

Low-carbon resilient development



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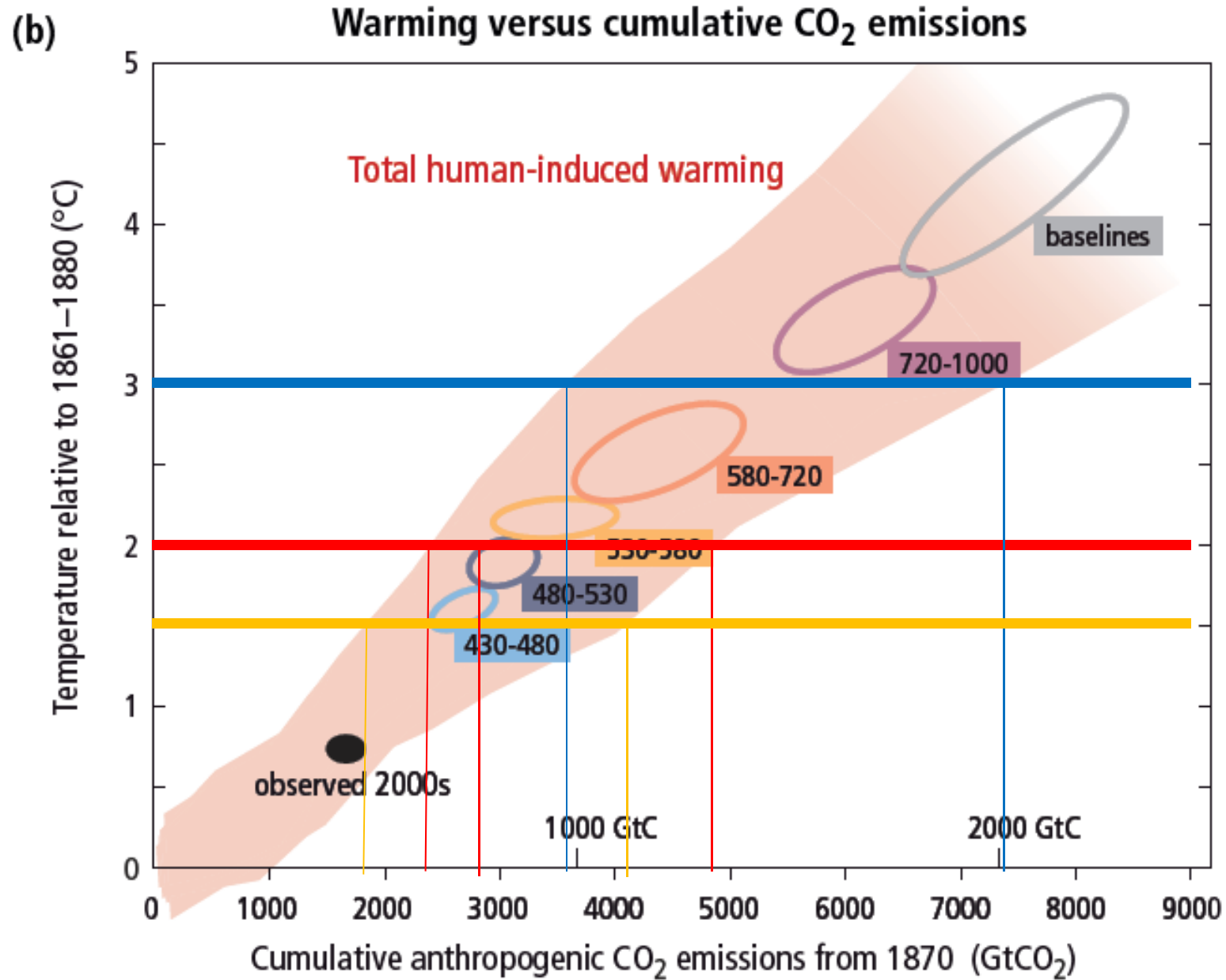
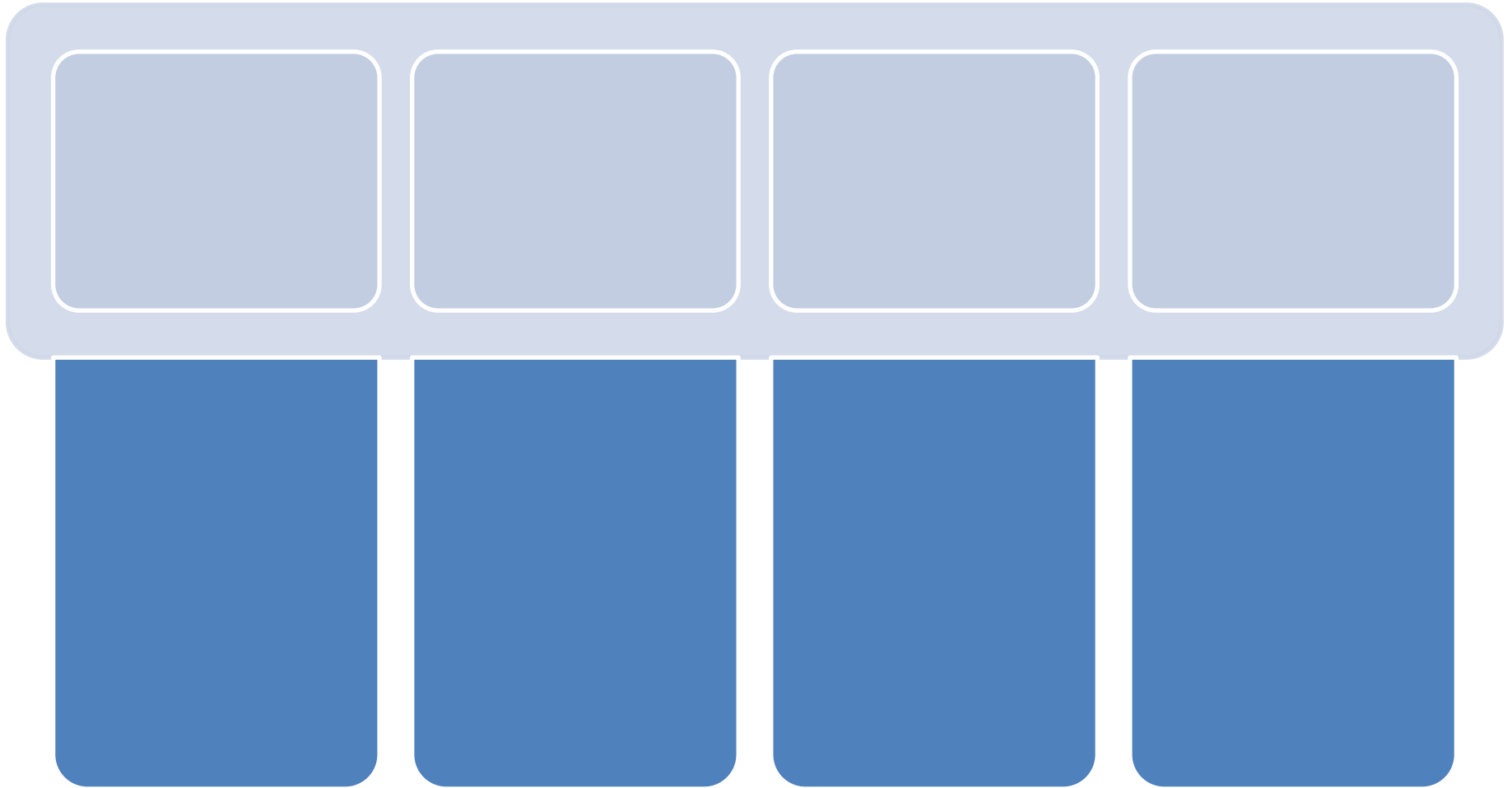


Figure SPM.5b

Temperature increase and cumulative carbon emissions

All models suggest the same strategy, regardless of the target



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Fuel shift in transport, heating, and industries



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Decarbonization of electricity generation, i.e. renewable, nuclear, and CCS



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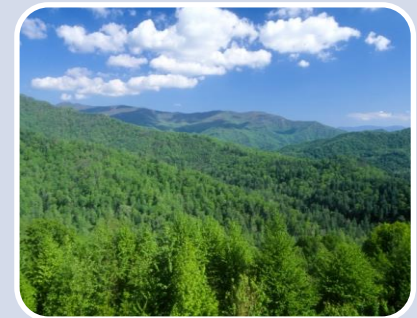
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Land-use changes in forestry, agriculture, and urban development

In short, we know what needs to be done.

The World Bank supports countries to...

- **Set the prices right**

- Fossil fuel subsidy reforms and carbon pricing
- Complementary social policies to protect the poor, and support for the transition: efficient use of the resources created by climate policies.

- **Improve energy efficiency**

- Performance standards for cars, building (IFC EDGE), light, appliance, ...
- SE4All: double the rate of improvement of energy intensity by 2030

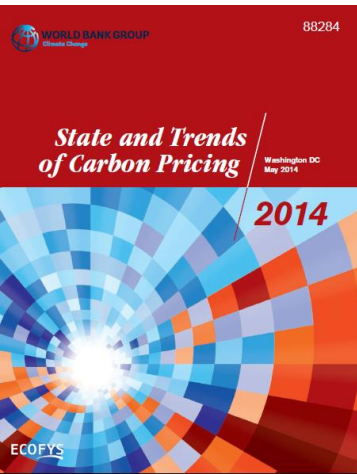
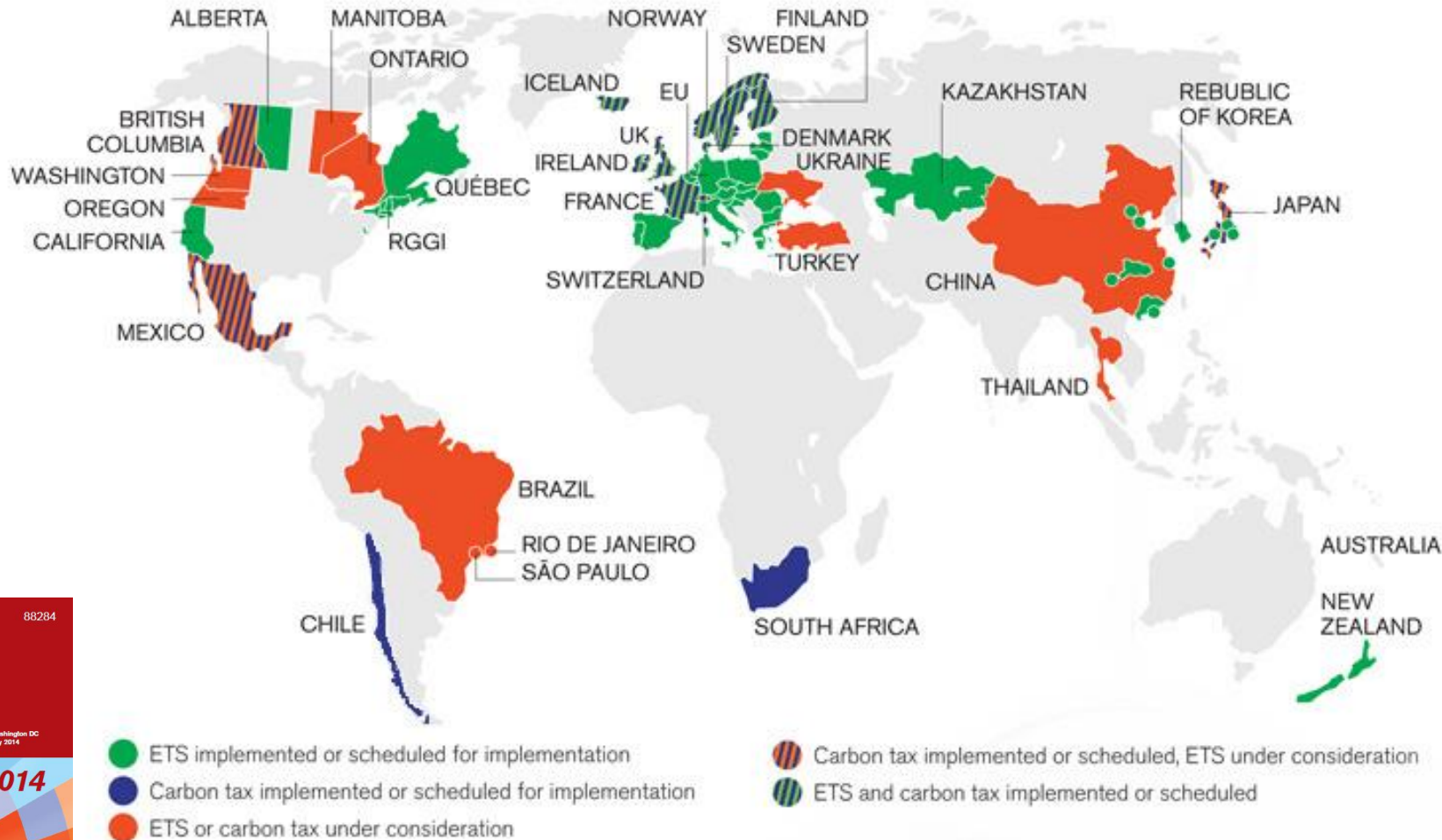
- **Support renewable energy and diversify the economy**

- SE4All: double investment in renewable energy by 2030

- **Land use planning**

- Support to city planning and financing
- Support financing of public transit
- The goal of stopping illegal deforestation by 2030 and make 100% of WBG agriculture projects climate-smart by 2018

Carbon pricing is gaining momentum



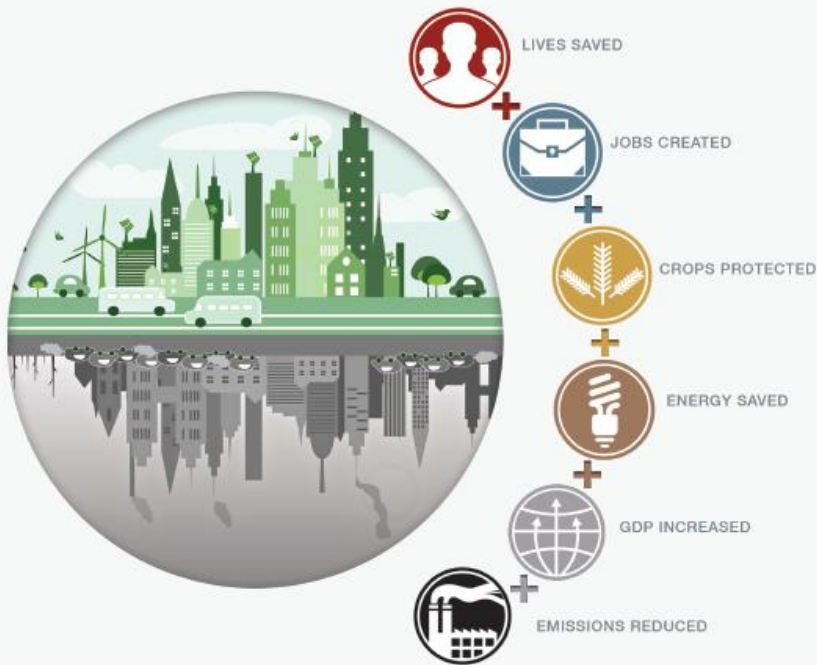
Source: **State and trends of carbon pricing 2014**

Large co-benefits are also expected...

This is about development and well-being

Climate-Smart Development

Adding up the benefits of actions that help build prosperity, end poverty and combat climate change



Reduced air pollution and health-related deaths are one of the largest co-benefits of climate change mitigation



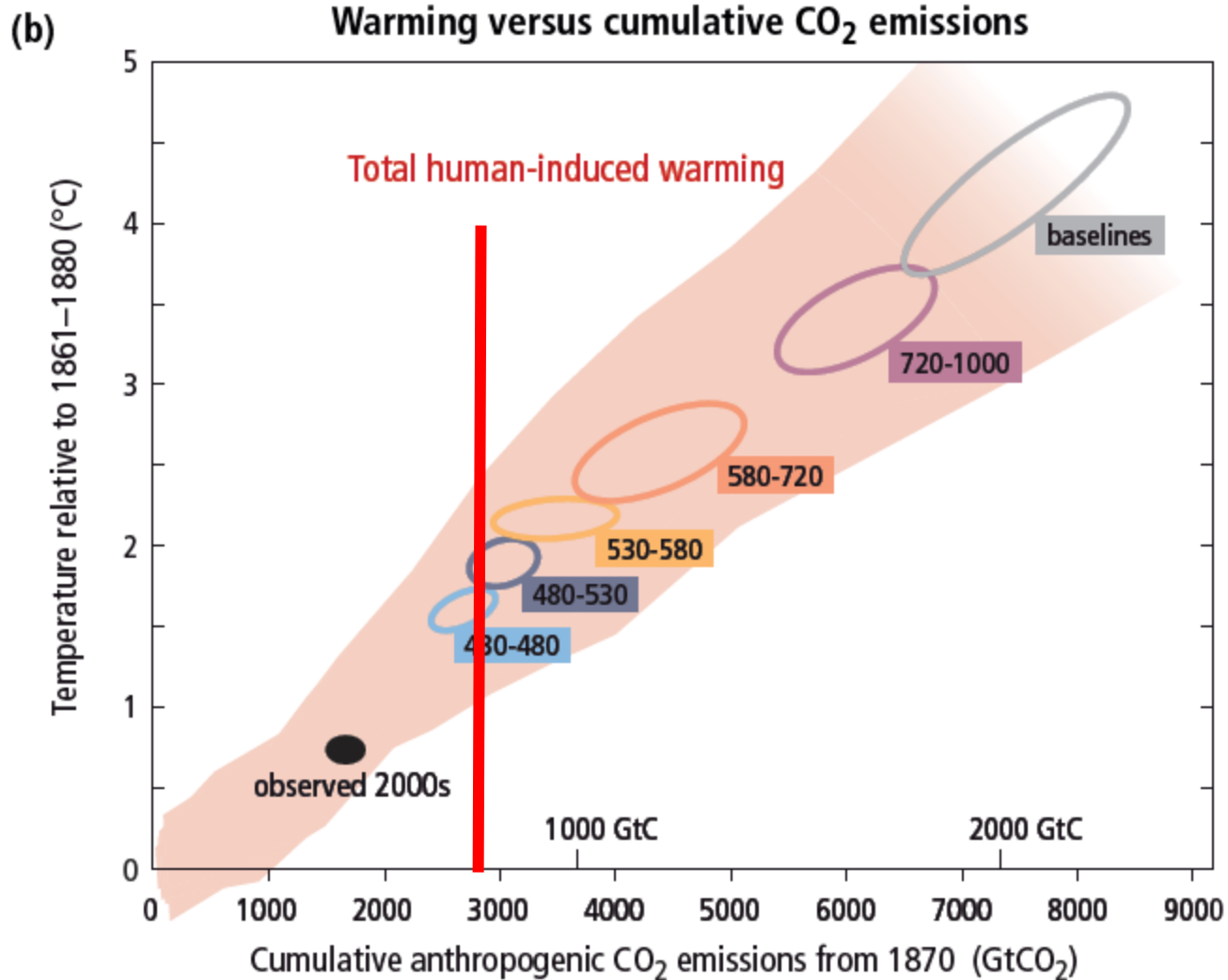
19,000+ LIVES SAVED

(FOR THE REGIONS SHOWN)

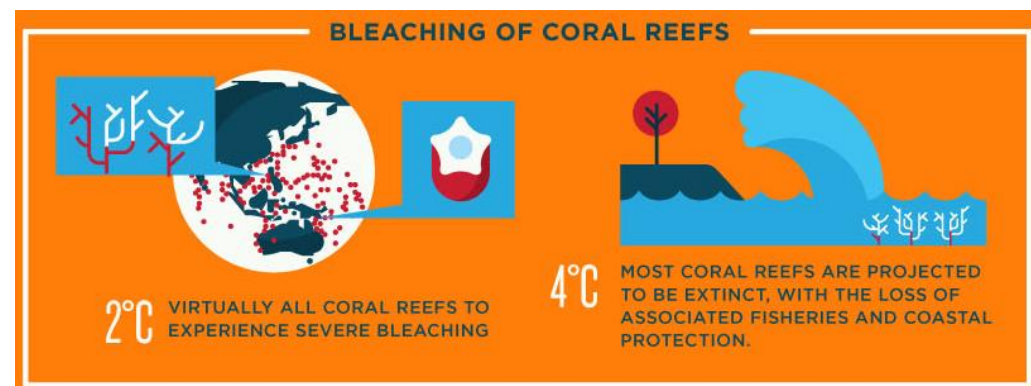
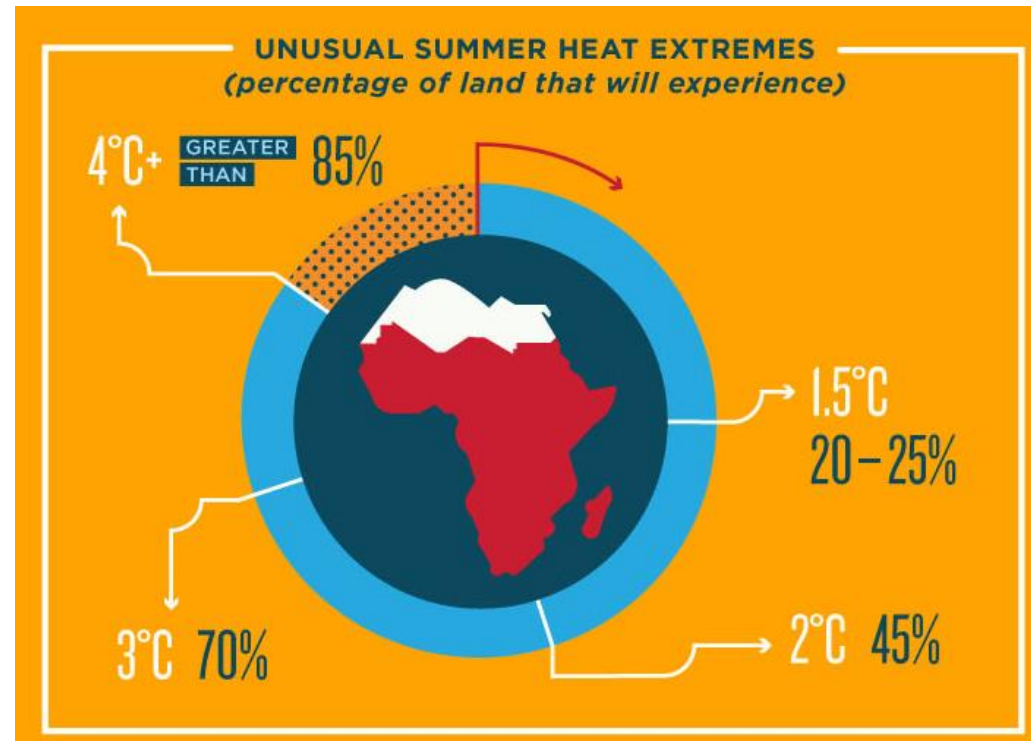
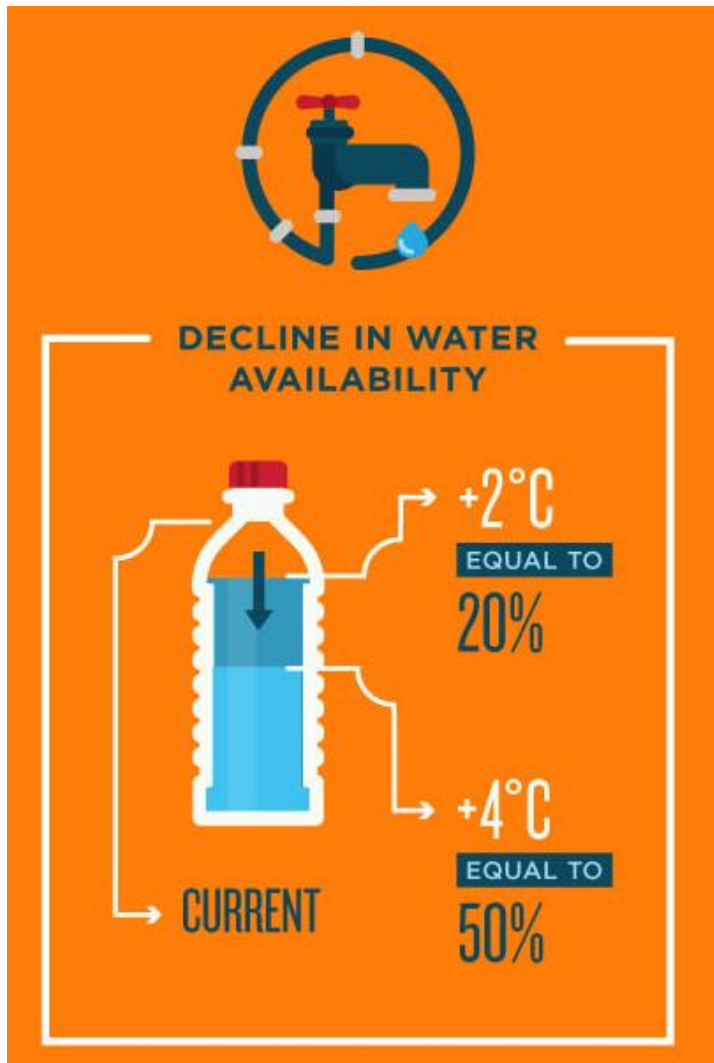
Resilience and adaptation



It is just too risky to assume that climate change will be limited at 2C



Climate change impacts are increasing rapidly with temperature change



Source: World Bank, 2014, Turn Down the Heat, volume II

WHAT DIFFERENCE WILL A FEW DEGREES MAKE?

UNUSUALLY HOT SUMMER MONTHS WILL BECOME MORE COMMON ACROSS MORE OF THE LAND

LATIN AMERICA & THE CARIBBEAN

- 1.5°C **30%**
- 2°C **40%**
- 3°C **65%**
- 4°C **90%**



MIDDLE EAST & NORTH AFRICA

- 1.5°C **25%**
- 2°C **30%**
- 3°C **75%**
- 4°C **99%**



EASTERN EUROPE & CENTRAL ASIA

- 1.5°C **10%**
- 2°C **15%**
- 3°C **50%**
- 4°C **85%**



Percentage of land affected in 2100 by heat considered highly unusual today.

GLACIER MELT

Central Asia lost **35% OF GLACIER VOLUME BETWEEN 1901 - 2000**

- 2°C | **GLACIER VOLUME LOSS ABOUT 50%**
- 4°C | **GLACIER VOLUME LOSS ABOUT 67%**

Source: World Bank, 2014, Turn Down the Heat, volume III

Climate change matters most for the poor

an example in India (Mumbai)



Income (Rs. / month)	% of all HH (Greater Mumbai)	% Exposed to floods
<5,000	27%	44%
>20,000	6%	1%

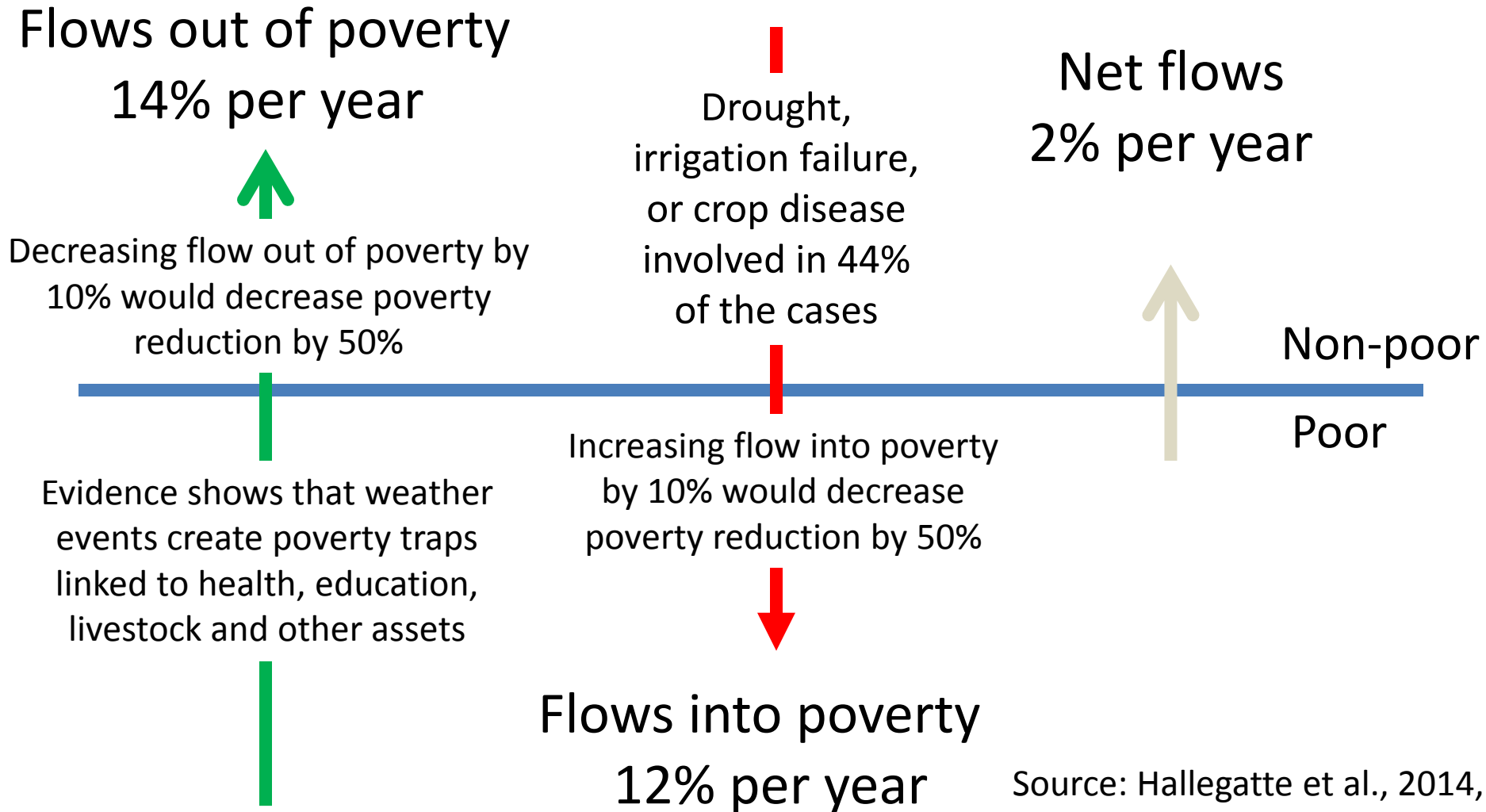
So poor people are 10 times more likely to be exposed

In the 2005 floods, poor households in Mumbai lost on average Rs. 7,700 (\$177)

Average annual income: Rs. 8,400 (\$193)
Average savings of Rs. 6,900 (\$159).

Climate change and poverty dynamics

an example in India (Andhra Pradesh)



Source: Hallegatte et al., 2014, data from Krishna, 2007

Look at Development through a Resilience Lense

IDA 17 Commitments

COUNTRY PARTNERSHIP FRAMEWORK



IDA CPFs must incorporate climate and disaster risk into the analysis of the country's development challenges and priorities



Screen all new IDA operations for short- and long-term climate change and disaster risks and, where risks exist, integrate appropriate resilience measures



Scale up support to IDA countries for managing climate and disaster risk in development in at least 25 additional IDA countries



Enhance monitoring by expanding climate finance coding system to cover tracking of; piloting a coding system to measure IDA investments with DRM co-benefits

All IDA projects are now screened for climate and disaster risks

Welcome to the World Bank's Climate and Disaster Risk Screening Tools.

These simple, streamlined, self-paced tools use the best available information to help you identify potential risks to your development projects and planning. Use these tools to help ensure the resilience and success of your investments.

National Tool



Project Tools



We also develop and pilot methods for decision-making under uncertainty

Applying robust decision-making to the water master plan of Sedapal, in Lima, Peru.

Investigating the vulnerability of the plan to various climate change futures (including large warming)



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More on www.worldbank.org/climate