DRAFT OF THE INTENDED NATIONALLY DETERMINED CONTRIBUTION (INDC) IN THE CONTEXT OF THE 2015 CLIMATE AGREEMENT TO BE ADOPTED AT THE TWENTY-FIRST CONFERENCE OF THE PARTIES (COP21) OF THE UNITED NATIONS FRAMEWORK CONVENTION ON CLIMATE CHANGE

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Prepared by the Climate Change Office of the Ministry of the Environment acting as the Executive Secretary of the INDC Board for the preparation of the intended nationally determined contribution from Chile in the form of a protocol, another legal instrument or legally binding agreement among all parties of the United Nations Framework Convention on Climate Change (UNFCCC), to be adopted in December 2015.

This document is drafted to be submitted to a public referendum for analysis and citizen comments, using Resolution No. 1086 of 2014 of the Ministry of the Environment as a guide. This effort is part of Chile's preparations for the twenty-first Conference of the Parties COP21 in Paris in 2015, where it hopes to adopt a protocol, another legal instrument or legally binding agreement applicable to all parties following the negotiations under the Ad Hoc Working Group on the Durban Platform for Enhanced Action (ADP). Three years after the ADP process was launched, and the subsequent agreements reached at the COP in Doha, Warsaw and recently Lima, the parties currently face the challenge of defining their intended national contributions within deadlines that, although flexible (in the first quarter of 2015 for those parties ready to do so and before COP21 in Paris in December 2015), require that Chile responds rapidly. Chile is well-positioned to do so because it has plenty of information available.

Content

1. Section I: Chile – National Circumstances

The country's low coastline, the snow and glacier regime of its rivers, the forests which Chile is trying to protect and reforest, its ocean waters, and fish, which constitute a key resource for the country, makes Chile highly vulnerable to the impact of climate change. In fact, Chile meets seven of the nine criteria set by Article 4 of the United Nations Framework Convention on Climate Change (UNFCCC) describing countries' vulnerability to climate change.

In addition, Chile suffers from other non-environmental vulnerabilities. During the last decade, copper exports have averaged 59% of total national exports, which means that Chilean exports are highly concentrated on primary goods with little added value. As commodities, such goods are highly dependent on market fluctuations.

As for Chile's technological needs, including those necessary to mitigate and adapt to climate change, technology transfers are still insufficient, as are the incentives for research and development. Furthermore, the current average cost of electricity for Chileans is one of the highest among OECD countries at nearly US$170/MWh (compared to US$90 for Mexico or US$121 for the U.S., IEA World Energy Outlook 2014).

Chile still largely depends on foreign investment and on international market conditions. This can be seen in its volatile GDP which is at the mercy of fluctuations in the global economy, together with the difficulties the country faces in maintaining sustained growth. In addition, the population continues to suffer from unmet needs. Although Chile made strong progress during the 1990s in health coverage and education, the quality of these services is still an issue. In this regard, reducing the high levels of inequality in the Chilean economy as well as providing security to vulnerable groups with little social protection are priorities of the Chilean state.

These are important challenges for Chile which is trying to look to the future and make progress, searching for climate resilient[1] low-carbon growth opportunities that will allow it to increase economic growth and the welfare of its population without increasing greenhouse gas emissions.

According to the International Energy Agency, the average global per capita CO2 emissions had reached 4.52 tons per person by 2012. Chile was very close to the global average with 4.4 tCO2 per capita, and it was well below the average of 9.68 tCO2 per capita in OECD countries (IEA, 2014). According to data from the same agency, Chile is responsible for 4.8% of the emissions in Latin America, less than Mexico, Brazil, Argentina and Venezuela.

Chile's intended contribution to the UNFCCC objective is based on the country's current situation and is based on five basic pillars: mitigation, adaptation, building and strengthening of capacities, development and transfer of technologies, and financing. Hopefully, this information will shed light on the Chilean contribution and provide transparency. We are available to our citizens, the UNFCCC Secretariat, and the international

[1] According to the Intergovernmental Panel on Climate Change (IPCC), resilience refers to the capacity of a social or ecological system to absorb disturbances without forfeiting its basic structure, its ways of functioning, its capacity for self-organisation, and its ability to adapt to stress and change. (IPCC, 2007)

community to clarify relevant aspects, particularly when drafting the report on the aggregate effect of the contributions which will be made available to the parties by the UNFCCC Secretariat in November 2015, pursuant to the "Lima Call for Climate Action" adopted at the Lima COP20 (decision FCCC/CP/2014/L.14).[1]

[1] http://unfccc.int/documentation/documents/advanced search/items/6911.php?priref=600008322

2. Section II: Mitigation

2.1. Background

Chile's national contribution to mitigation is based on a commitment to reducing greenhouse gases for the post-2020 period.

It is based on the sectorial analyses and the mitigation scenarios developed in with MAPS Chile (Phase 2), the results of the National Greenhouse Gas Inventory, and additional information provided by the Ministries of Environment, Energy, Agriculture and the Treasury.

Chile hopes to reduce its greenhouse gas emissions while decreasing poverty and inequality as well as continue advancing toward sustainable, competitive, inclusive and low-carbon development. To confront these challenges successfully, the country should direct all its efforts to decoupling economic growth from greenhouse gas emissions.

Priority sectors for mitigation in Chile are electric generation and transmission, transportation, industry, mining, housing, waste, and agriculture and livestock.

Nevertheless, given the magnitude of the required effort, Chile does not rule out the possibility of seizing upon other mitigation opportunities which may become available in the country in the coming years. In addition, it does not exclude the use of flexible mechanisms and international cooperation which will potentially lead to further mitigation.

Furthermore, Chile maintains its pre-2020 commitment, which is voluntary and dependent on international financing, a commitment put forth in Copenhagen and formally reported to the Convention's Secretariat. However, the country hopes that the effect of its early actions will be taken into account when considering its level of effort in the post-2020 context.

2.2. Intended Nationally Determined Contribution to Mitigation

Chile has chosen to report its contribution for the post-2020 period in the form of **emissions intensity**. Chile's contribution will allow the country to reach high levels of economy-wide mitigation. Methodologically, it takes two components into account: a) a carbon intensity target, expressed in greenhouse gas emissions per unit of economic development (GDP) which includes all sectors where mitigation is possible in Chile except for forestry; and b) a separate target for forestry.

2.2.1 Carbon Intensity Target, Excluding Forestry

Option A:

Chile is committed to reducing its CO2eq emissions per GDP unit by 30-35% below their 2007 levels by 2025.

Chile is also committed to reducing its CO2eq emissions per GDP unit by 40-45% below their 2007 levels by 2030.

Option B:

Chile is committed to reducing its CO2eq emissions per GDP unit by 25-30% below their 2007 levels by 2025.

Chile is also committed to reducing its CO2eq emissions per GDP unit by 35-40% below their 2007 levels by 2030.

Table 1: Ranges of energy intensity reduction compared to 2007

OPTION A	**2025**		**2030**	
Range of reduction compared to 2007	30%	35%	40%	45%

OPTION B	**2025**		**2030**	
Range of reduction compared to 2007	25%	30%	35%	40%

2.2.2 Specific Contribution for the Forestry Sector

Chile has proposed restoring about 100,000 hectares of degraded land (forestation) with its own resources investing an estimated US$250 million, reaching an area of at least 100,000 hectares of managed native forest by 2035.

2.3. Information Reported to the Secretariat of the UNFCCC for the Understanding and Transparency of Chile's Contribution to Mitigation

Carbon intensity target, excluding forestry:

2.3.1. Base year: 2007

2.3.2. Target years: 2025 and 2030

2.3.3. Carbon Emissions intensity per GDP in base year 2007: 1,20020 tCO_2eq/million CLP$ 2011

Table 2: Range of carbon intensity for target years

OPTION A	**2007**	**2025**		**2030**	
Range of reduction compared to 2007		30%	35%	40%	45%
Range of carbon intensity per target year (tCO_2eq / GDP million CLP$ 2011)	1.020	0.714	0.663	0.612	0.561

OPTION B	**2007**	**2025**		**2030**	
Range of reduction compared to 2007		25%	30%	35%	40%
Range of carbon intensity target year (tCO_2eq / GDP million CLP$ 2011)	1.020	0.765	0.714	0.663	0.612

2.3.4. Forecast and methodology of the average gross domestic product estimate: Chapter IV.1.2 and Appendix 2.2. in the Report of Phase 2 Results of MAPS Chile, October 2014.

2.3.5. Forecast and methodology of the population estimate: Chapter IV.1.1 and Appendix 2.1. in the Report of Phase 2 Results of MAPS Chile, October 2014.

2.3.6. Evaluated gases: carbon dioxide (CO2), methane (CH4), nitrous oxide (N2O).

2.3.7. Geographic coverage for quantifying emissions: The entire country (continent, island and Antarctic territories).

2.3.8. Methodology for quantifying emissions: 2006 IPCC Guidelines for National Greenhouse Gas Inventories (2006 IPCC Guidelines).

2.3.9. Global warming potential: The potential for global warming used in the transformation of non-CO2 gases in CO2 equivalent (CO2eq), are the following: 21 for CH4, 310 for N2O and 23,900 for SF6.

2.3.10. Sectors of the national greenhouse gas inventory included in the emissions intensity target are: energy, industrial processes, agriculture and waste. It does not include the use of solvents and other products (USOP) which account for 0.58% of 2010 net emissions, and does not include the net emissions capture from the land use, land use changes and forestry (LULUCF) which represent 54% of 2010 net emissions.

Table 3: Chile's National Greenhouse Gas Inventory: Emissions and absorptions of GHG (Gg CO_2eq) by sector, 1990-2010

Sector	2010
1. Energy	68,410.0
2. Industrial processes	5,543.2
3. UDOP	243.0
4. Agriculture	13,825.6
5. UTCUTS*	-49,877.4
6. Waste	3,554.1
Total (incl. UTCUTS)	41,698.5
Total (excl. UTCUTS)	**91,575.9**

2.3.11. Assumptions and methodologies for forecasting fuel and electricity prices: Chapter IV.1.7 and Appendices 2.6, 2.7, 2.8, 2.9 in the Report of Phase 2 Results of MAPS Chile, October 2014.

2.3.12. Methodologies for forecasting energy demand, sectorial models and macroeconomic models: Report of Phase 2 Results of MAPS Chile, October 2014.

2.3.13. Markets and conditions: Chile does not rule out the use of international markets, international financing or other flexible measures to comply with its commitment and to reach higher levels of implementation.

2.4. Evaluation of Chile's Mitigation Contribution

2.4.1. Greenhouse gas emissions. These will be determined using the results provided by the National GHG Inventory, results which are incorporated into the national communications and Biennial Update Reports s that Chile presents to the United Nations Convention, with actual information on national greenhouse gas emissions for 2025 and 2030, subtracting the emissions and captures from the forestry sector. Units: millions of tons of CO_2eq.

2.4.2. GDP. This will be determined based on the information obtained from the Ministry of the Treasury of Chile. Units: millions of Chilean pesos.

2.4.3. Forestation area and recovery of degraded soil. This will be determined by the Chilean Forestry Inventory under the Ministry of Agriculture and managed by INFOR (the Chilean Forestry Institute) and CONAF (the National Forest Corporation).

3. Section III: Adaptation

3.1. Background

Chile currently has a National Climate Change Adaptation Plan. In addition, two sectorial plans have already been implemented and seven others are under development.

Chile subscribes to a concept of planned adaptation[1] in order to facilitate the adaptation and the resilience of the Chilean people, their way of life, services, laws, policies and institutions to climate changes that already affect the country.

3.2. Intended Nationally Determined Contribution to Adaptation

Therefore, by 2018 Chile proposes having at least:

3.2.1. Nine sectorial plans identified as priority;

3.2.2. Funding sources to finance plans;

3.2.3. Concrete actions to increase resilience in the country;

3.2.4. Methodologies and indicators of vulnerability, adaptive capacity and resilience;

3.2.5. As for its efforts in adapting to climate change, Chile has tentatively identified four key stages:

3.2.5.1 The development of climate scenarios and the evaluation of their impact and vulnerability (understood as the tendency to be adversely affected),

3.2.5.2 Planning based on the adaptation options and local and national conditions,

3.2.5.3 The direct implementation of measures and actions, and

3.2.5.4 The monitoring and evaluation of measures to make necessary adjustments or updates.

[1] Planned adaptation http://www.ipcc.ch/publications and data/ar4/wa2/en/annexessalossarv-a-d.html

4. Section IV: Capacity-Building

4.1. Background

Chile does not currently have a defined strategy to strengthen national and international capacities in the face of climate change. However, the Ministry of the Environment, in collaboration with the Ministry of Foreign Affairs, has implemented south-south-north collaborative projects that allow for national capacity-building. Currently Chile can access information and benefit from learning experiences of its peers at the UNFCCC, which can be put to the service of its citizens.

Furthermore, in coordination with the Ministry of Education, Chile has begun to introduce the challenges and opportunities of climate change in the school curriculum.

Chile has also created platforms for the national management and distribution of information on climate change. These efforts should be continued, increased and distributed as part of south-south cooperation.

Chile's vision is one where citizens are educated in a sustainable, inclusive, resilient and low carbon environment.

4.2. Intended Nationally Determined Contribution to Capacity Building

By 2018, Chile will have a strategy for building and strengthening capacities which will include at least the following:

4.2.1.1. A list of models and forecast methodologies that Chile can share and distribute nationally and internationally, through its efforts and together with other countries willing to do so;

4.2.1.2. Seminars, organised in conjunction with other countries willing to provide support, to coach and train countries for preparation and reporting of their planned national contributions, greenhouse gas emission inventories, national communications, biennial update reports, and nationally appropriate mitigation actions;

4.2.1.3. Financial instruments designed to support the strategy over time.

5. Section V: Technology Development and Transfer

5.1. Background

Currently, Chile does not have a technological strategy to confront its national challenges concerning climate change.

It is evident that an important part of the national budget earmarked for technological development has resulted in an increased ability to address the effects of climate change and mitigate climate change in the country. However, a significant part of our investment and spending has come from international sources, as outlined in our 2020 commitment.

5.2. Intended Nationally Determined Contribution to Technology Development and Transfer

In 2018 Chile will have a technology development and transfer strategy which will include at least the following:

- A baseline analysis of spending and investment in technology;
- Mapping of needs and technological priorities for climate change;
- Identify possible implementation synergies in the technological response to adaptation and mitigation of climate change;
- Financial instruments designed to support the strategy over time.

6. Section VI: Financing

6.1. Background

Chile does not currently have a financial strategy to confront its national climate challenges. While it is evident that part of the public national expenditure has had mitigation and resilience impacts in the country, a significant part of our investment and spending in this area has been provided by international sources, according to our 2020 commitment.

In order to contribute effectively in the context of a post-2020 agreement, Chile thus needs to conduct a national evaluation of its needs and available funds. The country´s actions to control climate change must be based on the country's circumstances and in line with its responsibility and its capabilities.

6.2. Intended Nationally Determined Contribution to Financing

In 2018, Chile will report a National Finance Strategy for climate change which will include at least the following:

- An annual public spending analysis, which will be annually after 2020;
- A portfolio of fundable projects, in adaptation, mitigation, capacity-building and technology development, sectors identified as priority in national policy in response to climate change;
- A GDP percentage which should be allocated to said portfolio, in line with the latest studies on the economics of climate change, with the purpose of potentially creating a climate action fund.

Thus Chile hopes to have a baseline for the climate change financing at a national level. The country would also like to be able to identify and structure the financial flows according to their origin, differentiating between national vs. international and public vs. private spending; and eventually according to its performance.

With a solid evaluation of its climate change finance, Chile will be in a position to implement a national financing strategy that is appropriate to confront the challenges and possibilities facing the country. This evaluation will enable the country to determine an optimal financing portfolio, and eventually obtain a sustainable supply of public and private resources to put together a portfolio of fundable projects based on the priority areas identified in this draft.