# ASSESSING ECONOMIC WELLBEING FOR DEVELOPMENT SUSTAINABILITY: A REVIEW ON A POTENTIAL PATHWAYS FOR SABAH

Siti Hajar Samsu
Nelson Lajuni
Wong Sing Yun
Mohamad I'sa Abd Jalil
Dayangku Aslinah Abd Rahim

Faculty of Business, Economics and Accountancy
Universiti Malaysia Sabah

*Corresponding Author's email*: hajar@ums.edu.my

Date Received: 15 February 2024
Date Reviewed: 20 March 2024
Date Accepted: 10 April 2024
Date Published: 30 September 2024

## INTRODUCTION

Sabah, located on the island of Borneo in Malaysia, has a diverse economy driven by various sectors. Sabah's economy has historically relied heavily on agriculture. The state is renowned for its production of palm oil, cocoa, and other agricultural commodities. Sabah's fertile land and tropical climate make it well-suited for cultivation. Palm oil is a significant export commodity, contributing substantially to the state's economy. Sabah is blessed with rich biodiversity, stunning natural landscapes, and vibrant indigenous cultures, making it a popular tourist destination. The state's attractions include Mount Kinabalu, one of Southeast Asia's highest peaks, pristine diving sites in places like Sipadan Island, and diverse wildlife in conservation areas such as the Kinabatangan River. Tourism plays a crucial role in Sabah's economy, generating revenue, employment opportunities, and foreign exchange earnings.

Oil and gas sector also a significant contributor to Sabah economic growth. Offshore oil fields in the South China Sea contribute to the state's revenue and provide employment opportunities in the energy industry. The oil and gas sector remains an important component of Sabah's economy, although its significance has fluctuated with global oil prices.

Apart from that, sector such as manufacturing, mining, and quarrying and fisheries has contributed to the Sabah economic growth**.** Sabah has a growing manufacturing sector, with industries such as wood processing, palm oil refining, and electronics assembly. The state's strategic location, abundant natural resources, and supportive government policies have attracted investment in manufacturing activities. Sabah has mineral resources such as coal, gold, and limestone. Mining and quarrying activities contribute to the state's economy, although they are relatively smaller in scale compared to other sectors like agriculture and tourism. Meanwhile, Sabah's coastal waters are rich in marine resources, supporting a thriving fishing industry. The state's fisheries sector provides employment for coastal communities and contributes to local food security. However, overfishing, and unsustainable practices pose challenges to the long-term sustainability of Sabah's fisheries resources.

Thus, infrastructure development is crucial for supporting economic growth and improving living standards in Sabah. The state government has been investing in infrastructure projects such as roads, ports, and airports to enhance connectivity and facilitate trade and tourism. Overall, Sabah's economy is characterized by its natural resource abundance, diversified sectors, and potential for further growth. However, the state faces challenges such as environmental sustainability, infrastructure development, and socio-economic disparities that require careful planning and concerted efforts to address.

## PROBLEM STATEMENT

Sabah is known for its agriculture, particularly oil palm, cocoa, and palm oil. These industries contribute significantly to the state's economy and provide employment opportunities for many people. However, issues such as deforestation, land degradation, and unsustainable agricultural practices pose challenges to the long-term sustainability of this sector.

Tourism plays a vital role in the economy of Sabah, generating income and employment opportunities for locals. However, unregulated tourism activities can lead to environmental degradation, habitat destruction, and strain on local resources. Even though**,** Sabah is endowed with abundant natural resources, including timber, minerals, and marine resources. While these resources provide revenue and livelihoods for many communities, their unsustainable exploitation can lead to environmental degradation, loss of biodiversity, and depletion of natural habitats. Conservations efforts are crucial for protecting Sabah's unique biodiversity and ecosystems. However, illegal logging, poaching, and habitat destruction continue to threaten the region's natural heritage.

In the other hand, rapid urbanization and infrastructure development in Sabah are essential for economic growth and improving living standards. However, poorly planned development projects can have adverse environmental impacts, including deforestation, pollution, and loss of habitat. Like many other regions, Sabah is vulnerable to the impacts of climate change, including rising temperatures, changing rainfall patterns, and extreme weather events. These changes can affect agriculture, water resources, and coastal areas, posing significant challenges to the sustainability of Sabah's economy and ecosystems. As we know, Sabah is home to numerous indigenous communities with unique cultures and traditional knowledge systems. However, these communities often face marginalization, land disputes, and loss of customary land rights, threatening their livelihoods and cultural heritage.

Addressing these sustainability challenges requires concerted efforts from government agencies, local communities, businesses, and civil society organizations. Strategies may include implementing sustainable land-use practices, promoting eco-friendly tourism initiatives, strengthening conservation measures, supporting indigenous rights, and adopting climate resilience strategies. Collaboration and stakeholder engagement are essential for achieving a balance between economic development and environmental conservation in Sabah.

## RESEARCH OBJECTIVE

The primary objective of this research is to evaluate the economic well-being of Sabah in the context of sustainable development by conducting a comprehensive review of existing economic policies. This study aims to identify the effectiveness, strengths, and weaknesses of current policies, and to analyse their impact on key economic indicators such as GDP growth,

employment rates, income distribution, economic sectorial contribution, and environmental sustainability.

## LITERATURE REVIEW

*Economic Wellbeing and Sustainability*

Wellbeing is a positive physical, social, and mental state which stems from a host of collective goods and relations with people and places (Bakar et al., 2015). It is a multifaceted idea that goes beyond just considering incomes. According to Wolff and Zacharias (2007), a better indicator of economic well-being than money income would incorporate a measure of sustainable consumption over time. Hence, it is justified that the concept of economic wellbeing considers several key elements that affect people's overall economic wellbeing and quality of life. In other words, wellbeing can be considered as demand for an inclusive environment for human settlement takes on several forms throughout various time periods, environments, and communities. It encompasses interdependent personal, interpersonal, and shared needs. Hence, achieving wellbeing involves manipulating interrelated factors, such as the physical, cultural, and ecological environments, as well as the technological environment. For a realization of positive improvements or interventions in achieving well-being, critical national and international viewpoints and movements are deemed crucial.

To measure the economic wellbeing, a few key components should be considered. The key components include not just the income, but other important components such as employment, wealth, poverty, inequality, access to basic needs, education, health care, social safety nets, economic mobility, and environment sustainability. Higher income generally contributes to better economic well-being, as it provides greater financial resources to meet basic needs and pursue opportunities. Meanwhile, the level of employment and the rate of unemployment within a population are crucial indicators of economic well-being. Low unemployment rates are a sign of a stronger economy with more employment options, which can boost financial stability and well-being. The accumulation of wealth provides a buffer against financial shocks and can lead to higher economic well-being in the long term. However, economic well-being is negatively affected by poverty and income inequality. As such, reducing poverty and narrowing the wealth gap will lead to improved economic well-being for the population.

The access to basic needs such as food, shelter, health care, education and clean water is critical for economic well-being. Similarly, the access to quality education and affordable health care also played crucial role in economic well-being. Both high-quality education and health care will lead to higher productivity as more individuals are better positioned to participate in the labour market. In addition to these components, the provision of robust social safety nets for individuals in need such as unemployment benefits, disability support and social assistance programs that can enhance the overall well-being. Economic well-being heavily depends on people's capacity to raise their financial situation throughout time. As such, the access to financial services will in certain extent contribute to the economic well-being. In other words, individuals have more opportunity to realise their full potential in societies with higher economic mobility. In order to ensure long-term economic prosperity, it is equally crucial to ensure the sustainable use of natural resources and solve critical environmental issues. Economic activity and the well-being of future generations are supported by a healthy environment. These components are linked and have the potential to affect one another. As

such, these components must be considered by both individuals and policymakers when evaluating and encouraging economic well-being.

*The concept of sustainability and its relevance to economic wellbeing*

According to Kuhlman and Farrington (2010), sustainability is a policy concept originated from the Brundtland Report in 1987. The concept was initially concerned with the conflict between the aspirations of humankind towards a better life and the limitations imposed by nature on them. Over time, the concept has been re-interpreted to encompass three dimensions, namely social, economic and environmental. It encompasses the idea of meeting present needs without compromising the ability of future generations to meet their own needs. In order to achieve wellbeing sustainably, one must pursue sustainability. The goal of sustainable wellbeing is to ensure maintenance and growth of wellbeing on a sustainable basis in places where it is currently being done in an unsustainably manner.

Bakar et al. (2015) explored the relation between well-being and sustainability by establishing a theoretical concept that explained sustainable wellbeing. Figure 1 showed the theoretical concept that illustrated the theoretical concept of sustainable wellbeing. “People” and the “Environment” are the two key elements that make up sustainable wellness. "People" refers to a person's or a community's relationship with the others. Under sustainable wellbeing, no one's or any community's well-being should come at the expense of the others. Meanwhile, "Environment" point to the awareness, involvement, and lifestyle. The three elements take into consideration knowledge, sensibility, and routine activities that attentively recognise environmental usage limitations. In addition, sustainable wellbeing provided greater opportunities for greater integration and inclusion of social and economic welfare (as indicated in Figure 1).

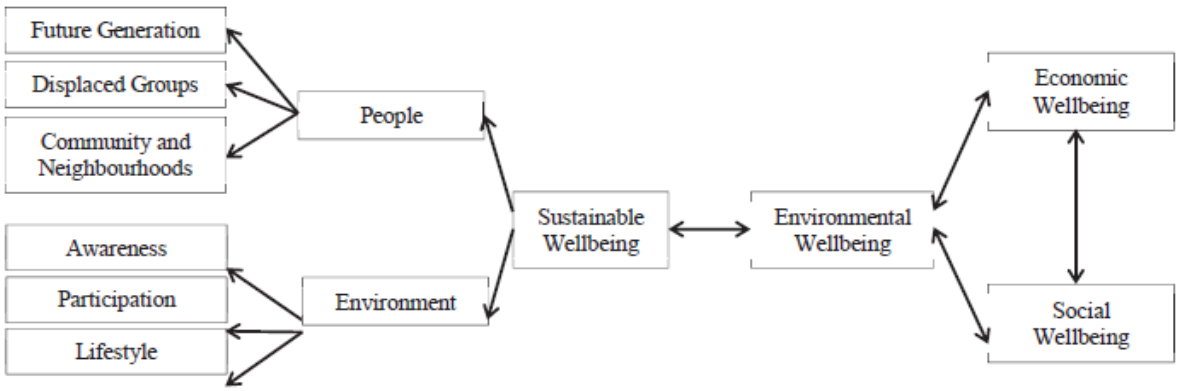



**Figure 1.** Theoretical Conceptual of Sustainable Wellbeing
Source: Bakar et al. (2015)

Economic well-being depends on sustainability because it encourages the peaceful coexistence of social fairness, environmental health, and economic prosperity. A sustainable economy guarantees that resources are used wisely, that present and future generations are not harmed, and that economic activity promotes long-term prosperity without jeopardising planetary wellbeing or societal stability. The concept of sustainability is, therefore, profound and highly relevant to economic wellbeing. For instance, sustainability practices ensure long-term prosperity, resources availability and increases resilience to shocks. In addition, pursuing

sustainability drives innovation, efficiency and considers social equity. The economy, society and the environment are deeply interrelated. The neglect of one of the aspects will affect the others. For example, neglecting the environment can result in supply chain interruptions, higher health care expenses, and social unrest, all of which have a detrimental effect on the economy.

*Linkages between economic development, environmental conservation, and social equity*

The pursuit of a sustainable future has been well defined in scholarly literature as three overlapping dimensions, frequently referred to as the "Three E's" - Protection of the “Environment”, “Economic expansion”, and “Equity” or social progress (Campbell 1996; Jepson Jr. 2004; Saha and Paterson 2008). These three widely agreed common pillars of interrelationship between environment, social and economic aspects of sustainability were well represented by the Venn diagram that made up of three concentric circles and the planning hexagon. Adapted from McKenzie (2004), the Venn diagram (Figure 2) illustrated the overlapping circles models that reflected the interrelationship between economic, environmental, and social aspects. In another concentric circles model as illustrated by Figure 3; the three pillars were characterized by three main spheres.

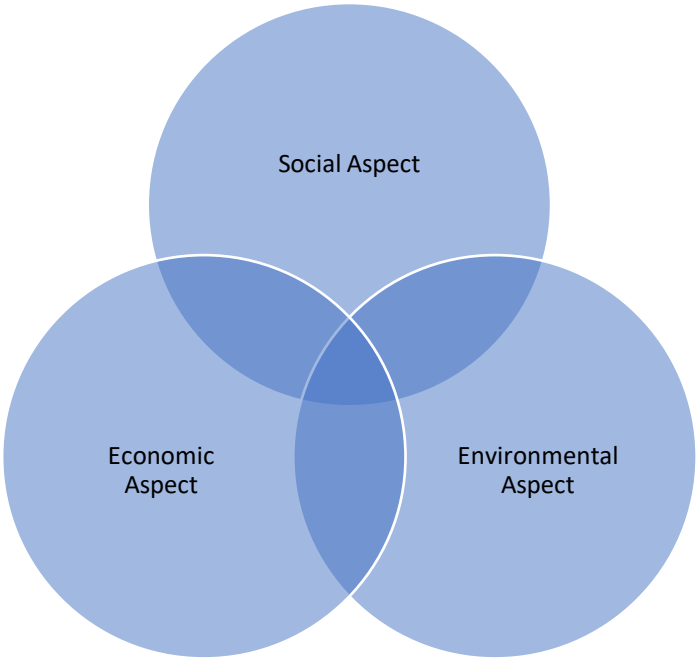



**Figure 2.** Venn Diagram Adapted from McKenzie (2004)

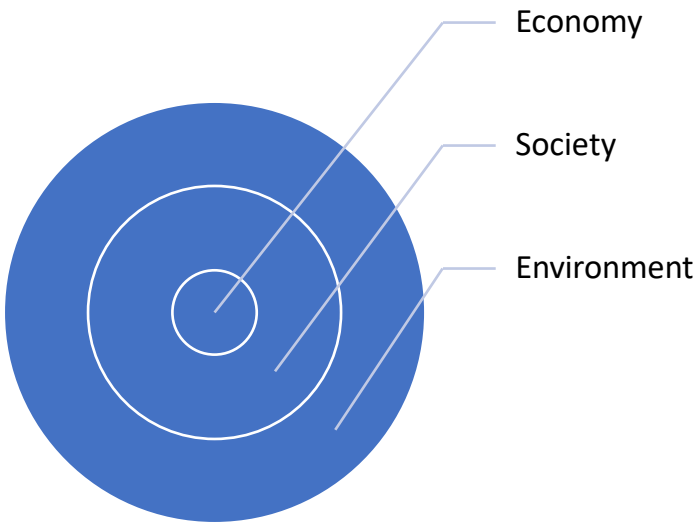



**Figure 3.** Concentric Circles Model Adapted from McKenzie (2004)

Meanwhile, Svara et al. (2015) highlighted the Dubuque's Venn diagram elements of sustainability in emphasizing the linkages between economic development, environmental conservation, and social equity. In Dubuque's Venn diagram, the element in the framework also consists of the three main pillars of economic prosperity, social/cultural vibrancy and environmental/ecological integrity. The integration between economic prosperity and social/cultural vibrancy forms the equitable element. Meanwhile, the overlapping of economic prosperity and environmental/ecological integrity drives the viability element. Integration of both the elements of environmental/ecological integrity and social/cultural vibrancy formed the liveable aspect. Hence, the overlapping of all three main pillars contribute to the sustainability development.

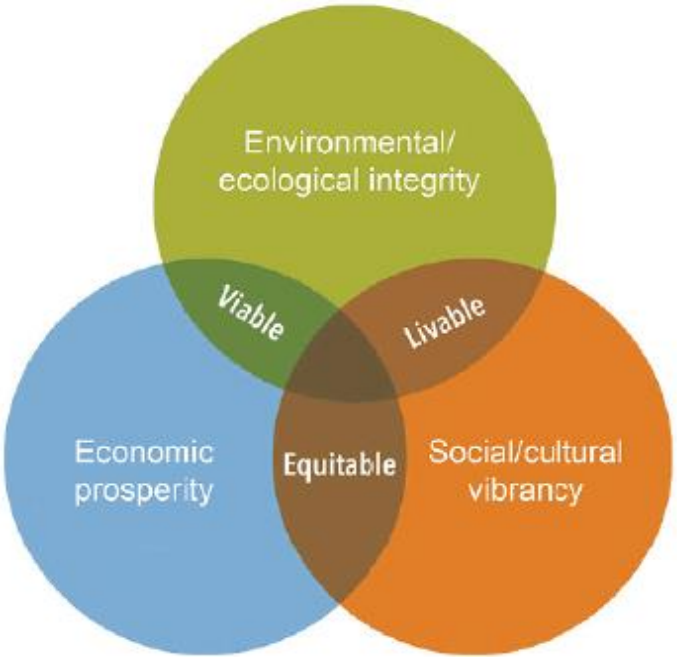



**Figure 4.** Dubuque's Venn Diagram
Source: Svara et al. (2015)

## METHODOLOGY

To review the economic well-being and sustainability of Sabah, the study focused on key economic indicators such as GDP growth rate, the economic sectorial contribution, unemployment rate, poverty rate, public policy evaluation, foreign direct investment (FDI), public debt to GDP ratio, environmental sustainability measures, and the Human Development Index (HDI). Data for these indicators were sourced from authoritative entities like the Department of Statistics Malaysia (DOSM), World Bank, IMF, UNDP, Bank Negara Malaysia (BNM), and the Ministry of Energy and Natural Resources Malaysia.

The analysis involved descriptive statistics to summarize data, comparative analysis against national averages and trend analysis over time to explore interdependencies among indicators. Our interpretation focused on economic growth and stability, inequality, investment and development, environmental sustainability, and overall well-being. Despite potential limitations such as data availability and regional variability, this methodology offers a comprehensive framework to inform stakeholders and guide economic planning and policy-making in Sabah.

## FINDINGS

### Current Economic Situation in Sabah

*A. Overview of Sabah's key economic sectors.*

Sabah's economy has primarily been driven by industries associated to commodities, particularly agriculture, mining, oil and gas, and tourism, rendering the state and its citizens vulnerable and reliant on international markets (Wangkiat, 2022). The economic indicator demonstrates that the state's economic operations have improved because of some sectoral diversification. Furthermore, Sabah is one of Malaysia's top producers of petroleum, rubber, cocoa, and palm oil because to the state's abundant natural resources (Sufian et al, 2022b). The service sector has become increasingly important as the largest contributor to the state GDP in the recent year. As Sabah's economy continues to be centred on natural resources and service-related industries, the amount that these sectors can stimulate economic growth is constrained (Sufian et al, 2022b). For instance, Sabah's unemployment rate remains high even though the state's GDP has increased greatly because of resource-based activity. This is because primary extractive activities do not promote economic diversification.

Table 1 showed the Sabah economy performance by sectors. The service sector has remained to be the largest contributor of the Sabah’s economy for both the years of 2021 and 2022. In 2021, service sector has contributed 47.3%of the overall state real GDP and the performance of this sector further improve in the following year of 2022 with a recorded increase of 8.6%. Meanwhile, mining and quarrying was the second essential sector contributing to Sabah’s economy with 26% contribution to Sabah’s GDP in 2021. However, the contribution from this sector has lowered slightly in 2022 with a decrease of 1.3% of the Sabah’s GDP. The third largest contributor to the state economy was the agriculture sector with 15.8% contribution in 2021. A slight drop of the contribution from this sector was found the following year of 2022 with 0.2% decrease of the overall contribution to Sabah’s GDP.

| GDP by Sectors | Year 2021 | Year 2022 |
|---|---|---|

| Real GDP (Constant Price at 2015) | Value (RM million) | Percentage (%) | Percentage Yearly Change (%) | Value (RM million) | Percentage (%) | Percentage Yearly Change (%) |
|---|---|---|---|---|---|---|
| Agriculture | 12,520 | 15.8 | - 2.2 | 12,492 | 15.2 | -0.2 |
| Mining and Quarry | 20,574 | 26.0 | 3.2 | 20,307 | 24.8 | - 1.3 |
| Manufacturing | 5,931 | 7.5 | -1.8 | 5,780 | 7.1 | -2.5 |
| Construction | 2,370 | 3.0 | 7.9 | 2,517 | 3.1 | 6.2 |
| Services | 37,364 | 47.3 | 2.1 | 40,565 | 49.5 | 8.6 |

**Table 1.** Sabah Economy Contributions by Sectors
Source: Malaysia Statistical Department (2023)

Since the New Economic Policy (NEP) was put into effect in 1970, Malaysia has seen significant changes in its economy on a national scale. The NEP placed an emphasis on social integration, equal income distribution, and chances for national advancement. Despite the balanced development policy outlined in the 6th Malaysia Plan under the National Development Plan (1991-2000), the benefits of economic progress have not been equally dispersed throughout the nation. Sabah economy remained with not much changes after NEP ended in 1990 and still largely relies on the exports of the primary sector (Mahadi, 2015). The extent of Sabah's economic underdevelopment has been underlined by many scholars (Hoyle, 1980; Idris and Mansur, 2020; Wong et al., 2023). Some had viewed Sabah's economic performance is 'underperforming' due to insufficient allocation from the federal government, lack of autonomy in decision-making and infrastructure, non-conducive policies, among other things (Idris and Mansur, 2020).

In the past, policies such as Sabah Action Blueprint 1987, Sabah Development Corridor Blueprint 2006 – 2025 and recently Sabah Maju Jaya 2020 has been introduced to transform the Sabah's economy. The Sabah Action Blueprint aimed at transforming the state economy into a more diversified one and to expand value-added economy activities. The emphasis has been placed on linking agro-based sectors with manufacturing and value-added activities. However, Loh (2010) pointed out that there has been no significant transformation taken place in the industries due to limited fiscal capacity. The Sabah Development Corridor Blueprint 2006 – 2025 is then introduced under the purview of the Sabah Economic Development Investment and Authority (SEDIA) to boost industrial activities value chain in the downstream industries. Some significant outcome from the policy has been observed by researchers such as Mulok et al. (2015) who reported that the implementation of SDC projects has increase household income and lower poverty rate. Recently, another grand policy has been rolled out known as the Sabah Maju Jaya (SMJ) which focused on new industries creation and expansion of downstream industries. The plan emphasizes on digitalization and technological advancement of industries.

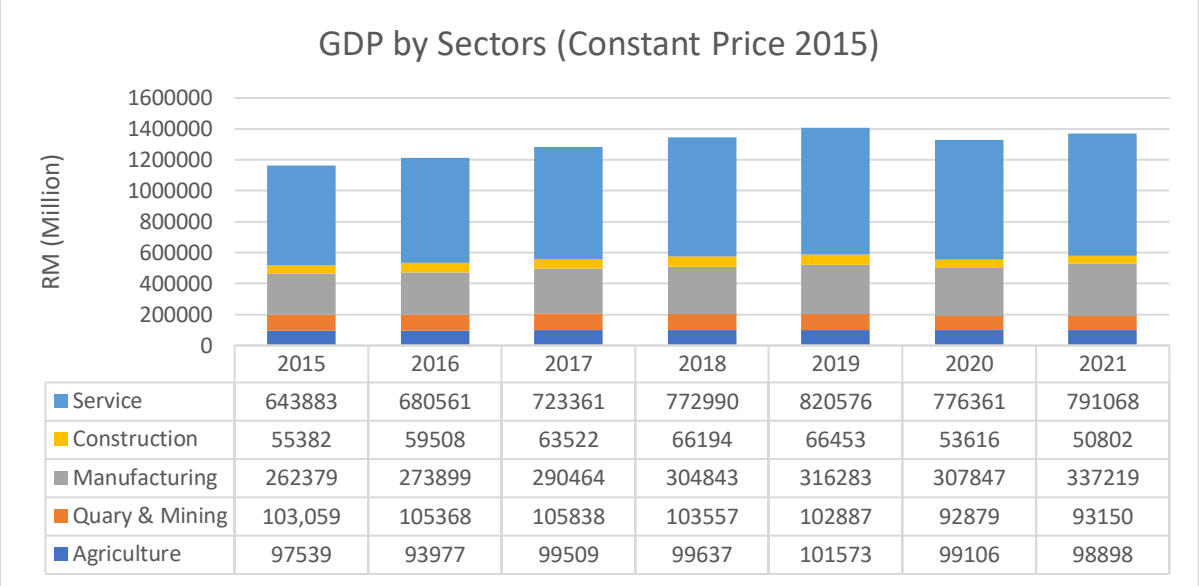
*B. Analysis of the strengths and weaknesses of the current economic model*

Sabah are primarily dominated by resource-based activity, but the nature of such economic activities cannot pull the rest of the economy compared to industrial development (Suffian et al., 2021). The current economic model allowed the state to improve its economic activities through diversification of various sectors. The abundance of resources in Sabah has made this state as one of the biggest producers of petroleum, rubber and cocoa in Malaysia and palm oil

in the world (Suffian et al., 2022b). However, the industrial sector appeared to contribute little to the Sabah's GDP with limited diversification in the manufacturing sector as there has been yet new industrial sectors being introduced (Suffian et al, 2023). In accordance with the 9th Malaysia Plan, the Sabah Development Corridor (SDC) was established in 2008, reflecting the government's significant efforts to advance the industrial sector. The manufacturing operations based on natural resources that make use of the state's abundant natural resources are at the centre of the industrial growth (Mahadi, 2015).

In general, economic development is a process that is connected to industrial development, the accumulation of capacities across the economy, and structural change (Andreoni and Chang, 2017). In the case of Sabah, although the state is rich in resources, the implementation of its industrial policy seems to have been impeded by certain factors causing the state to fall behind in many economic development aspects. Despite the introduction of the various industrial plans, the transition into industrial-based activities remains futile with insignificant industrial deepening (Suffian et al., 2023). Figure 5 illustrated the contribution by sectors to Sabah's GDP. As Sabah moved towards becoming an industrial state under the SDC implementation, more human capital was needed to support the economy transition. Mahadi (2015) highlighted the heavy influx of migrant workers to the state in meeting the labour demand in the specific sectors of its economy. The large inflow of migrant workers will lead to both positive and negative impacts to the state that would require rigorous policy planning and a good governance.

Over the years, it was clear that the service sector had remained to be the highest contributor to the economy. Despite the positive progress found after the implementation of SDC Blueprint, Sabah has remained recorded with the highest incidence of absolute poverty across different states over the decades (Wong et al., 2023). The increase poverty rates could be explained by the inequality and imbalanced development. Meanwhile, Idris and Mansur (2020) pointed out that weak institutions and administration played significant role in affecting the economic performance of the state's economy. Improper infrastructure availability to support the economic activities will no doubt disrupt the production activities. However, the implementation of various projects under SDC has allowed the state to move forward from an impoverished state. The efforts by Sabah Economic Development and Investment Authority (SEDIA) in drawing substantial investment in the sectors promoted under SDC has attracted investors globally and from other parts of Malaysia through a creation of favourable investment climate (Mulok et al., 2015).




| | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 |
|---|---|---|---|---|---|---|---|
| Service | 643883 | 680561 | 723361 | 772990 | 820576 | 776361 | 791068 |
| Construction | 55382 | 59508 | 63522 | 66194 | 66453 | 53616 | 50802 |
| Manufacturing | 262379 | 273899 | 290464 | 304843 | 316283 | 307847 | 337219 |
| Quary & Mining | 103,059 | 105368 | 105838 | 103557 | 102887 | 92879 | 93150 |
| Agriculture | 97539 | 93977 | 99509 | 99637 | 101573 | 99106 | 98898 |

**Figure 5.** GDP Contributions by Sectors
Source: Malaysia Statistical Department (2023)

## C. Identification of sustainability challenges and potential risks

According to Suffian et al. (2022b), Sabah has been considerably left behind in socio-economic development. The main challenges lie at the limited initiative to develop strategic economic sector based on value-added activities that could boost economic growth. Suffian et al. (2023) also highlighted the unsuccessful transition of the Sabah's economy into industrial-based activities. It was inferred that the limited structural change was due to the incoherent industrial policy planning and implementation. Although policymakers create plans for industrialising the state, the way that interests are interpreted often diverts from the goal of industrial policy. Due to political patronage, the distribution of resources for industrial development frequently takes political consideration. Because of the unequal power dynamics ingrained in the institutions, policymakers are limited in their ability to implement industrial policy. In addition, Sabah's tight political control over the state bureaucracy has reduced its autonomy and increased the likelihood that most decisions will serve the interests of the political masters. The state's objective for economic growth has been warped in some way by the unequal power dynamics between the federal and state governments.

In addition to these challenges, another potential risk includes the inadequate local human capital to support the transition of the state's economy. The development of human capital has become a focus of education planning for the state to become economically success. Long-term poverty reduction will result from increased levels of education since impoverished households' ability to move up the social ladder is facilitated by higher income. Compared to individuals with primary and lower education levels, Sabah's population with higher education levels is incredibly small (Mahadi, 2015). Poor infrastructure and the challenging geographical distribution are among the factors contributed to the state of having the highest unemployment rate (Lee, 2023). In the past, Sabah's poor infrastructure has often been brought into light revealing the terrible state of the infrastructure to support the state's economy and the livelihood of the population. For instance, a group of students in Keningau was forced to risk their lives crossing a river using a water pipeline to go to their school (Figure 6). In another case, pupils in Nabawan used bamboo rafts and ziplines to get to school (Anjumin, 2022).

Meanwhile, students in Sandakan were found using dilapidated suspension bridge to go to class (Figure 7).

Meanwhile, Idris and Mansur (2020) pointed out that weak institutions and administration as other challenges that affect the economic performance of the state. The relatively inefficient services and shocks such as economic crisis, pandemic crisis or any abrupt changes can be another hindrance to any state's economic performance. On another note, Wong et al. (2023) also shed light on the sustainability challenges by mapping the key issues into the relevant sustainable development goals (SDGs). Figure 8 showed the mapping of the issues to the respective SDGs done by Wong et al. (2023). As shown in Figure 8, the poor infrastructure such as water and electric supply, weak network connectivity, deplorable state of the roads, inadequate drainage system was highlighted, and these issues are remained to be the main sustainability constraint to the state's economy performance.

Figure 6. Students crossing water pipe to get to school
Source: Anjumin (2022)

**Figure 7.** Students crossing dilapidated bridge in Sandakan

Source: https://www.thevibes.com/articles/news/84702/poor-coordination-between-authorities-village-chiefs-behind-sabahs-infrastructure-issues

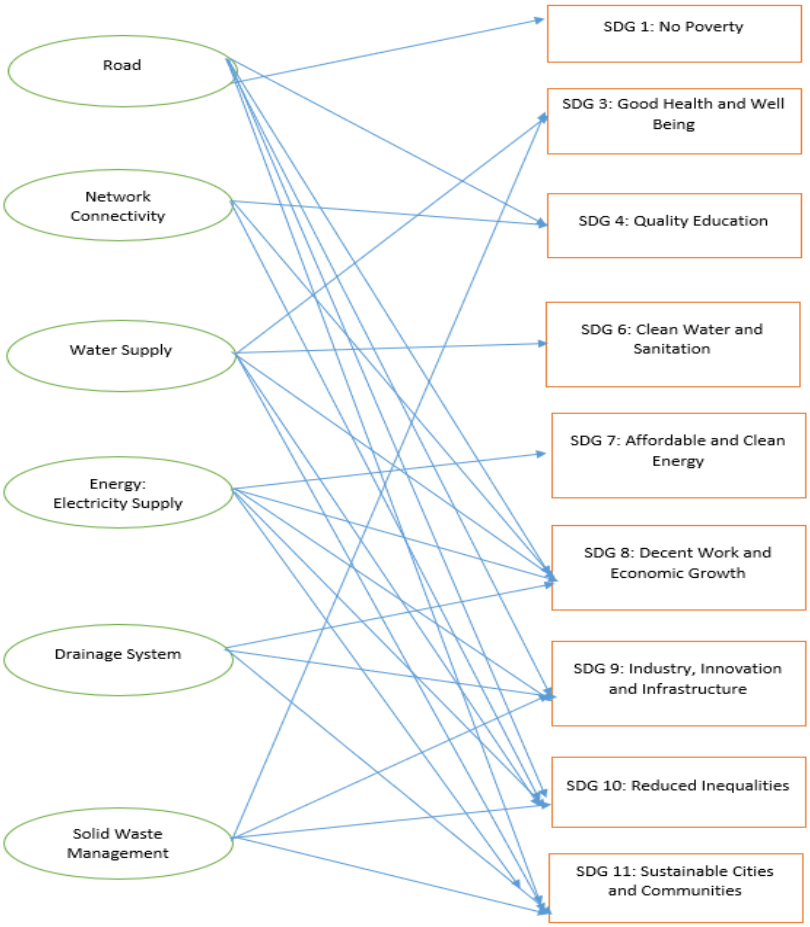



**Figure 8.** Issues Mapping to SDGs
Source: Wong et al. (2023)

## CONCLUSION

Achieving sustainable economic well-being in Sabah requires a holistic approach that balances economic growth with environmental conservation, social development, and cultural preservation. The pathways for sustainable economic well-being in Sabah should be focusing on diversification of the Sabah Economy**.** Sabah should diversify its economy to reduce dependence on any single sector, thereby increasing resilience to external shocks and promoting balanced growth. This could involve expanding industries such as ecotourism, renewable energy, sustainable agriculture (e.g., organic farming), and high-value manufacturing.

Promoting sustainable agricultural practices, including agroforestry, organic farming, and agro ecology, can enhance productivity while minimizing negative environmental impacts such as deforestation, soil degradation, and water pollution. Supporting smallholder farmers with training, technology, and market access can improve livelihoods and food security. Safeguarding Sabah's rich biodiversity and ecosystems is essential for long-term economic

prosperity, as it underpins industries such as tourism, fisheries, and forestry. Strengthening protected areas, implementing sustainable land-use planning, and combating illegal logging and wildlife trafficking are critical measures for conservation.

A responsible tourism development is essential by promoting sustainable tourism practices that prioritize environmental conservation, community engagement, and cultural preservation can maximize the benefits of tourism while minimizing negative impacts. This includes investing in eco-friendly infrastructure, supporting community-based tourism initiatives, and promoting responsible visitor behaviour. Developing green infrastructure, such as renewable energy facilities, sustainable transportation systems, and eco-friendly buildings, can reduce carbon emissions, enhance energy efficiency, and improve resilience to climate change. Public-private partnerships and incentives for green investments can accelerate the transition to a low-carbon economy.

Investing in human capital through education, training, and skill development is crucial for building a sustainable economy in Sabah. Providing access to quality education, vocational training, and lifelong learning opportunities can enhance productivity, innovation, and social mobility, ultimately contributing to economic well-being and poverty reduction. In the aspect of policy framework and governance**,** It can be implemented by establishing effective policies, regulations, and governance mechanisms that integrate economic, environmental, and social considerations is essential for guiding sustainable development in Sabah. This includes promoting transparency, accountability, and stakeholder participation in decision-making processes, as well as fostering collaboration among government agencies, businesses, civil society organizations, and local communities.

By pursuing these pathways for sustainable economic well-being, Sabah can achieve inclusive and resilient development that preserves its natural heritage, enhances livelihoods, and improves the quality of life for present and future generations. Implementing a holistic and integrated approach is crucial for achieving sustainable economic development in Sabah.

Sabah's economy is interconnected with its environment, society, and culture. A holistic approach recognizes the complex interdependencies among these factors and acknowledges that actions in one area can have ripple effects across others. By considering the broader context, decision-makers can better understand the implications of their choices and avoid unintended consequences. Short-term economic gains often come at the expense of long-term sustainability. A holistic approach emphasizes the importance of considering the needs of future generations and preserving Sabah's natural and cultural heritage for posterity. Besides that, Sustainable development requires the participation and collaboration of diverse stakeholders, including government agencies, businesses, civil society organizations, indigenous communities, and residents. A holistic approach fosters inclusive decision-making processes that respect different perspectives, values, and knowledge systems. By engaging stakeholders throughout the planning and implementation phases, Sabah can harness collective wisdom and build consensus around shared goals.

Implementing a holistic and integrated approach is essential for achieving sustainable economic development in Sabah. By considering the interconnections between economic, environmental, and social dimensions, Sabah can build a resilient and inclusive economy that ensures prosperity for present and future generations while safeguarding the state's natural and cultural heritage. A call for continued research, monitoring, and adaptation of strategies is essential for ensuring the success and sustainability of development efforts in Sabah. By

investing in knowledge generation, evidence-based decision-making, stakeholder engagement, and capacity building, Sabah can build a resilient, inclusive, and prosperous future for its people and the environment.

## RECOMMENDATION

### Pathways for Sustainable Economic Wellbeing in Sabah

*Diversification of Economic Sectors*

Traditional sectors typically refer to industries like agriculture, manufacturing, and extractive industries (such as mining and oil). Exploring non-traditional sectors involves identifying and developing industries that may not have been previously prominent in the economy. This could include emerging industries such as biotechnology, creative industries (e.g., film, music, design), renewable energy, information technology, and advanced manufacturing.

With growing concerns about climate change and environmental sustainability, there's a significant opportunity in renewable energy sources such as solar, wind, hydro, and geothermal power. Governments may provide incentives for businesses to invest in renewable energy projects, fostering both economic growth and environmental. Many regions have unique natural assets such as national parks, wildlife reserves, and pristine landscapes that can attract eco-tourists. Developing eco-friendly tourism infrastructure and promoting sustainable practices can generate revenue while preserving the environment and supporting local communities. The technology sector encompasses a wide range of opportunities, including software development, data analytics, artificial intelligence, biotechnology, and clean technology. Investing in technology infrastructure, supporting startups, and fostering innovation ecosystems can stimulate economic growth and create high-value jobs.

*Conservation and Sustainable Use of Natural Resources*

Sabah, Malaysia, is rich in biodiversity and diverse habitats, offering significant potential for sustainable economic growth through the management of protected areas and conservation efforts. The region has 3.57 million hectares of forest reserves, categorized into seven functional types, including Protection, Commercial, Amenity, Mangrove, Virgin, Wildlife Forest Reserves, and others like Sabah Parks and Wildlife Sanctuaries. These reserves balance ecological preservation and economic benefits through sustainable practices. Key strategies for achieving sustainable economic prosperity in Sabah involves ecotourism. Utilizing Sabah's unique biodiversity to attract global tourists through guided wildlife tours, birdwatching, and jungle treks, which generate revenue and job opportunities while promoting conservation. Followed by the focus in scientific research and education. Establishing research centres and fostering collaborations with universities to drive innovation and capacity-building, attracting international funding and expertise. In addition efforts for sustainable resource Management is also essential. Implementing responsible logging and sustainable fishing practices to ensure a consistent yield of resources while maintaining ecosystem health. This also helps in community engagement empowering local communities through ecotourism, handicraft production, and agroforestry projects, enhancing economic prospects and fostering environmental stewardship.

Sabah can also generate funds through carbon sequestration. Engaging in international carbon credit markets and REDD+ initiatives to generate income while reducing global emissions. This would be the key to solve issues related to fiscal capacity. Attracting funds from international organizations and private sectors for conservation and sustainable development projects. The inflow of foreign direct investment can build the human capacity in Sabah. Training local professionals in conservation and sustainable practices to drive both ecological preservation and economic growth can be enhanced. Collaboration among government entities, local communities, NGOs, and international stakeholders is crucial for balancing economic advancement with environmental conservation, ensuring a sustainable future for Sabah.

*Green Infrastructure and Renewable Energy*

Green infrastructure and renewable energy are essential strategies for promoting sustainable economic prosperity in Sabah. The integration of natural and constructed systems, known as green infrastructure, offers a comprehensive approach that addresses environmental concerns while simultaneously promoting economic development. Sabah has the potential to generate employment opportunities in the construction, maintenance, and landscaping sectors, as well as improve the overall quality of life and appeal to tourists, through the allocation of resources towards green infrastructure initiatives. These initiatives encompass the development of urban parks, green roofs, and permeable pavements. The incorporation of green spaces into urban planning has been found to have several positive effects, including promoting the well-being of the population, supporting local businesses, increasing property prices, and attracting tourists.

Concurrently, the prioritization of renewable energy sources such as solar, wind, and hydroelectric power offers a potential means to transform the energy landscape of Sabah. Solar power systems have the capacity to utilize the ample sunshine available, so diminishing dependence on fossil fuels and establishing a novel avenue for employment generation in the realms of production, installation, and maintenance. The utilization of wind and hydropower resources serves to enhance the variety of energy sources available and guarantees the reliability of energy supply, so reinforcing economic resilience. In addition, the increase in renewable energy capacities serves as a catalyst for attracting investments and is in line with global efforts to mitigate climate change, so bolstering Sabah's standing on the international stage.

According to Assistant Minister to the Chief Minister, Datuk Nizam Abu Bakar Titingan, the solar power electricity generation capacity in Kota Kinabalu has reached 84 megawatts (MW). Furthermore, ongoing renewable energy initiatives are being undertaken to further enhance this capacity. One of the initiatives includes the establishment of a 50MW solar farm in Kudat, which has been in operation since 2018. Additionally, there are plans for larger-scale solar projects that are expected to generate up to 62MW and are scheduled to be active in the upcoming year. The projects are located in Beaufort, Kunak, Sandakan, Tawau, and Labuan, with respective capacities of 6MW, 5MW, 20MW, 16MW, and 15MW. Together, they contribute roughly 146MW, which accounts for approximately 11% of Sabah's overall grid generation capacity. According to the Malaysian Renewable Energy Roadmap (MyRER) formulated by the Sustainable Energy Development Authority (SEDA) in 2021, an evaluation of Sabah's solar power capacity indicates a potential generation capacity of around 99,400MW. In order to maintain grid stability, it is advisable to limit solar power generation to a maximum capacity of 220MW or 22%. This recommendation is based on the fluctuating characteristics of solar energy, which is contingent upon solar radiation levels. In order to surpass this limit,

the implementation of advanced battery storage technologies would be necessary to effectively regulate intermittent energy flows.

The deliberations held during the state assembly session brought attention to the issues surrounding complete evaluations for the establishment of solar farms, underscoring the importance of creating favourable circumstances for these initiatives. In addition, the need of training local staff for the purpose of maintenance and operation was emphasized, since historical occurrences have demonstrated that insufficient maintenance practices have resulted in system malfunctions. Furthermore, the session placed considerable emphasis on the difficulties pertaining to water supply and the frequent power interruptions caused by load shedding. The assembly members emphasized the significance of guaranteeing continuous electricity provision to residential areas and socioeconomically disadvantaged groups, underscoring the potential economic strain caused by frequent power disruptions on individuals who may face difficulties in promptly replacing their damaged electrical devices.

Green infrastructure and renewable energy present a paradigm shift in Sabah's pursuit of sustainable economic prosperity. By means of their interaction, Sabah has the potential to attain economic expansion while concurrently mitigating its ecological impact, so establishing a harmonic amalgamation of affluence and environmental conservation.

*Sustainable Tourism*

Community-based tourism and the preservation of cultural heritage are effective strategies for fostering sustainable economic prosperity in the region of Sabah. Community-based tourism not only creates economic benefits, but also facilitates cross-cultural exchange and empowerment among local communities by using the diverse array of local cultures and traditions. Through the provision of genuine encounters, encompassing customary craftsmanship, gastronomic pleasures, and native rites, Sabah has the potential to establish a mutually beneficial association between the safeguarding of cultural heritage and the attainment of economic prosperity. In addition, the financial proceeds derived from community-based tourism have the potential to be allocated towards community development endeavours, educational programs, and infrastructural enhancements, thereby fostering a sense of collective well-being.

Simultaneously, the conservation of cultural assets serves to strengthen the unique identity of Sabah, while also appealing to individuals with a keen interest in culture and tourists alike. Through the preservation and protection of historical treasures, architectural wonders, and intangible cultural heritage, Sabah can provide immersive experiences that transcend temporal boundaries, igniting a sense of fascination and inquisitiveness. The integration of cultural heritage promotion with sustainable tourism can facilitate responsible participation that fosters local economies and safeguards the durability of cultural assets. Furthermore, through the deliberate cultivation of intergenerational transmission of cultural knowledge and skills, Sabah has the potential to establish a sustainable heritage that enriches not only its economic milieu but also its cultural dynamism.

The exponential expansion of the tourism sector in Malaysia has established it as a substantial driver of the nation's economic growth. The Tenth Malaysia Plan (2011-2015) acknowledged the significance of tourism as a pivotal economic sector, with the objective of establishing Malaysia as one of the leading countries in terms of global tourism receipts, ranking within the top 10. This study explores the contextual aspects of Sabah, a Malaysian

state that is widely recognized for its compelling features. Located on the northern edge of Borneo, the region of Sabah spans an area of around 7.3 million hectares, encompassing verdant rainforests, notable monuments such as Mount Kinabalu, and a diverse array of endangered animals, including the Sumatran Rhinoceros and Orang-Utan.

Furthermore, the presence of multiculturalism in Sabah is a noteworthy attraction, as it facilitates the peaceful coexistence of many ethnic groups, thereby cultivating a dynamic mosaic of cultural heritage. Despite the rapid growth of the tourism sector, Sabah has made concerted efforts to meticulously conserve its distinct flora, fauna, and unspoiled coastlines. The increasing trend in tourist visits highlights the possibility for more growth, as seen by a 17.6% rise in tourist numbers between 2012 and 2013, and a noteworthy count of 293,641 visitors in the initial quarter of 2014. The aforementioned factors have triggered a scholarly investigation with the objective of predicting the number of tourists visiting a particular destination.

There is interdependent between economic development and the preservation of culture and ecology within the expanding tourism industry of Sabah. Sabah, situated as a fundamental component of the Malaysian tourism sector, presents a wide range of attractions encompassing its unspoiled rainforests and culturally varied enclaves. The Tenth Malaysia Plan acknowledged the significant strategic value of tourism and set forth ambitious objectives for the industry, with a specific focus on Sabah as a prominent area of attraction. Sabah's distinctive geographical location, situated below the typhoon-prone area of the Philippines, has bestowed upon it the epithet "Land below the wind." This region's appeal is further heightened by its iconic natural monuments, such as Mount Kinabalu, and the presence of uncommon animal species. The state's multicultural composition, which is marked by the harmonious cohabitation of several ethnic groups, represents a significant and treasured element of the local cultural legacy that deeply connects with visitors. However, the effective implementation of these paths requires a cooperative effort that involves the participation of local communities, governmental entities, and pertinent stakeholders. It is imperative to implement policies that foster community engagement and cultural preservation, so assuring the equitable distribution of tourism benefits among local populations.

*Support for sustainable livelihoods and social resilience.*

Integrating sustainability into formal education curriculum in Sabah is crucial for nurturing environmentally conscious and socially responsible citizens who can contribute to the region's sustainable development. To achieve this aims people of Sabah should work with education authorities and policymakers to develop policies and guidelines that emphasize the integration of sustainability concepts across all levels of formal education in Sabah. This involves aligning the curriculum with national and international sustainability frameworks and goals.

Provide comprehensive training and professional development opportunities for teachers to equip them with the knowledge and skills needed to teach sustainability effectively. This may involve workshops, seminars, and online courses. Activities like these can promote a cross-curricular approach to sustainability education, incorporating sustainability principles and practices across various subjects, not just limited to environmental science or geography. Integrate sustainability concepts into mathematics, languages, history, arts, and other disciplines to provide a holistic understanding.

Collaborate with local sustainability which focused on NGOs, environmental organizations, and community groups. This partnership can raise awareness about the United Nations' Sustainable Development Goals (SDGs) and encourage students to relate their learning to these global objectives. The SDGs provide a comprehensive framework for addressing social, economic, and environmental issues. Community engagement by involve the local community in sustainability education initiatives. Engage parents, community leaders, and stakeholders in discussions and activities that promote sustainability awareness. By integrating sustainability into formal education curriculum in Sabah, the younger generation can become active agents of positive change, promoting sustainable practices, and contributing to the region's long-term well-being.

## REFERENCES


Andreoni, A., & Chang, H.J. (2017). Bringing production and employment back into development. *Cambridge Journal of Regions, Economy and Society*. *10*, 173–187.

Anjumin, E. (27th July 2022). Sabah's Poor Infrastructure Gets Bad Review Again. *New Straits Times*. Retrieved from https://www.nst.com.my/news/nation/2022/07/817023/sabahs-poor-infrastructure-gets-bad-review-again.

Baharom, S. (5th February 2023). Poor Coordination between Authorities, Village Chiefs behind Sabah's Infrastructure Issues. *The Vibes*. Retrieved from https://www.thevibes.com/articles/news/84702/poor-coordination-between-authorities-village-chiefs-behind-sabahs-infrastructure-issues

Bakar, A. A., Osman, M. M., Bachok, S., Ibrahim, M., & Mohamed, M. Z. (2015). Modelling economic wellbeing and social wellbeing for sustainability: a theoretical concept. Procedia Environmental Sciences, *28*, 286-296.

Campbell, S. (1996). Green cities, growing cities, just cities?: Urban planning and the contradictions of sustainable development. *Journal of the American Planning Association*, *62*(3), 296-312.

Hoyle, B. S. (1980). Economic Development of Sabah, Malaysia. *Geography*, 284-296.

Idris, R. (11th January 2021). The Sabah Economic Model: A General Overview. Retrieved from https://www.ums.edu.my/v5/en/featured/10268-the-sabah-economic-model-a-general-overview

Idris, R., & Mansur, K. (2020). Sabah economic model: An overview. *International Journal of Academic Research in Accounting, Finance and Management Sciences*, *10*(3), 475-484.

Jepson Jr, E. J. (2004). The adoption of sustainable development policies and techniques in US cities: How wide, how deep, and what role for planners?. *Journal of planning education and research*, *23*(3), 229-241.

Kuhlman, T., & Farrington, J. (2010). What is sustainability?. *Sustainability*, *2*(11), 3436-3448.

Loh, K.W. (2010). Restructuring federal–state relations in Malaysia: From centralised to co-operative federalism. *The Commonwealth Journal of International Affairs*, *99*(407).

Lee, S. (30th August 2023). Scattered Population, Poor Infrastructure among Causes of Sabah's High Jobless Rate. *The Star Online*. Retrieved from

https://www.thestar.com.my/news/nation/2023/08/30/scattered-population-poor-infrastructure-among-causes-of-sabah039s-high-jobless-rate

Mahadi, S. A. R. (2015). The transformation in economic and workforce development in Sabah: An analysis. *Journal of Borneo Social Transformation Studies*, *1*(1), 99 – 121.

Malaysia Statistical Department. (2023). Pocket Stats Negeri Sabah ST2 2023. Downloaded from https://www.dosm.gov.my/portal-main/pocket-stats.

McKenzie, S. (2004). Social sustainability: towards some definitions: Hawke Research Institute, University of South Australia Magill.