

# FOSSIL FUEL TAX EXPENDITURES REFORM IN DEVELOPING AND EMERGING ECONOMIES

Tara Laan  
Ronald Steenblik

---

## SUMMARY

Tax cuts for fossil fuels totalled at least USD 150 billion in 2021 and are likely to be higher in 2022 given new measures put in place in response to the energy crisis. Fossil fuel tax expenditures erode government revenue and are not effective at reducing poverty or improving energy security. Developing and emerging economies stand to gain significantly from reform through 1) reallocating subsidy savings to targeted social welfare or investments that boost economic growth, and 2) reducing loss and damage from toxic air pollution and climate change. Elimination of fossil fuel tax expenditures presents economic, social, and political challenges, but these can be overcome with careful planning and judicious use of revenues.

---

## AUTHORS

**Tara Laan** is an energy policy analyst specializing in fossil fuel subsidy reform and taxation. She is a Senior Associate with the International Institute for Sustainable Development (IISD), where she leads their energy taxation program. For over 15 years Tara has led and contributed to projects on energy pricing and reform in Africa, the Americas, Asia, the Pacific, and Europe. Tara was formerly a senior adviser in the Australian Prime Minister's department, leading its international trade policy team. She has also advised Australian federal and state governments on the environment, forestry, and education.

**Ronald Steenblik** is a Senior Technical Advisor to the Quaker United Nations Office (QUNO) and a Senior Fellow with the International Institute for Sustainable Development (IISD). Until he retired from the Organisation for Economic Co-operation and Development (OECD) in November 2018, Steenblik was the Special Counsellor for Fossil Fuel Subsidy Reform in the OECD's Trade and Agriculture Directorate. In that capacity, he led the OECD's fossil fuel subsidies reform effort, guiding staff working at the nexus of trade and the environment. He also served as Chair of the G20's voluntary peer reviews of inefficient fossil fuel subsidies. In 2006-07, Steenblik served as the first Director of Research for the Global Subsidies Initiative (GSI), a programme developed by the IISD to improve transparency on the size and effects of subsidies, especially those harming developing countries or the environment.

---

## ACKNOWLEDGMENTS

This policy brief is an extract from the discussion note "Challenges and opportunities for the reform of fossil fuel tax expenditures in developing and emerging economies". References are only provided where specific data are cited. Please see the discussion note ([here](#)) for full sources. The policy brief and discussion note were funded by the Federal Ministry for Economic Cooperation and Development (BMZ) and supported by the Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ).

## BACKGROUND

Most governments subsidize the production and consumption of fossil fuels, whether to increase the domestic energy supply, support declining mining regions, or make fuels more affordable for industry, motor vehicles, or households. These subsidies can be problematic because, additional to their intended benefits, they impose large costs on society: directly through impacts on government budgets, and indirectly by exacerbating the negative impacts of fossil fuels such as climate change and air pollution.

Estimates of the magnitude of fossil fuel subsidies range from USD 500 billion to USD 700 billion a year, depending on the prevailing price of crude oil. The largest category of subsidies is below-market pricing of fossil fuels, or “consumer price support”. The second-largest category is tax subsidies, or “tax expenditures” (TEs) — revenue forgone by governments arising from reductions in, exemptions from, or other deviations from a tax levied on fossil fuels producers or products.

In 2021, global fossil fuel TEs totalled at least USD 150 billion (estimate from 51 economies), targeting all points of the value chain: research, exploration, production, and consumption (Figure 1). Around one-third (USD 50 billion) was in developing and emerging economies (estimate from 12 large economies). Data are also available from the Global Tax Expenditure Database (GTED). An extract of the database from 39 countries not covered by the OECD identified more than 200 fossil-fuel related TE provisions in these economies, totalling more than USD 6 billion between 2015 and 2020. Both the GTED and OECD data are likely to be significant underestimates given data are not available for most countries and many TEs remain unquantified, particularly in developing and emerging economies that often have less comprehensive TE reporting.

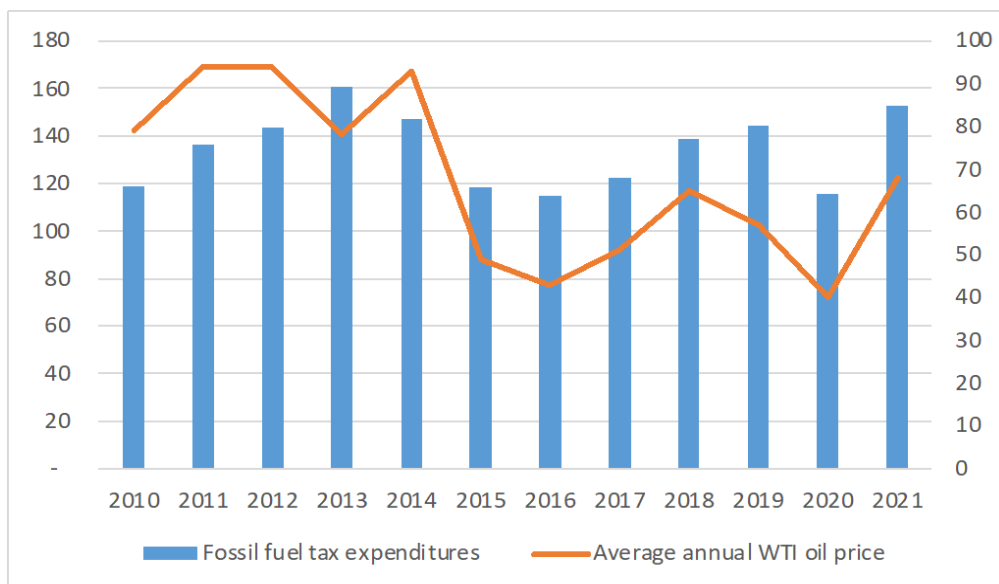


FIGURE 1: QUANTIFIED FOSSIL FUEL TAX EXPENDITURES IN COUNTRIES INCLUDED IN THE OECD INVENTORY OF SUPPORT FOR FOSSIL FUELS (INCLUDING 12 DEVELOPING AND EMERGING ECONOMIES). SOURCE: OECD, 2022.

Record-high coal and gas prices, and near-record high oil prices, in 2021 and 2022 resulted in dramatic increases in fossil fuel TEs. Governments were quick to cut taxes on fossil fuels as a seemingly easy-to-apply crisis response, often without sufficient consideration of the impacts on revenues, emissions, or challenges of returning tax rates to pre-crisis levels. Subsidy totals for 2022 were not available at the time of writing this piece, but reviews of TE policies show that 38 countries, including three developing and emerging economies, reduced consumer fuel taxes during the energy crisis (Australian Government, 2022; Bloomberg Tax, 2022; Climate Action Tracker, 2022; Loop News, 2022; Naidoo, 2022; Pande & Raj, 2022; Sgaravatti et al., 2021; Trkanjec, 2022; Urosevic, 2022; Vengattil, 2022). In addition, China allowed selected businesses, including coal-fired power plants and heating firms, to defer corporate income tax payments (Zhang, 2021).

## REFORM OF FOSSIL FUEL TAX EXPENDITURES (TES)

Developing and emerging countries stand to gain significantly from the reform of fossil fuel TEs. Reducing or eliminating subsidies can:

1. mobilize substantial revenue,
2. reduce greenhouse gas and toxic air pollution, which will generate significant social and economic gains given that several developing and emerging economies suffer the greatest number of premature deaths from air pollution (Vohra et al., 2021) and countries with lower GDP per capita are at greater risk losses and damage from climate change (Bharadwaj et al., 2020),
3. improve energy security by directing investors and consumers away from price-volatile and geopolitically risky fossil fuels and towards renewable energy and electric vehicles,
4. reduce poverty when subsidy savings are reallocated to targeted welfare payments (Malerba et al., 2022),
5. boost GDP growth when subsidy savings are invested in strategic sectors such as education, health and infrastructure,
6. reduce inequality because most consumer fossil fuel subsidies are captured by the wealthy, who are the largest energy consumers.

Commitments to reducing fossil fuel subsidies have been made by numerous international bodies as well as different governments over the past 15 or so years, including the United Nations. Progress on these commitments is hard to assess given low levels of transparency. However, before the latest energy crisis, we identified five developing and emerging economies that successfully reformed fossil fuel TEs or significantly increased fossil fuel taxes:

- Over the period 2010-14, India reduced its price subsidies on gasoline and diesel and then gradually increased excise taxes and VAT on fuel (Aggarwal et al., 2022).
- From 2018 to 2020, the Philippines increased fossil fuel taxes accompanied by cash transfers (Government of the Philippines, 2022).
- Saudi Arabia introduced a 5% VAT on all goods including transport fuels in 2018, which was increased to 15% in 2020 (Kingdom of Saudi Arabia, 2020).
- In 2020, Indonesia removed coal from the list of goods exempted from VAT and therefore 10% VAT is payable on domestic coal sales (Prawira & Richardson, 2020).
- In 2022, South Africa increased its carbon tax rate by ZAR 144 (about USD 9) per tonne of CO<sub>2</sub>, with annual increases thereafter to reach at least USD 30 by 2030 (Steenkamp, 2022). However, many fossil fuels and industries remain exempt.

## THE WAY FORWARD

### Consumer fossil fuel TEs

For consumer fossil fuel TEs, the way forward is to shift support from fuels to people. For this to happen, many developing countries will need to invest in welfare and tax systems to deliver alternative forms of support. Subsidy savings can provide the necessary funds to establish and deliver social support. However, the existence of strong social welfare systems alone is clearly not sufficient. During the 2022 energy crisis, many developed countries with highly functional social welfare infrastructure, developed tax systems, and strong commitments to climate action still reduced taxes on fossil fuels, particularly for transport and home heating. The reality is that citizens in many countries expect their governments to protect them from large price shocks.

Breaking the link between social assistance and polluting fossil fuels requires:

- the political will to resist calls for energy subsidies,
- effective assistance schemes based on targeted cash transfers,
- improving the social contract between citizens and government, so that citizens — the most vulnerable households in particular — can feel confident that they will be supported as energy prices increase and that subsidy savings will be used wisely, and
- a transition to alternative energy sources that are not price volatile and polluting.

History has shown that political leaders find it very difficult to resist calls for energy subsidies. Subsidizing the supply of non-fossil energy, public transport, and clean transport alternatives such as electric bicycles and other vehicles has therefore been a preferred strategy for many governments. While these are important for the energy transition, the reform of fossil fuel TEs also remains critical to remove distortions that favor fossil energy.

## Producer fossil fuel TEs

On the production side, support needs to be moved from fossil fuels to clean energy. Such reforms face powerful opposition from fossil fuel dependent communities and businesses. Governments need to build understanding in the broader public about the urgent need to stop new fossil fuel investments and the economic benefits of diversification into renewable energy, as well as supporting economic diversification in fossil fuel dependent regions. Connecting national policies to international or regional initiatives can be a mechanism to learn from past reform efforts and strengthen the legitimacy of energy sector reforms.

## Reform strategy

High energy prices might not seem like a good time to remove subsidies, but this is not necessarily the case. Times of high producer profits are an ideal time to remove tax incentives for exploration, extraction, and processing. Urgent removal of these TEs is consistent with countries' commitments under the Paris Agreement of the United Nations Framework Convention on Climate Change. An increasing body of research has found that limiting the global average temperature increase to 1.5°C requires a rapid phase-out of coal production and that no new oil and gas fields are developed (Calverley & Anderson, 2022) (Kursk et al., 2022). High energy prices are also a good time to obtain additional revenue from royalties and taxes on windfall profits, where extraction contracts permit. Periods of high prices should be used to prepare for raising consumer taxes when international prices start to fall. Phasing out consumer TEs as prices fall can lessen negative impacts and political resistance.

Developing a comprehensive reform plan will increase the likelihood of lasting change and can reduce social impacts, political opposition, and protests. The key elements of a reform strategy are:

- consultation with stakeholders and the public,
- compensation to ameliorate impacts and increase political support, using subsidy savings, and
- communication of the costs of TEs and the benefits of reform.

---

## RECOMMENDATIONS

As a minimum, countries need to increase transparency by reporting all fossil fuel TEs systematically and comprehensively including their fiscal impacts and policy objectives. This provides critical information regarding the costs, benefits and impacts of policies. Ideally, each fossil fuel tax expenditure should be assessed for its impact on consumers, poverty and inequality, industry, exports, government revenue, jobs, air pollution and climate change. Such an analysis is not a prerequisite to reform but can help identify priorities for reform and sectors most sensitive to changes in the TE policy. Removal of deeply entrenched TEs is likely to benefit from a comprehensive reform strategy. Finally, developed countries need to support developing and emerging economies in their efforts to build alternative energy and welfare systems to deliver on climate and development goals.

## REFERENCES

- Australian Government. (2022). *Budget 2022-23*. <https://archive.budget.gov.au/2022-23/>
- Bharadwaj, R., Addison, S., Chakravarti, D., & Kartikeyan, N. (2020). *Harnessing Nationally Determined Contributions to tackle loss and damage in least developed countries*. IIED. <https://www.iied.org/21081iied>
- Bloomberg Tax. (2022, March 23). *Vietnam to Cut Environment Fuel Taxes From April Until End-2022*. <https://news.bloombergtax.com/daily-tax-report/vietnam-to-cut-environment-fuel-taxes-from-april-until-end-2022>
- Calverley, D., & Anderson, K. (2022). *Phaseout Pathways for Fossil Fuel Production Within Paris-compliant Carbon Budgets*. [https://www.research.manchester.ac.uk/portal/en/publications/phaseout-pathways-for-fossil-fuel-production-within-pariscompliant-carbon-budgets\(c7235a8e-e3b1-4f44-99de-c27958c03758\).html](https://www.research.manchester.ac.uk/portal/en/publications/phaseout-pathways-for-fossil-fuel-production-within-pariscompliant-carbon-budgets(c7235a8e-e3b1-4f44-99de-c27958c03758).html)
- Climate Action Tracker. (2022). *Global reaction to energy crisis risks zero carbon transition Analysis of government responses to Russia's invasion of Ukraine*. [https://climateactiontracker.org/documents/1055/CAT\\_2022-06-08\\_Briefing\\_EnergyCrisisReaction.pdf](https://climateactiontracker.org/documents/1055/CAT_2022-06-08_Briefing_EnergyCrisisReaction.pdf)
- Kursk, O. B. von, Muttitt, G., Picciariello, A., Dufour, L., Graaf, T. V. de, Goldthau, A., & Hawila, D. (2022). *Navigating Energy Transitions: Mapping the road to 1.5°C*. <https://www.iisd.org/publications/report/navigating-energy-transitions>
- Loop News. (2022, March 23). *Guyana removes excise tax on fuel | Loop Caribbean News*. <https://caribbean.loopnews.com/content/guyana-removes-excise-tax-fuel>
- Malerba, D., Chen, X., Feng, K., Hubacek, K., & Oswald, Y. (2022). *The impact of carbon taxation and revenue redistribution on poverty and inequality*. IDOS. <https://www.idos-research.de/policy-brief/article/the-impact-of-carbon-taxation-and-revenue-redistribution-on-poverty-and-inequality/>
- Naidoo, P. (2022, March 31). *South Africa to Cut Fuel Levy to Ease Impact of Rising Prices*. *Bloomberg.Com*. <https://www.bloomberg.com/news/articles/2022-03-31/south-africa-to-cut-fuel-levy-to-mitigate-against-rising-prices>
- OECD. (2022). *Inventory of Support Measures for Fossil Fuels database*. <https://www.oecd.org/fossil-fuels/data/>
- Pande, S., & Raj, P. (2022, April 28). *China removes import tariffs on various coal grades to secure supplies*. <https://www.spglobal.com/commodityinsights/en/market-insights/latest-news/coal/042822-china-removes-import-tariffs-on-various-coal-grades-to-secure-supplies>
- Sgaravatti, G., Tagliapietra, S., & Zachmann, G. (2021). *National fiscal policy responses to the energy crisis*. Bruegel | The Brussels-Based Economic Think Tank. <https://www.bruegel.org/dataset/national-policies-shield-consumers-rising-energy-prices>
- Trkanjec, Z. (2022, March 11). *North Macedonia government sends changes to VAT law to parliament – EURACTIV.com*. [https://www.euractiv.com/section/politics/short\\_news/north-macedonia-government-sends-changes-to-vat-law-to-parliament/](https://www.euractiv.com/section/politics/short_news/north-macedonia-government-sends-changes-to-vat-law-to-parliament/)

Urosevic, B. (2022, April 8). Serbia extends fuel price caps through April. *SeeNews*. <https://seenews.com/news/serbia-extends-fuel-price-caps-through-april-780254>

Vengattil, M. (2022, May 21). Indian government trims tax on fuel, essential commodities to fight inflation. *Reuters*. <https://www.reuters.com/world/india/indian-government-trims-tax-fuel-fight-inflation-2022-05-21/>

Vohra, K., Vodonos, A., Schwartz, J., Marais, E. A., Sulprizio, M. P., & Mickley, L. J. (2021). Global mortality from outdoor fine particle pollution generated by fossil fuel combustion: Results from GEOS-Chem. *Environmental Research*, 195, 110754. <https://doi.org/10.1016/j.envres.2021.110754>

Zhang, Z. (2021, November 1). *China Plans to Allow Certain Businesses to Defer Tax Payments in Q4*. China Briefing News. <https://www.china-briefing.com/news/china-to-defer-tax-payments-for-manufacturing-msmes-coal-fired-power-plants-and-heating-firms/>