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SUSTAINABLE DEVELOPMENT CHALLENGES: ETHICAL VALUES OF LOCALITY, ENVIRONMENT AND TECHNOLOGY ON INDIGENOUS RESILIENCE IN PAHANG MALAYSIA

Nur Rahmawati Syamsiyah

Architecture Department
Faculty of Engineering
Universitas Muhammadiyah Surakarta
nur rahmawati@ums.ac.id

Mohammad Afiq Rosali

PhD in Architecture
Institute Strategic Science and Technology
Universiti Muhammadiyah Malaysia
P6240057@student.umam.edu.my

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ABSTRACT

To know more deeply the traditional knowledge and practices of the indigenous people, such as Malaysia's *Orang Asli*, is vital for environmental conservation and sustainable development. However, challenges like displacement, cultural erosion, and exclusion from decision-making, worsened by climate change and economic growth-focused policies—threaten their resilience. This paper examines these issues and highlights barriers such as poor legal protections, environmental degradation, and cultural marginalization. The method used is a literature study and field observation in the indigenous people's village of Pahang, Malaysia. The results of the study, despite these obstacles, the *Orang Asli* Pahang display resilience through their heritage and selective integration of modern technologies. The study calls for rights-based, participatory approaches to create inclusive policies that protect cultural heritage and leverage indigenous wisdom for sustainable development.

KEYWORDS: ethical, indigenous, orang asli, resilience, sustainable development

Mengetahui lebih dalam pengetahuan dan praktik tradisional penduduk asli, seperti Orang Asli Malaysia, sangat penting bagi pelestarian lingkungan dan pembangunan berkelanjutan. Namun, tantangan seperti penggusuran, erosi budaya, dan pengucilan dari pengambilan keputusan, yang diperburuk oleh perubahan iklim dan kebijakan yang berfokus pada pertumbuhan ekonomi—mengancam ketahanan mereka. Makalah ini mengkaji isu-isu ini dan menyoroti hambatan seperti perlindungan hukum yang buruk, degradasi lingkungan, dan marginalisasi budaya. Metode yang digunakan adalah studi literatur dan observasi lapangan di desa masyarakat adat Pahang, Malaysia. Hasil penelitian ini, terlepas dari hambatan-hambatan ini, Orang Asli Pahang menunjukkan ketahanan melalui warisan mereka dan integrasi teknologi modern secara selektif. Penelitian ini menyerukan pendekatan partisipatif berbasis hak untuk menciptakan kebijakan inklusif yang melindungi warisan budaya dan memanfaatkan kearifan adat untuk pembangunan berkelanjutan.

KATA KUNCI: etika, pribumi, orang asli, ketahanan, pembangunan berkelanjutan;

INTRODUCTION

According to Nakashima et al (2012) and Berkes (2012), indigenous communities are essential to sustainable resource management and environmental conservation, offering adaptive strategies that complement modern technologies. However, he also stated that they face challenges, including displacement, cultural erosion, and exclusion from decision-making processes. Development projects often prioritize economic growth, violating indigenous rights and neglecting their knowledge systems. The example of their knowledge is traditional medicine, which is also well-known and used by modern society, but unfortunately is sometimes neglected. Climate change worsens these impacts by disrupting livelihoods that rely on natural resources (Nakashima, et al, 2012).

The lack of indigenous perspectives in sustainable development perpetuates inequities and overlooks their valuable knowledge (Berkes, 2012). Addressing this requires ethical, development practices that respect their rights and integrate their resilience and expertise. Indigenous communities offer adaptive strategies for climate challenges, biodiversity conservation, environmental stewardship, providing innovative, localized solutions that complement modern technologies (Herrejon, et al., 2022).

This study explores how integrating Indigenous perspectives can lead to ethical and inclusive development practices. It emphasizes the need for transformative pathways that honour cultural diversity, address environmental crises, and ensure equitable development.

This study aims to analyse the challenges Indigenous communities in Malaysia face within the context of sustainable development. This includes examining critical issues such as marginalization, land rights disputes, cultural erosion, and vulnerability to climate change. Understanding these challenges is vital to ensuring that sustainable development efforts are inclusive and equitable. Additionally, the research aims to explore the ethical considerations involved in sustainable development projects that directly impact indigenous peoples. It focuses on evaluating how such projects affect Indigenous rights, the processes of obtaining their consent, and their overall well-being. By addressing these objectives, the study seeks to contribute to developing ethical and sustainable practices that respect and empower Indigenous communities while promoting environmental and social sustainability.

Sustainable Development

The Sustainable Development Goals (SDGs), adopted by the United Nations in 2015 as part of the 2030 Agenda for Sustainable Development, are a universal framework addressing global challenges such as poverty, inequality, climate change, and environmental degradation (Herrejon, et al., 2022). These 17 goals aim to promote prosperity and protect the planet, ensuring inclusive and sustainable development for current and future generations.

The SDGs evolved from earlier initiatives, including the 1992 Earth Summit in Rio de Janeiro, which introduced sustainable development through Agenda 21. This action plan addressed environmental, social, and economic issues globally. In 2000, the Millennium Development Goals (MDGs) were launched with eight targets to reduce poverty and improve living standards by 2015 (Wiktor-Mach, 2018). While the MDGs achieved progress, they were criticized for being narrow in scope and neglecting inclusivity and environmental concerns.

Building on lessons from the MDGs, the SDGs were created through a global consultation process involving governments, civil society, and stakeholders. Officially adopted in 2015, they integrated economic, social, and environmental dimensions, emphasizing inclusivity and sustainability (United Nations, 2015; Elder & Olsen, 2019).

Sustainable development, originating from the 1987 Brundtland Commission Report, balances economic growth, environmental protection, and social equity. It seeks to meet present needs without compromising future generations. As a global framework, the SDGs highlight priorities like no poverty (SDGs-1), gender equality (SDGs-5), decent work and economic growth (SDGs-8) and climate action (SDGs-13).

A key aspect of sustainable development is recognizing the interdependence between human well-being and natural systems. Integrated strategies are essential to simultaneously address environmental degradation, economic disparities, and social inequalities (Dukic & Ilic, 2020). However, implementation remains challenging, particularly for marginalized groups like indigenous communities.

Indigenous peoples contribute unique knowledge systems and sustainable practices, yet face disproportionate impacts from climate change and development projects that overlook their rights. Active participation of indigenous communities in decision-making is crucial to fostering inclusive, ethical development pathways. This study examines principles and challenges of sustainable development to explore inclusive solutions that respect the rights and cultures of all stakeholders while advancing global sustainability

Defining Indigenous Communities: Characteristics and Global Distribution

According to Berkes, Indigenous communities are distinct groups of people who historically inhabited a particular region, often long before establishing modern state boundaries (Berkes, 2012). These communities are characterized by their deep connection to ancestral lands, unique cultural traditions, and distinct social, economic, and political systems shaped by their environment and heritage (Nakashima, et al, 2012). Indigenous peoples often identify themselves as custodians of their territories, preserving their cultural knowledge, languages, and practices passed down through generations (Berkes, 2012).

Globally, the United Nations reported that indigenous communities are diverse and dynamic, numbering over 476 million people across 90 countries (United Nations, 2015). They represent approximately 6% of the world's population but encompass an extraordinary range of cultural and linguistic diversity. Key characteristics of Indigenous communities are shown in Table 1 below:

Table 1. Key Characteristics of Indigenous Communities

Key point Characteristic	Description
Strong cultural identity	Indigenous peoples maintain traditional practices, spiritual beliefs, and rituals closely tied to their lands and ecosystems.
Collective rights to land and resources	Their livelihoods and worldviews are deeply linked to their ancestral territories, which they often protect as stewards of biodiversity.
Marginalized status	Despite their contributions, indigenous peoples frequently face social,

Key point Characteristic	Description
	economic, and political
	marginalization, compounded by
	historical injustices such as colonization
	and land dispossession.

Geographically, indigenous populations are found on every continent, with significant concentrations in regions such as the Amazon Basin, Arctic Circle, the Pacific Islands, and sub-Saharan Africa. Indigenous groups include the Sámi of Northern Europe, the First Nations of Canada, the Adivasis of India, the Maori of New Zealand, and many others. Despite their diverse locations and traditions, they share common struggles, such as threats to their lands, cultural erosion, and exclusion from decision-making processes (Lam, et al., 2020; Li, et al., 2019).

Recognizing and respecting indigenous communities is essential for achieving equitable and sustainable development globally. Kampung Naga in Tasikmalaya and the Baduy Community in Banten, West Java, can survive with natural conditions and their potential, but are not left behind by technology. They maintain culture, reject modern culture that will enter, and they maintain architecture. They can survive with the potential they have without disturbing the interests of the government. So there is a mutually beneficial interaction, and they are now an educational tourism destination. Figures 1 and 2 show the condition of settlements in Kampung Naga and Baduy community settlements.





Figure 1. The condition of settlements in Kampung Naga (Source: https://shorturl.asia/cKPda, 2024)





Figure 2. The condition of the Baduy Community settlements (Source: https://shorturl.asia/bcT2n, 2024)

The Kampung Naga community and the Baduy tribe strongly hold on to the culture of preserving nature, but still pay attention to the progress of the times. Efforts to preserve include rules in managing water flow, cultivating or changing the shape of the land, the use of chemicals, raising four-legged

livestock, farming, and dress codes. Regarding land use practices, they are very unique, rooted in traditional wisdom, by balancing ecological sustainability and community needs (Sekartaji, et al., 2021; Ghaaniy, 2019).

The Role of Indigenous Knowledge in Sustainability

Indigenous knowledge, often traditional or local, represents a vast body of wisdom, practices, and beliefs developed by Indigenous peoples over generations through their close interaction with natural environments (Nakashima, et al., 2012). This knowledge spans diverse domains, including ecosystems, biodiversity, resource management, agriculture, health, and climate patterns (Berkes, 2012). It plays a vital role in sustainability, offering time-tested strategies for living in harmony with nature while ensuring the long-term viability of resources. Indigenous knowledge systems are deeply intertwined with cultural traditions and spiritual beliefs, emphasizing the interconnectedness of humans and the natural world. As such, they provide invaluable tools for addressing global environmental challenges (McMaster, et al., 2024).

One of the most significant contributions of indigenous knowledge lies in environmental stewardship. Indigenous communities are custodians of many of the world's most biodiverse regions, such as the Amazon rainforest, Southeast Asian jungles, and Arctic tundra. Based on a UNESCO report in 2017, their deep understanding of ecosystems allows them to manage resources sustainably, maintaining ecological balance while protecting biodiversity (UNESCO, 2025). Practices such as rotational farming, water conservation, and forest management demonstrate their ability to adapt to environmental challenges and ensure the sustainable use of natural resources. For example, rotational farming minimizes soil depletion, while traditional irrigation techniques optimize water usage, promoting agricultural productivity in challenging climates.

Indigenous knowledge also plays a critical role in climate change adaptation and mitigation. Traditional weather forecasting methods, such as observing animal behaviour, plant growth, or seasonal patterns, offer insights into climate variability and help communities prepare for environmental shifts (Nakashima, et al., 2012). Many indigenous practices, such as agroforestry, soil conservation, and ecosystem restoration, also serve as effective climate change mitigation strategies. Their knowledge is often more accurate than weather forecasts with technology, because natural events or phenomena will be detected with something that is also natural. Agroforestry, for instance, combines trees and crops to enhance carbon sequestration, reduce deforestation, and support biodiversity (UNESCO, 2025). Similarly,

conservation techniques, like terracing and organic fertilization, maintain soil health and prevent erosion, ensuring agricultural resilience in the face of climate extremes

METHODS

This study uses a literature review method. Literature review refers to the analysis of academic articles, policy documents, and reports from international comprehensively organizations to understand sustainable development and its implications for indigenous peoples. The literature review will be included in the discussion, which will be described in a different sub-chapter. Some of the literature used are journals of previous research results, such as results by Lambin, Wahab, Mustapha, Choo Goh, & Abdullah (2019), Soh & Omar (2017), Noor, Kadir, & Muhamad (2020) Ismail, Markom, & Abd Ghafar (2024). The review will focus on existing research that addresses marginalization, land rights, cultural preservation, and ethical considerations in development projects.

Additionally, the study will examine documented case studies of sustainable development projects that directly impact indigenous peoples in Pahang, Malaysia. Case studies are taken from previous research that has been published and used as references, both cases in Malaysia (the indigenous people of Pahang) and outside Malaysia, such as in Australia (the Māori tribe in New Zealand) and in Indonesia (the Baduy tribe and the indigenous people in Kampong Naga). A comparative analysis of these cases will identify patterns, challenges, and best practices. This approach will highlight commonalities, such as recurring barriers to indigenous peoples' participation in development initiatives differences across cultural, legal, and geographical contexts. This study began with field observations of indigenous peoples in Pahang, Malaysia. Observations serve as an initial reference for further improving studies on their existence through the literature.

RESULTS AND DISCUSSION

Challenges in Sustainable Development for Indigenous Communities (*Orang Asli* Malaysia)

The *Orang Asli*, Malaysia's Indigenous peoples, face many challenges that hinder their ability to engage in and benefit from sustainable development initiatives. These challenges span legal, environmental, cultural, and ethical dimensions, reflecting the complexity of their marginalized status in a rapidly developing nation. Addressing these barriers is crucial to fostering an inclusive approach to sustainable development that respects their rights, values, and knowledge systems. Challenges are addressed by maintaining indigenous communities in the natural environment.

Traditionally, the Orang Asli community of Pahang relies on hunting, gathering, fishing, and small-scale agriculture, practices that allow them to live harmoniously within the Malaysian rainforest. Their way of life is integrated with the forest ecosystem, including understanding how to make plant medicines, understanding wildlife behavior, and understanding seasonal patterns, which are passed down orally from generation to generation (Nicholas, 2000). The natives utilize plants such as 'Tongkat Ali' and 'Kacip Fatimah' not only for food but also for their medicinal benefits, and the knowledge has been scientifically recognized for its health applications by modern people. The indigenous knowledge of the Orang Asli is highly naturalistic and environmentally conscious, effectively applied to reduce human impact on the environment and demonstrate their commitment to sustainable practices. This knowledge includes sustainable forest management and conservation techniques, which are central to their way of life (Gomes, 2006).

Some of the pictures below show the village of the indigenous people of Pahang, Malaysia. There are indigenous houses (aboriginal descendants), elevated houses, as a form of security from wild animals in the forest, and houses that have progressed with better materials and shapes. The houses of indigenous people in the interior are still very simple, but those who live closer to the main road, the houses will be better.

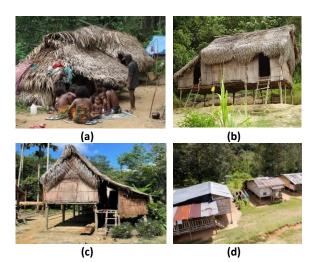


Figure 3. (a) indigenous houses (aboriginal descendants); (b) more advanced indigenous houses for protection; (c) indigenous villages with natural building materials; (d) indigenous villages with modern materials (such as roof coverings using zinc)

(Source: Author's Document, 2024)

The indigenous knowledge and forest conservation management methods maintained by the indigenous people of Malaysia are indeed good practices. When integrated with the needs of modern humans, it will encourage partnerships, and as a form of respect for the rights and contributions of

indigenous people to environmental management (Abraham, et al., 2021).

a) Locality (Legal Barrier and Cultural Impact)

One of the most significant obstacles for the Orang Asli is the lack of robust legal protections for their land rights (Hassan, et al., 2023). Under the Aboriginal Peoples Act 1954 (APA), their territories are designated as reserves rather than inalienable ancestral lands. According to Milne, this distinction leaves their lands vulnerable to encroachment, logging, and development projects, often undertaken without their consent (Noor, et al., 2020) (Ismail, et al., 2024). Furthermore, the fragmented governance structure between federal and state authorities leads to inconsistencies in implementing policies meant to protect Indigenous rights. This fragmentation allows exploitation to persist, further marginalizing the Orang Asli. Additionally, the judicial system poses another hurdle; many Orang Asli communities lack the financial resources, legal literacy, and support needed to navigate the courts effectively (Ismail, et al., 2024). Without meaningful reforms to recognize and enforce land rights, the Orang Asli remain at risk of displacement and resource loss.

b) Environmental Degradation

The Orang Asli's environmental challenges are severe and directly impact their traditional livelihoods and cultural practices. Deforestation, driven by logging, plantation agriculture, and infrastructure development, destroys the biodiversity-rich forests that the Orang Asli have historically conserved (Ismail, et al., 2024). These environmental changes disrupt access to food, medicinal plants, and other natural resources, threatening their survival and cultural identity. Additionally, climate change exacerbates these issues. Irregular rainfall patterns, rising temperatures, and extreme weather events undermine their agricultural practices, making it increasingly difficult to maintain food security. Industrial activities and agricultural runoff further pollute rivers and streams, essential for drinking water and fishing. These challenges erode the Orang Asli's capacity to sustain their way of life despite their profound knowledge of ecological management and conservation.

Resilience Strategies of the Orang Asli

Despite their significant challenges, the Orang Asli of Malaysia demonstrate remarkable resilience. grounded their cultural heritage, in deep environmental knowledge, and strategic adoption of modern technologies. Their ability to adapt and thrive in the face of displacement, environmental degradation, and social marginalization highlights the importance of a multi-dimensional approach to resilience. By preserving their cultural identity, utilizing localized practices, and selectively integrating modern tools, the *Orang Asli* offer valuable lessons for sustainable development. Table 2 shows resilience strategies for *Orang Asli* communities.

Table 2. Resilience Strategies for *Orang Asli*Communities

Communities		
Issues	Resilience Strategies	
	Locality	
Cultural Identity	A cornerstone of resilience,	
	providing a sense of community	
	and purpose.	
Traditions	Storytelling, rituals, and traditional	
	medicine strengthen ecological ties	
	and moral lessons.	
Knowledge	Storytelling teaches sustainable	
Transmission	resource use; traditional	
	medicine reinforces cultural and	
	spiritual land connections.	
Social	Rituals related to planting,	
Cohesion:	harvesting, and healing foster	
concatoni	belonging and	
	resilience.	
Cultural		
Preservation	Teaching younger generations	
Preservation	traditional crafts, music, and	
	ecological knowledge ensures	
	cultural continuity.	
	Environment	
Sustainable	Rotational farming minimizes soil	
Farming	depletion and promotes	
	biodiversity.	
Water	Natural filtration systems and	
Management	rainwater conservation.	
Resource	Adaptive measures like	
Scarcity	intercropping, selective harvesting,	
Strategies	and reliance on wild plants.	
Ecosystem	Localized knowledge of weather	
Understanding	patterns, soil health, and	
	ecosystems aids sustainability.	
Biodiversity	Practices include protecting sacred	
Conservation	groves, maintaining seed banks, and	
	sustainable harvesting.	
	Technology	
Advocacy	Smartphones and social media	
Tools	amplify awareness of land rights	
10013	and environmental threats.	
Manning		
Mapping	GPS and drones strengthen	
Technology	ancestral land claims in legal	
N 4 = al =	disputes.	
Modern	Improved irrigation and organic	
Agriculture	farming sustain livelihoods. Aligned	
	with cultural	
Renewable	The adoption of solar power	
Energy	enhances living standards	
	while maintaining sustainability.	
Selective	Prioritizing technologies aligns with	
Innovation	cultural values and specific needs.	
-		

a) Blending Cultural, Local, and Technological Perspectives

The strength of the Orang Asli's resilience lies in their ability to blend cultural preservation (Lambin, et al., 2019) (Soh & Omar, 2017), environmental adaptability (Mensah, et al., 2024), and technological innovation (Ignat, et al., 2024). By integrating these dimensions, they create a holistic approach to resilience that enables them to adapt to modern challenges while staying true to their heritage. For instance, eco-tourism initiatives led by Orang Asli communities combine traditional practices and environmental stewardship with modern marketing tools to attract visitors and generate income (Aliah, et al., 2020; Wanie, et al., 2022). These initiatives demonstrate how cultural pride, local expertise, and technological advancements can work together to create sustainable development pathways. The conservation approach through living heritage has proven that the Orang Asli of Malaysia have resilience. The living heritage approach is the answer to the conservation of heritage sites and people. Living heritage can be a conservation approach that bridges the gap between past originality and future sustainability (Safitri & Ikaputra, 2024).

This interplay is evident in their education efforts, where traditional ecological wisdom is taught alongside digital tools. By embracing this dual approach, the *Orang Asli* prepare future generations to navigate the complexities of a rapidly changing world, and their women play significant roles in protecting their culture (Abd Karim, et al., 2023). Their ability to harmonize tradition with innovation provides a powerful model for other communities seeking to build resilience in the face of global challenges.

Ethical Values of Orang Asli in Sustainability Resilience

Ethical values are vital in fostering sustainability and resilience, offering significant insights into sustainable living practices. The ethical framework of the *Orang Asli* in sustainability resilience can be categorized into the following themes (Table 3).

Table 3. Ethical Values of *Orang Asli* Sustainability Resilience

	Ethical value
Respect for	The <i>Orang Asli</i> profoundly respect
Nature	the environment, viewing
	themselves as custodians of the
	land rather than its owners. This
	belief manifests in their sustainable
	practices, such as selective hunting,
	rotational farming (swidden
	agriculture), and forest
	conservation. They rely on natural
	resources without depleting them,
	ensuring ecological balance and
	resource regeneration.

	Ethical value
Interdependence	The <i>Orang Asli</i> emphasizes
and Community	collective well-being over individual
Cohesion	gain. Their ethical approach to
	sustainability is grounded in
	cooperation and sharing resources
	equitably. This sense of community
	resilience allows them to withstand
	environmental challenges and
	maintain sustainable practices
	through collective action and
	decision-making.
Knowledge	Traditional ecological knowledge
Transmission	(TEK) is a cornerstone of the <i>Orang</i>
	Asli's sustainability practices. Elders
	play a crucial role in passing down
	ethical guidelines, such as
	sustainable harvesting techniques,
	water conservation methods, and
	biodiversity preservation, ensuring
	that the younger generation
	upholds these values.
Minimalism and	The Orang Asli adopts a minimalis
Resource	approach to living, using only what i
Efficiency	necessary and avoiding waste. Their
	dwellings, tools, and daily practice
	reflect a deep understanding of
	resource efficiency, minimizin
	environmental impact while
	maximizing functionality.
Resilience	Orang Asli faces environmental and
Through	socio-economic challenges; the
Adaptation	Orang Asli exhibit resilience by
	adapting traditional practices to
	changing conditions. This adaptive
	capacity, underpinned by ethical
	principles, allows them to sustain
	their way of life while navigating
	modern pressures such as
C	deforestation and resettlement.
Spiritual	The <i>Orang Asli</i> often perceive natur
Connection to	as sacred, intertwined with the
the Environment	spiritual beliefs. This worldvie
	fosters an ethical obligation t
	protect the environment, reinforcin
	their commitment to sustainabilit
	and resilience as part of their cultura

The ethical values of the *Orang Asli* offer valuable lessons for modern sustainability efforts. Their practices demonstrate that resilience and sustainability are not merely technical challenges but also ethical imperatives requiring respect for nature, community solidarity, and intergenerational equity.

identity.

In summary, the ethical values of the *Orang Asli* contribute to their remarkable sustainability resilience. By aligning their lifestyle with ecological principles and fostering a strong sense of community and stewardship, the *Orang Asli* provide a model os sustainable living that balances cultural heritage with

environmental preservation. To support the *Orang Asli* and other Indigenous communities, the following measures are crucial:

Table 4 Key Points for Future Action

Key point	Conclusion from Findings
Rights-Based	Recognize and protect land rights
Frameworks	through stronger legal protections
	and adherence to FPIC principles.
Participatory	Ensure Indigenous voices are integral
Governance	to policy-making and development
	planning.
Culturally	Prioritize cultural preservation and
Sensitive	align development models with
Approaches	traditional values.
Ethical	Promote fair benefit-sharing and
Development	respect for intellectual
Practices	property.
Technology	Provide access to appropriate
Integration	technologies that complement
	traditional practices

CONCLUSION

The sustainable development of *Orang Asli* communities in Malaysia is a complex and multifaceted challenge, encompassing cultural, environmental, legal, ethical, and technological dimensions. As stewards of biodiversity and custodians of rich cultural traditions, the *Orang Asli* are integral to Malaysia's ecological and cultural heritage. However, significant barriers threaten their well-being, identity, and rights. Challenges related to land rights, environmental degradation, ethical violations, and cultural erosion often marginalize these indigenous communities and hinder their participation in shaping their future.

Environmental challenges, such as deforestation, biodiversity loss, and climate change, disrupt the *Orang Asli's* traditional livelihoods and deep connection to nature. Similarly, cultural and locality-based challenges arise from displacement, modernization, and the imposition of development models that disregard their values and way of life. Ethical issues, including the lack of Free, Prior, and Informed Consent (FPIC), exploitation of traditional knowledge, and exclusion from decision-making, exacerbate their marginalization and undermine efforts toward equitable development.

Despite these obstacles, the resilience of the *Orang Asli* shines through their cultural heritage, ecological wisdom, and adaptability. Their knowledge systems offer sustainable approaches to resource management and climate adaptation. Additionally, selective integration of modern technology enhances their ability to navigate contemporary challenges while preserving their identity. By blending cultural, local, and technological perspectives, the *Orang Asli*

demonstrate their capacity to balance tradition and innovation, fostering a sustainable and inclusive future.

For meaningful progress, there is a pressing need for rights-based and participatory approaches to sustainable development. Policies must recognize and protect *Orang Asli* land rights, incorporate their voices in governance, and adopt culturally sensitive development models that align with their values. Legal reforms should bridge land and resource management gaps, while ethical frameworks must ensure fairness, equity, and respect for Indigenous autonomy. Moreover, leveraging their traditional knowledge and integrating appropriate technologies can empower *Orang Asli* communities to overcome challenges and thrive in a rapidly changing world.

Sustainable development for the *Orang Asli* requires a holistic approach to address legal, environmental, cultural, and ethical dimensions. Malaysia can foster a more equitable and sustainable future by respecting its rights, preserving its cultural heritage, and empowering them to lead development pathways. Integrating Indigenous wisdom and selective technology use highlights a balanced approach to progress that benefits all stakeholders.

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