



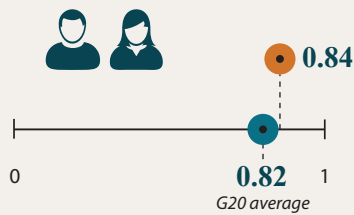
BROWN TO GREEN: G20 TRANSITION TO A LOW CARBON ECONOMY

Argentina

This country profile assesses Argentina's past, present and indications of future performance towards a low-carbon economy by evaluating emissions, decarbonisation, climate policy performance and climate finance. The profile summarises the respective findings from, amongst others, the Climate Change Performance Index (CCPI, operated by Germanwatch and Climate Action Network Europe), the Climate Action Tracker (CAT, operated by Climate Analytics, NewClimate Institute, Ecofys and the Potsdam Institute for Climate Impact Research), and analyses from the Overseas Development Institute (ODI).



Human Development Index



Source: UNDP, data for 2015

Share of global GHG emissions



Source: World Bank Indicators, data for 2012

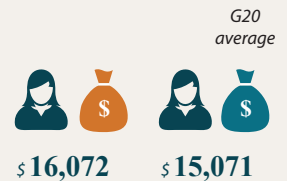
GHG emissions per capita (tCO₂e/cap)



Share of global GDP

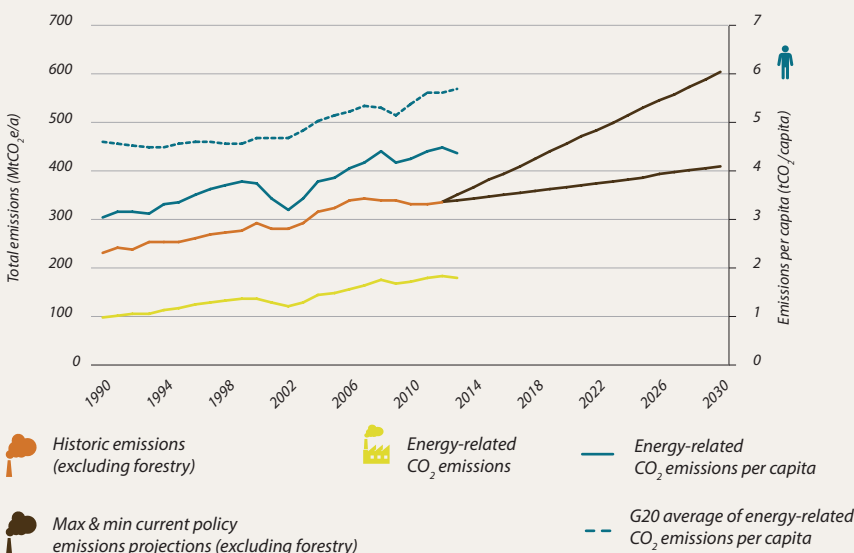


GDP per capita



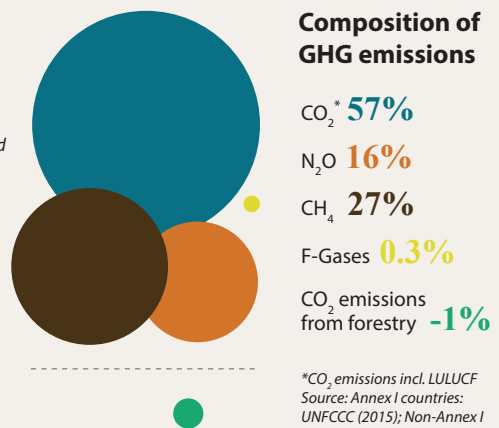
Source: IEA, data for 2013

GREENHOUSE GAS (GHG) EMISSIONS



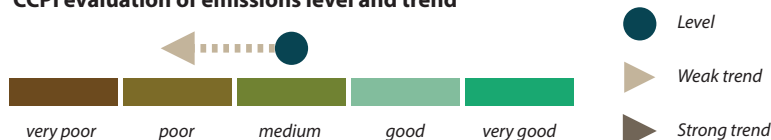
After years of increasing, greenhouse gas (GHG) emissions levelled in 2006 and fell slightly in 2011. Projections show a rising trend in the future, although the growth could either be limited to a level not far above current emissions, or could result in a level twice as high. Energy-related carbon dioxide (CO₂) emissions account for more than half of total GHG emissions. Energy-related CO₂ per capita emissions are steadily rising, but still below the G20 average. The CCPI ranks Argentina's emissions level as medium and the last five years show a negative trend.

Composition of GHG emissions



*CO₂ emissions incl. LULUCF
Source: Annex I countries: UNFCCC (2015); Non-Annex I countries: IEA (2014) and CAT (2015)

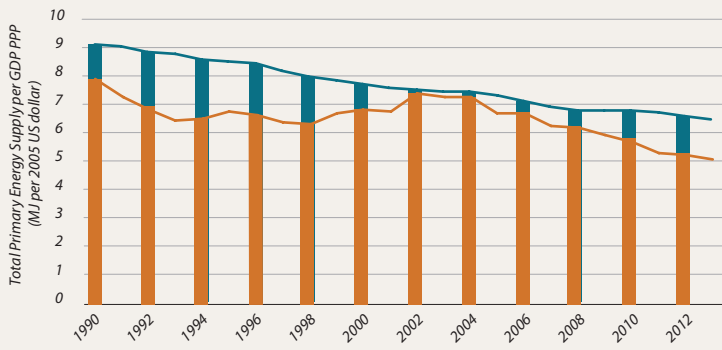
CCPI evaluation of emissions level and trend



Sources: Past energy related emissions from the Climate Change Performance Index (CCPI); past non-energy and future emissions projections from the Climate Action Tracker (CAT). CCPI calculations are primary based on the most recent IEA data; CAT calculations are based on national policies and country communications.

DECARBONISATION

Energy intensity of the economy



Energy intensity
Average energy intensity in G20

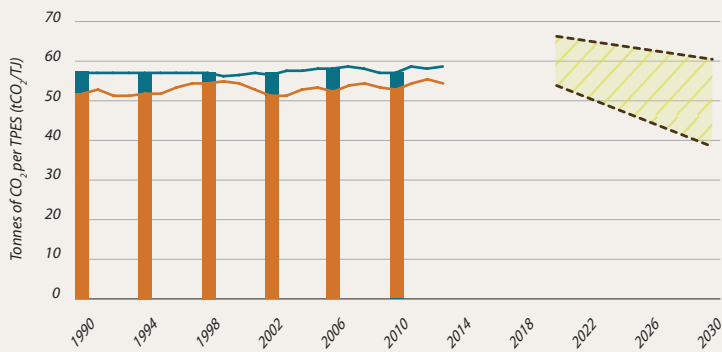
Source: CCPI, 2016

The energy intensity of Argentina's economy (TPES/GDP) peaked in 2002, just below the G20 average. Since then, the economy's energy intensity continued its downward development and is still relatively low compared to the other G20 countries. The CCPI ranks Argentina's energy intensity level as medium, with a positive trend.

CCPI evaluation of energy intensity of GDP



Carbon intensity of the energy sector

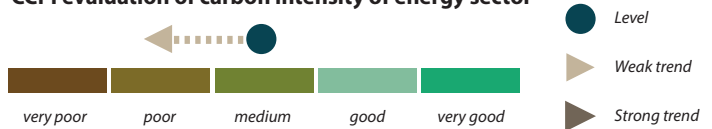


Carbon intensity (past trend)
Average carbon intensity in G20
Global benchmark for a 2°C pathway

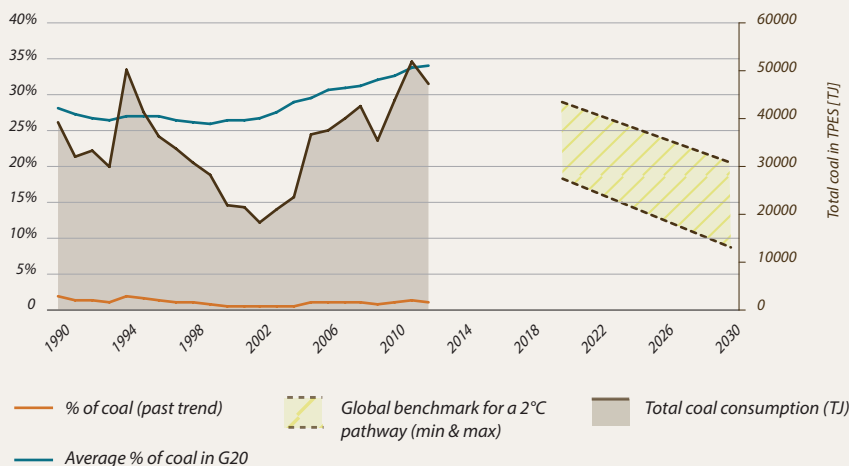
Sources: Past: CCPI; future projections: CAT

The CO₂ emissions per primary energy (CO₂/TPES) in Argentina range between 52 and 56 tCO₂ per TJ, below the G20 average. The CCPI ranking for the carbon intensity of the energy sector is rated as medium, while a worsening intensity trend is visible.

CCPI evaluation of carbon intensity of energy sector



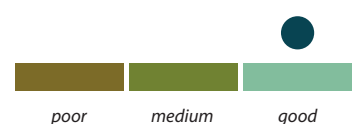
Share of coal in Total Primary Energy Supply (TPES)



Source: CAT

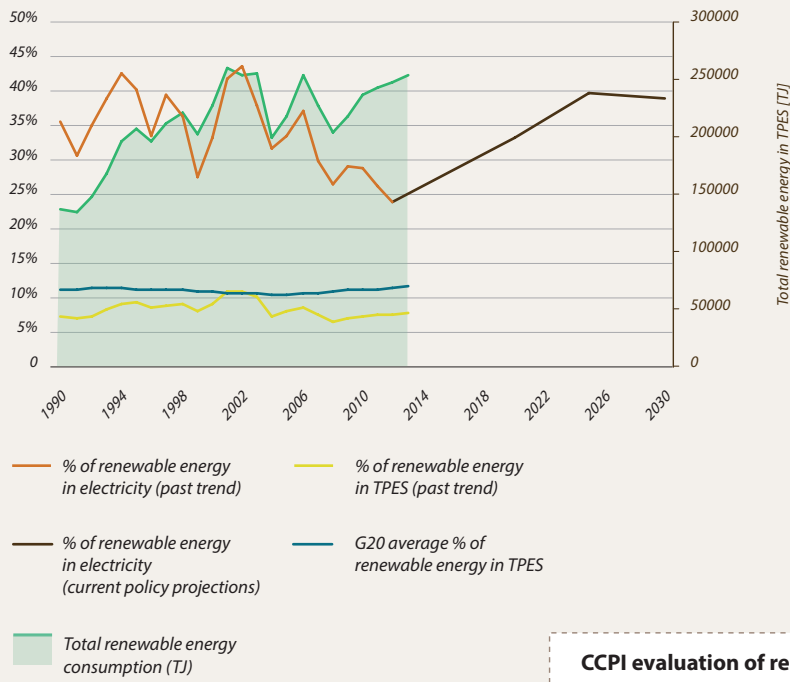
The share of coal in the total primary energy supply is very low in Argentina. Since 1990, it has varied between 1% and 2%, far below the G20 average and the global 2°C compatible benchmark.

Evaluation of coal share in TPES



Source: own evaluation

Renewable energy in TPES and electricity sector

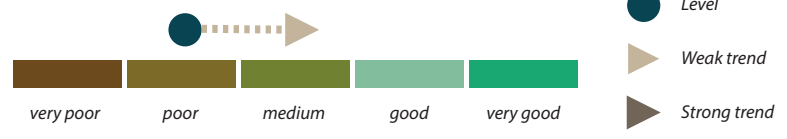


Sources: CCPI and CAT



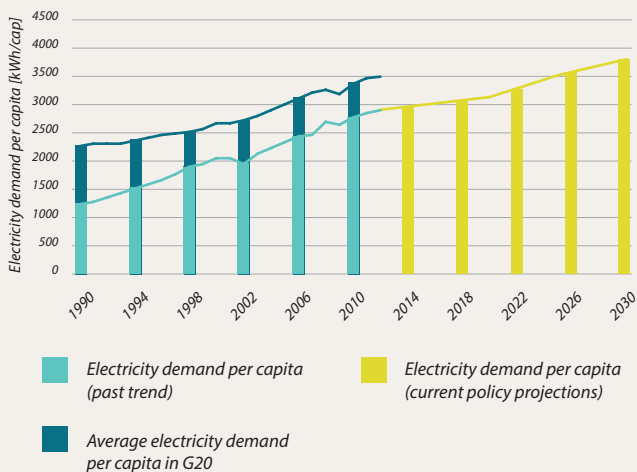
Argentina's share of renewable energy in electricity has varied strongly over recent decades. After reaching a peak in 2002, at 44%, it fell to 24% in 2012. Future projections predict a new increase until 2025. The share of renewable energy in Argentina's primary energy supply has been, apart from a temporary increase from 2001 to 2003, relatively constant, at about 7%, below the G20 average. In comparison to the other countries, the CCPI assesses Argentina's level of renewable energy as poor, while the trend is more promising.

CCPI evaluation of renewable share in TPES



Electricity demand per capita

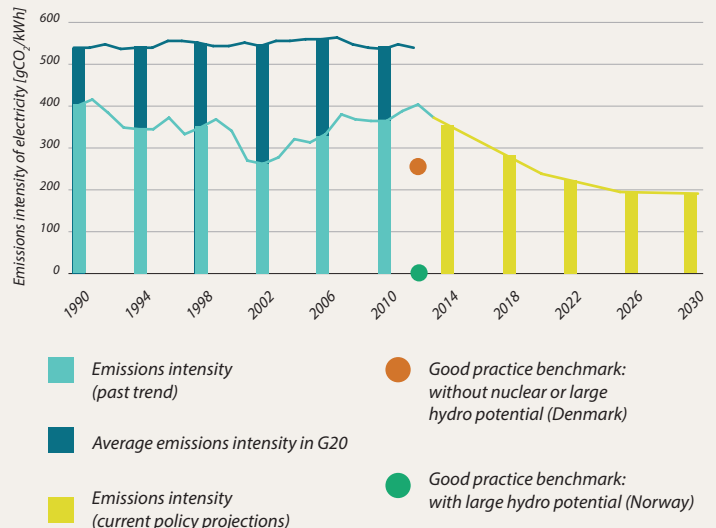
The electricity demand per capita has more than doubled since 1990, but is still below the G20 average. Future projections predict growth will continue.



Source: CAT, 2015

Emissions intensity of the electricity sector

The intensity of emissions in the electricity sector has strongly varied over recent decades. Starting from around 394 gCO₂ per kWh in 1990, emissions intensity reached a low in 2002. Growth then restarted, until intensity again reached 1990 levels. Despite this worrying development, notably decrease until 2030 is expected.



Source: CAT, 2015

Evaluation of the electricity emission intensity



Source: own evaluation

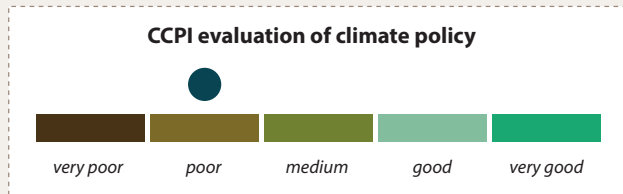
CLIMATE POLICY PERFORMANCE

Checklist of the climate policy framework

Low emissions development plan for 2050*	✗
2050 GHG emissions target	✗
Building codes, standards and incentives for low-emissions options	✓
Support scheme for renewables in the power sector	✓
Emissions performance standards for cars	✗
Emissions Trading Scheme (ETS)	✗
Carbon tax	✗

* Understood as decarbonisation plans and not specifically as the plans called for in the Paris Agreement

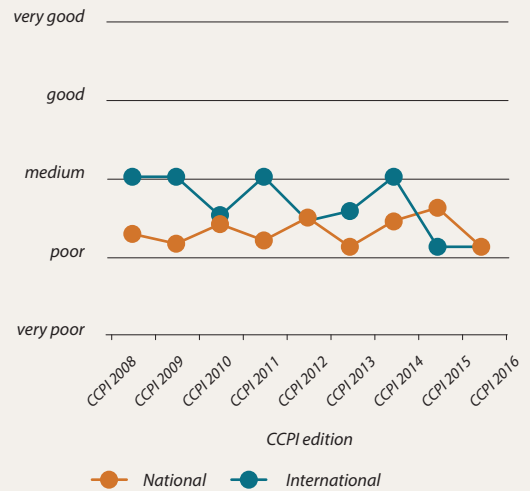
Source: Climate Policy Database, 2016



Climate policy evaluation by experts

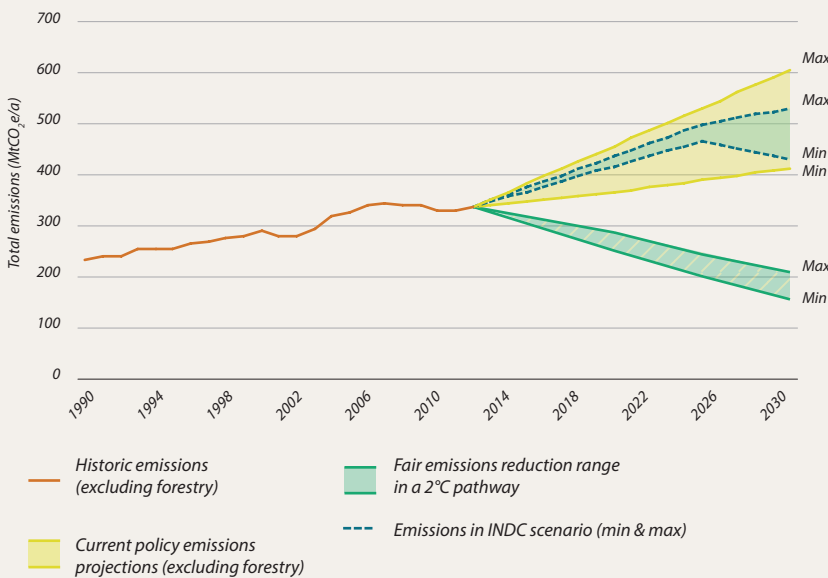
In the 2016 evaluation, the CCPI experts ranked Argentina's climate policy performance as relatively poor over recent years. On the international level there has been no visible change, but national climate policy has deteriorated. Experts recommend stronger requirements and controls in the industrial sector and pointed to the missing funding required to successfully promote renewable energy and other CO2 emission reduction measures.

The CCPI evaluates a country's performance in national and international climate policy through feedback from national energy and climate experts.



Source: CCPI, 2016

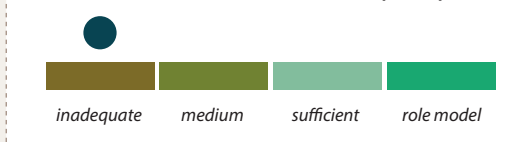
Compatibility of national climate targets (INDCs) with a 2°C scenario



Argentina submitted its Intended Nationally Determined Contribution (INDC) on October 1, 2015, with an unconditional target to reduce greenhouse gas (GHG) emissions by 15% below business as usual (BAU) by 2030. The target includes the Land Use, Land Use Change and Forestry (LULUCF) sector. Excluding LULUCF emissions, the INDC is equivalent to a 60% increase of emissions above 2010 by 2030, or 128% above 1990 levels. Argentina's conditional target is to reduce emissions by 30% below BAU by 2030, including LULUCF. This is equivalent to a 30% increase above 2010 levels by 2030 or 85% above 1990 levels (excluding LULUCF).

The CAT rates Argentina's INDC as "inadequate": its targets are inconsistent with limiting warming to below 2°C. If all countries adopted this level of ambition, global warming would likely exceed 3–4°C in the 21st century.

CAT evaluation of Argentina's Intended National Determined Contributions (INDC)



Source: CAT, 2015

Further, Argentina is likely to meet its proposed targets with currently implemented policies, representing little effort beyond current actions. Under the current plans to achieve its unconditional INDC, emissions from all sectors are projected to grow by more than 25% from 2012–2030. The energy, agriculture and cattle-ranching sectors will account for more than 87% of total emissions by 2030. More ambitious new policies are needed for Argentina to get closer to what would be a fair contribution, given its potentials and capabilities.

FINANCING THE TRANSITION

Investment attractiveness



Allianz Energy and Climate Monitor

LOW

RECAI* (E&Y index)
Category (own assessment)

LOW

Trend**

no data

*Adapted from RECAI and re-classified in 3 categories (low, medium, high) for comparison purposes with Allianz Monitor.

**Taken from RECAI issue of May 2016

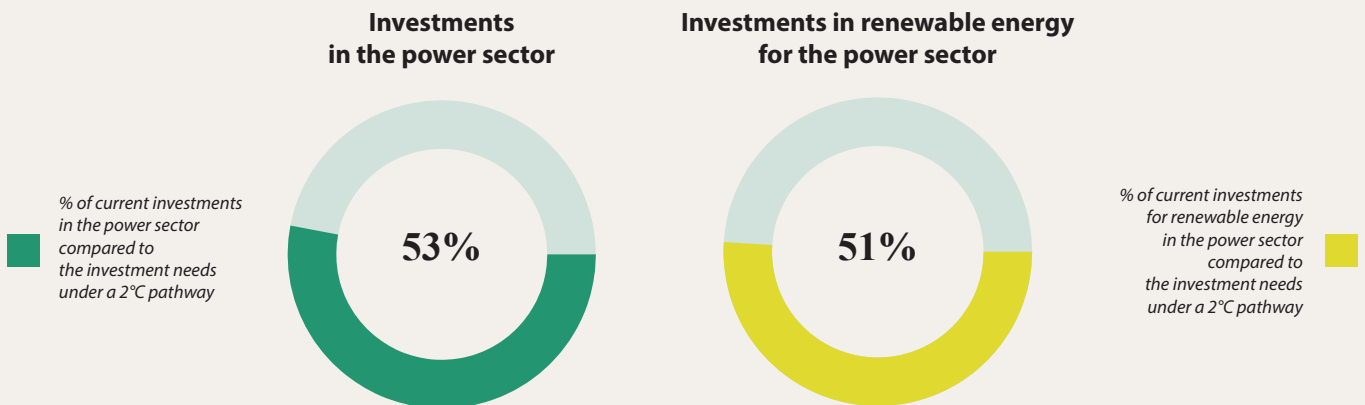
Climate Transparency rates Argentina's investment attractiveness as low, due to difficult macroeconomic conditions, little past experience with low carbon technologies, limited growth in green financing and - until recently - a less favourable policy environment to facilitate investments.

Sources: Allianz Energy and Climate Monitor and RECAI reports

The Allianz Energy & Climate Monitor ranks G20 member states on their relative fitness as potential investment destinations for building low-carbon electricity infrastructure. The investment attractiveness of a country is assessed through four categories: Policy adequacy, Policy reliability of sustained support, Market absorption capacity and the National investment conditions. The Renewable Energy Country Attractiveness Index (RECAI) produces score and rankings for countries' attractiveness based on Macro drivers, Energy market drivers and Technology-specific drivers which together compress a set of 5 drivers, 16 parameters and over 50 datasets.

Historical investments in renewable energy and investment gap

This section shows Argentina's current investments in the overall power sector (including distribution and transmission) as well as in renewable energy expressed as the share of the total annual investments needed to be in line with a 2°C compatible trajectory.



Source: Adapted from WEIO, 2014⁽¹⁾

⁽¹⁾ WEIO (2014) compares annual average investments from 2000 to 2013 with average annual investments needed from 2015 to 2030 under a 2°C scenario

Carbon pricing mechanisms

Emissions Trading Schemes (ETS)

An ETS caps the total level of GHG emissions and allows industries to trade allowances based on their marginal abatement cost. By creating a supply and demand for allowances, an ETS establishes a market price for GHG emissions.

Carbon Tax

A Carbon tax directly sets a price on carbon by defining a tax rate on GHG emissions or – more commonly – on the carbon content of fossil fuels. Unlike an ETS, a carbon tax is a price-based instrument that pre-defines the carbon price, but not the emissions reduction outcome of a carbon tax.

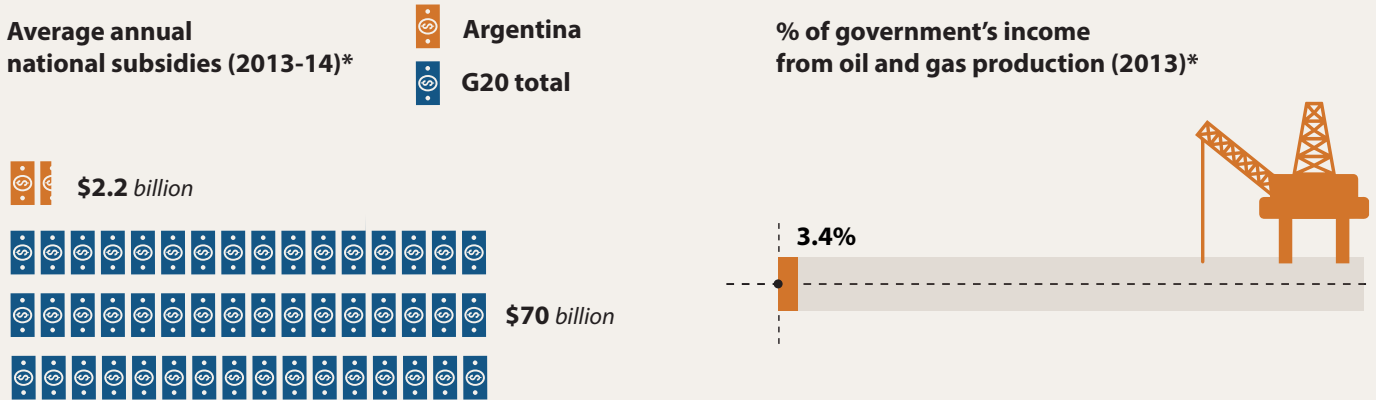
To date, Argentina does not have an emissions trading scheme (ETS) or a carbon tax, either in place, or under consideration.



Sources: World Bank and Ecofys, 2016; other national sources

Fossil fuel subsidies

While Argentina has taken measures to rationalise consumption subsidies for butane gas in order to discourage wasteful consumption, production subsidies for fossil fuels have not seen significant reforms. In recent years, Argentina has introduced tax breaks for companies investing in oil and gas production. For example, in 2013, Argentina amended its laws to allow oil and gas companies that invested over US\$1 billion in the country to sell 20% of their production abroad after five years without paying export taxes or repatriating profits, which acts as an incentive for companies looking to invest in oil and gas production.



Source: ODI, 2015

*The indicators above refer only to subsidies for fossil fuel production, and include direct spending (e.g. government budget expenditure on infrastructure that specifically benefits fossil fuels), tax expenditure (e.g. tax deductions for investment in drilling and mining equipment) and other support mechanisms (e.g. capacity mechanisms).

Public climate finance

Argentina is not listed in Annex II of the UNFCCC, and is therefore not formally obliged to provide climate finance. While climate-related spending by multilateral development banks may exist, it has not been included in this report.