Education International Research

Fossil Fuel Subsidies: A Briefing for Education Unions

Summary

Zeynep Clulow
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There is a strong consensus that fossil fuel subsidies (FS) obstruct the attainment of multiple sustainable development goals (SDGs) including poverty eradication (SDG1), global health (SDG3), gender equality (SDG5) and transition to affordable, reliable energy (SDG7) and sustainable consumption and production (SDG12).

Consequently, international organizations, NGOs, policymakers and academics are increasingly calling for the phase-out of inefficient FS as a critical part of efforts to meet ambitious global climate targets. Yet despite a recent increase in demand and the success of multiple countries at subsidy reform, FS have increased in many countries, including some of the world's wealthiest and most advanced democracies. Globally, FS accounted for 6.8 percent of world GDP in 2020 and is expected to continue rising.

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In particular, it is well documented that FS are detrimental for SDG 4: in general, countries that devote a large share of national income to FS tend to perform poorly in a range of educational outputs and outcomes. Part of the reason behind the negative relationship is that FS spending uses up resources that could be spent on education. Yet this incompatibility also reflects a lack of incentives for policymakers in fossil-rich countries to invest in skills development to support the growth of alternative – including greener and more productive - sectors to fossil industries.

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This policy brief explores the FS-education relationship by combining the most comprehensive recent data on FS from the IMF FS database with educational performance and potential confounding factors from the World Bank World Development Indicators databases, resulting in a dataset of 1651 observations after omitting country-years with missing data, spanning 176 countries from 2010 to 2020. Our two-level regression model (consisting of country-years nested in countries) analyses whether, and if so, how, FS spending influences a range of key educational indicators including enrollment in primary school education and attainment of primary, secondary, tertiary and higher education rates across countries' school aged populations, while accounting for a range of national conditions that could influence education.

Our results show that, even when other potential drivers of education are held constant; (i) FS spending does indeed have a significant bearing on two key indicators of educational performance – completion rates of primary and secondary education; and (ii) the educational effects of FS spending vary widely between different countries. In general, the worst educational effects of FS tend to be concentrated in the poorest countries: In low-income countries, a one-percent increase in the share of GDP spent on FS is associated with a 0.24 and 1.12 percentage point decline in the share of the population aged 25 years and above to have attained primary and secondary education respectively. However, this detrimental effect diminishes with economic development; falling to around 0.10 percent for primary education in medium-income countries and becomes positive in high-income countries.

We also analyse four key countries that, despite spanning a diverse mix of FS spending, educational performance, and economic development, have made important progress in FS reform – namely: Norway, Indonesia, South Africa and India. In-line with the findings of the quantitative analysis, these case studies show that the factors that give rise to and sustain FS and shape their (unique) effects on education vary widely across different countries. These case studies reveal important differences in the facilitating conditions and potential drivers of FS reform. Previous experiences of FS reform show that a general lack of awareness about FS, particularly regarding the level of total income spent on FS - both globally and nationally - as well as a lack of awareness about the broader, multifaceted adverse effects and trade-offs with key aspects of human development are important ongoing obstacles to fossil phase-out. Crucially, many countries that have successfully phased-out FS show that public information can be a critical factor for ensuring the public acceptability of reform. This policy brief argues that better information- particularly targeting young people who will bear most of the future consequences of FS policy - as well as improved transparency and monitoring are likely to increase prospects for global FS phase-out. In addition, it is also important that potential losers of FS reform – notably fossil-intensive

industries and poor segments that rely on FS – are provided with and made aware of effective compensatory measures such as appealing employment opportunities in alternative industries and better welfare provision.

Education has a critical role to play in supporting the phase-out of inefficient FS globally. Most obviously, perhaps, educators, coordinated by education unions, should help design and implement extensive education campaigns to teach key stakeholders about the (explicit and hidden) costs of FS and potential benefits of reform. Yet beyond this, a fleet of engineers, natural scientists, energy provides, policymakers and, at some level, general publics, will need to develop a range of green skills for understanding, navigating, designing, implementing and governing a just transition from fossil fuel energies to low carbon energy sources. Skills development, training and knowledge transfer of the latter are key points for education unions to focus on. Relatedly, by increasing public awareness and understanding about FS, education can help cultivate more informed and interested publics who will be better able and motivated to partake in energy decision-making, thereby increasing the transparency and legitimacy of reform.

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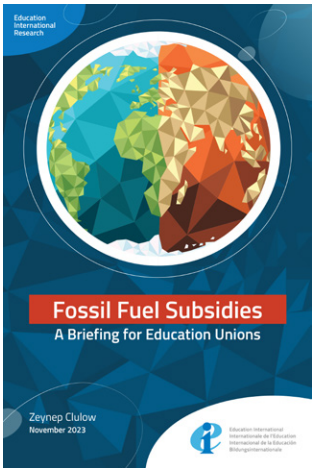
Education unions could also use their links to local and national educators to access valuable local knowledge and connections for uniting potential beneficiaries of reform by educating them about the potential gains they stand to make from phase-out. Local educators could also play a critical role in providing ground knowledge for identifying the most effective and socially acceptable measures for overcoming the unique set of challenges of reform in different countries. In addition, education unions could tap into international fora that have grown increasingly interested in the importance of FS reform for meeting global decarbonisation and net zero targets. Key focal points in this regard include working with relevant international organizations to develop materials for raising awareness among key stakeholders, improving transparency and disseminating emerging norms and requirements for effective monitoring.



The full research paper by Zeynep Clulow can be found here: ***https:/eiie.io/FossilFuels***

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