more different framework data and corresponding results at: http://results-espm.save-the-climate.info

framework data (input values here: yellow fields)			
		Gt	determination
global CO2 budget 2020 - 2100		**400**	global budget
land-use change (LUC) emissions 2020 - 2100		**0**	
international shipping and aviation (ISA) emissions 2020 - 2100	3%	-12	
global CO2 budget 2020 - 2100 to distribute here		388	
weighting population key in the weighted key	**15%**		national budget
scenario type used for the reference values	**RM-6-abs**		paths

Calculation **global budget** to distribute here:

LUC and ISA emissions are not considered here. Global LUC and ISA budgets are therefore offset against the global budget.

A value of **zero** for **LUC** means that by 2100, in total, net positive LUC emissions are offset by net negative LUC emissions.

reference values for the countries with the highest emissions					emissions 2019 in Gt	per capita 2019 in t	share in global emissions 2019	share in global population 2019	year emissions neutrality	normalised change rate 2020
target year:	2030		2040							
reference year:	1990	2019	1990	2019						
China	117%	-56%	-100%	-100%	11.8	8	32%	18%	2036	-
United States	-56%	-55%	-100%	-100%	5.0	15	14%	4%	2037	-
EU27	-63%	-51%	-100%	-100%	2.9	7	8%	6%	2039	-
India	170%	-36%	-53%	-89%	2.5	2	7%	18%	2043	-
Russia	-65%	-56%	-100%	-100%	1.9	13	5%	2%	2036	-
Japan	-55%	-53%	-100%	-100%	1.1	9	3%	2%	2038	-
sum							69%	50%		

largest national budgets 2020 - 2100	national budget	weighted key	emissions 2019	scope years
	Gt		Gt	
China	117.5	30.3%	11.82	10
United States	47.3	12.2%	4.97	10
India	33.3	8.6%	2.54	13
EU27	29.6	7.6%	2.90	10
Russia	18.0	4.6%	1.88	10
Japan	11.1	2.9%	1.13	10
Indonesia	7.8	2.0%	0.64	12
Germany	6.9	1.8%	0.69	10
Iran	6.6	1.7%	0.66	10
South Korea	6.3	1.6%	0.65	10
Brazil	5.8	1.5%	0.47	12
Canada	5.6	1.5%	0.59	10
Saudi Arabia	5.5	1.4%	0.58	9
Mexico	5.4	1.4%	0.48	11
South Africa	4.8	1.2%	0.48	10
Türkiye	4.4	1.1%	0.42	11
Australia	3.9	1.0%	0.41	9
Vietnam	3.7	1.0%	0.33	11
United Kingdom	3.7	1.0%	0.36	10
Italy, San Marino and the Holy See	3.4	0.9%	0.33	10
France and Monaco	3.4	0.9%	0.32	11
Pakistan	3.3	0.9%	0.20	17
Poland	3.1	0.8%	0.31	10
Thailand	3.1	0.8%	0.28	11
Egypt	2.9	0.7%	0.23	12
Taiwan	2.7	0.7%	0.28	10
Spain and Andorra	2.7	0.7%	0.26	10
Nigeria	2.6	0.7%	0.12	21
Malaysia	2.5	0.7%	0.25	10
Bangladesh	2.2	0.6%	0.11	21
Philippines	2.2	0.6%	0.15	15
Ukraine	2.2	0.6%	0.20	11
Kazakhstan	2.1	0.5%	0.21	10
Iraq	2.0	0.5%	0.19	11
Argentina	1.9	0.5%	0.18	11
Algeria	1.9	0.5%	0.18	11
United Arab Emirates	1.9	0.5%	0.20	9
Netherlands	1.6	0.4%	0.16	10
Uzbekistan	1.4	0.4%	0.12	11
Venezuela	1.3	0.3%	0.11	11
Colombia	1.1	0.3%	0.08	14
Czechia	1.0	0.3%	0.10	10
Ethiopia	1.0	0.3%	0.02	54
Chile	1.0	0.3%	0.09	10
sum without EU	352		34	
sum across all countries	388		37	11

Basic idea behind the ESPM

The ESPM consists of two steps:

(1) **National budgets**: A predefined global CO2 budget is distributed to countries. The ESPM tool offers the use of a **weighted distribution key** that includes the **'population'** and the **'emissions'** in a base year (here: 2019).

(2) **National paths**: The ESPM tool offers the Regensburg Model Scenario Types to derive plausible national paths that adhere to a national budget.

Basic idea behind the scenario types RM 1 - 6

With the help of the RM Scenario Types, emission paths can be determined that meet a given budget. The scenario types differ in the **assumption** about the **property** of the **annual reductions**. This approach is particularly useful when it comes

Brief description of the ESPM:
http://espm-short.climate-calculator.info

Brief description of the RM Scenario Types:
http://rm-scenario-types.climate-calculator.info

Published paper for the six largest emitters:
https://doi.org/10.5281/zenodo.4764408

Overview of web apps for ESPM:
https://climate-calculator.info