



Delivering Green Economy in Asia: The Role of Fiscal Instruments

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Resource Consumption



- **Energy use is rising**

- The total oils, biofuels, gas-to- liquids and coal-to liquids use is expected to further increase by 44% by 2030.
- Coal consumption is expected to increase by 50%,
- Coal would account for 50–70% of new power supply

- **Vehicle ownership and use is increasing at an unprecedented pace**

- From 20.5 million vehicles, in 2002, the total number of vehicles in China is projected to increase to 390 million by 2030.
- From 17.4, in 2002, the total number of vehicles in India is projected to increase to 156 million by 2030
- From 8.1 million vehicles, in 2002, the total number of vehicles in Thailand is to increase to 44.6 million by 2030.

- **Emissions from Deforestation is increasing**

- Cambodia, Laos, Myanmar, Thailand and Vietnam will lose 34% of their remaining forest cover by 2030

Green Economy Transition



- **Progress is being made**

- Countries (China, India, Nepal, Thailand, Indonesia, Vietnam, Cambodia, Japan, Singapore, Korea) have adopted or are in the process of adopting: Emission tax, renewable incentives, Taxes on Natural Resources Extraction, Clean Stimulus, Fossil fuel subsidies rationalization

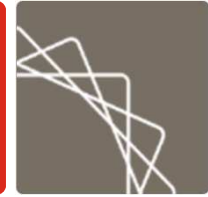


Green Economy Transition



- **The process has begun**
 - South Korea has adopted National Strategy for Green Growth (2009-2050)
 - China's current 12th Five-Year Plan's (2010-2015) focuses on reducing pollution, increasing energy conservation, and energy efficiency
 - India has instituted policy initiatives (e.g., excise tax and special excise duty to contain CO₂ emissions from new passenger vehicle) that contribute towards transition to a green economy.
 - Indian states such as Rajasthan, Gujrat, and Tamil Nadu have plans to boost solar and other renewable energy initiative
- **The progress towards transition to a green economy has already begun, however, the troubling aspect of the ongoing progress is that it is concentrated in a very few countries.**

Effectiveness of Adopted Fiscal Instruments



Fiscal Instrument	Green Effectiveness (Gain in Environmental health)	Cost Effectiveness (Economic effectiveness)	Administrative Effectiveness (Institutional and Political)
Budgetary transfers, R&D subsidy; investment subsidy	High	Low	Low in developing countries due to lack of budgetary reforms
Pure Price based instruments (GHG tax such as carbon tax, emission pricing levied on the pollution generated)	Low-Medium	High	Low
Second best price instruments (tax on inputs/outputs associated with pollution)	Low-Medium	Low	Medium
Quantity based instruments (tradable permit, emission quota)	Medium-High	High	Low

Fiscal Instruments Adoption Barriers



Distributional Effects	Policy Coordination	Political Barriers	Institutional Barriers	Technical & Market	Policy Discovery
<p>Income/ Geography inequality</p> <p>Reliance on natural resource</p> <p>Resource vulnerability</p> <p>Mandated spending</p>	<p>Lack of coherent policy</p> <p>Excessive policy overlaps</p> <p>Disjointed policy goals</p> <p>Coordination between tax systems (federal, state, substates)</p>	<p>Political pressure groups</p> <p>Corruption</p> <p>Rent-seeking investments</p>	<p>Weak enforcement</p> <p>Poor property rights</p> <p>Low accountability</p>	<p>Lack of technical know-how</p> <p>Lack of standards and certification</p> <p>Lack of infrastructure</p> <p>Financing availability</p> <p>Distorted price signals</p>	<p>Possibility of strategic capture of government by private business</p> <p>Wrong signaling to market</p> <p>Political economy</p>
<p>Effective targeting</p> <p>Conditional cash transfers</p> <p>Refundable tax & rebates</p> <p>Income based user charges</p> <p>Attempt to keep tax-neutral (i.e. revenue recycling)</p> <p>Skill development and Job creation</p>	<p>Administrative capacity building</p> <p>Improve shared understanding of policy priority</p> <p>Improving communication among ministries</p> <p>Clearly defined mandate and responsibility of associated ministries</p>	<p>Tax and non-tax revenue reforms</p> <p>On-budget and off-budget Spending reforms</p> <p>Clearly articulated objectives and deliverables</p> <p>Effective use of revenue earmarking for promotion of greens</p>	<p>Institution building</p> <p>Improve inter and intra institutional communication</p> <p>Government budget transparency on planned green spending</p> <p>Clear definition of environmental tax base</p> <p>Compliance enforcement Enhance flexibility and adaptability</p>	<p>Investment in technical know-how, research and development</p> <p>Concessional bank-lending to green business</p> <p>Clean infrastructure investment</p> <p>Tax incentives to capital markets instruments (i.e. green bonds)</p> <p>Improve private financing Consumer financing</p>	<p>Information sharing</p> <p>Induce behavioral changes</p> <p>Green Innovation policy</p> <p>Policy informed by science Efficiency dividend</p> <p>Green industry policy</p>
	Barrier heads cited in the paper				
	Categorization and explanation of barriers				
	Options and approaches to mitigate/remove barriers				

Distributional Effects



- **Fiscal instruments (e.g., tax on energy or removal fossil fuel subsidy) if not properly designed and implemented could adversely impact poor households’:**

Savings, consumption, and expenditure on education, healthcare, housing, food, and social engagements

- **Addressing Distributional Effects:**

Targeted pro-poor instruments such as conditional cash transfers, refundable tax rebates, income based user charge, etc.

- **Example 1:**

Indonesia successfully removed harmful subsidy in energy through pro-poor targeted cash transfer program

- **Example 2:**

Netherland uses carbon tax revenue to reduce the general burden to consumers and businesses

Policy Problems



- **Multiple Policy Problems**

- *Lack of coherent policy,*
- *Excessive policy overlaps,*
- *Disjointed policy goals,*
- *Coordination between tax systems (federal, state, substates)*

- **Example:**

- *In India, horizontal policy integration suffers from a lack of coordination across highly fragmented ministerial structure*

- **Addressing Policy Problems**

- *Initiate administrative capacity building*
- *Improving shared understanding of policy priority*
- *Ensure effective communication among ministries*
- *Clearly defined mandate and responsibility of associated ministries*

Political Barriers



- **Lack of political unwillingness to walk away from:**
 - *Fossil fuel dependency*
 - *Carbon-intensive infrastructure development*
 - *Energy-intensive industrialization* (Subsidies on fossil fuels exceed 5 per cent of GDP in many Asian countries. In 2011, Fossil fuel subsidies amounted to 28, 23, 19 percent of GDP in Uzbekistan, Turkmenistan, and Iraq)
 - *Highly inefficient urban development*
- **Addressing Political Barriers**
 - *Initiate tax and non-tax revenue reforms*
 - *Initiate on-budget and off-budget spending reforms*
 - *Ensure effective use of revenue earmarking for promotion of greens*
 - *Institute Zero interest loans, rebates, tax credits for installation and use of renewables and energy saving measures*

Institutional Barriers



- **Institutional barriers are high and rising**
 - *Environmental legislations are often poorly developed, inconsistent, and overlap with other sector-based legislations.*
 - *Institutional framework for environmental governance remains fairly weak*
 - *Existing mechanisms are either outdated or do not match current complexity*
- **Example 1:** In India, Command-and-control approach no longer match the complexity of the Indian economy
- **Example 2:** The charges for environmentally harmful activities are too low to provide any relevant incentive to reduce emissions in China, Indian, and Vietnam
- **Addressing Institutional Barriers:**
 - *Establish clear governance structure operating under clearly laid out rules and conditions, accountability framework*
 - *Timely disbursement of tax revenue for promotion of green economic activities, and monitoring*
 - *Compliance enforcement*
- The biggest governance risk is the possibility of tax revenues being treated as political device used to achieve short term political gains at the expense of achieving the original objective for which the tax was designed and implemented.

Technical and Market Barriers



- **There are several technical and market barriers to the more widespread adoption of fiscal instruments in Asia**
 - *Lack of technical know-how, standard and certification, and infrastructure*
 - *Lack of financing and distorted price signals add another layer of complexity*
- **Addressing Technical & Market barriers:**
 - *Invest in human capital*
 - *Provide concessional bank-lending to green business*
 - *Increase clean infrastructure investment*
 - *Provide tax incentives to capital markets instruments (i.e. green bonds).*

Lack of Policy Discovery and Discipline



- **Lack of Policy Discovery and Discipline is a growing concern**
 - *Possibility of strategic capture of government by private business*
 - *Wrong signaling to market and political economy*
 - *Lack of ex-ante specification of a policy objective makes the ex-post evaluation of the fiscal instrument highly arbitrary*
 - *Lack of clarity in objective of a specific green fiscal policy has also appeared as obstacle to successful implementation of effective green fiscal system.*

- **Addressing Policy Discovery and Discipline barrier**
 - *Make room for learnings by public officials and institutions to accommodate quality and flow of information*
 - *Provide clarity in objective of a specific green fiscal policy for successful implementation and evaluation of effective green fiscal system*

Conclusion



- Adoption and use of fiscal instruments in Asia is happening, but at a slower pace and not at a sufficiently large scale necessary to facilitate transition to a green economy.
- Transition to a green economy is highly concentrated and slow-moving.
- Slow transition is mainly because of the fact that countries do not seem to be prepared to incur short-term costs in order to reap long-term benefits.
- Most Asian countries are yet to reshape their policies and institute fiscal instruments to promote eco-innovation and green business.
- Only a few fiscal instruments are in use and their use has been very sporadic. Rather than using suit of fiscal instruments, countries seem to prefer certain instruments more than others.
- Countries mostly prefer user fees, fuel taxes, and subsidies, and tax incentives. Emission tax and tax on natural resource extraction are yet to be widely used even though rising emissions and natural resources extraction are one of the significant barriers to transition to a green economy.

Conclusion



- Countries in the region are yet to acknowledge a price gap between current market price and the real cost of natural resources use and ecosystem services.
- User fee, fuel tax, and subsidy are adopted and used irrespective of developmental status
- Emission tax and tax on natural resources extraction are only used in developed and developing countries
- Despite of ongoing rapid increase in emissions and loss of natural resources, emission tax and tax on natural resources extraction are yet to be put in place in the least developed countries.
- When it comes to transition of Asia, as a region, to a green economy is concerned, sporadic adoption and use of few fiscal instruments is not the answer.
- Ongoing rapid urbanization, industrialization, infrastructure development, and rising energy use and associated emissions warrants the use of a portfolio of fiscal instruments that best suit countries' specific circumstances.
- The government's intervention in transition to a green economy has been less than satisfactory in Asia.
- The governments in the region are yet to fully realize the fact that even though the market has an important role, only government can lead the systematic transition either through strict regulation or through fiscal incentives or through the combination of both.