Select a national policy with environmental and economic implications. Describe what the policy is. Analyze its efficacy. Suggest changes that might encourage sustainability while meeting economic growth objectives set forth by the government.

Singapore's Carbon Tax

After pioneering the implementation of a carbon tax in Southeast Asia, Singapore remains at the forefront of the fight against climate change, increasing its carbon tax in 2024 to S$25 per tonne of emissions from S$5 a tonne previously. Companies can also offset 5% on their carbon tax liability by purchasing government-approved carbon credits, which help Singapore meet its national climate targets, one of which is having its emissions decline to 33 million CO2 tonnes in 2050.[1]

Policy Analysis

Carbon taxes serve as an effective signal to steer producers and consumers away from high carbon-intensity carbon goods and services, holding businesses accountable for their emissions, and incentivising development of low-carbon solutions. Singapore's carbon tax covers all facilities producing 25,000 tonnes or more of greenhouse gas emissions in a year which contribute 80% of Singapore's total greenhouse gas emissions.[2]

The efficacy of Singapore's tax rate lies in its gradual manner: slowly easing firms into paying more in carbon taxes, providing time for them to change their practices whilst also cushioning the blow for companies who can source for carbon credits in a cost-effective manner. This ensures firms continue to operate in Singapore, maintaining Singapore's economic competitiveness. Additionally, carbon taxes have cemented Singapore's role as a leader in the sustainability field and allowed it to capitalize on its position as a long-standing entrepôt to become the region's premier carbon hub where firms can purchase high-quality credits to offset their emissions.

This development as the region's carbon services and trading hub is estimated to create a projected gross value added of US$1.8-5.6 billion, increasing credit availability and accelerating noninflationary economic growth.[3] The decarbonisation sector is estimated by KPMG to have the potential to create over

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[1] *Our targets*. Singapore Green Plan 2030. (n.d.). https://www.greenplan.gov.sg/targets/
[2] *Carbon tax*. National Climate Change Secretariat. (n.d.). https://www.nccs.gov.sg/singapores-climate-action/mitigation-efforts/carbontax/
[3] Edb.gov.sg. (n.d.). https://www.edb.gov.sg/en/business-insights/market-and-industry-reports/carbon-services-an-opportunity-for-singapore-to-support-global-and-regional-decarbonisation-goals.html

50,000 new jobs in Singapore by 2030 mostly in the financing and trading of commodities supporting decarbonisation.[4]

However, Singapore has the third worst CO2 emissions growth rate, with emissions reaching 51.6 million tonnes in 2019. Its first carbon tax was too low and failed to provide robust incentives for companies to decarbonize, ultimately falling short of delivering climate benefits. Singapore remained reliant on fossil fuel energy with natural gas constituting almost 96% of Singapore's energy mix at the end of 2019.[5] The Climate Action Tracker project deemed Singapore's target of emissions to peak at 60 million CO2 tonnes in 2030 before declining as "highly insufficient".[6]

Recommendations

Singapore needs to raise its carbon tax to hasten its green transition. Sweden has the highest carbon tax in the world at US$137 a tonne.[7] However, instead of harming its economy, it has contributed massively to Sweden's economy. In 2017, revenue gained from the carbon tax was €2.40 billion.[8] This shows Singapore can quicken its green transition and strongarm businesses into reducing emissions or developing low-carbon solutions without hampering its economy. The additional revenue provides an alternative source of funding for green initiatives, hypothecating decarbonisation efforts and allows Singapore to meet its macroeconomic objective of sustained and stable growth.[9]

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[4] *KPMG join forces with four organisations to help ASEAN businesses tackle decarbonisation goals*. KPMG. (n.d.). https://kpmg.com/sg/en/home/media/press-releases/2023/03/kpmg-join-forces-to-help-asean-businesses-tackle-decarbonisation.html

[5] *Home*. Energy Market Authority. (n.d.). https://www.ema.gov.sg/resources/singapore-energy-statistics/chapter2#:~:text=at%20Jun%2D2023.-,Fuel%20Mix%20for%20Electricity%20Generation,and%20Petroleum%20Products%20(2.6%25).

[6] Singapore. Climate Action Tracker. (n.d.). https://climateactiontracker.org/countries/singapore/#:~:text=The%20%E2%80%9CHighly%20insufficient%E2%80%9D%20rating%20indicates,the%20energy%20and%20industry%20sectors.

[7] Asen, E. (2023, July 28). *Carbon taxes in Europe*. Tax Foundation. https://taxfoundation.org/data/all/eu/carbon-taxes-in-europe-2021/

[8] Amazonaws. Tax Policy Rethinking Decarbonisation Incentives – Sweden Energy and Tax Policy Case Studies https://esc-production-2021.s3.eu-west-2.amazonaws.com/2021/09/Sweden-Case-Study-FINAL.pdf

[9] Investing in Singapore Government Securities Monetary Authority of Singapore. https://www.mas.gov.sg/bonds-and-bills/investing-in-singapore-government-securities/Singapores-Economy

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