ARGENTINA

Climate Transparency

2020

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PER CAPITA GREENHOUSE GAS (GHG) EMISSIONS ABOVE G20 AVERAGE

GHG emissions (incl. land use) per capita (tCO$_2$e/capita)[1]

Total GHG emissions (incl. land use) have increased only 35% since 1990 (1990-2016). Excluding land use and forestry, emissions have increased 52%.

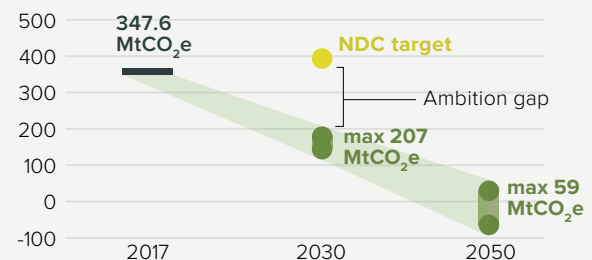*Data for 2017. Sources: INDEC, 2020; Ministerio de Ambiente y Desarrollo Sostenible, 2019; Gütschow et al., 2019*

8.4 Argentina

7.29 G20 average

5-year trend (2011-2016)

👍 **-9%** Argentina | 👍 **-1.2%** G20 average

NOT ON TRACK FOR A 1.5°C WORLD

1.5°C

To be in within its 'fair-share' range compatible with 1.5°C, Argentina needs to reduce its emissions to below 207 MtCO$_2$e by 2030 and to below 59 MtCO$_2$e by 2050. Its 2030 NDC target falls short, reducing emissions to only 422 MtCO$_2$e. All figures exclude land use emissions and are based on pre-COVID-19 projections.

Argentina 1.5°C 'fair-share' pathway (MtCO$_2$e/year)[1&2]

- 347.6 MtCO$_2$e
- NDC target
- Ambition gap
- max 207 MtCO$_2$e
- max 59 MtCO$_2$e

500, 400, 300, 200, 100, 0, -100

2017 | 2030 | 2050

Source: Climate Action Tracker, 2020

KEY OPPORTUNITIES FOR ENHANCING CLIMATE AMBITION

FOCUS ON GREEN ENERGY INFRASTRUCTURE

In June 2020 the government announced recovery measures aimed at protecting the oil and gas industry. However, recovery packages focused on green energy infrastructure, including energy efficiency and low carbon energy supply technologies, will be the best way to ensure a low emissions pathway while supporting economic recovery.

PROTECT AND REGULATE LAND USE

From January-August 2020, despite the pandemic and lockdown, illegal logging continued: deliberately-set fires ravaged at least 170,000 hectares of forest, grasslands and wetland ecosystems, largely driven by agricultural expansion. Argentina needs to urgently enforce and finance its national Law on Native Forests and shift to sustainable agricultural practices.

LOW EMISSIONS PUBLIC TRANSPORT

Transport is the highest contributor to Argentina's energy emissions. The government is developing a policy framework to incentivise electric vehicles (EVs), but oil accounts for 79% of the transport energy mix. The government must support a modal shift in passenger transport modes and provide alternatives like electricity-powered public transport and non-motorised transport modes.

RECENT DEVELOPMENTS

👎 Argentina continues to subsidise fossil fuels. The government artificially fixed the domestic oil barrel price to offset the sharp fall in international oil prices and plans to launch a new subsidy scheme aimed at stimulating natural gas production through a four-year program, including conventional, non-conventional, onshore and offshore.

👍 In December 2019, Congress passed a climate change law that would establish minimum standards for the adequate management of climate change, including developing a National Climate Change Response Plan, a National System for GHG Inventory, and Monitoring of Mitigation. The law positions the treatment of climate change as national policy and leaves an institutional legacy through a National Climate Change Cabinet.
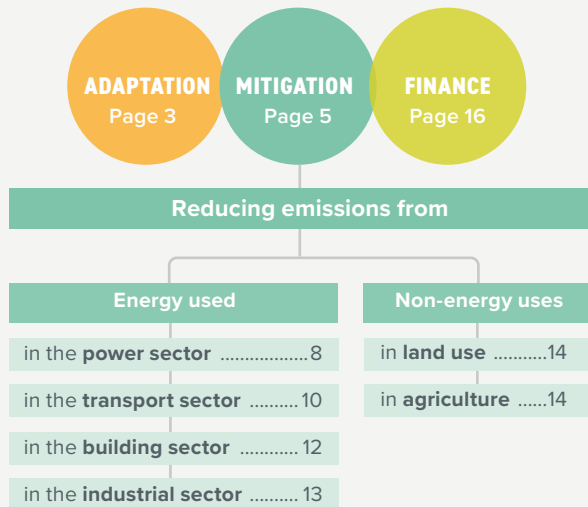
👎 The government has not introduced any 'green' measures in its recovery stimulus plans. The Ministry of Environment is involved in only one working group of the cabinet, largely due to contentious issue related to commerce.

❋ CORONAVIRUS RECOVERY

An early lockdown allowed the strengthening of a highly underfunded health system. However, it exacerbated the existing financial crisis. The Ministry of Environment and Sustainable Development has had little involvement in the economic recovery measures since July 2020 and, instead, measures targeted at increasing commodity exports and fossil fuels have been introduced. Deforestation continued throughout quarantine in northern Argentina, destroying more than 29,000 hectares.

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We unpack Argentina's progress and highlight key opportunities to enhance climate action across:

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MITIGATION Page 5

FINANCE Page 16

Reducing emissions from

Energy used

Non-energy uses

LEGEND

Trends show developments over the past five years for which data are available. The thumbs indicate assessment from a climate protection perspective.

Decarbonisation Ratings[4] assess a country's performance compared to other G20 countries. A high score reflects a relatively good effort from a climate protection perspective but is not necessarily 1.5°C compatible.

Very low   Low   Medium   High   Very high
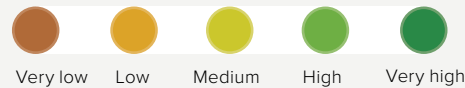
Policy Ratings[5] evaluate a selection of policies that are essential pre-conditions for the longer-term transformation required to meet the 1.5°C limit.

Low   Medium   High   Frontrunner

SOCIO-ECONOMIC CONTEXT

Human Development Index

Despite having a strong HDI (mainly related to having a very good public education system even at university level), Argentina is a country of sharp inequalities and it is estimated that by the end of 2020 the levels of poverty will reach 45-50%.
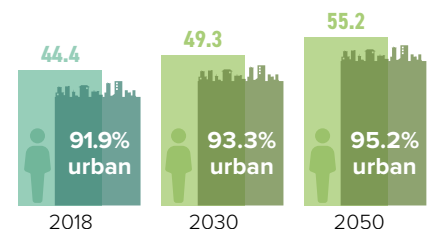
Very high
High
Medium
Low

VERY HIGH
0.830

Data for 2018. Source: UNDP, 2019

Population and urbanisation projections
(in millions)

Argentina's population is expected to increase by about 24.4% by 2050 and become more urbanised.

44.4 — **91.9% urban** — 2018

49.3 — **93.3% urban** — 2030

55.2 — **95.2% urban** — 2050

Sources: The World Bank, 2019; United Nations, 2018

Gross Domestic Product (GDP) per capita
(PPP constant 2015 international $)

23,615 ARGENTINA

22,230 G20 AVERAGE

Data for 2019. Source: The World Bank, 2020

Death rate attributable to air pollution

Ambient air pollution attributable death rate per 1,000 population per year, age standardised

0.24 ARGENTINA

0.1–1.1 G20 RANGE

Over 14,820 people die in Argentina every year as a result of outdoor air pollution, due to stroke, heart disease, lung cancer and chronic respiratory diseases. Compared to total population, this is still one of the lower levels in the G20.

14,820 deaths per year

Data for 2016. Source: WHO, 2018

JUST TRANSITION

ENERGY SECTOR WORKERS VULNERABLE

The former government launched the "Hacia una Visión Compartida de la Transición Energética Argentina al 2050" initiative, aimed at developing a dialogue on the vision of a just transition, or the '2050 energy future' as it's colloquially known. The dialogue process, held between 2018-2019, culminated under the current administration, with results presented in the last quarter of 2019. They provided a series of recommendations and goals for 2050, including providing access to energy to households, an energy system supporting local development and job creation. One of its objectives addresses the need to attend to and mitigate the social impacts of the transition. Under this Objective its first goal is to achieve a 100% transition of the workforce to new, decent and environmentally-friendly industries. One of the main difficulties in effectively implementing a just transition in Argentina is the scarcity of social and job vulnerability assessments, and the proper inclusion of unions in the design and follow-up stages of climate change policies.

References: Ministerio de Desarrollo Productivo, 2019; Comité Ejecutivo de la Plataforma Escenarios Energéticos, 2019

1. ADAPTATION
ADDRESSING AND REDUCING VULNERABILITY TO CLIMATE CHANGE

PARIS AGREEMENT **Increase the ability to adapt to the adverse effects of climate change and foster climate resilience and low-GHG development.**

VULNERABLE TO CLIMATE CHANGE
Argentina is vulnerable to climate change, and needs to take adaptation actions.

HIGH COST OF EXTREME WEATHER
On average, 26 fatalities and almost USD 1,125bn losses occur each year due to extreme weather events.

SEVERE IMPACTS ON AGRICULTURE SECTOR
With global warming, society and its supporting sectors are increasingly exposed to severe impacts such as droughts and crop reduction. Argentina has plans to complete and submit its National Adaptation Plan (NAP) to the UNFCCC in 2020.

ADAPTATION NEEDS
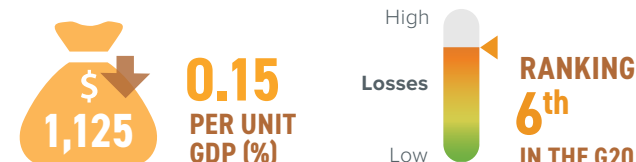
Climate Risk Index

Impacts of extreme weather events in terms of fatalities and economic losses that occured. All numbers are averages (1999-2018).

Annual weather-related fatalities

26 DEATHS

0.06 PER 100,000 INHABITANTS

Death rate — High / Low

RANKING 17th IN THE G20

Source: Based on Germanwatch, 2019

Annual average losses (USD mn PPP)

$1,125

0.15 PER UNIT GDP (%)

Losses — High / Low

RANKING 6th IN THE G20

Source: Based on Germanwatch, 2019

Exposure to future impacts at 1.5°C, 2°C and 3°C

Impact ranking scale:

Very low | Low | Medium | High | Very high

			1.5°C	2°C	3°C
WATER		% of area with increase in water scarcity	Low	Medium	High
		% of time in drought conditions	Low	Low	Low
HEAT AND HEALTH		Heatwave frequency	Very low	Low	Low
		Days above 35°C	Medium	High	High
AGRICULTURE	**Maize**	Reduction in crop duration	Very low	Low	Low
		Hot spell frequency	High	High	Very high
		Reduction in rainfall	High	High	High
	Soybean	Reduction in crop duration (days)	High	High	Very high
		Hot spell frequency	Very low	Medium	High
		Reduction in rainfall	Medium	Low	Low
	Wheat	Reduction in crop duration	Low	High	Very high
		Hot spell frequency	Very low	Low	Low
		Reduction in rainfall	Low	Low	Very low

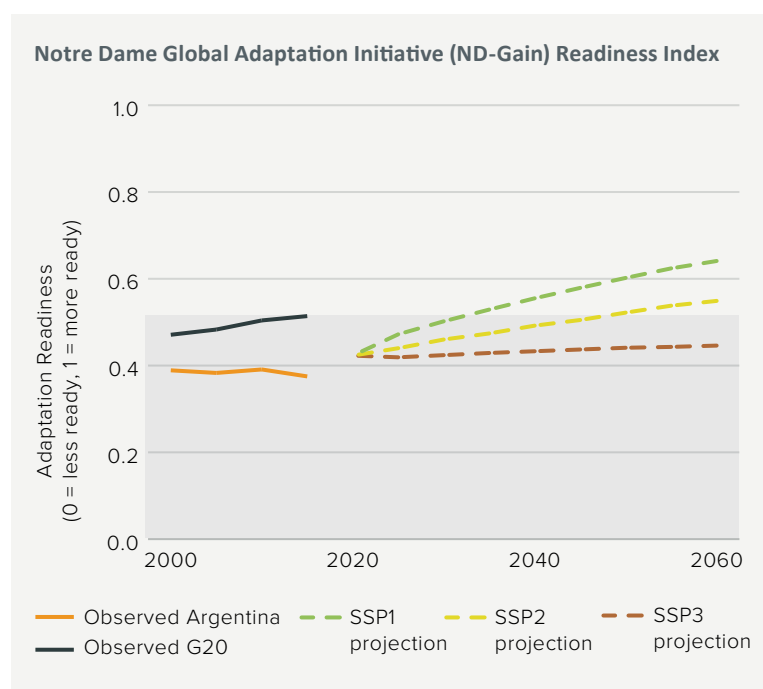*Source: Water, Heat and Health: CA research. Agriculture: Arnell et al., 2019.*

Note: These indicators are national scale results, weighted by area and based on global data sets. They are designed to allow comparison between regions and countries and, therefore, entail simplifications. They do not reflect local impacts within the country. Please see technical note for further information.

✿ CORONAVIRUS RECOVERY The government's response has focused on compulsory social distancing and sanitation, but marginalised sectors of society have been disproportionately affected by the pandemic, mostly due to a lack of essential services such as access to healthcare, water and overcrowding. To improve healthcare access, the national government launched the "Federal Health Network COVID-19" entrusted with the construction, refurbishment and expansion of hospitals and health centres across the country. However, no recovery measures have been linked to Argentina's priorities to adapt to climate change. The pandemic has also affected the NAP development process, which was set to finalise by mid-2020.

Adaptation readiness

The figure shows 2000-2015 observed data from the ND-GAIN Index overlaid with projected Shared Socioeconomic Pathways (SSPs) from 2015-2060.

Notre Dame Global Adaptation Initiative (ND-Gain) Readiness Index

Legend:
- Observed Argentina
- Observed G20
- SSP1 projection
- SSP2 projection
- SSP3 projection

Y-axis: Adaptation Readiness (0 = less ready, 1 = more ready)

Argentina's observed adaptation readiness between 2000 and 2015 is below the G20 average and not improving. Adopting socio-economic developments in line with SSP1 would produce improvements in readiness to bring it in line with the 2015 G20 average by 2035; SSP2 developments by 2050. Other measures, as represented by SSP3, would continue to undermine its readiness to adapt in the long term.

The readiness component of the Index created by the Notre Dame Global Adaptation Initiative (ND-GAIN) encompasses social economic and governance indicators to assess a country's readiness to deploy private and public investments in aid of adaptation. The index ranges from 0 (low readiness) to 1 (high readiness).

The overlaid SSPs are qualitative and quantitative representations of a range of possible futures. The three scenarios shown here in dotted lines are qualitatively described as a sustainable development-compatible scenario (SSP1), a middle-of-the-road (SSP2) and a 'Regional Rivalry' (SSP3) scenario. The shaded area delineates the G20 average in 2015 for easy reference.

Source: Andrijevic et al., 2019

ADAPTATION POLICIES

National Adaptation Strategies

Document name	Publication year	Fields of action (sectors)													M&E process
		Agriculture	Biodiversity	Coastal areas and fishing	Education and research	Energy and industry	Finance and insurance	Forestry	Health	Infrastructure	Tourism	Transport	Urbanism	Water	
No adaptation policy															

Nationally Determined Contribution (NDC): Adaptation

Targets

Not mentioned

Actions

Actions specified in the following sectors: health, agriculture, water, ecosystems

2. MITIGATION
REDUCING EMISSIONS TO LIMIT GLOBAL TEMPERATURE INCREASE

PARIS AGREEMENT **Hold the increase in the global average temperature to well below 2°C above pre-industrial levels and pursue efforts to limit to 1.5°C, recognising that this would significantly reduce the risks and impacts of climate change.**

EMISSIONS OVERVIEW

CO$_2$ DECREASE EMISSIONS
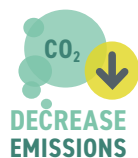
Argentina's GHG emissions (excl. land use and forestry) have increased by around 52% (1990-2016). **Argentina needs to scale up its 2030 mitigation efforts to be line with a 1.5°C pathway.**
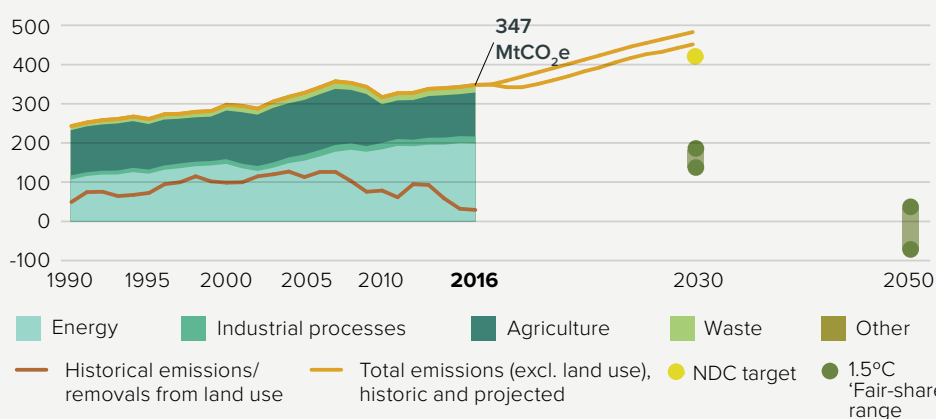
Sources: BUR, 2019; CAT, 2020

1.5°C COMPATIBILITY

In 2030, global CO$_2$ emissions need to be 45% below 2010 levels and reach net-zero by 2050. Global energy-related CO$_2$ emissions must be cut by 40% below 2010 levels by 2030 and reach net-zero by 2060.

Source: Rogelj et al., 2018

GHG emissions across sectors and CAT 1.5°C 'fair-share' range (MtCO$_2$e/year)

Total GHG emissions across sectors (MtCO$_2$e/year)

347 MtCO$_2$e

Legend:
- Energy
- Industrial processes
- Agriculture
- Waste
- Other
- Historical emissions/removals from land use
- Total emissions (excl. land use), historic and projected
- NDC target
- 1.5°C 'Fair-share' range

Note: Figures reported here are expressed in AR4 while the BUR3 from Argentina is expressed in SAR which might explain some discrepancies between the sources.
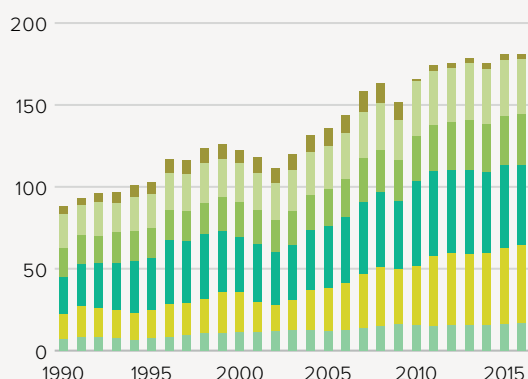*Sources: Climate Action Tracker, 2020a; Ministerio de Ambiente y Desarrollo Sostenible, 2019*

Argentina's emissions (excl. land use) increased by 52% between 1990-2016, and are projected to grow significantly after 2021, by about 35-37% above 2010 levels by 2030. While local experts show total GHG emissions in 2030 will be below the unconditional NDC goal, different studies on 'fair-share' mitigation efforts show Argentina will still need to scale up climate action to become 1.5°C 'fair-share' compatible.
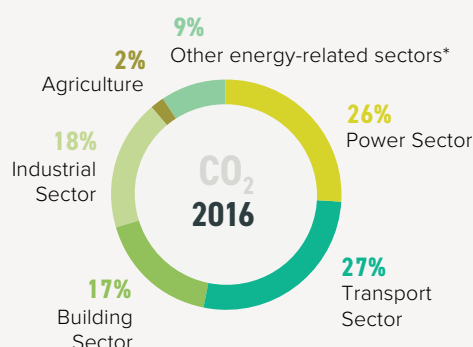
Sources: Keesler, Orifici, and Blanco 2019; Climate Action Tracker, 2020a

Energy-related CO$_2$ emissions by sector

Annual CO$_2$ emissions from fuel combustion (MtCO$_2$/year)

CO$_2$ 2016

- 9% Other energy-related sectors*
- 2% Agriculture
- 18% Industrial Sector
- 17% Building Sector
- 17% Building Sector
- 26% Power Sector
- 27% Transport Sector

Argentina has CO$_2$ emissions from fuel combustion remained almost stable over the last decade, with only minor changes. **The transport sector, at 27%, is the largest contributor, followed by electricity and heat generation as well as the industrial sector, with 26% and 18% respectively in 2016.**

Source: Ministerio de Ambiente y Desarrollo Sostenible, 2019

'Other energy-related sectors' covers energy-related CO$_2$ emissions from extracting and processing fossil fuels. Due to rounding, some graphs may sum to slightly above or below 100%.

☼ CORONAVIRUS RECOVERY

This moment represents an opportunity to rethink the way Argentina incorporates climate into development policy. The city of Buenos Aires demonstrates such an opportunity. Owing to limited public transport during the pandemic lockdown response, an increasing number of people have been cycling through the city, which has led the municipal government to expand bike lanes by 17 km. Since Argentina is in the process of updating its NDC and will soon begin preparing its LTS, it has the unique chance to align both with a sustainable low-carbon economic recovery strategy.

ENERGY OVERVIEW

86%

OF ARGENTINA'S ENERGY MIX IS FOSSIL FUELS
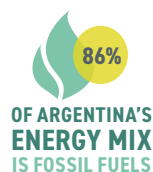
Fossil fuels still make up 86% of Argentina's energy mix (counting power, heat, transport fuels, etc). Despite the increase in renewable energy over the last two decades, the carbon intensity of the energy mix has barely changed.
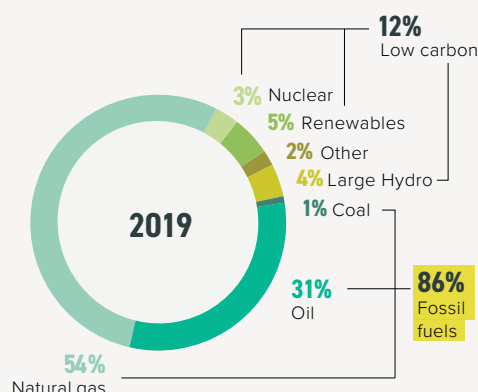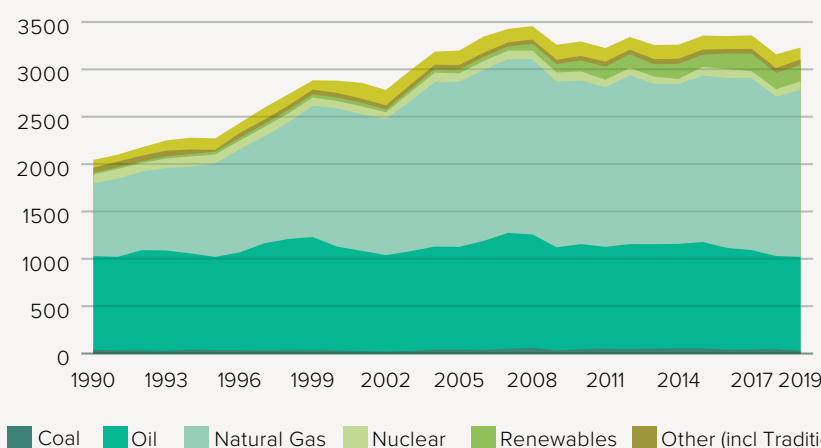
1.5°C

COMPATIBILITY

The share of **fossil fuels in the global primary energy mix needs to fall to 67% by 2030 and to 33% by 2050** (and to substantially lower levels without Carbon Capture and Storage.)

Source: Rogelj et al., 2018

Energy Mix

Total primary energy supply (PJ)

12% Low carbon
3% Nuclear
5% Renewables
2% Other
4% Large Hydro
1% Coal
31% Oil
86% Fossil fuels
54% Natural gas
2019

Coal · Oil · Natural Gas · Nuclear · Renewables · Other (incl Traditional Biomass) · Hydro >50MW
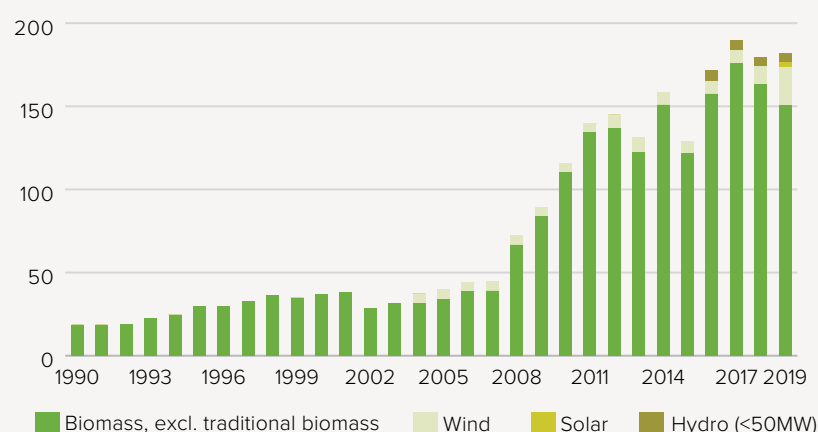
Source: Ministerio de Desarrollo Productivo, 2020

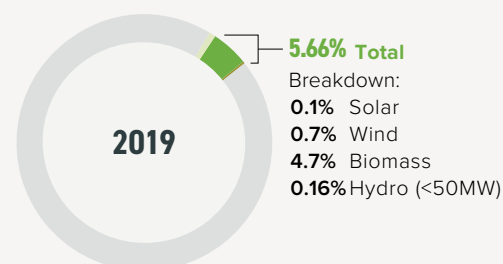*Due to rounding, some graphs may sum to slightly above or below 100%.*

This graph shows the fuel mix for all energy supply, including energy used for electricity generation, heating, cooking, and for transport fuels. Fossil fuels (oil, coal and gas) still make up 86% of Argentina's energy mix, similar to the G20 average (81%).

Solar, Wind, Geothermal, and Biomass Development

Total primary energy supply (TPES) from solar, wind, geothermal and biomass (PJ)

Solar, wind, geothermal and biomass account for 5.66% of Argentina's energy supply

5.66% Total
Breakdown:
0.1% Solar
0.7% Wind
4.7% Biomass
0.16% Hydro (<50MW)
2019

Biomass, excl. traditional biomass · Wind · Solar · Hydro (<50MW)

Source: Ministerio de Desarrollo Productivo, 2020

Large hydropower and solid fuel biomass in residential use are not reflected due to their negative environmental and social impacts. Due to rounding, some graphs may sum to slightly above or below 100%.

Decarbonisation rating: RE share of TPES compared to other G20 countries

5-year trend (2014-2019): **Medium**

Current year (2019): **Medium**

Source: own evaluation

Solar, wind, geothermal and biomass account for 5% of Argentina's energy supply – the G20 average is 6.4%. The share in total primary energy supply has increased by around 14.7% in the last five years in Argentina (2014-2019). Bioenergy (for electricity and heat) makes up the largest share (4.7%).

Carbon Intensity of the Energy Sector

Tonnes of CO$_2$ per unit of total primary energy supply (tCO$_2$/TJ)

55.32 tCO$_2$/TJ

Argentina — G20 Average
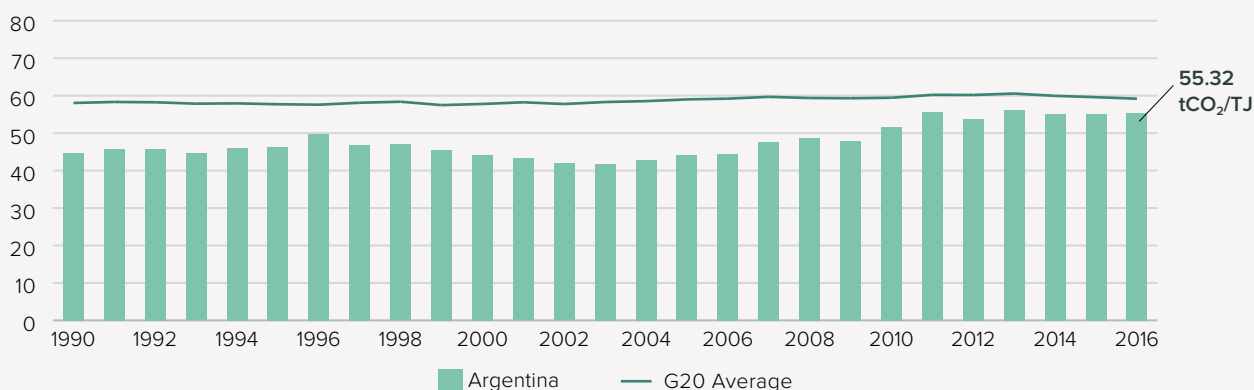
Sources: Ministerio de Ambiente y Desarrollo Sostenible, 2019; Ministerio de Desarrollo Productivo, 2020

Decarbonisation rating: carbon intensity of the energy sector compared to other G20 countries

5-year trend (2011-2016): **Medium**

Current year (2016): **Medium**

Carbon intensity is how much CO$_2$ is emitted per unit of energy supply. In Argentina, from 2011-2016 carbon intensity has remained almost constant at around 55 tCO$_2$, and is almost equal to the G20 average (58 tCO$_2$), reflecting the continuously high share of fossil fuels in the energy mix.

Source: own evaluation

Energy supply per capita

(GJ/capita)

72 Argentina

97 G20 average
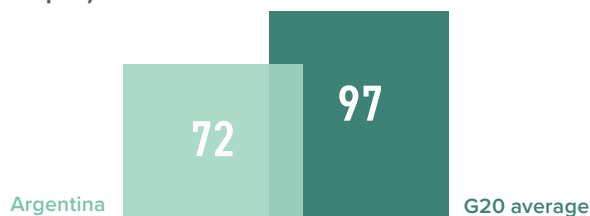
Sources: Ministerio de Desarrollo Productivo, 2020

TPES per capita (GJ/capita): 5-year trend (2014-2019)

👍 **-5.9%** Argentina | 👎 **+1.9%** G20 average

The level of energy use per capita is closely related to economic development, climatic conditions and the price of energy. Energy use per capita in Argentina is 72 GJ/capita, below the G20 average, but is decreasing (-5.9%, 2014-2019) in contrast to the increasing G20 average (+1.9%).
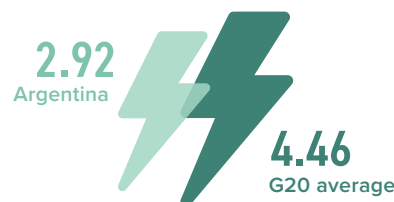
Decarbonisation rating: energy supply per capita compared to other G20 countries

5-year trend (2014-2019): **High**

Current year (2019): **High**

Source: own evaluation

Energy intensity of the economy

(TJ/PPP USD2015 millions)

2.92 Argentina

4.46 G20 average

*Data for 2018. Sources: Ministerio de Desarrollo Productivo, 2020*

Energy intensity of the economy: 5-year trend (2013-2018)

👍 **-0.7%** Argentina | 👍 **-11.6%** G20 average

This indicator quantifies how much energy is used for each unit of GDP. This is closely related to the level of industrialisation, efficiency achievements, climatic conditions or geography. Argentina's energy intensity is less than the G20 average but has decreased less (-0.7%, 2013-2018) than the G20 average (-11.6%).

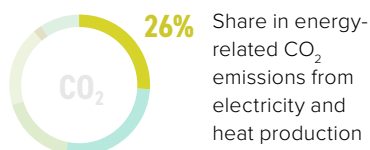**Decarbonisation rating: energy intensity compared to other G20 countries**

5-year trend (2013-2018): **Very low**

Current year (2018): **Very high**
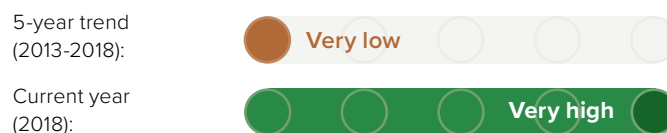
Source: own evaluation

POWER SECTOR
Emissions from energy used to make electricity and heat

Gas and large hydropower are the main electricity sources in Argentina accounting for 59% and 25.6% respectively. In order to stay within the 1.5°C limit, Argentina needs to phase out gas, oil and coal in the electricity mix, and speed up the use of low impact renewables.

26% Share in energy-related CO_2 emissions from electricity and heat production

CO_2

Source: Ministerio de Desarrollo Productivo, 2020

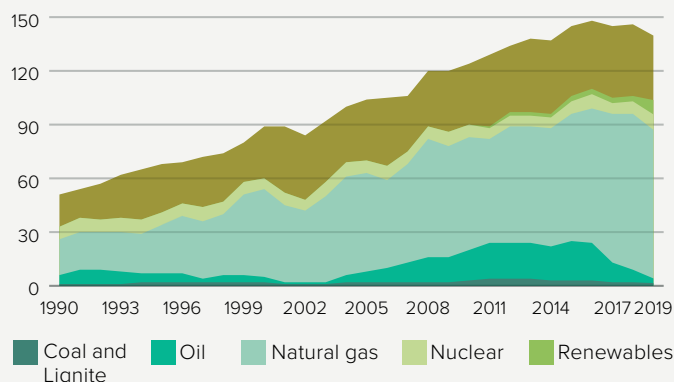**1.5°C COMPATIBILITY**

Coal and decarbonisation

Worldwide, **coal use for power generation needs to peak by 2020**, and between 2030 and 2040, all the regions of the world need to phase out coal-fired power generation. **Electricity generation has to be decarbonised before 2050**, with renewable energy the most promising alternative.

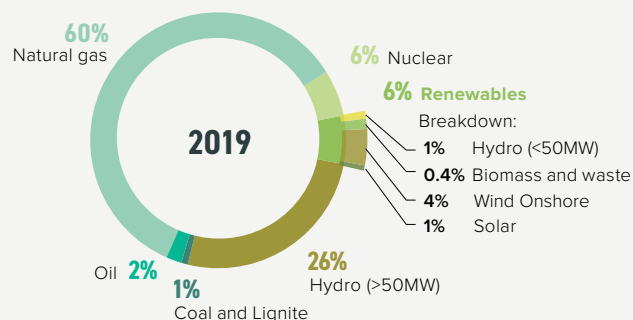*Sources: Rogelj et al., 2018; Climate Analytics, 2016; Climate Analytics, 2019*

STATUS OF DECARBONISATION

Electricity mix

Gross power generation (TWh)

- Coal and Lignite
- Oil
- Natural gas
- Nuclear
- Renewables
- Hydro (>50MW)

2019

- **60%** Natural gas
- **6%** Nuclear
- **6%** Renewables
  - Breakdown:
  - **1%** Hydro (<50MW)
  - **0.4%** Biomass and waste
  - **4%** Wind Onshore
  - **1%** Solar
- **26%** Hydro (>50MW)
- **1%** Coal and Lignite
- Oil **2%**

Source: CAMMESA, 2020

Due to rounding, some graphs may sum to slightly above or below 100%.
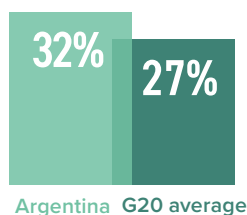
Renewables accounted for 6% of Argentina's power mix in 2019, mainly wind onshore (4%), solar (1%) and biomass (0.4%). Natural gas is the most important power source at 60%. Large hydro represents 26%. The shares of coal and oil are declining, and now account for only a combined 2.1% of fossil-fuel-based electricity generation.

Share of renewables in power generation
(incl. large hydro)

Note: Excluding large hydro, the share of renewables in electricity generation is 6% and has seen an increase by threefold between 2014 and 2019.

Source: CAMMESA, 2020; Ministerio de Ambiente y Desarrollo Sostenible, 2019

32% Argentina **27%** G20 average

Decarbonisation rating: share of renewables compared to other G20 countries

5-year trend (2014-2019): **Very low**

Current year (2019): **Medium**

Source: own evaluation

Share of renewables in power generation: 5-year trend (2014-2019)

👍 **+3%** Argentina

👍 **+19.5%** G20 average

Emissions intensity of the power sector

Country vs G20 average (gCO$_2$/kWh)

269
Argentina

449
G20 average
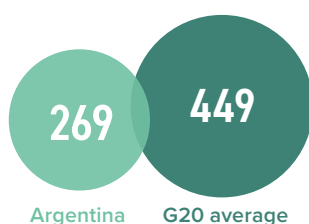
Sources: CAMMESA, 2020; Ministerio de Ambiente y Desarrollo Sostenible, 2019

For each kilowatt hour of electricity, 269gCO$_2$ are emitted in Argentina. This is well below the G20 average but still high. Furthermore, the level is decreasing more (-19.5%, 2014-2019) than the G20 trend (-10.3%) due to recession and a new economic crisis rather than a deliberate reduction of carbon intensity.

Emissions intensity: 5-year trend (2014-2019)

👍 **-19.5%**
Argentina

👍 **-10.3%**
G20 average

Decarbonisation rating: emissions intensity compared to other G20 countries

5-year trend
(2014-2019):

High

Current year
(2019):

High

Source: own evaluation

POLICY ASSESSMENT

Renewable energy in the power sector

Medium

Argentina has no long-term strategy for renewables, but aims to increase their share in the electricity mix to 20% (10 GW installed capacity) by 2025 and 26% by 2030. Since 2016, the government has awarded almost 5 GW of renewable projects through the RenovAr programme. In 2019, the government announced a fifth round (RenovAr 4) that will include large-scale wind and solar power projects and grid infrastructure projects. A USD 14m fund – Distributed Generation of Renewables – was created in 2018.

High-voltage grid capacity is limited and the government's focus on oil and gas exploitation may put renewables development at risk. Argentina's ongoing economic crisis and COVID-19 may hinder the development of renewable projects.

Source: own evaluation

Coal phase-out in the power sector

No data available

While the share of coal in the energy mix is currently negligible, it is important for Argentina to phase it out in the context of a just transition and prevent any potential new developments.

The government has made announcements around its intention to promote the exploitation of Río Turbio, a coal mine and power plant in the south of the country. Doing this would hinder the necessary energy transition.

Source: own evaluation

TRANSPORT SECTOR

Emissions from energy used to transport people and goods

Argentina's transport sector is still dominated by fossil fuels, while biofuels and electricity make up only 9 % of the energy mix in transport. **In order to stay within a 1.5°C limit, passenger and freight transport need to be decarbonised.**

Share in energy-related CO_2 emissions from transport sector

Source: Ministerio de Desarrollo Productivo, 2020

CO_2

0.10%
Electricity-related emissions

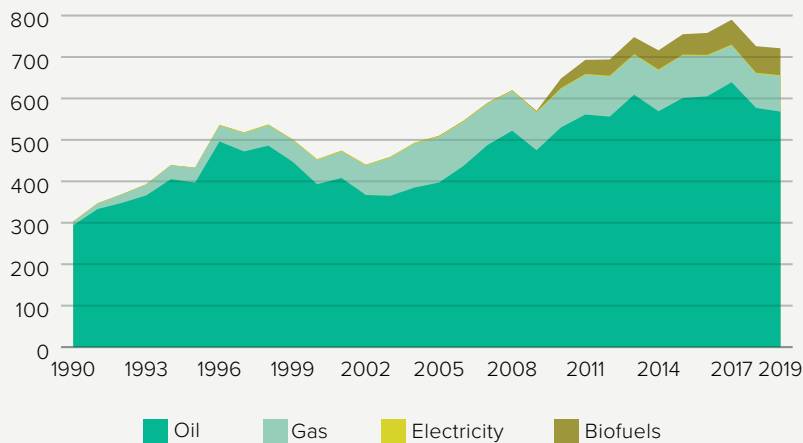**27%**
Direct emissions

COMPATIBILITY 1.5°C
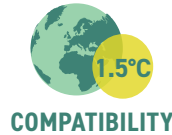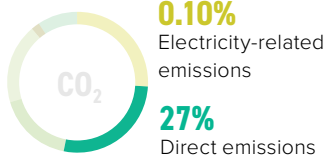
The proportion of low-carbon fuels in the transport fuel mix must increase to about 60% by 2050.
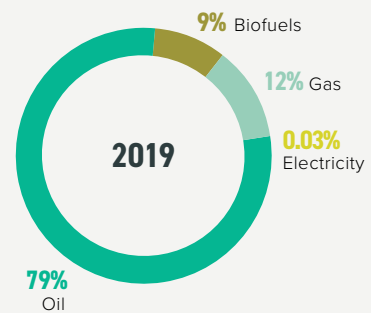
Source: Rogelj et al., 2018

STATUS OF DECARBONISATION

Transport energy mix

Final energy consumption of transport by source (PJ/year)

2019

9% Biofuels
12% Gas
0.03% Electricity
79% Oil

Oil   Gas   Electricity   Biofuels

Source: Enerdata, 2020

Due to rounding, some graphs may sum to slightly above or below 100%.

Electricity and biofuels make up only 9.3% of the energy mix in transport.

Transport emissions per capita

excl. aviation (tCO$_2$/capita)

1.13
Argentina

1.14
G20 average

Data for 2016. Sources: Ministerio de Ambiente y Desarrollo Sostenible, 2019; INDEC 2010; Ministerio de Desarrollo Productivo, 2020

Transport emissions: 5-year trend (2011-2016)

👍 **-6.1%**
Argentina

👎 **+6.1%**
G20 average

Decarbonisation rating: transport emissions compared to other G20 countries

5-year trend (2011-2016): **Very high**

Current year (2016): **High**

Source: own evaluation

Aviation emissions per capita[6]

(tCO$_2$/capita)

0.10 Argentina

0.15 G20 average

Data for 2016. Sources: Ministerio de Ambiente y Desarrollo Sostenible, 2019; INDEC 2010; Ministerio de Desarrollo Productivo, 2020

Aviation emissions: 5-year trend (2011-2016)

+2% Argentina | **+13%** G20 average

Decarbonisation rating: aviation emissions compared to other G20 countries

5-year trend (2011-2016): — **High**

Current year (2016): — **Medium**

Source: own evaluation

Motorisation rate

317 VEHICLES PER 1,000 INHABITANTS (2018)

37% of the kilometres travelled is by car and almost 300 people per 1,000 inhabitants have a car in Argentina.

Data for 2018. Source: AFAC 2018

Freight transport

(modal split in % of tonne-km)

No data available

Market share of electric vehicles in new car sales (%)

No data available

Passenger transport

(modal split in % of passenger-km)

No data available

POLICY ASSESSMENT

Phase out fossil fuel cars

Medium

The 2017 Transport Plan envisages reducing transport emissions by 7.6% by 2030 below business-as-usual (BAU). In 2017, Argentina adopted mandatory efficiency labelling for cars, and a carbon tax that would also impact transport fuels, although the impact of the carbon tax on the cost of liquid fuel is less than 1%. A policy framework that incentivises the development and use of electric vehicles (EVs) is being developed. However, Argentina has no plan to phase out fossil fuel cars.

Source: own evaluation

Phase out fossil fuel heavy-duty vehicles

Medium

Argentina's sectoral plan for transport includes several measures to reduce emissions from freight transport as well as HDVs, including fuel efficiency policies and standards. Some of these measures are already beginning to be implemented and others are still pending.

Source: own evaluation

Modal shift in (ground) transport

Medium

Argentina aims to invest USD 16.6bn by 2023 to reactivate railway lines for freight and long-distance passenger transport, and to triple urban rail capacity in the capital, Buenos Aires. Apart from the Transport Sectoral Plan there is no long-term strategy to promote modal shift.

Through the 'Plan Vial Federal' the government also supports road infrastructure which could undermine rail developments.

Source: own evaluation

BUILDING SECTOR

Emissions from energy used to build, heat and cool buildings

Argentina's building emissions – counting heating, cooking and also electricity use – make up 14% of direct CO_2 emissions. Per capita, building-related emissions are more than double the G20 average.

Building emissions occur directly (burning fuels for heating, cooking, etc) and indirectly (grid-electricity for air conditioning, appliances, etc.)

Source: Ministerio de Ambiente y Desarrollo Sostenible, 2019

CO_2

12% Electricity-related emissions

17% Direct emissions

1.5°C

COMPATIBILITY
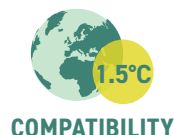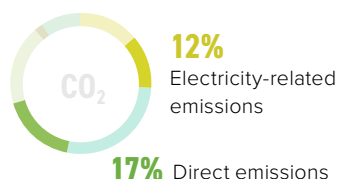
Global emissions from buildings need to be halved by 2030, and be 80-85% below 2010 levels by 2050, mostly through increased efficiency, reduced energy demand and electrification in conjunction with complete decarbonisation of the power sector.

Source: Rogelj et al., 2018

STATUS OF DECARBONISATION

Building emissions per capita

(incl. indirect emissions) (tCO$_2$/capita)

1.06 Argentina

1.48 G20 average

Source: Enerdata, 2020

Building-related emissions per capita are slightly below the G20 average. In contrast to the G20 average, Argentina has reduced that level by 16.85% (2014-2019).

Building emissions: 5-year trend (2014-2019)

👍 **-16.85%** Argentina

👎 **+1.82%** G20 average

Residential buildings
Energy use per m²

No data available

Commercial and public buildings
Energy use per m²

No data available

Building emissions in Argentina are largely driven by natural gas used in heating, cooling, water heating and cooking. There is a trend away from gas for heating towards heat pumps. No data on energy use per m² is available for Argentina.

Decarbonisation rating: building emissions compared to other G20 countries

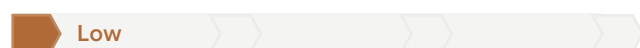5-year trend (2014-2019): **High**

Current year (2019): **High**

Source: own evaluation

POLICY ASSESSMENT

Near zero energy new buildings

⬗ Low

Argentina has no strategy to require new buildings to comply with near zero energy standards, and has no national building code. Different cities are developing and implementing energy building codes, e.g. requiring the use of solar water heaters in new public buildings. National Cabinet of Climate Change plans target energy efficiency in social housing.

Source: own evaluation

Renovation of existing buildings

⬗ Low
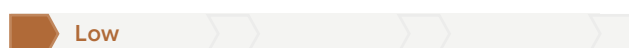
Argentina has no retrofitting strategy for existing buildings. No national building code exists but different cities are developing and implementing energy policies, e.g. requiring replacement of inefficient heating systems. Buenos Aires is in the process of developing a rulebook for its recently approved urban code.

Source: own evaluation

INDUSTRY SECTOR

Emissions from energy in the industrial sector

==Industry-related emissions from fuel combustion make up less than a quarter of total CO_2 emissions== from fuel combustion in Argentina.

Share in energy-related CO_2 emissions from industrial sector

Source: Ministerio de Ambiente y Desarrollo Sostenible, 2019

18% Direct emissions

CO_2

8% Electricity-related emissions

1.5°C
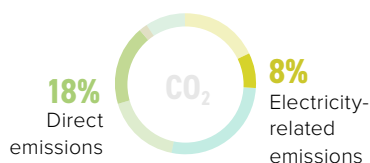
COMPATIBILITY

Industrial emissions need to be **reduced by 65-90%** from 2010 levels by 2050.

Source: Rogelj et al., 2018

STATUS OF DECARBONISATION

Industry emissions intensity[7]

(tCO_2e/USD2015 GVA)

0.41 Argentina

0.71 G20 average

Data for 2016. Sources: Enerdata, 2020; Gütschow et al., 2019

Industry emissions: 5-year trend (2011-2016)

+16% Argentina

-12% G20 average

Decarbonisation rating: emissions intensity of industry compared to other G20 countries

5-year trend (2011-2016):	● Very low
Current year (2016):	●●●●● High

Source: own evaluation

Carbon intensity of cement production[8]

($kgCO_2$/tonne product)

462 Argentina   **614** World average
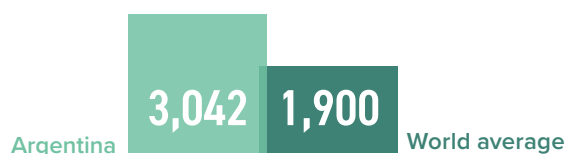
Data for 2016. Sources: CAT Decarbonisation Data Portal, 2020. Ministerio de Ambiente y Desarrollo Sostenible, 2019; INDEC 2010; Ministerio de Desarrollo Productivo, 2020.

Carbon intensity of steel production[8]

($kgCO_2$/tonne product)

Argentina **3,042**   **1,900** World average

Steel production and steelmaking are significant GHG emissions sources, and are challenging to decarbonise. For Argentina, there are no intensity data available. Argentina's largest cement and steel industries emitted 35 $MtCO_2e$ (including energy-related and industrial process emissions), that is, 9.5% of total emissions in 2014.

Data for 2016. Sources: World Steel Association, 2018. Ministerio de Ambiente y Desarrollo Sostenible, 2019; INDEC 2010; Ministerio de Desarrollo Productivo, 2020.

POLICY ASSESSMENT

Energy Efficiency

No data available

LAND USE SECTOR

Emissions from changes in the use of the land

NET SINK OF EMISSIONS

In order to stay within the 1.5°C limit, Argentina may **need to make the land use and forest sector a net sink of emissions**, e.g. by stopping the expansion of farmland on native forest and wetland land, and by restoring degraded natural ecosystems.
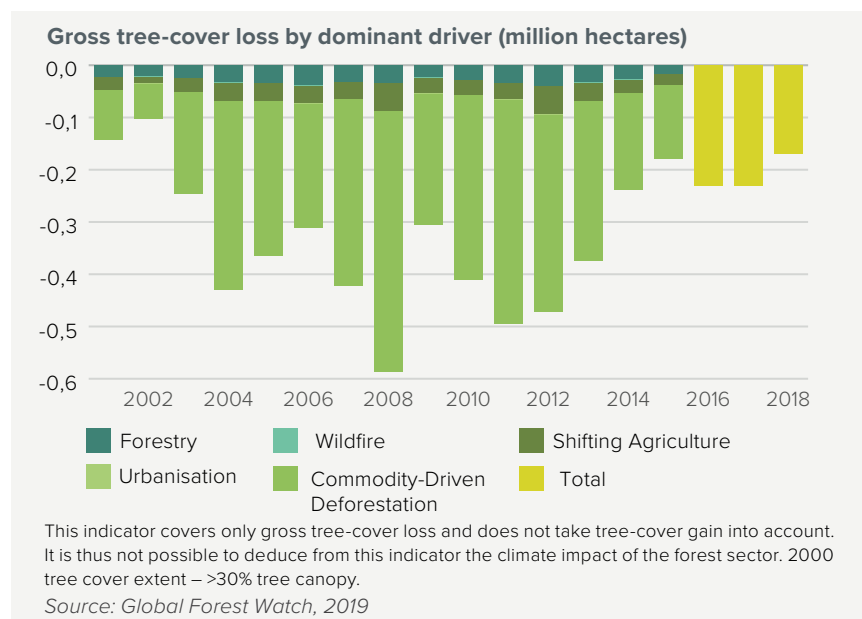
1.5°C COMPATIBILITY

Global deforestation needs to be halted and changed to net CO_2 removals by around 2030.

Source: Rogelj et al., 2018

Global tree-cover loss

Gross tree-cover loss by dominant driver (million hectares)

- Forestry
- Wildfire
- Shifting Agriculture
- Urbanisation
- Commodity-Driven Deforestation
- Total

This indicator covers only gross tree-cover loss and does not take tree-cover gain into account. It is thus not possible to deduce from this indicator the climate impact of the forest sector. 2000 tree cover extent – >30% tree canopy.
Source: Global Forest Watch, 2019

From 2001 to 2018, **Argentina lost 5.07 Mha of tree cover. This does not take tree-cover gain into account.** The main drivers are intensive cattle raising and transformation of woodland into farmland for cultivating commodities such as soy.

POLICY ASSESSMENT

Target for net-zero deforestation

Medium

The 2017 National Action Plan on Forests and Climate Change aims to reduce GHG emissions from the forest sector by at least 27 MtCO$_2$e by 2030 without, however, providing a baseline. The 2007 Native Forests Law aims to reduce deforestation of native forests, but has been systematically defunded and lacks enforcement. In September 2019, former President Macri announced a target of net-zero deforestation by 2030 at the UN.

Only 4.6% of the budget required by law for the implementation of the Native Forest Law has been allocated under the 2019 budget.

Source: own evaluation

AGRICULTURE SECTOR

Emissions from agriculture

DIETARY SHIFTS ARE NEEDED

Argentina's agricultural emissions are mainly from enteric fermentation, **livestock manure and the use of synthetic fertilisers**. A 1.5°C pathway requires dietary shifts, increased organic farming and agroecology, and less synthetic fertiliser and chemical synthesis product use.
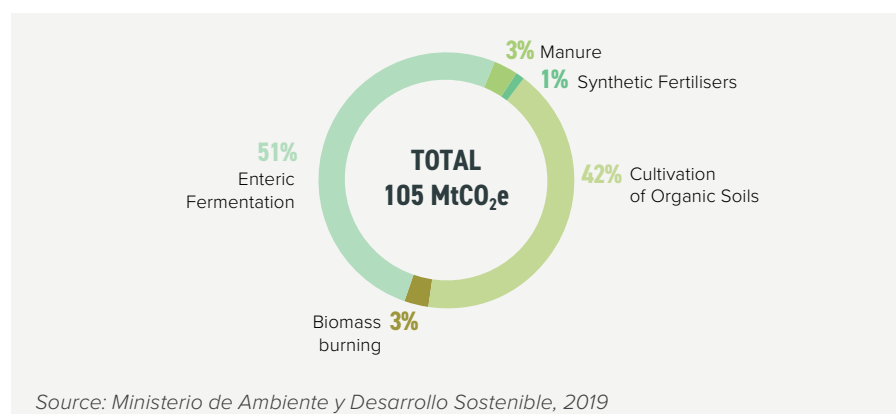
1.5°C COMPATIBILITY

Global methane emissions (mainly enteric fermentation) need to decline to 10% by 2030 and to 35% by 2050 (from 2010 levels). Nitrous oxide emissions (mainly from fertilisers and manure) need to be reduced by 10% by 2030 and by 20% by 2050 (from 2010 levels).
Source: Rogelj et al., 2018

Emissions from agriculture (excluding energy)

3% Manure
1% Synthetic Fertilisers
51% Enteric Fermentation
TOTAL 105 MtCO$_2$e
42% Cultivation of Organic Soils
Biomass burning 3%

Source: Ministerio de Ambiente y Desarrollo Sostenible, 2019

Argentina's largest sources of agricultural GHG emissions are digestive processes in animals (enteric fermentation) (51%) and cultivation of organic soils (42%), followed by biomass burning (3.4%). A shift to organic farming, agroecology, less use of synthetic fertilisers, ending the expansion of the agriculture frontier, and dietary changes could help reduce emissions.

Due to rounding, some graphs may sum to slightly above or below 100%.

MITIGATION: TARGETS AND AMBITION

The combined mitigation effect of nationally determined contributions (NDC) submitted by September 2020 is not sufficient and will lead to a warming of 2.7°C by the end of the century. This highlights the urgent need for all countries to submit more ambitious targets by 2020, as they agreed in 2015, and to urgently strengthen their climate action to align to the Paris Agreement's temperature goal.

AMBITION: 2030 TARGETS

Nationally Determined Contribution (NDC): Mitigation

Targets

Argentina's absolute target: 483 $MtCO_2e$ by 2030 (unconditional) 369 $MtCO_2e$ by 2030 (conditional).

Actions

Actions specified in the following sectors: energy, agriculture, forestry, transport, industry, waste

Climate Action Tracker (CAT) evaluation of NDC and actions

●	Critically Insufficient
	Highly Insufficient
	Insufficient
	2°C Compatible
	1.5°C Compatible
	Role Model

NDCs rated "insufficient" are in the least stringent part of a country's 'fair-share' range and not consistent with holding warming below 2°C, let alone with the Paris Agreement's stronger 1.5°C limit. If all government NDCs were in this range, warming would reach over 2°C and up to 3°C.

Argentina's emissions are trending upward as the government continues to centre its energy sector strategy around the exploitation of gas. This strategy will negatively impact the potential expansion of renewable energy in the power sector and is likely to lock the country into a carbon-intensive emissions pathway.

Evaluation as at October 2020, based on country's NDC. Source: Climate Action Tracker

TRANSPARENCY: FACILITATING AMBITION

Countries are expected to communicate their NDCs in a clear and transparent manner in order to ensure accountability and comparability.

The NDC Transparency Check has been developed in response to Paris Agreement decision (1/CP.21) and the Annex to decision 4/CMA.1. While the Annex is only binding from the second NDC onwards, countries are "strongly encouraged" to apply it to updated NDCs, due in 2020.

NDC Transparency Check recommendations
For more visit www.climate-transparency.org/ndc-transparency-check

To ensure clarity, transparency and understanding, it is recommended that Argentina provides additional detailed information in the upcoming NDC Update (compared to the existing NDC), incl.:

• Explicitly mention the time frame or the period of implementation

• Provide information on institutional arrangements for developing and implementing the NDCs, incl. consultation processes, public participation, and engagement with local communities and indigenous peoples, in a gender-responsive manner

AMBITION: LONG-TERM STRATEGIES

Status	Argentina started two initiatives to prepare the LTS in 2019. The one on energy has been completed and the second on land use is under way. The current COVID-19 crisis delayed this process for 2021.
2050 target	Not specified
Interim steps	Not specified
Sectoral targets	Not specified
Net-zero target	Former President Mauricio Macri announced in 2019 that Argentina commits to be Carbon Neutral by 2050 joining the 2050 coalition.

The Paris Agreement invites countries to communicate mid-century, long-term, and low-GHG emissions development strategies by 2020. Long-term strategies are an essential component of the transition toward net-zero emissions and climate-resilient economies.

3. FINANCE
MAKING FINANCE FLOWS CONSISTENT WITH CLIMATE GOALS

PARIS AGREEMENT   **Make finance flows consistent with a pathway towards low-GHG emissions and climate-resilient development.**

FOSSIL FUEL SUBSIDIES

In 2019. Argentina spent USD 4.073bn on fossil fuel subsidies, almost all on petroleum (94.4%). It introduced a carbon tax in 2018 for liquid fuels but does not tax natural gas. During 2019 production subsidies provided were mainly for gas companies and shale gas production.
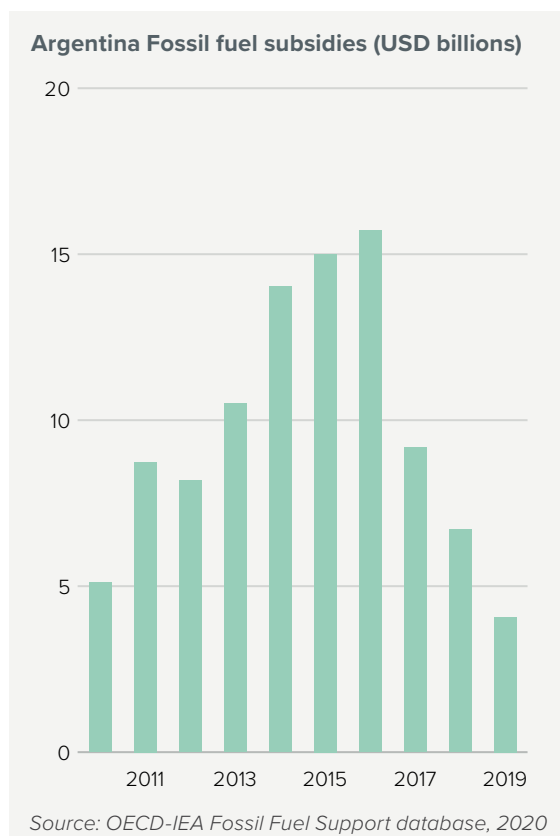
Sources: OECD-IEA, 2019; FARN, 2020

1.5°C COMPATIBILITY

Investment in green energy and infrastructure needs to outweigh fossil fuels investments by 2025.
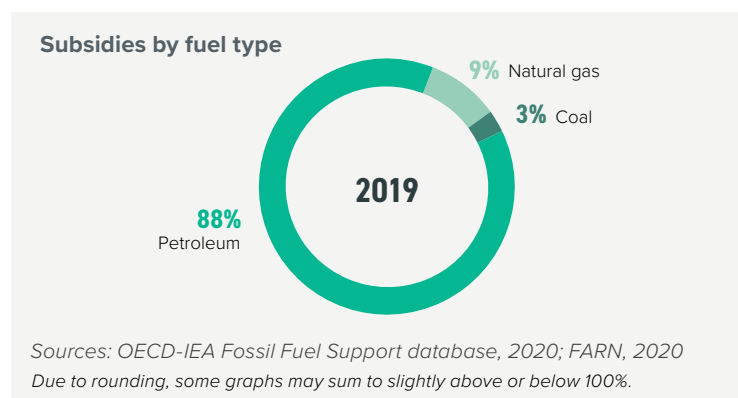
Source: Rogelj et al., 2018

FISCAL POLICY LEVERS

Fiscal policy levers **raise public revenues and direct public resources.** Critically, they can shift investment decisions and consumer behaviour towards low-carbon, climate-resilient activities by reflecting externalities in the price.

Fossil Fuel Subsidies

Argentina Fossil fuel subsidies (USD billions)

Source: OECD-IEA Fossil Fuel Support database, 2020

Fossil Fuel Subsidies by fuel type

Subsidies by fuel type

9% Natural gas
3% Coal
88% Petroleum
2019

Sources: OECD-IEA Fossil Fuel Support database, 2020; FARN, 2020
Due to rounding, some graphs may sum to slightly above or below 100%.

In 2019, Argentina's fossil fuel subsidies totalled USD 4.1bn (fluctuating between USD 5.1bn and USD 15.7bn between 2010-19). 80% of the subsidies quantified were for the consumption of fossil fuels, and the remainder for production. The highest number of quantified subsidies was for petroleum, at USD 3.8bn. The largest subsidy is the operating aid directed to the electricity market operator CAMMESA (USD 1bn). A study by FARN found that subsidies for production and consumption of fossil fuels totalled USD 4.7bn in 2019. This covers subsidies for the energy sector, not only for fossil fuel production but also for gas distribution and other energy-related activities. According to FARN, 97% of that amount was related to fossil fuels in 2018 and the quasi totality of subsidies in 2019. As a response to the pandemic, the government artificially fixed the domestic oil price at a minimum of USD 45 per barrel for 2020, despite the fact that international oil prices were considerably lower. This measure constitutes a direct subsidy to rescue the oil and gas sector in Argentina. During 2019, production subsidies provided were mainly for gas companies and shale gas production.

Carbon Pricing and Revenue

Argentina implemented a carbon tax in 2018 for most liquid fuels except for the fossil fuel most used in the country, natural gas. The carbon tax is estimated to cover only 20% of emissions. The carbon tax rate has been USD 6/tCO$_2$e from 1 April 2019, generating USD 300m revenues in 2019.

Carbon Pricing and Revenues (USD millions)

Source: I4CE, 2019; OECD, 2018
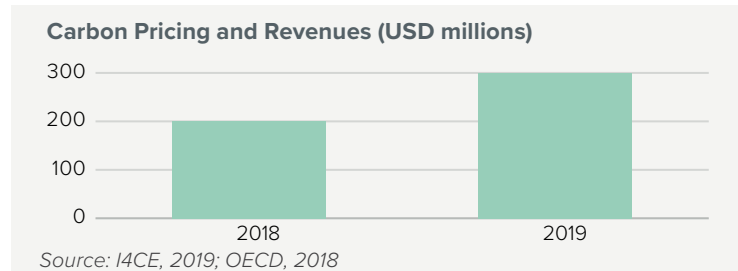
⚙ CORONAVIRUS RECOVERY   Since the outbreak of COVID-19 and the lockdown in response, the government has acted to assist the most vulnerable. Up to 23 June 2020 the measures totalled ARS 754.991m – equivalent to 2.7% of national GDP. Simultaneously, the fossil fuel industry has also been assisted with a disbursement of over ARS 18.790m (USD 289m) to companies already benefiting from the Unconventional Gas Plan. This amount is equivalent to the expenditure on all of the public health equipment, laboratories and pharmaceuticals related to the pandemic.

Sources: Oficina De Presupuesto Del Congreso Institucional, 2020; FARN, 2020

PUBLIC FINANCE

Governments steer investments through their public finance institutions, including via development banks both at home and overseas, and green investment banks. Developed G20 countries also have an obligation to provide finance to developing countries, and public sources are a key aspect of these obligations under the UNFCCC.

Public finance for fossil fuels

Public finance provided to fossil fuels (in USD millions)
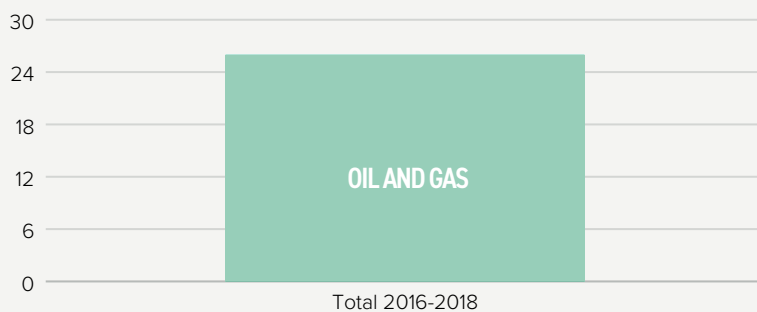
The database used to estimate public finance for fossil fuels is a bottom-up database based on information that is accessible through various online sources and is, therefore, incomplete.
Source: Oil Change International, 2020

Between 2016 and 2018, Argentina provided an average of USD 26m a year in public finance for the oil and gas sector through its DFI Banco de Inversión y Comercio Exterior (BICE). The limited data available does not allow a comparison of this figure with public finance for 2013-2015. The country has no recorded public finance for coal; however, there is evidence that the government has consistently provided public finance for coal outside of the institutions included in this data, such as for state-owned coal enterprise Yacimientos Carboníferos Río Turbio.

Provision of international public support

(annual average 2017 and 2018)

Climate finance contributions are sourced from Party reporting to the UNFCCC.

Bilateral, regional and other channels	**Multilateral climate finance contributions**	**Core / General Contributions**
Annual average contribution		Annual average contribution:
No data available	**No data available**	
		No data available
Theme of support:	Theme of support:	
No data available	**No data available**	

Argentina is not listed in Annex II of the UNFCCC and is, therefore, not formally obliged to provide climate finance. While Argentina may channel international public finance towards climate change via multilateral and other development banks, it has not been included in this report.

FINANCIAL POLICY AND REGULATION

Financial policy and regulation

Through policy and regulation governments can **overcome challenges to mobilising green finance**, including: real and perceived risks, insufficient returns on investment, capacity and information gaps.

Category	Instruments	Objective	Under Discussion/ implementation	None identified		
Green Financial Principles	n/a	This indicates political will and awareness of climate change impacts, showing where there is a general discussion about the need for aligning prudential and climate change objectives in the national financial architecture.	🟢			
			Mandatory	**Voluntary**	**Under Discussion/ implementation**	**None identified**
Enhanced supervisory review, risk disclosure and market discipline	Climate risk disclosure requirements	Disclose the climate-related risks to which financial institutions are exposed		🟡		
	Climate-related risk assessment and climate stress-test	Evaluate the resilience of the financial sector to climate shocks				🟠
Enhanced capital and liquidity requirements	Liquidity instruments	Mitigate and prevent market illiquidity and maturity mismatch				🟠
	Lending limits	Limit the concentration of carbon-intensive exposures				🟠
		Incentivise low carbon-intensive exposures				🟠
	Differentiated reserve requirements	Limit misaligned incentives and channel credit to green sectors				🟠

The ADEBA (Banking Association of Argentina) has been a member of the Sustainable Banking Network (SBN) since 2016. In February 2017, Argentina began examining how its financial system supports sustainable finance. The National Securities Commission (CNV) now explicitly includes sustainability and environmental, social and governance (ESG) in its remit and mandate, and released guidance on social, green and sustainable bonds in 2018. Its corporate governance code also now works on a "comply, apply or explain" basis. The financial institution BYMA is a member of the Sustainable Stock Exchanges initiative, demanding that listed companies comply with ESG metrics. Argentina's regulator is leading a working group analysing the role of securities markets in sustainability issues. In July 2019, 18 banks signed the Sustainable Finance Protocol, facilitating and encouraging financial institutions in Argentina to implement best practices and international policies that promote the integration of economic, social, and environmental factors, moving towards sustainable development in the financial industry.

Nationally Determined Contribution (NDC): Finance

Conditionality	Additional conditional target of 369 million tCO_2e by 2030 based on: international funding; transference, innovation and development of technologies; and capacity creation.
Investment needs	Investment needs not specified
Actions	Not mentioned
International market mechanisms	Any transfer of units of emissions reductions reached in the Argentine territory must have the authorisation of the national government

ENDNOTES

For more detail on the sources and methodologies behind the calculation of the indicators displayed, please download the Technical Note at: www.climate-transparency.org/g20-climate-performance/g20report2020

1 'Land use' emissions is used here to refer to land use, land use change and forestry (LULUCF). The Climate Action Tracker (CAT) derives historical LULUCF emissions from the UNFCCC Common Reporting Format (CRF) reporting tables data converted to the categories from the IPCC 1996 guidelines, in particular separating Agriculture from Land use, land use change and forestry (LULUCF), which under the new IPCC 2006 Guidelines is integrated into Agriculture, Forestry, and Other Land Use (AFOLU).

2 The 1.5°C 'fair-share' ranges for 2030 and 2050 are drawn from the CAT, which compiles a wide range of perspectives on what is considered fair, including considerations such as

responsibility, capability, and equality. Countries with 1.5°C 'fair-share' ranges reaching below zero, particularly between 2030 and 2050, are expected to achieve such strong reductions by domestic emissions reductions, supplemented by contributions to global emissions reduction efforts via, for example, international finance. On a global scale, negative emissions technologies are expected to play a role from the 2030s onwards, compensating for remaining positive emissions. The CAT's evaluation of NDCs shows the resulting temperature outcomes if all other governments were to put forward emissions reduction commitments with the same relative ambition level.

3 In order to maintain comparability across all countries, this report utilises the PRIMAP year of 2017. However, note that Common Reporting Format (CRF) data is available for countries which have recently updated GHG inventories.

4 The Decarbonisation Ratings assess the current year and average of the most recent five years (where available) to take account of the different starting points of different G20 countries.

5 The selection of policies rated and the assessment of 1.5°C compatibility are informed by the Paris Agreement, the IPCC's 2018 SR15 and the Climate Action Tracker (2016). The table below displays the criteria used to assess a country's policy performance.

6 This indicator adds up emissions from domestic aviation and international aviation bunkers in the respective country. In this Country Profile, however, only a radiative forcing factor of 1 is assumed.

7 This indicator includes only direct energy-related emissions and process emissions (Scope 1) but not indirect emissions from electricity.

8 This indicator includes emissions from electricity (Scope 2) as well as direct energy-related emissions and process emissions (Scope 1).

On endnote 5.	Low	Medium	High	Frontrunner
Renewable energy in power sector	No policy to increase the share of renewables	Some policies	Policies and longer-term strategy/ target to significantly increase the share of renewables	Short-term policies + long-term strategy for 100% renewables in the power sector by 2050 in place
Coal phase-out in power sector	No target or policy in place for reducing coal	Some policies	Policies + coal phase-out decided	Policies + coal phase-out date before 2030 (OECD and EU28) or 2040 (rest of the world)
Phase out fossil fuel cars	No policy for reducing emissions from light-duty vehicles	Some policies (e.g. energy/emissions performance standards or bonus/ malus support)	Policies + national target to phase out fossil fuel light-duty vehicles	Policies + ban on new fossil-based light-duty vehicles by 2035 worldwide
Phase out fossil fuel heavy-duty vehicles	No policy	Some policies (e.g. energy/emissions performance standards or support)	Policies + strategy to reduce absolute emissions from freight transport	Policies + innovation strategy to phase out emissions from freight transport by 2050
Modal shift in (ground) transport	No policies	Some policies (e.g. support programmes to shift to rail or non-motorised transport)	Policies + longer-term strategy	Policies + longer-term strategy consistent with 1.5°C 'fair-share' pathway
Near zero energy new buildings	No policies	Some policies (e.g. building codes, standards or fiscal/financial incentives for low-emissions options)	Policies + national strategy for near-zero energy new buildings	Policies + national strategy for all new buildings to be near-zero energy by 2020 (OECD countries) or 2025 (non-OECD countries)
Energy efficiency in Industry	0-49% average score on the policy-related metrics in the ACEEE's International Energy Efficiency Scorecard	50-79% average score on the policy-related metrics in the ACEEE's International Energy Efficiency Scorecard	80-89% average score on the policy-related metrics in the ACEEE's International Energy Efficiency Scorecard	Over 90% average score on the policy-related metrics in the ACEEE's International Energy Efficiency Scorecard
Retrofitting existing buildings	No policies	Some policies (e.g. building codes, standards or fiscal/financial incentives for low-emissions options)	Policies + retrofitting strategy	Policies + strategy to achieve deep renovation rates of 5% annually (OECD) or 3% (non-OECD) by 2020
Net-zero deforestation	No policy or incentive to reduce deforestation in place	Some policies (e.g. incentives to reduce deforestation or support schemes for afforestation / reforestation in place)	Policies + national target for reaching net-zero deforestation	Policies + national target for reaching zero deforestation by 2020s or for increasing forest coverage

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ABOUT CLIMATE TRANSPARENCY

Climate Transparency

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Supported by:
Federal Ministry for the Environment, Nature Conservation and Nuclear Safety

based on a decision of the German Bundestag