



## ENERGY SUBSIDIES & CLIMATE CHANGE

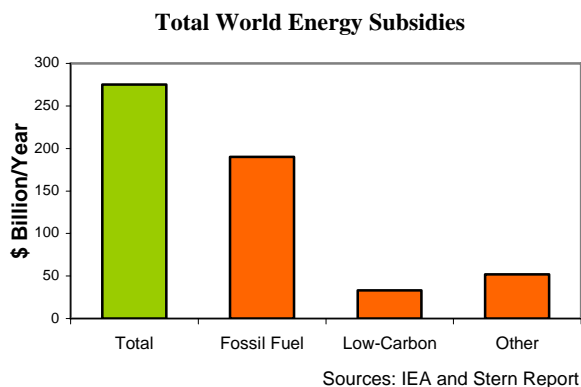
### Subsidies Are a Powerful Tool

Energy subsidies represent a powerful, and potentially dangerous, policy tool for governments to lower energy costs and prices. The environmental, social, and economic impacts of a particular subsidy depend entirely on its focus and implementation. Subsidies aimed at increasing the use of fossil fuels can lead to increased greenhouse gas emissions and climate change. Alternatively, subsidies that promote cleaner and more efficient technologies can be used as an effective tool to reduce the onset of climate change. Given the complex relationship between energy subsidies, climate change, and economic development, a better understanding of the issues surrounding energy subsidies and possibilities for reform is required urgently.

### Understanding the Size of the Problem

Energy subsidies vary greatly in their focus, size, scope, duration, and geographical distribution. In non-OECD countries, subsidies are most prominently used to promote consumption, whereas in OECD

countries, they largely take the form of tax breaks or direct payments to producers for stimulating production or research and development. World annual energy subsidies are on the order of \$250 to \$300 billion, with fossil fuel subsidies accounting for almost \$200 billion.



### Energy Subsidies Can Fail

Governments generally intervene in energy markets by providing subsidies to reduce or maintain household prices for social reasons, or to protect national industries from foreign competition. However,

previous experience has shown that subsidies can distort markets, be costly to manage, and are susceptible to abuse. Specifically, energy subsidies to fossil fuels can:

- place a heavy burden on government finances;
- stunt the potential for economic growth;
- distort international trade;
- deter private and public investment in the energy sector;
- discourage energy conservation and hinder the expansion of distribution networks; and
- impede the development of competing technologies that may be more cost-efficient and environmentally friendly.

### Reforming Energy Subsidies

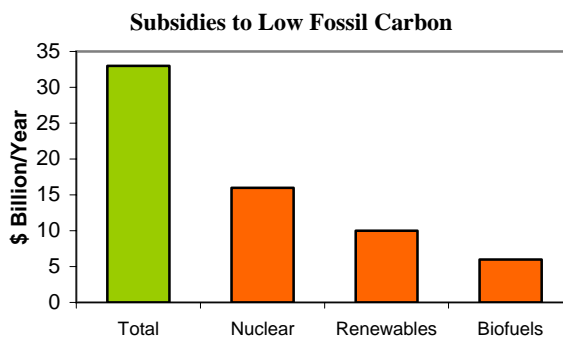
The Kyoto Protocol highlights the reduction or elimination of subsidies as one of the measures available to developed countries to reduce their greenhouse gas emissions. A recent study by the OECD shows that global energy-related CO<sub>2</sub> emissions would be reduced by more than 6% and real income increased by 0.1% by 2010 if all fossil fuel subsidies in the industrial and power sectors were removed.

## Supporting Clean Energy

Not all energy subsidies are environmentally harmful. Targeted subsidies for clean energy can help mitigate greenhouse gas emissions and reduce reliance on imported fuels. Subsidies used to support renewable energy and energy-efficient technologies can help counter pre-existing market externalities, or the high start-up costs for developing and deploying clean energy technologies. The use of such subsidies has increased in recent years, especially in the OECD, but they remain small relative to fossil fuel subsidies. Subsidies for the deployment of low fossil carbon energy sources currently amount to \$33 billion per year, including controversial support for nuclear energy and biofuels.

## Understanding Barriers to Reform

Governments are often faced with awkward trade-offs between the long-term economic and environmental benefits of reforming subsidies and the short-term social costs of higher fuel prices or lower employment in domestic energy industries. For example, in many former Soviet states, cutting subsidies for modern household cooking and heating fuels has had a dramatic short-term negative impact on living standards. Likewise, removing coal subsidies can have a devastating short-term effect on employment and incomes in local communities that remain dependent on mining. Understanding these trade-offs is essential to developing effective, equitable, and practical approaches to reform.



Source : Stern Report

## The Way Forward

Reforming environmentally harmful subsidies is an essential component of national and international efforts to facilitate the transition to a more sustainable and secure energy future. However, there is a pressing need for more transparent and reliable information on the scale and impacts of subsidies and for assistance to governments in the development of reform packages. An increased and coordinated focus and enhanced communication on the issue of energy subsidies by individual national governments, other stakeholders and the international community are urgently needed. UNEP is ready to help the international community in this endeavor.

UNEP published the book “Energy Subsidies – Lessons Learned in Assessing Their Impact and Designing Policy Reforms” in 2004. Since then, UNEP has initiated a multi-stakeholder process to address the challenges of energy subsidy reform. Together with the United Nations Economic Commission for Europe (UNECE) and Statistics Sweden (SCB), UNEP convened two meetings of experts in Geneva in November 2007 and May 2008. These experts from inter-governmental and non-governmental organisations evaluated work done in this area, shared perspectives, and proposed collective efforts to move the issue of energy subsidies onto the policy agenda.

UNEP plans to continue promoting efforts to advance the reform of energy subsidies through multi-stakeholder workshops, the development of analytical studies, and support for activities at the national level.

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