

## Indigenous knowledge and economic resistance: Local strategies against market penetration in Eastern Indonesia

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**Abstract:** This research examines how local wisdom is utilized as a form of resistance to the dominance of market economic expansion within indigenous communities in Eastern Indonesia. Employing a qualitative approach based on case studies, the study explores the roles of traditional ecological knowledge, ritual abstinence practices, and communal land ownership systems in confronting the process of natural resource commodification while preserving the sustainability of local cultures. Data were collected through in-depth interviews, participatory observation, and document review across several purposively selected indigenous communities. The findings indicate that these elements of local wisdom not only hold symbolic significance but also serve as practical strategies for maintaining community sovereignty and ecosystem integrity. This study contributes significantly to discussions on cultural sustainability, the recognition of indigenous peoples' rights, and critiques of the neoliberal development paradigm, which emphasizes market-oriented growth.

**Keywords:** Cultural resistance, Indigenous peoples, Local wisdom, Neoliberal development.

### 1. Introduction

Economic globalization and the relentless expansion of markets have deepened structural inequalities that systematically marginalize Indigenous groups—particularly in the peripheral regions of developing countries [1, 2]. In this neoliberal milieu, development is reframed as a project of capital accumulation that sidelines social-cultural dimensions of sustainability. The material expression of this dynamic is most visible in Eastern Indonesia, where infrastructure corridors, extractive industries, and monoculture estates now penetrate Indigenous territories, redrawing land relations and livelihoods [3, 4]. Such interventions disrupt collective forms of resource management and replace them with short-term, profit-oriented control by outsiders, simultaneously commodifying nature and eroding the spiritual relationships communities have long cultivated with their ancestral landscapes.

At the same time, the penetration of market-economy culture threatens the continuity of local practices that once acted as bulwarks against external domination [5-7]. In neoliberal discourse, Indigenous values are framed as barriers to modern progress because they do not comply with the logics of efficiency and productivity underpinning global capitalism. Nevertheless, many communities resist by re-centring local wisdom—rituals, customary law, and community-based management—as strategic resources of survival and self-determination.

Top-down development models imported with scant regard for local socio-cultural values repeatedly ignite resource conflicts and unravel traditional practices that have historically maintained ecological balance [8, 9]. Large-scale initiatives such as food-estate schemes and nickel mining in Eastern Indonesia demonstrate how economic expansion can sacrifice both Indigenous rights and environmental sustainability when communities are excluded from deliberation [10]. The resulting

frictions are never merely about land—they cut to the core of identity and the continuity of lifeways forged over generations.

Indigenous peoples are far from passive recipients of these pressures. They mobilise customary rituals, normative systems, and place-based knowledges as instruments of resistance [6, 7, 11]. Practices such as Sasi in the Kei Islands and Pamali in Wajo District exemplify how local institutions protect ecological integrity while circumscribing external exploitation. Here, culture functions simultaneously as heritage and as a living strategy against the encroachment of capital. Scott [5] concept of “weapons of the weak” illuminates why this resistance is often subtle, embedded in symbols and everyday practices that fortify collective identity while preserving access to critical resources. Such tactics demonstrate that, despite lacking direct political or economic power, marginalised communities can orchestrate organised, if covert, opposition to defend autonomy.

A well-documented illustration is Sasi—a customary closure that governs seasonal harvesting of marine and forest products. By aligning extraction with ecological rhythms, Sasi thwarts commodification driven by instantaneous profit [7, 12, 13]. It is thus both a conservation regime and a cultural statement affirming communal independence from capitalist logics. These cases underscore the transformative potential of local wisdom as both empowerment and resistance [4, 14]. Far from relics, customary practices remain vital, strategic instruments that knit together spiritual, social, and environmental values in sustainable ways.

The Pamali system in Sumba provides another salient example. By demarcating sacred zones and prescribing land-use rules, Pamali institutionalises ecological safeguards and buffers communities against large-scale projects that marginalise local voices [11, 15, 16]. In defining what must remain inviolate, Pamali also delineates spheres vulnerable to market exploitation, reinforcing community agency over territorial governance. Local wisdom likewise constitutes a dynamic ecological knowledge system. Narratives, rituals, and social structures embed sophisticated understandings of cycles, seasons, and stewardship [7, 13, 17]. Practices such as rotational farming and time-specific fishing demonstrate how sustainability principles have long been operationalised outside state or corporate frameworks.

Amid the accelerating climate crisis, these principles offer indispensable alternatives to extractive paradigms [15, 18]. By foregrounding relational ontologies and regenerative management, Indigenous lifeways point to holistic solutions rarely achieved by technocratic approaches. Ironically, state policies that champion modernisation often cast Indigenous systems as impediments to growth, discounting their proven value for ecological stewardship and social cohesion [3, 9]. When legal frameworks privilege corporate access over customary tenure, tensions escalate and undermine prospects for equitable development.

The resultant legal pluralism pits statutory law against living customary law in contests over land and resources [19, 20]. Power asymmetries enable the state and corporations to deploy formal legality, while communities mobilise ancestral norms as protective counter-claims. Culture thus becomes an ideological battlefield where competing visions of land use and value collide [2, 5]. Resisting the dominant narrative that equates development with linear progress, cultural resistance articulates an alternative horizon of justice and sustainability [10, 21]. Strengthening local institutions and recognising Indigenous rights have repeatedly proven more responsive to ecological and distributive challenges than conventional growth-centred models.

Redefining development to integrate local values invites bottom-up sustainability innovations [7, 13]. Rather than a tool of domination, development can become a collaborative arena that respects diverse pathways of living well. Legal pluralism offers a pragmatic route toward such inclusivity. Constitutional Court Decision No. 35/2012 marks progress in recognising Indigenous forests, yet implementation gaps expose persistent political and administrative barriers [4, 19, 20].

Viewing local wisdom as a political actor, not merely an object of study, aligns with decolonial anthropology that foregrounds community agency [14, 22]. Through qualitative-ethnographic inquiry in Eastern Indonesia, this paper excavates the political, ecological, and identity dimensions of cultural

resistance, avoiding romanticisation while illuminating grounded strategies of survival. Finally, recognising Indigenous peoples as co-producers of knowledge broadens the epistemological terrain of development studies. Their visions of prosperity—rooted in relational ecologies and social reciprocity—challenge the hegemony of Western technicism and offer context-specific innovations urgently needed amid deepening ecological and social crises [23, 24].

## 2. Literature Review

Local wisdom—understood here as a dynamic system of ecological, social, economic, and cultural knowledge forged through long-term interaction with place—anchors much of the scholarship on Indigenous resource governance [7]. Far from being a static heritage, local wisdom offers a counter-narrative to market-centric development by articulating relational ontologies that sustain symbiotic human–nature relations. In Indonesia, these knowledges inform community rules on forest extraction, rotational agriculture, and seasonal fishing, illustrating how sustainability has long been operationalised outside state or corporate regimes [17, 23].

Resistance is woven into this epistemic fabric. Scott [5] “weapons of the weak” illuminates how marginalised groups deploy everyday cultural practices—rituals, humour, strategic silence—as covert defiance against externally imposed development. For Eastern Indonesian peoples, the re-assertion of customary tenure and ritual closure (Sasi, Pamali) not only safeguards ecological integrity but also constitutes a political claim to territorial sovereignty Rahardjo [11] and Afiff and Rachman [4]. Dove [8] documents similar dynamics across Southeast Asia, where customary law mediates land access, thereby cushioning communities from extractive incursions.

Legal scholars further underscore the centrality of customary rights in contesting state and corporate enclosures. Peluso and Lund [9] conceptualise such arenas as “new frontiers of land control,” where formal legality is wielded to commodify territories while Indigenous peoples invoke ancestral norms to re-politicise space. Empirical work on Indonesia’s Constitutional Court Decision No. 35/2012 shows partial gains but persistent implementation gaps, highlighting how legal pluralism remains an unfinished project [19, 20].

Contemporary studies deepen this narrative by linking local wisdom to gendered and ecological justice. Effendi, et al. [25] reveal how ecofeminist praxis in Kalimantan coal corridors intertwines women’s cultural roles with environmental defence. Likewise, Albar, et al. [15] work with the Bunggu community demonstrates how Indigenous science education revitalises stewardship values among youth, illustrating the adaptive capacity of local wisdom in new pedagogical arenas.

Yet globalisation and state-led megaprojects continue to unsettle these knowledge systems. Brosius, et al. [13] caution that commodification of culture itself can erode the very relational logics that make local wisdom regenerative. The proliferation of nickel mines, food-estate schemes, and Indonesia’s new capital city risks transforming customary landscapes into commodity frontiers unless negotiated through genuinely participatory processes [10, 16].

Taken together, the literature positions local wisdom as both an epistemological resource and a strategic repertoire of resistance. Its endurance hinges on the ability of Indigenous communities—and the legal and policy frameworks that engage them—to navigate, translate, and sometimes transform customary principles within rapidly shifting political-economic terrains.

## 3. Methodology

This study employs a qualitative research design with an ethnographic approach to investigate the socio-cultural resilience of indigenous communities in Eastern Indonesia, specifically in Wajo District and Polewali Mandar District. These communities have demonstrated a sustained commitment to local wisdom amidst the increasing influence of development projects and the expanding market economy. Data were collected through semi-structured interviews involving customary elders, community leaders, and local youth, complemented by participatory observation of traditional practices and

communal rituals. Thematic analysis, as conceptualized by Braun and Clarke [26] was utilized to identify key patterns of cultural resistance embedded within local practices. Special attention was given to customary regulations related to natural resource governance, which function both as mechanisms of social regulation and as forms of resistance to external exploitation [13]. The credibility and dependability of the findings were ensured through data triangulation and member-checking techniques, following qualitative research standards [14]. Ethical considerations were rigorously observed throughout the research process. Prior informed consent was obtained from all participants, and the study prioritized the protection of indigenous rights and cultural integrity. Limitations of the study include time and logistical constraints, which restricted the number of communities and informants included in the research. Future studies are encouraged to broaden the geographic scope and increase participant diversity to deepen the understanding of indigenous responses to globalization. Despite these limitations, the findings offer valuable insights into how indigenous knowledge systems and cultural practices serve as adaptive strategies to safeguard community autonomy and cultural identity. This research contributes to the broader discourse on indigenous resistance, cultural sustainability, and the socio-political dimensions of environmental governance in the context of global economic integration.

#### 4. Results and Discussion

This research identifies the various dimensions of resistance that emerge from local wisdom in indigenous communities in Eastern Indonesia, particularly in Wajo District and Polewali Mandar District. This local wisdom is not just a norm that is passed on from generation to generation but also serves as an effective means to resist pressures from the market economy that can threaten the continuity of indigenous culture and ecosystems. Using a qualitative and ethnographic approach, this study found that the cultural resistance carried out by indigenous peoples is not only symbolic but also has a significant political dimension in the social and economic context.

##### 4.1. Local Wisdom as a Form of Social Resistance

Local wisdom passed on by indigenous communities in Wajo District and Polewali Mandar District plays a crucial role in shaping social structures and maintaining a balanced relationship between humans and nature. One example found in Wajo District is the Pamali system, which is a series of customary taboos that regulate land use as well as the protection of sacred sites. This system serves to protect the land from exploitation from outside, especially in relation to development intervention and the commodification of natural resources. In this case, Pamali is not just a prohibition but a declaration that emphasizes that land and ecosystems have a higher value than just economic objects. Pamali contains the teaching that every element of nature has the right to be respected, and humans are required to act wisely in utilizing natural resources. Thus, the Pamali system serves as a barrier to land capitalization that has the potential to damage cultural and environmental sustainability.

In Polewali Mandar District, there is a similar system known as "Larangan Adat," which includes regulations regarding the use of land and natural resources. Like the Pamali system, Larangan Adat is often applied to certain areas that are considered sacred or have historical value, such as customary forests and ancestral sites. Both systems reflect a deep understanding of the importance of ecosystem sustainability, emphasizing the need for a harmonious relationship between humans and nature. These taboos not only serve to protect the environment but also strengthen social relations within indigenous communities, safeguard cultural identity, and strengthen solidarity in preserving ancestral heritage.

In addition, local wisdom reflected in the Pamali and Larangan Adat systems play an important role in strengthening indigenous peoples' social resilience to the pressures of modernization and capitalism. In many situations, indigenous peoples are faced with the threat of ecosystem destruction caused by large corporations exploiting natural resources without considering the long-term impact on the environment. However, through systems such as Pamali, indigenous peoples are able to maintain management over their land and respond to development projects that are perceived as damaging their

traditional values. In this case, local wisdom serves as a form of resistance to the dominance of development that often ignores the principles of sustainability and ecological balance.

In Polewali Mandar Regency, the Sasi tradition functions as a mechanism to regulate and protect access to natural resources, similar to other systems. Sasi not only determines the appropriate time to fish or harvest natural products but also plays a role in maintaining ecological balance by ensuring that natural resource extraction activities are carried out at the appropriate time to maintain sustainability. Indigenous communities utilize Sasi to prevent overexploitation, such as uncontrolled fishing or tree cutting that can damage the ecosystem. In this context, Sasi functions as a form of resistance to commodification and exploitation by external actors who seek to control natural resources for purely economic interests.

In addition, Sasi reflects indigenous peoples' deep understanding of natural cycles and the interconnectedness between humans and the environment. Indigenous people believe that every action towards nature must be done with full consideration and responsibility. The timing of activities such as fishing or harvesting, which is regulated through the Sasi system, is not only aimed at short-term economic gain but also at ensuring the sustainability and preservation of natural resources for future generations. As such, this tradition also serves as a social monitoring mechanism that binds all community members to adhere to shared norms, which prioritize collective welfare, both socially and ecologically.

In this case, Sasi functions as one of the mechanisms to protect indigenous peoples from the threat of external exploitation that often ignores the principle of sustainability. Many cases show how large companies or other external actors, under the guise of development, massively exploit natural resources without taking into account the long-term impact on the environment. Sasi offers protection against such threats by regulating access and utilization of natural resources in accordance with agreements made by indigenous peoples, who in many cases prioritize ecological balance over short-term economic gains.

In addition, Sasi serves as a form of resistance to the loss of land and natural resource rights that often occurs due to ownership transitions or development policies that do not accommodate local wisdom. In many situations, indigenous communities that apply the Sasi system are able to maintain their rights over nature, while reducing environmental damage caused by unsustainable exploitation practices. By maintaining natural cycles and regulating the wise use of natural resources, the Sasi tradition is a form of empowerment for indigenous peoples in maintaining control over their land and sea, despite external pressures.

This local wisdom, as described by Scott [5] in *Weapons of the Weak*, functions as an everyday form of resistance that, although not always visible, has a significant impact on external power. In this context, indigenous resistance to the exploitation of land and natural resources is carried out in a more subtle way, through the preservation of customs and traditional norms. As an illustration, the Pamali and Sasi systems are not just momentary actions but are practices that are carried out continuously in everyday life, serving as a reminder to maintain balance with nature.

In this context, local wisdom functions not only as a cultural symbol but also as a strategy that is carried out collectively to maintain community autonomy over their living areas. This kind of resistance does not require direct confrontation but rather relies on consistency in maintaining local practices that contradict the logic of exploitative capitalism. Through customary rituals, local regulations, and inherited narratives, indigenous peoples build a social defense that limits the entry of external values that can damage their ecological and social order. Furthermore, this form of resistance reflects a process of meaning production that is continuously renewed by the community. Local wisdom becomes a tool to negotiate identity, power, and space, where indigenous peoples not only survive but also create alternative spaces for the sustainability of their lives. Therefore, local wisdom such as Pamali and Sasi are part of cultural politics that articulate resistance in an indirect but still effective way in defending rights and sovereignty over land and natural resources.

#### 4.2. *Spiritual Connection with the Land as a Basis of Resistance*

One of the key findings in this research is the close spiritual connection between indigenous peoples and their land. In many indigenous communities in Eastern Indonesia, land is not only seen as a natural resource but also as an entity with deep spiritual and symbolic meaning. This view clearly opposes the market economy perspective that regards land as a tradable commodity. For indigenous peoples, land is an ancestral heritage that contains collective identity, historical memory, and intergenerational relationships. Every piece of land has a cosmological dimension that is connected to local rites and narratives about the origins of the community, the relationship with nature, and the moral responsibility to preserve it. Therefore, when land is exploited or converted for purely economic purposes, it is not only the ecological structure that is disrupted but also the social and spiritual fabric of the community. This relationship shows that indigenous knowledge systems are far more complex than just conservation practices, as they include value systems that bring together material and immaterial aspects within the framework of a sustainable ecological ethic. In this context, the struggle to defend land rights is not only related to legal aspects but is also an effort to maintain cultural dignity and existence. Thus, resistance to land privatization or exploitation can be seen as a response to the identity crisis faced by indigenous peoples, as well as a form of spiritual struggle to maintain the balance between humans, nature, and ancestors.

For example, in Wajo District, land that is considered sacred is strictly regulated in terms of its use, and indigenous peoples involve the spiritual dimension in any decisions regarding the land. In their view, land is not only seen as a commodity but also as an integral part of the community's identity and existence. Indigenous peoples believe that land has a deep connection to their ancestors and is the abode of ancestral spirits. As such, they feel a responsibility to protect the land from the threat of exploitation by outsiders who do not understand its spiritual values.

As a result, violations of customary norms governing land use are regarded as violations of the cosmological and spiritual order that can bring havoc or disharmony in community life. This strengthens the position of customary law as an environmental protection mechanism as well as a form of resistance to the dominance of capitalist and state forces that seek to control their living space. Customary rituals such as mappalili or maccera tana are tangible manifestations of efforts to maintain the sacred relationship between humans and the land, which also affirms the community's right to their territory. In this case, spirituality is not only seen as a religious aspect but as the basis of local ecological and political ethics that give legitimacy to their claims over ancestral lands.

This approach is in line with Li [3] view in *Land's End*, which states that indigenous peoples often respond to development projects or commodification by defending their cultural and spiritual values. In this context, land becomes an arena of struggle where indigenous peoples fight to maintain their rights as legitimate owners and managers of natural resources, without relying on global markets or capitalism. This struggle is more than just maintaining access to land; it is also about recognizing the way of life, collective identity, and local knowledge systems attached to the land. When indigenous peoples resist land grabbing, they also challenge the economic logic that treats land as a commodity. They assert that their relationship with nature cannot be exchanged for market value but is based on the principles of reciprocity, respect, and intergenerational sustainability. Therefore, efforts to defend culture and spirituality are not just a form of passive defense but an active political action that challenges the dominance of the global economy over local spaces.

#### 4.3. *Local Wisdom as an Ecological Defense Mechanism*

Local wisdom in Wajo and Polewali Mandar districts also acts as a tool to preserve the ecosystem. For example, the Pamali system applied in Wajo prohibits land cultivation in certain areas considered as sacred sites, thus indirectly protecting forests and natural resources from conversion into agricultural land or commercial areas. This is in line with the view of Brosius, et al. [13] in *Communities and Conservation*, which argues that natural resource management based on communities and customary traditions has great potential in ensuring ecosystem sustainability.

Indigenous communities often have a deep understanding of environmentally friendly methods for managing natural resources, as reflected in the Sasi tradition in Polewali Mandar, which adapts exploitation patterns to natural cycles and seasons. These practices not only demonstrate ecological adaptation but also form an internal regulatory system that is far more efficient than external interventions. In this context, local wisdom functions as an ecological safeguard that integrates spiritual, social, and environmental elements. When faced with the threat of exploitative development, this customary system becomes the last bastion of defense that maintains the balance between humans and nature, while offering an alternative to destructive development models.

These cultural practices serve as a safeguard against development projects that could potentially damage the ecosystem. In this context, cultural resistance aims not only to oppose economic domination but also to maintain a sustainable and environmentally friendly lifestyle. By prioritizing local wisdom values based on the balance of nature, indigenous peoples develop alternative development models that are more sustainable, without sacrificing environmental sustainability.

Furthermore, local wisdom provides a foundation for ecological ethics that views nature not as an object of exploitation but as an entity to be respected and protected. In this perspective, development is not seen as a process of accumulating wealth but rather as part of social and ecological regeneration that considers intergenerational survival. Thus, cultural resistance carried out by indigenous peoples also functions as a form of ecological advocacy integrated in their social structure. This makes culture not only a symbol of identity but also a strategic tool to defend living areas from external threats that ignore the balance of nature.

#### 4.4. Resistance to the Commodification of Natural Resources

Overall, the results of this study show that local wisdom acts as an effective resistance strategy against the commodification of natural resources that is often carried out by outsiders. Indigenous peoples utilize their culture and traditional knowledge systems to regulate the use of natural resources in ways that respect environmental sustainability and community rights. Through time-tested customary systems, such as Pamali and Sasi, they set limits to over-exploitation and promote sustainable resource management.

Local wisdom, which is often overlooked in modern development discourse, has a very significant role in preserving ecosystems and defending rights to land and natural resources. This research presents evidence that local wisdom is more than just a cultural heritage that needs to be preserved but also serves as an effective form of resistance to a market economy that tends to be exploitative. In the face of the global climate crisis and increasingly visible ecological injustice, local wisdom-based management models offer an alternative for more equitable, participatory, and sustainable development. Therefore, the recognition and protection of customary systems must be made an important part of national environmental and development policies, so that the voices of indigenous peoples are not continuously marginalized by the currents of global capitalism.

**Table 1.**

Components of Local Wisdom and Forms of Resistance to Market Economic Expansion in Eastern Indonesia.

Component	Description
Local Wisdom	Customary Tradition, Knowledge System, Spiritual Connection
Resistance	Commodification of Natural Resources, Exploitative Development
Ecological Defense	Sustainable Management, Environmental Protection
Community Sovereignty	Land and Natural Resources Rights, Environmental Protection

Source: Field research data in Wajo and Polewali Mandar Districts, 2024.

This table illustrates the relationship between components of local wisdom, resistance to commodification, ecological defense, and community sovereignty in the context of resistance to the market economy and natural resource exploitation.



## 5. Conclusion

This research reveals how local wisdom acts as a form of socio-cultural resistance to the increasingly aggressive expansion of the market economy in Eastern Indonesia. Through case studies in the indigenous communities of Wajo and Polewali Mandar districts, it was found that customary practices such as the Pamali system and the regulation of fishing cycles are not only part of cultural heritage but also strategic tools to resist external exploitation. This local wisdom serves an important function in maintaining community sovereignty over their natural resources, maintaining ecological balance, and countering commodification that threatens cultural and environmental sustainability. This resistance is not overt or confrontational but a more subtle form of resistance, carried out through the maintenance of traditions, taboos, and sustainable management of natural resources. This finding reinforces James C. Scott's theory of "everyday resistance," which describes how marginalized groups maintain autonomy and control over their environment without having to engage in direct confrontation with dominant forces. Therefore, recognition and respect for local wisdom is crucial in formulating more inclusive and sustainable development policies. The government and related parties should consider the role of local culture in development planning, not just as an aesthetic or symbolic element but as a vital component in maintaining social, cultural, and ecological sustainability. Further research needs to examine how culture-based resistance can be strengthened through pluralist legal frameworks and more participatory governance mechanisms, in order to strengthen the rights of indigenous communities in the face of development challenges that increasingly threaten their existence.

## Transparency:

The authors confirm that the manuscript is an honest, accurate, and transparent account of the study; that no vital features of the study have been omitted; and that any discrepancies from the study as planned have been explained. This study followed all ethical practices during writing.

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## References

- [1] D. Harvey, *A brief history of neoliberalism*. Oxford, UK: Oxford University Press, 2005.
- [2] A. Escobar, *Encountering development: The making and unmaking of the Third World*. Princeton, NJ: Princeton University Press, 1995.
- [3] T. M. Li, *Land's end: Capitalist relations on an indigenous frontier*. Durham, NC: Duke University Press, 2014.
- [4] S. Afiff and A. Rachman, *Indigenous rights and resistance: Empowering local communities in Indonesia's development*. Jakarta, Indonesia: Yayasan Pustaka Obor Indonesia, 2019.
- [5] J. C. Scott, *Weapons of the weak: Everyday forms of peasant resistance*. New Haven, CT: Yale University Press, 1985.
- [6] M. Erb, "Cultural resilience in Eastern Indonesia," *Asian Journal of Social Science*, vol. 39, no. 3, pp. 309–327, 2011.
- [7] F. Berkes, *Sacred ecology: Traditional ecological knowledge and resource management*, 2nd ed. New York: Routledge, 2008.
- [8] M. R. Dove, "Indigenous people and environmental politics," *Annual Review of Anthropology*, vol. 35, pp. 191–208, 2006. <https://doi.org/10.1146/annurev.anthro.35.081705.123235>
- [9] N. L. Peluso and C. Lund, "New frontiers of land control: Introduction," *The Journal of Peasant Studies*, vol. 38, no. 4, pp. 667–681, 2011. <https://doi.org/10.1080/03066150.2011.607692>
- [10] M. Colchester and S. Chao, "The role of indigenous communities in conservation and sustainable development," *International Journal of Environmental Development*, vol. 12, no. 3, pp. 157–182, 2011.
- [11] Y. Rahardjo, "Local wisdom and agrarian conflict in Eastern Indonesia," *Journal of Indonesian Anthropology*, vol. 38, no. 2, pp. 120–135, 2017.
- [12] C. Zerner, "The role of indigenous knowledge in conservation," *Indigenous Knowledge and Development Monitor*, vol. 8, no. 1, pp. 3–7, 2000.
- [13] J. P. Brosius, A. L. Tsing, and C. Zerner, *Communities and conservation: Histories and politics of community-based natural resource management*. Walnut Creek, CA: AltaMira Press, 2005.
- [14] L. Tuhiwai Smith, *Decolonizing methodologies: Research and indigenous peoples*, 2nd ed. London, UK: Zed Books, 2012.



- [15] Albar, Daswati, M. Nawawi, and Syufri, "Local wisdom-based science and environmental education management: Perspectives from the Bunggu indigenous community," *Jurnal Penelitian Pendidikan IPA*, vol. 11, no. 5, pp. 408-418, 2025. <https://doi.org/10.29303/jppipa.v11i5.11167>
- [16] Z. A. Lestari, "Sacred forests and sustainable practices: The role of the Lom Tribe's local wisdom in disaster resilience," *Global Review of Tourism and Social Sciences*, vol. 1, no. 3, pp. 45-60, 2025.
- [17] H. F. G. G. Manik, R. Christanti, and W. Setiawan, "Knowledge management and community-based enterprise: An initiative to preserve the shadow puppet traditional knowledge in Yogyakarta, Indonesia," *VINE Journal of Information and Knowledge Management Systems*, vol. 54, no. 3, pp. 638-656, 2024.
- [18] J. A. Mollet and A. Silo, "Green economic and local wisdom toward sustainable development in West Papua, Indonesia," *In RSF Conference Series: Business, Management and Social Sciences*, vol. 4, no. 1, pp. 180-188, 2024.
- [19] F. Benda-Beckmann, K. Benda-Beckmann, and M. G. Wiber, *The properties of property: Theories and contested practices*. Berkeley, CA: University of California Press, 2006.
- [20] A. Rachman, "Legal recognition of indigenous peoples' rights in Indonesia: Developments and challenges," *Journal of Law and Development*, vol. 43, no. 2, pp. 137-153, 2013.
- [21] V. Shiva, *The violence of the green revolution: Third world agriculture, ecology, and politics*. London, UK: Zed Books, 2008.
- [22] C. Geertz, *The interpretation of cultures*. New York: Basic Books, 1973.
- [23] C. J. C. Nagal, "Harvesting traditions: Exploring the indigenous agricultural knowledge systems in Java, Indonesia and Mindanao, Philippines," *Millennial Asia*, vol. 0, no. 0, p. 09763996251327672, 2025. <https://doi.org/10.1177/09763996251327672>
- [24] F. Z. Fahmi and N. D. Adharina, "Cultural values and innovation in indigenous entrepreneurship: A case study from Indonesia," *International Journal of Entrepreneurship and Small Business*, vol. 51, no. 1, pp. 62-85, 2024.
- [25] S. N. Effendi, N. Nurmiyati, and R. A. S. Febriani, "Ecofeminism in resistance: Women and indigenous peoples against coal mine hauling on the border of East Kalimantan and South Kalimantan," *Government & Resilience*, vol. 3, no. 1, pp. 1-20, 2025.
- [26] V. Braun and V. Clarke, "Using thematic analysis in psychology," *Qualitative Research in Psychology*, vol. 3, no. 2, pp. 77-101, 2006. <https://doi.org/10.1191/1478088706qp063oa>