

GCHA Submission: Consultation on the Draft NDC of Chile, April 2025

The Global Climate and Health Alliance (GCHA) is a global network of 200+ organisations spanning every continent. Our member and partner organisations represent more than 46 million health workers globally. GCHA hosts a Latin America and Caribbean network, which is coordinated from Santiago Chile and includes eight Chilean health professional organizations among its members. GCHA welcomes the draft NDC of Chile and appreciates the opportunity to provide comments. This submission focuses on how human health can be optimised through Chile's climate action.

Climate change is already undermining human health in Chile, as recognised in the text of the draft NDC, and as is clear from [data provided by the Lancet Countdown](#). Meanwhile, the IPCC makes it clear that climate induced hazards will worsen with every incremental increase in temperature. In 2024, global average temperature rise exceeded 1.5°C for the first time. Meanwhile, the UNFCCC NDC synthesis report revealed that implementation of existing commitments would lead to a 2.1-2.8°C temperature rise by the end of the century. It is vital to adapt to these growing risks, but also to reduce emissions to ensure that the limits of adaptation in health and health-determining sectors such as cross sectors including energy, agriculture, transport, water and sanitation, and urban planning are not exceeded. Meanwhile, action on climate change offers significant public health opportunities, reducing future health hazards through emissions reductions, and adapting to ensure that systems can protect populations from health harming impacts. By taking action across sectors Chile has an opportunity to improve air quality, access to nutritious diets, safe water, active travel systems which promote physical activity, and protective living environments, thus promoting good health.

Recognition of health linkages and actions to address them must be embedded in climate policymaking to support healthy, resilient and economically productive populations, while also maximising returns on investment due to health-related savings from the co-benefits described above. In addition, applying a health frame to climate action has the potential to increase public support for ambitious climate policymaking and implementation.

We have arranged our comments according to seven elements that we consider to be relevant for effectively embedding health considerations in climate planning, as follows. For each element, we provide a summary of how this is already addressed in the NDC and of current relevant evidence on the topic, followed by recommendations of how the NDC could be further strengthened in various sections of the NDC.

1. Emissions reductions target
2. Integrated governance
3. Health impacts
4. Action in the healthcare sector
5. Actions in health-determining sectors
6. Economic and financial considerations
7. Responding to the needs and priorities of most affected groups

To substantiate the recommendations made below, and in case of additional use, we also wish to highlight the following resources:

- [Chile: 2024 Data on Climate Change and Health, 2024](#) Lancet Countdown on Health and Climate Change (included as a pdf with this written submission).
- Enhancing Health and Climate Change Commitments in Updated Nationally Determined Contributions. PAHO, available in [ESP/ENG](#).
- IPCC data on the [health impacts of climate change in Chile and recommended adaptation action](#) summarised by GCHA.
- [Cambio climático y salud: Resumen de políticas para Chile](#). Prepared by Colegio Médico de Chile, Comité de Salud Ambiental Infantil - Sociedad Chilena de Pediatría, GCHA and University of Wisconsin Madison in 2023 to support relation to embedding health in Chile's NDC.

1. Emissions reductions target

Emissions reductions in line with each country's fair share to limit warming to 1.5°C are vital to protect populations against health hazards of climate change and avoid exceeding the limits of adaptation. Reducing short lived climate pollutants (SLCPs), including methane (a precursor of tropospheric ozone) and health harming black carbon, tropospheric ozone, and HFCs, provides [near-term benefit](#) for emissions reductions and for human health.

In the draft NDC, Chile commits to a GHG emissions budget that will not exceed 1,100 MtCO₂eq between 2020 and 2030, with peak GHG emissions by 2025, and to reaching a GHG emissions level of 95 MtCO₂eq by 2030, as expressed in the 2020 NDC. Additionally, Chile commits to a national GHG emissions budget that will not exceed 490 MtCO₂eq between 2031 and 2035, and to reaching a GHG emissions level of 91 MtCO₂eq by 2035. The targets in the 2020 NDC were rated by Climate Action Tracker as being "almost sufficient" - one of the few countries to earn this rating. While Chile's 2020 target was in the range of actions needed to limit warming of 2°C according to Chile's fair share, it was insufficient to meet 1.5°C. Furthermore, according to [Climate Action Tracker](#), the implementation of measures in the energy end-use and other sectors, transport in particular, has been occurring at a slower pace than what is needed to meet Chile's commitments under its climate target (NDC) and related policy documents. Eight coal-fired units have yet to make a retirement commitment, and the impact of Chile's coal phase-out could also be lessened if it results in higher natural gas consumption from planned reconversions.

Chile's draft NDC includes a specific target for black carbon reductions, to reduce 25% of total black carbon emissions by 2030 compared to the levels estimated for the energy sector in the 2016 National Emissions Inventory, and a target for methane, to achieve peak CH₄ emissions by 2025 and a 10% reduction from 2025 to 2035.

Recommendations:

- **Section 4.3:** Ensure alignment of the emissions reductions target to 1.5°C.

- **Section 4.3:** Recommendations have been developed by [Climate Action Tracker](#) for Chile to achieve emission reductions aligned with 1.5°C.
- **Section 4.4:** Including targets for the reduction of HFCs and tropospheric ozone, in addition to those already outlined for methane and black carbon, would help to accelerate near-term gains for both emissions reductions and air quality.

2. Integrated governance

Since climate outcomes and public health are intersectional in nature and defined by whole of economic approaches, integrated governance is essential to ensure coordinated and holistic approaches. We strongly support the 15 legal principles to be applied in the NDC, noting that these underpin positive health outcomes, and the attention to evidence-based decisionmaking throughout the document. We look forward to seeing these reflected in the implementation of the NDC as well as its development. We commend the recognition of the triple planetary crisis of biodiversity loss, climate change, and pollution as a challenge which demands cross-cutting efforts, and the links made between each of these threats to human health and wellbeing, as well as the fundamental role of nature in providing food and medicines. Finally, we appreciate the links made in the draft text between just socioecological transition and wellbeing, and that measurements of just socio-ecological transition and sustainable development will include health.

Recommendations

- **Section 3.3:** In deepening the work on a National Strategy for a Just Socio-Ecological Transition, we recommend that the health element of action PTSEJ4, when elaborated, includes health gains associated with cleaner air, healthier diets, increased physical activity, and safe living environments, with healthier populations in turn being more economically productive and more able to withstand and recover from climate threats.
- **Cross-cutting:** The Ministry of Health should be tasked with providing data and evidence to further strengthen evidence based policymaking and implementation in the healthcare sector, as well as supporting other Ministries to optimise decision making across sectors to reduce risk factors such as air pollution, unhealthy diets, and physical activity to ultimately reduce the disease burden falling on the healthcare sector.

3. Health impacts

Health impacts of climate change in Chile are recognised in the draftNDC and the adaptation communication and provide a strong rationale for the actions outlined in the draft NDC. The draft NDC already refers to respiratory problems caused by air pollution from wildfires in children and adolescents, and mentions black carbon and ground-level ozone as a driver of respiratory diseases, cardiovascular disease and cancer in the general population. It describes the risks of heat for cardiovascular disease and respiratory conditions especially in urban areas, and mental health impacts of heat, droughts and other disasters. The text also touches on infectious disease vector-borne diseases including dengue, and the implications of water scarcity and quality for human consumption and health.

Recommendations

- **Section 2:** Wherever possible, quantifying the health impacts described in the draft NDC (and also adding these for the health impacts described in the adaptation communication) will help to illustrate the extent of the challenge in Chile, and underscore the need for action to prevent the worsening of this burden. Chile is the country with the [highest number of premature deaths caused by air pollution](#) in Latin America. In addition, Chile had the highest increase in the number of days during which people were exposed to very or extremely high fire danger in the 2013–2022 period compared to 2001–2010 in Latin America ([13 more days per year](#)).
- **Section 2:** In addition to the health impacts already included in the draft NDC and adaptation communication, the risks of drought for nutrition, the health risks of climate-related migration within Chile should be described. Smallholder farmers are particularly at risk. The IPCC AR6 Report (Working Group I, Chapter 10 page 1000; and Working Group 2, Chapter 12 pages 1505-1507) state that Central Chile is projected to experience more frequent and severe droughts. Changes in precipitation patterns and increased frequency of droughts are projected to reduce crop yields, impacting food security, and that decrease in water availability is expected, particularly in central Chile, due to reduced precipitation and retreating glaciers. It is noted that reduced access to clean water can lead to hygiene-related diseases and malnutrition.
- **Section 2:** Aside from the impact of climate change to public health, the impacts to healthcare infrastructure could also be referred to, with hospitals having been flooded and left without electricity, by intense rains and river flooding.

4. Action in the healthcare sector

Since a heavy burden of the human impacts of climate change falls in the healthcare sector, and since the healthcare sector also contributes greenhouse gas emissions, adaptation and mitigation actions should be specified in the NDC. We strongly support the decision to develop a health sector adaptation plan. In section 5.2.3, the draft NDC describes how Chile will complete a climate risk assessment by 2029, and a national epidemiological surveillance system platform on the health effects associated with climate change by 2030 with evaluation and implementation of improvements by 2035. The overall resilience of the health sector to the consequences of climate change will be increased by 2030.

Recommendations

- **Section 5.2.3** (for healthcare sector adaptation) and **section 4** (for healthcare sector mitigation): We recommend consulting the [WHO Operational framework for building climate resilient and low carbon health systems](#) for further elaborating the actions and plans proposed in the healthcare sector across both adaptation and mitigation.
- **Section 4:** The draft NDC refers to the fact that the healthcare sector in Chile is responsible for 6.7% of national emissions. However, the text does not currently include any actions for mitigation in the healthcare sector. We recommend that these are elaborated. Aside from the resource above, others relevant guidance includes

- WHO: [Target setting for low carbon sustainable health systems](#)
- Health Care Without Harm [Global Roadmap for health care decarbonization](#)
- Health Care Without Harm [Technical methodology and guidance](#)
- **Section 5.2.3:** We recommend accelerating the timeline of the climate risk assessment for health, as health impacts of climate change are already unfolding and could increase significantly by 2029. Completing the risk assessment as soon as possible will increase the opportunity for healthcare systems to adequately prepare. WHO has produced [resources](#) on vulnerability and adaptation assessments.
- **Section 5.2.3:** We recommend that a process to identify indicators to be tracked by the national epidemiological surveillance system is developed well in advance of the system becoming active in 2030.
- **Section 5.2.3 (or in the dedicated health adaptation plan):** In addition to actions within healthcare systems, we recommend including actions related to further strengthen capacity on health and climate intersections in the Ministry of Health or the Ministry of Environment, such as hiring 1-2 health and climate focal points and/or appointing a fixed liaison position between the two ministries.
- **Section 5.2.3:** The draft NDC stipulates under action A2, that 100% of healthcare companies should implement a plan for disaster risk management, including those arising from climate change. We propose that this is moved to section 5.2.3.
- **Sections 5.2.3 and 5.3.4:** We recommend that the resilient infrastructure target of 50% of new infrastructure considering climate change should be increased, and also extended to cover healthcare sector infrastructure including healthcare facilities and supply chains.

5. Action in health-determining sectors

In order to ensure that health systems are not overwhelmed as a result of climate inaction, just transitions across sectors should consider how health gains can be maximised. Adaptation and mitigation actions in sectors including energy, agriculture, transport, water and sanitation, and urban planning can improve air quality, access to nutritious diets, safe water, active travel systems which promote physical activity, and protective living environments.

Recommendations

- **Section 4.3:** With regard to transport, the NDC names transport (combined with telecommunications) as the leading source of emissions. Transitioning from private fossil fuel powered vehicles to transport systems which promote electrified public transport and active transport such as walking and cycling will both improve air quality and increase physical activity. Low emission zones in inner city areas and especially around schools, should be considered. Diesel subsidies should be phased out on account of the costly health harms they create. This demonstrates the importance of health impact assessment to ascertain how best to prioritise between different climate action measures.
- **Section 4.3:** On energy, the draft NDC acknowledges that energy is the second largest source of emissions after agriculture. **Chile is among the Latin American countries that have [increased or maintained the use of coal for energy generation](#).** Coal is the most harmful fossil fuel to human health, both in terms of being the most carbon intensive, and also emitting most health-harming air pollutants. We recommend that

Chile reinvigorates discussions on shifting the national coal phase-out date from 2040 to 2030 to mandate the remaining eight coal-fired plants that have not made firm retirement commitments to have a more ambitious retirement date. A just transition from coal and other fossil fuels to renewable energy, supported by improved energy efficiency, will maximise health gains through improved air quality.

- **Section 4.3:** The NDC already refers to sustainable practices such as agroecology and regenerative agriculture, to allow equitable access to healthy food and nutrition for the entire population with regards to adaptation in section 5.2.4. These practices also offer mitigation co-benefits which should be noted in the NDC, not least through reduced pesticide and fertiliser use, which can harm the health of farmers, and also of local communities through soil and water pollution. In 2023, we recommended that Concentrated Animal Feeding Operations ([CAFOs](#)) [should be disbanded](#) in favour of local more sustainable livestock practices. Reducing food loss and waste can be accompanied by measures for improved distribution, improving nutrition.
- **Section 5.2.2:** Water should be deprivatised as a fundamental necessity. Stagnant water bodies should be managed to reduce mosquito breeding and address the growing risk of mosquito-borne disease.
- **Section 5.2.3:** Besides targets for climate resilient new public infrastructure, this section should also prioritise support for retrofitting of homes which are currently vulnerable to flooding and heat and are not energy efficient, in order to protect the health of families residing there from extreme weather events and poor indoor air quality.
- **Section 6.1:** The links between nature and improved air quality should be recognised, as well as improved land use management as a strategy for reducing the risk of zoonotic disease transmission. Urban green space can both reduce emissions and protect against the urban heat island effect, however, the [level of greenness](#) is defined as “exceptionally low” in Chilean urban areas larger than 500,000 inhabitants, while measures to increase green infrastructure could improve physical and mental wellbeing while reducing mortality and morbidity from the reduction of air and noise pollution, cooling effects, and spaces for exercise and social interaction. By rapidly increasing the pace of reforestation and sustainable forest management for Chile to meet its LULUCF commitments, Chile could also yield health benefits described in this document and in the draft NDC text. This should not preclude emissions reductions actions taken across other sectors.

Do the actions address the health impacts?

6. Economic and financial considerations

Budgetary allocations are key for implementation of health-promoting climate actions. In addition, quantifying the health costs of delayed action and harmful subsidies, and the returns on investment from climate action, can help to build an investment case. Beyond health, the draft NDC already notes that if Chile achieves its goal of carbon neutrality by 2050, Chile will increase its potential GDP by 4.4%.

Recommendations

- **Section 5.2.3:** Include budget lines for each individual healthcare sector action (and indeed also for actions in other sectors in corresponding sections of the NDC).
- **Section 5.2.3:** Conduct holistic health vulnerability and adaptation assessments, which include economic costs of impacts.

- **Section 2:** Include the health costs of inaction where already known. For example, the total monetised costs of [premature mortality due to air pollution](#) is 1.63% of Chile's GDP.
- **Section 4:** In addition to noting the gains for overall carbon neutrality in section 1, we suggest including returns on investment for more detailed sectoral measures in section 4. Available WHO tools on this include
 - [CLIMAQ-H](#): This software can be used to estimate the health and related economic gains achieved by governments implementing actions and measures to reduce domestic carbon emissions.
 - Health Economic Assessment Tool ([HEAT](#)) for walking and cycling: A web-based tool to estimate the health and economic impacts of increased walking and cycling.
 - [iSThAT](#): the Integrated Sustainable Transport and Health Assessment Tool: A simplified methodological framework and accompanying software tool for the evaluation of the health and economic benefits of carbon reduction measures in the context of urban transportation.
 - Benefits of action to reduce household air pollution ([BAR-HAP](#)) tool: A planning tool for assessing the costs and benefits of different interventions that aim to reduce cooking-related household air pollution.
 - Notably, the government of Colombia worked with WHO and PAHO to produce a detailed report on the benefits of raising ambition in Colombia's NDC ([ref](#)). The analysis found that GHG emissions reductions would be accompanied by significant air quality improvements that could prevent more than 3 800 premature deaths annually from ambient air pollution in 2030, representing an annual savings of US\$1.9 billion.
- **Section 4:** Conduct health impact assessments of policies being considered across sectors, to understand potential health costs. WHO [resources](#) on health impact assessments are available.

7. Responding to the needs and priorities of most affected groups

Populations including women, children, youth, older people, people with disabilities, the LGBTQIA+ community, low-income communities, Indigenous Peoples, people made vulnerable by their location, migrants, and other marginalised groups are most impacted by the health harms of climate change, and can also offer solutions based on their own experience. Ensuring responsiveness to the needs and priorities of these communities is necessary to ensure that inequalities are not widened. The draft NDC refers to structural inequalities and disproportionate impacts on vulnerable communities, and notes that Chile has a high population of Indigenous peoples, migrants, older people, people with disabilities, and women. The fact that 5.9% of households lack access to basic housing and environmental service is a significant determinant of poor health. We appreciate Chile's emphasis on participation in just socio-ecological transition, which could provide an opportunity for most affected communities to voice their concerns and propose solutions.

Recommendations

- **Section 3.3:** Add a commitment to consult with groups most affected by health and wider impacts of climate change, to ensure their priorities, needs, and solutions are reflected in the NDC and that actions are tailored to their experiences.

- **Section 5.2.3:** Epidemiological surveillance data should be disaggregated and reported to reveal impacts on different vulnerable groups.
- **Section 4 and 5:** Most affected groups are mentioned for some health impacts including children and people living in cities. Detail should be provided on how actions will reflect and respond to the needs and experiences of these communities.
- **Section 4:** When conducting health impact assessments, ensure perspectives are sought from communities most affected by the health and wider issues associated with climate change.