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.

The phrase "green transition" paints a serene picture in our minds illustrating a bright future with our world prospering forevermore. However, to achieve such a lofty goal, a comprehensive and collective effort has to be made by governments around the world. The green transition refers to a shift towards an economically sustainable economy which is less dependent on fossil fuels and aims to decrease the overconsumption of natural resources. Net zero is the balance between the amount of greenhouse gases that is produced and the amount that is removed from the atmosphere which can be achieved with a combination of emission removal and reduction. To achieve this net zero future, the government has to be at the forefront of the green movement and implement focused policies towards this target.

Figure 1 below illustrates Malaysia's targets to reduce emissions and achieve the net zero target by 2050. The figure demonstrates the government's plans to increase energy efficiency, methods of incorporating renewable energy, establishing a carbon pricing framework and investing in installations to secure green energy in Malaysia.

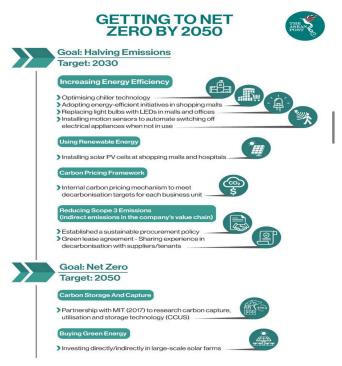


Figure 1: Malaysia Plan to Get to Net Zero by 2050 (Source : Sunway Group)

One of the instruments a government can utilise is fiscal subsidies and incentives to provide funds for renewable energy projects and technology promoting greener schemes. This will incentivise businesses to switch to resources which are subsidised as they are comparatively cheaper and help to reduce the burden on the environment. Moreover, by utilising carbon tax mechanisms, governments can successfully internalise the environmental costs related to the emission of these harmful gases and can push businesses to limit their carbon footprint. While reducing the amount of carbon emissions, this scheme may also generate revenue for the government through taxation. According to the World Bank, in 2021, 64 carbon pricing initiatives had been implemented globally, covering 45 national jurisdictions and 21.5% of global emissions (Mills & McQueen, 2022). By the establishment of private-public partnerships initiated by the policy agenda, funding for clean energy solutions can be secured leading to inventions supporting the green transition.

Any fiscal initiatives undertaken needs to be bolstered by outlining the prudent use of monetary tools in the agenda. Monetary policies make use of policy instruments such as taxation rates and the adjustment of the money supply of the economy to achieve macroeconomic objectives. Central banks around the world can support the government's green transition schemes by purchasing "green bonds" as a part of their asset purchase programs. These green bonds will be targeted to finance environmentally friendly projects. The monetary authority and central bank can utilise quantitative easing measures to purchase these green bonds and lower interest rates for loans tied to emission reducing, green business initiatives. By lowering interest rates for loans that finance sustainable energy projects catering to the green transition and its policy agenda, the government can stimulate private sector involvement. The reduction of financing costs for businesses can influence them to take up projects related to greener practices and using renewable energy so that they can attain loans easily. As countries switch over to renewable energy sources and green transition focused schemes, necessary steps need to be taken to ensure that the financial institutions are prepared for the changes that may arise in the market due to such alterations. Central banks will have to harness capabilities to mitigate climate related risks and issues faced by industries.

While the fiscal and monetary initiatives of the agenda will be focused on producing firm-level desired outcomes, simultaneous alignment with other macroeconomic objectives needs to be met as well. The policy agenda has to postulate and promote the concept of environmental sustainability while adhering to the primary objectives of economic growth, employment, etc. Proper retraining and skill development of workers must be ensured so that their skills remain relevant and complementary to jobs created in industries aimed to achieve the green movement. Familiarisation of the work force with using renewable energy resources is vital to mitigate the risk of unemployment which can stem from the green transition.

Education and awareness programs will be a key measure in the policy agenda to promote inclusive participation in the transition of people all over the country. Measures will be implemented such that starting from the urban population to marginalised

communities, all citizens are informed and have the knowledge of the green policy agenda initiatives avoiding any sort of discrimination and exploitation. Governments can nudge people towards a more renewable manner of consumption by explaining the impact of their lifestyle choices. Awareness-building programs can be launched to educate individuals on the importance of ethical investment, electric vehicles, sustainable manners of consumption and production.

The ultimate success of the goal-setting and policies of the agenda will be reliant on a prudent regulatory framework. Necessary regulatory reforms will be an integral part of the agenda that can encompass a number of areas across institutions and industries. For example, regulations that guarantee social safety nets and welfare benefits for citizens who may be adversely affected due to the transition need to be implemented. So that workers in industries such as coal mining and oil refineries can be supported until they can find the means to earn a stable income on their own. Laws that set stringent emission allowances for vehicles, industries and other pollution exhibiting elements must be implemented to ensure reductions in greenhouse gases. Regulatory institutions will have to be adept in continuous monitoring of the set criteria to achieve target goals.

Imperative financial regulations will also have to be designed and can include stipulations such as laws complying companies to disclose their impact on the environment and exposure to climate-related risks in their financial reports. Directives by monetary authorities can mandate that adequate stress tests and financial stability assessments are undertaken by the financial institutions to ensure they are sound and adept in funding the various new public and private business ventures aimed towards the goal of a greener economy and world as a whole. Thus, the agenda will pinpoint regulatory reforms to increase transparency and accountability and push individuals and firms in the right direction to opt for and adopt more sustainable practices.

Climate protection is a global public good and hence it needs the collaboration of all the countries of the world and support of each other to attain the net-zero target. As we know, the drive towards a low-carbon future is driven by significant contributions from the wealth of a country. Thus it has been observed that the improvement in environmental conditions can be met through foreign fund packages from other countries, especially in the case of developing countries. As cited in the world economic forum's energy transition article(Wood, 2023); Indonesia, a developing country, has surpassed 21 ranks to gain the 49th in the overall success of reducing carbon emissions. This milestone could not have been achieved without partnerships such as its bilateral climate and forest partnership with Norway. It enabled them to secure a \$56 million fund from Norway to finance initiatives to further their emissions reduction and deforestation targets. Indonesia contains the third largest extent of tropical forest on the planet and thus its protection is crucial to secure a green future for the world. The partnership succinctly highlights the importance of interdependence of economies and how international finance can enable developed countries to meaningfully contribute to the green transition taking place in other countries and build towards a net-zero future. The agenda can pave the way for promotion of impactful partnerships among countries to bring momentum to the green transition movement of the economy.

The following figure showcases the changes the International Energy Association expects to see globally by the year 2050 towards the target of a net-zero future.

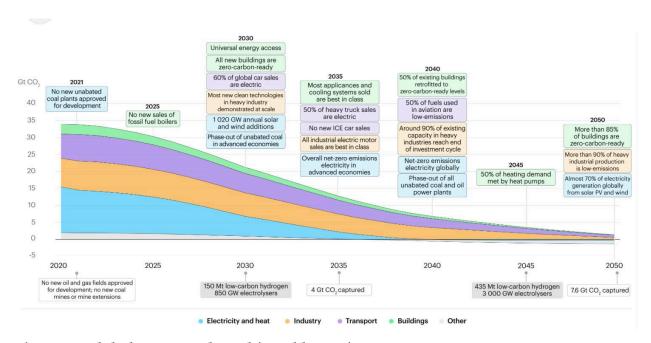


Figure 2: Global target to be achieved by 2050.

(Source: International Energy Association)

Akin to any policy agenda that the government sets, the green transition agenda can be accompanied by many challenges that need to be acknowledged. A robust verification process and careful monitoring need to be performed to ensure that the investments that are being provided finance are truly beneficial to the environment and adds to the success of the policy agenda. Policies to retrain and reskill workers are immensely costly and will take a lot of time to implement leading to short term unemployment and negative economic growth as many households have workers without jobs and thus an income to support them. Volatility in prices for certain goods and services may arise due to temporary supply chain disruptions as green technologies are new schemes introduced and may take the market some time to become accustomed to them. Consequently, it is vital to note that macroeconomic objectives can be hampered in this drive towards a net-zero future and thus a balance will have to be struck.

Examining from the fiscal policy standpoint, while investing in greener schemes, governments might be forced to cut budgets in other areas such as healthcare and other key elements of economic development that can lead to large opportunity costs. Moreover, it may be difficult for countries with huge amounts of debts to finance greener transition schemes as they will suffer budgetary constraints. The impact on equity and the society is one that cannot be overlooked. Carbon taxes have regressive effects which would adversely affect low income households and hence these policies need to

be designed with careful consideration to decrease the impact on the vulnerable population. Furthermore, although government regulation is important, over-regulation can be an impediment. Overly complex regulations can make it difficult for enterprises to get any job done, it can stifle innovation and result in a sluggish adoption to the green movement. Due to lack of resources and finance, governments may be inept to enforce and monitor evasion of regulations by businesses, thus making the policies unfruitful.

A green transition policy agenda that can propel an economy to a sustainable net zero future must echo the words of Christiana Figueres in her book 'The Future We Choose: Surviving Climate Change'; "We can no longer afford to assume that addressing climate change is the sole responsibility of national or local governments, or corporations or individuals. This is an everyone-everywhere mission in which we all must individually and collectively assume responsibility." Hence, to achieve the goal of a green world, collaboration is a vital factor, whether it be among the citizens, public and private institutions in the domestic economy, multinational corporations or different economies of the world. However, for the collaboration to take fruition, the government shall have to play an instrumental role in bringing all the stakeholders together. The ultimate triumph of the policy agenda relies on the effectiveness of the policies discussed herewith, but more so on its ability to attract unified participation and collective investment towards the elusive net-zero future by all stakeholders.