

Overview results ESPM and RM for the largest emitters

- reference values for NDCs -

	global budget:		420 Gt		680 Gt		420 Gt		680 Gt	
	Extended Smooth Pathway Model					Regensburg Model				
	weighting population	change rate 2030 vs. 1990	CO ₂ budget 2020 - 2100	change rate 2030 vs. 1990	CO ₂ budget 2020 - 2100	change rate 2030 vs. 1990	CO ₂ budget 2020 - 2100	change rate 2030 vs. 1990	CO ₂ budget 2020 - 2100	
			in Gt		in Gt		in Gt		in Gt	
China	50%	108%	69	161%	123	128%	81	196%	146	
	15%	122%	81	184%	144					
USA	50%	-58%	26	-46%	46	-50%	36	-35%	66	
	15%	-51%	36	-39%	64					
EU28	50%	-66%	22	-56%	39	-63%	24	-52%	44	
	15%	-63%	25	-55%	44					
India	50%	167%	35	239%	62	143%	25	199%	42	
	15%	134%	25	194%	44					
Russia	50%	-70%	9	-60%	17	-64%	12	-53%	22	
	15%	-66%	12	-55%	22					
Japan	50%	-57%	7	-45%	12	-51%	8	-36%	15	
	15%	-53%	8	-40%	15					
implicit weighting population:						15%	11%			

largest emitters	China	USA	EU28	India	Russia	Japan	sum	global
current annual CO ₂ emissions in Gt	11	5	3	3	2	1	25	37
share in global emissions	31%	14%	9%	7%	5%	3%	70%	
t per capita	8	16	7	2	12	9		5

Key premises:

RM-5-rad was used as the scenario type, which maps the global paths described by the IPCC (cf. [SR15](#), SPM, C.1) well and minimizes the need for net negative emissions. 16% of the global CO₂ budget has been reserved for FOLU CO₂ and international shipping and aviation, which is roughly their share of current annual emissions. These emissions were not considered here.

12% of the current annual emissions were assumed to be the minimum for annual net negative emissions after the achievement of emission neutrality.

More information and download of the tools at: save-the-climate.info.