

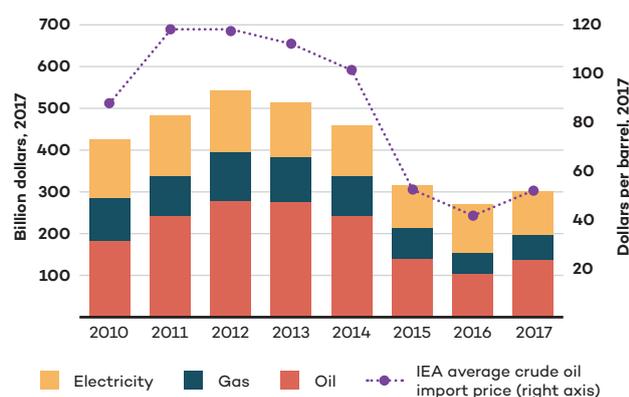
The Friends of Fossil Fuel Subsidy Reform Network

Why reform fossil fuel subsidies?

Governments subsidize fossil fuels to lower the price of the production and consumption of fossil fuels, so the economy and population can receive cheaper fuels. However, fossil fuel subsidies (FFSs) have a series of negative effects. FFSs are socially regressive,¹ encourage wasteful consumption, increase local pollution, contribute to climate change, disadvantage clean energy technologies and are a drain on scarce public resources.

After four consecutive years of decreasing FFS levels, in 2017 the global value of FFS went up, notably reflecting an increase in international oil prices. In 2017 governments spent almost USD 400 billion² on subsidies to fossil fuel, going up by 11 per cent compared to previous year.

Figure 1. Estimates for global fossil fuel consumption subsidies



Source: IEA, 2018.

¹ This means that FFSs tend to disproportionately benefit wealthier consumers, despite subsidy policy objectives often aimed at the contrary. Gasoline subsidies are especially regressive, with more than 80 per cent going to the top two quintiles of society (Coady, Flamini, & Sears, 2015).

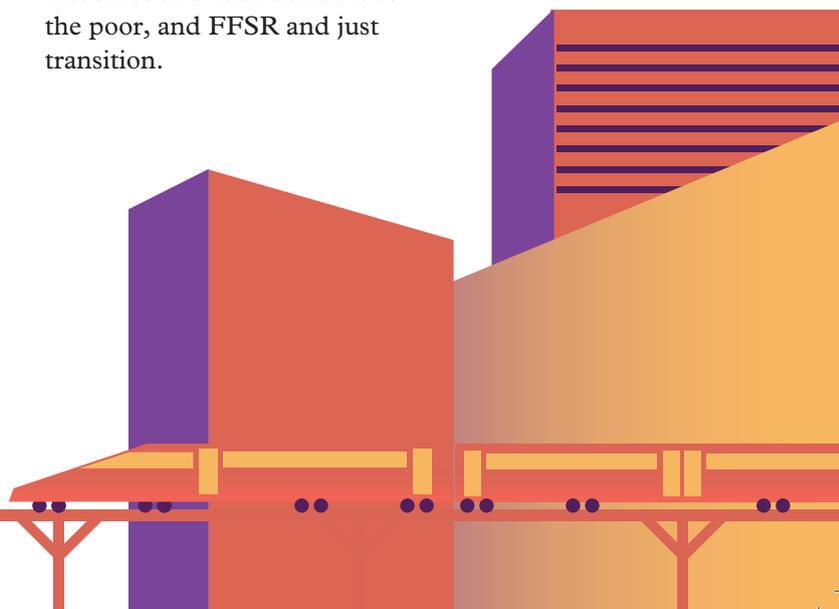
² Global Subsidies Initiative (GSI) estimate based on International Energy Agency (IEA) (2018) and Laan (2010).

³ All of the webinar topics and materials are available at: <http://fffsr.org/webinars>

Removing FFSs frees up resources to invest in sustainable development for society, such as in the areas of health, education, public welfare and low-carbon energy pathways. Fossil fuel subsidy reform (FFSR) presents a huge opportunity to relieve pressure on government budgets and redistribute savings to other sectors to support the delivery of both the Paris Agreement and the Sustainable Development Goals (SDGs). As international oil prices go up, these alternatives become more relevant, as FFSs tend to disproportionately benefit wealthier consumers. It is important to understand the impacts of higher oil prices and to support governments in maintaining reforms made in previous years while also protecting the poor and vulnerable via targeted safety nets.

What is the Friends' Network?

In 2018 the Friends of Fossil Fuel Subsidy Reform (FFFSR, or the Friends) created the Friends' Network to build an international network of government officials to share lessons, knowledge and experiences, and to encourage innovative thinking on the successful implementation of FFSR. A series of five virtual interactive roundtables took place in 2018 with the participation of representatives from around 20 countries from around the world.³ The topics included: self- and peer reviews of FFS, communications, FFSR to sustainable energy (swaps and climate impacts), mitigation measures and cash transfers to the poor, and FFSR and just transition.



Friends of Fossil Fuel Subsidy Reform

Set up in June 2010, the “Friends” is an informal group of non-G20 countries aiming to build political consensus on the importance of FFSR. Current members of the Friends group are: Costa Rica, Denmark, Ethiopia, Finland, New Zealand, Norway, Sweden, Switzerland and Uruguay. Learn more on www.ffsr.org

The increase in international oil prices creates an urgent need to support governments in maintaining reform efforts from the last four years and managing the increasing cost of fuels throughout the economy and population, including via social mitigation measures to protect the poor. The Friends’ Network welcomes government officials and policy-makers interested in learning more about FFSs and the opportunities of reform.

SOURCES:

Coady, C., Flamini, V. & Sears, L. (2015). *The unequal benefits of fuel subsidies revisited: Evidence for developing countries*. Paris: IMF. Retrieved from <https://www.imf.org/external/pubs/ft/wp/2015/wp15250.pdf>

Friends of Fossil Fuel Subsidy Reform. (n.d.). Webinars. Retrieved from <http://ffsr.org/webinars/>

International Energy Agency (IEA). (2018). *World energy outlook 2018*. Paris: IEA/OECD.

Laan, T. (2010). *Gaining traction: The importance of transparency in accelerating the reform of fossil-fuel subsidies*. Retrieved from https://www.iisd.org/gsi/sites/default/files/transparency_ffs.pdf

1. Self- and Peer Review of Fossil Fuel Subsidies

The Leaders of the Group of 20 (G20) committed in September 2009 to phasing out inefficient FFSs. Asia-Pacific Economic Cooperation (APEC) leaders made a similar commitment in November 2009. Voluntary self- and peer reviews are currently the main outcome of the G20 and APEC commitments, undergone by an increasing number of countries.

Self- and peer review of FFSs are two processes by which countries can analyze policies and measures related to FFSs in order to identify those that are environmentally, socially and/or economically inefficient for governments and society. Self-reviews are normally done by individual countries, whereas the peer review process involves other countries and a panel of international experts. Self-reviews are the first step to a peer review. The self- and peer review process consists of a series of building blocks, including: identifying and defining FFSs, defining the scope of the review, measuring and collecting data on FFSs, evaluating the impacts of the reviewed FFSs and, finally, based on the study, considering and planning for reform. Figure 2 represents the sequence of these building blocks and the main options to consider under each block.

Self- and peer reviews of FFSs have positive impacts in terms of transparency and accountability. They provide common ground and understanding around subsidies within a country and across the international community, creating cooperation between countries that are working together to reduce FFSs. Countries that have undertaken the process also highlighted that peer reviews support the decision-making process when it comes to the definition and implementation of related policies.

SOURCES:

Gerasimchuk, I. (2018). *Self- and peer reviews of fossil fuel subsidies: An introduction* (PowerPoint slides). Retrieved from <http://ffsr.org/webinars/>

Gerasimchuk, I. Wooders, P., Merrill, L., Sanchez, L., & Kitson, L. (2017). *A guidebook to reviews of fossil fuel subsidies: From self-reports to peer learning*. Retrieved from <https://www.iisd.org/library/guidebook-reviews-fossil-fuel-subsidies>

Organisation for Economic Co-operation and Development. (n.d.). *G20 voluntary peer reviews of the reform of inefficient fossil fuel subsidies* (OECD-IEA fossil fuel support and other analysis). Retrieved from http://www.oecd.org/site/tadffss/publication/default/files/transparency_ffs.pdf

Figure 2. Scheme representing the selected combinable options in the process of reviewing FFSs

| Element | Identifying and Defining FFS | Review Scope | Subsidy Measurement | FFS Evaluation | Next Steps on Subsidies Under Review |
|-----------------------------|---|---|---------------------------------------|--|---|
| Selected combinable options | Subject matter (Fossil fuels; electricity and heat) | Subject matter (FFS; Environ. Harmful Subsidies reform efforts; etc.) | Data collection (templates) | "Inefficient" | Identification of need for reform and required action; |
| | Definitions | Agencies involved Geography (national, subnational and local level) | Method | "Wasteful consumption" "Providing targeted support for the poorest" | Publication and wider discussion with stakeholders. Translation into a national language |

Source: Gerasimchuk, 2008.

China's peer review of fossil fuel subsidies

In 2016, China, together with the United States, was one of the first G20 countries to complete a peer review of FFSs under the G20 commitment. China's peer-review report listed nine subsidies worth USD 14.5 billion. Previously, China had completed their self-review report of FFSs, which was remarkable for setting a plan and timeline for reform.

As part of the peer review process, China and the United States, together with external experts, made joint visits in each country to assess and review self-reports previously completed, as well as to conduct further consultation. China recognized the benefits of cooperation, which provided a "better understanding of the needs, methods and best practice of the reform" as well as "a starting point and a new angle for decision making evaluation." China also identified some important aspects for an efficient peer review, including: "a peer review panel with a diversified background, and a good chair" and "efficient country meetings and well-planned drafting for exchange."

SOURCES:

Organisation for Economic Co-operation and Development. (n.d.). *G20 voluntary peer reviews of the reform of inefficient fossil fuel subsidies* (OECD-IEA fossil fuel support and other analysis). Retrieved from <http://www.oecd.org/site/tadffss/publication/>

Qi, A. (2018). *Country case: China* (PowerPoint slides). Retrieved from <http://fffsr.org/webinars/>

Finland's self-reviews of fossil fuel subsidies

Finland examined FFSs on two occasions, following the commitment made by the European Union to phase out potential Environmental Harmful Subsidies (EHSs) by 2020. By doing so, the country voluntarily opted for a broader scope review, beyond FFSs.

Finland conducted FFS reviews under two exercises and two approaches, considering subsidies to the transport, energy and agriculture sectors. The first review, in 2013, was linked to the Prime Minister's Programme and used a "traffic light system" to grade the impact of various subsidies. The second review, in 2015, focused on biodiversity and used a "support cloud" approach to show gradations of impact and to provide more nuance when classifying the subsidies.

The review had a broad mandate and it helped to assess subsidies against wider economic, social and environmental impacts. As one of the outcomes, Finland developed its Principles of Good Support, bearing in mind that each euro of public support should have the maximum value to society.

SOURCES:

Honkatukia, O. (2018). *Experiences with self review of fossil fuel subsidies in Finland* (PowerPoint slides). Retrieved from <http://fffsr.org/webinars/>

Gerasimchuk, I. Wooders, P., Merrill, L., Sanchez, L., & Kitson, L. (2017). *A guidebook to reviews of fossil fuel subsidies: From self-reports to peer learning*. Retrieved from <https://www.iisd.org/library/guidebook-reviews-fossil-fuel-subsidies>

2. Communicating Fossil Fuel Subsidy Reform

Clear communication of FFSR and price changes with the public is a key part of delivering successful reforms, helping to prepare the foundation for necessary policy change.

Political economy issues are often the main barrier to successful FFSR. By developing strategic communications around FFSR and clearly showing how savings will benefit the population going forward, governments can ensure that the rationale for reform is understood; that existing allies can be activated to support reforms; that some stakeholders can be influenced toward either neutral or supportive views; and they can counter opposition. This approach benefits the reform process and allows transparency and accountability, building trust between the political sector and civil society.

The development of a communications strategy is a circular process that includes the five main stages represented in Figure 3 and summarized as follows:

- The starting point implies setting the objectives and organizing the process internally, including whole-of- government buy-in and the availability of adequate capacity to support the process.
- Identify and understand audiences' attitudes and how they access information through an evidence-based approach. Tools like population surveys, focus group discussion or in-depth interviews with key stakeholders are very useful.
- Develop messages to target specific audiences (e.g., specific sub-set of households, specific economic sectors, labour groups, specific cities, etc) and which speak to the heart as well as the head.

- Define when and through which channels to best communicate, according to analytical data. A key requirement for this phase is to plan with time: the process should start as early as possible to complete research and consultation with specialists and stakeholders.
- Monitor and evaluate impacts of the communications strategy through periodic reviews and adapting the strategy in light of evidence and new circumstances.

Country circumstances are very individual, but these phases respond to common needs in terms of planning and preparation of the communications process.

SOURCES:

Beaton, C. (2018). *Communication of energy subsidy reforms: Key recommendations* (PowerPoint slides). Retrieved from <http://fffsr.org/webinars/>

Beaton, C., Gerasimchuk, I., Laan, T., Lang, K., Vis-Dunbar, D., & Wooders, P. (2013). *A guidebook to fossil fuel subsidy reform for policy-makers in Southeast Asia*. Retrieved from https://www.iisd.org/gsi/sites/default/files/ffs_guidebook.pdf

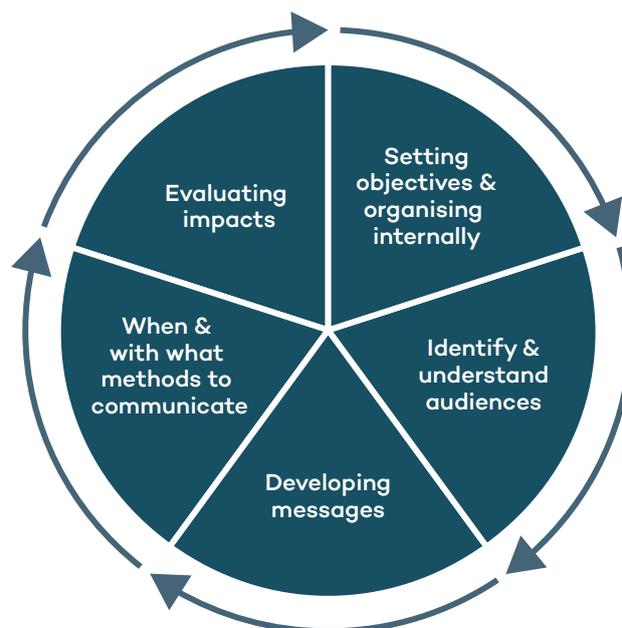


Figure 3. Main stages of a communications strategy.

Source: Beaton, 2018.

Communicating fossil fuel subsidy reform in Kurdistan

In Kurdistan, 95 per cent of electricity generation in 2017 was fossil fuel based. In an attempt to reduce unsustainable FFSs, a communication campaign with two interlinked strategies was launched:

1. Reduce losses, improving collection rates and payment of electricity bills
2. Reduce subsidies, facilitating the acceptance of a tariff increase by electricity consumers

A public household survey was conducted to collect consumer information and provide the government with information about the public's perception and preferences related to electricity efficiency and tariff reform. The information about public opinion aimed to improve the design of the communication strategy to create consumer buy-in of the needed reforms and limit public opposition.

With the right communications strategy and messages, the government could raise awareness among households about the benefits of reform, improving infrastructure and offering a more reliable electrical service.

SOURCE:

Hasan, A. (2018). *Challenges and reforms in the electricity sector relating to unsustainable price subsidies and public communication* (PowerPoint slides). Retrieved from <http://fffsr.org/webinars/>

Communicating fossil fuel subsidy reform in India

In Uttar Pradesh India, almost 80 per cent of electricity is generated from coal. Between fiscal year (FY) 2014 and (FY) 2016, electricity subsidies to transmission and distribution increased from USD 6.7 billion to USD 9.9 billion. Moreover, in Uttar Pradesh, India's most populous state (199.8 million), only 49 per cent of the households were electrified in 2017. Without tariff reform, the target of achieving universal household electrification in this state before March 2019 is extremely challenging. Usually, tariff revisions are faced with a lot of protests from civic society.

Trying to identify opportunities for introducing tariff reform, India conducted studies on the attitudes of consumers. The research included consumer views on:

- Experiences with the electricity supply
- Perceptions on subsidies and tariff reform
- Coping mechanisms against tariff hikes
- Means to channel influence

The results of this research can be used by authorities to create a communication strategy, choosing a narrative consistent with the consumer's views. Also, based on analysis, optimal targeted compensation mechanisms can be investigated and planned.

SOURCES:

Sharma, S. (2018). *Electricity tariff reform in Uttar Pradesh, India: Challenges & key findings* (PowerPoint slides). Retrieved from <http://fffsr.org/webinars/>

Sharma, S., Garg, V., Moerenhout, T., & Beaton, C. (2018). *Electricity sector reform in Uttar Pradesh: Analysis of tariff adjustments and the Ujwal Discom Assurance Yojana Plan (UDAY)*. Retrieved from <https://www.iisd.org/sites/default/files/publications/electricity-sector-reform-uttar-pradesh.pdf>

3. FFS Reform to Sustainable Energy: “Swaps” and climate impacts

FFSs can make up a substantial part of government financial planning and represent high costs to the public budget. Reforming FFSs can enable the redistribution of those funds to other sectors of society that are in need of investments and that promote sustainable development.

The reform of FFSs also has important co-benefits of reducing carbon emissions and therefore helping to achieve the Paris Agreement climate targets. A recent study estimated that FFS reform could lead to carbon emission reductions equivalent to a quarter of the combined effort currently proposed by countries as

part of the Paris Agreement (Jewell et al., 2018). The Global Subsidies Initiative (Merrill, Bassi, Bridle, & Christensen, 2015) estimated that, if a modest part of the savings from the FFSR was also invested into renewables and energy efficiency, emission reduction gains would be magnified.

A subsidy swap is the transfer of some of the government resources from FFS savings from reforms toward renewable energy, energy efficiency or public transport sectors, promoting a national transition to clean energy forms and helping with national goals toward meeting the Paris Agreement goals.

A subsidy swap should happen gradually, and total subsidies would not disappear overnight. There are three key stages in a subsidy swap, represented in Figure 4. In the longer term, the swap would result in a net decrease of the total subsidy and carbon emissions. Subsidies to renewable energy sources are expected to strongly decrease and even disappear over time as the price of renewable technologies becomes more competitive with the development of economies of scale, and—a big difference from FFSs—as the renewable energy alternatives pay off their initial investment and produce electricity at a minimal cost.

SOURCES:

Bridle, R. (2018). *Fossil fuel to renewable energy subsidy swaps* (PowerPoint slides). Retrieved from <http://fffsr.org/webinars/>

Jewell, J., McCollum, D., Emmerling, J., Bertram, C., Gernaat, D., ... & Riahi, K. (2018) Limited emissions reductions from fuel subsidy removal expect in energy exporting regions. *Nature*, 554, 229–233. Retrieved from <https://www.nature.com/articles/nature25467>

Merrill, L. (2018). *Climate impacts of fossil fuel subsidy reform*. (PowerPoint slides). Retrieved from <http://fffsr.org/webinars/>

Merrill, L., Bassi, A. M., Bridle, R. & Christensen, T. L. (2015). *Tackling fossil fuel subsidies and climate change: Levelling the energy playing field*. Temanord, Norden. Retrieved from <http://norden.divaportal.org/smash/record.jsf?pid=diva2%3A860647&dsid=8225>

Potential energy swaps in India and Morocco

India presents a swap opportunity to transition from kerosene to solar power. Since FY 2014/15, the government has saved more than INR 26,470 crore (USD 3.7 billion) in the reform of kerosene subsidies. These savings could be re-invested in supporting the replacement of kerosene by off-grid solar power, such as pico photovoltaic (PV) systems.

Morocco spent USD 967 million on butane subsidies in 2017. A considerable share of subsidised butane is used for water pumping in agriculture. To incentivize the transition to clean energy, farmers who choose to implement solar irrigation could be offered preferential loans to replace butane pumps. Increasing the deployment of solar pumps would be expected to lower the prices for this technology, becoming a price competitive alternative to butane pumps

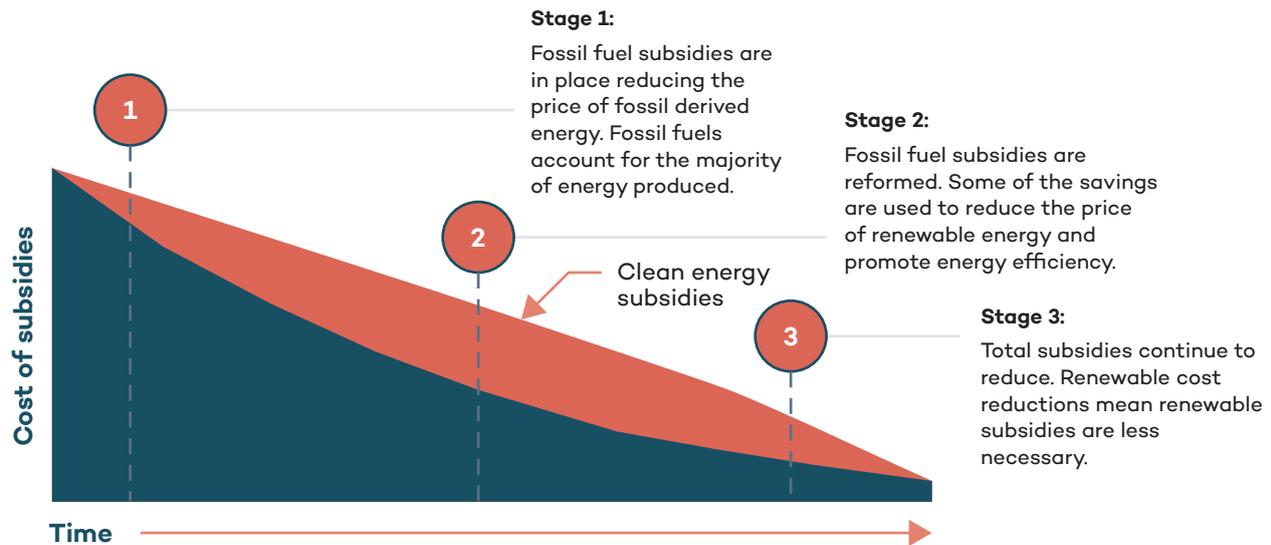
SOURCES:

Gill, B., Shardul, M., Sharma, S., & Bridle, R. (2018). *Kerosene to Solar PV subsidy swap: The business case for redirecting subsidy expenditure from kerosene to off-grid solar*. Retrieved from <https://www.iisd.org/sites/default/files/publications/kerosene-solar-subsidy-swap.pdf>

Bridle, R. (2018). *Fossil fuel to renewable energy subsidy swaps* (PowerPoint slides). Retrieved from <http://fffsr.org/webinars/>

Zinecker, A., Gagnon-Lebrun, F., Touchette, Y., Temmam, M., Boussetta, M., Ben Driss, A., & Mhaouel, I. (forthcoming). *Swap: Reformer l'appui au gaz butane pour investir dans le solaire au Maroc*. Geneva: IISD.

Figure 4. Stages of subsidy swaps



Source: Bridle, R. (2018).

Potential energy swaps in Zambia

In Zambia, the government is planning to increase electricity generation significantly in order to meet the rapidly increasing demand and improve electricity access—currently only 28 per cent of the population has access to electricity. To meet these challenges, the country needs to add power plants or to reduce the demand. Subsidies to the electricity sector cost the government USD 26 million per month between September 2015 and May 2016, leading to deficits and threatening the sector’s financial sustainability. The mining sector is the main energy consumer, accounting for 55 per cent of total demand in the country.

In order to reduce the cost of subsidies, a reform of the electricity pricing for the mining sector is crucial. This would open two subsidy swap options: i) reduce electricity subsidies to the mining sector and fund energy efficiency and ii) reduce subsidies through the replacement of expensive fossil fuel electricity generators with renewable energy.

SOURCES:

Bridle, R., Halonen, M., Klimesheffskij, M., Mukumba, C., & Siwabamundi, C. (forthcoming). *Subsidy swap implementation plan: Zambia*. Geneva: GSI/IISD.

Merril, L., Bridle, R., Klimesheffskij, M., Tommila, P., Lontoh, L., Sharma, S., Touchette, Y., Gass, P., Gagnon-Lebrun, F., Sanchez, L., Gerasimchuk, I. (2017). *Making the Switch. From fossil fuel subsidies to sustainable energy*. Nordic Council of Ministers.

World Bank. (2016). *Beating the slowdown: Making every kwacha count (Zambia Economic Brief)*. Retrieved from <http://documents.worldbank.org/curated/en/804591467989562427/pdf/106508-WP-P157243-PUBLIC.pdf>

4. Protecting the Poor and Energy Access: Successful FFSR through mitigation measures

Poor households are especially vulnerable to increases in energy prices. To protect poor households against the negative impacts of FFSR, governments have a range of tools at their disposal. Governments can better target subsidies to poorer sections of society, introduce cash transfers or use subsidy savings to strengthen social safety nets.

There are many international examples of mitigation measures to provide economic and social assistance to vulnerable groups prior or parallel to reforms. Policy examples include:

- Infrastructure to enable access to key services (e.g., power, clean water, transport, irrigation)
- Subsidized goods or services (e.g., food, water; transport, health, education)
- Cash transfers: unconditional (UCTs), usually short-term, or conditional (CCT), typically maternal healthcare, nutrition, school attendance
- Social security programs (e.g., health insurance, pensions)
- Job creation schemes (e.g., public works, internship programs, training, microcredits, etc.)
- Minimum wage, tax reductions
- Targeted energy subsidies, usually for energy access reasons

Social protection programs should be prepared well in advance as part of a comprehensive reform package. Analytical work can help policy-makers identify the population groups most vulnerable to reform, at risk from price increases, and understand their biggest needs to define adequate policies or programs that can mitigate price increases from reforms.

SOURCE:

Beaton, C., Gerasimchuk, I., Laan, T., Lang, K., Vis-Dunbar, D., & Wooders, P. (2013). *A guidebook to fossil fuel subsidy reform for policy-makers in Southeast Asia*. Retrieved from https://www.iisd.org/gsi/sites/default/files/ffs_guidebook.pdf

FFSR and compensation to the poor in Indonesia

Indonesia completed its reform of subsidies to gasoline and diesel in 2015. Subsidies were recognized as regressive, in that the rich benefited more from them, and had a high cost to the public budget. Reforms enabled the government to unlock funds needed for pro-poor development.

In Indonesia, the poor and vulnerable communities represent 40 per cent of the population. They were expected to be affected by the FFSR due to rising inflation, so compensatory measures were needed for a specific period of time after the reform.

Indonesia already had a system in place to better target the social protection programs: the Unified Data Base (UDB), created in 2012, contains the names and addresses of the bottom 40 per cent income groups, around 93 million people (26 million households). The country had previously implemented compensatory measures for the poor and vulnerable following previous fuel price increases, including unconditional cash transfers to the poor and near poor, and a program to make rice prices affordable to low-income households. These programs were limited to a few months and were reactivated in parallel to the fuel price reform in 2013/14. Price reforms in Indonesia were also joined by programs to expand health coverage and education access.

Overall, Indonesia demonstrated that the savings from reforming FFSs can be redirected to more productive development agendas.

SOURCES:

Satriawan, E. (2018). *Navigating fuel subsidy reform: Indonesia's experience* (PowerPoint slides). Retrieved from <http://fffsr.org/webinars/>

Subsidies and energy access

FFSR could hold significant opportunities for energy access. The SDGs call for universal energy access by 2030, which in 2016 was far from reality: 1.1 billion people lived without electricity and about 2.5 billion relied primarily on traditional cooking fuels.

Consumer FFSs sometimes are designed with the good intention to support access to energy and cooking. However, consumer FFSs have unintended consequences when it comes to energy access: they often leave out those without energy access—mostly the poorest; because they are often highly regressive, they benefit mostly the rich instead of the poor; and they can also drive fuel shortages. However, with careful targeting savings, the reform of fossil fuel subsidies could finance the global energy access funding gap 7.5 times over.

In the context of SDG 7, GSI recommends the following three approaches to accelerate energy access through FFSR: remove, target or swap (detailed in Figure 5).

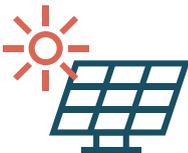
| | | |
|--------|---|--|
| REMOVE |  | <p>Phase out fossil fuel subsidies that have no or little potential for energy access</p> <p>Some fossil fuel subsidies have little or not potential to improve energy access. Governments should aim to phase out such subsidies, taking adequate steps to mitigate negative economic or social impacts, particularly for poor households and women.</p> <p>Examples: producer subsidies; gasoline and diesel subsidies</p> |
| TARGET |  | <p>Targeted subsidies aimed at access for those that really need them</p> <p>Some fossil fuel subsidies are used to incentivize the use of energy technologies for which there is no short-term sustainable alternative. If these subsidies are deemed necessary, governments should improve the effectiveness and efficiency of these subsidies through targeted subsidies aimed at poor households. Facilitating new connections should be a major focus in this respect.</p> <p>Examples: liquid petroleum gas (LPG) subsidies; electricity subsidies</p> |
| SWAP |  | <p>Shift fossil fuel subsidies to investments in renewable energy and energy efficiency</p> <p>Shifting subsidies to renewable energy technologies for every access and energy efficiency can support households and improve the sustainability of energy access.</p> <p>Examples: kerosene subsidies for lighting; diesel subsidies for agriculture; subsidies to transport fuels; subsidies to coal and gas for electricity generation</p> |

Figure 5. Recommendations to accelerate energy access through FFSR.

SOURCES:

World Bank. (2018). *Tracking SDG7: The energy progress report 2018*. Washington, DC: World Bank.

Zinnecker, A., Sanchez, L., Sharma, S., Beaton, C., & Merrill, L. (2018). *Getting on target: Accelerating energy access through fossil fuel subsidy reform*. Geneva: GSI/IISD. Retrieved from <https://www.iisd.org/sites/default/files/publications/getting-target-accelerating-energy-access.pdf>



5. FFSR and Just Transition to a Sustainable Low-Carbon Economy

The transition to a sustainable low-carbon economy can affect the future and livelihoods of workers of certain sectors and their communities. It is important to protect these workers' rights by compensating communities and workers who lose their jobs, creating new jobs and ensuring social justice and protection of communities—that is, workers should be ensured a just transition.

According to the International Labour Organization (2015) *Guidelines for a Just Transition to Environmentally Sustainable Economics and Societies for All*, transitions to environmentally and socially sustainable economies can become a strong driver of job creation, job upgrading, social justice and poverty eradication. However, the cost of just transition is estimated to be very high, reaching billions of dollars. For example, in the Netherlands, the transition for mining workers was estimated to cost approximately EUR 11.6 billion, including subsidies to support coal prices and regional reconversion (Caldecott, Sartor, & Spencer, 2017).

FFSR is an important ally for the process of a just transition and could be more successful under a just transition framework. FFSR can support a just transition by:

- Helping to close the financing gap for just transition.
- Including targeting measures to vulnerable groups (workers and energy consumers) that help advance both just transition and transition to a green economy.
- Defining holistic and smooth implementation plans, which are well planned, transparent and understandable, aiming to avoid unintended consequences.
- Creating potential employment opportunities in the clean energy sector, as the removal of FFSs helps to create a level playing field for renewables and energy efficiency. The ILO projects that the renewable energy sector is more labour-intensive than fossil fuels (International Labour Organization, 2011).

SOURCES:

International Labour Organization. (2011). *Investment in renewable energy generates jobs: Supply of skilled workforce needs to catch up*. Geneva: ILO.

Caldecott, B., Sartor, O., & Spencer, T. (2017). *Lessons from previous 'coal transitions': High-level summary for decision-makers*. Climate Strategies & IDDRI.

FFSR and just transition

There are several country examples of how the reform of FFSs was or could have been linked to just transition principles, notably considering workers:

- In the Netherlands, reform of the coal sector was driven by the emergence and increasing competitiveness of natural gas as a substitute for coal. The reform had employment at the forefront, as the workers' transition was the overall goal.
- In Mexico, where FFSR was driven by economic arguments, changes made to accommodate workers' concerns after the reform of FFSs were a reaction to the reform process.
- In Argentina, the recent FFSR was motivated by the need to decrease the fiscal burden of subsidies. Some compensatory measures were defined, notably for vulnerable households, although it is still too early to see results.
- In Indonesia, economic arguments were also at the core of the reform, but unlike Mexico and Argentina, the process was smooth, and the government took a whole-economy approach, linking economic and social reforms.
- In Morocco, the government reformed FFSs with the double objective of addressing budgetary constraints and supporting the country's environmental commitments. Morocco implicitly included just transition principles, such as coherent policies across economic, environmental, social, education/training and labour portfolios, and a compensatory investment in renewables.

SOURCE:

Gass, P. & Echeverria, D. (2017). *Fossil fuel subsidy reform and the just transition: Integrating approaches for complementary outcomes. Summary for policy-makers*. Retrieved from <https://www.iisd.org/sites/default/files/publications/fossil-fuel-subsidy-reform-just-transition-summary.pdf>

Interested in knowing more?

The Friends' Network welcomes policy-makers and government officials from countries interested in undertaking reform of fossil fuel subsidies and/or learning about related topics, to better understand the impacts and benefits of FFSR.

For more information about the Network and upcoming webinars, please visit the Friends website <http://ffsr.org/network-resources/> or email Lourdes Sanchez (ffsr@iisd.org)

You will also find more information about the topics discussed in previous chapters in the references provided throughout and via PowerPoint presentations from various speakers found at www.ffsr.org/webinars

