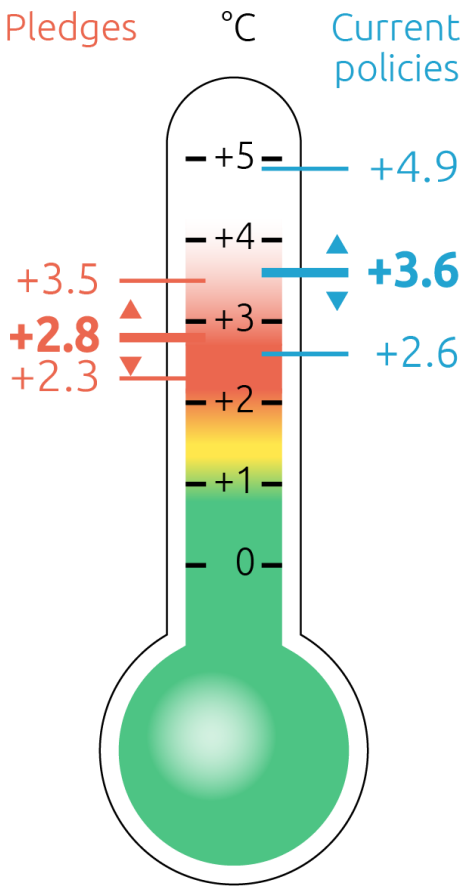
ClimateActionTracker



The Climate Action Tracker

Tracking the promises and actions of countries in the race against climate change

Beirut, Lebanon

Farid Comaty

5 July 2018

www.climateactiontracker.org

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CLIMATE ANALYTICS

The Paris Agreement – COP 21

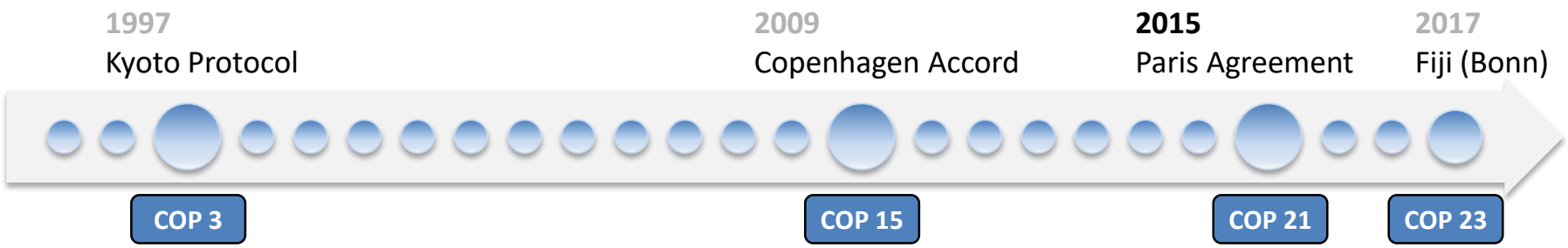
UNFCCC and COP: A brief introduction

United **N**ations **F**ramework **C**onvention on **C**limate **C**hange (UNFCCC)

- Established at Rio Earth Summit in 1992
- Aim of "*stabilization of emissions to prevent dangerous anthropogenic interference with the climate system*"
- Today (near) universal membership of 'Parties to the Convention'
- COP = "**C**onference **o**f the **P**arties" = annual meetings of all parties (countries)

The Paris Agreement

- 168 parties ratified to date
- Commitment period starts in 2020
- 191 parties submitted commitments under the agreement (Intended) Nationally Determined Contributions (I)NDCs
- Limit global warming to well below 2°C up to 1.5°C
- 5-yearly review with 'ratcheting up' of ambition Global stock take
- Developed countries to provide $100 billion per year in climate finance

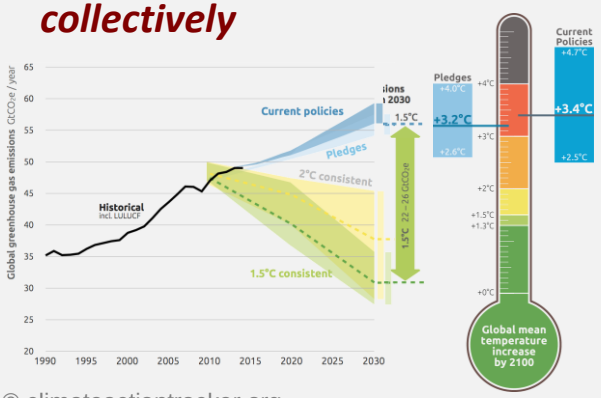


CAT tracks climate actions before and after Paris

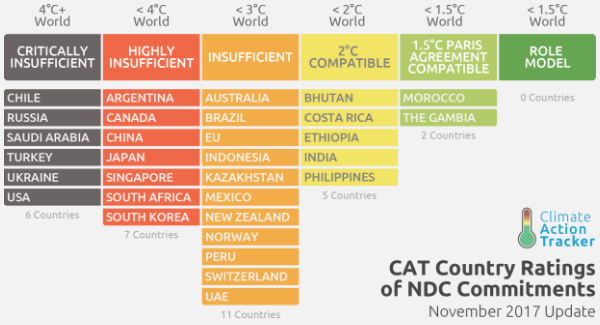
- The Paris Agreement
  - **Goal of limiting temperature increase** to well below 2ºC / 1.5ºC
  - BUT: **no mechanism to ensure countries act** to achieve this goal
  - Climate Action Tracker provides an **independent, scientific, 'real-time' assessment** of progress at **country level**

The Climate Action Tracker ***rates*** *countries'* ***commitments*** *and* ***actions****,* ***collectively*** *and* ***individually****, and* ***tracks*** *real progress*

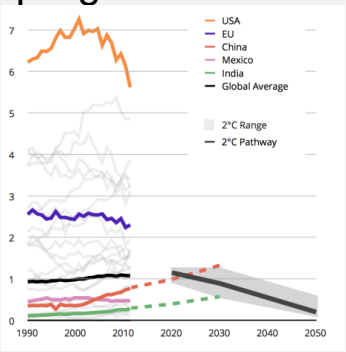
I **Global assessment** rates ***commitments*** and ***actions*** ***collectively***



II **Country assessment** rates ***commitments*** and ***actions*** ***individually***



III **Decarbonisation** work ***tracks*** real progress



CAT evaluates aggregate global emissions levels against the Paris Agreement temperature goal

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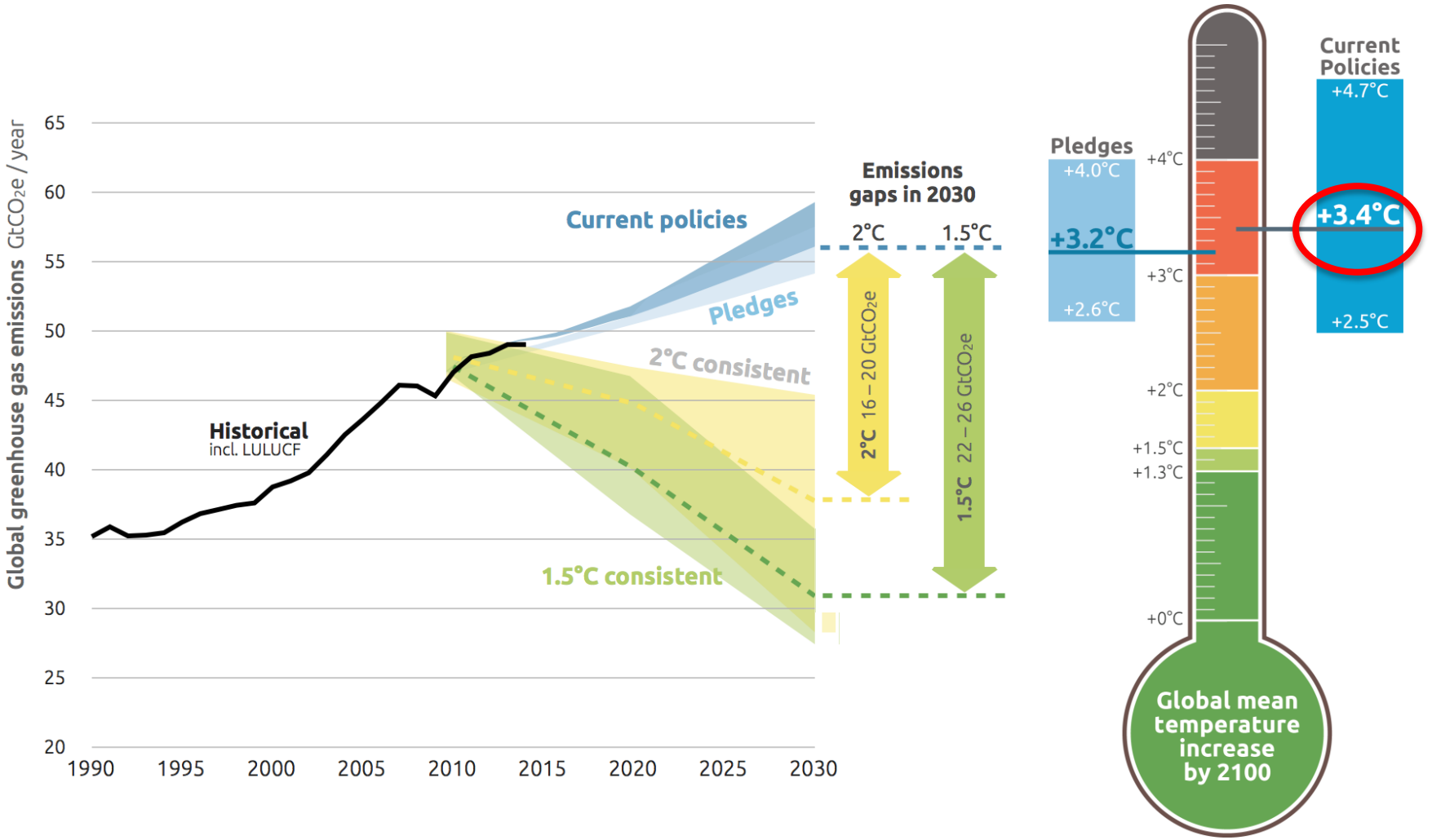
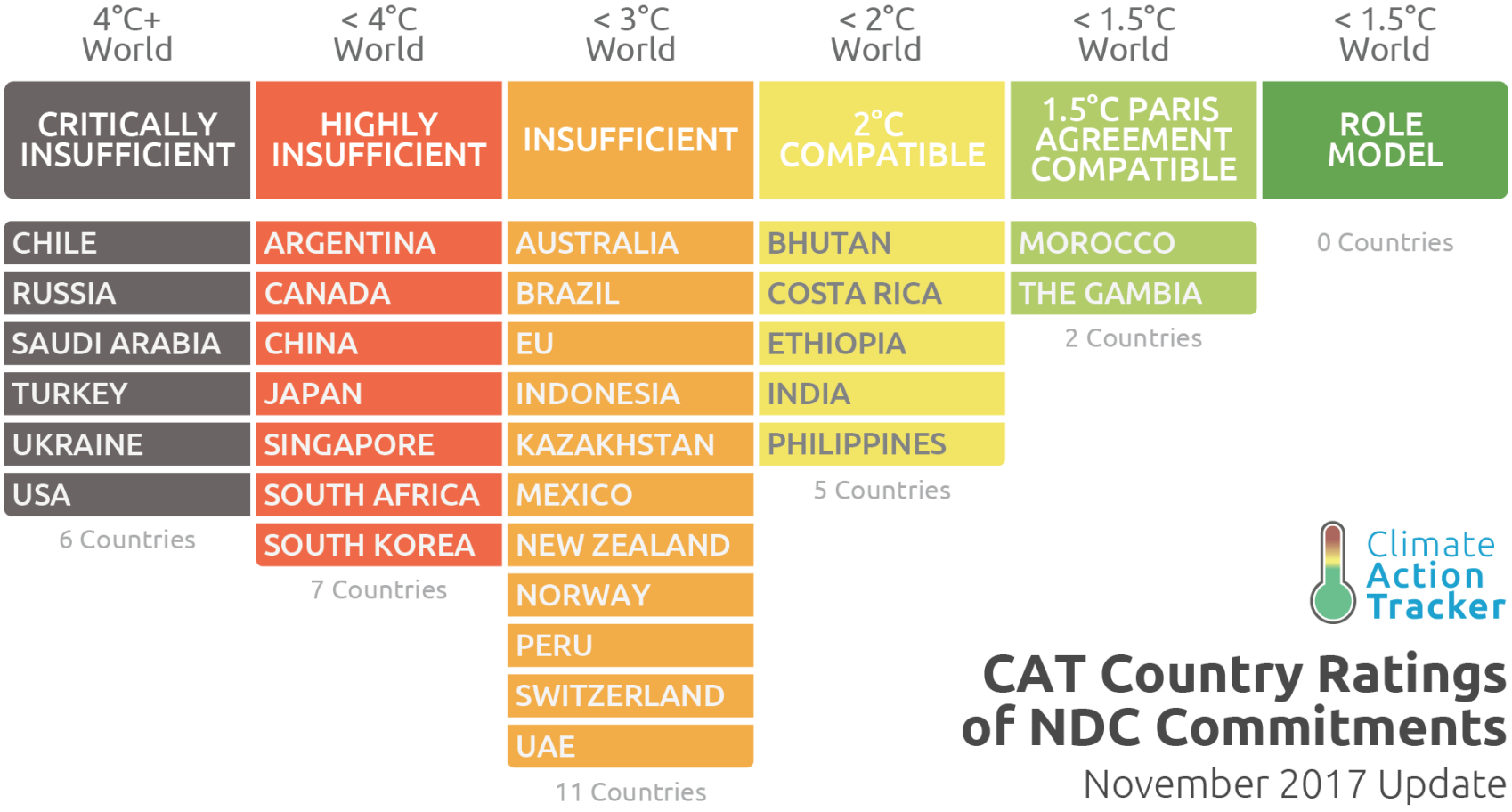


We updated our temperature projection at COP 23

Most NDCs are not compatible with limiting the global temperature increase to <2ºC

Climate Action Tracker

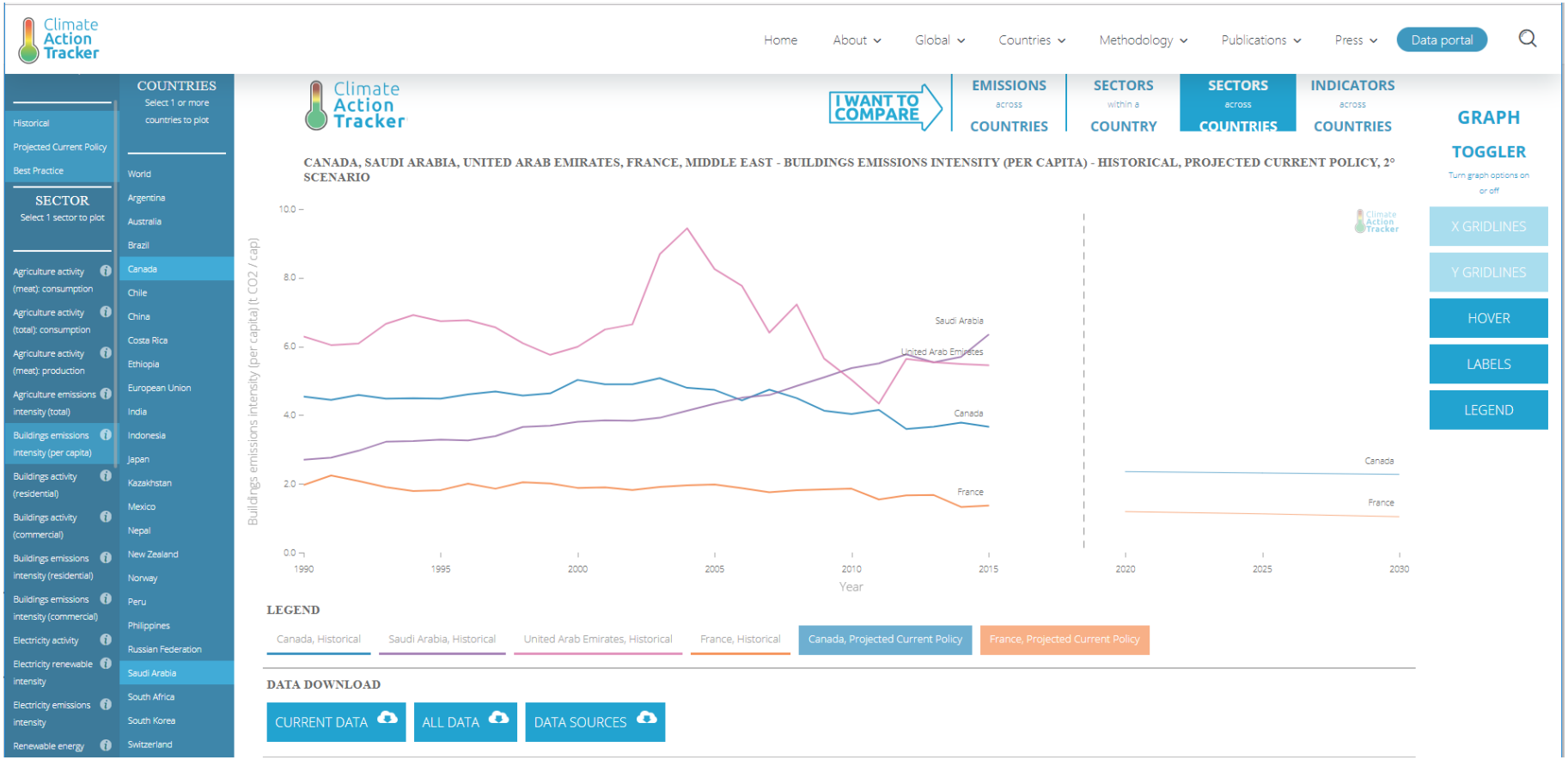


Climate Action Tracker

CAT Country Ratings of NDC Commitments

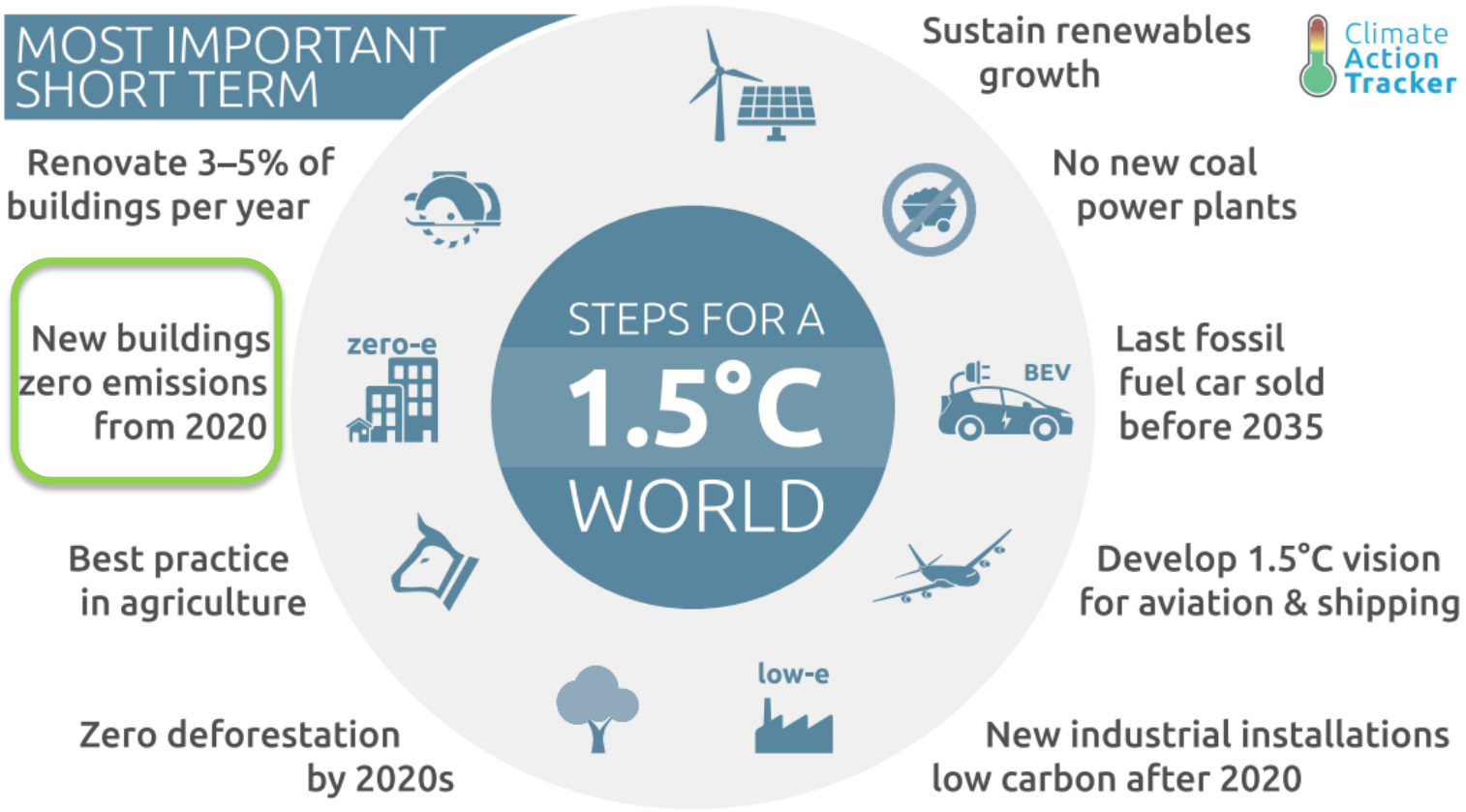
November 2017 Update

Detailed decarbonisation data portal



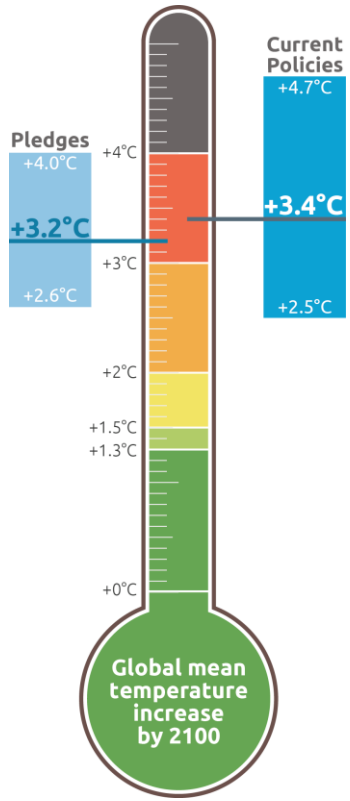
Full, free access, full data download

Short-term steps to peak and start the emissions decline



The 10 most important steps to limit warming to 1.5° C

CLIMATE ACTION TRACKER



Recent CAT analyses available online:

Country assessments for 30+ countries

Global temperature estimate

The 10 most important steps to limit warming to 1.5˚C

Decarbonisation portal

Faster and cleaner II: It only takes a few countries to kick-start energy system decarbonisation

Zero emission vehicles need to take over car market to reach 1.5ºC limit: analysis

Constructing the future: creating a Paris Agreement-proof building sector

Foot off the gas: increased reliance on natural gas in the power sector risks an emissions lock-in

Decarbonising the global steel and cement sectors requires more than zero carbon fuels—now

Contact us at info@climateactiontracker.org

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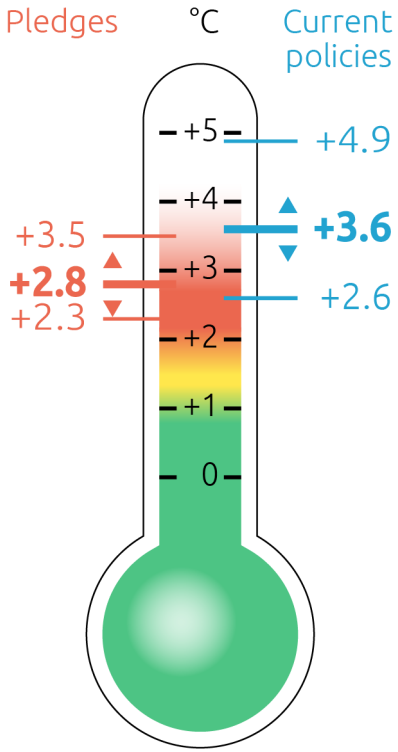

Climate Action Tracker Equity Methodology

Climate equity and the Paris Agreement

Lisa Luna (NewClimate Institute)

6 November 2017

www.climateactiontracker.org

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CLIMATE ANALYTICS

"Fair" depends on the viewpoint

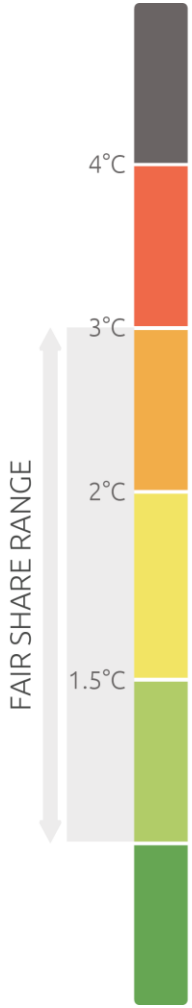
- **No agreed guidelines** on what constitutes a fair level of contribution to the global effort to limit warming to "well below 2°C above preindustrial levels and pursuing efforts to **limit the temperature increase** to 1.5°C above pre-industrial levels"

- NDCs should reflect the "highest possible ambition" according to "common but differentiated responsibilities and respective capabilities, in the light of different national circumstances" (Paris Agreement, Article 4.3)

- Assessing what is *fair* depends on the viewpoint

- CAT provides a transparent way of **comparing NDCs with the many interpretations of fair**

Climate Action Tracker rating system



CRITICALLY INSUFFICIENT
Commitments with this rating fall well outside the fair share range and are not at all consistent with holding warming to below 2°C let alone with the Paris Agreement's stronger 1.5°C limit. If all government targets were in this range, warming would exceed 4°C.

HIGHLY INSUFFICIENT
Commitments with this rating fall outside the fair share range and are not at all consistent with holding warming to below 2°C let alone with the Paris Agreement's stronger 1.5°C limit. If all government targets were in this range, warming would reach between 3°C and 4°C.

INSUFFICIENT
Commitments with this rating are in the least stringent part of their fair share range and not consistent with holding warming below 2°C let alone with the Paris Agreement's stronger 1.5°C limit. If all government targets were in this range, warming would reach over 2°C and up to 3°C.

2°C COMPATIBLE
Commitments with this rating are consistent with the 2009 Copenhagen 2°C goal and therefore fall within the country's fair share range, but are not fully consistent with the Paris Agreement. If all government targets were in this range, warming could be held below, but not well below, 2°C and still be too high to be consistent with the Paris Agreement 1.5°C limit.

1.5°C PARIS AGREEMENT COMPATIBLE
This rating indicates that a government's efforts are in the most stringent part of its fair share range: it is consistent with the Paris Agreement's 1.5°C limit.

ROLE MODEL
This rating indicates that a government's efforts are more ambitious than what is considered a fair contribution: it is more than consistent with the Paris Agreement's 1.5°C limit.

Climate Action Tracker

CAT Equity Methodolgy

Constructing the fair share range

Step 1:

Compile wide range of literature on emissions allowances – over 40 peer reviewed studies, including those used by the IPCC, plus additional analysis by CAT team

- Filter for allowances that are compatible with the former 2ºC limit (450 ppm) and the 1.5ºC limit (400 ppm)

We do not decide what is fair, but rather include a wide range of viewpoints

Constructing the fair share range

Step 2:

Harmonize the studies to the CAT historical dataset

- Particularly for small countries, this change can sometimes be significant

Step 3:

Group the data into seven effort sharing categories

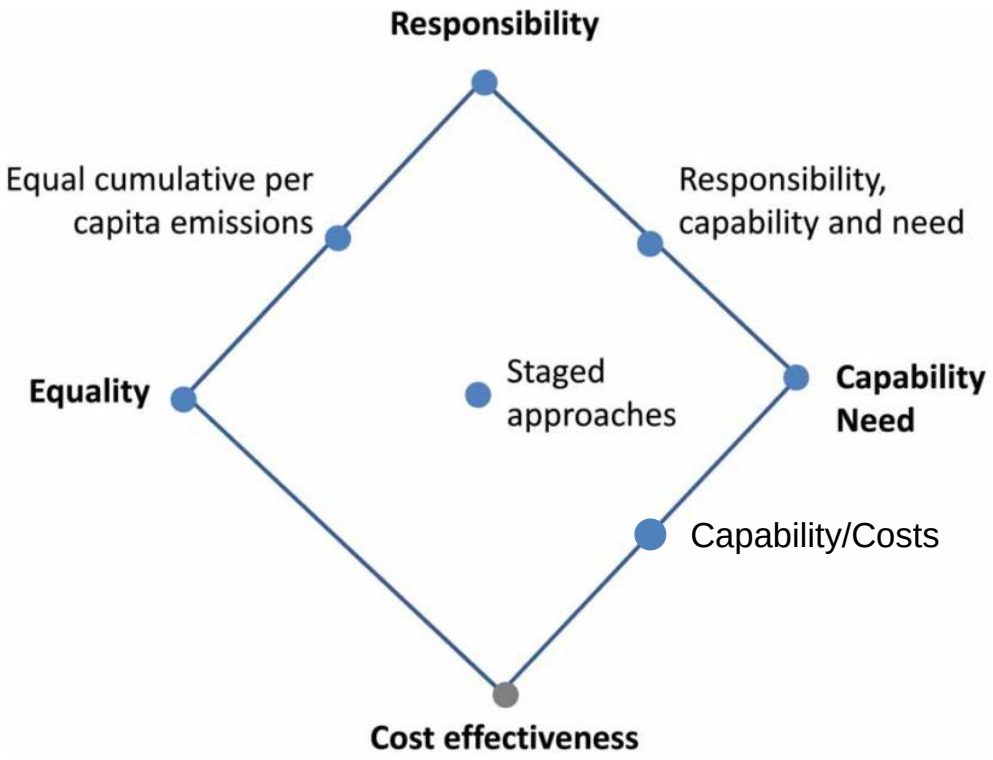
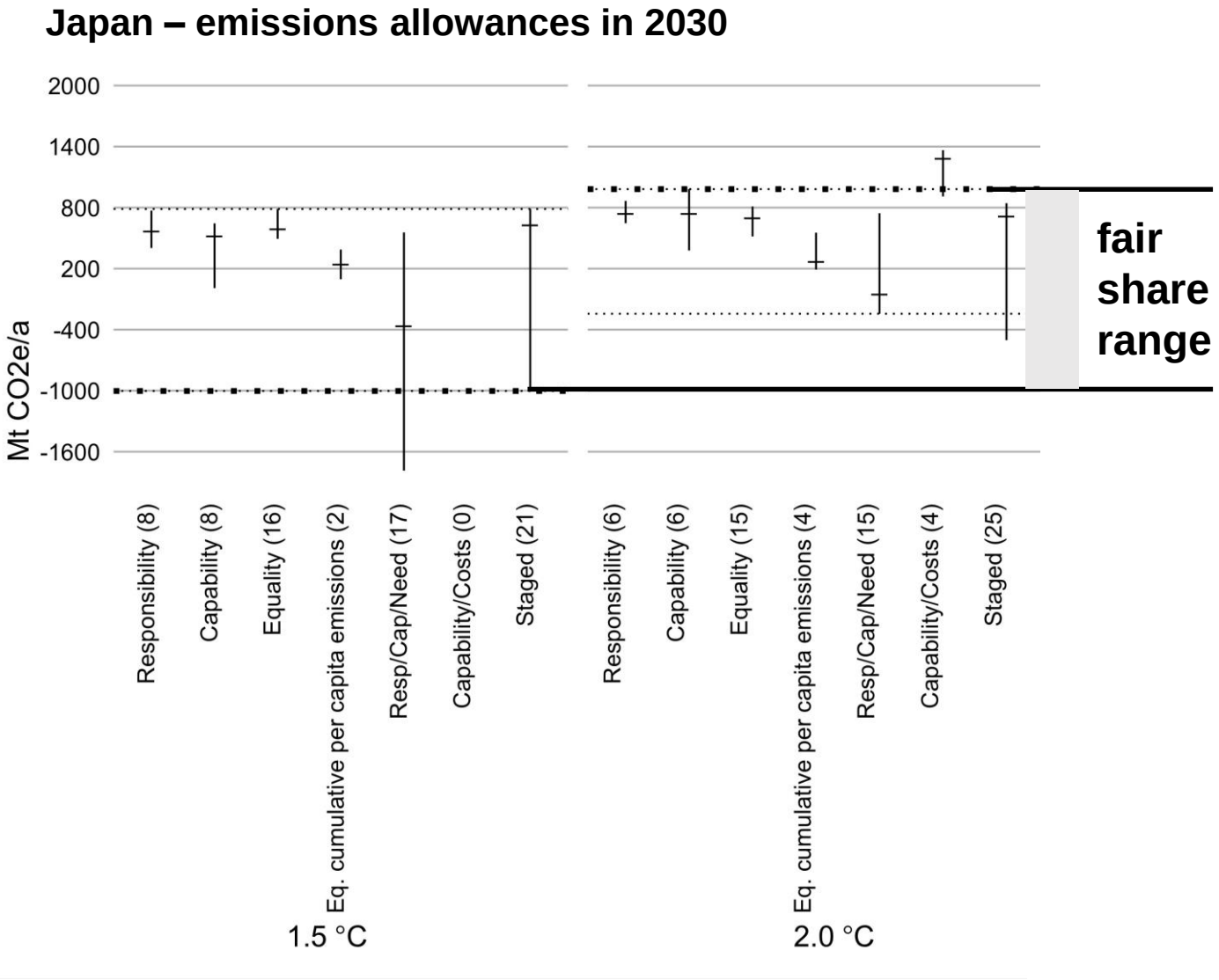


Figure from Höhne et al., 2014

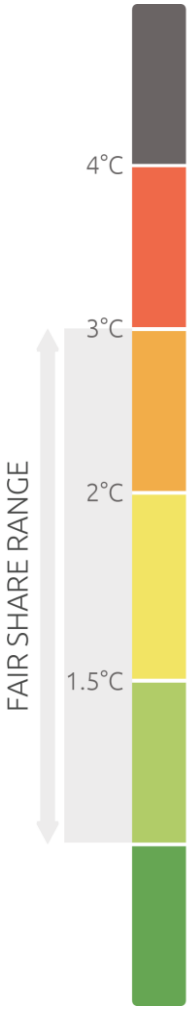
Constructing the fair share range

Step 4:

Fair share range defined by the second highest and second lowest categories



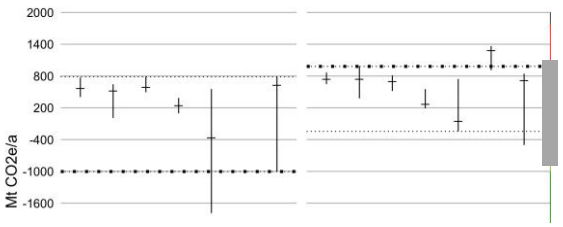
Assigning temperature outcomes



Step 5:

Add up upper and lower bounds of fair share ranges for all countries to make a global fair share aggregation

Japan



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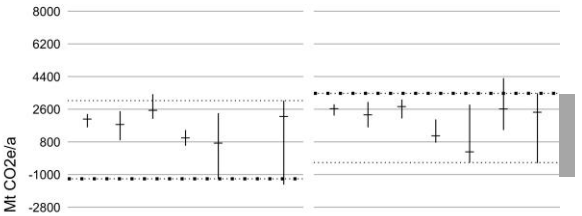
EU



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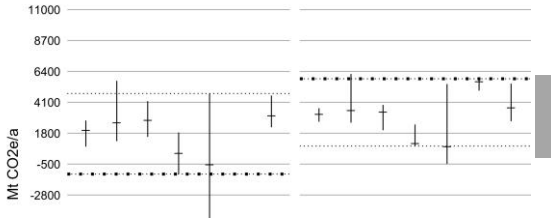
USA



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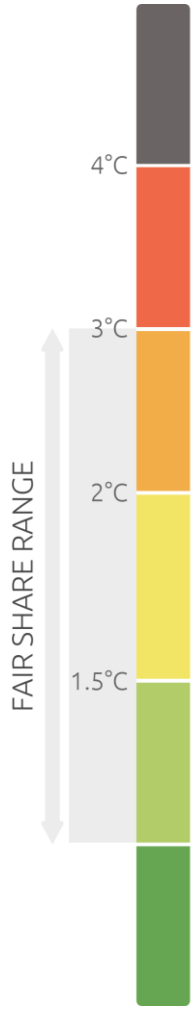
Global fair share aggregation

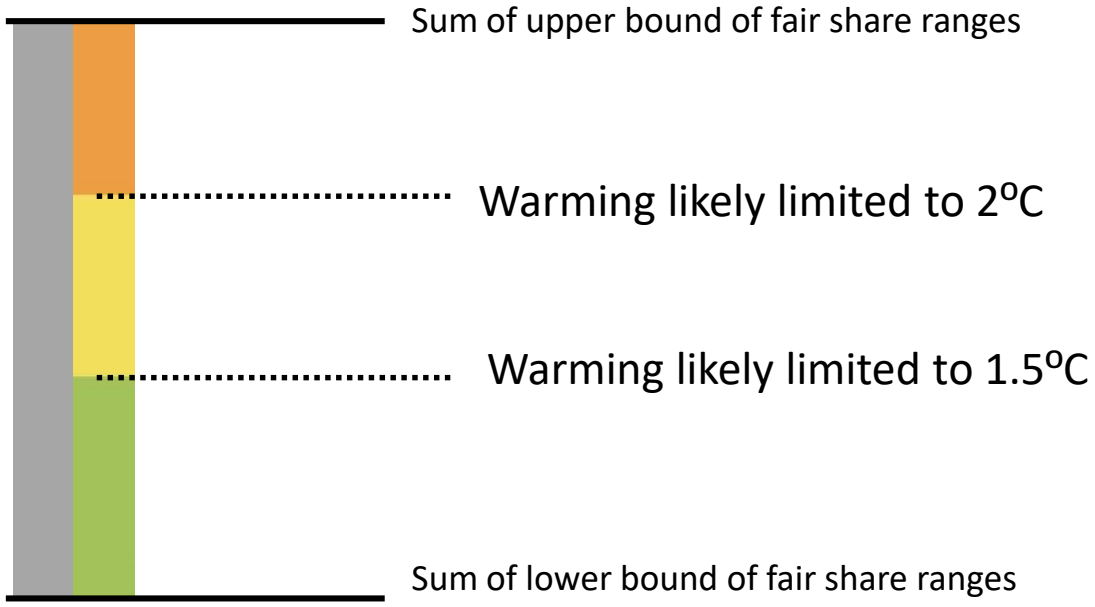
Assigning temperature outcomes



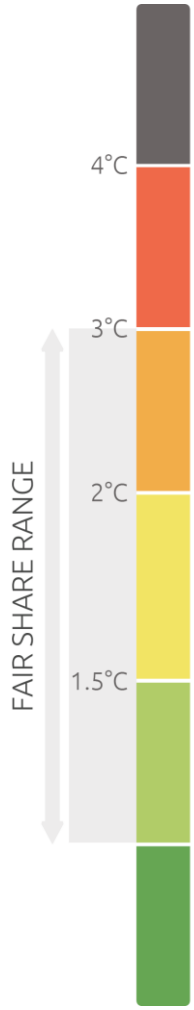
Step 6:

Compare aggregate global emissions levels to 1.5ºC and 2ºC compatible emissions pathways

Global fair share aggregation



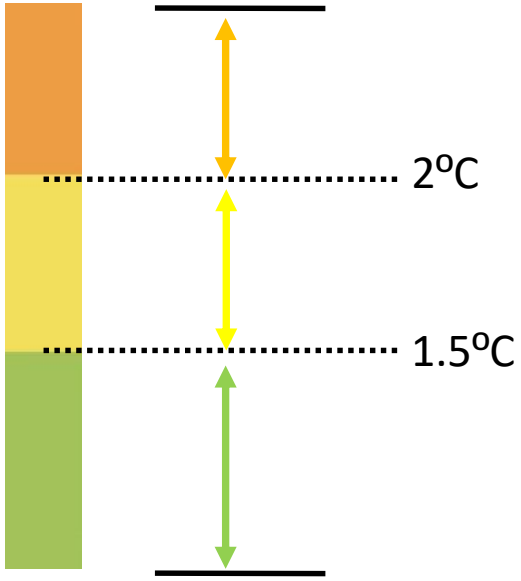
Assigning temperature outcomes



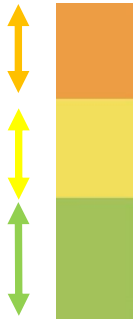
Step 7:

Apply relative fraction of the global fair share aggregation associated with 1.5°C and 2°C to each country's fair share range

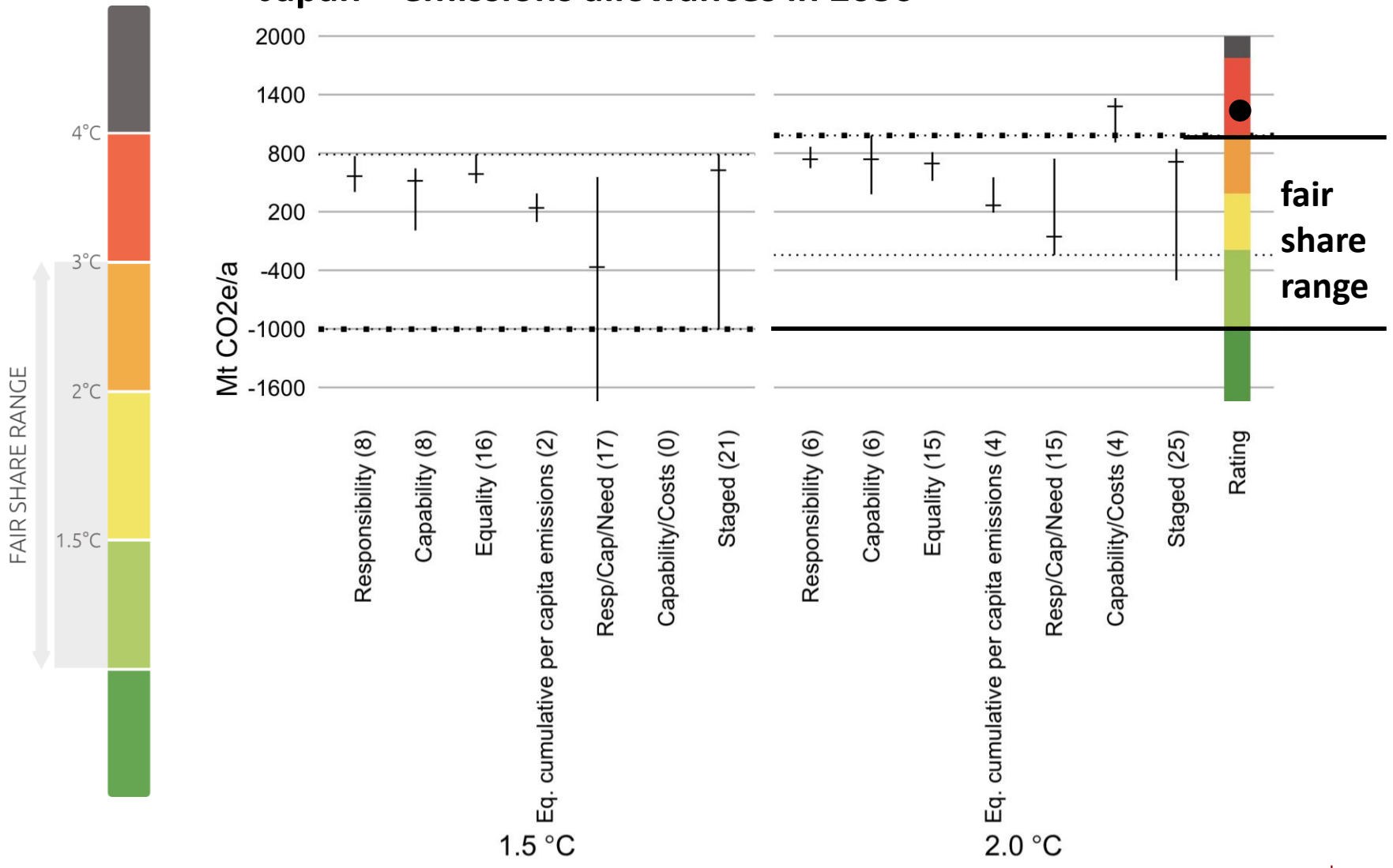
Global fair share aggregation



Country's fair share range



Assigning temperature outcomes



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EXTRA SLIDES

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CLIMATE ANALYTICS

Effort sharing categories

- **Responsibility:** emissions reductions below a reference are determined by the level of a country's historical emissions. This was first proposed by Brazil in the Kyoto Protocol negotiations (UNFCCC, 1997)
- **Capability/Need:** emissions reductions below a reference are determined by a country's level of economic capability, often measured by GDP/capita or the Human Development Index.
- **Equality:** emissions per capita converge to, or immediately reach, the same level for all countries, e.g. (Chakravarty et al., 2009; GCI, 2005)
- **Equal cumulative per capita emissions**: emissions need to be reduced so that cumulative emissions per capita reach the same level, e.g. (Pan, Teng, & Wang, 2013; WBGU, 2009)
- **Responsibility/capability/need:** a range of studies have explicitly used responsibility and capability as the basis for distributing emissions reductions e.g. (Paul Baer, Athanasiou, Kartha, & Kemp-Benedict, 2009; Winkler, Jayaraman, et al., 2011)
- **Capability/cost:** a range of studies use equal costs or welfare loss per GDP as a basis. This is essentially a combination of mitigation potential and capability.
- **Staged:** a suite of studies have proposed or have analysed approaches where countries take differentiated commitments in various stages. Categorisation to a stage and the respective commitments are determined by indicators using many equity principles, e.g.(Michel G J den Elzen & Meinshausen, 2005; Höhne, Gardiner, Gilbert, Hagemann, & Moltmann, 2008).

Morroco's NDC is rated "1.5ºC compatible" and it is set to meet its unconditional NDC target

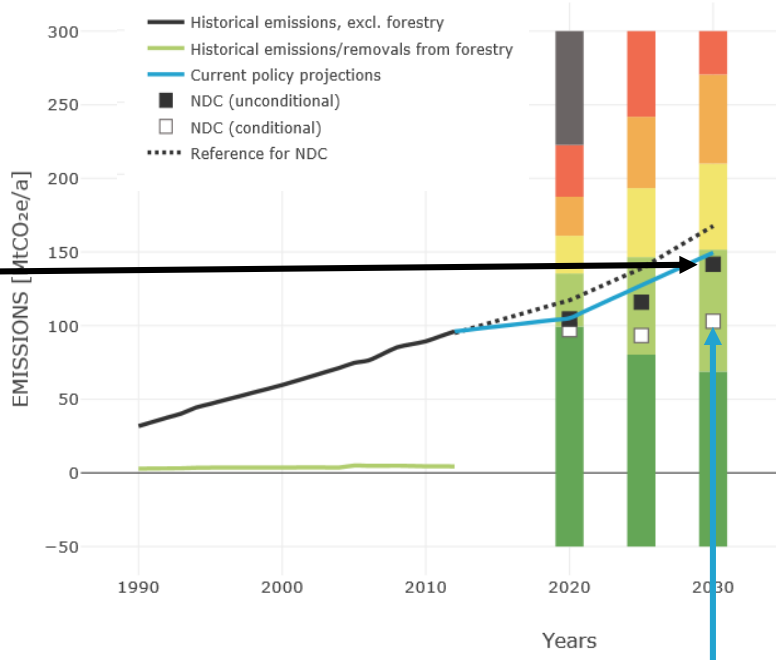
Climate Action Tracker

NDC

- Reduce GHG emissions by 42% below BAU by 2030, conditionally to receiving international financial support
- Increase unconditionally renewable energy generation capacity share to 42% by 2020 and 52% by 2030

Current policies

- 5 GW renewable energy by 2020, supported by state-level Power Purchase Agreements
- Law 47-09 on energy efficiency in construction sector
- Extension of Tramways in Rabat and Casablanca by 10km by 2020 and 45km by 2025



Policy outcomes

- Achieving energy savings of 12% by 2020 and 15% in 2030
- Non-fossil generation capacity will reach 38-48% in 2030
- Overachievement of NDC