

Fossil fuel subsidies:

Types, measurement, impacts and reform efforts

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Trade and Environmental Sustainability Structured Discussions (TESSD)

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What do we talk about when we talk about FFS (1)

What is subsidized?

Discussion about subsidies for fossil fuels is mostly focused on the subsidies to:

- **Primary fossil fuel commodities:** crude oil, natural gas, coal, peat
- **Secondary refined or processed products:** diesel fuel, gasoline, kerosene, LPG, LNG, compressed natural gas, coal and peat briquettes

Electricity and heat are not technically fossil fuels but in many countries a proportion of their generation is fuelled with the fossil feedstock. Subsidies for this part of generation are often included in FFS.

What do we talk about when we talk about FFS (2)

What is subsidized?

Subsidies can be provided at **different stages of fossil fuel production and consumption:**

- **Production:** gaining access to reserves; exploration and appraisal; field development; extraction; transportation and storage of fossil fuels; refining and processing; construction and operation of electricity and heat generation units, refineries, electricity transmission and distribution;
- **Consumption:** the use of fossil fuels in power and heat generation; consumption in the industry, public sector and household; decommissioning of fossil fuel facilities.
- **General services:** policy measures that create enabling conditions for the fossil-fuel sector through the development of private or public services, institutions and infrastructure

What is a subsidy?

WTO work is based on the ASCM definition of subsidy

It is a “**financial contribution by a government or any public body**” or “**any form of income or price support**” that confers a “**benefit**”. A financial contribution can take the form of :

- Direct transfer of funds (e.g. grants, loans, equity infusion) or potential direct transfers of funds or liabilities (e.g. loan guarantees);
- Government revenue foregone or not collected (e.g. fiscal incentives such as tax credits);
- Provision of goods or services other than general infrastructure, or purchases of goods by the government;
- Government payments to a funding mechanism or entrusting/directing public body to carry out functions above that would normally be vested in the government.

Definition has an impact on the information available in the WTO Members’ notifications, as well as to other disciplines applied to the FFS.

ASCM does not distinguish subsidies based on their impacts on climate change, air pollution or sustainable development.

What about others?

OECD, IEA and IMF collect data basing themselves on different definitions

- **OECD** measures “government support”: budgetary transfers and tax expenditures that provide a benefit or preference for fossil-fuel production or consumption
[*OECD Inventory of Support Measures for Fossil Fuels*](#)
- **IEA** estimates subsidies to fossil fuels that are consumed directly by end-users or consumed as inputs to electricity generation:

$$\text{IEA subsidy} = (\text{Reference price} - \text{End-user price}) \times \text{Units consumed}$$

[*IEA Energy subsidies*](#)

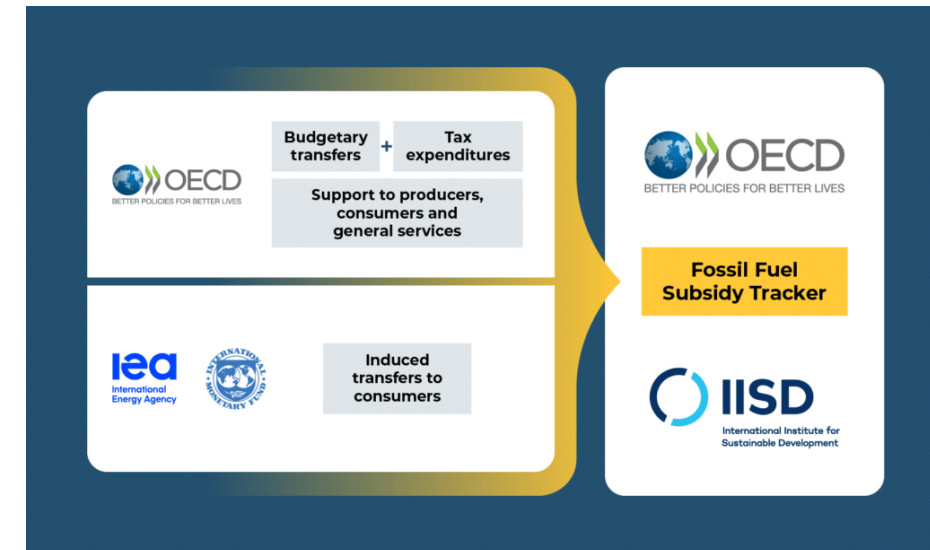
- **IMF** measures “pre-tax” (mostly consumption) subsidies + externalities (“post-tax subsidies” that consider the undercharging for environmental costs and general consumption taxes); production subsidies for selected countries

[*IMF Fossil Fuel Subsidies*](#)

Where does it get us? Different FFS estimates

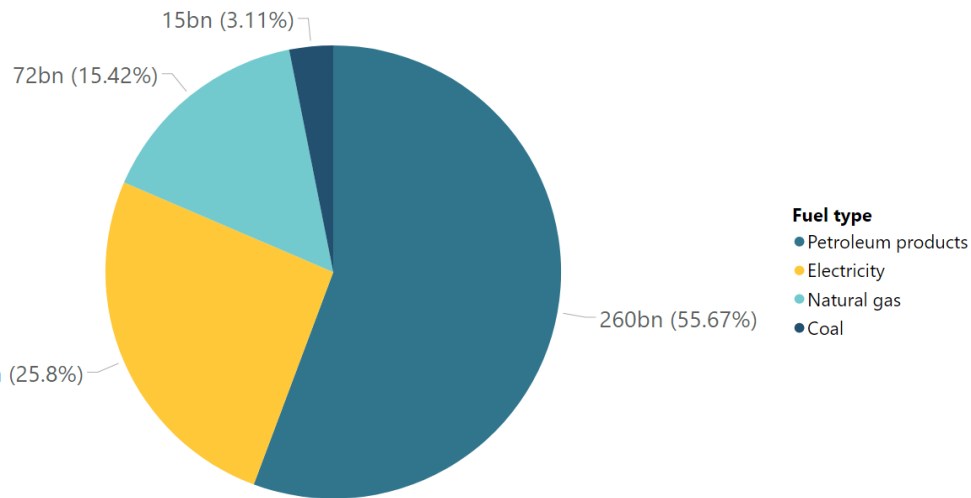
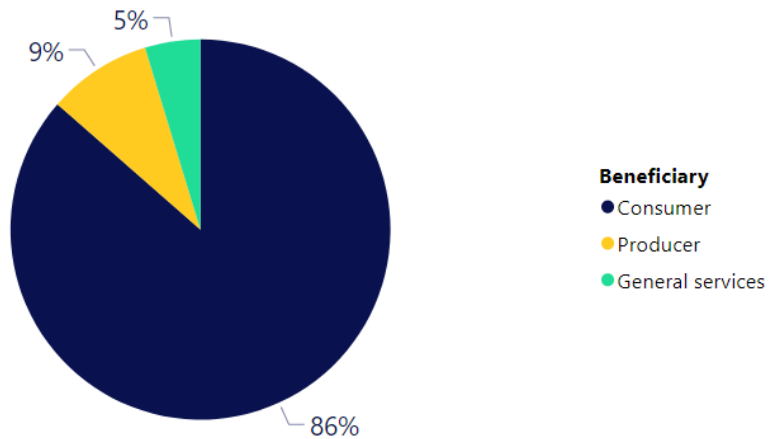
	OECD	IEA	IMF
Countries included	52	40+	176
Estimate	USD 345 bn (2020) USD 494 bn (2019)	USD 440 bn (2021)	USD 5.9 tn (2020)
Approach	Inventory of government producer and consumer support mechanisms	Comparison of government's policies lowering domestic price of fossil fuels to the international market price ("price gap" estimation)	Explicit (pre-tax) subsidies and implicit (post-tax) subsidies or externalities (air pollution, climate change)

FossilFuelSubsidyTracker.org



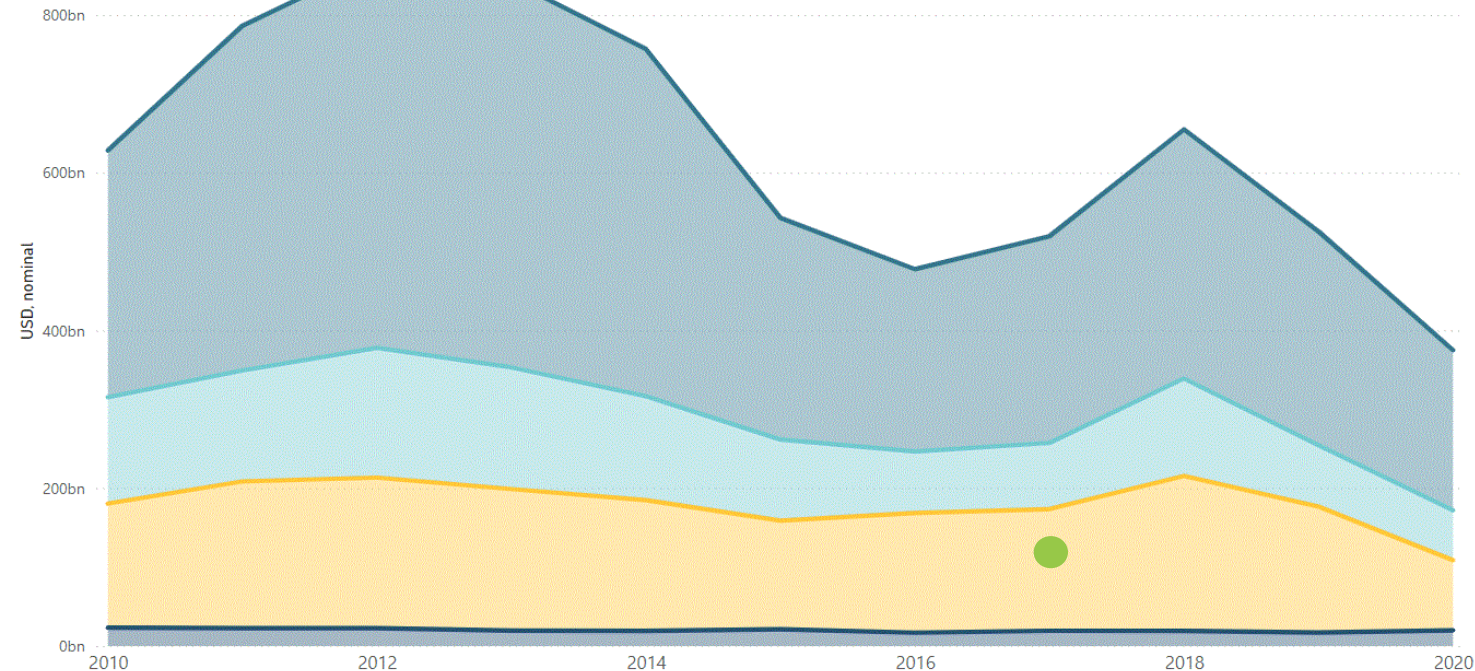
FFS trends

FossilFuelSubsidyTracker.org



Based on OECD and IEA data, including estimates from 2019 for 81 economies

Fuel type ● Coal ● Electricity ● Natural gas ● Petroleum products



Total FFS:
375 bn USD in 2020;
525 bn USD in 2019.

Renewable energy subsidies:
166 bn USD in 2017 (IRENA)

Significant changes
expected in 2021-2022.

Based on OECD, IEA and IMF data, including estimates from 2020.

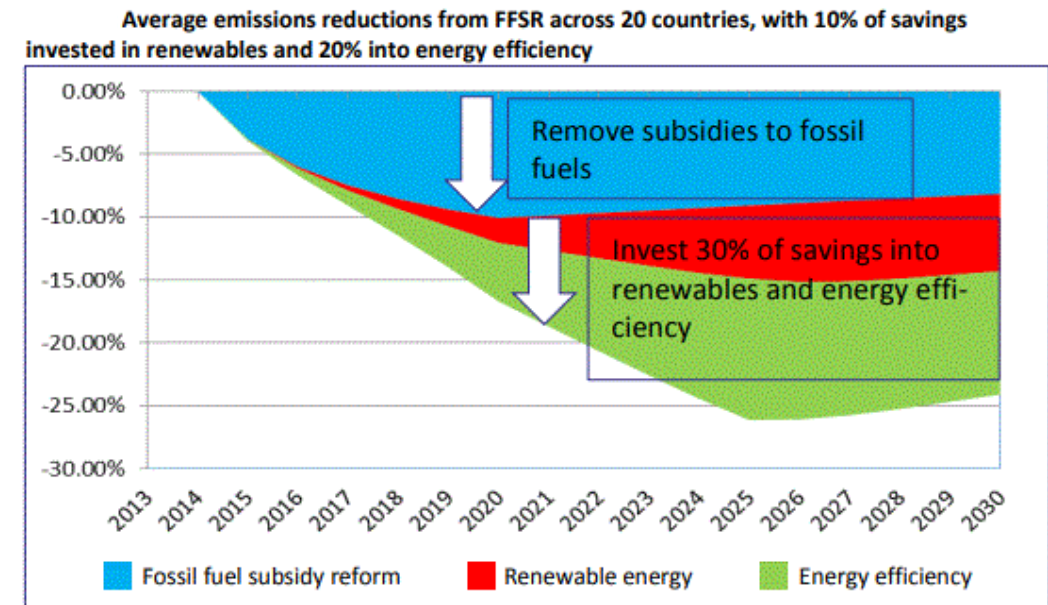
FFS impact to environment and development

FFSR is driven by the desire to protect global public goods

Fossil fuel combustion is a **leading contributor to global greenhouse-gas emissions (GHG)**: consumption subsidies responsible for 13% of global CO₂ emissions in 2014 (IEA 2015).

Fossil fuel subsidies:

- **undermine global efforts to mitigate climate change**;
- aggravate **local pollution** problems, increase **public health** costs;
- **represent strain on public budgets** draining resources that could be invested in education, skills, health and infrastructure;
- are **highly regressive** in their targeting;
- **distort costs and prices** that inform the decisions of producers, investors and consumers perpetuating older technologies and energy-intensive modes of production.



IISD, 2015

IISD work on FFS impacts on trade



Exploring the Trade Impacts of Fossil Fuel Subsidies

GSI REPORT



Tom Moerenhout
Tristan Irshlinger

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Fit for Purpose?

Toward trade rules that support fossil fuel
subsidy reform and the clean energy transition

 Nordisk
ministerråd

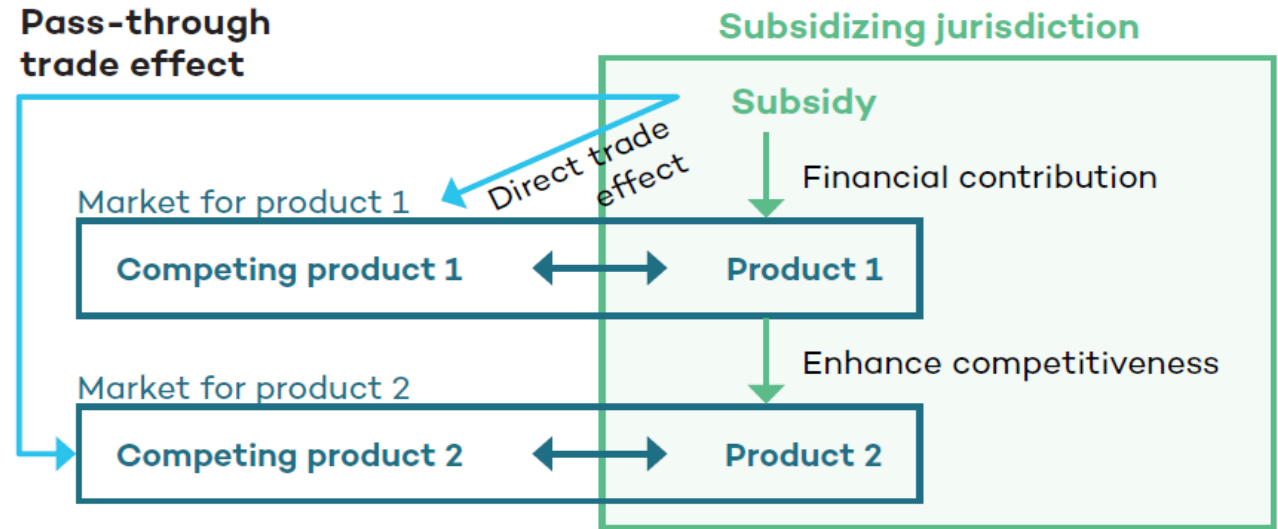
FFS impacts on trade



Distorting trade impacts of FFS:

- Reduction of competitor's **market share**
- **Displacement of imports** from a competitor
- Reduction of competitiveness of **alternatives**

Cumulative effect can occur along the value chain where multiple FFS exist.



International initiatives to reform FFS

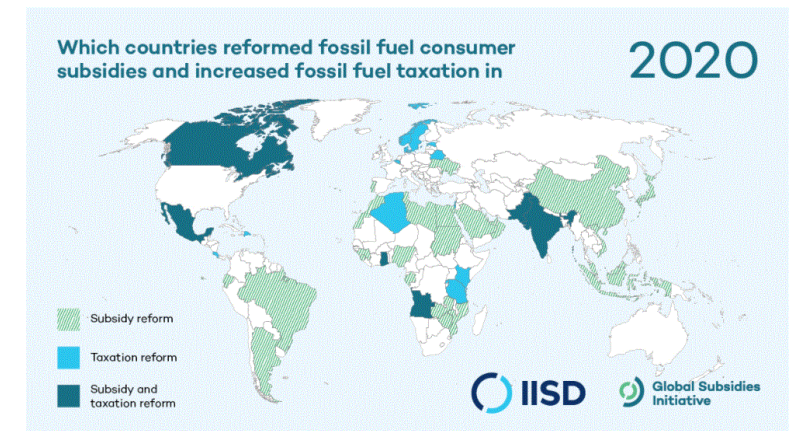


Venue	Year	Goal	Actions taken
G20	2009	Medium term rationalization and phasing-out of Inefficient Fossil Fuel Subsidies that encourage wasteful consumption, while providing targeted support for the poorest.	Peer reviews available for the US and China, Germany and Mexico, Indonesia and Italy; Argentina and Canada, India and France have also committed to the peer reviews in the future.
G7	2009	Phasing out inefficient fossil fuel subsidies that lead to wasteful consumption; encouraging all countries to do so by 2025.	The G7 introduced a phase out date of 2025 in 2016. This was reaffirmed in the Energy Ministers' Summary in 2018.
APEC	2009	Rationalization and phasing out of inefficient fossil-fuel subsidies that encourage wasteful consumption, while recognizing the importance of providing those in need with essential energy services. Regional capacity building.	11 peer reviews available; 3-39 measures; average self-declared value USD 13 bn.
ACCTS	2019	Disciplines to eliminate fossil fuel subsidies will help remove the perverse effects of these environmentally harmful and socially regressive subsidies.	7 negotiating rounds; work proceeding in FFS working group, 8 th round in March 2022.
FFSR JMS	2021	Ambitious and effective disciplines on inefficient FFS that encourage wasteful consumption, including through enhanced World Trade Organization transparency and reporting.	Initiative launched December 2021 along TESSD ministerial statement; options to be presented by MC13

Examples of FFS reform efforts

53 countries took steps in fossil fuel consumption subsidy reform or taxation in 2015-2020 (IISD)

- Periodic increases of fuel and electricity prices, combined with social safety net and electricity reforms; cash transfers for poor population;
- Low oil prices used to hike up petrol and diesel excise tax, keeping prices stable yet generating much-needed revenue;
- Automatic monthly electricity and transport fuel price adjustments to reduce subsidy costs, reinvesting savings to social and welfare schemes;
- Electricity price reform for consumption, keeping subsidies for production;
- Removing petroleum subsidies, phasing out diesel subsidies, increase in electricity prices, prioritizing solar programs.



Every country has a different starting point making each policy design unique.

ABOUT GSI

The IISD Global Subsidies Initiative (GSI) supports international processes, national governments and civil society organizations to align subsidies with sustainable development.

Some topics we work on:

- Renewable energy subsidies and fossil fuel phase-out
- Fossil fuel subsidies and their impact to climate change, sustainability, health, gender
- Fossil fuel subsidy swaps
- Energy subsidies and trade
- Fisheries subsidies

Thank You!

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