Energy subsidies often prove to be a drain on the fiscal resources of governments in developed and developing countries alike. When prices are kept below cost-recovery levels by energy utilities, the overall viability of the energy sector is adversely impacted, which derailed efforts towards improving quality of service delivery, expanding access, or improving efficiency. While creating unsustainable fiscal pressures, energy subsidies are regressive and inefficient, and lead to overconsumption of fossil fuels, increasing pollution, and greenhouse gas emissions in the process.

Globally, according to IEA estimates, energy subsidies fell from US$532 billion in 2014 to US$325 billion in 2015. This represents about 0.4% of global GDP. Although the fall in oil prices was a major contributor to this decline in subsidies, without the reforms adopted by governments since 2009 the value of subsidies would have been 24% (or US$117 billion) higher.

REFORM CHALLENGES

Even though the negative impacts of energy subsidies are well known, attempts to reduce or remove subsidies in many cases have led to social unrest and policy reversals. Phasing out subsidies, particularly if done suddenly and without strengthened social safety nets or managing expectations of the public, can negatively impact the poor and vulnerable. At the same time, the primary beneficiaries of subsidies—often industries and middle-class consumers—can be expected to resist reductions to these benefits. Finally, there may also be fears that removing subsidies could adversely impact the country’s competitiveness.

Countries looking to embark upon energy subsidy reforms have highlighted the need for significant support over the medium-term in implementing and dealing with the complexities of this issue, particularly with regard to handling the political economy of subsidy and energy pricing reforms; engaging with citizens about the negative impacts of subsidies and the need to reduce them; and designing specific solutions and fiscally prudent ways to mitigate the adverse impacts of reform on poor and vulnerable populations.

ESMAP’S RESPONSE

In response, the Energy Sector Management Assistance Program (ESMAP) launched the Energy Subsidy Reform Technical Assistance Facility in 2013. This multi-year initiative, partially funded by the European Commission and co-led by the World Bank Energy & Extractives and Macroeconomics & Fiscal Management Global Practices, supports governments as they design and implement their energy subsidy reform programs. The Facility offers multi-disciplinary technical assistance on various aspects of the process, including:

- Analysis of the poverty, social, fiscal, macroeconomic, political, economic, and climate change aspects
- Assessment of distributional impacts of subsidies at the household and macroeconomic levels
- Support for policy dialogue, communications strategies, and consensus building
- Support for targeting and delivery of subsidies (e.g., technology-enhanced approaches)
The Energy Sector Management Assistance Program (ESMAP) is a global knowledge and technical assistance program administered by The World Bank. It provides analytical and advisory services to low- and middle-income countries to increase their know-how and institutional capacity to achieve environmentally sustainable energy solutions for poverty reduction and economic growth. ESMAP is funded by Australia, Austria, Denmark, the European Commission, Finland, France, Germany, Iceland, Japan, Lithuania, the Netherlands, Norway, Sweden, Switzerland, and the United Kingdom, as well as The World Bank.

**Knowledge Exchange**

The Facility hosts a number of knowledge exchange activities to encourage peer learning around the world on both diagnostics and solutions among client countries and at the international level. A global conference, held in Copenhagen (2014), brought together governments from across the world that have undertaken energy subsidy reforms or may be considering such reforms. Conferences on energy subsidy reform were organized jointly with the Friends of Fossil Fuel Subsidy Reform at the sidelines of the World Bank/IMF Spring Meetings in 2015 and 2016 where Ministers from a number of client countries shared their experiences. Other regional and technical workshops have been held in the Middle East & North Africa and Central America. These knowledge events and others serve to deepen dialog among governments on regional, global, and technical levels.

In addition, an online platform has been established for government practitioners who are reforming or are planning to reform their energy subsidies. The platform provides a forum for networking and experience-sharing with peers from other countries and with experts. Interviews, online discussions, reports, and videos on various aspects of subsidy reform design and implementation are regularly updated on the platform. Webinars are offered every few weeks with government speakers from across the world, which are simultaneously translated to allow for dozens of other government counterparts to connect through video conferencing from local World Bank offices across several regions.

**Standardized Assessment Framework**

A standardized framework for assessing energy subsidies and the reform environment is also being developed to aid in designing a comprehensive, politically feasible, and socially responsible approach to reforming energy subsidies, including:

- Design and implementation of subsidy reform approaches, energy pricing frameworks, transition plans, stakeholder consultations, and citizen engagement; and suitable social protection and other mitigation mechanisms, including adoption of energy efficiency and renewable energy solutions to mitigate the impacts of price increases

More than 40 engagements at the country and regional levels have been conducted through multi-disciplinary World Bank teams composed of experts in poverty reduction, social protection, energy pricing and reforms, fiscal policy, climate change, social development, and communications.

- Identifying and estimating the fiscal cost of subsidies from both consumption and production angles
- Assessing the incidence of subsidies and distributional impact of these reforms
- Modelling macroeconomic and growth effects and potential impacts on industrial competitiveness
- Assessing local and global environmental externalities of subsidies
- Political economy of reform and citizen engagement

A series of country pilots will inform the framework’s design and it will contain a rapid diagnostic assessment tool. Through country engagements and global events, the Facility is also building a network of global experts and former politicians with a track record of reforming subsidies in their country. This “Panel of Experts and Peers” will help with future country engagements and speak at future events. The Facility also collaborates with several organizations that also undertake pertinent analyses and research on energy subsidy reforms, including the IMF, OECD, the Global Subsidies Initiative, and the International Energy Agency, among others.
**ALGERIA:** This sequenced activity will provide a comprehensive technical assistance package to the Government that includes identification and quantification of subsidies; evaluation of economic and social impacts of reform scenarios; qualitative evaluation of public perceptions of potential reform; and a roadmap for medium-term reform.

**ARMENIA:** This activity will produce analysis to underpin recommendations on how to improve the tariff-setting framework; assess social impacts of tariff increases; identify options to mitigate adverse social impacts; and strengthen the efficiency of public communication about power tariff-setting.

**AZERBAIJAN:** This activity will support the Government in analyzing the need for future electricity price reforms, the poverty and social impacts, quasi fiscal subsidies in the power sector, and the distribution of recent reforms to electricity tariffs.

**BELARUS:** Following the findings and recommendations of a 2014 report, the Government is proceeding with the energy reform strategy and this new activity will support the Government in mitigating the negative social impact of the ongoing energy tariff reform.

**BRAZIL:** This activity will analyze the cost structure in the gas and electricity wholesale market, to identify direct and indirect subsidies, evaluate their impact, and propose forms of elimination.

**CENTRAL AMERICA:** A two-part activity encompassing (i) a comparative analysis of the fiscal and direct distributive impacts of energy subsidies in Central America and (ii) a regional workshop on the “how-to” of energy subsidy reform.

**EGYPT:** The planned third phase of support will focus on technical readiness for price indexation, strengthening fiscal reporting and budgetary pro-

**CENTRAL AMERICA:**

**EGYPT:**

**NEPAL:** This new activity will change how subsidies are delivered for agricultural electricity consumers in Rajasthan, through testing the concept of Direct Benefit Transfer for Electricity.

**IRAQ:** The Bank is assisting the Government to assess and design subsidy reforms, and design communication and outreach strategies, and conduct a qualitative analysis of public perceptions about the energy sector.

**KYRGYZ REPUBLIC:** This second phase of engagement aims to provide technical assistance to the newly established regulatory agency, strengthen capacity to conduct poverty and social impact analyses, and develop citizen engagement strategies.

**MADAGASCAR:** This activity is providing the analytical basis for revising the fuel pricing formula and adjustment mechanism, designing a strategy for enduring fuel price removal and a sensitization campaign, and evaluating current mitigation measures with recommendations.

**MIDDLE EAST & NORTH AFRICA:** This activity is supporting the strengthening of social safety nets in preparation for subsidy reform in Algeria, Djibouti, Jordan, Morocco, Tunisia, and Yemen.

**NEPAL:** This new activity will support analysis to understand the incidence of current energy subsidies in Nepal and estimate the poverty and social impacts of proposed tariff and subsidies reform, conduct assessments to identify and strengthen mechanisms to mitigate negative impacts of tariff increases, and develop citizen engagement strategies.

**SUB-SAHARAN AFRICA:** This new regional study intends to inform policy makers of the current state of power subsidies in the region and suggest design options for delivering power subsidies that are more sharply targeted and with much less leakage.

**TAJIKISTAN:** T An assessment of the social and economic impacts of current electricity and heating pricing policies and of possible pricing reforms was completed.

**UKRAINE:** This sequenced effort aided the Government in implementing pricing reforms in district heating and natural gas while protecting the poor and vulnerable. As an expanded effort, the Government is now working on improving the social assistance program’s targeting and citizen engagement.

**UZBEKISTAN:** This sequenced activity is to support the Government in assessing the fiscal, economic, and social impact of energy subsidies. It also includes the mapping of stakeholders and their incentives for reform, and a review of possible social and poverty mitigation measures.

**VIETNAM:** The first activity supports a communication and outreach strategy for electricity price reforms, while the second effort will assist the Government in determining the size and extent of subsidies in various energy products, reviewing international experience in this area, and eventually designing a roadmap for reforms.

**WESTERN BALKANS:** This effort analyzes the subsidy-related constraints hindering sustainable and affordable energy development in Albania, Kosovo, and Serbia. Additional work will focus on the poverty and social impacts of energy subsidy reforms, and the adequacy of social assistance systems.