

UCT professor to serve on carbon prices commission

Climate change will be one of the pressing matters discussed during this year's meetings of the World Bank and International Monetary Fund, and the G20 Hamburg Summit in July. Carbon pricing is expected to be addressed, particularly at the G20 Summit.



Professor Harald Winkler, director of the Energy Research Centre

UCT Professor Harald Winkler, director of the Energy Research Centre, has been selected to be one of the 12-member High-Level Commission on Carbon Prices, and will contribute to an in-depth report.

The commission, led by the French government in its capacity as host of COP21 (Conference of Parties) where the Paris Agreement was signed, is chaired by Sir Nicholas Stern and Professor Joseph Stiglitz.

"These are very eminent economists working on climate change, so to work on a relatively small commission with them is an honour and a fantastic opportunity for me to learn from them," says Winkler.

Stern is, among other positions, the chair of the Grantham Research Institute, chair of the Centre for Climate Change Economics and Policy, director of the India Observatory, and president of the British Academy.

Stiglitz is a recipient of the Nobel Memorial Prize in Economic Sciences, and in his day-job, a professor at Columbia University, co-chair of the High-Level Expert Group on the Measurement of Economic Performance and Social Progress at the OECD, and the chief economist of the Roosevelt Institute.

The commission's objectives are to identify a range of carbon prices that would be consistent with the temperature goal of the Paris Agreement. The commission will also look at other climate policies that implicitly price carbon. The approach is to consider the achievement of climate goals together with the Sustainable Development Goals – including to eradicate poverty.

How carbon pricing works

Carbon pricing is about putting a price on carbon pollution. An economic signal is given to those who pollute, giving them the choice to reduce their polluting activities or continue and pay the penalties.

There are numerous benefits of carbon pricing, including speeding up economic transitions, generating revenue, tackling air pollution and related diseases, and easing congestion.

Equally, there are severe consequences to not acting – and to not acting now. This includes threats to economic growth, a reversal of progress in developing countries, and an increase in extreme weather-related events.

There are two main types of carbon pricing: taxation (costing externalities) and emissions trading systems. Governments can use these to begin implementation of carbon pricing and to generate revenue.

Costing externalities puts a price on something that is not priced in the market. For instance, “pollution imposes a cost”, says Winkler. “If there is local air pollution, people pay because they get sick, or the government pays by having to build more hospitals.”

Emissions trading can also generate revenue if governments auction emissions allowances or permits. Governments can begin by handing these out free, but they can also make those who omit carbon dioxide buy allowances or permits – a better design.

Countries as case studies

The mitigation measures required by the Paris Agreement could be implemented by enforcement – regulation – or by using economic instruments. The route preferred by economists is the latter: “Economic instruments generally rely on the power of the market, so they tend to be voluntary,” says Winkler.

Many countries have already indicated a willingness to join a carbon market, while others are already providing insightful case studies.

Europe, for instance, is home to an extensive emissions trading scheme. China has established pilot emissions trading schemes in several large provinces and will implement its national emissions trading system this year. Brazil and Chile are also already undertaking carbon pricing. The levels of carbon prices, in \$ per ton, differ significantly across countries. The commission will consider where an ‘average’ carbon price needs to go, to limit temperature increase. It will not prescribe any specific instrument or tax rate for any country, as each political economy is different.

Scandinavia provides particularly interesting case studies for both experts and governments carbon pricing was introduced as far back as the 1990s, but their governments were, in addition to climate change, looking at tax reform. They reduced income tax while raising a carbon tax, thereby achieving both social developmental and climate, says Winkler. They didn't get everything right in the beginning, but we can and must learn from them.

"It is in every country's national interest that we have effective action on climate change, and that can only happen

globally.”

It is concerning, then, that some countries remain unwilling to enforce climate change policies.

“We are worried about the United States,” says Winkler. “The US never joined the Kyoto Protocol, which had an international emissions trading scheme. And now, of course, the Trump regime is very unlikely to pass a domestic carbon tax or an emissions trading scheme. Indeed the Republican administration is cutting support to climate action and science internationally, and moving backwards on domestic climate action. They risk becoming uncompetitive in a low-carbon future.”

Carbon pricing at home

Carbon pricing could be very effective at raising revenue for South Africa, says Winkler.

“In the first instance,” he says, “we must make sure that poor households aren’t worse off due to carbon pricing. So I would certainly argue that poor households’ energy bills shouldn’t go up. We don’t want the carbon tax to be paid for by the poor.”

Instead, those who omit the most must pay proportionately, such as those in the energy intensive industries.

Winkler suggests that the revenue generated by carbon taxes be used to extend free basic energy – lighting, water heating, power for kettles, irons and access to media – to poor households.

The way forward

The commission will deliver its report in April to the World Bank and IMF. This report, explains Winkler, will map out a suggested carbon prices required to keep global average temperature well below two degrees Celsius above pre-industrial levels.

“We still need to determine the carbon price that the world would need to achieve that temperature goal,” he says. In other words, “If you want to achieve the goal of two degrees using carbon pricing, then \$X00 to \$Y00 will be the carbon price level that you would need.” Watch out for the commission’s report to find out what X and Y might be.

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