



Methodological Design of a Climate Teams agreement

Expert discussion

Axel Michaelowa

Perspectives Climate Research

Zurich

12 July 2021

Housekeeping



Please **mute** yourself if you are not talking



Please **raise your hand** if you have questions or comments - we will keep a speaker's list and give you the floor. Chatham House Rules do apply!



It would be nice if you can **put on your camera** when you are speaking



The **slides** and a brief summary without attribution will be **shared** via email after the meeting



Context and objective of today's discussion

- Discussion of the appropriate design of a Climate Teams agreement (CTA)
 - with a focus on the “methodological issues”: setting the crediting baseline, key integrity safeguards beyond baselines and MRV

Overarching guiding question: *How to operationalise the methodological approach of creating mitigation for transfer in a Climate Teams agreement?*

- Building on lessons learned with upscaled crediting and using carbon markets as a tool in reaching mitigation targets by the host country
 - Applying to new context and concept of rewarding mitigation beyond the NDC: strong political cooperation, necessary signal to enhance policy instruments
- Feedback will be considered in further detailing the conceptual underpinnings of a CTA in a discussion paper

Round of introduction of all participants



Our agenda for today



Short introduction on the CTA objectives with Q&A on the idea and approach



Input presentation on the key conceptual issues to discuss and link to ongoing modelling work



Three rounds of discussions on (1) crediting baselines, (2) safeguards beyond baselines, (3) MRV



Wrap up and outlook

Introduction into Climate Teams and clarification questions

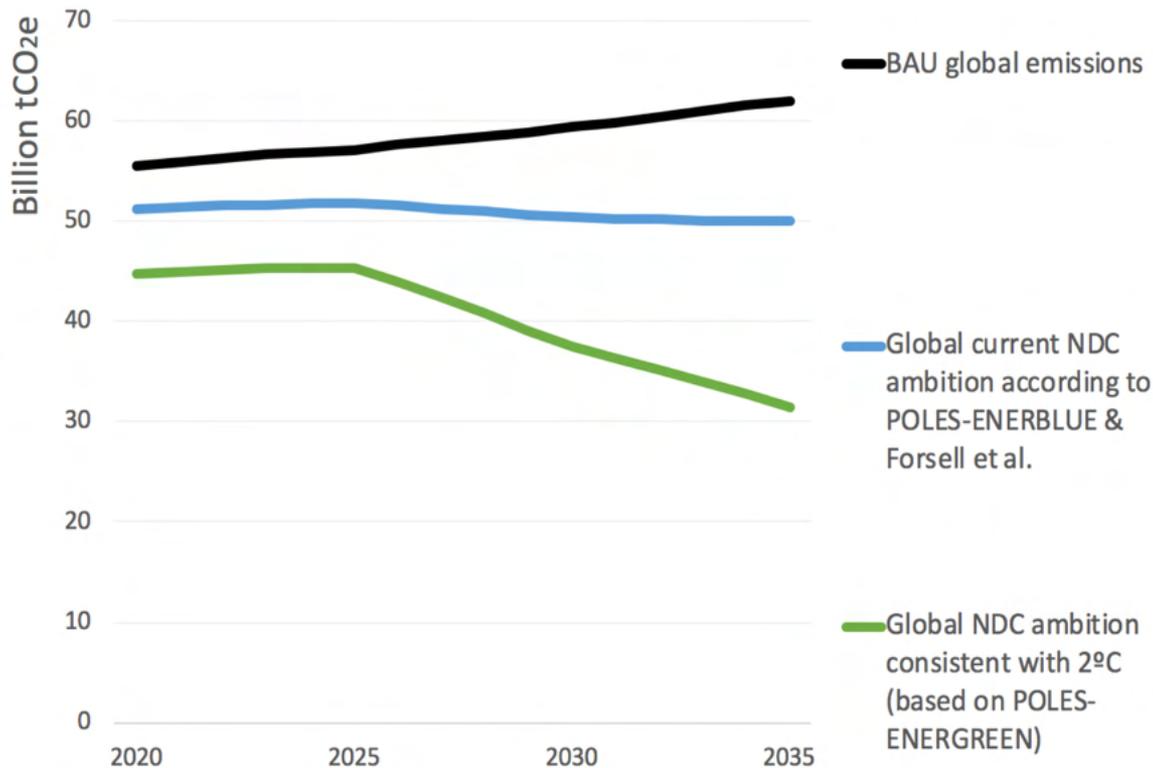


Climate Teams

Concept and Update

Francisco Pinto

Global ambition is insufficient to stabilize temperature increase below 2 degrees (Celsius above pre-industrial levels)



11 billion tons more per year.

More than \$2.4 trillion clean investment per year

Climate Teams concept

- Mechanism that supports international resource transfers for climate mitigation.
- Different approach to international transfers relative to project-based mechanisms or carbon market linking.
- Agreement among a small group of cooperating governments on mitigation outcomes for a country.
- Government-to-government agreements based on verified mitigation outcomes beyond NDC in one country (the host) in exchange for financial and technological support from one or more countries (the partners).
- Mitigation outcomes are ‘credited’ to the partner countries and can potentially contribute to their NDC commitments.
- Large-scale transfers (and high integrity units).
- Key concept: Transaction cost reduction.

Large scale high-integrity units

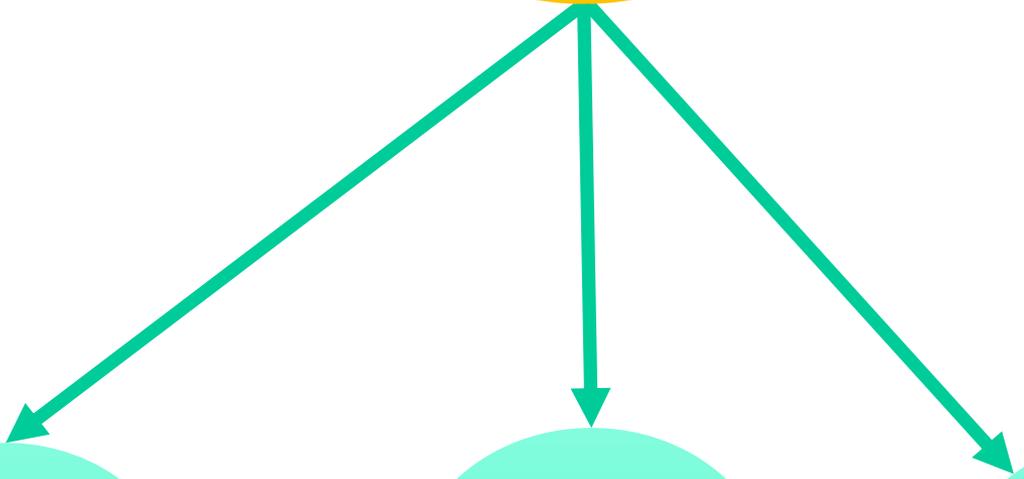
- No double counting
- High ambition – by host and partner countries
- Long-term net-zero commitments and credible plans for transformation
- Ideally economy-wide, all sectors
- Multi-year commitment by both sides
- Strong monitoring, reporting and verification of emissions

Working together to accelerate mitigation: small self-selected teams

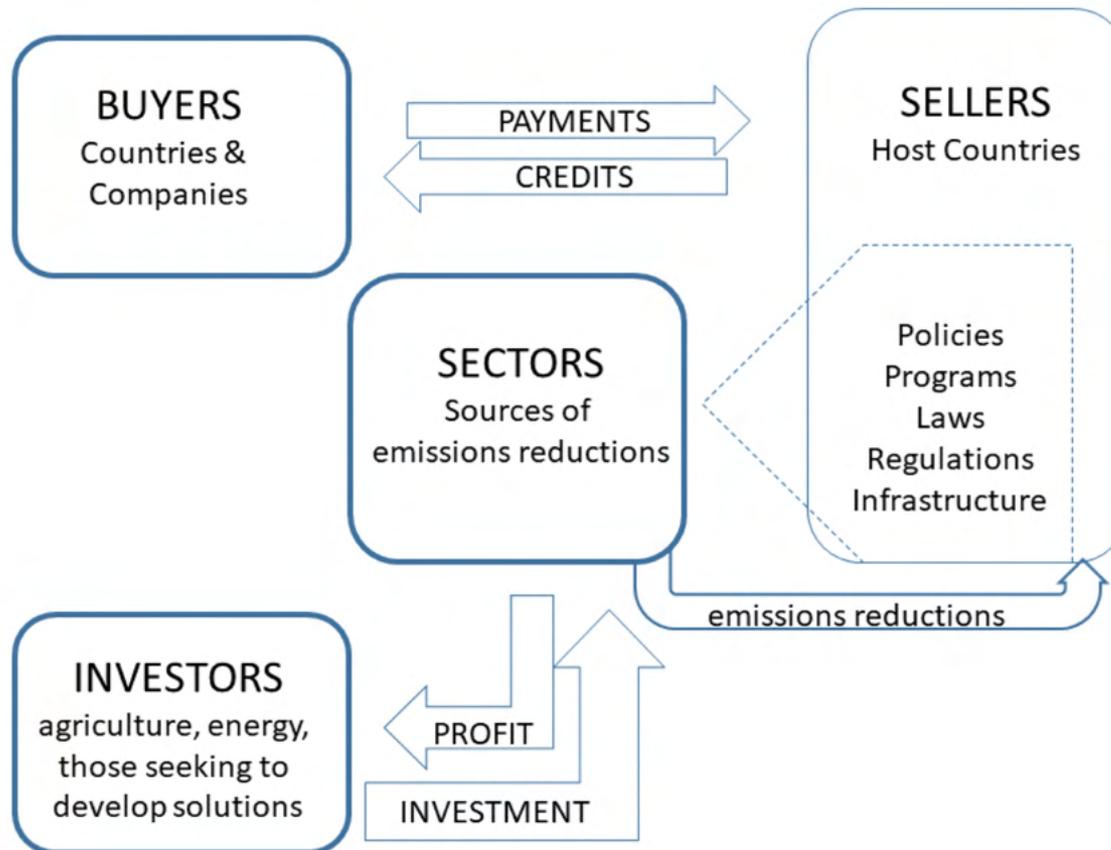
Host



Partners



Climate Teams scheme



Designing a Climate Teams Agreement

Address issues of:

1. Environmental integrity
2. Efficiency
3. Equity
4. Endurance
5. Institutional arrangement

Where are we at

1. Modelling

- Modelling work (Global Change Center of the Catholic University)
- Community of Practice on Modelling (1st workshop, June 2021)
 - 2nd Workshop by September

2. Methodological Design

- Discussion paper (Perspectives)
- 1st Workshop today

3. Financial flows

- 1st Workshop or open discussion expected by September

4. Others

- Document to explain the rationale and objectives of Climate Teams for a broader audience (host country)
- Improvements to our website: <https://climateteams.org/>
- Participate in public events: NY Climate Week, COP26, others.



Climate Teams

Concept and Update

Francisco Pinto

Key conceptual issues of designing a Climate Teams agreement in the context of Article 6 rules

Hanna-Mari Ahonen
Senior researcher

Helsinki
12 July 2021

Considerations on baseline setting

- Article 6.2 guidance too general to give guidance on CTA baseline setting
- 3 relevant baselines must be distinguished

The BAU pathway of emission levels:

- the continuation of existing and anticipated trends (including results achieved by past and existing mitigation policies and measures)

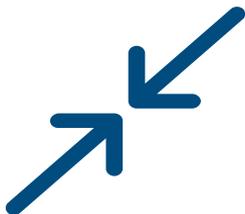
The national reference scenario:

- Corresponds to a modelled pathway of achievement of the NDC target through implementation of policies and measures and assumed trends and informed by long-term targets (e.g., decarbonisation)
- Must be below a credible BAU to avoid crediting hot air

The CTA crediting baseline

- The allocation instruments among seller and partner countries
- Either: set at the level of achievement of NDC target (with buffer) OR modelled pathway of mitigation through additional measures beyond NDC

Considerations on baseline setting



The model used to develop the different scenarios must be:

Consistent, robust, sensitive to the impact of policies and real-life barriers and transparent on its data sources and assumptions

Congruent with NDC emission balance (link to GHG inventory)

Continually kept up to date and fed with new information

Important to acknowledge limitations of models



Dynamic baselines:

Ex-ante fixed adjustments of key parameters and assumed decline in emission levels

Regular updates to emission levels and trends and economic and technological trends

Ex-post replacement of ex-ante estimated parameters with observed parameters

Important to avoid excessive complexity

Additional safeguards and MRV

- **Additionality**
 - At the economy-wide / CTA level ensured through baselines
 - At policy/measure level – key consideration for seller government
- **Further safeguards to avoid overselling:**
 - Buffers
 - Compensation funds
- **Transparency on the models, assumptions and data at CTA level**
 - Building on MRV of the GHG inventory, complemented by MRV on additional activities implemented, linked to NDC implementation tracking
- **Ambition-raising features of the CTA: link to NDC update processes?**
- **Social and environmental safeguards at the level of implementation of measures to mobilise mitigation for the CTA**



Thank you!

Hanna-Mari Ahonen

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CLIMATE TEAMS

The process of mitigation modelling for CT in Chile

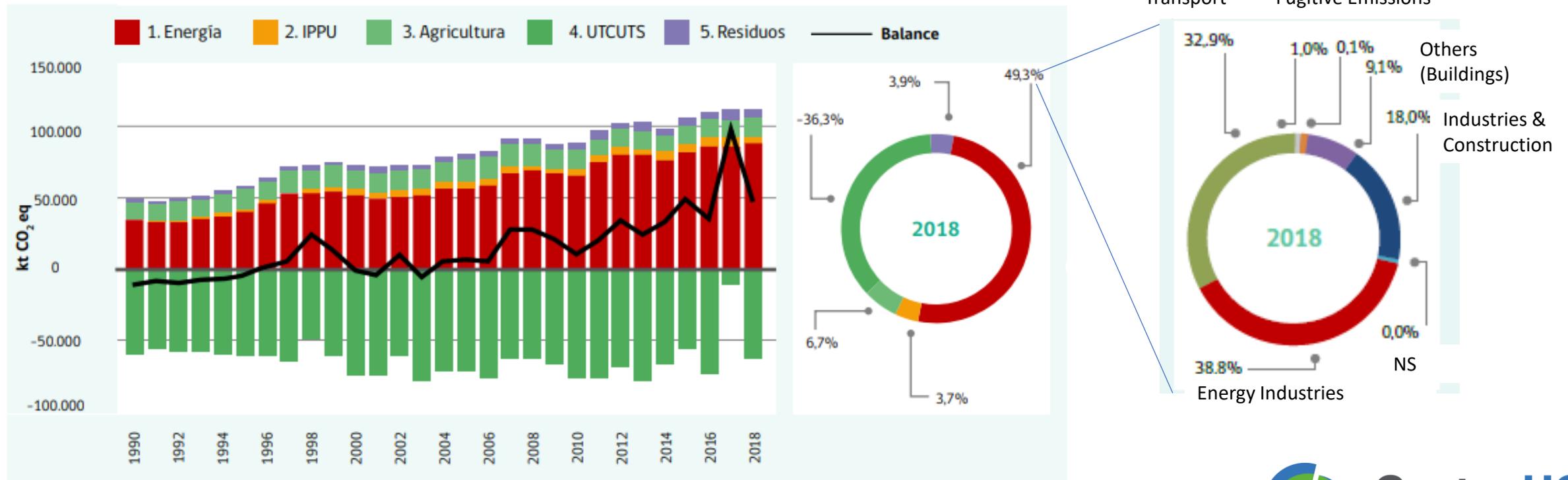
Andrés Pica-Téllez
Executive Director
Centro de Cambio Global UC

July 12, 2021

<http://cambioglobal.uc.cl>

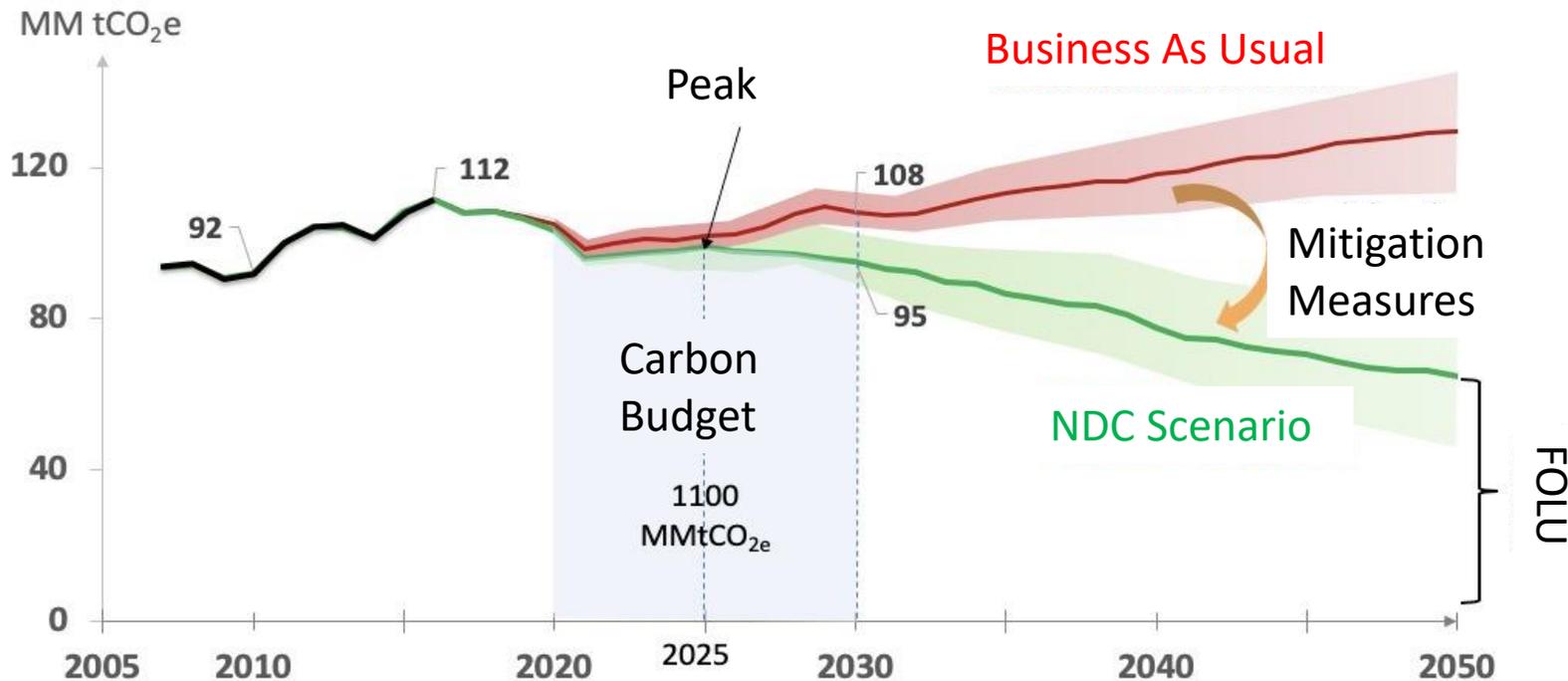
National GHG Inventories: Chile

Figura RE1. INGEI de Chile: balance de GEI (kt CO₂ eq) por sector, serie 1990-2018.



Source: (Government of Chile, 2020)

Chilean NDC Commitment

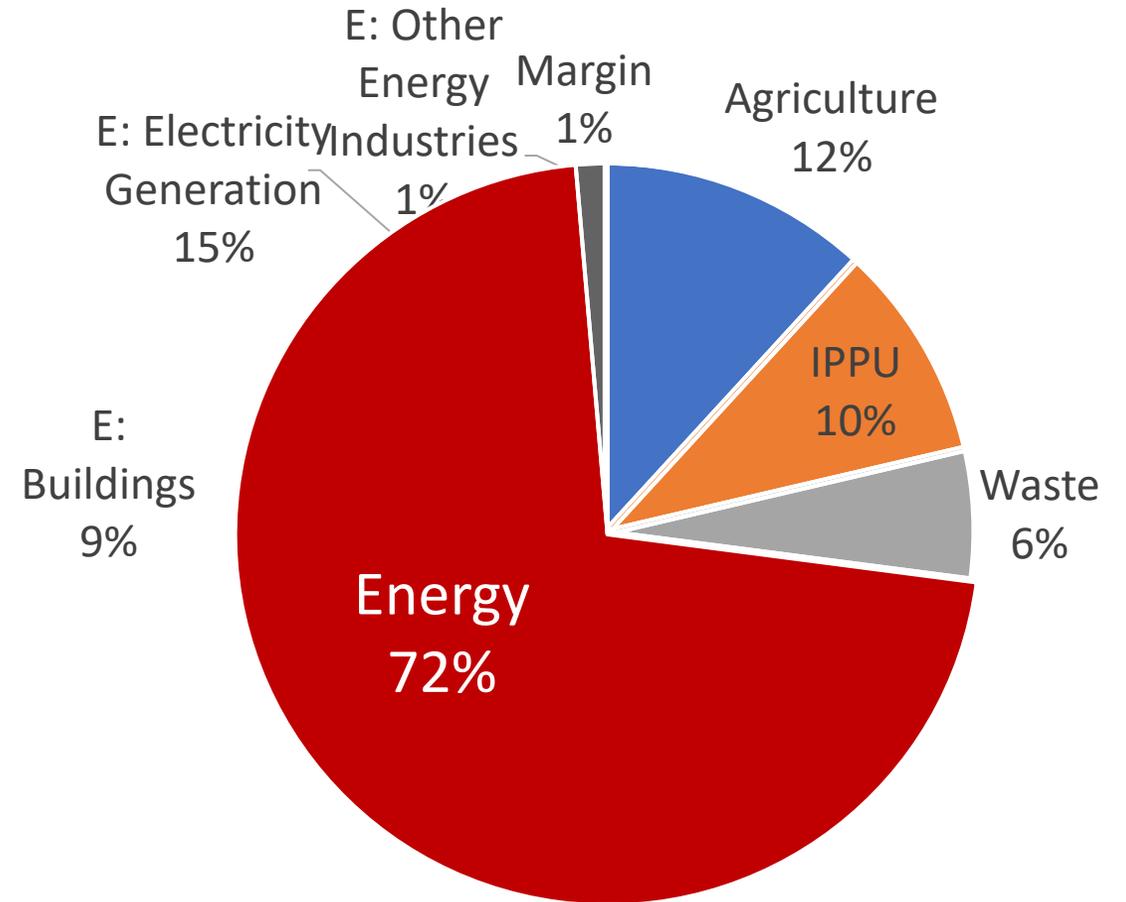


Source: Adapted from (Centro de Energía U de Chile, 2020)

- **Whole Economy:**
 - 95 MMTonCO₂e by 2030
 - Peak before 2025
 - Carbon Budget 2020-2030: 1100MMTonCO₂e
 - Carbon Neutrality by 2050
 - Others
- **FOLU:**
 - 200,000 ha reforested
 - 200,000 ha under Sustainable management
 - 25% less Forest Degradation
 - others

Estimated Sectoral Carbon Budget

Sector/Subsector	CB 2020-2030
Agriculture	130
IPPU	105
Waste	63
Energy	787
<i>Industry & Mining</i>	<i>214</i>
<i>Transport</i>	<i>300</i>
<i>Buildings</i>	<i>99</i>
<i>Electricity Generation</i>	<i>161</i>
<i>Other Energy Industries</i>	<i>13</i>
Margin	15
Total	1100



Estimated Carbon Budget Share

Modelling Strategy for Climate Teams

- Sectors Developed:

- Energy:

- Electricity Generation (Self Made)
 - Energy Demand Sub-Sectors (Based on M. of Energy 2020)

- Agriculture (Based on CCGUC 2021)
 - IPPU (Based on DICTUC 2021)
 - Waste (Based on DICTUC 2021)
 - FOLU (Based on CCGUC 2021)



GHG Emission Scenarios

- **Current Policies:** Expected emissions under current regulation and incentives. (5 Measures)
- **NDC Scenario:** Considers the implementation of all mitigation measures analyzed to develop the NDC commitment. (38 measures)
- **Accelerated Mitigation:** Considers enhanced mitigation measures in order to overachieve the Carbon Budget. (58 measures)

Uncertainty Management

	Futures		
Group of variables	Red Future	Reference Scenario	Green Future
Chinese GDP growth, commodities prices and National Production Level	High Chinese GDP→commodities prices and National Production Level	Medium Chinese GDP→commodities prices and National Production Level	Low Chinese GDP→commodities prices and National Production Level
Climate Variables	Drought (2010-2019)	Medium (1990-1999)	Wet (1980-1989)
Green technology prices	High	Medium	Low
Climate Action	Delayed	Medium	Early and active

Thanks

June 21, 2021

<http://cambioglobal.uc.cl>



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Discussion rounds

I How to set the baseline and make it dynamic?

- Is there a need to **complement** the economy-wide models and derived baselines by **sectoral** approaches? What are the **dis-/advantages** of a sectoral approach (e.g., granularity of information/transaction costs)?
- Should a CTA be linked to **specific mitigation actions** and the resulting additional mitigation generated?
- What parameters would need to be “**fixed**” ex-ante in the CTA crediting baseline? What parameters must be **regularly updated** in the BAU pathway and national reference scenario (also at sectoral level e.g., to consider economic shifts in certain sectors)?
 - How to keep **transactions costs** manageable?
- How to account for/consider in the baseline **any other international transfers of mitigation outcomes** authorized by the host country (e.g., in the context of a linked ETS?)?

II Safeguarding integrity beyond baselines

- Is additionality **automatically fulfilled** at the economy-wide scale by a below-BAU crediting baseline?
 - Might a policy underpinning a CTA be seen as non-additional?
 - Are **further safeguards needed** to give confidence for investors in the quality of the mitigation outcomes?
- How detailed should/must rules and approaches be to demonstrate that the domestic implementation of measures leads to the achievement of the observed mitigation beyond the NDC?
 - Prevent that just **external effects** (economic downturn, structural shifts) generate the difference in emissions
 - Analogy: Emissions decrease in **countries in transition** during 1990s
- Are we **missing key safeguards** a CTA must encompass?

III MRV of a Climate Teams agreement

- How can **inventory-based** crediting work? Are emission reductions accounted for at the sectoral or economy-wide level?
- How to **verify** emissions and emission reductions at the CTA level? **Who** would be doing this verification with which mandate?
 - Is verification on the **impact of measures and policies** associated with the CTA needed?
- What **infrastructure** to enable MRV of the CTA is needed?

Outlook

- **Outcomes of the discussion feeding into paper developed by EDF, Motu, Universidad Católica, to be published ahead of COP26**
 - Alongside considerations of how to use models in a CTA (cooperation Chile-NZ community of modellers), how to raise finance in a CTA (ex-ante/ex-post), and what elements would feature in a prototype agreement
- **Information will be made available here: <https://climateteams.org/>**



Thank you!

Axel Michaelowa

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