

# Oil and gas fuelling extreme weather in Argentina

## Key points:

- Heatwaves, intense forest fires, floods and droughts in Argentina have been shown to be more frequent and intense because of human-caused climate change.
- Alongside deforestation and cattle ranching, energy is a large source of Argentina's greenhouse gas emissions, with domestic oil and gas production responsible for a growing amount of emissions over the last two decades.
- Argentina has a 2050 net-zero target, but the current government has sought to weaken environmental regulations and to boost oil and gas production.
- Lobbying by fossil fuel companies has secured supportive policies from the state.

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*This briefing about the ways in which oil and gas is fuelling extreme weather in Argentina follows our study into the attribution science connecting man-made climate change to extreme weather events and how fossil fuel companies continue to add fuel to the fire. Read the global view [here](#).*

## Fossil fuels impact on weather events in Argentina

### Extreme weather events attributed to climate change

Several [attribution studies](#) have been made in Argentina showing the impact of climate change on heat waves over the last decade. These include a 2013 heatwave which was made five times more likely because of climate change, and the record-breaking event in August-September 2023, which was found to be [1.4-4.3°C hotter because of fossil fuel emissions](#) in a study by World Weather Attribution (WWA).

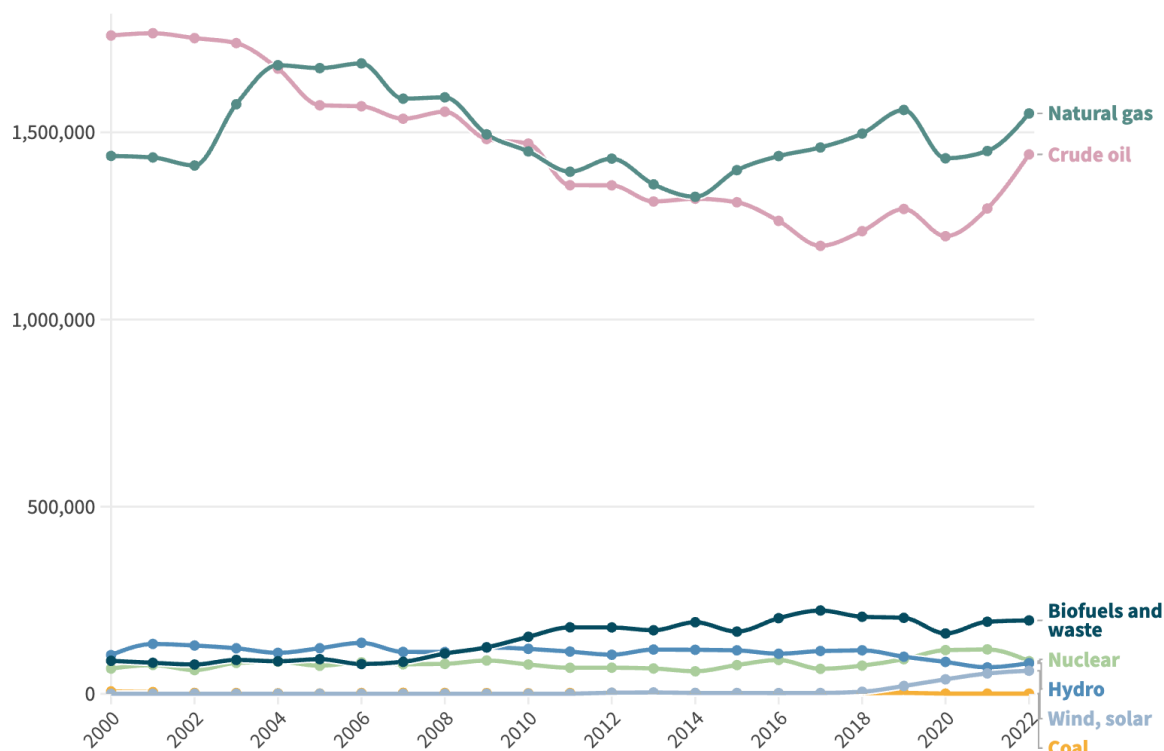
The Red Cross Red Crescent Climate Centre has raised concerns over the rising frequency and intensity of heat waves, calling them “one of the clearest and the most overlooked impacts of climate change”, both in terms of human and economic health. Their impact on crops is “[particularly important in countries such as Argentina, which rely heavily on agricultural exports](#)”.

Extreme temperatures have also made drought conditions more intense. “Higher temperatures in the region at the end of 2022, [which have been attributed to climate change](#), reduced available water in the models, indicating that climate change probably reduced the availability of water during this period, making the agricultural drought worse,” according to the WWA. In 2023, the Argentinian [economy shrunk by 1.6% due to a severe drought](#) that led agricultural production to fall by 26% over the year, alongside longstanding macroeconomic imbalances. An earlier report by the World Bank in 2022 [estimated](#) annual asset losses of up to USD 1.4 billion from flooding.

## Role and responsibility of Argentina's oil and gas industry

In the energy sector, transport and electricity generation are the largest [sources of emissions](#). There is a [lack of available, comparable information](#) about the emissions of individual oil and gas firms operating in the country, including for [fugitive emissions](#), which are greenhouse gases that escape during extraction. The government introduced [regulations](#) in 2023 to measure and reduce fugitive emissions as part of its overall emissions reduction efforts. Some [estimates](#) are that around 10% of the gas produced in Vaca Muerta fields is lost in fugitive emissions. Overall [data collected by the IEA](#) shows that between 2000 and 2022 emissions from oil have grown by 43%, while emissions from gas have risen 27%.

**Fig. 1: Evolution of domestic energy production in Argentina, 2000-2022 (TJ)**



Source: IEA



The [largest](#) oil and gas firm is YPF (majority state-owned) which recorded a USD 5 billion [profit](#) in 2022 and USD 3.4 billion in 2023. Other key companies operating in Argentina include Tecpetrol, CGC, PlusPetrol, Pampa Energy, as well as international majors Chevron, ExxonMobil, Shell, Total, Equinor and Petronas (in association with YPF).

Argentina's oil and gas firms and trade associations have been successful in lobbying the government to enact production-friendly policies, [recently securing](#) incentives for fossil fuel infrastructure and to attract greater foreign investment.

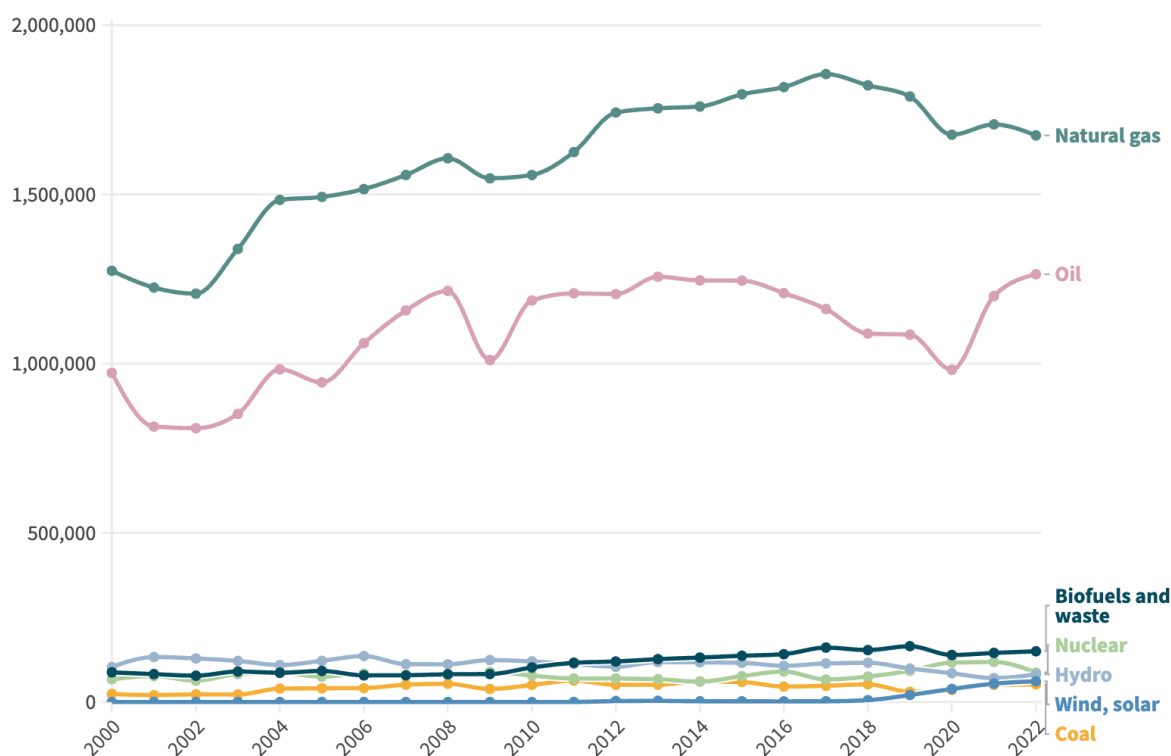
## Fossil fuels must be phased out to slow temperature rises

### Supply of fossil fuels

Oil and gas firms continue to [expand production in Argentina](#) with a particular focus on the Vaca Muerta fields in the south of the country. The government continues to be [supportive](#) of increasing production which it assumes will be the basis of future economic prosperity despite the urgency to address climate change. It is [estimated](#) that Argentina has the second-largest reserves of shale gas and fourth-largest reserves of shale oil.

Climate Action Tracker gives Argentina an overall rating of [Critically Insufficient](#), the worst out of five ratings. The ranking is due to its policies (including its voluntary emissions reductions submitted as part of the UN Climate Change negotiations) are considered insufficient in their contribution to limit temperatures rises in line with climate science.

**Fig. 2: Evolution of total energy supply in Argentina, 2000-2022 (TJ)**



Source: IEA



## Reducing demand for fossil fuels

Argentina has a [2050 net-zero target](#) which hinges on gas as a “bridge fuel”, but the current government has sought to [weaken](#) environmental regulations and to boost oil and gas production.

## Energy

In response to insufficient energy supply the government introduced [fiscal incentives](#) for renewable energies in the mid-2000s. This [support](#), including a [2015 law](#) mandating 20%

of energy to come from renewable energy by 2025, has contributed to [wind energy](#) increasing its share of electricity generation from 1% in 2018 to 10% in 2023. However, overall the government backs fossil fuels ahead of renewable energy. In the [2021 budget](#), for every USD 1 dollar invested in renewable energy and efficiency around USD 184 were invested in “dirty energy”.

## Transport

Despite having an automobile manufacturing base, [production of electric vehicles](#) (EVs) lags well behind the other major manufacturers in the region – Brazil and Mexico – and the country has a [small EV market](#) in comparison with those same countries, which lead sales. The former government put forward but did not implement [policies](#) that would have supported EV production and imports. While there is potential for EV imports from Brazil [obstacles remain](#) including a lack of charging infrastructure. The EV market could grow if [efforts to increase EV](#) and [battery production](#) locally come to fruition.