

*Paper published on Nature (International Journal of Science)*

## **Limited emission reductions from fuel subsidy removal except in energy-exporting regions**

The recent publication of the article in Nature has raised a heated and fruitful debate on Twitter.

These are the main issues:

### **Does the concept of fossil fuels in the article include coal?**

Yes. But coal currently receives little subsidy (only around 4-6 billion USD, about 1% of total) and therefore we do not see a larger impact. Ian Parry discusses this in the accompanying commentary <https://www.nature.com/articles/d41586-018-01495-3>.

### **Are fuel tax concessions included in the concept of subsidy?**

Yes. The study includes fuel tax concessions from the OECD data set (OECD countries +BRICS & Indonesia), while in other non-OECD countries they are not included due to data availability.

### **Which countries where fossil fuel subsidy removal is implemented would have the largest impact?**

Removing fossil fuel subsidies, while economically sensible, would have the largest emissions impact in a few countries, notably the energy exporting ones, in particular the Middle East, Russia, and some Latin-American Countries. In these countries, subsidy removal would lead to emission reductions corresponding to or even exceeding the Paris pledges.

### **The reduction of the impact due to subsidy removal is small....**

We show subsidy removal cuts emissions 0.5-2 GT by 2030 relative to a no policy Baseline which still leads to a massive increase in emissions. This is relatively small compared to where we should be in 2030 to meet the 2°C target. Therefore, the results suggest a more measured interpretation, compared to the IPCC's AR5 message that subsidy reform "can achieve significant emission reductions" and FFSR calling it the "missing piece of the puzzle in the fight against climate change".