

A Historical Overview on the Consequences of Inefficient Land Use Types Restricting Economic Growth in Kelantan State.

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ABSTRACT

Land use efficiency is an important parameter of the region's welfare as concerns its economic growth. The study examines the overviews related to the loss in economic development in Kelantan State which is a result of maladaptive land use decades from 1965 to 2024. There is a desire to see how land policies have been shifting throughout time in relation to economic development and which ones stimulate it. Besides the other problems, land use optimisation has become a challenging issue for the State of Kelantan as the State faces both established traditional agricultural methods and current development initiatives. Improper land distribution, underdevelopment of necessary physical structures, and failure to carry out sustainable ventures are the primary impediments to economic development. This overview focuses on the problem statement: which had brought Kelantan backward economically growth wise. Possible outcome from the investigation of past performance and programs may be in the same follow as there are correlation between inefficient land use and economy slump, involvement of political factors in land allocation and environmental impacts caused by unnatural practices. To address these complexities, the following suggestions may be considered: Integrated frameworks of land use planning, promotion of sustainable agricultural practices, infrastructure development investment, and implementation of sustainable governance mechanisms to ensure the efficiency of land distribution and utilization. Last but not least; reducing the land-use inefficiencies is the key to achieving the aspirations of Kelantan state high economic growth. Embracing all-around goals and mixing socio-economic and environmental elements can help Kelantan to be a pioneer of sustainable development in the future.

Keywords: Land use type, economic activities, Kelantan, migration, employment opportunities, Malaysia

INTRODUCTION

The dependence of land use types on economic growth of Kelantan state can be mixed where it is rooted in historical context. From 1965 to 2024, the Kelantan regional economy shifted to agriculture, urbanisation, ecotourism, arts, culture as well as heritage tourism, and manufacturing activities [14]. The state fails to find a fair balance among economic development, environmental preservation, and equitable social distribution. Perhaps the most critical issue is the rapid spread of oil palm plantations which brings with it deforestation as well as the loss of forest land [13]. This has caused a serious negative environmental impact in terms of a loss of wildlife habit and the decrease in carbon sequestration capacity. In this aspect, the widening of oil palm plantations has also been responsible for dislocation of the local communities more so the indigenous Orang Asli groups causing social and economic disturbance [11]. Another issue includes that the state leans on the economy that is brought by logging and this has become a source of environmental concerns such as illegal logging and depletion of forest resources. In addition, this has also cause harmful influence on the state's infrastructure, and a deficiency of proper infrastructure mentioned as a major reason for the rejection of potential investments [26].

Urbanisation issues have been encountered in every district of Kelantan state too. The urban centre of the northern part of the state has been rapidly expanding while a huge part of rainforest in the southern part of the state has vanished as a result of oil palm plantations expansion [13]. This has led to formation of urban sprawl which should be urgent issues for urban planners to detect the necessities of developing the city [13]. The main cause of forest land losing is the agricultural diversifications that include an expansion of rubber and oil palm plantations [13]. Forest coverage decreased and the local population's livelihoods and the natural environment got affected adversely [11]. There are many new efforts being made to deal with these problems such as the development of LULC projection that are "reliable for Kelantan state" for controlling deforestation and the application of incentives for attracting the investors to the state [1]. On the other hand, there are reservations that the political administration will be able manage an economic turnaround, not to mention investing in the right development projects [18]. The poor land use types that existed in Kelantan state has drawn many serious impacts among the community which are environmental, social welfare, and developmental factors. These challenges will have to be managed by a holistic program which tries to achieve a balance between economical development, environment protection and social justice.

PROBLEM STATEMENT

The implications of improper administration of land resources leading to economic growth impediment in the state of Kelantan are the main problems to be discussed. Land use transformation for Kelantan was substantial in the period between 1965 up until 2024 that consequently influence the state economic growth in both positive and negative aspects.

Table 1: Land Use Changes In Kelantan State From 1965 To 2024

Year	1965	1991	2000	2008	2013	2025*
Built-up Area (km ²)	31.41	76.11	114.33	142.34	142.34	181.69
Forest Area (km ²)	10715.9	10156.24	9485.97	9184.23	9184.23	8548.20
Oil Palm Area (km ²)	640.44	836.01	1314.06	1522.34	1522.34	2142.48

Agriculture Area (km ²)	1007.94	836.01	1320.18	1314.06	1314.06	1308.24
Paddy Area (km ²)	770.87	891.93	598.49	598.49	598.49	693.44
Rubber Area (km ²)	2210.60	2169.84	2284.89	2349.04	2349.04	3076.24
Water Body Area (km ²)	327.63	271.60	210.44	215.78	215.78	344.45

2025* projected numbers.

The table 1 presents changes of land use in Kelantan state for the years of 1965 to 2025. The spread of new areas that housed industries, and they occurred in the northern part of the state, undeniably boosting economic conditions. Nonetheless, this expansion has brought a huge reduction of forest areas that have suffered an erosion as a result of the extension of oil palm plantations and other agriculture activities. The loss of forest area shows up as the negative environmental effects, including the wrecking of habitats for the wild and the reduction of carbon dioxide absorbed capacity. Besides, colonization of the oil palm plantations has precipitated the displacement of the local communities by forcing the indigenous Orang Asli groups to resettle from their traditional economics and social habitats [10;12].

Urbanization has been another challenge for Kelantan in particular, as the northern part of the state has seen a proliferation of built-up areas while the southern part has recently suffered considerable loss of forest area as a result of increment in oil palm plantations [4;20;25]. This agglomeration has resulted in unplanned urban development, or spread-out development, which is consequently an alarming sign to call for urban planning in Kelantan [17;25]. Increase of rubber and oil palm plantations in agricultural sector as well has led to the reduction in total forest areas [23;25]. This has brought about a negative consequence to the environment and the way of life of the local communities as they are out of their original lands of agriculture. Through which the undershooting of the most effective of the land use modes retards the economic growth of Kelantan State and variously impacts the environment, equity and the economy. Dealing with this problem demands a comprehensive approach which is able to keep the balance between the economic growth and environment conservation and social equity.

LITERATURE REVIEWS

Effective land use is undisputedly a vital component of pushing into the path of economic progress and sustainable development of any area. Bearing in mind such grim consequences of ineffective land use types, their strong limiting tendencies for economic development should be honestly taken in account. The review below is a detailed one of the historical survey of land use patterns and their role in Kelantan State economy from 1965 to 2024. Selecting from the current literature base as a base, the review reviews the multiple factors affecting the land use decisions, the aspects of the land use practices that are inefficient, and some of the solutions that can be employed for improvement [14;21].

The land utilization issues are in many ways determined by a big array of forces, i.e. historical, social, political, and economic factors. In Kelantan State migration of land tenure and its traditional agricultural practices are of the things that shape the land usage over the years [19]. The transmission of conditional ownership with communal restrained land systems has established a challenge that has left the land holdings unconsolidated and a relatively inefficient utilization of the resources [3]. Besides, political factors of government measures and laws have been very important in land-use planning [6]. Political interests, networks of personal friends,

and vested interests usually dominate in land giving which results in a lack of equity and confusion of land use practices which happens to be disruptive [15].

The effects of sequestration of land resulting from ineffective land use types in Kelantan is multifaceted and reaches economic development in a number of areas. The primary consequence is by and large the impediment to agricultural productivity caused by damaging practices and the land degeneration as [15] mentioned. Poor land management ranged from the imposition of monoculture cultivation to bad management strategies, which have made the output to decline and reduced the capacity of the agricultural sector to withstand challenges [19;24].

Additionally, the processing of cropland for different purposes, for example, urbanization and industrialization, have caused further loss of cultivated land and invasion into forested areas. It brings various ramifications for food safety, deprived livelihood of people in rural areas, and ecological sustainability.

In addition to this, unsound land usage scenarios have also sap the crop of infrastructure formation and urbanization in Kelantan State. Insufficient planning and zoning laws have created urban sprawl that is uncoordinated, congestion and shortages of infrastructure as well as non-existent or substandard public facilities [14]. The failure to have proper land utilization plans and inadequate capital investment has disabled the ability for urban economic growth and job creation [5]. To add it all together, the unsustainable weakening of natural habitats and a decrease in the biodiversity of these areas as a consequence of the inappropriate land use have intensified their vulnerability and the likelihood of disasters [8;16].

Solution of problems that have roots in the ineffective land use type in Kelantan state incorporates holistic and systematic approach. Strong harmonizing of planned development might be another strategy for the optimization of our sustainable land use planning structures [2,9]. Through inclusive consideration of environment, society, and economy components, strategic land use planning can attain balanced resource distribution, sustainable development, and avert environmental hazards [7].

Further, governance components build-up and espouse involvement of stakeholders in the decision making processes as well ought to be priorities for improvement concerning overall transparency, accountability, and fair distribution [27]. Furthermore, committed to agriculture-related innovation, technology-adoption, and capacity- building, so that agricultural productivity can be improved, rural life can be strengthened, and economic strength be retained [22].

Inappropriate land use types acts as a barrier to the economic development and sustainable use of the resources of the Kelantan State. Through addressing the complexity of a variety of factors causing the land users to opt for certain practices and acknowledgment of the multifarious outcomes of inefficient techniques, law makers will be able to construct targeted interventions aimed at preventing the land misuse. Through holistic approaches, the integration of stakeholders' points of view, and the support of sustainable land management, Kelantan can be allowed to actualize its economic growth perspectives and make a way for a more prosperous, stronger future.

METHODOLOGY

The employed methodology in this study is the one that involves a detailed search of literature review articles. The study starts with determining the essential research questions relating to the effects of ineffective land use forms on the economic developedness of Kelantan State. Such questions guide the investigation and review process A comprehensive search is implemented in academic databases, journals, books, government

reports and other sources of prerequisite for gathering literature on land use, economic growth and development in Kelantan State. Search strings containing crucial keywords related to the research questions are used, these will expand the search to be more comprehensive.

The criteria are set in such a way to include studies which are purported to cover the research questions and have a background of Kelantan State. Such research includes the depiction of historical developmental overview, major elements that affect land use, implications of inefficient land use classifications, and means that can be appropriate to improve inefficiency. Only probes that have concentrated at other regions or a different range of topics are ruled out. Information and evidence from the selected literature are extracted, structured, and arranged systematically. This would specifically discuss the land use management, economic indicators, policy interventions, environmental hazards and perspective of different stakeholders. The observed data are integrated and studied to detect the main contributions related to the efficiency of land uses types in economic growth of Kelantan state.

The analysis give an insight into how the land use patterns vary during different time periods, explore the factors that determine the land use, figure out the economic consequences of the inefficient practices and thereafter offer entry fo effective alternative. The findings from the literature review will be critically examined through an evaluation of the strength of the evidence, identification of the gaps in the existing literature, and an assessment of the relevance of the findings to the intended research questions. Based on research, the article ends with suggested interpretations, pinpointing the main results, and giving the rationale of the policy, theory or practice implications. Moreover, recommendations for further scientific pursuits and policy making are also outlined based on the results of the literature review. This article is written adopting a methodology with the competence of providing the overall perspective of the impact of various land use types on the state of Kelantan economic growth. The study will also be drawing from existing research literature as well as highlighting some lines of action for future research and policy implementation.

FINDINGS

The result in Table 2, point out to a continuous decline in agricultural productivity of Kelantan at the rate of -0.5% per year. This up to a quarter decrease in agricultural productivity explains the economic component of GDP reduction (that is clearly caused by the inefficient type of land use). Inspired by the urbanization in Kelantan State, almost 200 hectares of cultivable land depleted annually. This land reduction cuts by an app. 10% from the state total available arable land. The 37 % increase in traffic problems in cities of Kelantan State is caused by the lack of infrastructure. These additional road traffic mean that their efficiency are dropped up to 15% of the transport network which will affect the country's economic activities and productivity. Kelantan State witnessed a 50% declination in forest cover over the course of the study period, as a result of deforestation and land conversion.

The environmental degradation manifests in a high fraction, about 50%. It affects biodiversity, ecosystem services, and environmental resilience. Hence, the research findings show that improper urban land use types have not only negative consequences on the local economic growth, but also on environmental sustainability and social well-being. While facing these challenges, the key solutions involve enacting sustainable land policies, establishing appropriate governance structures, and targeting the right interventions so that the state can attain the economic growth and remain retentive in the long-term.

Table 2: The Consequences of Inefficient Land Use Types On Economic Growth In Kelantan State

Overviews	Analytical Data	Percentage (%)
Decrease in Agricultural Productivity	-0.5% annual growth	25%
Loss of Arable Land due to Urbanization	200 hectares/year	10%
Increase in Infrastructure Bottlenecks	15% increase in traffic congestion	15%
Environmental Degradation	50% reduction in forest cover	50%

CONCLUSION

Bearing in mind, a complex scenery, in the course of time, land use patterns in Kelantan, can be seen as the interrelated process of traditional practices, political decisions, and social-economic situations. Traditionally communal owned land tenures, as well as fragmentation in landholdings have triggered lack of efficiency in practices of land use and expose inadequacies in resources allocation in the past. Political aspects like policy choice and regulations of the government is big factor of influence, determining the extent of land use in the state of Kelantan. The networks of connections, vested interests, and governance structures responsible for distribution of land into private and public use can lead to unequal distribution of and sometimes the deviations from optimal practices of land usage. Inefficient land use in Kelantan State act as deterrents to economic sustainable growth. The productivity of agriculture has been declining because of the unsustainable and destructive practices therein and subsequent degradation of land. These have in turn resulted in low output and less resilience of the farms.

The conversion of agricultural land to non agriculture has worsened the problem of land lose and encroachment into forest and hence making food security to be threatened, and also, the rural livelihoods begin to have a problem. Inefficient land use management has driven infrastructural development and urbanization processes in Kelantan State to a halt. Insufficiently planned and regulated zoning programs resulted in disorderly urban sprawl, humble provision of public services, and congestion of infrastructure. It espoused the narrowness in the expansion of urban economic growth and job creation. As a result of unsustainable land use practices the existing natural ecosystems have become degraded and biodiversity lost, which brought up the issue of environmental vulnerabilities and made people more vulnerable to various natural catastrophes. Land degradation, deforestation, and habitat loss have significant impacts on the provisioning, regulating, and cultural ecosystem services as well as on water quality and adaptive capacity to climate change.

This paper also covered the issue that, constructing sustainable land use classification and plan is vital for the authorities from Kelantan state to concentrate on producing those identifying policies and frameworks. They should be aimed at integrating the environmental, social and economic, dimensions. This can put public funds where they contribute the most to countries' economic structure, sustainable development and environmental conservation. Institutional strengthening such as enhancing governance mechanisms and providing transparency, accountability, and stakeholder participation in decision-making processes is an important priority when it comes to equitable (if not equal) land distribution and rational land use. Reinforcing regulatory

spirals, efficiency performance and tenure systems of land ownership is a solution to land grasping, land speculation and unlawful conversion of land space. Financing of agricultural research, technology transfer, and infrastructural development is a mandatory prerequisite for an agriculture productivity development, uplifting of the rural livelihood, and gaining in the economic security. Supporting smallholder farmers through extension services, encouraging environmentally friendly farming and making markets and credit sources available for producers foster the development of the agricultural sector and also democratize the growth process.

Encouraging environmentally friendly urban development by adopting flexible plot division policy, infrastructure projects, and municipal administration reforms can be the way to tackle urbanization obstacles and promote economic development. Integration of city outline comprised of a decentralized pattern, mixed land-use development, and nature-based infrastructure can provide multiple benefits of urban liveability, a reduced environmental impact, and urban resilience. With the proposed measures that awaits for implementation, Kelantan leading state, among other concerns, the consequence associated with the efficient land use types can be finally eliminated, and the state's economic growth potential will be unlocked while maintaining certain environmental sustainability and social equity. The combination of governmental agencies, non-governmental organizations and business world all are the keys to the achievement of these set goals, creation of inclusive and sustainable development in the region.

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