

Carbon tax for Indonesia: Time to act now

It is widely acknowledged that climate change is a global problem that has irreversible impacts on all development sectors and poses a threat to the survival of millions of people. If this problem is not tackled now, the stabilization of greenhouse gases (GHG) will be even more challenging and the impacts of climate change will be unavoidable. Moreover, the cost of inaction will be too high to handle and will place an overwhelming burden on future generations.

There is a wide range of policy instruments that countries can use to lower their emissions and ultimately shift from a fossil fuel-based to low-carbon economy. To achieve environmental excellence, both command and control (regulatory) approaches and market instruments such as taxation and incentives are necessary. Regulations can be effective to determine the direction and set national targets. However, unlike market instruments, regulatory approaches do not consider cost-effectiveness of emission reduction measures and therefore can be very costly.

A carbon tax is a possible solution although it is not perfect. A carbon tax is one imposed on the carbon content of fossil fuel. It is based on the notion that charging polluters based on how much they pollute will result in behavioral change toward greener practices. Economists argue that a carbon tax is a powerful and effective policy to reduce emissions. In fact, it can also be an entry point to restructure highly subsidized fossil fuel-based economies. Nevertheless, a tax policy is never politically popular. This is because it has considerable economic implications particularly for low-income families. More tax will erode the competitiveness of industries in the short run. Yet the long-term benefits for the economy and environment outweigh the disadvantages.

The proponents of a carbon tax should be able to communicate their ideas better by showing clearly how a carbon tax will affect low-income households and industries in the first few years after the introduction of the policy and how the revenue from a carbon tax will be returned to individuals and businesses. Indonesia has an ambiguous policy in addressing climate change. On the one hand, it has taken an ambitious stance by pursuing a voluntary target to reduce GHG emissions by 26 percent by 2020 and an additional 15 percent with international aid. On the other hand, the country has spent and continues to spend a massive amount of money on fossil fuel and electricity subsidies. The subsidies amounted to US\$18.3 billion or 30 percent of the total state budget in 2011 alone.

In the following year, the spending on fuel subsidies ballooned to \$24 billion, more than twice the spending on public health. Fossil fuel is the major source of anthropogenic greenhouse gas emissions, the main culprit behind global warming. Subsidizing fossil fuel use is simply unjustifiable. Besides, fossil fuel subsidies are the biggest stumbling block to the development of renewable energy, an answer to climate change challenges. In light of this ambiguity, Indonesia has considered implementing a carbon tax. The discussion started in 2009 but has not yet entered wider public debate up to this point due to other priorities. The Finance Ministry claims that putting a price on carbon is a policy that Indonesia should adopt for a number of reasons.

First, it is an effective climate change mitigation strategy. Second, it gives significant revenue that can solve budget deficit problems. Lastly, it can be done simultaneously with the removal of fossil fuel subsidies to achieve a sustainable low-carbon economy. All of these points are valid and justified as long as the carbon tax policy is carefully designed. Year after year, Indonesia has been facing budget deficit problems mainly due to high fossil fuel subsidies. It struggles to keep the budget deficit below the legal threshold of 3 percent of gross domestic product (GDP). Reducing the budget deficit by borrowing is challenging because it will lead to increased foreign debts. A carbon tax can both reduce the budget deficit and give a clear price signal to stimulate renewable energy research and development.

It is not impossible that Indonesia will benefit from a carbon pricing policy in the future. Yet in the short term, a carbon tax will trigger higher commodity prices and industry costs that affect competitiveness. More research is needed to contribute to the understanding of carbon tax impacts on the competitiveness of Indonesia's industries and how to manage the risks.

Best practices from other countries have proven that carbon taxes work. Sweden, Norway, Alberta and British Columbia (both in Canada), Germany and New Zealand are the pioneers at the forefront of the carbon tax movement, from which Indonesia can learn lessons.

China, currently the world's largest GHG emitter, takes this issue seriously and is currently preparing a carbon tax and emission trading scheme to be established no later than 2020.

Although it is not implemented yet, Indonesia can also learn from China's decision-making processes in introducing a carbon tax, including the research it carries out to support the decision.

Despite the differences in the development stage, Indonesia still can learn a lot from Australia's experience in introducing a carbon tax, including its controversial revocation. Introducing a carbon tax is a challenging political decision; therefore, it requires a thorough and balanced analysis of other policy options.

The policymakers should also take into account the interaction of different policies including the command and control approach. Since taxation in general always invites public debate, introducing a carbon tax has to be accompanied by robust public consultation.

The appropriate rate of the carbon tax is the key determinant of a successful carbon pricing policy. The price of carbon needs to be high enough to change behavior and ultimately result in the targeted emissions reduction. Conversely, it should not be so high that it may hit companies and individuals.

An initial study of carbon tax has indicated that Indonesia could start with a moderate carbon pricing level of \$10/ton CO₂ in the first year. Sweden applied a carbon tax at probably the world's highest level, \$100/ton CO₂, and proved that its economy continued to grow at a positive rate.

Emerging economies China and India have considered this carefully. China plans to introduce a carbon tax at \$1.63/ton CO₂ while India has started imposing tax on coal at "only" \$0.50/ton CO₂.

Learning from these cases, Indonesia needs to do more studies on appropriate initial carbon tax rates that will not have undesirable impact on competitiveness. It also needs to identify sectors, especially those with high export or import intensity, that will be most affected by the carbon tax.

Considering a carbon tax seriously as a powerful climate change strategy will not be harmful for Indonesia. Optimistic research outcomes suggest that Indonesia could reap benefits from a carbon tax both economically and environmentally.

More research and public discourse are needed to test whether or not this policy is suitable for the country. The next questions are what will be the most suitable time to introduce the policy and how high should the tax be.

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