, training, and digital mapping strengthen sustainability.

4. Integration Strategy into National Policy

David Waran, a young indigenous leader from Hatam, emphasized the importance of continuity between local wisdom and the demands of modernity. He stated that the younger generation needs training and traditional schools to ensure the principles of Igya Ser Hanjob are not lost: "We want these traditional values to continue to be passed down because they are synergistic with various concepts of land and forest protection (Waran, 2020)." He emphasized the importance of: a). Strengthening the legal capacity of indigenous communities; b). Integrating customary law into the state regulatory system; c). Using technology such as digital mapping as legal evidence.

5. Relevant National Policies

The principles of Igya Ser Hanjob can be concretely integrated into the following national policies:

- a. FOLU Net Sink (2030). - Protecting indigenous primary forests from oil palm expansion. - Indigenous territories can be classified as "high carbon ecosystems."
- b. Social Forestry - Implementing the Customary-Based Social Forestry model with the Igya Ser Hanjob principle. Management rights can be recognized in the Decree on Customary Forests and Village Forests.
- c. The National Action Plan for Climate Change Adaptation (RAN-API) - Igya Ser Hanjob contains the principles of Ecosystem-based Adaptation (EbA). - Suitable for vulnerable areas such as Papua.
- d. Climate Finance Instruments (REDD+, Voluntary Carbon) - Indigenous territories can be the location of REDD+ or carbon offset projects. - A fair and transparent benefit-sharing scheme is needed.

4.8. Discourse Analysis of Igya Ser Hanjob in the Legal Context and Climate Change Mitigation

A discourse analysis of Igya Ser Hanjob provides important insights into how customary law discourse and local wisdom shape the understanding and practice of environmental management in the Arfak Mountains. This discourse reflects the socio-cultural values of the Hatam indigenous community. It serves as an arena for the struggle for meaning between the formal legal system and customary law as a living and dynamic law. Based on a critical discourse analysis approach, the discourse of Igya Ser Hanjob demonstrates the complex interaction between language, power, and socio-political context, where customary norms serve as a tool of socio-ecological legitimacy as well as a challenge to formal legal discourse that tends to be technocratic and top-down. In the literature review and research findings, Igya Ser Hanjob emerges as a discursive construct that unites philosophical, social, ecological, and spiritual dimensions. This discourse emphasizes the importance of maintaining physical and spiritual boundaries as a form of collective responsibility and ecological protection (Keraf, 2010; Sayori et al., 2024). This demonstrates that, in understanding indigenous communities, law is not merely a written rule but a lived practice integrated with beliefs and ecosystems. Therefore, the discourse analysis reveals how indigenous narratives form a strong value system in the face of environmental degradation due to the pressures of development and economic exploitation.

The socio-political context of the Igya Ser Hanjob discourse also highlights the conflicting interpretations between the state legal system and indigenous communities. In formal discourse, customary law is often marginalized and considered merely symbolic without absolute protection (Safitri, 2013). Critical discourse analysis demonstrates how the dominance of top-down and technocratic state discourse limits the legitimate space for customary law to be integrated into national regulations, thereby weakening the community's capacity to participate in natural resource management fully. This discourse also contains tensions between the ideals of community-based ecological preservation and the reality of political and economic power that prioritizes industrial concessions. Furthermore, a discourse analysis of environmental management practices based on Igya Ser Hanjob reveals a dialogue and negotiation between tradition and modernity. Indigenous leaders such as Daniel Sayori and Luter Elimelek Waran advocate preserving customary values through intergenerational ecological education and strengthening the legal capacity of indigenous communities amidst the currents of social and technological change. This discourse emphasizes that Igya Ser Hanjob is a cultural heritage and a strategic framework for sustainable climate change adaptation and mitigation. Technology, such as digital mapping, is part of the discourse on revitalizing customary law, opening up opportunities for integrating local values into national policies in a more inclusive and participatory manner.

Methodologically, this discourse analysis utilizes in-depth interviews and participant observation to capture the explicit and implicit meanings within the discourse of customary leaders. These are then analyzed thematically to identify narrative patterns reinforcing Igya Ser Hanjob's position as the ethical and legal foundation for environmental management. This approach allows for a holistic and critical understanding of the conflicts and opportunities that arise in the relationship between customary law and state law, while highlighting the need for legal reform that respects the plurality of legal systems in Indonesia. Thus, the discourse analysis of Igya Ser Hanjob demonstrates that climate change mitigation in the Arfak Mountains is not merely a technical environmental issue, but also a political and cultural one that requires recognizing and strengthening customary law narratives as an integral part of the national legal system. The implications of this discourse encourage the need for democratic and inclusive policy dialogue and regulatory reform that responds to the needs and values of indigenous communities as guardians of the ecological fortress and climate mitigation mission in West Papua.

Furthermore, to address the challenges of marginalizing Igya Ser Hanjob's customary law within the national legal framework, it is crucial to encourage multi-stakeholder dialogue involving local governments, indigenous communities, academics, and conservation institutions. This dialogue aims to strengthen the legal recognition and social legitimacy of Igya Ser Hanjob as a living legal system that is effective in climate change

mitigation and natural resource management. Furthermore, empowering indigenous communities' capacity in digital technology and participatory mapping is a key strategy to ensure stronger legal validity for data on customary boundaries and local wisdom practices. This approach helps address power imbalances and strengthens the position of indigenous communities in negotiations with external actors such as the government and investors.

It is also crucial to advocate for creating and enforcing regional regulations (Perda or Perdasus) that explicitly accommodate the values of Igya Ser Hanjob, so that top-down development and environmental policies do not ignore or undermine local value systems and practices. These regulations must be designed inclusively with the active participation of indigenous communities to align with local cultural practices and ecological needs. Furthermore, integrating education on the traditional values of Igya Ser Hanjob into indigenous school curricula and intergenerational training programs is essential for preserving local knowledge while building ecological and social awareness among the younger generation. This approach will help ensure the continuity of local wisdom as a foundation for culturally rooted climate change mitigation. Finally, further research and interdisciplinary studies linking legal, socio-cultural, and ecological aspects need to be developed to formulate a model for indigenous territory management that is adaptive and responsive to socio-political dynamics and climate change. This model is expected to serve as a reference for more inclusive and equitable state environmental policies for indigenous communities in the Arfak Mountains and similar areas.

V. Conclusion

This study confirms that Igya Ser Hanjob is a customary legal system with strong ecological, social, and spiritual values in maintaining environmental sustainability in the Arfak Mountains. The principles contained in Igya Ser Hanjob regulate the balanced and sustainable management of customary territories, including limiting the exploitation of natural resources, zoning areas based on spiritual and ecological values, and collective management that strengthens the social cohesion of the Hatam indigenous community. This socioecological approach has proven effective in mitigating climate change through forest protection, regulating harvest and hunting periods, and ecosystem-based adaptation. From a legal perspective, although Igya Ser Hanjob has received normative legitimacy through national regulations such as Article 18B paragraph (2) of the 1945 Constitution, the Environmental Management Law, the Village Law, and Constitutional Court decisions, formal recognition and implementation at the local level still face many challenges. The absence of comprehensive administrative recognition, the weakness of regional regulations that accommodate customary law, and the minimal participation of indigenous communities in legislation have resulted in the principle of Igya Ser Hanjob being largely marginalized in state-based natural resource management. Conflicts of interest between investment and customary territories have further weakened the position of customary law in practice.

Discourse analysis shows that the Igya Ser Hanjob discourse is a cultural heritage and an arena for political and legal negotiations between holistic customary values and the technocratic formal legal system. An integrative approach that combines the preservation of customary values, community participation, and the use of technology such as digital mapping is key to revitalizing and strengthening this customary legal system in the face of climate change and sustainable development. Thus, this study concludes that a more concrete and systematic recognition and integration of Igya Ser Hanjob within the national legal framework and climate change mitigation policies is a crucial step to enhance the effectiveness of ecosystem conservation in the Arfak Mountains. Strengthening the legal capacity of indigenous communities, participatory mapping of customary territory boundaries, and the development of regional regulations that support local wisdom need to be a primary focus so that indigenous communities not only act as policy objects but also as active subjects in maintaining their ecological and social life amidst the challenges of climate change.

Suggestions for future research include expanding the study by adopting a quantitative and mixed methods approach to measure the real impact of Igya Ser Hanjob implementation on environmental quality and climate change mitigation, for example, by monitoring changes in forest cover, biodiversity, or carbon emissions in areas managed based on these principles. Furthermore, a deeper exploration of the dynamics of interactions between indigenous communities and external actors such as local governments, companies, and NGOs in the context of land use conflicts and economic development is needed. Interdisciplinary studies combining legal sociology, ecology, and anthropology can provide a holistic picture of the natural resource management mechanisms based on Igya Ser Hanjob. Another suggestion is to examine the implementation and effectiveness of regional regulations (Perda and Perdasus) that accommodate customary law in West Papua, focusing on bureaucratic and political obstacles in the administrative recognition of customary territories. Research could also develop participatory mapping models using digital technology (GIS, drones) integrated with local knowledge, to strengthen the legal basis for recognizing customary territories in national spatial planning and climate mitigation. Furthermore, longitudinal studies involving younger generations of indigenous communities could assess the process of knowledge transfer and preservation of Igya Ser Hanjob values amidst modernization and social change. Finally, research could explore the potential for collaboration between customary law and formal legal approaches in climate-friendly licensing and natural resource management regulations to provide more inclusive and sustainable policy recommendations.

References

- Aliansi Masyarakat Adat Nusantara (AMAN). (2020). *Panduan Tata Kelola Wilayah Adat*. Jakarta: AMAN.
- AMAN. (2020). *Panduan Hukum Adat dan Konflik Wilayah Adat*. Jakarta: AMAN.
- CIFOR. (2021). "Community Forest Patrols in Indonesia." Working Paper.
- CIFOR. (2022). "Indigenous Forest Governance and Climate Resilience." Working Paper.
- Dove, M.R. (2011). *The Banana Tree at the Gate*. Yale University Press.
- Ehrlich, E. (1936). *Fundamental Principles of the Sociology of Law*. Harvard University Press.
- Gadgil, M., Berkes, F., & Folke, C. (1993). "Indigenous Knowledge for Biodiversity Conservation." *Ambio*, 22(2/3).
- Hooker, M.B. (2008). *Indonesian Syariah*. Singapore: ISEAS.
- Idrus, N. (2009). Observasi sebagai teknik pengumpulan data dalam penelitian kualitatif. *Jurnal Pendidikan*, 10(2), 101-110.
- Intergovernmental Panel on Climate Change (IPCC). (2023). *Climate Change 2023: Synthesis Report*. Geneva: IPCC.
- Kementerian Dalam Negeri Republik Indonesia. (2014). *Peraturan Menteri Dalam Negeri Nomor 52 Tahun 2014 tentang Pedoman Pengakuan dan Perlindungan Masyarakat Hukum Adat*. Jakarta.
- Keraf, A.S. (2002). *Filsafat Lingkungan Hidup*. Yogyakarta: Kanisius.
- Keraf, A.S. (2010). *Etika Lingkungan Hidup*. Jakarta: Kompas.
- Li, T.M. (2007). *The Will to Improve*. Duke University Press.
- Mahkamah Konstitusi Republik Indonesia. (2012). *Putusan Mahkamah Konstitusi Nomor 35/PUU-X/2012 tentang Hutan Adat bukan Bagian dari Hutan Negara*. Jakarta.
- Marshal, C. (2006). Understanding qualitative research. In Sarwono, J. (Ed.), *Penelitian Kualitatif dan Kearifan Lokal* (hlm. 193-210). Yogyakarta: Pustaka Akademik.
- Provinsi Papua Barat. (2022). *Peraturan Daerah Provinsi Papua Barat Nomor 3 Tahun 2022 tentang Rencana Tata Ruang Wilayah Papua Barat Tahun 2022-2041*. Lembaran Daerah Provinsi Papua Barat Tahun 2022 Nomor 3.
- Purbokurniawan, A., Santoso, H., & Dewi, R. (2019). Zona pemanfaatan lahan pertanian dan konsep Igya Ser Hanjop sebagai kearifan lokal di Pegunungan Arfak. *Prosiding Seminar Nasional Agroteknologi*, 123-134.
- Safitri, M. A. (2013). "Hukum Adat dan Perlindungan Lingkungan." *Jurnal Hukum dan Pembangunan*, 43(1), 64-82.

- Sarwono, J. (2006). *Kualitatif riset: Suatu proses memahami kompleksitas interaksi manusia*. Yogyakarta: Pustaka Pelajar.
- Sayori, D., Mahmud, F., & Sari, L. (2024). Sistem hukum adat Igya Ser Hanjob: Normatif dan praktik dalam pelestarian lingkungan masyarakat Suku Hatam, Papua Barat. *Jurnal Kajian Antropologi*, 15(2), 45-60.
- Sari, N., & Pratama, B. (2023). Pengelolaan tanah dan pertanian berkelanjutan masyarakat Arfak berdasarkan Igya Ser Hanjob di sekitar Danau Anggi, Papua Barat. *Jurnal Ilmu Pertanian Indonesia*, 28(1), 55-70.
- Situmorang, D. (2017). *Hukum Adat dan Identitas Lokal*. Jakarta: Obor.
- Sugiyono. (2011). *Metode penelitian kualitatif dan kuantitatif*. Bandung: Alfabeta.
- Undang-Undang Dasar Negara Republik Indonesia Tahun 1945. Pemerintah Republik Indonesia. Pasal 18B ayat (2)
- Undang-Undang Nomor 32 Tahun 2009 tentang Perlindungan dan Pengelolaan Lingkungan Hidup. Lembaran Negara Republik Indonesia Tahun 2009 Nomor 140, Tambahan Lembaran Negara Republik Indonesia Nomor 5028.
- Undang-Undang Nomor 6 Tahun 2014 tentang Desa. Lembaran Negara Republik Indonesia Tahun 2014 Nomor 7, Tambahan Lembaran Negara Republik Indonesia Nomor 5495.
- Undang-Undang Nomor 23 Tahun 2014 tentang Pemerintahan Daerah. Lembaran Negara Republik Indonesia Tahun 2014 Nomor 244, Tambahan Lembaran Negara Republik Indonesia Nomor 5587.
- Widodo, T. (2020). *Integrasi kearifan lokal dan hukum positif dalam pengelolaan hutan Cagar Alam Pegunungan Arfak: Studi kasus masyarakat adat Hatam*. Disertasi, Universitas Gadjah Mada. Repository UGM.
- Yin, R. K. (2009). *Case study research: Design and methods* (4th ed.). Thousand Oaks, CA: Sage Publications.
- Yuliana, R., & Hartono, S. (2015). Analisis strategi pengelolaan hutan berbasis budaya dan ekologi masyarakat Hatam di Pegunungan Arfak. *Jurnal Masyarakat Lokal UGM*, 9(3), 134-148.
- Zerner, C. (2000). *People, Plants and Justice*. Columbia University Press.