

A decade of national climate action: Stocktake and the Road Ahead

MEXICO

SINCE THE PARIS AGREEMENT: ACTION AND DELAY IN THE FACE OF CLIMATE CHANGE

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OVERVIEW: MEXICO HAS FALLEN FROM CLIMATE LEADER TO CLIMATE LAGGARD

When the Paris Agreement was adopted, Mexico was recognised for its record of climate leadership. In 2010 it had hosted COP 16 in Cancún, which was crucial to rebuild trust in the UNFCCC process after the acrimony of Copenhagen the previous year. 2012 had seen the unanimous adoption of the national Climate Change Law (LGCC), making Mexico one of the first countries to do so. And the previous 15 years had seen a steady reduction in energy system costs, emissions, and air pollution, largely driven by a replacement of oil products by imported natural gas, primarily for electricity generation but also for industrial and commercial energy needs. Today, however, Mexico is a visible climate laggard, with NDC ambition behind many of its Latin American peers, weakened budgets and institutions to support planning and action, years of stagnant investment in renewables, and a renewed commitment to fossil fuel production, commercialization and use.

While the impact of the Paris Agreement on global climate action is a topic for debate, Mexico's climate and energy policy over the past 10 years have followed the country's internal political journey far more than any external

driver. Energy policy has been central to all Mexican governments during this period, with climate concerns playing a distant second, meaning that climate (in)action has largely been a consequence of the political priorities for energy of the administration in turn. As for Mexico's standing in the international community, this has reduced in importance for Mexico's leaders compared to 2015, diminishing the influence of one of the key mechanisms originally expected to drive progress in the Paris Agreement architecture.

Key data on emissions and electrification testify to Mexico's decline from climate leader to climate laggard. Over the past decade Mexico has shown low economic growth (1.2% pa) and somewhat lower GHG emissions growth (0.4% pa), pointing to a 0.8% annual reduction of emissions intensity per GDP. This is consistent with gradual efficiency improvements rather than any evidence of climate action.

With regards to the electrification and decarbonization of the electricity sector central to any decarbonization scenario for Mexico, electricity has maintained a similar share of the national energy balance, with the share of fossils fuels in electricity production increasing slightly, as the growth of generation with natural gas has been faster than that of renewables.

800 MtCO2eq 700 600 Waste 500 Agriculture 400 Electricity generation 300 0&G Industry 200 Other transport (rail, air, sea) 100 Road transport Commercial & residential 2014 2015 2016 2017 2018 2019 2020 2021 2022 2023

Figure 1. GHG emissions by sectors in Mexico over the past decade

Source: Own analysis based on official information: the national GHG inventory (INEGyCEI_1990-2023) (see https://www.gob.mx/inecc/documentos/investigaciones-2018-2013-en-materia-de-mitigacion-del-cambio-climatico).

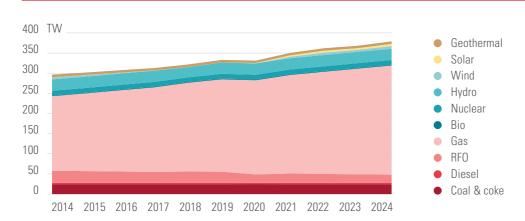


Figure 2. Electricity generation by energy source in Mexico over the past decade

Source: Own analysis based on official information: the national GHG inventory (INEGyCEL_1990-2023) (see https://www.gob.mx/invec/documentos/investigaciones-2018-2013-en-materia-de-mitigacion-del-cambio-climatico).

At the time of the adoption of the Paris Agreement, there was a broad recognition among scientists, civil society, and parts of the government that a shift away from fossil fuels would be needed, and that nascent green industries such as renewable energy, electric vehicles, and green fuels (including hydrogen and derivatives) would all require significant stimulus to drive continuing economic growth as fossil fuel activity declined. This concept of green growth showed Mexico to be a country well placed to take advantage of the shift, with its huge and high-quality renewable resource (particularly solar), high level of industrialization, infrastructure and integration into global supply chains (particularly in the automotive industry and manufacturing more broadly), and its economic openness and qualified workforce. Today, Mexico has failed to scale up renewable generation capacity, it has yet to formulate an approach to the green fuels / green hydrogen opportunity, and has hardly engaged with the green industrial potential other countries are leading on. Recent announcements of EV manufacture in Mexico are driven by US and Chinese companies seeking to locate their own manufacturing, reflecting how other countries that moved faster are now consolidating global positions in industries that Mexico has yet to engage with, despite its favourable initial conditions.

How did this happen? Structural inertia, political discord, and an unwillingness to engage with a vision of sustainable economic and energy system development have slowed Mexico's entry into the green economy, committing its economic structures to decades of further emissions, and making the transition even harder today than it was a decade ago. In spite of this, many green economy opportunities are still available to Mexico,

but can only be achieved if the transition to a carbon-neutral future is put at the centre of development plans from this moment onwards.

TIMELINE: HOW THE FOSSIL FUEL DEVELOPMENT PARADIGM STRENGTHENED ITS GRIP ON POLICY AND REVERSED INITIAL CLIMATE GAINS

Climate, environmental and energy policy in Mexico from 2015 to date have been dominated by the vision of economic development guiding each of the three presidential administrations in office during this time. At the time of the Paris Agreement adoption, Mexico was generally perceived to be a leader in climate action within Latin America and globally, largely because of the importance of COP16 held in Cancún in 2010, the adoption of the General Climate Change Law by a unanimous Congress in 2012, and the important reduction in emissions from the power sector during the previous decade. However, all of these were achieved during the Calderón administration (2006-2012), prior to the Enrique Peña Nieto (EPN) administration, which took office in in December of 2012 and presided over the country during the negotiation and adoption of the agreement and until 2018.

2015-18

Upon taking office, the EPN government stated its intent to continue the successes in climate policy from its predecessor – despite representing a different political party – including within the sweeping energy sector reform it proposed as one of its flagship policies. The reform addressed both hydrocarbons and electricity, with the

Table 1: Fuel shares in Mexican electricity generation since 2014

	Power generation by fuel type (GWh)			Share of generation by fuel type (%)	
	2014	2024	CAGR	2014	2024
Fossil fuels	243,272	319,056	2.70%	82%	84%
Nuclear	11,800	11,800	0.00%	4%	3%
Renewables	41,634	48,303	2.10%	14%	13%

intention of increasing investment – including foreign investment – to enable Mexico to increase energy production and reduce energy costs for the economy. The reform introduced new modalities for foreign participation in oil and gas upstream operations, which until that time had been exclusively in hands of PEMEX, the state-owned oil company. These ranged from co-investment with PEMEX to licence contracts for offshore exploration and production, ending decades of exclusive state monopoly. In addition, the growth in imports of cheap shale gas from the US was further stimulated by investments in additional pipelines from the border to Mexico's centres of demand.

While these measures clearly intended to increase fossil fuel production and use, they were presented as aligned with climate objectives under the guise of driving cleaner and more efficient operations (e.g. reducing scope 1 and 2 emissions from hydrocarbon production) and, in the case of natural gas imports, driving the substitution of dirtier fossil fuels. This inclusion of natural gas as a "clean" fuel was not unique to Mexico in the pre-Paris Agreement era, however, it became one of the central pillars supporting the claim by the EPN administration that that the energy reform was in line with the requirements of the General Law for Climate Change.

In contrast, the electrical sector reform, dominated by national utility CFE, contained several measures with true potential to enable progress towards climate goals. These include the introduction of "Clean Energy Certificates" (CELs) and an obligation on CFE to produce such certificates for a share of its yearly sales (broadly analogous to renewable energy obligations but applicable to the definition of "clean" energy as presented in Mexican regulation); renewable capacity auctions for private development of renewable generation capacity which included power purchase agreements from CFE; the introduction of carbon tax on fossil fuels; and the promotion of an Emissions Trading Scheme (ETS) for major emitters.

The renewable energy auctions achieved notable successes, bringing down the levelized cost of Solar PV and Wind energy far below expec-

tations. For instance, in the third long-term auction (2017), solar bids reached as low as USD 20.82 MWh + CELs, with earlier rounds already delivering bids around USD 31.37 MWh +CELs¹. Across the first three auctions (2015-2017), contracts for approximately 4.9 GW of new renewable capacity were awarded. However, the level of CELs required of CFE was initially set at only 5% of electricity sales by 2018, a threshold widely considered insufficient to drive deployment of renewable generation consistent with Paris Agreement trajectories² In a similar vein, the carbon tax on fuels, adopted in 2014 was fixed at USD 3.5 per ton of CO₂, a rate so low that it was barely perceptible, especially for gasoline. Moreover, natural gas was fully exempt from the tax, ensuring that the policy -a potential game changer - had a marginal impact on the real energy economy. The ETS has undergone numerous design and consultation processes since its initial announcement in 2014, but is not yet operational over 10 years later. In this manner, the climate change elements of the EPN administration energy reform allowed Mexico to claim important progress in climate action, while not significantly interfering with the core vision of the energy sector reform, nor reducing the participation of fossil fuels in the energy mix.

On the international arena, Mexico's climate action sought to demonstrate leadership through timely reporting. Mexico was one of a handful of countries to present its iNDC by March of 2015, meeting the request that it be delivered well in anticipation of COP21. Likewise, Mexico's LTS was presented at COP22 in Marrakesh in November of 2016, far before most other countries. However, while these displays of prompt observance won initial praise, the content of both documents was eventually seen as disappointing, with low-ambition targets and very limited clarity on implementation.

Internal climate policy included numerous instruments, of which the only one with concrete

See: https://psj.lse.ac.uk/articles/72/files/submission/proof/72-1-141-1-10-20190813.pdf

² See: https://www.hks.harvard.edu/sites/default/files/degree%20 programs/MPAID/files/Guadarrama%2C%20Carlos%20SYPA%20 final.pdf

commitments from government agencies was the PECC (Special Programme for Climate Change), which solely addressed changes within the operations of the federal government. To illustrate how limited this is, in many countries the commitments of the Ministry of Transportation or of Agriculture describe actions to be taken within those sectors of the economy, to reduce emissions by millions of tons of CO₂ across roads, farms, etc; in Mexico, the equivalent Ministries committed only to managing their own estates and transportation fleets, targeting reductions in thousands of tons of CO₂, and setting no expectations regarding emissions within the broader economy.

Despite the laxity and limited ambition with which the EPN administration implemented climate policy, the adoption of the relevant instruments in national legislation is recognized as an important step and a clear climate success. Environmental groups at the time considered that accepting the initial low requirements in order to not disrupt immediate energy investments was a price worth paying to achieve such policy gains: going forward, the climate debate could focus on increasing the ambition of these obligations and taxes to guide the energy system towards lower emissions, rather than struggling to create legislation to put such instruments in place.

2018-24

In December of 2018, Peña Nieto was succeeded by Andrés Manuel López Obrador (AMLO) as President of Mexico. AMLO's campaign claimed many of EPNs policies were contrary to his aspirations for social justice and poverty reduction, leading his government to dismantle many of the EPN policies and institutional arrangements. Energy policy – core to Mexico's concept of national sovereignty since the nationalization of the oil industry in 1938 – was an area of particular focus. In addition, AMLO emphasized how his government would cease to favour the more affluent over lower income groups. As part of this narrative, climate and environmental issues were framed as less urgent than reducing inequality and achieving energy self-sufficiency. For example, he dismissed international climate forums such as COP26 as "hypocrisy and fashions," arguing that the true global challenge was inequality³. As a result, the change of administration severely disrupted the nascent climate policy regime, with state ownership and direction of energy production retuning to centre stage, closing down options for private and foreign capital to participate.

AMLO's administration prioritized large-scale fossil fuel infrastructure as the central element of its energy policy, deliberately increasing the importance of PEMEX, despite its financial and operational challenges. Notable initiatives include the construction of the Dos Bocas (Olmeca) refinery and the acquisition of the Deer Park refinery in Texas. The Dos Bocas project, initially budgeted at approximately USD 8 billion, has more than doubled in cost to around USD 16.8 billion⁴ and continues to underperform operationally. In May 2025, the plant processed a total of 43,392 barrels per day of gasoline, which represents approximately 25% of its intended gasoline production capacity. However, the plant's overall crude throughput is still significantly lower than its 340,000 barrels-per-day capability⁵.

In the same period, PEMEX acquired Shell's 50 percent stake in the Deer Park refinery for USD 596 million, in addition to assuming about USD 1.2 billion in debt⁶. These investments took place despite Pemex's fragile financial situation: between 2019 and 2024, the federal government injected roughly MXN 1.38 trillion in tax relief and direct support to sustain the company, without reversing its position as the most indebted oil firm in the world⁷. Instead of consolidating PEMEX's finances, these projects deepened its

³ See: https://elpais.com/mexico/2021-11-03/lopez-obrador-se-lan-za-contra-la-cop26-ya-basta-de-hipocresia-y-de-modas.html

⁴ See: https://www.reuters.com/business/energy/mexicos-new-pemex-refinery-still-needs-important-work-is-far-ready-sources-say-2024-06-24/

⁵ See: https://elpais.com/mexico/2025-07-20/sobrecostos-y-pocos-litros-de-gasolina-la-refineria-dos-bocas-entre-las-mas-caras-del-mundo.html

⁶ See: https://www.reuters.com/business/energy/mexico-says-us-government-approves-deer-park-refinery-deal-2021-12-22/

⁷ See: https://imco.org.mx/pemex-en-la-mira-analisis-de-resulta-dos-al-segundo-trimestre-2025/

debt burden and channeled public resources into capital-intensive fossil fuel projects with significant financial risks.

The negative impact of these actions on Mexico's decarbonization cannot be overstated. They aimed to strengthen energy sovereignty by increasing the share of Mexico's fuel consumption refined by the national oil company instead of in the US, however there was no refining bottleneck to address, nor did these investments reduce fuel costs for Mexican businesses and households. On the contrary, they represented important capital investments that have so far made little difference to fuel prices, with refinery delays and continued import dependence limiting any potential benefits, while diverting capital from renewable investments which would result in a lower LCOE, as proven by the low renewable electricity production costs revealed by the EPN auction process. While the EPN approach sought to increase oil export revenues leveraging foreign capital, the AMLO investments represent significant fossil lock-in - entirely on Mexico's books - with no revenue upside for the government and no cost upside for the economy, thus significantly hindering the country's ability to meet its international climate commitments.

On the electricity front, the AMLO administration cancelled the clean energy and transmission auctions, and reactivated coal and fuel-oil plants. The 2021 reform of the Electrical Industry Law prioritized dispatch from CFE assets over privately owned generation (as opposed to the lowest-cost criteria established previously, which favoured low-cost renewables), and re-defined the scope of the CEL renewable obligation certificates, granting certificates to legacy renewables instead of only new installations as per the original policy design, creating a glut which destroyed the market. This eliminated both drivers for CFE to buy the renewable power generated by the projects born of auctions held during the previous regime, and also weakened the ability of CELs to drive emissions reductions. The mandate of the network operator shifted from seeking to dispatch according the system cost of energy, to doing so according to the strategic needs of the new energy policies, which included the ability of PEMEX to place its "bottom of the barrel" fuel-oil. These measures favored PEMEX fuel use, with implications for electricity costs, renewable project revenues, and local air quality.

In terms of transportation, at the federal level, AMLO's administration published the General Law on Mobility and Road Safety (LGMSV) in May 2022, establishing the legal framework for mobility and road safety across the country, with no GHG reduction or climate content (23 states have harmonized local laws with the LGMSV⁸), This omission is a significant missed opportunity, since sustainable mobility policies could simultaneously reduce emissions, improve air quality, and enhance safety. Implementation is constrained by financing: most of the burden falls on states and municipalities, while federal resources are limited. For example, the National Road Infrastructure Program alone received about USD \$3.3 billion in 2025 for federal highways and bridges⁹, while no comparable federal allocation exists for urban public transport or non-motorized mobility. This imbalance highlights how federal priorities remain car-oriented, limiting the transformative potential of the LGMSV.

At the local level, several cities have advanced with innovative public transport projects, often in response to strong social demand rather than federal leadership. Mexico City now operates two Cablebús lines (9.2 km and 10.6 km), while the Metrobús BRT system – which began during the Calderón administration – has expanded to about 125 km and is beginning fleet electrification. Guadalajara inaugurated Line 3 of Mi Tren in 2020, stretching 21.5 km with 18 stations. Mérida recently launched the IE-TRAM, a 100% electric BRT system projected to cover more than 100 km and connect with the Maya Train. Cycling infrastructure has also expanded, exemplified by Mexico City's 28.5 km Insurgentes bikeway, created as a pandemic emergency lane and later consolidated. These city-level examples show

⁸ See: https://www.gob.mx/sedatu/prensa/reporta-sedatu-avances-en-armonizacion-de-23-leyes-locales-con-la-ley-gener-al-de-movilidad-y-seguridad-vial

⁹ See: https://mexicobusiness.news/infrastructure/news/road-infrastructure-program-advances-us33-billion-2025

some successes in promoting urban transportation alternatives to private cars.

However, Mexico remains far from aligning its transport emissions with the Paris Agreement. The country's NDC commits to a 35% overall reduction by 2030, including 22% in the transport sector, with current measures falling very short. Despite the evidence that that compact urban form, transit-oriented development, and accessibility planning are essential to reducing vehicle use and emissions, while highway expansion tends to induce traffic and lock in fossil fuel dependency, car-centric infrastructure continues to be prioritized. The elevated expressways in Mexico City, for instance, which were started over a decade ago and have continued to be a priority for Mexico City and neighbouring States, are built exclusively for private vehicles, with no provisions for mass transit, active mobility, or electric or hydrogen fleets. Such investments entrench automobile dependence and make it harder to redirect cities toward sustainable, low-carbon futures.

Internal climate and environmental policy and institutions were also directly weakened by the AMLO administration. Budget cuts to SEMARNAT (Ministry of Environment and Natural Resources), the elimination of the Climate Change Fund, and the abolition of the arms-length technical body INECC (National Institute for Ecology and Climate Change) created by the 2012 LGCE, reduced technical and financial capacities for long-term and cross-government planning, This significant reduction of government capabilities set back years of progress from previous administrations, and was implemented at the same time as the international community was undertaking the first global stocktake of the Paris Agreement, which found that such capabilities must be significantly strengthened, particularly in developing countries.

The NDC update presented to the UNFCCC in 2020 repeated the mitigation goal of the 2015 iNDC, going directly against the spirit of progression of the Paris Agreement. The international community noted these setbacks: the Climate Action Tracker rated Mexico's actions as "highly

insufficient," citing fossil fuel expansion and weakened policy instruments as incompatible with Paris goals¹⁰

2024-25

December of 2025 will mark the 10th anniversary of the adoption of the Paris Agreement and the first anniversary of the administration of Claudia Sheinbaum Pardo (CSP) in Mexico. Although promising political continuity with her predecessor and mentor López Obrador, Sheinbaum's administration has adopted a very different narrative with regards to energy, climate, and sustainability. During the past year, Mexico has formally adopted a net-zero target by mid-century, as well as the concept of eventually transitioning to a more renewable energy matrix. The President's own background as an energy and climate scientist and a former member of the IPCC has also given cause for optimism.

Indeed, energy system plans presented at the beginning of the current administration set a target of USD 23.4 billion in investment through CFE to add 13GW of new capacity by 2030, of which approximately 7 will be renewable and 6 fossil based, to be complemented by another 6.4 GW at least of new renewable capacity installed by private developers¹¹. To enable private participation, the government announced new mechanisms such as bilateral long-term contracts with CFE and "mixed producer" schemes¹², in which CFE retains majority ownership while private actors provide capital and technical expertise. These instruments are intended to bring in private investment without returning to the fully liberalized auction system used under the EPN administration. These plans represent a notable shift on renewable energy when compared to the

¹⁰ See: https://climateactiontracker.org/countries/mexico/

¹¹ See:https://factorenergetico.mx/wp-content/uploads/2025/02/05febrer026-Plan-Fortalecimiento-y-Expansion-Sistema-Electrico-Nacional.pdf https://imco.org.mx/plan-nacional-de-energia-implicaciones-para-la-competitividad/#:~:text=El%20 d%C3%ADa%20de%20hoy%2C%20la,capacidad%20instalad%20y%20transici%C3%B3n%20energ%C3%A9tica.&text=El%20plan%20de%20inversiones%20de,mmdd%20a%20 proyectos%20de%20distribuci%C3%B3n.

^{12 &}quot;New arrangements are proposed such as 'mixed producers,' in which CFE will hold a majority stake while private actors contribute investment and technology, replacing the auction scheme of the previous administration." IMCO, 2024.

AMLO administration, although the new capacity will likely increase fossil generation by more than renewable generation (due to the very different utilization factors).

While the inclusion of utility-scale renewables and storage in energy system planning reflects an important shift, the centrality of CFE in planning and execution replaces market-based auctions with state-led expansion, narrowing the role of private and foreign investment. In practice, renewable growth is now being channelled through CFE-led projects or mixed ventures rather than through open competition that previously achieve reductions in renewable costs. The design aligns with the administration's emphasis on sovereignty and state planning, but raises questions about whether the scale and pace of deployment required to meet Mexico's international climate commitments can be achieved under this approach.

More recently, the federal government approved a major financial rescue of PEMEX that combines sovereign bond placements and structured operations to refinance near-term debt and provide fresh liquidity to the company. However, this package aims for stability more than growth for PEMEX, setting a production ceiling of 1.8 million barrels in recognition of the difficulty in increasing production from Mexico's depleting reserves. This is noteworthy in the context of previous production targets (never achieved): 3.2 mbpd (EPN) and 2.3 mbpd (AMLO), with the remainder of future energy demand officially expected to be covered by renewables.

The policy signal is mixed: on the one hand, the government has set an oil production ceiling and emphasized that in future demand growth should be met through renewable generation; on the other, it has committed substantial public resources to support PEMEX a heavily indebted company. The long-term narrative sees the share of renewable energy grow as it steps up to satisfy future demand growth, although the replacement of existing fossil fuel activity – responsible for the lion's share of current and future emissions given the low expected growth rates, is not contemplated. While stabilizing PEMEX is an understand-

able political objective to prevent disruptions to the energy and financial markets, only an investment programme that includes a strategic phase down of some assets and re-tooling of others towards green fuels can put Mexico back on the path to climate leadership: the current approach risks allocating scarce public capital to fossil fuel assets, limiting the scope for investment in lower-cost renewable energy.

ANALYSIS: GOVERNANCE, FISCAL, AND STRUCTURAL BARRIERS HAVE BLOCKED CLIMATE ACTION

These events and the resulting deterioration of Mexico's climate policy reveal important barriers to progress.

Governance

The preponderance of presidential preference as a core driver of climate policy, and the subservience of climate policy to energy policy, represent the most notable governance challenges behind Mexico's poor climate performance. Formally, the LGCE lays out an institutional framework to ensure that all three levels of government participate in climate policy formulation through the SINACC, with policy coordination in hands of an interministerial committee (CICC) chaired by the President. SEMARNAT (Ministry of Environment) is charged with leading policy formulation, in consultation with diverse stakeholders and leveraging inputs from INECC (National Climate Change Institute), an arms-length body charged with gathering scientific and technical information and insights to inform policy. However, these institutions have had little influence on climate policy decisions in practice (indeed INECC has been formally abolished with its functions subsumed into SEMARNAT). The ministries involved in the CICC define and pursue their climate goals (if any) in silos, with no instruments or processes in place to effectively set expectations or foster cooperation towards common goals, nor collaborative planning.

While Mexico's federal structure gives the 32 states important attributions, tax revenue is primarily gathered centrally and distributed to the states and municipalities by the federal government, limiting the scope of actions states can take autonomously. Furthermore, the energy market is dominated by the two stateowned monopolies PEMEX (oil, oil derivatives, and natural gas) and CFE (electricity) which have specific legal status as national companies and are both run by presidential appointees. As a result, Mexico's energy market rules and investments have favoured fossil fuels across the board, despite most states in Mexico not being oil states (i.e. without significant crude oil or oil refining operations), while failing to capitalise on the opportunities of renewable and distributed renewable generation for many States particularly those in the north and west of the country with high levels of solar irradiation and limited oil activity.

As a result, Mexico's official climate policy instruments since the adoption of the Paris Agreement reflect very limited ambition, and no plans for deep-seated system change, while they enjoy very little recognition within a broader economic and political audience in Mexico.

Fiscal regime

Mexico's fiscal space is already very limited. The country collects relatively little in taxes, with a tax-to-GDP ratio of 17.7 percent in 2023, one of the lowest among OECD members¹³. At the same time, around four-fifths of the 2025 federal budget is already committed to mandatory items such as pensions, social transfers, and debt service, leaving little room for discretionary investment. Pensions alone absorb roughly six percent of GDP and close to a quarter of programmable spending, while rising debt service costs further reduce fiscal flexibility¹⁴. Under these conditions, public investment has been constrained for years. This means that achieving Mexico's climate and energy transition goals will require large amounts

of external financing, especially private and foreign, in order to fill the gap and accelerate the roll-out of sustainable technologies.

At the same time, public finances remain closely tied to oil. Although oil's weight in the wider economy has fallen to around one to two percent of GDP in recent years 15, oil revenues are still projected to make up about 14.1 percent of total federal revenues in 202516. In practice, these revenues come mainly from PEMEX through taxes, royalties, and dividends that flow directly into the federal budget, as well as transfers managed via the Mexican Oil Fund. Academic sources such as the Natural Resource Governance Institute estimate PEMEX's contribution to public revenues at closer to 22 percent once all channels are considered 17. In short, even as oil output declines, Mexico's federal budget continues to rely heavily on hydrocarbon income.

Therefore, Mexico's fiscal structure creates a strong dependence on hydrocarbon income that is difficult to unwind. As the IMF notes¹⁸, PEMEX remains subject to a heavy fiscal burden, and the federal government in turn relies on these oil revenues as a predictable and immediate source of funding. This mutual dependence discourages the diversification of revenue sources, effectively locking the state into continued reliance on fossil fuel rents to sustain public spending and public finances. For Mexico to meet its long-term climate targets and lead a just energy transformation, it will need to restructure its fiscal system while ensuring innovative financial instruments and large-scale private and international investment gradually replace oil-derived income with sustainable sources of growth.

International community

The nationally determined character of national climate targets by Parties to the Convention that forms a central pillar of the Paris Agreement architecture was seen as a potential

¹³ See: https://www.oecd.org/content/dam/oecd/en/topics/poli-cy-sub-issues/global-tax-revenues/revenue-statistics-mexico.pdf

¹⁴ See: https://www.finanzaspublicas.hacienda.gob.mx/work/models/Finanzas_Publicas/docs/paquete_economico/cgpe/cgpe_2025.pdf

¹⁵ See: https://data.worldbank.org/indicator/NY.GDP.PETR.RT.ZS?lo-cations=MX

¹⁶ See: https://imco.org.mx/paquete-economico-2025/

¹⁷ See: https://resourcegovernance.org/publications/national-oil-company-profile-pemex-mexico?utm

¹⁸ See: https://papers.ssrn.com/sol3/papers.cfm?abstract_id=4026473&utm

enabler of peer dynamics within the international community to motivate higher ambition over time. This was effective to a limited extent in Mexico between 2015 and 2018, as the EPN administration made efforts to submit formal requirements before most other countries in order to maintain the perception of climate leadership inherited from the Calderón years. However, these documents did not commit to ambitious targets, which gradually became evident as other countries promised greater emission reductions within their own NDCs. By the time international civil society recognised that Mexico was not showing the expected leadership in mitigation ambition, the AMLO administration had taken office, bringing with it a discourse of national sovereignty which disregarded the views of the international community since, it was argued, these did not represent the best interests of Mexico's poor. This framing of international cooperation as interference with national priorities weakened the ability of peer comparisons under the Paris Agreement to encourage greater ambition in Mexico.

Furthermore, while international collaboration played a significant role in supporting analytical and stakeholder work for climate policy development - as well as providing finance for energy investments - throughout the Calderón and EPN administrations, the AMLO administration sought to limit the role of foreign governments and multilateral institutions in the internal affairs of Mexico, and also avoided taking on foreign debt to avoid the perception of dependency on foreign agents. Therefore, international cooperation and the international community more broadly have been limited in their ability to contribute to Mexico's implementation of the Paris Agreement since 2018.

Political economy structures and underlying development paradigm

The challenges of shifting from a fossil fuel driven development paradigm to one of sustainable energy are not unique to Mexico. The IPCC

acknowledged this difficulty by dedicating Chapter 4 of the WGII contribution to its Sixth Assessment Report to the shifting of development pathways. However, these challenges are particularly acute in Mexico for both structural and historical reasons.

Mexico's nationalisation of petroleum in 1938 is a milestone for the history of the oil industry as well as for that of Mexico: the successful takeover of operations from foreign companies overnight, and subsequent growth of production and exports presented an example to Venezuela, Iran, Saudi Arabia, and other significant oil exporters of the time, shifting the balance of power between Western companies and Global South countries and providing a source of pride for Mexicans. Oil sales during WWII and the postwar boom provided Mexico with steady income which supported its industrial growth and social development from the 40s to the 70s, including dramatic improvements in housing, water access, electrification, education, and public health. While the first oil crisis of 1973 led many countries, including large Latin American economies like Brazil, to seriously consider alternatives to oil, for Mexico the resulting boom increased confidence in oil, which was further boosted by the discovery of offshore reserves in the Gulf of Mexico – ultimately leading to excessive public borrowing and spending and the Mexican debt crisis of 1982. Since the democratic opening of Mexico's electoral politics in the 1990s, energy reform has been a core topic of political discussion, with arguments of sovereignty, export revenues, increasing capital for investment, promoting economic diversification, and ensuring good management of national assets all contributing to the debate. Therefore, while no country faces climate policy questions in a vacuum, in Mexico they confront a pillar of national identity.

The structural impacts of 80 years of oil-led development are evident in Mexico today, as illustrated by the prevalence of gas for domestic and commercial water heating, where countries with similar or less solar irradiation have been using solar heaters for 40 years. With PEMEX providing local gas distribution companies with

gas to supply households at controlled prices for decades, the Mexican market never considered the solar heaters that dominate Southern Europe, despite their obvious economic advantages. Societal aspirations also drive demand for fossil fuels, particularly in urban transport where owning a private vehicle is a sign of social status and an aspiration for many. However, while many Mexicans look to the affluence of the USA as a role model for their own vision of success, that country has almost 4 times greater car ownership per 1000 citizens, meaning Mexican cities would be unable to cope with comparable volumes of vehicles, even if Mexicans could afford them. Over the past decade, a concern over potential risks to the environment and poorer segments of the population has proven insufficient motivation for climate concerns to supersede these long-established energy and lifestyle considerations in the mind of most Mexicans. Mexico's government, civil society, and business leaders must formulate a vision of aspirational growth for citizens based on the green economy before people believe that phasing out fossil fuels can make life better for them. While scientific evidence suggests the country stands better chances than most to succeed in this change, today, progress has stalled, leaving Mexico no closer to this transition than it was a decade ago.

international climate policy in the decade prior to the adoption of the Paris Agreement, internal progress was largely driven by the political agenda of the Calderón administration, focusing on marginal gains and cost-negative actions across the energy system. The deep challenges of energy and food system change and urban structural shift were not tackled, while the cost savings from the initial shift from oil products to gas in power and industry cemented the belief that successful climate policy should not imply additional costs. Thus, since the adoption of the Paris Agreement, Mexico has not embraced the scale of transformation required, continuing to bet on a development pathway based on fossil fuels that increases environmental and social risks. Only clear leadership from the current President can reverse this trend, laying out a planned phase out of fossil fuel activities, dramatically increasing investments in renewable energy and the transmission and distribution required to support them, implementing a green fiscal reform, and finding ways to increase foreign capital in energy investments to accelerate the rollout. These accelerated investment in renewables must also foster quality jobs to ensure they reduce inequality. As long as renewable investments remain secondary to sustaining fossil fuel operations, Mexico will not achieve its climate commitments.

While Mexico made significant contributions to

CONCLUSION: A RADICAL CHANGE IN ENERGY, FISCAL AND DEVELOPMENT STRATEGIES WILL BE NEEDED TO ACHIEVE CLIMATE COMMITMENTS

The Paris Agreement was seen as a landmark in global climate policy by setting global goals to limit the adverse effects of climate change. Scientific progress since its adoption, as highlighted by the IPCC Special Report on 1.5C (2018) and 6th Assessment Report (2023) have further emphasised the challenges of shifting from the old, fossil-centred development paradigm to a different model of sustainable development, and identified significant barriers to achieving this.

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