

MCC Press Release

Making climate policy work in Asia

MCC provides a starting point for tailor-made carbon pricing with social compensation: it calculates the impact for eight important emerging economies.

Berlin, 23/09/2021. The EU and the USA to be greenhouse gas neutral by 2050, even China to be CO₂ neutral by 2060: whether these announcements can trigger sufficient global action against global heating depends to a large extent on emerging Asian countries. How could carbon pricing be established there as a core instrument of climate policy? The Berlin-based climate research institute MCC (Mercator Research Institute on Global Commons and Climate Change) now provides a comprehensive, empirically supported basis for corresponding development pathways. The study has been published in the renowned journal *Nature Sustainability*.

The researchers examined eight countries that currently account for 73 percent of the global "coal pipeline" outside China: they are building or planning a particularly large number of CO₂-intensive coal-fired power plants, which directly opposes the fight against the climate crisis. They are, in descending order of population size: India, Indonesia, Pakistan, Bangladesh, the Philippines, Vietnam, Turkey, and Thailand. "We wanted to know how a carbon price in these countries would affect households," explains [Jan Steckel](#), head of the MCC working group Climate and Development and lead author of the study. "In particular, we were interested in the links between the prevailing lifestyles in each country and the foreseeable distributional effects of climate action. Without a close look at this, governments are unlikely to achieve a tailor-made, socially balanced and thus also politically acceptable transition."

A specifically developed computing model combines the expenditures of private households, determined from national representative surveys, with the CO₂ intensity of the individual budget items derived from the GTAP database. In this way, both the direct burden, for example through higher fuel or heating costs, and all indirect consequences, i.e. higher prices for climate-damaging consumer products, are recorded for different variants of carbon pricing. According to the analysis, the relative burden varies greatly from country to country. It is also distributed differently between poorer and richer households. Moreover, there is a marked disparity within income groups.

In India, for example, the burden on low-income households is particularly pronounced: a national price of 40 dollars per tonne of CO₂, for example, would affect the poorest fifth by 4.5 percent of their average expenditures. This is a result of the carbon-intensive agricultural sector in India and high expenditure shares for food. For Bangladesh, by contrast, the study shows a relatively low burden on poorer households. This is related to the common use of collected wood and other biomass as an energy source, which could be expected to remain unpriced. In Turkey, some poor, rural households that heat with coal would be hit

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particularly hard. "A wide variety of distributional effects emerge, and thus a need for country-specific policy designs," says MCC researcher Steckel. He emphasises that, "economic textbooks alone are not sufficient, we have to look very closely at the specific context to make climate policy work – that's what we're providing support for here."

The research team has no doubt that it is possible to socially balance climate protection in the emerging Asian countries. Due to the structure of private spending, carbon pricing generally has a more progressive effect there than in industrialised countries, i.e. with a relatively lower distributional burden on poorer people. The study shows that refunding total revenues in the form of a per capita transfer would overcompensate the poorest fifth in all eight countries considered. This indicates there would be leeway to finance other development goals, such as health, education, and infrastructure, with part of the money.

About the MCC

The MCC explores sustainable management as well as the use of common goods such as global environmental systems and social infrastructures against the background of climate change. Our seven working groups are active in the fields of economic growth and development, resources and international trade, cities and infrastructure, governance and scientific policy advice. The MCC was co-founded by the Mercator Foundation and the Potsdam Institute for Climate Impact Research (PIK).

Reference of the cited article:

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