

LAND EXPLOITATION IN MALAYSIA: A DISTURBING REALITY

Eksplotasi Tanah Di Malaysia: Realiti Yang Membimbangkan

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Abstract

This research aims to provide a comprehensive analysis of land exploitation in Malaysia, delving into its causes and multifaceted consequences. Rapid economic development and urbanization in Malaysia have escalated the demand for land resources, leading to widespread land exploitation. The lack of comprehensive studies underscores the need for transparent research on this subject. The consequences of land exploitation are profound, impacting the environment, society, and the economy. Destructive practices result in habitat loss, deforestation, and ecological imbalances. Indigenous communities, vital ecosystems, and biodiversity face threats. Political, economic, and social factors fuel this problem. In conclusion, holistic approaches, policy reforms, and transparency are crucial to mitigate the ongoing and detrimental effects of land exploitation in Malaysia.

Keywords: Land Exploitation, Deforestation, Land Use, Environment, Ecosystem

Abstrak

Kajian ini bertujuan untuk menyediakan analisis komprehensif mengenai eksploitasi tanah di Malaysia dan merungkai punca-puncanya serta kesan yang dihadapi. Pembangunan ekonomi yang pesat dan urbanisasi di Malaysia telah meningkatkan permintaan terhadap sumber tanah, menyebabkan penggunaan tanah yang meluas. Ketiadaan kajian yang komprehensif menekankan keperluan untuk penyelidikan yang telus mengenai topik ini. Kesannya adalah mendalam, mempengaruhi alam sekitar, masyarakat, dan ekonomi. Amalan-amalan yang tidak bertanggungjawab mengakibatkan kerosakan habitat, pembalakan hutan, yang tidak terancang dan ketidakseimbangan ekologi. Akibatnya, komuniti asli, ekosistem dan kepelbagaian biologi menghadapi ancaman. Faktor-faktor politik, ekonomi dan sosial meningkatkan lagi masalah ini. Kesimpulannya, pendekatan holistik, reformasi dasar dan ketelusan adalah penting untuk mengurangkan kesan negatif dan berterusan daripada eksploitasi tanah di Malaysia.

Kata Kunci: Eksploitasi Tanah, Pembalakan Hutan, Penggunaan Tanah, Persekitaran, Ekosistem

INTRODUCTION

Malaysia encompasses diverse landscapes, ranging from fertile agricultural lands to rich rainforests, making it a valuable resource for various sectors. In the year 2021, 64 611 hectare of area was licensed for harvesting (Forestry Department of Peninsular Malaysia, 2021). As the nation undergoes rapid economic development and urbanization, the demand for land resources has escalated, leading to uncontrolled and unsustainable practices.

Land exploitation in Malaysia has emerged as a critical and multifaceted issue with profound implications for both society and the environment. Land exploitation refers to the unsustainable or unethical use of land resources, often resulting in environmental degradation, loss of biodiversity, and negative socio-economic impacts.

Substantial land exploitation has been identified as a pivotal strategy for kickstarting the development of agricultural economies that possess extensive land resources. The exploitation of land in the region takes many forms, including large-scale agriculture, urban expansion, industrial development, and deforestation for logging and mining activities. Typically, land exploitation started with intensive timber extraction, followed by aggressive agricultural expansion, and accompanied by massive environmental impacts. The rapid deforestation rates attributed to palm oil cultivation in various nations and regions have sparked worries with almost all of these forests are characterized by significant biodiversity (Vijay et al., 2016). While such exploitative activities have generated quick revenues for the economy, the livelihood of people has indeed been threatened in all aspects from immediate local health risk to long-term global climate change.

Through a systematic review of existing literature, this research seeks to shed light on the consequences of land exploitation with the ultimate goal of finding out the possible factors contributing to this pressing issue.

PROBLEM STATEMENT

As a megadiverse country, Malaysia's rich biodiversity is essential for ecosystem stability and the provision of ecosystem services. In the pursuit of economic growth, urbanization, industrialization, and agricultural expansion, land is often subjected to overexploitation, resulting in severe ecological imbalances.

In 2010, Malaysia possessed 20.3 million hectares of natural forest, spanning 87% of its land area, but by 2022, it saw a depletion of 118 thousand hectares of natural forest, resulting in emissions equivalent to 83.9 million metric tons of CO₂ (Global Forest Watch, n.d.). The unbridled land exploitation in Malaysia poses several interconnected challenges. Such activities, if not carefully managed, can have devastating effects on the delicate ecological balance and socio-economic well-being of local communities.

Firstly, the rapid loss of natural habitats and biodiversity threatens the region's unique flora and fauna. Furthermore, land exploitation often leads to conflicts over land tenure and ownership rights, particularly concerning indigenous and local communities. These communities, who have traditionally relied on land for their livelihoods and cultural practices, are vulnerable to displacement and marginalization.

Therefore, understanding the patterns and consequences of land exploitation is crucial for ensuring long-term ecological sustainability and equitable development. There are less studies conducted on this subject, highlighting the need for increased research efforts to shed light on the complex issue of land exploitation.

Manfaat teknologi dalam pencegahan pencurian hutan simpan

Sejak akhir-akhir ini, pelbagai bentuk kegiatan dan kejadian pencenderaan terhadap tanah kerajaan banyak dilaporkan di media massa dan media sosial. Ada mencoreboki tanah tepi sungai untuk membuka rumah dan kilang, mencoreboki tanah kerajaan untuk membuka rumah, ladang, kegiatan pertanian, mencoreboki serpi mencuri kayu bulat, mencuri pasir, mencuri gunung dan membuka sebagai pemburu harau.

Kini kegiatan itu turut dilakukan warga asing yang membunuh tidak lar negara yang dilindungi. Namun, berita terbaru seperti dilaporkan ialah pencenderaan hutan simpan untuk menanam durian musang king.

Semua bentuk pencenderaan ini amat berkait rapat dengan alam sekitar, jatu khazanah negara yang tidak teraihi harganya. Oleh itu, sangat penting untuk melindungi hutan simpan.

Sejarah tanah kerajaan atau mungkin sepiat tanah kerajaan harus dipecah papir tanah mengatakan "Tuhak Hak Milik Kerajaan Pencenderok Akam Daidaw" atau disebarkan siman rasuah yang semakin berleluasa.

Peranan pengkasa pada masa kini harus diakui semula. Semakin ramai balangan pengkasa kuasa komunikasi semakin banyak amalan rasuah. Jadi, peranan pengkasa ini sedikit demi sedikit harus diambil alih teknologi termasuk seperti nuan (AI), drone dan satelit.

Sebagai contoh, pengunaan teknologi terkini melalui aplikasi Sistem Forest Monitoring Using Remote Sensing bagi mengesan perubahan hutan kawasan hutan. Sistem ini disokong dengan pengunaan drone yang memberi gambaran kawasan secara masa sebar: Gambar hutan yang dicoreboki akan dapat dirakam dan di-pasir kawalan boleh mengambil tindakan dengan secepat.

Bagitu juga pengunaan kamera litar tertutup (CCTV) hutan simpan mungkin perlu digabungkan dengan CCTV supaya dapat memantau keselamatan hutan simpan. CCTV bukan sekadar merakam video dan merakamkan peristiwa tetapi boleh bertindak mengikut keperluan pengguna. Kemungkinan CCTV bukan hanya pada kemarahan tetapi formula matematik yang digunakan dalam sistemnya dapat mengaitis situasi sekitar.

Selain itu, langkah pemantauan juga boleh menggunakan LiDAR Detection yang dapat mengukur ketinggian dan kepadatan hutan.

Apabila teknologi ini digunakan dengan betul, ia dapat membantu dalam melindungi hutan simpan dari pencenderaan. Dengan menggunakan teknologi ini, kita dapat memantau perubahan hutan simpan secara real-time dan bertindak dengan pantas jika berlaku pencenderaan.

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Figure 1: Newspaper article (Nor Azaruddin Husni Nurrudin, 2020)



Figure 2: Newspaper article (Farah Marshita Abdul Patah, 2023)

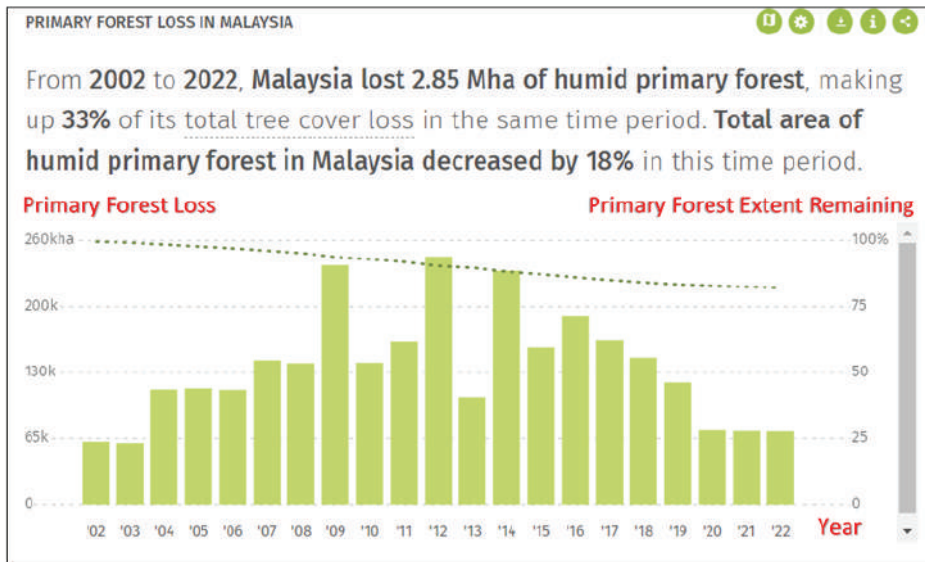


Figure 3: Primary Forest Loss In Malaysia from Year 2002 - 2022 (Global Forest Watch, n.d.)

RESEARCH OBJECTIVES

- i. To explore the underlying factors driving to land exploitation; and
- iii. To establish the impact of land exploitation in Malaysia.

LITERATURE REVIEW

Land Exploitation Cases in Malaysia

On 6th February 2021, there was a flash news on Free Malaysia Today with the heading 'World's largest Musang King durian farm in Kedah? We will probe, says Kedah MB'. This news has caused controversy surrounding a durian farm which has been linked to deadly floods and has reignited calls from environmentalists for greater transparency into Malaysia's environmental impact assessments. Meenakshi Raman, the President of Sahabat Alam Malaysia (SAM), suggests that permitting durian plantations within forested regions would lead to the degradation of untouched rainforests.

In October 2018, a tragic landslide occurred at Bukit Kukus in Penang where an illegal hillside development was being carried out. The construction activities caused significant soil erosion, resulting in a landslide that claimed several lives and damaged properties in the area. This incident highlighted the dangers and consequences of unauthorized land development.

The Belum-Temengor Forest Reserve, located in the state of Perak, is one of Malaysia's oldest rainforests and home to many endangered species. However, illegal logging activities have been a persistent issue in the area, leading to deforestation and habitat destruction. Authorities have made efforts to combat these activities, but illegal logging remains a challenge.

In the year 2015, the Cameron Highlands, known for its scenic landscapes and agricultural activities, faced illegal land encroachment and farming on protected land. The alteration of land use, haphazard urban development, and unsustainable agricultural practices have contributed both directly and indirectly to the degradation of the river system network in Cameron Highlands (Razali et al., 2018).

In the year 2013, Selangor faced unauthorized land conversion from agricultural to industrial or residential purposes. Such activities often involve the exploitation of land reserved for agricultural use, leading to conflicts between landowners, developers and local authorities. Illegal sand mining has been a problem in various states in Kelantan in the year 2012. Unsustainable sand extraction from riverbeds for construction and development purposes has resulted in environmental degradation, affecting river ecosystems and nearby communities. The analysis of the Kelantan River case indicated that the levels of

total suspended solids (TSS), turbidity and nitrate concentrations surpass the range defined by the Malaysian Interim National Water Quality Standard (INWQS), leading to unfavourable and challenging circumstances for the aquatic ecosystem within the Kelantan River (Peck Yen et al., 2013).

The persistence of numerous ongoing land exploitation cases in Malaysia highlights a concerning trend that shows no signs of abating. Despite efforts to address and mitigate these issues, the continuation of such activities underscores the complex challenges in achieving effective land management and conservation. It can be clearly said that addressing illegal land exploitation in our country is an ongoing challenge for the Malaysian government and authorities.

Factors Leading to Land Exploitation

Land exploitation in Malaysia is driven by a combination of social, economic, and political factors. These factors interact and create conditions that encourage the unsustainable use and conversion of land resources.

Malaysia's rapid economic growth and urbanization have led to an increased demand for land to accommodate infrastructure, industrial zones and housing developments. As cities expand and industries grow, there is often pressure to convert natural landscapes into urban areas, resulting in the loss of valuable ecosystems. In addition, with the growth of the agriculture sector, especially the expansion of cash crops like palm oil and rubber, land exploitation in Malaysia has shown a significant increase. Besides that, the demand for timber products, both domestically and internationally, has also led to extensive logging, which impacts the country's forest cover and biodiversity.

Population growth and rural-urban migration contribute to the need for more land for housing and infrastructure. Land speculation can result in the conversion of natural areas into commercial or residential properties. This leads to land conversion and encroachments on natural areas. The construction of transportation infrastructure, such as roads and highways, can open up previously inaccessible areas for development, leading to increased land exploitation.

The pace of land development can be most comprehensively elucidated through three distinct yet interconnected factors: the allocation of land based on political considerations, the extent of decision-making authority within a state's system, and the level of inflexibility in the interpretation of regulations (Guyot, 1971). Political decisions and actions play a crucial role in shaping the direction of land use and development, often influencing the extent and intensity of land exploitation. The government has the authority to allocate land for various purposes. The process of granting permits for economic activities can create opportunities for land exploitation when not carefully regulated or monitored.

Corruption within the political system can lead to the misuse of power in granting land approvals or permits. In some instances, political influence may lead to lack of enforcement on land use regulations. Failure to enforce laws effectively can embolden those engaged in illegal land exploitation, leading to environmental degradation and loss of natural habitats.

According to Ahmad Khairul Ridhwan Mohamed Hanif (2022), there are several logging cases that have been addressed by the Malaysian Anti-Corruption Commission (MACC). In 2015, the MACC took drastic action by freezing 375 accounts worth over RM560 million and seized over 500 logs in the latest crackdown on illegal logging and timber corruption in Sarawak. In 2017, five individuals were remanded to assist in investigations related to corruption involving illegal logging activities in Jerantut, causing the Pahang state government to suffer losses amounting to millions of ringgits. In 2020, two individuals were remanded to assist in investigations related to a corruption case involving a logging project worth over RM27 million. One of the suspects, a 65-year-old former Deputy Chairman of the company, was also remanded.

Addressing these factors requires a comprehensive and integrated approach that includes strong land-use planning, effective enforcement of regulations, community engagement, and sustainable development practices. By understanding the factors contributing to land exploitations in our country, Malaysia should work towards balancing economic growth with environmental conservation and social equity.

Consequences of Land Exploitation

Land exploitation in Malaysia has had significant and far-reaching effects on the country's environment, economy, and society. As the demand for land resources has intensified, land conversion and unsustainable land use practices has increased. This has resulted in numerous long-term and short-term consequences.

The immediate consequence of land exploitation is the destruction and fragmentation of natural habitats. Land exploitation results in the loss of critical ecosystems, threatening the survival of many plant and animal species which can lead to the loss of biodiversity in the affected areas. Many species, including endangered and endemic ones, may face extinction due to the loss of their natural environments and food sources in the long term. The loss of essential ecosystem services such as pollination, soil fertility, and regulation of water flow also can impact agriculture, food security, and human well-being in the long term.

Besides that, improper land clearing and deforestation leave the soil vulnerable to erosion. In the short term, heavy rainfall can wash away topsoil, reducing its fertility and agricultural productivity. In the long term, soil erosion can contribute to sedimentation in rivers and water bodies, hence can negatively

impact water quality and aquatic ecosystems, affecting fish populations and water-dependent species.

Deforestation and land clearing can increase the vulnerability of areas to natural disasters such as floods and landslides. Without the stabilizing influence of vegetation, soil erosion and slope instability become more prevalent. On top of that, unsustainable use of land resources can contribute to greenhouse gas emissions and climate change. The loss of forests reduces the capacity of land to sequester carbon, exacerbating global warming. Continued land exploitation can lead to a decline in water resources, affecting both quantity and quality. Deforested areas may experience reduced water retention capacity, leading to water scarcity during dry periods.

Land exploitation also often leads to conflicts between local communities and companies or authorities involved in the activities. Displacement of indigenous communities and farmers from their traditional lands can lead to social unrest and tensions. During the construction of the Bakun dam in Borneo, East Malaysia, it becomes evident that the connection between Indigenous communities and their traditional lands is severed (Cooke et al., 2017). While logging companies reap substantial profits due to high demand for quality timber, the Indigenous communities, who have long depended on these resources for their livelihoods and the forest's water catchment areas, feel threatened by these unregulated activities (Azaldin et al., 2021).

It can be clearly stated that land exploitation does harm both the environment and the well-being of local communities. Some consequences of land exploitation, such as species extinction and habitat destruction, may be irreversible. Once unique ecosystems are lost, it is challenging to restore them to their original state.

METHODOLOGY

The research utilizes a qualitative approach for this field of study. Data will be gathered from multiple sources, such as government reports, academic papers and case studies regarding this topic of research which can support the research objectives. Data collection involves unstructured tools whereby the data can be in many forms such visual data, words and images. The non-numerical data will be collected and analysed to understand concepts, opinions or experiences by previous researchers of the subject matter.

By addressing the research goals, the study aims to contribute valuable insights into the dynamics of land exploitation in Malaysia and provide actionable recommendations to foster a more sustainable and balanced approach to land use and conservation.

DISCUSSION

Reports from independent organisations and previous studies together with land exploitation cases in Malaysia clearly shows that this is a pressing issue that needs to be addressed. The environmental data disclosed in corporate annual reports from Malaysia is relatively limited, and the annual reports of ISO certified companies indicate that they predominantly provide environmental information either in a broad manner or using qualitative descriptions (Sumiani et al., 2007). The consequences of land exploitation are multifaceted and interconnected, impacting not only the environment but also society and economies. Recognizing the complex web of interactions between land, nature, and society is crucial in charting a path toward a more balanced and harmonious relationship with our environment.

The intertwining factors of economic development, weak enforcement, and unclear land tenure contribute to the perpetuation of land exploitation. Inadequate enforcement of land use regulations and environmental laws can enable illegal land exploitation activities to go unchecked. Certain government policies and incentives, such as land concessions for economic development projects, may inadvertently encourage land exploitation and deforestation. The interdependence between economic productivity and conservation implies that a singular approach is not flawless, yet a fusion of strategies could yield improved results (Goh, 2020).

The actual responsibility to address this issue does not solely rest on the shoulders of the Federal Government. The Federal Government can only align and strengthen forest management oversight by amending the existing Forestry Act 1984. However, the implementing agencies at the State Government level should play a more active role since forest management actually falls under the responsibility of the State Government, as stipulated in Schedule Nine of the Federal Constitution.

Furthermore, the *modus operandi* and the number of enforcement officers in each State Forestry Department need enhancement in line with the sophistication and cunning of criminals involved in these land exploitation activities. The considerable forest area to personnel ratio presents a challenge for the department in preventing encroachments, however, consistent monitoring is maintained to deter encroachments and address various forest-related offenses beyond encroachments (Dewan Negeri Selangor, 2013).

Moreover, regular integrity inspection programs should be implemented at all levels of government enforcement departments to ensure that no elements of misconduct occur. EIAs in Malaysia are often made available for public viewing only in physical offices. This method of public access is inadequate, since offices may be restricted and difficult to access by the public. This lack of

transparency makes it very difficult for non-governmental organisations and the public to act as check and balance to the environmental regulators, as they are left in the dark about what projects have been approved and are being planned in sensitive areas. For maximum accountability, the government should improve transparency on the internal processes surrounding EIA approvals, making data on EIAs transparent and freely available on the internet with immediate effect and updated regularly.

CONCLUSION

In conclusion, land exploitation, a pressing issue of global concern, has garnered significant attention due to its far-reaching consequences on the environment, society and economic development. As the world faces growing challenges such as climate change and resource depletion, understanding and addressing land exploitation becomes paramount for sustainable development.

Addressing the political factor in land exploitation requires governance reforms, improved transparency, and strengthened institutional frameworks. An inclusive approach that involves stakeholders, including local communities and environmental experts, in decision-making processes is crucial for promoting responsible and sustainable land management in Malaysia. A conservation focused land use approach leads to substantial enhancements in habitat quality for biodiversity compared to past patterns of land use and land cover (Sharma et al., 2018).

The amendment to the Forestry Act 1984 is highly welcomed, as it is evident that criminals engaged in illegal logging activities are not deterred by the current penalties and fines. Most of them possess the financial means and resources to withstand legal actions if convicted of such offenses. It is recommended that more state governments implement the amendments to the National Forestry Act that were enacted at the federal level in 2022 to ensure uniform standards across all states (Manjit Kaur, 2024). Given the various calamities and natural disasters constantly emerging in our country, the preservation of forests is of utmost importance to ensure that both the human population and other life forms within the forest ecosystem are not adversely affected in the future.

Only through collective action and a commitment to sustainable practices can Malaysia hope to overcome the relentless cycle of ongoing land exploitation.

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