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**GREEN
FISCAL POLICY
NETWORK**

Issue 4 – November 2015

Fiscal Policy and Climate Change

In this Issue

- 1. Guest Article: Fossil Fuel Subsidies and Climate Change**
 - 2. What's New On The Network?**
 - 3. Recent and Forthcoming Events**
 - 4. Quick Links**
-

1. Guest Article: Fossil Fuel Subsidies and Climate Change

by Laura Merrill



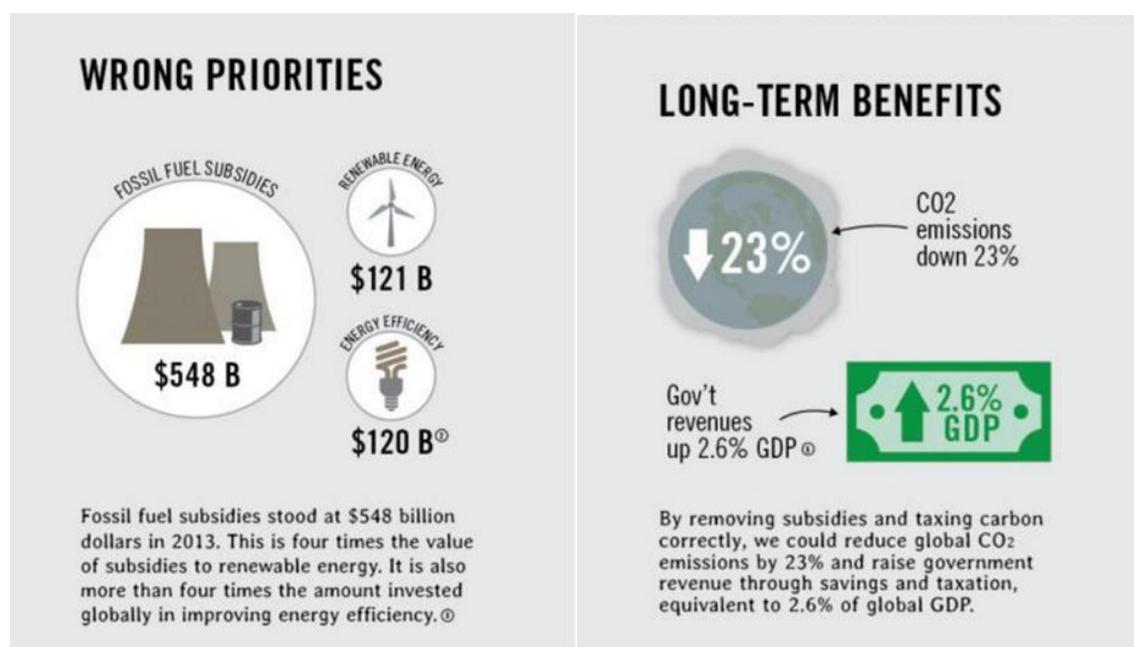
Laura Merrill is a Senior Researcher at the Global Subsidies Initiative (GSI) of the International Institute for Sustainable Development (IISD) based in Geneva. For more information about fossil fuel subsidies and copies of the reports mentioned in this article, see www.iisd.org/gsi.

Fossil fuel subsidy reform has been included within a number of international statements this year including the Addis Ababa Action Agenda adopted at the [Financing for Development](#) Conference; and in the [Sustainable Development](#) Goals adopted in September. These statements reiterate commitments made in 2009 by both the G20 and Asia-Pacific Economic Cooperation (APEC) forum. In April 2015, the Friends of Fossil Fuel Subsidy Reform launched a Communiqué calling for action on the issue in the lead up to the UNFCCC COP 21 in Paris (FFFSR, 2015). Many items such as carbon taxation and fossil fuel subsidy reform do not make it to the initial draft text for agreement in Paris, while others such as carbon pricing and support to countries to mobilize domestic resources do (ADP Working Group, 2015).

It is of note that a growing number of countries and regions are adopting carbon pricing mechanisms in the form of carbon taxes or emissions trading systems (World Bank and Ecofys, 2015). Many countries have also included economic instruments within their INDC (Intended Nationally Determined Contribution) submissions to the UNFCCC in support of national goals to lower GHG emissions. Some countries, such as India, Ethiopia, Morocco and Viet Nam, include specific reference to fossil fuel subsidy reform, within their INDC (Merrill et al., 2015). Others like the UAE, China and Mexico refer to energy tariff and pricing reform. Such contributions will form the backbone of national efforts behind any international climate agreement reached in Paris. It is clear that countries are recognizing the use of economic fiscal instruments to support national goals regarding GHG emission reduction targets through their inclusion within INDCs.

Despite these international commitments and actions in some countries, fossil fuel subsidies remain significant. Globally, consumer subsidies to fossil fuels stood at USD 548 billion in 2013 (IEA, 2014). More recent data from the OECD, finds that the 34 OECD countries and emerging economies (Brazil, China, India, Indonesia, Russia and South Africa) are spending between US\$160-200 billion supporting fossil fuel consumption and production (OECD, 2015). The Secretary General of the OECD, Angel Gurría, put it succinctly: "Governments are spending almost twice as much money supporting fossil fuels as is needed to meet the climate-finance objectives set by the international community, which call for mobilizing 100 billion US dollars a year by 2020". Recent research from the GSI finds that Turkey, the latest host of the G20 summit, spends upwards of US\$ 730 million on subsidies to the coal industry every year (Acar et al., 2015). Further research on China, host of the G20 summit in 2016, finds consumer and producer subsidies to coal to be around US\$15.7 billion in 2013 (Xue et al., 2015, Forthcoming). Broader costs to Chinese society from coal consumption and production through carbon dioxide emissions (US\$ 655 billion) and from air pollution (US\$1,326 billion) are even larger.

Figure 1: How fossil fuel subsidies hold us back from a low carbon future



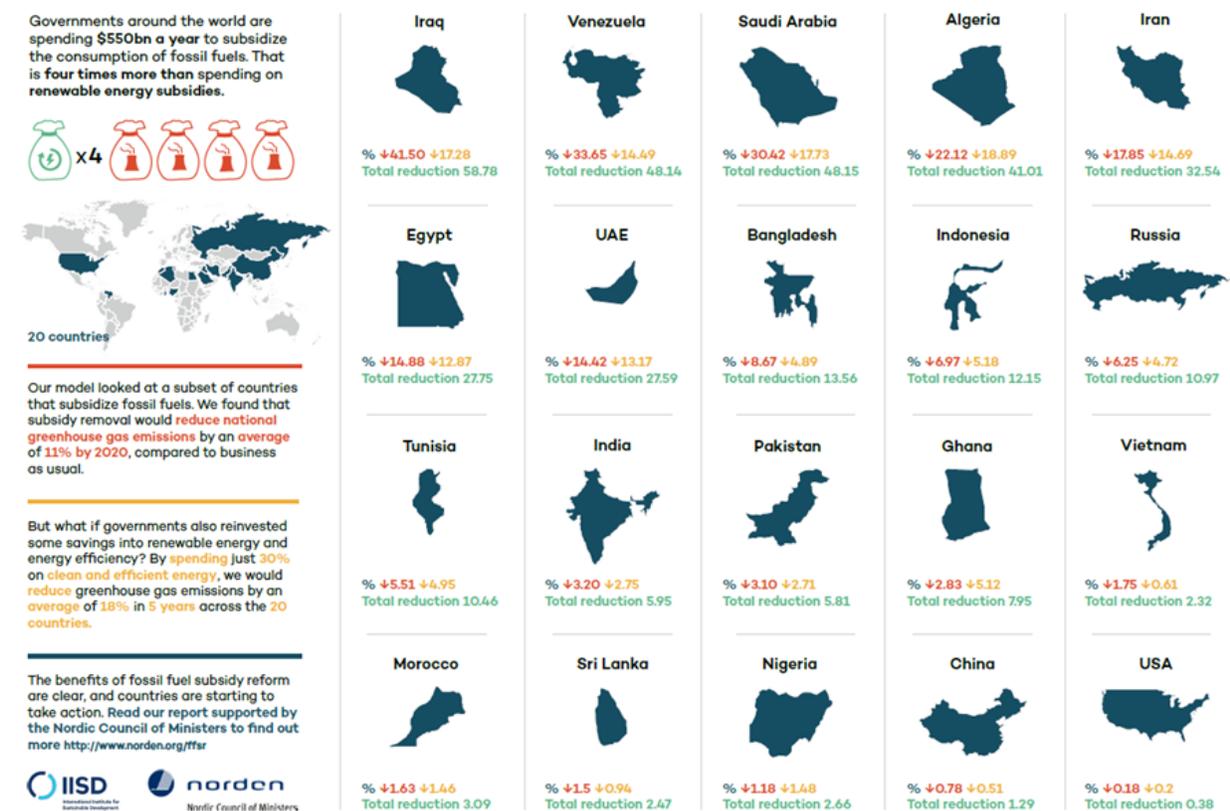
Source: GSI (2015) Based on IEA (2014) 'Energy Efficiency Market Report 2014', IEA (2014) 'World Energy Outlook', 'IMF (2014), 'Getting Energy Prices Right'.

Fossil fuel subsidies have three main impacts on GHG emissions: their presence holds back new energy players such as energy efficiency and renewable energy; their reform decreases demand and encourages switching causing a reduction; and finally; removal and taxation liberates and generates domestic revenues that can be invested in the transition to a low carbon economy and support broader fiscal reforms (see Figure 1). The historic link between fossil fuel subsidies and climate change suggests that these subsidies drove a staggering 20.7 per cent of global carbon emissions between 1980 and 2010 (Stefanski, 2014). An IMF working paper includes the broader costs to society of fossil fuels (most importantly air pollution, but also other costs like traffic congestion and accidents, as well as the social costs of climate change) and estimates that the true cost of fossil fuels amounts to an eye-popping USD 5.3 trillion a year (Coady et. al, 2015), or USD 10 million a minute.

Studies suggest that such is the scale of these subsidies that their removal could lead to a decrease in global greenhouse gas (GHG) emissions of between 6 and 13 per cent by 2050, compared to business as usual (Merrill et. al, 2015b). Recent work by the GSI to support countries in their national submissions to the UNFCCC, models the phased removal of fossil fuels by 2020 across 20 countries using the GSI-Integrated Fiscal model. The model finds an average reduction in national emissions, as against BAU, of 11 per cent. Figure 2 below provides the breakdown

across different countries. This emission reduction rises to an average reduction of 18 per cent if a modest percentage of savings from reform are reinvested into renewables (10 per cent) and energy efficiency (20 per cent). Governments save an average of USD 93 for every tonne of emissions abated through fossil fuel subsidy reform, with cumulative savings of 2.8Gt by 2020 across only 20 countries modelled (Merrill et. al. 2015).

Figure 2: Removing fossil fuel subsidies lowers GHG emissions



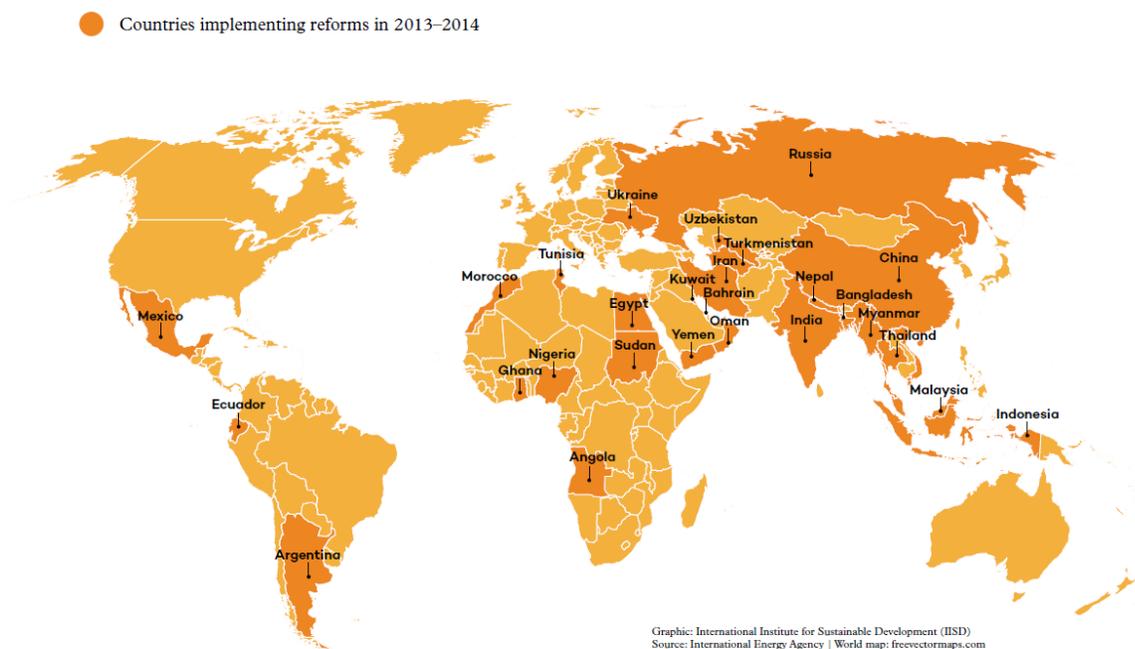
Source: IISD, 2015

Increasing recognition of the financial burden and impacts of fossil fuel subsidies has led to reform efforts in a number of countries. In particular, many countries are taking advantage of lower oil prices to remove or reform consumer subsidies without high pass-through costs to consumers. Around 30 countries underwent some form of fossil fuel subsidy reform in 2013-2014 (see Figure 3). Notable recent examples of the reform of fossil fuel subsidies to consumers include Indonesia, Egypt and India. Whilst some countries have made progress many others such as Venezuela and many Middle East and North African countries have far to go. It is not for want of trying. Nigeria has tried to reform its fossil fuel subsidy system 13 times. An attempt to redistribute fossil fuel subsidies through a shift towards a range of other expenditures (SURE-P) was undermined due to persistent governance issues (Ohaeri, 2014).

Although challenging, a move away from fossil fuel subsidies supported by parallel investment in cash transfers and targeted social safety nets can take place and has done so in a number of countries including Iran, Indonesia, Ghana and the Philippines. For example in Iran, cash transfers were made to household bank accounts to compensate for rising fuel prices (Salehi-Isfahani et al., 2015). Successful fossil fuel subsidy reforms require an orderly approach to governments for quitting subsidies which entails getting the prices right, building support for reform and mitigating negative impacts on low-income households through investment in better targeted energy or cash subsidies (Beaton et al., 2013). The bigger ask is for countries to also reinvest savings from subsidy reform into changing the energy mix towards more sustainable energy and transport for all. Some countries like Morocco have turned towards the sun and wind with the removal of fossil fuel subsidies and ambitious renewables investment and targets. Some countries like Ghana have partially reformed fossil fuel subsidies but, like others, are now

attracted by the current low market price of coal to drive increased electricity generation. The world coal price is far below its full total environmental cost.

Figure 3: Countries partially increasing subsidized prices to fossil fuels in 2013–2014



Source: GSI (2015b) based on IEA (2014).

On the other hand, the current low oil price also pushes producers and state owned companies - often within more developed countries - to seek further public subsidies to support operations. Hidden tax breaks and other benefits from wealthy states are alarming. In 2014, it was estimated that government support, including subsidies for exploration and production, amounted to USD 88 billion annually (OCI and ODI, 2014). Research finds that 'globally, a third of oil reserves, half of gas reserves and over 80 per cent of current coal reserves should remain unused from 2010 to 2050 in order to meet the target of 2°C' (McGlade & Ekins, 2015). Such subsidies play a role in ensuring continued access and exploitation of fossil fuel resources, for example in the Arctic (Lunden & Fjaertoft, 2014) and are 'incommensurate' with the 2°C target.

Time is running out for action as no-one knows when the window of opportunity presented by current low oil prices and fiscal pressures that enable governments to organize and enact reforms will close. Every year of fossil fuel subsidies in an age of climate change continues to drive us in the wrong direction. The good news is that once governments remove fossil fuel subsidies, the taxation opportunities and potential revenue generation via conventional taxation of transport fuels such as VAT or GST abound. For example, the Philippines removed subsidies and now applies 12 per cent VAT on fuels to pay for a national social safety net and provide incentives to renewables (Merrill, 2014).

Global revenue gains from the removal of subsidies and the efficient taxation of fossil fuels could be around US\$ 3 trillion to governments, while reducing fossil fuels emissions by 22 per cent (Coady et. al, 2015). There is considerable scope to increase tax revenues from fossil fuels in Emerging and Developing Asia, the Commonwealth of Independent States, the Middle East, North Africa, Afghanistan and Pakistan.

Taxation and higher prices that reflect the true cost of fossil fuels can encourage greater energy efficiency and the more careful use of fossil fuels. Revenues generated from such reforms can be used to fund safety nets, put renewable and sustainable sources of power at the centre of the energy sector and support broader fiscal reform. Governments are slowly recognizing the co-benefits from such fiscal instruments and their role in supporting climate goals through inclusion within INDCs. Supporting government efforts by encouraging transparency, regular reporting, and providing technical advice as to the practical implementation of fossil fuel subsidy reform is now the key to success.

References

- Acar, S., Kitson, L., and Bridle, R., (2015). Subsidies to Coal and Renewable Energy in Turkey, Global Subsidies Initiative of IISD, <http://www.iisd.org/gsi/subsidies-coal-and-renewable-energy-turkey>
- ADP Contact Group, (2015). 'Advance Unedited version, Ad Hoc Working Group on the Durban Platform for Enhanced Action October 2015, http://unfccc.int/files/meetings/bonn_oct_2015/application/pdf/ws_1_and_2.pdf
- Beaton, C., Gerasimchuk, I., Laan, T., Lang, K., Vis-Dunbar, D., and Wooders, P. (2013). *A guidebook to fossil fuel subsidy Reform for policy-makers in Southeast Asia*, http://www.iisd.org/gsi/sites/default/files/ffs_guidebook.pdf
- Coady, D. Parry, I. Sears, L. and Shang, B., (2015). 'How Large Are Global Energy Subsidies?' IMF Working Paper, <https://www.imf.org/external/pubs/cat/longres.aspx?sk=42940.0>
- Friends of Fossil Fuel Subsidy Reform, (2015). 'Fossil Fuel Subsidy Reform Communiqué', Available from www.ffffsr.org
- GSI (2015) http://www.iisd.org/gsi/sites/default/files/FFSR_and_climate_infographic_snd10-12_0.jpg
- GSI (2015b) http://www.iisd.org/gsi/eliminating_fossil_fuel_subsidies_still_on_the_agenda
- IISD (2015) http://www.iisd.org/pdf/media/J3843_IISD_Infographic_final_PRINT.pdf
- International Energy Agency (2014). World Energy Outlook 2014, <http://www.worldenergyoutlook.org/publications/weo-2014/>
- Lunden, P. L. & Fjaertoft, D. (2014). Government support to oil and gas in Russia, http://www.iisd.org/gsi/sites/default/files/ffs_awc_russia_yamalprirazlomnoe_en.pdf
- McGlade, C. and Ekins, P. (2015). The geographical distribution of fossil fuels unused when limiting global warming to 2°C. *Nature*, 517, 187–190
- Merrill, L. (2014). Financing the sustainable development goals through fossil-fuel subsidy reform: Opportunities in Southeast Asia, India and China. Geneva: Global Subsidies Initiative, International Institute for Sustainable Development. [http://www.iisd.org/gsi/sites/default/files/financing-sdgs-fossil-fuel-subsidy-reform-southeast-asian-india-china\(6\).pdf](http://www.iisd.org/gsi/sites/default/files/financing-sdgs-fossil-fuel-subsidy-reform-southeast-asian-india-china(6).pdf)
- Merrill, L., Bassi, A., Bridle, R., and Christensen, L. (2015). 'Tackling Fossil Fuel Subsidies and Climate Change: Levelling the energy playing field', TEMANORD, <http://norden.diva-portal.org/smash/record.jsf?pid=diva2%3A860647&dswid=8225>
- Merrill, L. Harris, M., Casier, L., Bassi, M. A., (2015b) 'Fossil-Fuel Subsidies and Climate Change: Options for policy-makers within their Intended Nationally Determined Contributions', <http://norden.diva-portal.org/smash/record.jsf?pid=diva2%3A786861&dswid=8099>
- OCI and ODI (2014). *The fossil fuel bailout: G20 subsidies for oil, gas and coal exploration*, <http://www.odi.org/sites/odi.org.uk/files/odi-assets/publications-opinion-files/9234.pdf>
- OECD (2015). 'Support to fossil fuels remains high and the time is ripe for change' <http://www.oecd.org/environment/support-to-fossil-fuels-remains-high-and-the-time-is-ripe-for-change.htm>
- Ohaeri, V. (2014). 'Fossil-fuel subsidies the Reality of reform' Slides from CSO workshop September 2014, London, <http://www.iisd.org/gsi/csos/docs/Ohaeri%20Spaces%20for%20Change%20Nigeria.pdf>
- Salehi-Isfahani, D., Stucki B., Deutschmann, J., (2015), The Reform of Energy Subsidies in Iran: The Role of Cash Transfers, *Emerging Markets Finance and Trade*, Vol. 51, Iss. 6, 2015.
- Stefanski, R. (2014). *Dirty little secrets: Inferring fossil-fuel Subsidies from patterns in emissions intensities*, [http://www.oxcarre.ox.ac.uk/files/OxCarreRP2014134\(1\).pdf](http://www.oxcarre.ox.ac.uk/files/OxCarreRP2014134(1).pdf)
- World Bank and Ecofys (2015), Carbon pricing watch 2015, Advance brief from the state and trends of carbon pricing 2015 report, World Bank Group and Ecofys. <https://openknowledge.worldbank.org/bitstream/handle/10986/22630/9781464807251.pdf?sequence=5>
- Xue, H., Wang, H., Bridle, R., Gerasimchuk, I., and Attwood, C. (2015 forthcoming) *Subsidies to Coal Production in China*. Geneva: IISD/GSI forthcoming

2. What's New On The Network?

New associated partners join the Network

In October 2015, [Green Budget Europe \(GBE\)](#) and the [International Institute for Sustainable Development \(IISD\)](#) were welcomed as new associated partners of the Network. Associated partners will enable the Network to have wider outreach and support further knowledge development and information sharing.



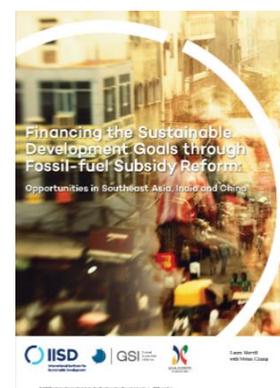
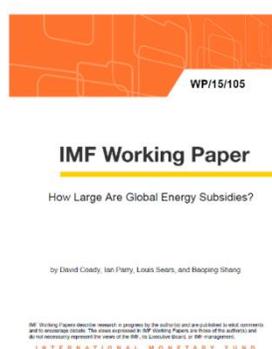
Issue note on 'Fiscal Policies and Climate Change'

The role of fiscal policy reforms in supporting climate change has been a topic of focus for the Network. In the lead-up to the UNFCCC COP21 in Paris, the Network issued a series of newsletters on fiscal approaches to support climate change. A new [Issue Note](#) has been published which brings together key issues discussed in this special series of newsletters and reflections from Network members on how fiscal policy reforms can support climate action.



Publications

A number of new publications have been added to the Network website. This includes some of the latest reports and insights on green fiscal policy reforms from the IMF, UNEP, IISD/GSI, ODI, Grantham Institute, GGKP, IEEP, OECD and the World Bank. To review the latest publications, please visit the [Policy Insights](#) and [Case Studies](#) pages of the website.



Country Profiles

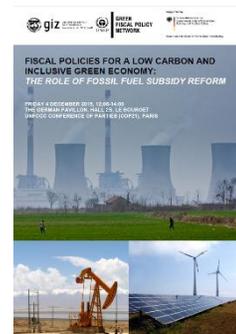
The Network website includes profiles of green fiscal reforms in more than 30 countries around the world. These profiles provide an overview of the fiscal, social and environmental situation in each country and information on green fiscal measures in each country. Please visit the [Country Profiles](#) pages for more details.

3. Recent and Forthcoming Events

Green Fiscal Policy Network Side-Event on ‘Fiscal policies for a low carbon and inclusive green economy: The role of fossil fuel subsidy reform’

4 December 2015, Paris, France

The Network is organizing a side-event at the UNFCCC COP21 on the role of fiscal policies in the transition to a low-carbon, inclusive green economy. The event will focus on how fossil fuel subsidy reform can mobilize public resources for green investment and shift behaviour to support action on climate change. It will provide an opportunity for countries to share their experiences with fiscal policies in the context of the INDCs, discuss how to address challenges associated with fossil fuel subsidy reforms and how reform can be designed to ensure success. For details, [click here](#).



A number of other side-events at the COP21 will focus on green fiscal policies. This includes a press briefing and event organized by the **Carbon Pricing Leadership Coalition** on 30 November and side-events on **carbon pricing** (organized by the UN on 1 December), on the **phase out of fossil fuel subsidies and a Paris climate deal** (organized by CAN-Europe and Oil Change International on 4 December) and on **national and international action on fossil fuel subsidies and climate change** (organized by the IISD, governments of Finland and New Zealand on 7 December). For details of these and other side-events taking place at the COP21, see official UNFCCC [schedule of side-events](#).

[Center for Global Development Public Event on ‘Inequality and Fiscal Policy’](#)

20 October 2015, Washington DC, United States

The [Center for Global Development \(CGD\)](#) hosted a public event focusing on the key messages of a new book on [‘Inequality and Fiscal Policy’](#) edited by Benedict Clements, Ruud de Mooij, Sanjeev Gupta, and Michael Keen of the IMF. Discussions focused on how both economic development and better distributional outcomes can be achieved through an appropriate mix of policy instruments and careful design of fiscal policies. Insights from a number of country studies presented in the book were used to illustrate country-specific challenges and solutions.

[2015 Annual Meeting of the World Bank Group and the IMF](#)

9-11 October 2015, Lima, Peru

The Annual Meetings of the Boards of Governors of the World Bank and IMF provide a forum to discuss issues related to poverty reduction, international economic development and finance. At the meeting, the International Monetary and Financial Committee (IMFC) of the IMF adopted a [Communiqué](#) which noted that lower oil prices provide an opportunity to reform inefficient energy subsidies and energy taxes, while consolidating social safety nets. The Communiqué also stressed that in economies with limited policy space, fiscal policy should enable efficient social and infrastructure spending, while ensuring fiscal sustainability.

[16th Global Conference on Environmental Taxation \(GCET 16\)](#)

23-26 September 2015, Sydney, Australia

The 16th Global Conference on Environmental Taxation (GCET) was hosted by the Faculty of Law of the University of Technology, Sydney and focused on the topic of 'Green Fiscal Reform: Protecting our Natural Resources for a Sustainable Future'. The conference

brought together experts from around 50 countries to discuss the use of taxation and other market-based instruments in the management of natural resources.

[Resources for the Future Seminar on 'How Pricing Carbon Impacts Low-Income Households'](#)

22 September 2015, Washington DC, United States.

This seminar, organized by [Resources for the Future \(RFF\)](#), examined the impact of carbon pricing on low-income households. Presentations and discussions focused on the effects of higher prices of electricity, gasoline and fossil fuel-based goods from carbon pricing across different income groups, and how carbon pricing can be designed and implemented to protect vulnerable groups.



Source: RFF, 2015

4. Quick Links

- [Green Fiscal Policy Network website](#)
- [IMF and Reforming Energy Subsidies](#)
- [UNEP Green Economy Initiative](#)
- [GIZ Environment and Climate Change](#)



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GREEN FISCAL POLICY NETWORK

The Green Fiscal Policy Network is a partnership between the United Nations Environment Programme (UNEP), the International Monetary Fund (IMF) and Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) which aims to facilitate knowledge sharing, learning and dialogue on fiscal policies to support the green economy. The Network is supported by the International Climate Initiative (IKI) and the German Federal Ministry for the Environment, Nature Conservation, Building and Nuclear Safety (BMUB).

We invite readers to visit our website, subscribe to our newsletter, send us details of recent or forthcoming events and information on research and initiatives on green fiscal policies. Please also contact us if you are interested in contributing a guest article or other information for future editions of the newsletter.

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