

# Fossil fuel subsidies: barriers to stronger climate action

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*Climate Action Network (CAN) Europe is Europe's largest coalition working on climate and energy issues. With over 120 member organisations in more than 30 European countries - representing over 44 million citizens - CAN Europe works to prevent dangerous climate change and promote sustainable climate and energy policy in Europe.*

## SUMMARY

*If we want to have a likely chance to stay below 2°, and preserve the possibility to stay below 1.5°, as agreed in Cancun, we need to phase out all fossil fuels by 2050. However, fossil fuel subsidies are a major obstacle to full decarbonisation. Despite the enormous threat climate change poses, countries keep subsidizing fossil fuels to the tune of USD 600-1000 billion a year.*

*These subsidies undermine climate protection as they prologue the use of fossil fuels, create disadvantages for renewable energy and disincentivise investments in energy savings. They also impose large costs on society and drain resources away from education and health care. Fossil fuel subsidies cause illness and premature deaths due to local air pollution. If such externalities are included, the costs to society for subsidizing fossil fuel are a staggering USD 5.3 trillion a year.*

*The climate benefits of removing fossil fuel subsidies would be gigantic. If governments were to both remove subsidies and start taxing fossil fuels correctly this could reduce global CO<sub>2</sub> emissions by over 20% and raise global economic welfare by USD 1.8 trillion.*

*Most governments have acknowledged the benefits of such a phase out but little action has been taken so far. Similarly in the run up to Paris, little attention has been given to the phase out of such subsidies. European countries all still significantly subsidize fossil fuel use. Fossil fuel subsidies in Europe and elsewhere should be phased out and the revenues used to support wider public goods, including support for the transition to low-carbon energy systems and universal energy access.*

*In Paris countries should publically state their commitment to phasing out fossil fuels, starting immediately. After Paris, countries must put their words into action. In addition, the new climate agreement must include language that emphasizes the need to shift investment away from carbon-intensive infrastructure.*

## FOSSIL FUELS NEED TO BE PHASED OUT COMPLETELY AND RAPIDLY

In 2010, all governments agreed in Cancun that in order to avoid dangerous climate change, we need to keep average temperature rise to below 2 degrees Celsius. The majority of the world's countries actually advocate staying or going back to below 1.5 degrees Celsius.

Scientific studies show that in order to do so, we need to completely phase out the use of fossil fuels. The IPCC in its Fifth Assessment report indicated that if we want to have a likely chance (66%) to keep temperature rise below 2 degrees, we need to phase out fossil fuels by around 2070. However to have a very likely chance to keep temperature rise below 2 degrees and a possible chance to stay below 1.5 degrees, fossil fuels will need to be phased out by 2050.



The over 1000 NGOs of the Climate Action Network and many governments are calling for such a complete phase out of fossil fuels by 2050. This summer, the [G7 leading industrial nations](#) adopted important but significantly weaker language which calls for phasing out the use of fossil fuels before the end of this century.

It is essential that in Paris all countries agree on the phase out of fossil fuels, and instead reduce energy consumption and increase renewable energy production. However, one of the main obstacles to the phase out are fossil fuel subsidies.

## GIGANTIC SUBSIDIES PREVENT FOSSIL FUEL PHASE OUT

Despite the enormous threat climate change poses, countries' current climate plans will deliver less than half the emissions reduction needed to keep global warming below 2° (UNEP 2015).

Instead, countries keep subsidizing fossil fuels. According to the OECD there are almost 800 ways that governments use to stimulate the production and use of coal, oil and gas. Two thirds comes in the form of preferential tax



treatments but money flows in many ways such as through direct subsidies, access to infrastructure, rebates, and more.

The estimates of fossil fuel subsidies vary depending on which definition of “subsidies” is used. The IMF distinguishes between pre-tax and post-tax subsidies. **Pre-tax subsidies** arise when the price paid by consumers (that is, companies and households) is below the cost of supplying energy. **Post-tax subsidies** include the costs to society that from using fossil fuels, including health impacts, traffic congestions etc.

Other studies differentiate within the group of pre-tax subsidies, between consumer and producer subsidies:

**Consumer subsidies** to fossil fuels amount to USD 548 billion annually, four times more than subsidies to renewables and also four times the level of development assistance that OECD countries spent in 2013. Countries often claim that consumer subsidies increase affordability of fuels for the poor. But the opposite is true: the vast majority of benefits accrue to the well-off: Only 8% spent on fossil fuel subsidies in 2010 went to the poorest 20% of the population. Research also shows that fossil fuel subsidies lower government spending in health and education (GSI, 2014).

**Producer subsidies** support companies that develop or produce fossil fuels or fossil fuel infrastructure. G20 country governments alone are providing USD 452 billion

a year in subsidies for the production of fossil fuels (OCI 2015). These producer subsidies come in many forms and are channelled through different means; some subsidies are used for domestic production and some for international fossil fuel production through public finance institutions and export credit agencies. Stated objectives for such subsidies are often to support domestic industry and increase energy security.

But such subsidies entrench political and economic interests that resist ambitious climate policy, can foster corruption and undermine renewable energy development.

Such subsidies also add to the risks of ‘carbon lock-in’. Once investments in carbon and capital-intensive power and industrial plants are made, the transition to climate-compatible pathways becomes much more difficult because of the long operational life of such plants (Erickson, 2015).

**Globally, pre-tax subsidies likely add up to USD 600-1000 billion annually.**

Countries where energy prices are much lower than the cost of producing energy have general very high per capita consumption and low energy efficiency. **If such pre-tax subsidies are removed, they result in an increase in available government revenues. These can then be shifted to more climate friendly investments such as renewables and energy efficiency.**

What IMF calls “post-tax subsidies” includes the much larger costs society pays for – so called “externalities” – the hidden costs of environmental damage, climate impacts, air pollution and negative health impacts. If such externalities are included, the IMF estimates **all subsidies for 2015 to cost USD 5.3 trillion, 16 times the levels of pre-tax subsidies.**

Costs from externalities cannot directly be shifted to more climate friendly investments but removing subsidies results in huge societal benefits, such as a large decrease in premature deaths due to air pollution (IMF 2015). Also, if these externalities were appropriately taxed, the potential for raising revenues that could be used for climate protection and to cut taxes elsewhere is enormous.

**Many subsidies are well hidden.** Many countries are not transparent about their support to fossil fuel subsidies. A full accounting of global fossil fuel subsidies has never been completed. In an effort to put the spotlight on subsidies in developing countries, attention has been focused on consumption subsidies, although recent

research shows that production subsidies are of the same magnitude as consumer subsidies. It is clear that all subsidies need to be phased out as all are a barrier to increasing actions that will avoid dangerous climate change.

**Fossil fuel subsidies pay the polluter instead of making the polluter pay.** They directly undermine putting a price on carbon. The IMF and World Bank have recently emphasized that getting energy prices right and introducing carbon pricing must start with the removal of subsidies for fossil fuels, which are “bad for the environment, bad for fiscal policy and neither help the poor nor competitiveness” (World Bank, 2015).

## THE HUGE CLIMATE BENEFITS OF PHASING OUT FOSSIL FUEL SUBSIDIES

The climate benefits of removing fossil fuel subsidies would be gigantic. One study shows that removing consumer subsidies in 20 selected countries could reduce greenhouse gas emissions by about 11%. If only a third of the savings were to be reinvested in energy efficiency and renewables, greenhouse gas emissions could be reduced by as much as 18% by 2020 (Merill et al 2015).



The IMF estimates that if governments were to remove subsidies and start taxing fossil fuels correctly this could reduce global CO<sub>2</sub> emissions by over 20% and at the same time raise global economic welfare by USD 1.8 trillion (2.2% of global GDP). It furthermore found that subsidy reform combined with taxes on fossil fuels could result in a 63% decrease in deaths worldwide from fossil fuel air pollution.

There are no estimates on the CO<sub>2</sub> emission reductions that would result from removing producer subsidies, but the climate benefits would likely be significant (Whitney et al 2015). Exploration subsidies, one type of producer subsidy, are especially harmful as they unlock carbon that should not be burned. The best available science says we must leave about 75% of existing proven reserves of oil, gas, and coal in the ground if we want to have a chance

of staying below 2 degrees of warming. Nevertheless, G20 country governments are still providing USD 88 billion a year to exploration subsidies, paying over 70% of total exploration investments (OCI, 2014).

Clearly the removal of all subsidies would go a long way towards closing the 12 billion tonne gap – the emissions reductions needed in addition to what countries have already promised to do in order to stay below 2°C (UNEP 2015).

## MANY CALLS FOR ACTION... LITTLE ACTION

Many governments have acknowledged the harm fossil fuel subsidies can pose and the opportunity that their phase out can create:

The **G20** stated in 2009 to commit to “*rationalize and phase out over the medium term inefficient fossil fuel subsidies that encourage wasteful consumption.*” Since then they have reiterated their commitment several times.

The **Friends of Fossil Fuel Subsidy Reform** is a group of non-G20 countries that support the reform of inefficient fossil fuel subsidies. It includes Costa Rica, Denmark, Ethiopia, Finland, New Zealand, Norway, Sweden and Switzerland. The Friends group was formed in June 2010 to encourage the G20 and APEC to implement their initiative as soon as possible, with maximum ambition and transparency. Also many large and influential businesses have stated the need for phase out of fossil fuel subsidies and have endorsed the [Friends of Fossil Fuel Subsidy Reform Communiqué](#).

This year, governments reiterated the need for fossil fuel subsidy phase out many times. In June, the **G7 leading industrial nations** agreed to cut greenhouse gases by phasing out the use of fossil fuels by the end of the century. In July, all UN Member States adopted the Addis Ababa Action Agenda on Financing Development; the agenda reaffirmed the commitment to ‘*rationalize inefficient fossil-fuel subsidies*’ (UN 2015b). In September, countries adopted Agenda 2030, the new set of 17 **Sustainable Development Goals** which are to be achieved over the next 15 years. It includes a call to phase out *inefficient fossil-fuel subsidies* (UN 2015).

Unfortunately, there is still a large gap between rhetoric and action. Research shows that these calls and reiterations have resulted in most countries in little action to phase out such subsidies.





## FOSSIL FUEL SUBSIDY PHASE OUT IN THE PARIS AGREEMENT

Heading for Paris, the draft negotiation text for a new climate agreement did not include any statement for the need of phasing out fossil fuel subsidies.

This is despite the fact that fossil fuel subsidy reform can cut greenhouse gas emissions in a very cost effective way. Most mitigation measures require governments to spend money. Fossil fuel subsidies phase out on the other hand, can save an average of USD 93 per year, per tonne of greenhouse gas emission removed (Merill 2015). Moreover, the phase out of these subsidies can pave the way for many other mitigation policies such as increasing energy efficiency and renewable energy.

Only very few countries mention the phase out of fossil fuel subsidies in their Intended Nationally Determined Contributions (INDCs) – the mitigation actions they plan to implement under a new Paris climate agreement. This is starkly contrasted by the fact that around 90% of the INDCs mention renewables and energy efficiency.

- Ethiopia, India and Singapore state that they are already working on removing fossil fuel subsidies.
- Burkina Faso, Ghana, Morocco and Vietnam explicitly state their intention to phase out or reduce fossil fuel subsidies.
- China and Mexico mention more generally that they are planning to reform energy pricing and taxation.
- New Zealand simply states that it is a member of the Friends of Fossil Fuel Subsidy Reform.



European countries are conspicuously absent from this meager list. Both the European Council and the European Parliament have emphasized the importance of phasing out fossil fuel subsidies pre-2020. But the EU still only provides voluntary recommendations and guidelines for the phase out of subsidies and tax reform. European countries still dole out billions every year to prop up their fossil fuel based economies.

## EUROPE’S DIRTY FUNDING HABITS

Total post-tax subsidies in the EU Member States are an estimated USD 330 billion in 2015. That is on average USD 650 per capita (based on IMF figures). In contrast, Europe’s climate commitment of reducing emissions by “at least 40%” by 2030 is well below the at least 55% domestic reductions CAN Europe has been calling for. Also most of the non-EU European countries have made climate pledges that are well below what is needed to collectively achieve the 2 degree target. For example, Turkey’s INDC would allow its emissions to more than double over the next 15 years.



All European countries significantly subsidise fossil fuels. This means European countries forgo significant tax revenues that could be invested in the large transformational changes that are needed to enable Europe to fully decarbonize by 2050, see Table 1.

Table 1: Foregone consumption tax revenues annually in USD - top ten European countries (IMF 2015)

Country	billion	Country	billion
1. Germany	6	6. Italy	2.8
2. France	5.6	7. Belgium	2
3. Poland	4	8. Spain	1.7
4. UK	3.7	9. Netherlands	1.4
5. Turkey	3.4	10. Denmark	1.3

New research highlights the huge production subsidies European G-20 members give nationally and overseas, see Table 2. These subsidies not only perpetuate the use of fossil fuels in Europe but also finance new fossil fuel infrastructure in poorer countries, leading to a lock-in of carbon emissions for decades to come

Table 2: Annual Production Subsidies of European G20 members in million (OCI and ODI, 2015)

Country	National production subsidies*	Public finance National	Public finance International**
UK	9047	72	5443
France	125	N/A	1083
Germany	2791	43	2551
Italy	1205	N/A	2267
Turkey	627	1019	290

\***Production subsidies** include national subsidies, investment by state-owned enterprises (domestic and international) and public finance (domestic and international) specifically for fossil fuel production.

\*\***Public finance** includes grants, equity, loans, guarantees and insurance by majority government owned financial institutions for domestic and international fossil fuel production, including national and multilateral development banks, export credit agencies and domestic banks that are majority state-owned.



Table 4: Post-tax subsidies per year - total and per capita in USD - top ten European countries (IMF 2015)

Country	total billion	Country	per capita
Germany	56	Luxembourg	3'747
Poland	54	Bulgaria	2'721
United Kingdom	41	Serbia	2'081
Turkey	39	Bosnia and Herzegovina	1'960
France	30	Czech Republic	1'669
Spain	24	Poland	1'426
Bulgaria	19	Rep. Montenegro	1'324
Czech Republic	18	FYR Macedonia	1'070
Serbia	15	Denmark	1'027

It is notable is that seven out of the ten countries with the highest per capita post-tax subsidies are Central and Eastern European countries. Given the high use of coal in these countries, the phase out of fossil fuel subsidies would lead to a decrease of air pollution deaths by more than 60 percent in those countries (IMF 2015).



Post-tax subsidies include the costs to societies due to the harmful impacts of fossil fuel use. If all these externalities are taken into account, the costs of fossil fuel subsidies are truly astronomical, see Tables 3 and 4.

Table 3: Post-tax subsidies per year by fuel - top five European countries in billion USD (IMF 2015)

Coal		Gas		Oil	
Poland	47.7	UK	12.3	France	16.7
Germany	40.8	Germany	11.9	Spain	14.1
UK	28.7	France	6.6	Turkey	9.4
Turkey	24	Turkey	5.3	Belgium	5.5
Bulgaria	17.4	Netherlands	5.3	Denmark	4.3





## RECOMMENDATIONS

Fossil fuel subsidies have proven to be a barrier to climate action in countries all over the world. If Europe wants to be a leader on climate action in Paris and beyond, it must radically and quickly raise its ambitions. European countries could make a substantial contribution to closing the very large global emissions gap by rapidly phasing out fossil fuel subsidies and investing the revenue in climate action. European governments must act immediately to phase-out subsidies to fossil fuels:

**The EU must develop and agree on a roadmap to phase out fossil fuel subsidies by 2020 at the latest.** Such a roadmap should include strict timelines for the phase-out of fossil fuel subsidies with country-specific and measurable outcomes. Other European countries must do the same.

**Fossil fuels subsidies should be abolished and the revenues be used to support wider public goods,** including support for the transition to low-carbon energy systems and universal energy access.

**Transparency should be increased through a publicly disclosed, consistent reporting scheme for all national subsidies for fossil fuels.** The National Reform Programmes submitted within the European Semester process could be used as a reporting mechanism for Member States on their progress to phasing out fossil fuel subsidies.

**In Paris countries should publically state their commitment to phase out fossil fuels subsidies, starting immediately. In addition, the new climate agreement must include language that emphasizes the need to shift investment away from carbon-intensive infrastructure to low-emissions.**

**The Paris Agreement must stimulate countries to strengthen their national policies to steer financial investments away from fossil fuel and towards low-carbon plans and projects. After Paris countries must put their words into action.**



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