

# Asia's Developing Future



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## A new consumption tax could fund development of necessary low-carbon energy system

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A general tax on consumption that would fund the development of a low-carbon energy system is the only way greenhouse gas emissions will be reduced in time to benefit future generations. The solutions being tried now are not getting the job done.

That's the message of a recent working paper for the Asian Development Bank Institute. The paper explains why the solutions most commonly being used now are not working. It details how a new consumption tax could fund the research and development needed to avoid a coming disaster.

By 2050, the world population is expected to exceed 9 billion people. Without a significant change in current development patterns, an additional 2 billion to 3 billion people will be living in poverty. Even if we managed to shift to a world in which low poverty was the norm alongside low energy use, energy demand would still double from current levels by 2050 or 2060. Using existing energy systems, in which fossil fuels make up 85% of the energy used, means greenhouse gas emissions would double by then as well.

It is obvious that something must be done to make sure that doesn't happen.

The 2015 Paris Climate Change Accord pledged countries to reduce greenhouse gas emissions to avoid a 2-degree rise in average global temperature.

Meaningful action to live up to those commitments have been delayed, often because of a lack of political will in the face of opposition from vested interests.

The authors suggest that the critical ingredient needed for meaningful change is solid and continuing financing for alternative energy solutions. With adequate funding, solutions could be found which would gain public support and attract ongoing private-sector investment as well.

The International Energy Agency has suggested that it would cost \$69 trillion over the next 2 to 3 decades to develop a system that delivers non-carbon energy supplies on a scale that would supplant fossil fuels.

Efforts thus far have focused on placing a cost on the use of carbon. The most common system in use is known as “cap and trade.” It involves setting an overall reduction in carbon production that is accomplished through a system of trading which offers incentives for reduced production or carbon offsets.

Direct carbon taxes have also been tried, which have the combined effect of making carbon production less profitable while also raising money for government treasuries.

But the authors point out that neither of those efforts has seen much success. Both seem unlikely to be the solution to the problem of excessive greenhouse gas emissions.

The cap and trade system does little to promote an alternative energy system. Governments are reluctant to enforce measures on companies that can choose to relocate to jurisdictions where they can escape the additional expense.

Straight carbon taxes leave governments to choose at which level of production the taxes should be levied. Should the producer of an item be charged for the carbon it cost to produce the product? Or the truck driver who delivers the product to a shop, using fossil fuels to do so?

In a situation where governments must choose, lobbyists are sure to be active in pushing for their sectors to be exempted.

The authors propose a 1% or 2% general environmental tax to be levied on top of existing consumption taxes. Carbon use pervades the global economy and the current energy system that powers it, so everyone should share in solving its problems, they argue.

Tax rises are unpopular and consumers are often skeptical that the money raised will end up being spent on the intended purpose instead of some politician's pork-barrel project. Hence, the authors recommend that the money raised be "ring-fenced," and be made available only for the purpose of developing alternative sources of energy.

The money would be placed with an environmental trust fund dedicated to supporting investment for the long-term sustainability and resilience of an alternative energy infrastructure.

The authors give the example of large government pension investment funds, which manage public money transparently and without political influence.

The trust would use the money to help fund solutions that met a set of technological and economic criteria with a goal toward reducing total national greenhouse gas emissions substantially, such as 50% lower than current levels before 2050 and 80% lower by 2100.

The trust could match capital spent by industry on potential solutions or provide loan guarantees to projects which are seen to have the potential to lower carbon use.

It would act independently and make investments based on a simple question: what is the largest quantifiable and verifiable reduction in greenhouse gas emissions over the life-cycle of a project and what does it cost?

In the end, everyone would contribute to raising a pool of capital to ensure that the major goals of greenhouse gas reduction are met over the next 30 to 70 years.

This podcast was based on A "[Cap and Invest](#)" [Strategy for Managing the Intergenerational Burden of Financing Energy Transitions](#), a working paper for the Asian Development Bank Institute by Jatin Nathwani, Ontario Research Chair in Public Policy for Sustainable Energy

and Executive Director at the Waterloo Institute for Sustainable Energy of the University of Waterloo in Canada, and Artie W. Ng, principal lecturer with the Hong Kong Polytechnic University, Hong Kong, China.

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