



Implementation of climate teams in Chile¹

A proposal to combat climate change and local pollution

Introduction

Chile is a country that is highly vulnerable to climate change.² It also faces multiple economic, social and environmental challenges. These have been exacerbated by the social unrest in October 2019 and the covid-19 pandemic. Currently, the country faces high levels of unemployment, falling incomes, and high inequality, while facing high levels of air pollution, water scarcity, and territorial conflicts, among others. Also, despite the high potential it has for renewable energy, its economy is still highly dependent on coal.

However, as in any crisis, new opportunities arise. The world in general, and Chile in particular, have the option of moving towards low-carbon development, consistent with what is required by science to contain the rise in temperature. Indeed, in the short term, green fiscal recovery packages can help decouple economic growth from greenhouse gas (GHG) emissions and reduce inequities (Hepburn et al., 2020), while under Art. 6 of the Paris Agreement, there are concrete options to attract public and private foreign investment to sustain this transition in the medium and long term.

The Climate Teams initiative³, led by the Environmental Defense Fund (EDF)⁴, proposes a cooperative effort among a small group of countries with high levels of trust to accelerate emission reductions and improve the wellbeing of citizens of all participating countries through financial support and technical exchange supported by a multi-year agreement between the parties. This document briefly explains what a Climate Team consists of and the potential benefits for Chileans from exploring and potentially implementing one.

What is a Climate Team?

A 'Climate Team' is a cooperative mechanism that takes a different approach to international transfers relative to project-based mechanisms or carbon market linking. It is composed of a small group of countries, one 'host' and one or more 'partners'. The host country is characterized by having significant opportunities to reduce its net emissions in the short term, but not having sufficient resources to accelerate its low emissions transformation and generate additional reductions, while the 'partner' countries have resources, but their short-term opportunities to meet their mitigation commitments are more limited. A Climate Team is designed to assist and reward the host country as it effectively implements current and future climate policies, in specific sectors or in the economy as a whole.

Given the nature of greenhouse gases, reducing GHG emissions benefits the entire planet, regardless where they are generated. However, the costs of those reductions can vary considerably. In general, additional mitigation costs are relatively higher for partners (high-income countries) than for hosts (low- and middle-income countries). Consequently, connecting these countries through cooperative agreements could accelerate the implementation of transformative actions that reduce greenhouse gas emissions in a cost-efficient manner.

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² Chile has seven out of nine criteria established by the UNFCCC (MMA, 2016a). In 2015 it was the country tenth most affected by climate risk though over the longer term its ranking is 100th (Kreft et al, 2017).

³ <http://climateteams.org/>

⁴ The Environmental Defense Fund is an environmental non-profit organization with more than 50 years of experience working on environmental issues, including climate change. It is an institution that advocates the use of science, economics and law to find solutions to environmental problems.



Climate Teams operate through a contractual agreement between participating governments that includes: i) A multi-year emissions baseline that uses the reduction target established in the host's Nationally Determined Contribution (NDC) as a starting point for negotiation; ii) a pre-commitment of total funds available for payments from partners; iii) an pre-agreed price range for payments per ton of mitigation; iv) assessment of results relative to the baseline using the host's national emissions inventory; and v) payments based on concrete results by partner countries to the host country and the transfer of mitigation from the host country to the partner countries.

These agreements can be complemented by additional collaborative activities with investors, the private sector, academia, and civil society, both to strengthen the technical, legal, and economic analyses necessary to generate and implement a commitment of this magnitude, and to generate and sustain public support and make the process transparent. The process of exploring the creation of a climate team will support the preparation of key institutions for potential transfers of Internationally Transferred Mitigation Outcomes (ITMOs) under Article 6 of the Paris Agreement regardless of whether the specific Climate Team mechanism is implemented.

Why is Chile a good candidate to develop and implement a Climate Team?

Chile is advanced in terms of environmental and climate public policy, and has implemented an institutional infrastructure and an array of instruments that have matured to respond to both local environmental demands and international commitments. These conditions, as well as Chile's comparative advantages in generating clean energy, make it attractive for Chile to accelerate the processes linked to green growth, carbon neutrality and climate resilience, if Chile can attract the resources to do so in a way that can improve the wellbeing of all Chileans.

Air pollution is the main environmental problem facing the country. Around 60% of the population (approximately 10 million people) is exposed to a concentration of particulate matter (PM) 2.5 higher than the norm (20 micrograms per cubic meter). In 2011, it was estimated that nearly four thousand people died prematurely in the country due to cardiorespiratory diseases associated with permanent exposure to MP 2.5 (MMA, 2016b).

Currently, around 68% of all Chilean energy is provided by fossil fuels (MoE, 2017), while 40% of electricity is generated with coal. Some of the coal-fired power plants are located in municipalities that suffer from high levels of contamination and are a constant source of social conflict due to the high levels of local health impacts; these municipalities are known as 'sacrifice zones'. Climate policy that reduces the use of fossil fuel, and particularly combustion of coal, will simultaneously reduce air pollution.

Chile has been developing climate policy for more than decade and its own efforts are already intensifying. The recent updated NDC of Chile (MMA, 2020) is more ambitious than its predecessor⁵. Chile has committed to a GHG emission budget not exceeding 1,100 MtCO₂eq between 2020 and 2030, with a GHG emissions maximum (peak) by 2025, and a GHG emissions level of 95 MtCO₂eq by 2030⁶. The government has also made important longer-term commitments in terms of climate action: decarbonization of the electricity sector by 2040⁷ and carbon neutrality by 2050⁸.

Challenges and Opportunities

Chile has enormous potential in renewable energy, particularly in unconventional energy such as solar and wind. One report estimates that by 2030 nearly 75% of Chile's energy could be generated from renewable sources: 42% wind and solar, 29% hydro (PSR and Moray Energy, 2018). More overall electricity generation, made possible by large investments in renewables, would facilitate the electrification of public and private transport and district heating systems in cities with high pollution associated with firewood consumption⁹.

5 The previous commitment was to reduce CO₂ emission reductions per unit of GDP by 30% by 2030 with respect to the level reached in 2007, considering future economic growth that allows it to achieve this commitment (2015).

6 Total Chilean GHG emissions reached 111 MtCO₂eq in 2016.

7 President Piñera announced in 2019 the decarbonization of the energy used (for electricity production by 2040. The first stage was established for 2024, phasing out the first eight coal plants that jointly represent 19% of the total installed capacity of coal-fired power plants (1,047 MWt). There is still no definite timeline for removing the remaining 20 plants.

8 Carbon neutrality might involve gross emissions of 65 million tons / CO₂eq fully offset by the LULUCF sector sequestration.

9 According to the World Health Organization, the country has six cities among the most contaminated by particulate matter in the Americas: Padre las Casas, Andacollo, Coyhaique, Osorno, Temuco and Rancagua (WHO, 2018).



Furthermore, there is potential to replace diesel with green hydrogen in industrial and mining motor uses (Palma et al., 2019). However making this transition requires new skills, considerable investment, and significant civil society and government action to provide enabling conditions and ensure that all Chileans benefit. Chile will struggle to do this rapidly on its own.

Closing coal-fired power plants even earlier would have significant environmental and social dividends¹⁰. But this is just an example of action. The Climate Teams initiative supports a broader and more ambitious economy-wide strategy, enabling the substantial investments necessary to move towards a low-carbon economy, mobilizing large financial flows and providing certainty to both decision-makers and investors.

The incorporation of Chile as a host country in a Climate Team, involves a broad exchange in technical, economic and legal matters with partner countries (and other potential observers¹¹) that will undoubtedly strengthen the capacities within Chile. It would also set a precedent in the Region to move forward in a concrete and accelerated way as required by the urgency to combat climate change.

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¹⁰ Recently, the Enel company has announced the early closure of its Bocamina I and II plants in the commune of Coronel <https://www.biobiochile.cl/especial/aqui-tierra/noticias/2020/05/27/enel-anuncia-adelantara-cierre-centrales-bocamina-i-ii-coronel.shtml>

¹¹ Governments, international organizations, academia, union associations, investors and think tanks among others.

