Deep Decarbonization Pathways

DDP Insights

Argentina: decarbonization under constraint



Credits: pexels.com

From climate commitments to implementable pathways

Ten years after the Paris Agreement, Argentina presents a complex picture of climate progress. The country has developed long-term climate strategies, expanded renewable electricity and built substantial domestic expertise in climate and energy planning. Yet such progress has not translated into a sustained decline in emissions.

In 2022, Argentina's net greenhouse gas emissions stood at 401 $MtCO_2e$, with energy accounting for 50% and agriculture, forestry and other land use (AFOLU) another 38%, and industrial processes and waste contributing approximately **6%** each. Per-capita emissions have remained at around 8 tCO_2e since 2015, above the Latin American average of around 5 tCO_2e.

The central challenge is the nature of Argentina's emissions trajectory. Although emissions have declined in recent years, the DDP analysis finds that this has been driven largely by economic stagnation and lower levels of activity, rather than structural decarbonization. This means emissions could rise again as economic growth resumes unless deeper changes are made across the economy to decouple economic growth from greenhouse gas emissions.

Explore the full analysis

The Argentina chapter of the DDP 2025 Report, *A Decade of National Climate Action: Stocktake and the Road Ahead* examines the country's progress since the Paris Agreement and the transformations still needed across energy, transport, land use, governance and finance.

Long-term planning in a volatile economic context

Argentina does not lack climate plans or technical expertise. It has developed national inventories, NDCs, a 2050 Long-Term Strategy and numerous sectoral strategies. It also has a strong network of national research institutions, universities and civil-society organizations with expertise in scenario modelling and long-term planning.

The difficulty has been turning this capacity into consistent long-term implementation. Strategies and institutional arrangements have repeatedly changed with political cycles, while high debt, financing costs and macroeconomic instability have constrained public investment and private capital for low-carbon infrastructure.

International finance has predominantly focused on short-term macroeconomic stabilization rather than mitigation, adaptation and sustainable infrastructure. The chapter therefore highlights the importance of international cooperation that addresses Argentina's financing constraints, including debt-sensitive climate finance and blended-finance approaches that can lower the cost and risk of investment.

Building on progress in clean electricity

Argentina has significant potential for renewable and low-carbon energy, with abundant wind, solar, hydropower and bioenergy resources, alongside longstanding expertise in nuclear energy and emerging capabilities in hydrogen. Previous renewable-energy auctions and policy incentives helped increase wind and solar generation, while falling solar PV costs have also supported the growth of distributed generation.

In 2023, renewable sources, including hydropower, accounted for approximately 41% of Argentina's electricity generation. The National Energy Transition Plan published in 2023 set an aspirational target of 50% renewable electricity generation by 2030, alongside 1 GW of distributed generation, expansion of the high-voltage transmission network and an 8% reduction in energy consumption through efficiency measures.

But realizing Argentina's renewable potential requires more than installing new generation capacity. Grid expansion, access to finance and consistent long-term policy are needed to sustain investment and avoid locking the electricity system into fossil fuels. The DDP analysis highlights that projects with significant potential — including renewable and hydropower infrastructure — have repeatedly struggled to secure affordable financing.

Transport and land use require deeper transformation

Other major emitting sectors present different structural challenges. Transport accounts for 28% of energy-sector emissions, with road transport dominating both passenger and freight movement. Almost 90% of agricultural exports are transported by truck, while rail carries less than 3% of freight. A lower-carbon pathway therefore requires not only cleaner vehicles and fuels, but greater investment in rail, public transport and urban planning.

Land use is equally important. Argentina succeeded in substantially reducing deforestation following the introduction of its Native Forests Law: introduced in 2007, it established a framework for protecting native forests and regulating land-use changes. Following its introduction, the annual forest-loss rate fell from 0.94% in 2007 to 0.34% in 2015, but subsequently increased again, reaching **0.42% in 2018.**

Deforestation and livestock together account for more than 90% of AFOLU emissions. Strengthening forest protection and enforcement, restoring degraded land and improving agricultural productivity will therefore be central to reducing emissions from the sector.

The fossil fuel dilemma

Perhaps the clearest tension in Argentina's transition is between its long-term climate objectives and the economic importance attached to its oil and gas resources.

The development of unconventional oil and gas, particularly Vaca Muerta, a major shale oil and gas formation in Argentina's Neuquén Basin, is seen as an important source of exports and foreign currency. The DDP chapter estimates that developing half of its potential could generate around US$34 billion in annual oil and gas exports, equivalent to approximately 41% of Argentina's total exports of goods and services in 2023.

But expanding fossil fuel production and the infrastructure that accompanies it also creates a risk of long-term carbon lock-in. Argentina therefore faces a fundamental development question: how to address immediate economic and foreign-currency pressures while ensuring that today's investment decisions remain compatible with its longer-term climate objectives. The transition outlook identifies avoiding fossil fuel lock-in as one of the central transformations required in the electricity system.

What this tells us

Argentina illustrates why falling emissions do not necessarily mean that an economy is structurally decarbonizing. For Argentina to make sustained progress on decarbonization, emissions will need to fall as the economy grows, rather than primarily as a consequence of economic stagnation.

The country has many of the foundations needed for that transformation: substantial renewable resources, domestic technical expertise, established climate-planning institutions and opportunities to develop new low-carbon industries. But realizing this potential depends on connecting long-term climate planning with economic strategy, infrastructure investment and social priorities — and maintaining that direction across political and economic cycles.

The challenge is therefore not simply to reduce emissions from today's economy, but to shape a development pathway in which renewable energy, transport, land use and emerging industries can support economic development while progressively reducing dependence on fossil fuels.

About DDP Insights

DDP Insights builds on the work of the Deep Decarbonization Pathways (DDP) Initiative, drawing on country-driven analysis to explore how national climate goals translate into real-world transformation.



Join the DDP initiative on Bluesky

Copyright © 2026 DDP Initiative, All rights reserved.

Want to change how you receive these emails?
You can update your preferences or unsubscribe from this list