

Discuss the role of the government in the green transition. Suggest a policy agenda that can help accelerate the evolution to a sustainable, net-zero future. Your answer might include fiscal and monetary policies for green transition as well as macro and regulation policies.”

Introduction

A more sustainable economy can be achieved by shifting from a carbon-based one, a process known as the "green transition." To meet the global decarbonization targets of 2030 and 2050, numerous organizations, nations, and companies are pursuing this transition (Treasure, 2024). It is claimed that we are currently overusing natural resources—both renewable and fossil—which makes the green transition imperative. Ecological and climate challenges have worsened due to excessive consumerism. Therefore, everyone must alter the way they utilize natural resources (Reporters, 2022). Almost every country, including Malaysia, has begun pursuing a more sustainable energy landscape. One of the significant initiatives by the Malaysian government was introducing the National Energy Transition Roadmap (NETR), with the primary goal of transforming the current energy system reliant on traditional fossil fuel-based sources into more sustainable, cleaner alternatives. This strategy aims to increase the share of renewable energy to 31% by 2025, 40% by 2035, and an impressive 70% by 2050. If successful, this policy could promote long-term sustainability, improve energy security, and address climate change-related challenges (Shahril, 2024).

Importance of the Green Transition

An analysis of the effects of the green transition on labor markets worldwide was conducted by the energy company Iberdrola, titled "Green Skills Outlook." According to the report, 79% of business leaders stated that there were more opportunities than obstacles for their organizations due to the green shift, providing executives with tremendous confidence (Adriatico, 2024). A growing number of nations are creating thousands of employment opportunities in the renewable energy sector. It is predicted that by 2030, there could be up to 38 million jobs created in renewable energy industries globally (Ellerbeck, 2023).

There is an alarming rate of environmental degradation resulting in significant loss of nature, with approximately 83% of wild mammals and 50% of plant species eliminated due to irresponsible human activities. It is estimated that one million species may face extinction in the coming decades ("Nature Risk Rising: Why the Crisis Engulfing Nature Matters for Business and the Economy," 2023). Therefore, for the sake of our shared future, it is crucial that we confront climate change immediately and accelerate the green transition (Frederick Tsao Chavalit, 2024). We can reduce our ecological footprint and cut down on carbon emissions by transitioning from fossil fuels to renewable energy sources, thereby improving the planet's health for future generations (Celsia, 2023).

Green Transition in Malaysia

Fossil fuels remain the primary energy sources in Malaysia's energy sector, but renewable energy sources such as solar and hydropower are gaining traction. Over the past five years, these sources have contributed approximately 5.0% and 6.0% respectively to the nation's energy consumption ("Increased Adoption of Alternative Energy Sources for Electricity Generation," 2024). To achieve sustainable economic growth while transitioning away from fossil fuels, the Malaysian government

is urging the private sector to view decarbonization as a crucial long-term corporate strategy (Take, 2023).

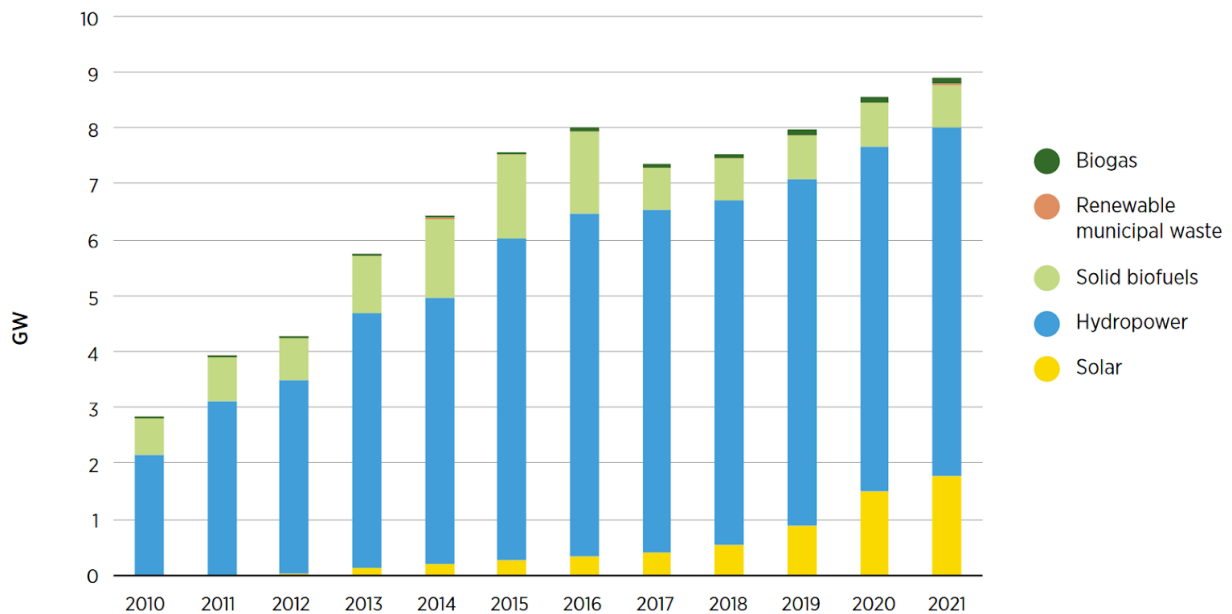


Figure 1: Breakdown of Renewable Energy

(Source: Tachev, 2023)

Another issue associated with climate change in Malaysia is food waste. A report estimates that we waste 16,720 tonnes of food per day, which accounts for 44 percent of all waste. This food waste ends up in landfills, where it slowly breaks down and releases harmful substances into the soil, as well as methane into the atmosphere. Methane is a greenhouse gas that is 25 times more potent than carbon dioxide (BERNAMA, 2024). It is harmful to the environment when released into the atmosphere before being burned, contributing to climate change by trapping heat and causing environmental damage (SoCalGas, 2015). From the highest to the lowest use of materials, the Zero Waste Hierarchy outlines a continuum of policies and actions to support the Zero Waste system. It is intended to be useful for all audiences, including individuals, businesses, and policymakers (Spornicht, 2022). Regrettably, our government has rejected this framework. The Malaysian government seems to focus mainly on treating the symptoms rather than addressing the underlying cause of the problem, as evidenced by their unproven temporary and short-term solutions that fail to tackle the root cause of the single-use or throw-away mentality (Shuen, 2024).

Current Existing Policies for Green Transition in Malaysia

The Green Technology Financing Scheme (GTFS) was launched in 2010 by the Malaysian government as a unique financing program (Bernama, 2019). The Ministry of Finance (MOF) approved the reinstatement of GTFS 4.0 on July 17, 2023, allocating RM1.0 billion until December 31, 2025, or until fully utilized, whichever comes first. For the first five to seven years, the scheme offers a 1.5% interest/profit refund, with a 60% to 80% government guarantee on financing (Saidi, 2023). The scheme aims to provide financial assistance to companies using green technologies in building development, management, maintenance, and demolition (Partnership, 2024).

In November 2008, the National Renewable Energy Policy and Action Plan (NREPAP) was unveiled by Malaysia's Ministry of Energy, Green Technology, and Water to address issues such as inconsistent regulations, conflicting signals from investors, and unsustainable growth. The plan aims to increase domestic renewable energy sources, improve electrical supply security, promote regional manufacturing, ensure fair generation costs, and protect the environment (Renewable Energy Policy and Action Plan – Policies, 2021).

The National Energy Policy (NEP) 2022–2040 outlines priorities for the energy sector over the next 20 years, including thermal and electrical energy. The policy aims to provide new direction, simplify regulations, and develop a long-term vision. By 2040, the policy aims to achieve four overarching objectives: optimizing energy resource use to foster sustainable economic growth, promoting economic expansion, ensuring environmental sustainability, and guaranteeing energy security and fiscal sustainability. The policy is coordinated among various stakeholders to achieve these goals by 2040 (Yeap, 2022).

Future Policies for Green Transition in Malaysia

Currently, the Malaysian Green Technology and Climate Change Corporation is implementing various programs aimed at reducing greenhouse gas emissions by 45% by 2030, generating RM100 billion in GDP, and creating 230,000 green jobs (Corporation, 2023). To achieve better outcomes, the government can implement several measures to enhance the capabilities, broaden the scope of the hub, and encourage more innovation to improve the effectiveness and impact of Malaysia's green innovation center. For example, businesses investing in sustainable practices and green technologies may qualify for additional tax benefits from the government. This could include tax breaks, credits, and exemptions for the development, creation, and application of environmentally friendly technologies. Such measures can create incentives for private sectors to participate in these green policy programs.

As the world grapples with resource constraints and climate change, there will be an increasing demand for experts knowledgeable in sustainable practices. It is projected that the shift toward sustainability will create new opportunities in various fields, such as energy production, urban planning, and environmental management (HISHAM & ABU BAKAR, 2024). Employers and governments should offer financial incentives, job matching guidance, and flexible training options for green training programs to foster growth in green careers (How to Increase the Appeal of Green Skills and Training, 2023). Therefore, the Malaysian government should expand green skills training programs extensively to educate the workforce on sustainability and green technologies. Forming alliances with academic institutions, businesses, and vocational training providers can facilitate the provision of green sector certifications and apprenticeships.

Developed nations have adopted more advanced approaches to reducing greenhouse gas emissions, which the Malaysian government could also adopt. For example, the European Union implemented the Common Agricultural Policy (CAP) to economically support farmers, enhance productivity, and promote sustainable practices. This program is funded through the European Agricultural Guarantee Fund (EAGF) for direct payments and market measures, and the European Agricultural Fund for Rural Development (EAFRD) for rural development. Each EU member state administers CAP payments domestically, with transparency rules requiring public disclosure of CAP subsidy recipients. It supports rural economies by creating jobs and ensuring food supply stability (European Commission, 2022). While the Malaysian government does provide support for regenerative and organic farming, it is currently insufficient to make significant impacts. To transition current practices to sustainable ones, the Malaysian government should consider incorporating elements of the

European Union's Common Agricultural Policy into existing policies. Strengthening financial support through direct payments for eco-friendly actions could incentivize farmers to adopt sustainable practices, thereby improving local sustainability and maintaining farmers' economic viability by providing financial support for sustainable methods, preventing them from abandoning their land or resorting to harmful practices (Piñeiro et al., 2020).



Figure 2: Malaysian Farmers Adopting Green Practices
(Source: Malaysian Farmers Fight Climate Change, 2020)

Limitations of Recommended Policies and Ways to Improve Them

It is possible to increase the effectiveness of a green transition strategy by providing tax breaks to businesses that invest in environmentally friendly technologies and sustainable practices, but doing so comes with limitations. One way to improve the effectiveness of a green transition strategy is to ensure that the tax benefits are aligned with other environmental and economic policies. Inconsistencies or conflicts between different policies can reduce the strategy's overall effectiveness.

Although it is well-intentioned to offer comprehensive training programs in green skills and to collaborate with multiple institutions to support green sector certifications and apprenticeships, financial constraints mean that large sums of money are needed to implement these programs and form these alliances. The effectiveness and breadth of these projects may be hampered by limited budgetary resources.

One of the suggested policies for improving Malaysia's sustainable agriculture practices is incorporating elements from the European Union's Common Agricultural Policy (CAP) and strengthening financial support through direct payments for eco-friendly actions, but this approach also has several limitations. Monitoring farmers' compliance with eco-friendly practices to ensure they meet the criteria for payments can be resource-intensive. There is a risk of fraud or misuse of funds if monitoring is not stringent. Assessing the environmental impact of the direct payments and the effectiveness of the policy in promoting sustainable practices requires robust data collection and evaluation mechanisms.

There are various drawbacks to the proposed strategy of enhancing direct payments for environmentally friendly actions and optimizing Malaysia's sustainable agriculture practices by adopting aspects of the European Union's Common Agricultural Policy (CAP). Resource-intensive

monitoring may be necessary to ensure farmers are following environmentally friendly methods and meeting payment requirements. If oversight is lax, there is a risk of fraud or financial abuse. Thorough data collection and evaluation processes are necessary to assess the environmental impact of direct payments as well as the policy's efficacy in encouraging sustainable practices.

Conclusions

From the discussion above, it is evident that the Malaysian government has invested a lot of resources in the renewable energy sectors and other green policies to support the global movement to protect our environment. To achieve optimal results from these investments, it is crucial for the government to monitor the implementation of these initiatives to prevent any parties from abusing the benefits. Lastly, to have a greater impact, it is necessary for all involved parties to cooperate.

Words: 1,799

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