**Vaca Muerta Shale Basin** Argentina

**Sectors:** Oil and Gas Extraction

**Active**
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**By:** BankTrack
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**Contact:**
[climate@banktrack.org](mailto:climate@banktrack.org)

**Project website**

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<th>Sector</th>
<th>Oil and Gas Extraction, LNG Terminal, Pipeline Transportation of Crude Oil, Pipeline Transportation of Natural Gas</th>
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<th><img src="https://www.ypf.com/desafiovacamuerta/Paginas/vaca-muerta.html" alt="Map of Vaca Muerta Shale Basin" /></th>
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| Website | [https://www.ypf.com/desafiovacamuerta/Paginas/vaca-muerta.html](https://www.ypf.com/desafiovacamuerta/Paginas/vaca-muerta.html) |

**About Vaca Muerta Shale Basin**
The Vaca Muerta Shale Basin is located in Argentina’s Neuquén Basin, Patagonia. Covering 30,000 square kilometres, it is the largest known shale play outside North America. This oil and gas megaproject of pipelines and LNG terminals represents 43% of Argentina’s total oil production and 60% of its gas production. Fossil fuels have been extracted here for decades, but Argentina nationalised Yacimientos Petrolíferos Fiscales (YPF) in 2012 to drastically increase domestic production. YPF then brought oil and gas majors such as Chevron, Shell and Total Energies to Vaca Muerta. Argentina also issued a 35-year transport concession to state energy company Integración Energética Sociedad Anónima (IEASA), to oversee Vaca Muerta’s USD 3.5 billion Néstor Kirchner gas pipeline. Argentinian energy independence aside, by the late 2010s increasing attention was being paid to Vaca Muerta’s export potential.

**Latest developments**

- **Argentina accelerates Vaca Muerta megaproject gas compression plans, launches tender**
  Oct 12 2022

- **Extraction activity reaches all-time high in Vaca Muerta**
  Jul 29 2022

**Why this profile?**
The Vaca Muerta Shale Basin megaproject threatens both the rights of the Mapuche Indigenous community and the chances of a safe climate for humanity. If Argentina’s shale gas reserves are fully exploited, they will account for 11.4% of the world’s remaining 1.5°C carbon budget. Nearly all of Argentina’s shale gas and oil are located in the Neuquén Basin.
What must happen

Banks must not finance new oil and gas extraction projects in the Vaca Muerta Shale Basin. They must phase out their support for all existing fossil fuel projects and companies in the Vaca Muerta Shale Basin and beyond, on a timeline consistent with the Paris Climate Agreement alignment.

External Profiles

Vaca Muerta
Profile by Global Energy Monitor

Impacts

Impact on human rights and communities

Indigenous rights violations are at the heart of this project, because the Indigenous Mapuche community has not given free, prior and informed consent for Vaca Muerta Shale Basin activities to take place on their lands. The Mapuche’s cultural identity is being denied with the purpose of refusing community legal rights and their ancestral lands are already irreversibly damaged.

Intimidation tactics have included a 2013 arson attack that destroyed an observation facility built by the Mapuche to track extraction activity. The attack took place during the same year that Chevron began fracking in the disputed Loma Campana oil field: In 2015, the Argentinian government acknowledged part of Loma Campana belonged to the Mapuche.

Public health violations have occurred during the removal of fracking waste. A 2018 lawsuit brought by the Mapuche against ExxonMobil, Total and Pan American Energy accused them of dumping toxic waste too close to the town of Añelo, Indigenous lands, as well as the region's principal river. By not being treated in accordance with the relevant laws, this waste contains high levels of elements that pose risks to human reproduction and respiration.

A general degradation of local life has accompanied the escalation of Vaca Muerta extraction work. Food and house prices in the area have risen, which are tied to oil and gas workers’ salaries that do not represent the local majority. The population of Añelo city grew from 2,500 to more than 6,000 people in less than three years, forcing families with little resources to the outskirts of towns. This influx has also led to the trafficking of women and drugs into the area.

Impact on climate

Massive greenhouse gas emissions are set to grow at Vaca Muerta, backed by the government in its 2019 National Energy Plan: In order to make exports viable, Vaca Muerta extraction must double between 2022 and 2027, to 500,000 barrels of oil every day. The burning of Argentina’s total gas reserves alone would eat up 11.4% of the world’s carbon budget. Blowing this budget violates the Paris Climate Agreement’s core aim of limiting the average global temperature rise to 1.5°C. Furthermore, methane leaks often occur during Vaca Muerta’s operations. Methane heats the planet at a rate that is 86 times greater than CO2 across a 20-year period.

Impact on nature and environment

The degradation of water, soil and air quality and public health are all outcomes of hydraulic fracking, according to a 2016 categorical assessment of peer-reviewed scientific literature. This extraction method is necessary to develop Vaca Muerta’s unconventional hydrocarbon reservoirs, but it makes use of several dangerous chemicals that are released during the process. Leaks of these chemicals have been reported at Vaca Muerta Shale Basin, causing pollution.

Oil spills occur often in Vaca Muerta. An average of three oil spills per day reportedly took place between January and October 2018. For example, a YPF-Schlumberger partnership operation was behind a Vaca Muerta shale well blow-out on 19th October that contaminated 85 hectares of land with oil and drilling mud; in November 2018, Argentinian authorities suspended the operator’s licence.

Governance
## Bank policies

The following bank investment policies apply to this project:

### Goldman Sachs
- **Human Rights Statement**
  - Aug 3 2011 | Goldman Sachs
- **Environmental policy framework**
  - Feb 11 2020 | Goldman Sachs

### Morgan Stanley
- **Coal and oil & gas policy statements**
  - Mar 15 2019 | Morgan Stanley
- **Statement on human rights**
  - Aug 8 2019 | Morgan Stanley
- **Environmental and social policy statement**
  - Dec 31 2020 | Morgan Stanley

### Citi
- **Statement on human rights**
  - Nov 22 2018 | Citi
- **Environmental and Social Policy Framework**
  - Mar 1 2022 | Citi

### Industrial and Commercial Bank of China (ICBC)
- **Guidelines on environmental information disclosure for financial institutions**
  - Jul 22 2021 | People’s Bank of China
- **Credit policies for domestic industries: mining, energy, oil & gas, transportation, biodiversity and agriculture**
  - Page 12 of 2021 interim ESG report | ICBC

### Deutsche Bank
- **Position on Shale Gas**
  - Jun 9 2016 | Deutsche Bank
- **Human Rights Statement**
  - Mar 24 2016 | Deutsche Bank
- **Environmental and Social Policy Framework**
  - Jul 27 2020 | Deutsche Bank

### Credit Suisse
- **Statement on human rights**
  - Mar 5 2019 | Credit Suisse
- **Summary of sector policies and guidelines**
  - Nov 4 2021 | Credit Suisse
- **Sustainable investing policy**
  - Mar 10 2021 | Credit Suisse
**Applicable norms and standards**

- The National Law of Hazardous Waste (Argentina)
- The Paris Agreement

**Timeline**

**Argentina accelerates Vaca Muerta megaproject gas compression plans, launches tender**

Oct 12 2022

Argentine state energy company Energía Argentina has put out to tender another contract associated with the first phase of the Vaca Muerta gas pipeline megaproject.

**Extraction activity reaches all-time high in Vaca Muerta**

Jul 29 2022

Argentina has seen a high increase in oil and gas production in its Vaca Muerta Shale Basin. According to research by Rystad Energy, this new peak is part of a wider South American trend that could see the region producing more than 300,000 barrels per day by early 2023.

**Activity levels rising in Vaca Muerta**

Mar 10 2022

Global energy data analytics and SaaS technology company Enverus anticipate that activity levels at the Vaca Muerta Shale Basin will keep climbing. YPF planned to spend USD 1.5 billion in 2021, PAE (Pan American Energy) will invest approximately USD 150 million into infrastructure by mid-2023, while Shell intends to spend USD 1 billion to drill 100 wells during 2022.

**Argentina seeks bids to build first phase of Vaca Muerta gas pipeline**

Feb 24 2022

The Argentinian government has launched tenders to acquire 656 kilometres of pipes for the Vaca Muerta gas pipeline's first stage, the construction of which is forecast for completion in approximately 18 months. By winter 2023, this USD 1.6 billion project is expected to add 24 million cubic metres of gas per day to the country's network.

When complete, the full pipeline project will have added a 1,430-kilometre-long pipeline between the Vaca Muerta Shale Basin and Uruguiana in Brazil. From there, another 600-kilometre-long pipeline to the city of Porto Alegre is planned, facilitating distribution to southern Brazil.

**ConocoPhillips ceases interests in Vaca Muerta Shale Basin**

Sep 20 2021

The US energy producer ConocoPhillips has sold all of its interests in Argentina to Vista Oil & Gas. A local oil producer, Vista has acquired a 50% stake in two oil concessions in the Vaca Muerta field and all of ConocoPhillips Argentina’s capital stock. Neuquén’s regional government granted these concessions, which expire in 2050.

**Vista chairman and CEO Miguel Galuccio:** “This is a unique opportunity to strengthen our position as one of the leading producers in Vaca Muerta. We are not only adding core assets to our existing portfolio, further enhancing our growth potential and shareholder value, but will also contribute our know-how in efficient developments, as well as safe and sustainable operations.”
USD 45 billion in 23rd agreement between Argentina and IMF

Feb 26 2021
The International Monetary Fund has approved a new loan programme for Argentina, granting the country more time to repay a debt of USD 45 billion. The agreement includes a series of fiscal and monetary targets designed to help stabilise Argentina’s economy and widen access to international financing. If Argentina’s congress ratifies the deal, debt repayments will recommence. Full repayment is scheduled for 2034.

Vaca Muerta development plans will reduce Argentina’s gas imports, but they also require huge investment; the existing infrastructure is only suitable for some oil expansion, but not natural gas.

Redeployment of rigs underway at Vaca Muerta

Sep 2 2020
Argentina’s state-backed energy company, YPF, will be redeploying 46 rigs in the Vaca Muerta Shale Basin between October 2020 and February 2021, following a plunge in oil and natural gas production due to the COVID-19 pandemic.

Vaca Muerta granted military police protection

Sep 17 2019
Argentina’s Ministry of Security has placed the Vaca Muerta Shale Basin under the jurisdiction of the military police force, in response to growing union, environmental and Indigenous protests in the area.

YPF and Chevron sign Vaca Muerta deal worth USD 1.24 billion

Jul 17 2013
In a move intended to open up the Vaca Muerta Shale Basin to global oil and gas markets, YPF has secured its first major international investment deal since Argentina’s government took control of the energy company in 2012. Chevron’s USD 1.24 billion investment in the region is designed to be the first of many, in a bid to reverse Argentina’s declining domestic oil and gas production.

Financiers

Banks finance Vaca Muerta operations in various ways, but mostly by financing the companies that are active in the region. This finance is made available through corporate lending or equity investments. Another way in which banks provide finance for Vaca Muerta operations is by working with companies on specific projects in the area. Expand the panels below for more details.

**Banks**

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<td>Debt – corporate loan</td>
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<td>Citi has financed YPF and Pampa Energía via corporate debt</td>
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<td>source: Vaca Muerta Megaproject (2017)</td>
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<td>Debt – corporate loan USD 300 million</td>
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<td>Citi co-financed a USD 300 million credit line for Vista Oil &amp; Gas for its 400-well drilling programme in Vaca Muerta</td>
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<td>source: Financial Times (2018)</td>
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<tr>
<td>Credit Suisse Group</td>
<td>Switzerland</td>
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Credit Suisse co-financed a USD 300 million credit line for Vista Oil & Gas for its 400-well drilling programme.

Deutsche Bank

Deutsche Bank has financed YPF and Pampa Energía via corporate debt.

Goldman Sachs

Goldman Sachs owns 0.37% of YPF shares.

ICBC

ICBC co-financed USD 300 million credit facility for YPF.

Itaú-Unibanco

Itaú-Unibanco co-financed USD 300 million credit facility for YPF.

Morgan Stanley

Morgan Stanley co-financed a USD 300 million credit line for Vista Oil & Gas for its 400-well drilling programme.

Santander

Santander co-financed USD 300 million credit facility for YPF.

Cargill Financial Services International
Multilateral development banks

**Interamerican Development Bank (IDB)**

Uncategorised
The Interamerican Development Bank has funded massive urban planning projects in Añelo city to serve the hydrocarbon industry
*source: Vaca Muerta Megaproject (2017)*
*link*

**World Bank (IBRD, IDA)**

Uncategorised
The World Bank has funded massive urban planning projects in Añelo city to serve the hydrocarbon industry
*source: Vaca Muerta Megaproject (2017)*
*link*

National development banks

**Corporacion Andina de Fomento**

Debt – corporate loan USD 60 million 27 January 2022
Co-financed USD 300 million credit facility for YPF
*source: IJGlobal*
*link*

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Related companies

A long list of oil and gas companies are active in the Vaca Muerta Shale Basin. Argentina’s state energy company **YPF is the area’s main actor**, being involved in most projects either independently or in collaboration with others. Together, these companies extract 30% of Argentina’s oil and 45% of its gas annually across more than 1,000 drilling sites.