

(RE)MEASURING THE SOCIO-ECONOMIC STATUS OF VULNERABLE COMMUNITIES IN MALAYSIA: A CASE STUDY OF BATEK IN TAMAN NEGARA

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Abstract

The Orang Asli are frequently associated with poverty, but conventional unidimensional measures like the Poverty Line Income (PLI) fail to capture the full scope of their complex deprivation. This study employs the UNDP-Multidimensional Poverty Index (MPI) to conduct a comprehensive investigation into the profound socio-economic challenges faced by the Batek community in Taman Negara Pahang, with a specific focus on severe deprivation in the dimensions of standard of living, education, and health. Through in-depth

interviews and field observations with 17 informants, the research reveals the community grapples with severe deficiencies in their standard of living, lacking basic necessities such as adequate housing, clean water, and sanitation. These material shortfalls coexist with and exacerbate significant, persistent barriers in accessing equitable education and healthcare services, creating an interlocking cycle of disadvantage. The study documents a nuanced reality; while the establishment of village clinics has demonstrably improved healthcare access and utilisation, substantial obstacles remain. The findings underscore the critical need for collaborative, multidimensional interventions from policymakers, governmental agencies, and non-governmental organisations. These interventions must be specifically tailored to the community's unique cultural context to prioritise holistic development and effectively break the cycle of poverty.

Keywords: *indigenous community, socioeconomics, Multidimensional Poverty Index (MPI), protected area, Taman Negara Pahang*

INTRODUCTION

The socio-economic status (SES) of indigenous communities is a critical indicator of national equity and development. Globally, low SES is a robust predictor of vulnerability, correlating strongly with poorer health outcomes, educational disparities, and heightened exposure to environmental risks (Gallo & Matthews, 2003; Hallegatte et al., 2017). In Malaysia, the Orang Asli, the country's indigenous peoples, exemplify this convergence of vulnerabilities, consistently being identified as one of the most marginalised and socio-economically disadvantaged groups. They generally face impoverished living conditions, marked by a lack of access to fundamental necessities such as roads, clean water, adequate housing, electricity, sanitation facilities, cooking fuel, home appliances, and waste management systems, which significantly contribute to their overall low quality of life (Ghani et al., 2020).

The Orang Asli, or Indigenous peoples, constitute a minority demographic in Malaysia distinguished by their unique cultural heritage, religious practices, socioeconomic standing, and belief systems. They can be categorised into three primary tribes and eighteen sub-tribes, separated by language, physical attributes, and distribution. Their lifestyle is deeply entrenched in age-old traditions and subsistence economic activities. The Orang Asli in Peninsular Malaysia normally inhabit rural environments and often have limited access to healthcare and education, along with social and financial disadvantages. Engaged primarily in

rural activities, they are confined to isolated areas close to their natural resources. Their dependency on forest resources for sustenance and their adherence to longstanding traditions and culture influences their adaptation to more modern settings, resulting in considerable poverty in comparison to the Malay, Chinese, and Indian communities in Malaysia (Abdullah, Ahmad, et al., 2023).

However, effectively addressing this disadvantage requires a deep understanding of its roots. Prevailing narratives often simplistically attribute Orang Asli poverty to a reliance on traditional livelihoods and a resistance to modernisation (e.g., Abdullah et al., 2023a). This perspective overlooks the complex historical, political, and structural factors that have generated and sustained this marginalisation, including land dispossession, limited investment in infrastructure, and systemic barriers to integration (Nicholas, 2000). In addition, poverty is more than just income inadequacy but also includes limited access to essential services such as education, healthcare (including reproductive health), information, housing, clean water, and sanitation (Lomazzi et al., 2014). A more accurate framing recognises poverty not as a cultural trait but as a condition shaped by a lack of capabilities and opportunities, a concept central to the Capability Approach (Sen, 1999) that underpins modern multidimensional poverty analysis.

Traditional poverty measurement in Malaysia, primarily based on income-based metrics like the Poverty Line Income (PLI), fails to capture this complex reality. While useful for macroeconomic trends, such unidimensional approaches obscure the lived experience of deprivation in areas essential for human development, such as education, health, and standard of living (Alkire & Foster, 2011). This gap between official statistics and on-the-ground reality underscores the need for complementary tools. The global shift towards the Sustainable Development Goals (SDGs) and the development of the Multidimensional Poverty Index (MPI) by the UNDP and OPHI provide a robust framework for this purpose, offering a comprehensive approach to measuring poverty by considering multiple dimensions beyond just income (Abdullah et al., 2019).

This study contributes to this refined understanding by applying the UNDP-MPI framework to a specific, understudied context: the Batek tribe in Taman Negara Pahang. The Batek, a subgroup of the Orang Asli known for their nomadic or semi-nomadic lifestyle and deep cultural connection to the forest, represent an acute case of multidimensional deprivation within a protected area. By focusing on this community, this research moves beyond broad generalisations to ask: How does multidimensional poverty manifest within the unique socio-environmental context of the Batek community in Taman Negara Pahang? The paper aims to provide a precise, qualitative exploration of the deprivations in

health, education, and standard of living faced by the Batek. In doing so, it seeks to demonstrate the value of the MPI in illuminating specific, actionable areas for policy intervention and to contribute to more effective, culturally sensitive strategies for poverty alleviation among Malaysia's most vulnerable communities.

LITERATURE REVIEW

The Structural Dimensions of Poverty and Vulnerability

Socio-economic status (SES) is widely recognised as one of the most powerful determinants of human well-being, acting as a critical lens through which to understand vulnerability and equity across societies. A robust body of global literature establishes a linear association between low SES and adverse outcomes, including poorer health, lower educational attainment, and a heightened susceptibility to environmental and economic shocks (Gallo & Matthews, 2003; Hallegatte et al., 2017). This vulnerability is embedded in a complex matrix of limited access to resources, political marginalisation, and systemic barriers. Indigenous communities worldwide often represent an acute manifestation of these intersecting vulnerabilities (Ford et al., 2020). In Malaysia, the Orang Asli, the country's Indigenous peoples, exemplify this global pattern, consistently being identified as one of the most marginalised and socio-economically disadvantaged groups, a condition resulting from historical dispossession and complex contemporary factors rather than cultural choice alone (Nicholas, 2000).

Economic Disempowerment and Livelihood Vulnerability

The economy plays a crucial role in shaping the livelihoods of communities. However, marginalised communities, especially those reliant on natural resources, encounter significant obstacles to development (Kamarudin & Ngah, 2007). Globally, the economic fragility of low-SES communities is exacerbated by a lack of social cohesion and community resources (Kawachi & Berkman, 2001), and access to capital exacerbates individual poverty and vulnerability. For the Orang Asli in Malaysia, this manifests as a dependence on forest resources for income, where they often gather valuable products only to sell them to intermediaries who offer low prices. This exploitation perpetuates a cycle of economic stagnation, thwarting governmental efforts for community development and undermining broader socio-economic objectives (Abdullah et al., 2021). Consequently, addressing the exploitative practices within the economic

framework becomes imperative to foster sustainable development and uplift the Orang Asli community from poverty (Abdullah et al., 2021).

Environmental Justice, Displacement, and Disaster Vulnerability

The challenges of economic disempowerment are compounded by environmental pressures. Lower SES communities are disproportionately vulnerable to environmental degradation and natural disasters due to factors such as inadequate housing and limited adaptive capacity (Teo et al., 2018). This extensive destruction of nearby forests has inflicted severe repercussions on the Orang Asli, significantly impeding their ability to procure sufficient resources for sustenance (Abdullah et al., 2020). Consequently, they are forced to seek alternative locations in distant forests, often necessitating family separation and imposing additional financial strains for transportation (Khair et al., 2021). This situation underscores a critical environmental justice issue where the Orang Asli, who contribute least to environmental degradation, bear its highest costs, eroding their resilience and capacity to cope with shocks.

Health Disparities and Barriers to Healthcare Access

Health serves as a pivotal indicator of deprivation, and the link between low SES and poor health outcomes is well-documented globally (Gallo & Matthews, 2003). This is particularly evident within the Orang Asli community, where critical issues such as high child mortality rates and malnutrition persist (Abd Kadir et al., 2023). These disparities are driven by significant barriers to healthcare access, which are common in low-SES populations globally. These include transportation barriers due to the remoteness of settlements and residential instability, which disrupts continuity of care (Maleki & Smith-Colin, 2025). Furthermore, cultural factors, such as a reliance on traditional healing practices, can influence health-seeking behaviours (Abdullah et al., 2019). These combined barriers lead to unequal healthcare utilisation and ultimately contribute to poorer health outcomes and higher mortality rates compared to the general population (Masron et al., 2013). While government initiatives, such as establishing village clinics, have shown promise in improving service utilisation (Murtaza et al., 2019), equitable access to consistent, quality healthcare remains a persistent challenge. Even though the presence of village clinics, the Orang Asli still rely on the traditional medicines for remedies (Ahmad, 2025). Despite the concerted effort by the government to relocate the Orang Asli to new resettlement areas with essential aimed at narrowing the gap between rural and urban communities, the reach did

not extend to those dwelling in the forested areas (Ismail et al., 2019; Department of Orang Asli Development, 2023).

Educational Disparities and Systemic Barriers

Meeting the educational requirements of the Orang Asli community stands as a critical imperative, given their educational attainment significantly trails behind other ethnic groups, despite concerted government efforts. Unlike formal education systems, the Orang Asli prioritise acquiring survival skills and forest knowledge, which are integral to their traditional way of life (Sawalludin et al., 2020). Consequently, many Orang Asli children either skip school altogether or are not enrolled, as their parents do not prioritise education or set ambitious goals for their academic advancement (Abdullah, Noor, et al., 2023). Basic proficiency in reading, writing, and arithmetic is often deemed sufficient within the Orang Asli community. Nonetheless, a substantial number of Orang Asli students fail to master these fundamental skills and end up dropping out before completing the sixth standard (Kamaruddin & Jusoh, 2008). However, the situation is slowly changing and most of the Orang Asli children in Taman Negara are attending schools on a much more regular basis (Ahmad, 2024). This situation underscores the urgent need for tailored educational interventions that recognise and incorporate the unique cultural values and knowledge systems of the Orang Asli, thereby fostering greater engagement and academic success within the community.

Synthesis: The Imperative for a Multidimensional Approach

The literature clearly demonstrates that the challenges faced by the Orang Asli—in the economy, environment, health, and education—are not isolated but are deeply intertwined. This cyclical relationship, where poor health affects learning and low educational attainment limits economic prospects, underscores the insufficiency of one-dimensional poverty measures. Income-based metrics alone fail to capture this complex, lived reality of deprivation (Alkire & Foster, 2011). This recognition has propelled a global shift towards multidimensional frameworks, such as the Multidimensional Poverty Index (MPI), which align with the Sustainable Development Goals' (SDGs) emphasis on holistic poverty reduction (UNDP, 2023). Therefore, effective policy interventions must be as integrated as the challenges they address, focusing on collaborative, culturally sensitive, and targeted strategies that simultaneously improve access to essential

services, secure land rights, and promote sustainable livelihoods to effectively uplift vulnerable communities.

METHODOLOGY

Population and Samples

Purposive sampling, a deliberate and non-random approach, was chosen for this study for its capacity to identify and select cases that offer the most insightful and valuable information, without the need for predetermined theories or a fixed number of participants (Etikan et al., 2016). This method allows for the strategic allocation of available resources to maximise the quality and depth of data obtained. The selection of interviewees aligned closely with the study's core inquiry (DiCicco-Bloom & Crabtree, 2006). Each participant was chosen based on their relevance to the research question, as well as their extensive knowledge and firsthand experience pertaining to the subject matter under investigation. This targeted approach ensured the inclusion of individuals who could offer meaningful insights and perspectives, thereby enriching the depth and validity of the findings.

The chosen informants consisted of village representatives, including the Tok Batin and head of families who are the primary bread winner of the families with the aim of capturing the perspectives across different family units. A representative from the Department of Orang Asli Development (JAKOA) (Code: IV17) was also included in the cohort, to provide government perspectives and policy directions. However, the interview with the representative from JAKOA was not conducted in the village but at the JAKOA's premises. In addition, a school teacher from the nearby town, who handles the class of Batek children, was also included (Code: IV16). To ensure a thorough exploration, the study engaged in interviews with a total of 17 informants (Code: IV1 until Code IV17), carefully selected through face-to-face interactions. Participants were selected until data saturation was reached, indicated by the repetition of key themes and absence of new insights. The sample size is deemed necessary to capture diverse voices across the five Batek villages studies.

Research Instrument

The study utilised the United Nations Development Program – Multidimensional Poverty Index (UNDP-MPI) measurements as themes for the semi structured interviews (Table 1). The questions for the semi-structured interviews were constructed around the three key dimensions (health, education and standard of

living) to guide in-depth exploration of deprivation in the Batek community. Sample questions include:

- What type of food do you eat during meals (lunch, dinner)? (Health)
- How many times do you eat in a day? (Health)
- Can you tell me about your child's school attendance? (Education)
- What are the reasons your child might miss school? (Education)

Semi-structured interviews allowed flexibility in probing participants' responses, ensuring richer and contextually grounded insights. Although the UNDP-MPI framework was used as a guide, the questions were localised and phrased in culturally appropriate terms to align with the lived realities of the Batek community.

The thematic analysis was performed using NVivo software to prevent information overload and facilitate data comprehension. The notes from the in-depth interviews were initially recorded in a MS Word document and later imported into NVivo. The data was analysed through thematic analysis. This involved reading and familiarising with the data, generating initial coding and developing themes based on the UNDP-MPI framework. This process was repeated until saturation was reached, and no new insights were obtained. This analytical process enabled the identification of recurring patterns related to poverty, access, and well-being within the Batek context.

UNDP-MPI framework covers key dimensions such as education, health, and standard of living (Table 1). Through the analysis of these critical aspects, the study aims to reveal the complex layers of deprivation faced by the Batek population, offering a thorough understanding of their socio-economic challenges within their unique setting in the national park. Moreover, through the UNDP-MPI lens, this research seeks to highlight the dynamics affecting the lives of the Batek community, ultimately paving the way for targeted interventions and sustainable solutions to alleviate their deprivation and promote inclusive development.

Table 1: Dimension and indicator of globally MPI measurement

Dimension	Indicator	Cut-off
Health	Nutrition	Any adult under 70 years of age or any child for whom there is nutritional information is undernourished
	Child mortality	Any child under the age of 18 years has died in the family in the five-year period preceding the survey.
Education	Years of schooling	No household member aged 'school entrance age + six years or older has completed at least six years of schooling.
	School attendance	Any school-aged child is not attending school up to the age at which he/she would complete class eight.
Standard of living	Cooking Fuel	The household cooks with dung, wood, charcoal, or coal.
	Sanitation	The household's sanitation facility is not improved, or it is improved but shared with other households.
	Drinking Water	The household does not have access to improved drinking water or improved drinking water is at least a 30-minute walk from home, round trip.
	Electricity	The household has no electricity.
	Housing	At least one of the three housing materials for roof, walls and floor are inadequate: the floor is of natural materials and/or the roof and/or walls are of natural or rudimentary materials.
	Assets	The household does not own more than one of these assets: radio, television, telephone,

computer, animal cart, bicycle, motorbike, or refrigerator, and does not own a car or truck.

Source: United Nations Development Programme (UNDP) (2023).

Collection of Data

Data collection was conducted on the Batek tribe residing within the Taman Negara Pahang, Malaysia, with a particular focus on five villages (Kampung/ Kg.): Kg. Yong, Kg. Sungai Tabung, Kg. Dedari, Kg. Cangkong, and Kg. Bengoi over a six-month period in 2023/2024 comprising several visits. This extended timeframe allowed multiple visits and ongoing rapport-building with participants to ensure depth and trust in the interviews. By concentrating on these specific communities, the research aims to provide valuable insights into the nature of poverty experienced by the Batek tribe within the environmental and socio-economic context of the Taman Negara Pahang (Figure 1). The interviews were conducted in either the village common areas or at the informants' houses, depending on their preference. The interviews were conducted in Bahasa Malaysia as they can converse in the national language quite fluently. Hence, reducing the need for a translator. The interview duration was from thirty to forty minutes and was audio-recorded with their permission.

Verbal informed consent was obtained from the informants, and they were briefed on the nature of the study and agreed to participate. Necessary measures for ethical considerations, which include clearance from the university's Research Ethics Committee was also obtained.

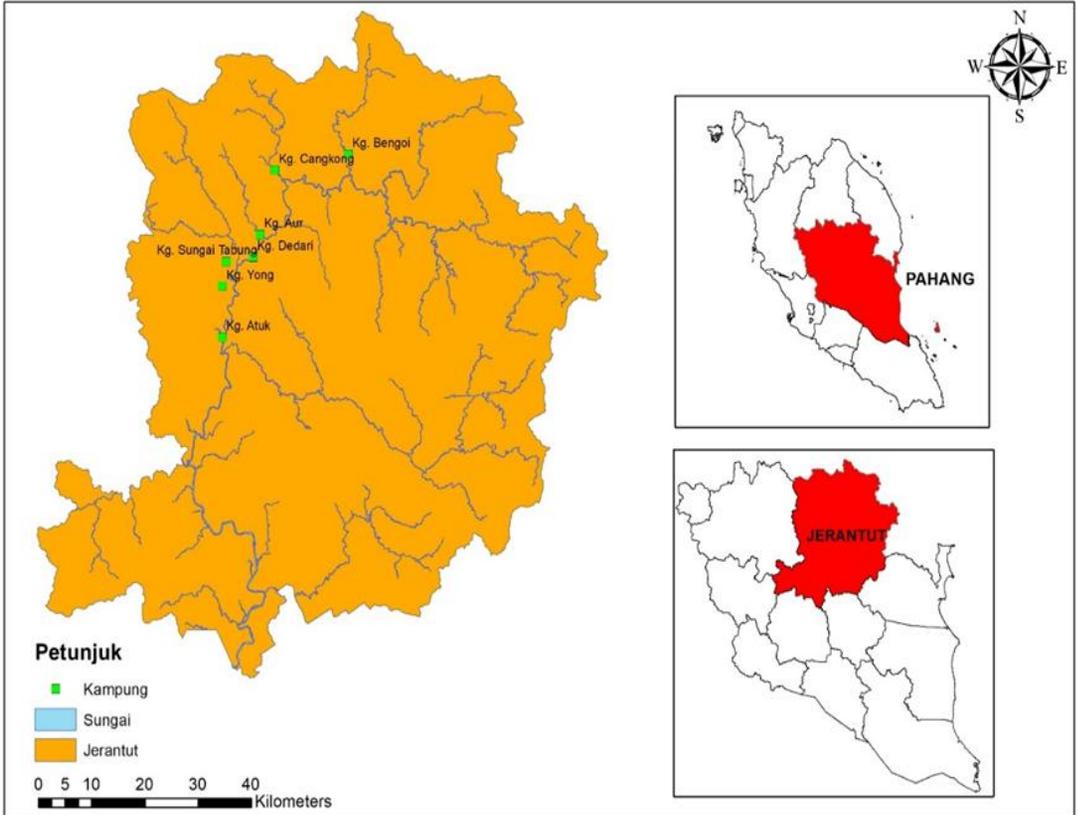


Figure 1: The location of the Orang Asli villages in Pahang National Park
(Source: Ahmad et al. [2024].)

FINDINGS AND DISCUSSION

The research found that the majority of Orang Asli residing within the parameters of Taman Negara endure a significant deprivation across multiple dimensions of the UNDP-MPI, with the most severe deficiencies observed in the standard of living. This section discusses the three dimensions—standard of living, education, and health—followed by an integrated reflection on their interconnections and implications. This multidimensional poverty creates a self-reinforcing cycle, where deprivations in one dimension exacerbate challenges in another.

Standard of Living

The findings showed that Orang Asli communities in the Pahang National Park are confronted with formidable challenges that impede their access to necessities

and essential amenities for a decent quality of life. The data portray a landscape marked by deprivation, underscoring the urgent need for targeted interventions and comprehensive strategies to address the multifaceted needs of these marginalised communities. The absence of basic amenities is clearly evident across all villages, with residents relying solely on wood and charcoal for cooking fuel. Furthermore, the lack of proper sanitation infrastructure and drainage systems highlights hygiene concerns, posing significant health risks to inhabitants. In terms of water supply, the communities are compelled to utilise nearby rivers and streams, often contaminated, for their daily needs, further compromising their well-being. The absence of electricity further compounds the challenges faced by these communities, hindering access to essential services and modern conveniences. The Orang Asli shelters are reconstructed from bark, tree branches, and twigs, while roofs are fashioned from leaves, offering minimal protection from the elements.

The deprivation in the standard of living was not merely one dimension among others. It is the source of daily hardship which directly impacts health and limits educational opportunities. The findings showed that Batek communities in the Taman Negara Pahang are confronted with formidable challenges that impede their access to necessities. The absence of basic amenities is clearly evident across all villages, with residents relying solely on wood and charcoal for cooking fuel. Furthermore, the lack of proper sanitation infrastructure and drainage systems highlights hygiene concerns. In terms of water supply, the communities are compelled to utilise nearby rivers and streams for their daily needs. The absence of electricity further compounds these challenges. The Orang Asli shelters are reconstructed from bark, tree branches, and twigs, while roofs are fashioned from leaves, offering minimal protection during extreme weather.

Our homes lack complete basic facilities. Every day, we take our children to the nearby forest to gather firewood for cooking and heating our homes at night and get a water supply from the nearby river for daily chores such as bathing, washing, and drinking water. (Code: IV1)

Our homes are made of bark and tree trunks. These construction materials are readily available in the surrounding forest. ...Their construction is simple and allows us to move to other places (nomadic lifestyle). Our homes are not equipped with drainage because it would complicate matters. (Code: IV3)

This reliance on natural resources, while adaptive as well as traditional, underscores a severe lack of infrastructure. The community's perspective reveals a complex negotiation between tradition and necessity. For instance, the absence of electricity is viewed through a lens of safety:

Our village is situated deep within the forest, hence there is no electricity supply here. However, some villagers use solar lamps for daily use. We do not view electricity as a vital necessity in our village. The light from electric lamps may attract wild animals like elephants and tigers to the village. (Code: IV4)

Furthermore, due to their geographic isolation, modern tools for connection and mobility are rendered useless or unaffordable, hence, intensifying their marginalisation.

...some villagers have mobile phones, but they are not necessary here because there is no network coverage. They need to go to areas closer to the town to use their phones...Additionally, not many of us can afford boats even though they are essential as the main mode of transportation to obtain food supplies from outside. (Code: IV6)

This isolation presents a significant structural barrier to development, as noted by the JAKOA representative, who highlighted the high cost and difficulty of providing infrastructure to remote, nomadic communities.

... The indigenous communities around Taman Negara Pahang, on average, still practice the way their ancestors lived. They still live in a nomadic way which is moving from one area to another. Consequently, the government is unable to assist them in the development of rural infrastructure. In addition to the location of the villages built deep inside and across the river, it is more difficult to help the physical development of the area reach them and involves high costs. (Code: IV17).

Education

The findings on education reveal a profound disconnect between the formal education system and the community's immediate socioeconomic realities.

Deprivation here is not merely a lack of access, but a conflict of values and economic necessity.

From the in-depth interview, the study found that education is the second most deprived dimension. According to the teacher who handles the class for the Batek children, they have to work extra hard to ensure that the children would be able to master the basic skills of reading, writing and counting.

Every day we as teachers work hard to educate the indigenous children here to at least be able to read, write, and count. However, the education level of the Batek community in Taman Negara areas is still low and far behind the mainstream. (Code: IV16)

The teacher further added that there is still struggle within the system.

Educational disintegration continues to occur in most of the Batek communities in Taman Negara areas despite the efforts of the Ministry of Education Malaysia to ensure that their educational level is at the same level as the mainstream races. (Code: IV16).

The core of this issue lies in a pragmatic calculation of value. For many families, the immediate economic benefits of forest-based skills outweigh the long-term, uncertain promises of formal education.

Kids only attend school up to primary level, and many do not even go regularly. If we send them in the morning, they will come back home shortly after. If they skip school, we take them to the woods. (Code: IV10)

We prefer our children to accompany us to the forest to search for agarwood and wood roots rather than going to school. When they grow up, they already know what they want to take from this forest. ... Many who venture into the forest end up with more yields. (Code: IV14)

Our children no longer want to go to school and drop out after primary school at primary level. ... When the children are in school, it is difficult for us to go to the forest to search for agarwood. We have to leave them with other relatives. (Code: IV11)

Most critically, this pragmatic view is compounded by a sense of intergenerational hopelessness, where education is not perceived as a viable pathway out of poverty.

The Batek children here will not excel in school. There are no successful Batek children here anymore. So, why bother sending them to school? [...] When they grow up, they will end up just like us too. (Code: IV9)

The findings suggest that schooling competes with livelihood activities, and that mobility patterns undermine attendance consistency. Similar patterns have been observed in Indigenous communities globally, where education often clashes with subsistence obligations (Ives & Sinha, 2016; Vera-Noriega et al., 2016). While the government provides material support—school necessities, transportation, and the construction of local schools—these findings suggest that addressing material barriers alone is insufficient. The solution requires bridging a deep motivational and cultural gap. The use of chaperones from the village, as noted by Abdullah et al, (2023), could encourage consistent school attendance, offering a culturally congruent pathway to improve educational engagement.

Health

Health was identified as the least deprived dimension, but the findings reveal a complex transition underway, where traditional beliefs and modern healthcare are in a state of negotiation rather than outright conflict. There are still those who continue to believe in and practice the traditions of their ancestors. One participant who was interviewed stated,

During our time living in the forest, we would often make various offerings to the spirits of the natural world to ensure that 'they' protect us in this village. (Code: IV15).

This illustrates a worldview where health is intertwined with spiritual and environmental harmony. Additionally, interviews conducted in the field also found that the Orang Asli community in Taman Negara still believe that diseases and disasters are retribution for their actions or mistakes they have made.

The Batek are synonymous with ritual practices and adherence to the beliefs

of ancestral spirits. We strongly believe that any illness or calamity that occurs is a result of the wrath of the spirits of the surrounding environment towards our actions. (Code: IV15)

In the past, the strong influence of ancestral culture, beliefs and traditional healing has led to a low level of health among the Batek community around Taman Negara, with cases of child mortality occurring every year. This is because they do not receive proper treatment for their illnesses. However, a significant shift is happening. Through periodic visitation programs implemented by authorities and in-situ development in the Orang Asli settlements in Taman Negara areas, perceptions, and lifestyles of the Orang Asli community towards modern treatment have changed. One participant mentioned that “some of us have come to the clinic for treatment since it was established.” (Code: IV2). Another participant added that ‘the situation of the Batek community here has changed significantly with the presence of health check-ups in our village.’ (Code: IV13).

The construction of clinics near their village areas has directly exposed the Batek community around the Taman Negara Pahang to seek treatment at the clinic when facing health issues. These interview findings also indicate that easier access to healthcare has enabled the Batek community to receive consistent treatment compared to before. The improvement in healthcare access underscores how proximity and outreach programs can reshape behavioural patterns without displacing traditional beliefs entirely. Similar trends are reported among Indigenous groups globally, where culturally sensitive health programs improve participation (Mashford-Pringle et al., 2019; Aniza & Norhayati, 2016).

Synthesis Across Dimensions: The Interlocking Cycle of Deprivation

Themes extracted using UNDP-MPI dimensions confirm that the challenges in standard of living, education, and healthcare are interlinked, creating a cycle of disadvantage similar to other indigenous groups globally (Mashford-Pringle et al., 2019). Consequently, this has affected the health and education of the indigenous people. Health care of indigenous people is not at par with that of the normal population (Aniza & Norhayati, 2016). The situation of the Orang Asli in Taman Negara Pahang is a clear local manifestation of this global pattern. The Orang Asli are unemployed and rely on the forest to provide them with sustenance, which is not sufficient. This has affected their ability to provide for the family, hence, lowering their standard of living and affecting their health and education.

Education has always been an immense challenge for the indigenous

youth and children to gain access to (Ives & Sinha, 2016). The link between education and better socioeconomic conditions is well-established. As seen in other contexts, such as with the Inuit in Canada and the indigenous people from Sonora in Mexico, a lack of educational infrastructure and relevance contributes to limited access, which in turn affects health and standard of living (Ives & Sinha, 2016; Vera-Noriega et al., 2016). Various efforts and programs have been implemented by the relevant authorities in Malaysia to ensure the indigenous people receive good education. Abdullah et al. (2023) found that by using a chaperone from among the village elders, a more inclusive and effective education model can be created.

Table 2: Summary of findings

Dimension	Remarks
Health	A transition is underway from solely traditional beliefs toward a growing acceptance of modern healthcare, driven by improved access and proximity of services.
Education	Persists as a major challenge due to a clash between the immediate economic value of forest skills and the long-term, but uncertain, benefits of formal education, compounded by a sense of hopelessness. However, changes are happening, albeit rather slowly
Standard of Living	Represents the most severe deprivation, characterised by a near-total lack of basic amenities and profound geographic isolation that underpins challenges in other dimensions.

This study underscores that the deprivations experienced by the Batek community are not isolated issues but are deeply intertwined in a cycle of poverty. These findings collectively underscore that improvements in any one dimension—education, health, or standard of living—could generate positive spillover effects across others. The stark disparity in standard of living is the most urgent, as it forms the base of this cycle. Moving forward, interventions must be equally integrated. Concerted efforts must address the root causes, requiring policymakers, governmental agencies, and non-governmental organisations to collaborate closely with the Orang Asli community. Solutions must be holistic: improving basic infrastructure must go hand-in-hand with educational programs that are culturally relevant and economically sensitive, and healthcare services that are accessible and respectful of traditional beliefs. Therefore, multidimensional interventions that integrate education, health, and infrastructure within culturally sensitive frameworks are essential.

CONCLUSION AND RECOMMENDATIONS

This study has demonstrated that the poverty of the Batek community in Taman Negara is not merely a lack of income but a deeply entrenched, multidimensional trap. The standard of living—marked by a near-total absence of basic amenities and profound geographic isolation—forms the foundational layer of this deprivation, directly enabling the cycles of poor health and educational disengagement documented in our findings. The research reveals that these dimensions are not isolated; they are dynamically linked. For instance, the lack of clean water and sanitation (standard of living) heightens health risks, while the economic necessity of forest foraging (a rational choice given the context) actively pulls children from the classroom (education).

Crucially, the findings move beyond identifying deficits to illuminate the community's active negotiation with their circumstances. This is evident in the pragmatic preference for forest skills over formal schooling, a choice rooted in immediate economic survival rather than a rejection of knowledge, and in the cautious adoption of modern healthcare only when it is made accessible and non-disruptive. Therefore, the central implication of this study is that effective intervention must be as integrated and context-aware as the poverty it seeks to alleviate. Policies that provide infrastructure must be designed with an understanding of how the community perceives it—for example, viewing electricity as a risk rather than a benefit. Similarly, educational programs must find ways to bridge the value gap by integrating, rather than dismissing, the cultural and economic importance of traditional ecological knowledge.

In conclusion, applying the UNDP-MPI framework has provided a necessary avenue to our understanding of Batek poverty, moving the discourse from generic upliftment to targeted, evidence-based action. The path forward requires collaborative, culturally intelligent partnerships that address the foundational deprivation in standard of living while simultaneously crafting solutions for health and education that are resonant with the Batek's lived reality and strategic adaptations to it. The goal is not to force assimilation into a mainstream development model, but to co-create pathways that enhance their capabilities within a framework of dignity and choice.

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Glossary

Batek	A sub group of indigenous semi nomadic tribe of hunter gatherer
Kampung/Kg.	Village
Kg. Bengoi	A Batek village
Kg. Cangkong	A Batek village
Kg. Dedari	A Batek village
Kg. Sungai Tabung	A Batek village
Kg. Yong	A Batek village
Orang Asli	Indigenous tribe
Pahang	A state on the east coast of Malaysia
Taman Negara	National Park
Tok Batin	Village head

List of informant's details

Informant Code	Role / Position	Village / Location	Description of Informant's Background	Rationale for Selection
IV1	Tok Batin (Community leader)	Kg. Yong	Primary provider, relies on forest resources for livelihood	To capture household-level deprivation and lived experience of poverty
IV2	Head of household	Kg. Yong	Regularly engaged in subsistence activities; familiar with healthcare access	Provides insights on changing health-seeking behaviours
IV3	Tok Batin (Community leader)	Kg. Sungai Tabung	Long-term resident with knowledge of traditional housing and settlement patterns	To explain standard-of-living conditions and housing challenges
IV4	Head of household	Kg. Sungai Tabung	Involved in daily forest-based activities	To understand perceptions of infrastructure (e.g., electricity)
IV5	Tok Batin (Community leader)	Kg. Dedari	Responsible for family subsistence activities	Provides household perspective on food security and cooking fuel
IV6	Head of household	Kg. Dedari	Experienced in forest mobility and resource collection	To understand transportation limitations and communication barriers
IV7	Tok Batin (Community leader)	Kg. Cangkong	Knowledgeable about traditional	Selected to explore cultural influences on

			customs and mobility patterns	poverty dimensions
IV8	Head of household	Kg. Cangkong	Has school-aged children	Provides views on children's school attendance challenges
IV9	Head of household	Kg. Cangkong	Parent with children who dropped out of school	Offers perspective on motivational barriers in education
IV10	Tok Batin (Community leader)	Kg. Bengoi	Children involved in daily forest activities	To understand conflict between schooling and livelihood needs
IV11	Head of household	Kg. Bengoi	Responsible for children while engaging in forest activities	Provides insight into childcare and educational disengagement
IV12	Head of household	Kg. Bengoi	Regularly participates in forest gathering activities	To triangulate livelihood experiences across households
IV13	Head of household	Kg. Bengoi	Engages with visiting health teams	To provide views on improved healthcare access
IV14	Head of household	Kg. Yong	Involved in agarwood collection	Provides economic rationale for preferring forest skills over schooling
IV15	Head of household	Kg. Sungai Tabung	Knowledgeable in traditional beliefs and rituals	Selected to interpret health-related spiritual perspectives
IV16	School Teacher	SK Kuala Tahan	Teaches Batek children; external informant	Provides professional insights into school attendance and

				literacy challenges
IV17	JAKOA Officer	JAKOA Office	Government representative overseeing Orang Asli affairs	To provide policy-level context and constraints in infrastructure provision

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