

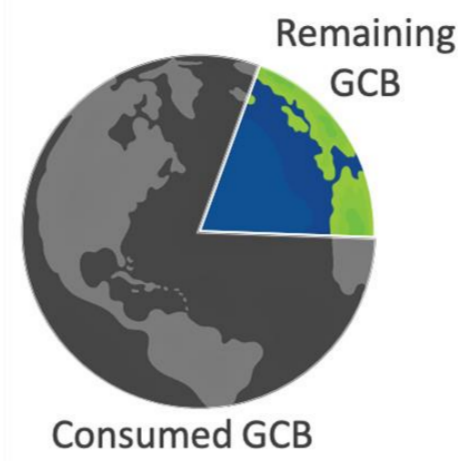
The Global Carbon Budget as a reference for equity

There is a direct relation between the global average temperature increase and the cumulative CO₂ emissions released into the atmosphere since the industrial revolution. The **Global Carbon Budget (GCB)** refers to the maximum amount of cumulative net global anthropogenic CO₂ emissions that would result in limiting global warming to a given level.

The **consumed GCB** represents the cumulative emissions historically released into the atmosphere, mainly by industrialized countries.

The **remaining GCB** is the total quantity of CO₂ emissions, that could still be emitted while keeping warming below a specific temperature level.

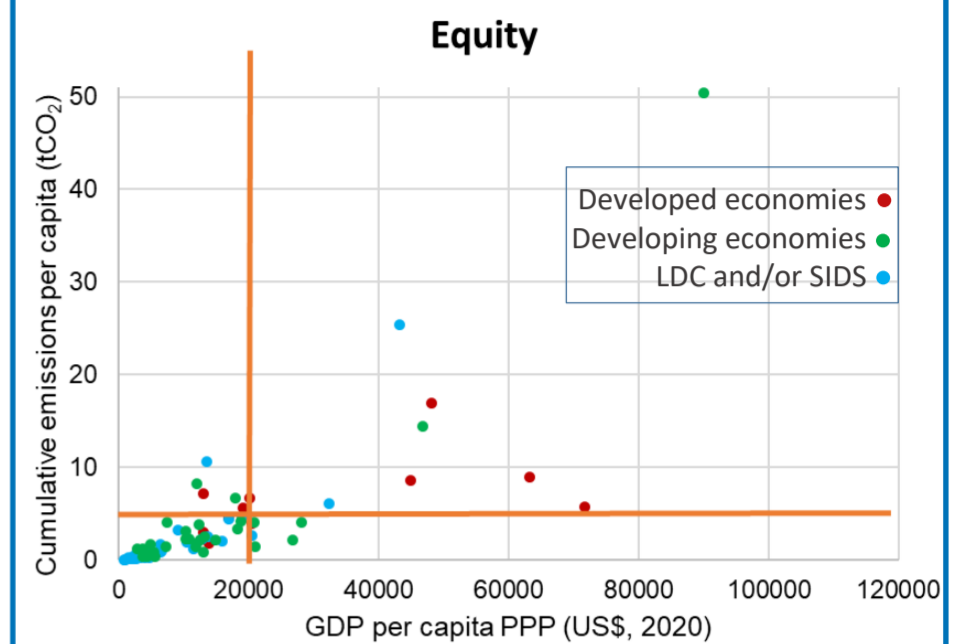
According to the AR6, the remaining GCB from the beginning of 2020 compatible with the Paris Agreement (PA) goal of limiting the global temperature increase to 1.5 °C, with a 67% probability, amounts to **400 GtCO₂**. The portion of the Remaining GCB that each country takes when implementing its NDC and LT-LEDS serves as a basis for determining its national climate equity perspective.



Graphic conceptualization of the Global Carbon Budget (own elaboration GGCC/UPC)

Information presented in the NDCs related to equity

Analysis of information provided by Parties in their NDCs on “How the Party considers that its Nationally Determined Contribution is fair and ambitious in the light of its national circumstances”, shows that very few countries with high historical responsibility and economic capacity included references to equity in their fairness argumentation.



Mapping of countries that refer to the principle of equity in the Fairness and Ambition section of their NDC. The vertical orange line indicates the value of the global average GDP per capita, while the horizontal orange line represents the global average of emissions per capita.

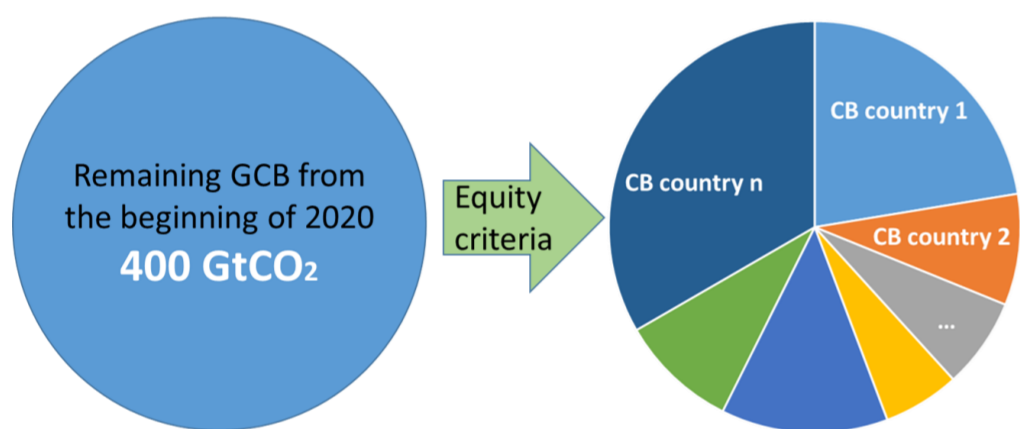
Equity in the Paris Agreement (PA) and in its mitigation component

Article 2.2 of the PA states: “This Agreement will be implemented to reflect **equity** and the principle of common but differentiated responsibilities and respective capacities, in the light of different national circumstances”. This indicates that the principles of equity and CBDR-RC are meant to guide the implementation of the PA and its operational provisions and related rules. This applies across the whole PA, but it is especially relevant to the operational provisions concerning mitigation and the Global Stocktake.

Article 4 of the PA on mitigation reinforces the equity idea in the context of the long-term goal for mitigation and sets a timetable for NDC ambition in the light of IPCC assessments of emissions cuts required to meet the long-term temperature goal. Article 4.1 states “In order to achieve the long-term goal ..., Parties aim to reach global peaking of GHG as soon as possible, recognizing that peaking will take longer for developing country Parties, and to undertake rapid reductions thereafter in accordance with best available science, so as to achieve a balance between anthropogenic emissions by sources and removals by sinks of GHG in the second half of this century, **on the basis of equity**, and in the context of sustainable development and efforts to eradicate poverty”. Thus, equity is intended not only to underpin the PA in general terms but also specifically to inform national mitigation contributions.

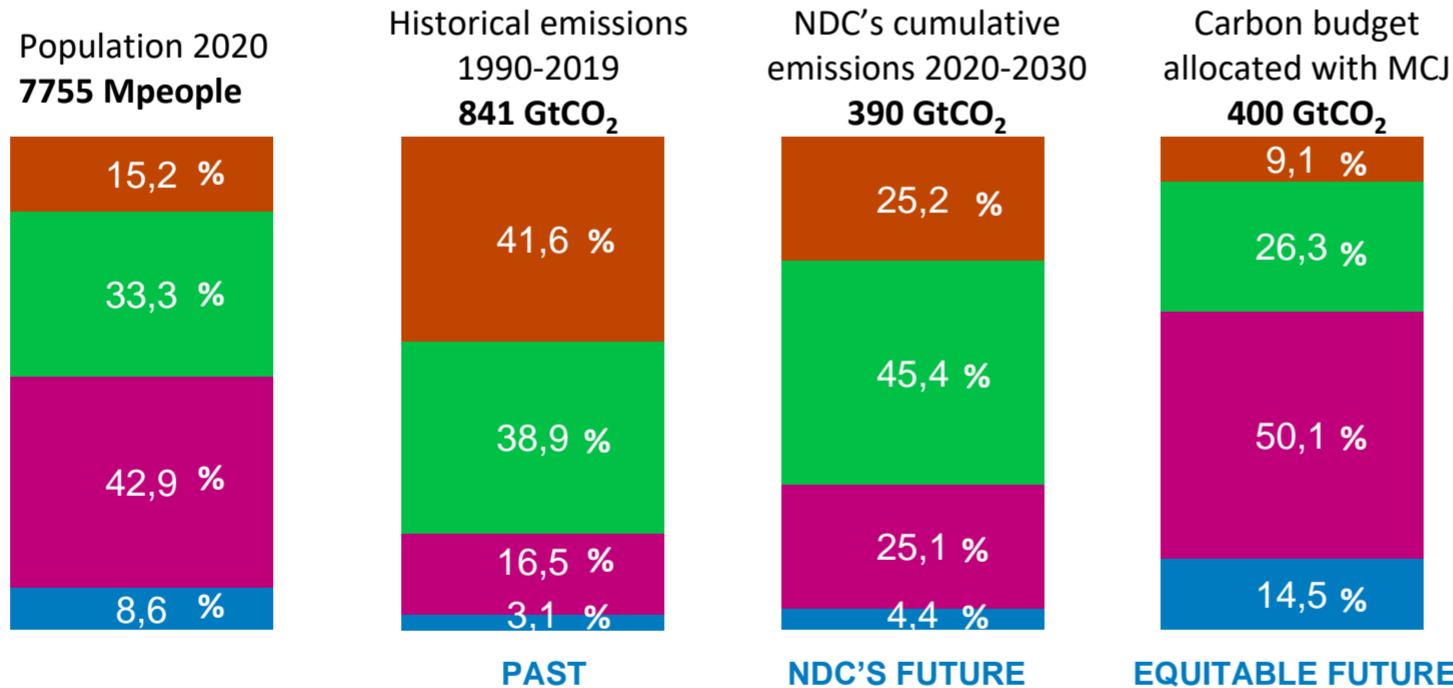
The Model of Climate Justice (MCJ)

The MCJ uses the four dimensions of equity to distribute the remaining GCB among different national Carbon Budgets (CB)

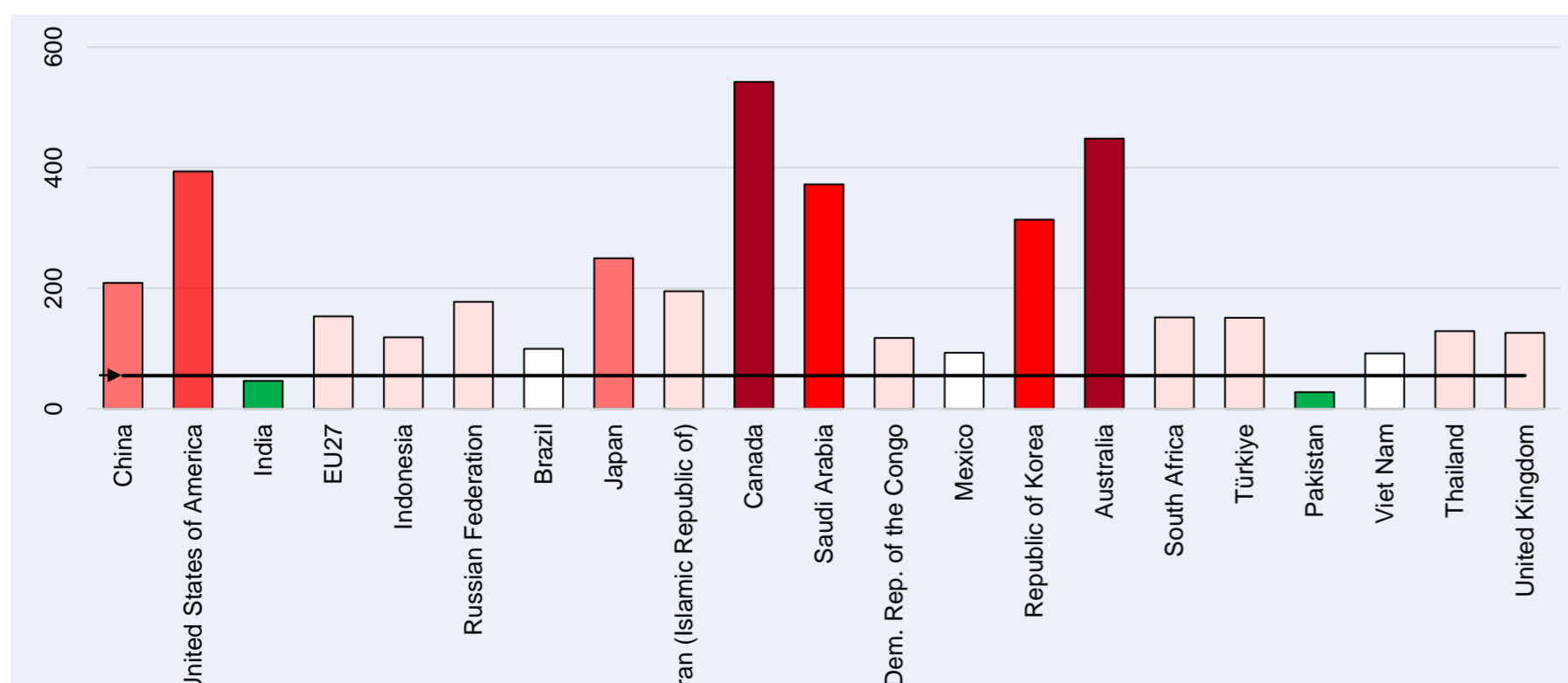


The four dimensions of equity according to the AR5-IPCC

Equality	Responsibility	Capacity	Right to sustainable development
Each human being should tend to the same GHG emissions level	Historical and present GHG emissions of a country	The more one can afford to contribute to solving the climate problem, the more one should	The interest of poor people, of all countries, in meeting basic needs must be a priority
Population of a country with respect to the global population	Cumulative historical emissions per capita	Cumulative GDP per capita	SDG, HDI, ...



PERCENTAGE OF NDCs CARBON BUDGET CONSUMPTION



Percentage of NDC's carbon budget consumption by 2030 with respect to the carbon budget allocated by the MCJ. Assuming that, in order to achieve the 1.5 °C goal, the world has to reach CO₂ neutrality by 2050, the carbon budget consumed by 2030, in average, should not exceed the 55 % of the global carbon budget. Current top emitters shown.

- ✓ The share of the carbon space used by the high income countries decreases with respect to the historical period. But there is not compensation for the low and lower middle income countries in accordance with their development needs.
- ✓ The low and lower middle income countries could increase the carbon space they use to meet their development needs according to the MCJ model which is build on the basis of equity.
- ✓ The low share of future cumulative emissions of low and lower middle income countries could seriously affect their development, considering the lack of some basic infrastructures and also the adaptation challenges that these countries have to face.
- ✓ According to equity, the high income countries must reduce the share of the carbon space they are taking whilst low and lower middle income countries could increase it.
- ✓ A sufficient share of the remaining global carbon budget must remain at disposal of low and lower middle income countries to guarantee their right to development.
- ✓ According to the NDCs, by 2030, historically GHG emitters will have more than exhausted the carbon budget that has been allocated to them with the MCJ based on equity criteria.
- ✓ Equity seems to be forgotten in the NDCs of some historically GHG emitters.
- ✓ The current NDCs should be revised in order to be more ambitious and equitable. Ambition could be increased if equity is seriously considered by historically GHG emitters.