

ASSESSMENT OF SUBNATIONAL AND NON-STATE CLIMATE ACTION



MEXICO

September 2019



Mexico

COUNTRY CONTEXT

Mexico's emissions have shifted from being driven primarily by agriculture and LULUCF to being tied to energy-related emissions (Climate Action Tracker, 2018a). The country has increased its renewable energy capacity significantly (IRENA, 2019), but further growth could accelerate its progress towards decarbonisation. Mexico has set clean energy targets of 30% by 2021 and 35% by 2024, both in terms of share in total electricity generation (Kuramochi et al., 2018), and could have the potential to generate up to 46% of its electricity, or 280 terawatt-hours (TWh), from renewable sources each year. Policies that facilitate expanded infrastructure, grid integration, and the uptake of renewable energy to heat and fuel buildings, industry, and transport could help accomplish this key shift in Mexico's highest emitting sector (IRENA, 2015).

In its nationally determined contribution (NDC), Mexico sets an unconditional target of reducing greenhouse gas (GHG) emissions by 22% below business-as-usual (BAU) in 2030 and a conditional target of 36% below BAU in 2030. The latest assessment by NewClimate Institute, PBL and IIASA show that the uncertainty on the emissions projections under current policies is large and therefore not possible to judge whether the country is on track to meet its unconditional NDC target (Kuramochi et al., 2018).

INTERACTIONS BETWEEN NATIONAL GOVERNMENT AND SUBNATIONAL AND NON-STATE CLIMATE ACTORS

Interactions between the national government and subnational government and non-state climate actors in Mexico have been historically a mixture of subnational-led interactions, state-led interactions, and more recently also non-state led interactions.

Examples of subnational-led interactions include the government of Mexico City, which in 2008, published its first plan for climate change mitigation through the implementation of actions in the energy, transport, water,

and waste sectors: "Mexico City's climate action plan (PACCM) 2008-2012." It was estimated that 86% of the mitigation actions outlined in the plan were implemented, leading to the mitigation of 6 MtCO₂e (Centro Mario Molina, 2012). This program was followed by the PACCM 2014-2020, which has an estimated emissions reduction potential of 10 MtCO₂ (Gobierno de la Ciudad de México and Centro Mario Molina, 2014). Also, as part of the C40 Initiative, Mexico City has since 2011 participated in 14 case studies—including C40 good practice guides and Cities100— to implement climate actions in the transport, energy, buildings, urban planning, food, waste, water, and financial sectors (C40 Cities, 2019a). Case studies examples include Mexico City's voluntary Sustainable Buildings Certification Program—which reduced 66 ktCO₂e between 2009 and 2015; Mexico City's public shared bicycle system ECOBICI—with an estimated emissions reduction of 770 tCO₂e between 2010 and 2015; installation of energy efficiency measures and renewable energy in hospitals and other public buildings—which are estimated to reduce around 750 tCO₂e; establishment of a barter market for recyclables, and development of public green spaces.

An example of state-led interaction is the Climate Change Council (C3), established under Mexico's General Law on Climate Change from 2012. The C3 is a permanent consultation organ of the national Inter-secretarial Commission on Climate Change (CICC, in Spanish), formed by members of the private, academic and social spheres (Cámara de Diputados del H. Congreso de la Unión. Diario Oficial de la Federación, 2012). Its functions include: 1) providing advice and recommendations for the development of studies, policies, actions and targets to face the effects of climate change, and 2) promoting informed and responsible social participation through public consultations. The C3 has operated since 2013, has provided inputs to the National Program on Climate Change 2013-2018 (incl. inputs from the private sector), and was represented in the Mexican delegation for COP20 (Programa de las Naciones Unidas para el Desarrollo,

2018). Nevertheless, participation in the council is by personal invitation only, limiting its ability to represent and include all elements of Mexican society (ibid).

An example of non-state-led interaction can be found in the Alianza para la Acción Climática de Guadalajara, which includes over 35 actors that work together towards the achievement of Mexico's NDC pledge. A member coalition of Alliances for Climate Action (ACA), this alliance has been formed through a coalition of sub-national and non-state actors including the local and state governments, Mexican companies from the energy and waste sectors, the University of Guadalajara, and civil society organizations (Alliances for Climate Action, 2018). This bottom-led multi-stakeholder coalition has established three priority thematic areas: 1. energy (incl. renewable energy and energy efficiency), 2. waste and 3. urban resilience (Alianza para la Accion Climatica de Guadalajara, 2018).

COMPARING SUBNATIONAL AND NON-STATE TRAJECTORY WITH NATIONAL TRAJECTORY

While subnational and non-state action in Mexico is substantial, it has room to grow and strengthen further. The assessment includes ten cities, representing over 15 million people, and two regions, representing a population of more than 10 million people, that have made quantifiable commitments to reduce GHG emissions.¹ It also includes over 280 companies, controlling over \$37 billion USD in revenue² – and including one of the world's largest companies³ – making quantifiable climate commitments, most frequently in the transportation equipment and electrical and electronic equipment sectors.

Though some of the country's largest cities – including Mexico City – have made ambitious commitments, they constitute under one-fourth of the total urban population in

the country. While 17 of the world's largest companies are based in Mexico, just one of these has made a quantifiable commitment captured within the CDP database. This may be due to a lack of national imperative for businesses to make such commitments; unlike most G20 countries, Mexico has no energy efficiency standards in the industry sector. However, some national programs for business do exist. Mexico instituted a mandatory Emissions Trading Scheme that starts with a three-year pilot phase in 2019, after its regulations are finalised and published (ICAP, 2019). This national carbon market is expected to include between 400 to 700 companies.

Together, these cities, provinces and companies represent 100 MtCO₂e/year in 2015, accounting for overlap between actors. If fully implemented and if such efforts do not decrease efforts elsewhere, they would reduce emissions in 2030 by an additional 20 to 40 MtCO₂e/year beyond the projected emissions under current national policies (Figure 1, top panel).

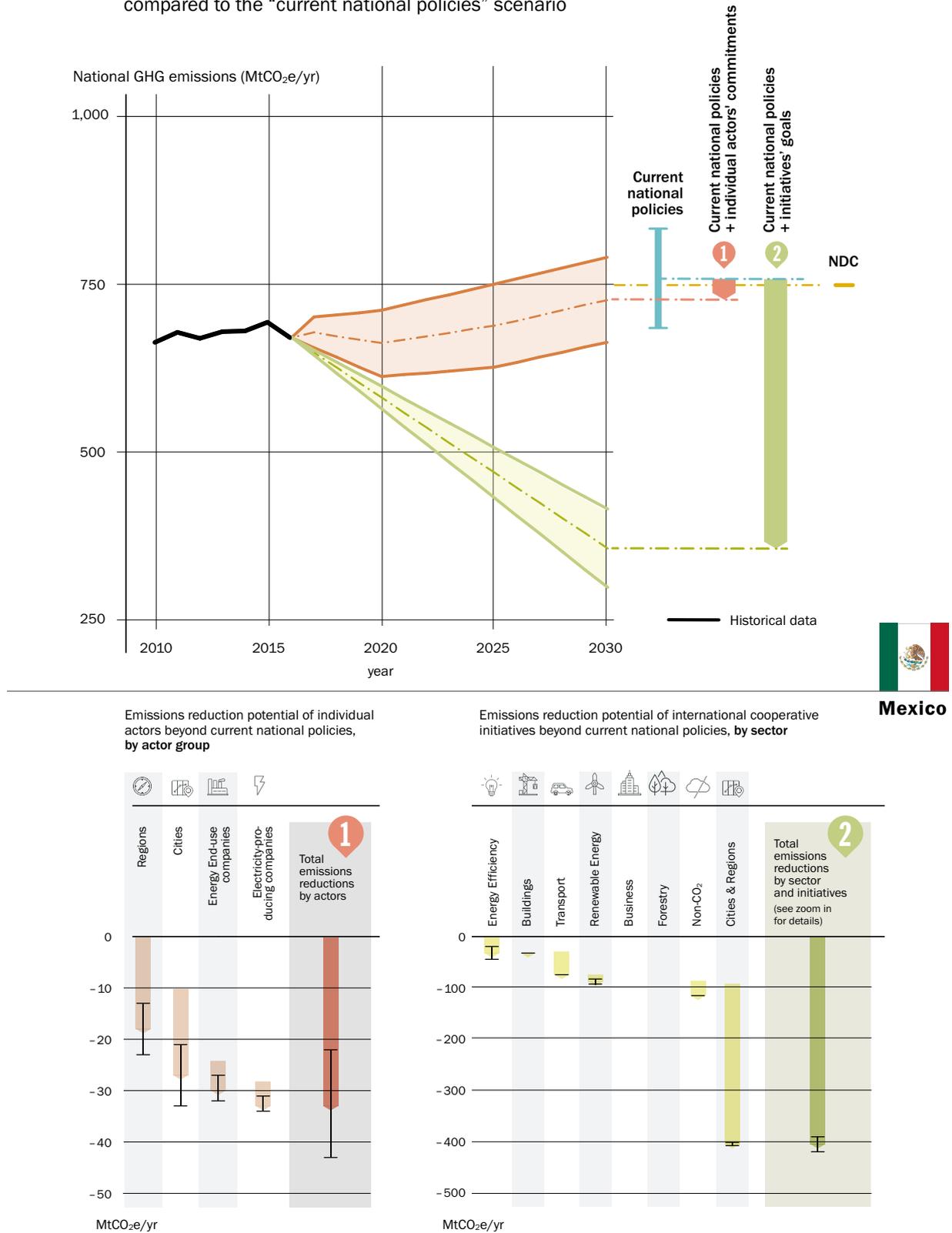
International cooperative initiatives (ICIs) – networks of cities, regions, companies, investors, civil society, and, in some cases, countries, pursuing common climate action – could have a significantly larger impact. If they realise their goals, they could lower emissions in 2030 by an additional 390 and 420 MtCO₂e/year compared to, or 50% to 57% below, the emissions projections current national policies. The largest reductions, of about 540 MtCO₂e/year by 2030, are expected from initiatives focused on cities and regions (specifically, C40 Cities for Climate Leadership Group, Global Covenant of Mayors for Climate & Energy, and the Under2 Coalition) where the coverage is already very high in comparison with other countries. Substantial reductions could also be delivered through the Climate and Clean Air Coalition on non-CO₂ GHGs (around 70 MtCO₂e/year by 2030) (Figure 1, bottom-right panel).

1 Quantifiable commitments to reduce GHG emissions typically include a specific emissions reduction goal, target year, baseline year, and baseline year emissions. See Technical Annex I for more details.

2 Companies' combined revenue reflects companies making quantifiable commitments to reduce GHG emissions, whose headquarters are in Mexico, and whose revenue data is publicly available. See Technical Annex I for more details.

3 The world's largest companies are defined in terms of their inclusion in the 2019 Forbes 2000 and Global Fortune 500 lists.

Figure 1. Potential greenhouse gas (GHG) emissions reductions in Mexico resulting from the full implementation of individual subnational and non-state actor commitments and the full implementation of international cooperative initiatives (ICIs) goals compared to the “current national policies” scenario



The „current national policies“ scenario (Kuramochi et al., 2018) includes land use, land-use change and forestry. Top panel: historical GHG emissions up to 2016 (with authors’ own estimates for years between the last inventory data year and 2016) and scenario emissions pathways up to 2030, alongside the NDC target emissions range (indicative target level for 2030). Emissions reduction target trajectories from individual actors’ commitments and initiatives’ goals are assumed to be achieved linearly from the latest historical data year and are presented here for illustrative purposes. Bottom-left panel: the breakdown of potential GHG emissions reductions from individual subnational and non-state actor commitments in 2030 by actor group. Bottom-right panel: the breakdown of potential GHG emissions reductions from ICIs in 2030 by sector. The results for “Current national policies plus initiatives’ goals” scenario do not include the potential emissions reductions from Science Based Targets, RE100 and Collaborative Climate Action Across the Air Transport World (CAATW); they are only quantified at a global level.

ABOUT THIS FACT SHEET

The **Global Climate Action from Cities, Regions, and Businesses** country fact sheet series takes a close look at the potential impact of subnational and non-state climate change mitigation action for ten high-emitting economies.

In each fact sheet, we: (1) provide general information on the country's greenhouse (GHG) emissions and its energy and climate policies (the country context); (2) describe the interactions between the national government and subnational and non-state actors on climate action; (3) identify and map the type of GHG emissions reduction commitments made individually by cities, regions and companies within that country, as well as the actors making them; and (4) quantify the potential GHG emissions reduction impact that city, region and company commitments, as well as those of international cooperative initiatives (ICIs), could have on that country's emissions trajectory. The analytical steps follow those described in an earlier 2018 report (Data-Driven Yale, NewClimate Institute and PBL, 2018) and adopts the methodological recommendations made in Hsu et al. (2019). Detailed descriptions of this can be found in the main report and its Technical Annexes I and II, all of which can be downloaded from the NewClimate Institute website (<https://newclimate.org/publications>). A full list of references can also be found in the main report (Section 5).

Regarding the emissions data presented in this section, total national GHG emissions include land use, land use change and forestry (LULUCF) unless otherwise stated. The historical GHG emissions data are plotted up to 2016; for a number of UNFCCC non-Annex I countries, the values between the last inventory year and 2016 were estimated based on current policies scenario projections by NewClimate Institute, PBL and IIASA (Kuramochi et al., 2018). All GHG emissions figures presented are aggregated with 100-year global warming potential (GWP) values of the IPCC Fourth Assessment Report. For the NDC target emission levels, we used LULUCF sector emission levels projected under the current policies scenario when a country's NDC: (i) excludes LULUCF emissions, (ii) is not clear about the LULUCF accounting or (iii) considers LULUCF credits. For these countries, the NDC target emission levels may not match the official values reported by the national governments.

ACKNOWLEDGEMENTS

This work was funded by ClimateWorks Foundation (grant no.19-1383). Part of the project was supported through the "Strengthening non-state climate action in the Global South" project (ClimateSouth) which is generously supported by the Europe and Global Challenges Fund, a joint initiative of the Volkswagen Foundation, the Sveriges Riksbank, and the Wellcome Trust. The project received additional support from German Development Institute/Deutsches Institut für Entwicklungspolitik's "Klimalog" project, generously funded by the German Federal Ministry of Economic Cooperation and Development (BMZ). CDP provided support on data preparation and the pre-analysis of the company-level actions.



SUGGESTED CITATION

NewClimate Institute, Data-Driven Lab, PBL Netherlands Environmental Assessment Agency, German Development Institute/Deutsches Institut für Entwicklungspolitik (DIE), Blavatnik School of Government, University of Oxford. Global climate action from cities, regions and businesses: Impact of individual actors and cooperative initiatives on global and national emissions. 2019 edition. Research report prepared by the team of: Takeshi Kuramochi, Swithin Lui, Niklas Höhne, Sybrig Smit, Maria Jose de Villafranca Casas, Frederic Hans, Leonardo Nascimento, Paola Tanguy, Angel Hsu, Amy Weinfurter, Zhi Yi Yeo, Yunsoo Kim, Mia Raghavan, Claire Inciong Krummenacher, Yihao Xie, Mark Roelfsema, Sander Chan, Thomas Hale.