

Cities Approach

Santiago de Chile: CO₂ and Air quality

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*‘Assessing mitigation pathway risk and uncertainty: case studies in
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IS CONCENTRATED CHILE? 41% OF CHILEAN POPULATION LIVES IN SANTIAGO



MOTIVATION

CHILE INDC COMMITMENT

a) Chile is committed to reduce its CO₂ emissions per GDP unit by 30% below their 2007 levels by 2030, considering a future economic growth which allows to implement adequate measures to reach this commitment⁷.

b) In addition, and subject to the grant of international monetary funds⁸, the country is committed to reduce its CO₂ emission per GDP unit by 2030 until it reaches a 35% to 45% reduction with respect to the 2007 levels, considering, in turn, a future economic growth which allows to implement adequate measures to achieve this commitment.

Source: INDC Chile

MOTIVATION
CHILE INDC COMMITMENT



- a) 30% CO₂/GDP
- b) 35% to 45%
Conditionally

**Art 2.6 Chile's work on short lived
climate pollutants**

ADDITIONAL COMMITMENT ON BLACK CARBON ACTION

2.6. Chile's work on short-lived climate pollutants

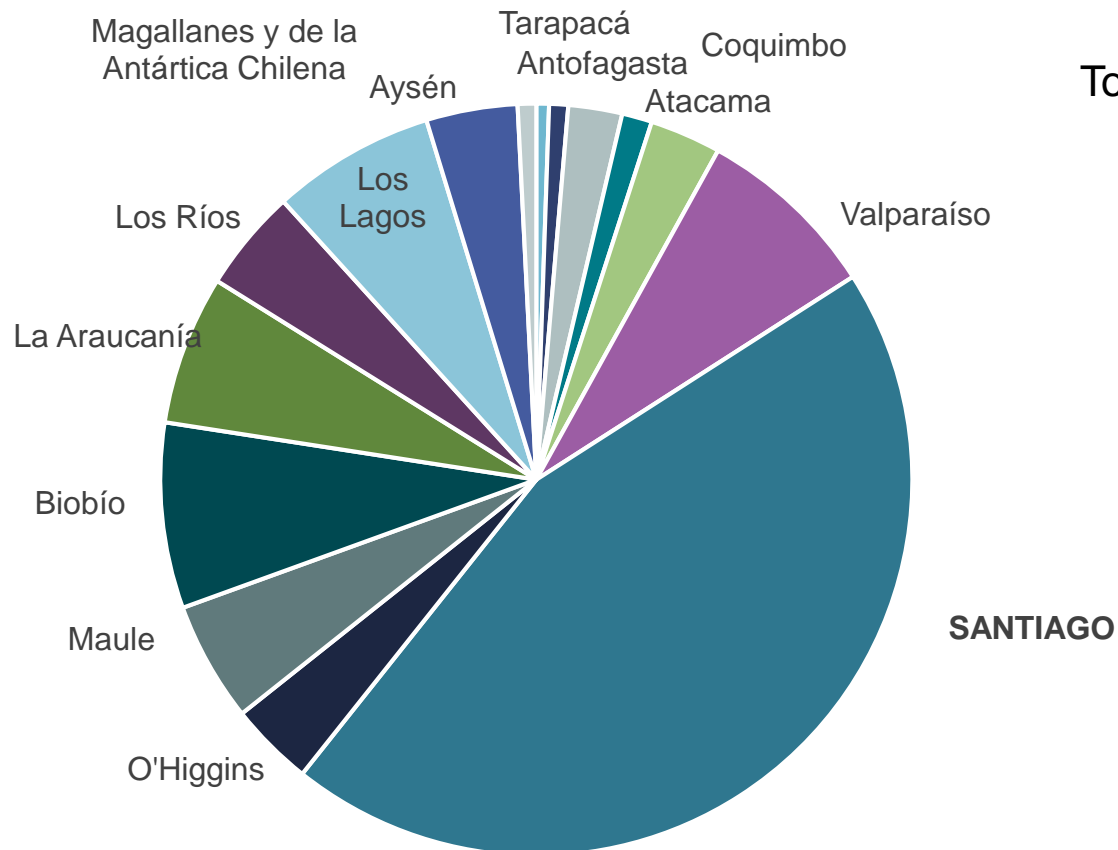
In the same way as other countries, Chile recognizes that the actions aimed at reducing short-lived climate pollutants (SLCP) entail a substantial contribution to the mitigation of the causes of Climate Change. In addition, these actions have known concomitant benefits, in terms of reducing the levels of local atmospheric pollution in urban centers.

Black carbon, which is considered a SLCP, accounts for a substantial part of the particulate (PM_{2.5}) measured in Chilean cities. Main sour-

Government of Chile

Source: INDC Chile

STRUCTURE OF CO2 EMITTERS AROUND CHILE 2012



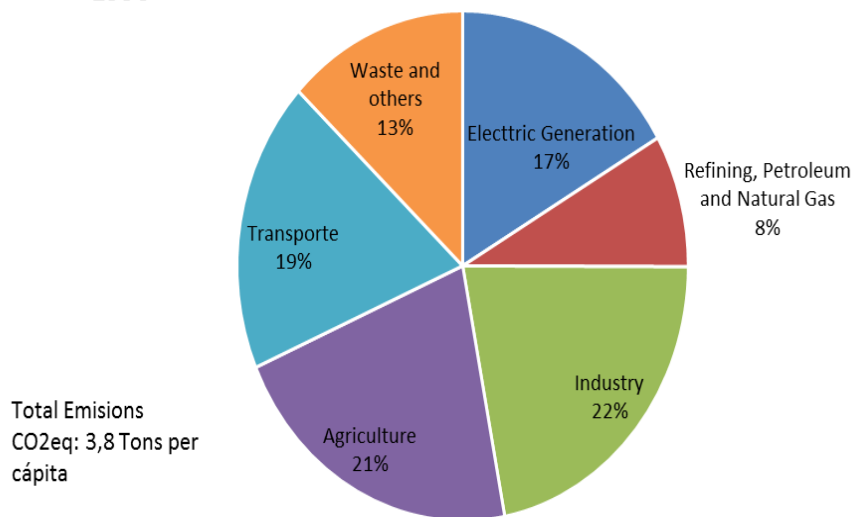
Total: 8,813 companies

CONTEXTUAL FACTORS: PRIORITIES, CONFLICTS AND SYNERGIES (2)

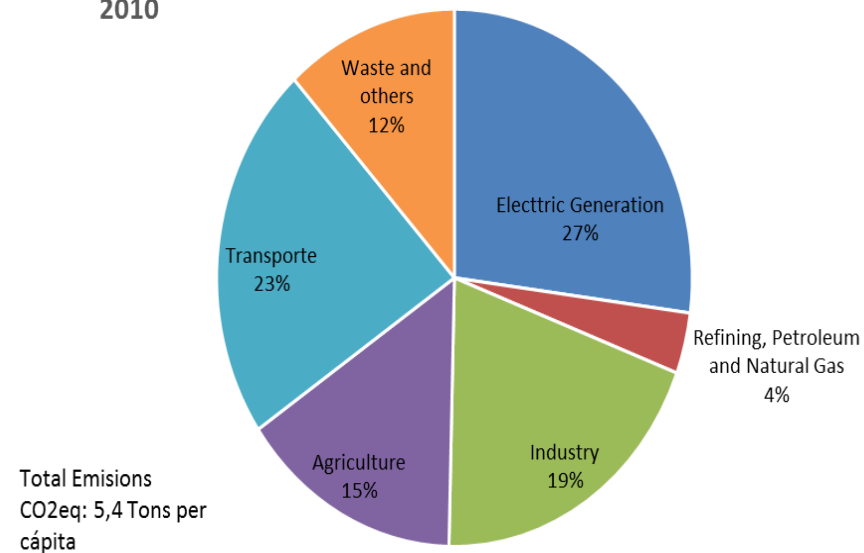
1. Natural resource and environment

- GHG emitted by sector

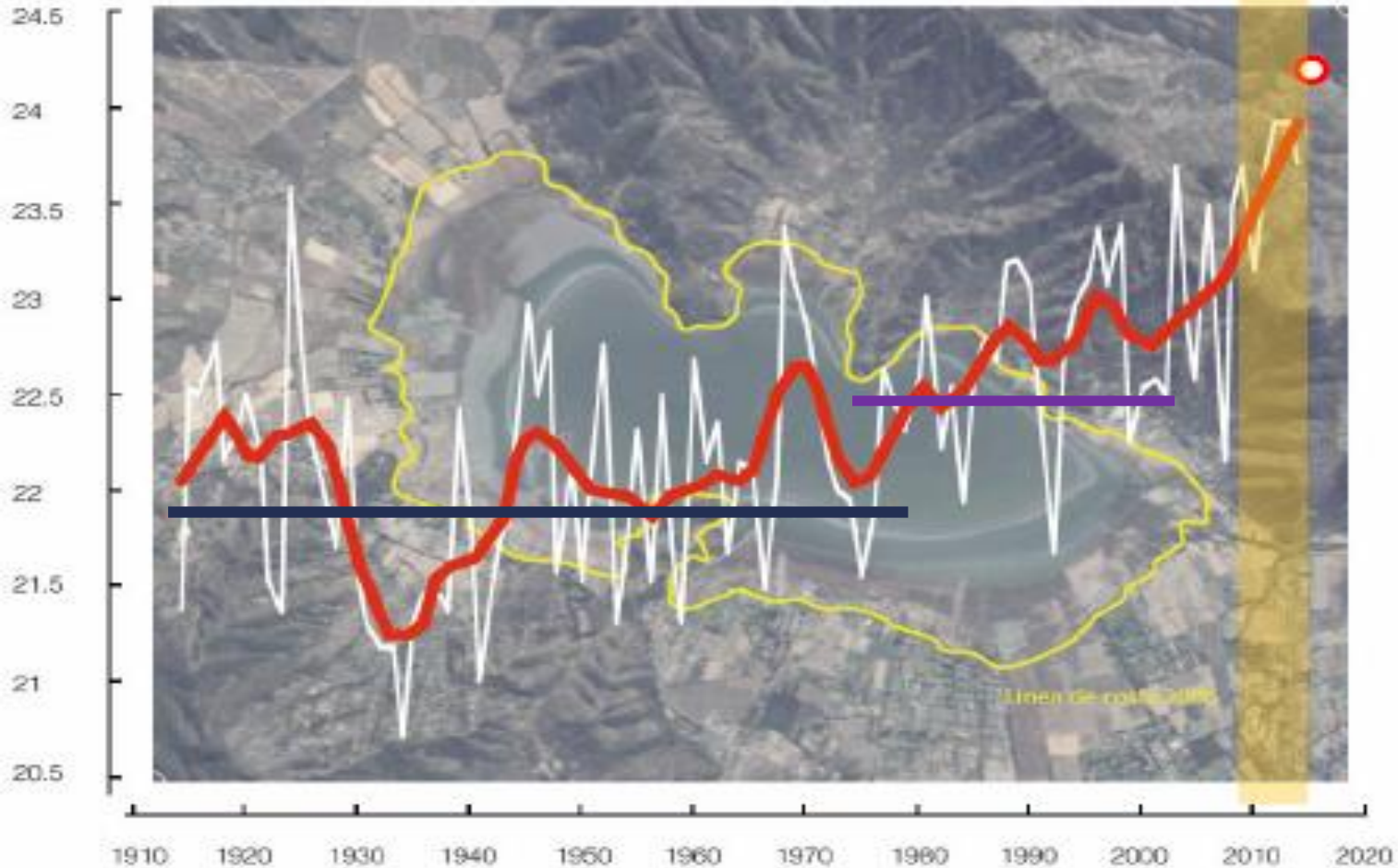
1990



2010

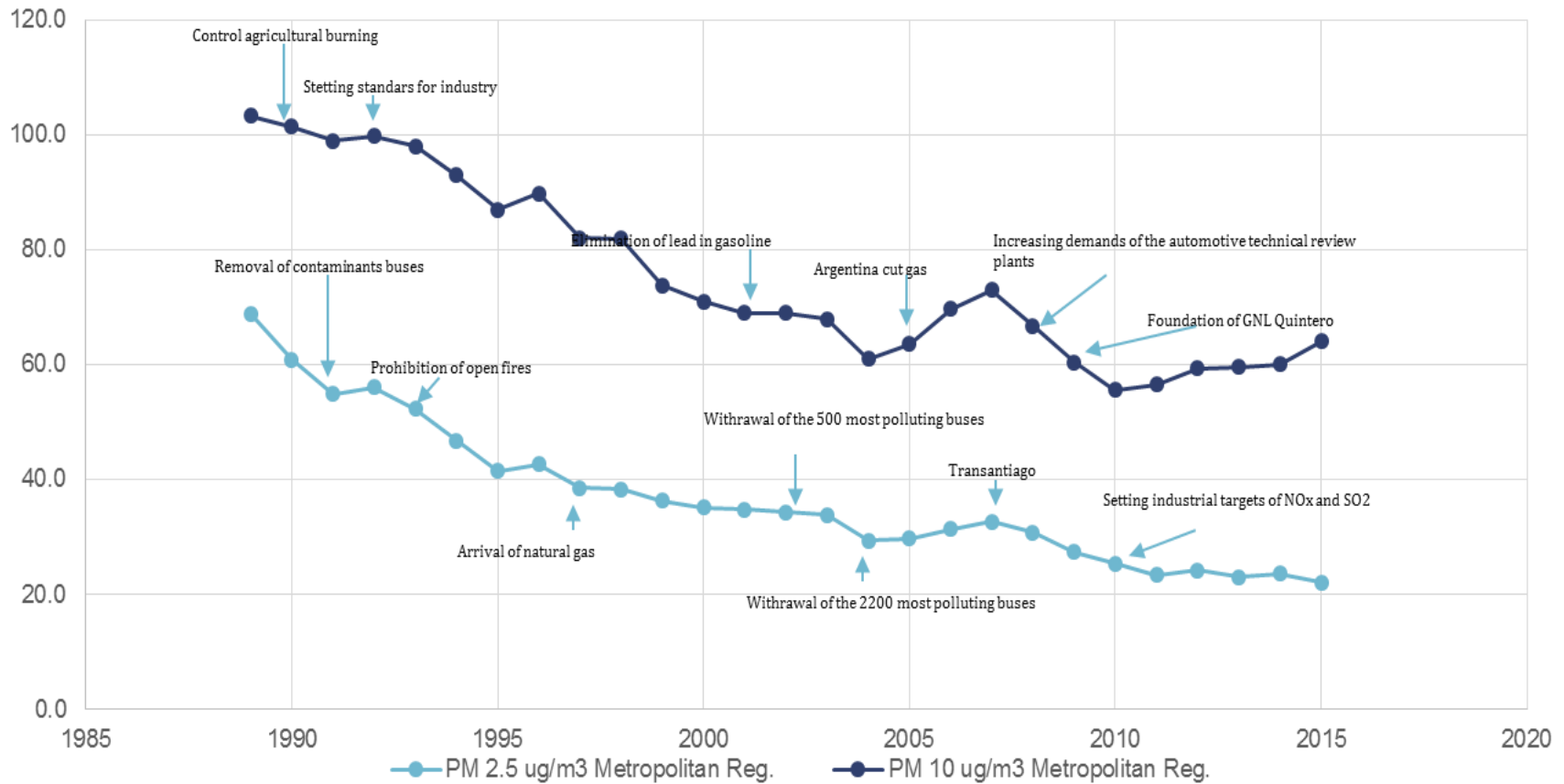


INCREASING ANNUAL TEMPERATURE IN SANTIAGO IS AT LEAST 1,7°C



Source: Gaurrud PNUD 2016

PM TRAJECTORY AND ENVIRONMENTAL POLICIES 1989-2015



Source: Own elaboration with MMA data

HOW CAN MODEL MEMO SHOW FUTURE PATHS OF EMISSION AND BENEFITS?

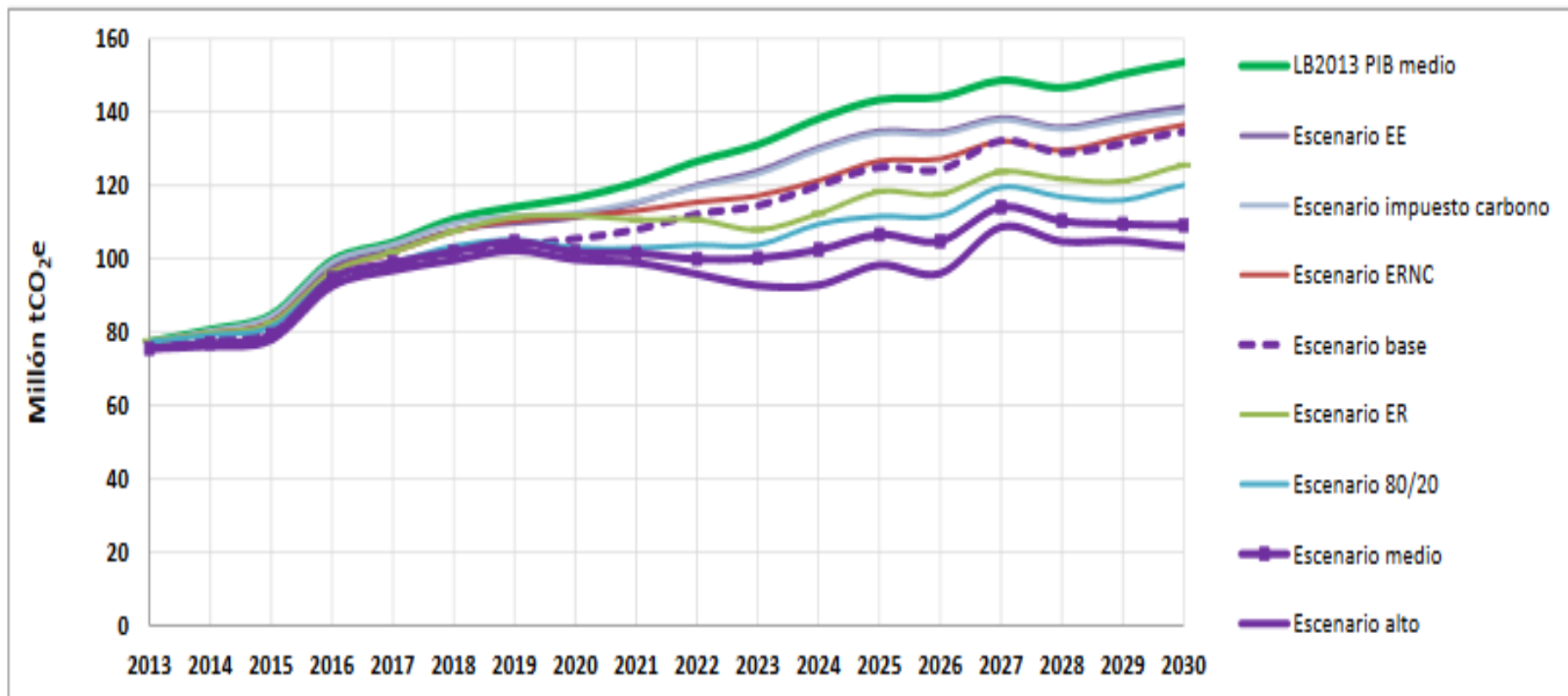


Figura 4: Proyección de emisiones para cada escenario de mitigación analizado. Fuente: MAPS Chile, 2014

CHALLENGES AND QUESTIONS TO THINK ABOUT

- 1) What is a better way to relate global emissions mitigations benefits with local emission problems?
- 2) For the future, how can we incorporate local issues in the climate change policy strategy?