

reference values selected scenario type: RM-3 lin	target year 2030		target year 2050		emissions 2019 in Mill. t	per capita emissions 2019 in t	
	vs. reference year	1990	2010	1990			2010
Afghanistan		311%	88%	284%	76%	11,00	0,29
Albania		-40%	-14%	-86%	-80%	5,66	1,96
Algeria		80%	5%	-75%	-85%	180,57	4,19
Angola		75%	-17%	-22%	-63%	25,82	0,81
Anguilla		173%	-30%	-26%	-81%	0,02	1,58
Antigua and Barbuda		54%	-4%	-81%	-88%	0,51	5,25
Argentina		25%	-30%	-83%	-91%	199,41	4,45
Armenia		-80%	-7%	-95%	-79%	5,92	2,00
Aruba		76%	5%	-82%	-89%	0,78	7,37
Australia		3%	-31%	-92%	-95%	433,38	17,20
Austria		-23%	-36%	-93%	-94%	72,36	8,08
Azerbaijan		-55%	-1%	-93%	-85%	35,98	3,58
Bahamas		8%	-6%	-88%	-90%	2,45	6,29
Bahrain		95%	-19%	-86%	-94%	35,44	21,59
Bangladesh		504%	46%	210%	-25%	110,16	0,68
Barbados		227%	9%	-74%	-91%	3,83	13,33
Belarus		-59%	-34%	-96%	-93%	66,34	7,02
Belgium		-40%	-40%	-94%	-94%	104,41	9,05
Belize		48%	10%	-41%	-56%	0,37	0,95
Benin		1442%	25%	679%	-37%	8,15	0,69
Bermuda		-30%	-34%	-92%	-92%	0,35	5,60
Bhutan		602%	11%	27%	-80%	2,12	2,78
Bolivia		162%	15%	-43%	-75%	24,51	2,13
Bosnia and Herzegovina		-9%	0%	-92%	-91%	33,50	10,15
Botswana		71%	38%	-71%	-77%	7,04	3,06
Brazil		46%	-26%	-70%	-85%	478,15	2,27
British Virgin Islands		213%	16%	-56%	-84%	0,12	4,05
Brunei		39%	-37%	-90%	-95%	7,02	16,20
Bulgaria		-65%	-40%	-96%	-93%	43,31	6,19
Burkina Faso		1008%	124%	1275%	178%	3,64	0,18
Burundi		496%	452%	1281%	1180%	0,34	0,03
Cabo Verde		1375%	117%	254%	-48%	1,02	1,86
Cambodia		2919%	145%	1053%	-6%	16,49	1,00
Cameroon		86%	16%	42%	-11%	10,10	0,39
Canada		-15%	-32%	-94%	-95%	584,85	15,63
Cayman Islands		82%	-5%	-80%	-89%	0,40	6,20
Central African Republic		371%	113%	660%	243%	0,49	0,10
Chad		649%	382%	1401%	866%	0,89	0,06
Chile		84%	-16%	-76%	-89%	89,89	4,74
China		220%	-16%	-69%	-92%	11.535,20	8,05
Colombia		17%	-8%	-70%	-77%	86,55	1,72
Comoros		340%	61%	348%	64%	0,21	0,25
Congo		78%	-20%	-36%	-71%	5,80	1,08
Cook Islands		-29%	-48%	-86%	-90%	0,04	2,50
Costa Rica		117%	-13%	-46%	-78%	8,98	1,78
Côte d'Ivoire		269%	48%	128%	-9%	13,56	0,53
Croatia		-49%	-40%	-93%	-92%	19,12	4,63
Cuba		-44%	-37%	-90%	-88%	31,04	2,74
Curaçao		-29%	-37%	-96%	-96%	5,91	36,19
Cyprus		9%	-38%	-88%	-93%	7,41	6,19
Czechia		-57%	-42%	-96%	-95%	105,69	9,89
Democratic Republic of the Congo		182%	218%	535%	616%	2,98	0,03
Denmark		-61%	-57%	-95%	-95%	31,12	5,39
Djibouti		-30%	-31%	-75%	-75%	1,05	1,08
Dominica		128%	-9%	-34%	-74%	0,10	1,44
Dominican Republic		134%	-12%	-55%	-83%	27,28	2,54
Ecuador		61%	-25%	-67%	-85%	40,70	2,34
Egypt		94%	-17%	-63%	-84%	255,37	2,54
El Salvador		99%	-22%	-30%	-72%	7,15	1,11
Equatorial Guinea		2365%	-45%	370%	-89%	3,47	2,56
Eritrea		276%	70%	322%	91%	0,75	0,21

reference values selected scenariotype: RM-3 lin	target year 2030		target year 2050		emissions 2019 in Mill. t	per capita emissions 2019 in t		
	vs. reference year		1990	2010			1990	2010
	1990	2010	1990	2010			1990	2010
Estonia	-68%	-45%	-97%	-96%	18,50	13,96		
Eswatini	42%	-58%	-46%	-84%	1,14	1,00		
Ethiopia	816%	218%	1096%	316%	18,25	0,16		
Falkland Islands	62%	-10%	-85%	-92%	0,03	9,40		
Faroese	276%	198%	723%	551%	0,00	0,04		
Fiji	-6%	-19%	-74%	-78%	1,36	1,53		
Finland	-49%	-56%	-95%	-96%	43,41	7,85		
France and Monaco	-45%	-44%	-93%	-93%	314,74	4,83		
French Guiana	15%	-20%	-75%	-82%	0,61	2,10		
French Polynesia	-50%	-53%	-89%	-90%	0,60	2,15		
Gabon	-60%	-58%	-89%	-89%	3,48	1,60		
Georgia	-74%	48%	-96%	-77%	13,47	3,37		
Germany	-54%	-43%	-96%	-95%	702,60	8,41		
Ghana	331%	21%	157%	-28%	16,84	0,55		
Gibraltar	219%	-4%	-78%	-93%	0,69	20,58		
Greece	-44%	-51%	-94%	-95%	65,57	6,26		
Greenland	11555%	-46%	960%	-95%	0,54	9,47		
Grenada	114%	12%	-52%	-75%	0,23	2,04		
Guadeloupe	45%	6%	-81%	-86%	1,87	4,68		
Guatemala	295%	32%	31%	-56%	21,20	1,21		
Guinea	185%	119%	207%	137%	2,92	0,23		
Guinea-Bissau	134%	13%	153%	23%	0,44	0,23		
Guyana	217%	36%	-26%	-68%	1,52	1,94		
Haiti	192%	42%	157%	25%	3,58	0,32		
Honduras	223%	-5%	18%	-65%	10,36	1,06		
Hong Kong	-14%	-31%	-90%	-92%	44,02	5,92		
Hungary	-50%	-31%	-94%	-92%	53,18	5,49		
Iceland	11%	-30%	-91%	-94%	3,93	11,58		
India	204%	4%	-28%	-76%	2.597,36	1,90		
Indonesia	165%	3%	-46%	-79%	625,66	2,31		
Iran	129%	-18%	-78%	-92%	701,99	8,47		
Iraq	92%	6%	-76%	-87%	197,61	5,03		
Ireland	-26%	-41%	-92%	-94%	36,55	7,49		
Israel and Palestine, State of	30%	-36%	-84%	-92%	68,33	5,06		
Italy, San Marino and the Holy See	-48%	-48%	-94%	-94%	331,56	5,47		
Jamaica	-32%	-31%	-87%	-87%	7,44	2,52		
Japan	-33%	-36%	-94%	-94%	1.153,72	9,09		
Jordan	91%	-5%	-66%	-83%	28,34	2,81		
Kazakhstan	-27%	-24%	-94%	-94%	277,36	14,95		
Kenya	173%	34%	114%	5%	19,81	0,38		
Kiribati	62%	-37%	52%	-41%	0,03	0,29		
Kuwait	100%	-24%	-86%	-95%	98,95	23,52		
Kyrgyzstan	-65%	28%	-92%	-69%	11,92	1,86		
Laos	2270%	196%	844%	18%	6,78	0,95		
Latvia	-72%	-38%	-96%	-92%	8,38	4,39		
Lebanon	211%	-9%	-56%	-87%	27,44	4,00		
Lesotho	583%	28%	457%	4%	0,75	0,35		
Liberia	197%	115%	208%	123%	1,21	0,24		
Libya	-6%	-43%	-91%	-94%	52,05	7,68		
Lithuania	-74%	-33%	-97%	-92%	13,77	4,99		
Luxembourg	-45%	-43%	-96%	-96%	9,74	15,82		
Macao	-9%	-25%	-79%	-83%	1,27	1,99		
Madagascar	637%	134%	886%	213%	4,20	0,16		
Malawi	495%	85%	933%	221%	1,62	0,09		
Malaysia	189%	-23%	-71%	-92%	248,83	7,79		
Maldives	883%	-27%	150%	-81%	0,91	1,72		
Mali	531%	319%	1188%	755%	1,03	0,05		
Malta	-69%	-72%	-94%	-94%	1,04	2,37		
Martinique	39%	-2%	-83%	-88%	1,95	5,20		
Mauritania	694%	164%	104%	-32%	7,66	1,69		
Mauritius	148%	-20%	-61%	-87%	4,33	3,41		

reference values selected scenariotype: RM-3 lin	target year 2030		target year 2050		emissions 2019 in Mill. t	per capita emissions 2019 in t	
	vs. reference year	1990	2010	1990			2010
Mexico		13%	-31%	-83%	-90%	485,00	3,80
Moldova		-80%	-23%	-96%	-84%	9,23	2,28
Mongolia		81%	66%	-85%	-86%	35,93	11,14
Morocco		131%	0%	-48%	-78%	73,91	2,03
Mozambique		643%	138%	570%	115%	9,26	0,30
Myanmar/Burma		717%	326%	240%	77%	48,31	0,89
Namibia		102%	1%	-50%	-75%	4,40	1,76
Nepal		1031%	158%	600%	60%	15,02	0,52
Netherlands		-35%	-44%	-94%	-95%	156,41	9,15
New Caledonia		534%	108%	-63%	-88%	15,66	55,37
New Zealand		8%	-24%	-89%	-93%	38,67	8,08
Nicaragua		125%	-5%	-7%	-61%	5,86	0,90
Niger		299%	153%	552%	314%	2,36	0,10
Nigeria		12%	-8%	-28%	-41%	100,22	0,50
North Korea		-77%	-43%	-94%	-85%	42,17	1,64
North Macedonia		-46%	-34%	-93%	-91%	8,92	4,28
Norway		-14%	-32%	-92%	-94%	47,99	8,92
Oman		294%	17%	-72%	-92%	92,78	18,65
Pakistan		154%	9%	-5%	-59%	223,63	1,03
Palau		-59%	-59%	-98%	-98%	1,33	73,84
Panama		193%	-15%	-47%	-85%	11,63	2,74
Papua New Guinea		50%	12%	1%	-24%	4,07	0,46
Paraguay		173%	19%	-9%	-60%	8,47	1,20
Peru		91%	-12%	-52%	-78%	56,29	1,73
Philippines		147%	24%	-27%	-63%	150,64	1,39
Poland		-43%	-35%	-95%	-94%	317,65	8,38
Portugal		-25%	-39%	-90%	-92%	48,47	4,74
Puerto Rico		37%	22%	-58%	-63%	3,91	1,33
Qatar		312%	0%	-74%	-94%	106,53	37,61
Réunion		104%	-30%	-68%	-89%	3,02	3,40
Romania		-72%	-36%	-96%	-91%	78,63	4,06
Russia		-50%	-31%	-96%	-94%	1.792,02	12,28
Rwanda		259%	138%	510%	305%	1,15	0,09
Saint Helena, Ascension and Tristan da		15%	-5%	-78%	-82%	0,02	2,61
Saint Kitts and Nevis		282%	-8%	-42%	-86%	0,19	3,67
Saint Lucia		178%	-1%	-26%	-74%	0,30	1,63
Saint Pierre and Miquelon		-72%	16%	-98%	-90%	0,06	10,64
Saint Vincent and the Grenadines		177%	-2%	-14%	-70%	0,15	1,32
Samoa		-16%	-8%	-58%	-54%	0,14	0,71
São Tomé and Príncipe		165%	-7%	27%	-55%	0,16	0,74
Saudi Arabia		135%	-15%	-83%	-94%	614,61	17,94
Senegal		229%	12%	84%	-37%	9,81	0,60
Serbia and Montenegro		-29%	-21%	-93%	-92%	70,69	7,52
Seychelles		143%	-25%	-79%	-93%	1,05	10,75
Sierra Leone		118%	120%	171%	173%	1,40	0,18
Singapore		13%	-30%	-90%	-94%	53,37	9,19
Slovakia		-60%	-40%	-96%	-94%	35,99	6,59
Slovenia		-38%	-43%	-94%	-94%	15,37	7,39
Solomon Islands		13%	-18%	29%	-6%	0,14	0,21
Somalia		190%	143%	462%	371%	0,97	0,06
South Africa		6%	-29%	-90%	-93%	494,86	8,45
South Korea		60%	-28%	-87%	-94%	651,87	12,73
Spain and Andorra		-24%	-40%	-91%	-93%	259,31	5,54
Sri Lanka		370%	45%	48%	-55%	27,57	1,29
Sudan and South Sudan		251%	17%	155%	-15%	22,57	0,42
Suriname		54%	-18%	-76%	-87%	2,06	3,54
Sweden		-48%	-43%	-93%	-92%	44,75	4,46
Switzerland and Liechtenstein		-41%	-43%	-92%	-92%	39,37	4,56
Syria		-37%	-67%	-84%	-92%	29,16	1,71
Taiwan		48%	-32%	-88%	-94%	276,78	11,64
Tajikistan		-46%	113%	-78%	-16%	8,92	0,96

reference values selected scenariotype: RM-3 lin	target year 2030		target year 2050		emissions 2019 in Mill. t	per capita emissions 2019 in t	
	vs. reference year	1990	2010	1990			2010
Tanzania		560%	94%	610%	108%	13,34	0,23
Thailand		100%	-24%	-71%	-89%	275,06	3,95
The Gambia		302%	27%	309%	29%	0,59	0,25
Timor-Leste		182%	46%	159%	34%	0,38	0,30
Togo		239%	2%	177%	-16%	2,85	0,35
Tonga		45%	-47%	-53%	-83%	0,13	1,22
Trinidad and Tobago		71%	-44%	-88%	-96%	32,74	23,47
Tunisia		50%	-21%	-73%	-86%	32,07	2,74
Turkey		87%	-9%	-77%	-89%	415,78	4,98
Turkmenistan		31%	-3%	-90%	-93%	90,52	15,23
Turks and Caicos Islands		1216%	-13%	103%	-87%	0,13	3,53
Uganda		1057%	97%	1650%	199%	5,34	0,12
Ukraine		-83%	-57%	-98%	-94%	196,40	4,46
United Arab Emirates		158%	-15%	-82%	-94%	222,61	22,78
United Kingdom		-58%	-51%	-95%	-94%	364,91	5,40
United States		-33%	-39%	-95%	-95%	5.107,26	15,52
Uruguay		18%	-28%	-72%	-83%	6,56	1,90
Uzbekistan		-47%	-39%	-91%	-89%	94,99	2,88
Vanuatu		-36%	-31%	-40%	-35%	0,09	0,29
Venezuela		-27%	-60%	-89%	-94%	110,06	3,86
Vietnam		920%	35%	69%	-78%	305,25	3,16
Western Sahara		71%	-7%	8%	-41%	0,30	0,51
Yemen		42%	-63%	11%	-71%	10,89	0,37
Zambia		119%	185%	59%	107%	7,50	0,42
Zimbabwe		-51%	-16%	-76%	-60%	10,86	0,74
EU27		-48%	-42%	-94%	-94%	2.939,07	6,60
EU28		-50%	-44%	-95%	-94%	3.303,97	6,45
sub sum						42.901,88	
EU27						-2.939,07	
EU28						-3.303,97	
sum						36.658,83	
global 2019*						36.658,83	
difference						0,00	

\* excl. LUC and ISA

reference values scenario: RM-3 lin sorted by 'emissions 2019'	target year 2030		target year 2050		emissions 2019 in Mill. t	per capita emissions 2019 in t	share in the global emissions in 2019	share cumulative emissions without EU
	vs. reference year	1990	2010	1990				
China	220%	-16%	-69%	-92%	11.535	8,0	31,5%	31%
United States	-33%	-39%	-95%	-95%	5.107	15,5	13,9%	45%
EU28	-50%	-44%	-95%	-94%	3.304	6,4	9,0%	45%
EU27	-48%	-42%	-94%	-94%	2.939	6,6	8,0%	45%
India	204%	4%	-28%	-76%	2.597	1,9	7,1%	52%
Russia	-50%	-31%	-96%	-94%	1.792	12,3	4,9%	57%
Japan	-33%	-36%	-94%	-94%	1.154	9,1	3,1%	61%
Germany	-54%	-43%	-96%	-95%	703	8,4	1,9%	62%
Iran	129%	-18%	-78%	-92%	702	8,5	1,9%	64%
South Korea	60%	-28%	-87%	-94%	652	12,7	1,8%	66%
Indonesia	165%	3%	-46%	-79%	626	2,3	1,7%	68%
Saudi Arabia	135%	-15%	-83%	-94%	615	17,9	1,7%	70%
Canada	-15%	-32%	-94%	-95%	585	15,6	1,6%	71%
South Africa	6%	-29%	-90%	-93%	495	8,5	1,3%	72%
Mexico	13%	-31%	-83%	-90%	485	3,8	1,3%	74%
Brazil	46%	-26%	-70%	-85%	478	2,3	1,3%	75%
Australia	3%	-31%	-92%	-95%	433	17,2	1,2%	76%
Turkey	87%	-9%	-77%	-89%	416	5,0	1,1%	77%
United Kingdom	-58%	-51%	-95%	-94%	365	5,4	1,0%	78%
Italy, San Marino and the Holy S	-48%	-48%	-94%	-94%	332	5,5	0,9%	79%
Poland	-43%	-35%	-95%	-94%	318	8,4	0,9%	80%

sum emissions 2020 - 2100 - national budgets -  in Mill. t	RM-1	RM-2	RM-3	RM-4	RM-5	RM-6	average	scope
	const	exp	lin	quadr	rad	abs	budget	average
							RM 2 - 6	budget
Afghanistan	595,18	338,81	386,49	350,05	467,82	348,98	378,4	34
Albania	110,42	98,25	100,56	98,85	104,49	98,82	100,2	18
Algeria	2.949,96	2.912,13	2.920,76	2.916,17	2.935,12	2.916,79	2.920,2	16
Angola	722,92	533,38	568,79	541,93	629,16	541,22	562,9	22
Anguilla	0,49	0,42	0,43	0,42	0,46	0,42	0,4	18
Antigua and Barbuda	8,04	8,11	8,11	8,12	8,09	8,12	8,1	16
Argentina	3.225,37	3.203,43	3.209,28	3.207,04	3.218,86	3.207,80	3.209,3	16
Armenia	114,88	102,55	104,89	103,16	108,87	103,14	104,5	18
Aruba	11,86	12,28	12,21	12,27	12,09	12,27	12,2	16
Australia	6.163,61	6.633,22	6.549,91	6.618,68	6.406,92	6.622,59	6.566,3	15
Austria	1.084,85	1.129,21	1.121,62	1.128,26	1.108,53	1.128,76	1.123,3	16
Azerbaijan	605,09	587,02	590,69	588,28	596,89	588,35	590,2	16
Bahamas	37,73	38,61	38,47	38,61	38,23	38,62	38,5	16
Bahrain	499,09	540,50	533,13	539,18	520,48	539,51	534,6	15
Bangladesh	3.404,24	2.400,04	2.587,42	2.444,96	2.906,87	2.441,08	2.556,1	23
Barbados	55,19	58,88	58,23	58,77	57,11	58,80	58,4	15
Belarus	1.009,06	1.040,81	1.035,51	1.040,32	1.026,33	1.040,75	1.036,7	16
Belgium	1.549,14	1.623,07	1.610,28	1.621,27	1.588,25	1.622,04	1.613,0	15
Belize	9,60	7,36	7,78	7,46	8,49	7,45	7,7	21
Benin	248,82	176,41	189,92	179,65	212,96	179,37	187,7	23
Bermuda	5,47	5,55	5,54	5,55	5,52	5,55	5,5	16
Bhutan	37,71	35,43	35,87	35,55	36,62	35,55	35,8	17
Bolivia	466,94	421,15	429,87	423,46	444,69	423,36	428,5	17
Bosnia and Herzegovina	492,25	518,84	514,21	518,14	506,23	518,40	515,2	15
Botswana	122,34	116,38	117,54	116,73	119,53	116,73	117,4	17
Brazil	8.949,85	8.153,56	8.305,63	8.194,40	8.564,10	8.193,01	8.282,1	17
British Virgin Islands	2,00	1,97	1,97	1,97	1,98	1,97	2,0	16
Brunei	100,14	107,57	106,25	107,34	103,99	107,40	106,5	15
Bulgaria	668,59	683,38	681,02	683,32	676,91	683,57	681,6	16
Burkina Faso	287,71	147,41	173,49	153,53	217,96	152,94	169,1	46
Burundi	139,84	57,63	72,90	61,20	98,93	60,84	70,3	208
Cabo Verde	20,31	17,90	18,35	18,01	19,13	18,01	18,3	18
Cambodia	416,64	323,13	340,63	327,39	370,46	327,06	337,7	20
Cameroon	440,33	269,88	301,61	277,39	355,72	276,69	296,3	29
Canada	8.357,68	8.967,03	8.859,14	8.948,47	8.673,90	8.953,64	8.880,4	15
Cayman Islands	6,22	6,36	6,33	6,36	6,30	6,36	6,3	16
Central African Republic	62,35	29,05	35,24	30,50	45,79	30,36	34,2	69
Chad	199,16	86,12	107,11	91,02	142,92	90,54	103,5	116
Chile	1.439,41	1.438,37	1.439,37	1.439,62	1.440,88	1.440,00	1.439,6	16
China	173.006,06	180.032,79	178.831,28	179.882,67	176.758,42	179.962,93	179.093,6	16
Colombia	1.762,39	1.531,20	1.574,88	1.542,35	1.649,24	1.541,73	1.567,9	18
Comoros	12,88	7,09	8,17	7,35	10,00	7,32	8,0	37
Congo	141,70	111,81	117,41	113,18	126,95	113,08	116,5	20
Cook Islands	0,80	0,74	0,75	0,74	0,77	0,74	0,7	17
Costa Rica	180,79	158,06	162,36	159,16	169,67	159,10	161,7	18
Côte d'Ivoire	485,21	321,08	351,67	328,37	403,82	327,71	346,5	26
Croatia	307,33	306,39	306,74	306,69	307,28	306,77	306,8	16
Cuba	553,28	518,57	525,29	520,49	536,69	520,47	524,3	17
Curaçao	81,99	89,69	88,32	89,44	85,96	89,50	88,6	15
Cyprus	114,44	116,96	116,56	116,95	115,86	117,00	116,7	16
Czechia	1.556,48	1.638,42	1.624,15	1.636,29	1.599,60	1.637,10	1.627,1	15
Democratic Republic of the Congo	1.058,51	440,43	555,18	467,22	750,95	464,55	535,7	180
Denmark	489,05	494,35	493,65	494,54	492,38	494,70	493,9	16
Djibouti	25,63	20,22	21,23	20,46	22,96	20,45	21,1	20
Dominica	2,24	1,88	1,95	1,90	2,06	1,90	1,9	19
Dominican Republic	495,29	459,20	466,14	461,12	477,93	461,08	465,1	17
Ecuador	754,88	691,34	703,49	694,63	724,15	694,53	701,6	17
Egypt	4.635,31	4.298,46	4.363,26	4.316,44	4.473,30	4.316,09	4.353,5	17
El Salvador	172,46	136,90	143,56	138,53	154,92	138,41	142,5	20
Equatorial Guinea	62,95	58,44	59,31	58,68	60,78	58,68	59,2	17
Eritrea	51,13	27,17	31,63	28,22	39,22	28,12	30,9	41

sum emissions 2020 - 2100 - national budgets -  in Mill. t	RM-1	RM-2	RM-3	RM-4	RM-5	RM-6	average	scope
	const	exp	lin	quadr	rad	abs	budget	average
							RM 2 - 6	budget
Estonia	266,08	284,34	281,12	283,80	275,58	283,96	281,8	15
Eswatini	28,95	22,43	23,65	22,72	25,73	22,70	23,4	21
Ethiopia	1.561,88	785,33	929,64	819,18	1.175,79	815,89	905,2	50
Falkland Islands	0,47	0,49	0,49	0,49	0,48	0,49	0,5	15
Faroes	0,60	0,25	0,32	0,27	0,42	0,26	0,3	158
Fiji	28,86	24,52	25,34	24,73	26,73	24,72	25,2	19
Finland	652,73	678,21	673,86	677,68	666,37	677,98	674,8	16
France and Monaco	5.026,00	5.030,88	5.032,78	5.034,87	5.035,39	5.036,24	5.034,0	16
French Guiana	11,68	10,51	10,73	10,57	11,11	10,56	10,7	18
French Polynesia	11,39	10,29	10,50	10,34	10,86	10,34	10,5	17
Gabon	72,67	62,32	64,27	62,81	67,60	62,78	64,0	18
Georgia	229,32	220,87	222,56	221,42	225,41	221,44	222,3	17
Germany	10.492,93	10.948,28	10.870,01	10.937,95	10.735,10	10.942,95	10.886,9	15
Ghana	584,80	391,88	427,84	400,45	489,15	399,69	421,8	25
Gibraltar	9,79	10,58	10,44	10,56	10,20	10,57	10,5	15
Greece	1.010,66	1.033,93	1.030,20	1.033,80	1.023,69	1.034,19	1.031,2	16
Greenland	7,93	8,33	8,26	8,32	8,14	8,32	8,3	15
Grenada	4,41	3,95	4,04	3,97	4,19	3,97	4,0	18
Guadeloupe	30,05	30,00	30,02	30,02	30,07	30,03	30,0	16
Guatemala	493,23	398,93	416,63	403,30	446,77	402,98	413,7	20
Guinea	189,36	102,14	118,36	105,95	146,02	105,59	115,6	40
Guinea-Bissau	28,45	15,33	17,77	15,90	21,93	15,85	17,4	40
Guyana	29,80	26,47	27,10	26,63	28,17	26,62	27,0	18
Haiti	180,55	105,13	119,16	108,44	143,09	108,13	116,8	33
Honduras	254,55	200,19	210,37	202,68	227,72	202,49	208,7	20
Hong Kong	683,21	695,93	693,96	695,97	690,51	696,21	694,5	16
Hungary	833,70	844,05	842,60	844,31	840,03	844,58	843,1	16
Iceland	57,13	60,59	59,98	60,49	58,94	60,52	60,1	15
India	51.197,17	45.293,78	46.412,69	45.583,89	48.316,40	45.569,49	46.235,3	18
Indonesia	11.646,08	10.643,84	10.835,45	10.695,55	11.161,09	10.693,91	10.806,0	17
Iran	10.477,54	10.936,29	10.857,39	10.925,81	10.721,39	10.930,83	10.874,3	15
Iraq	3.136,80	3.151,40	3.150,45	3.153,40	3.148,43	3.154,32	3.151,6	16
Ireland	552,13	571,96	568,61	571,59	562,81	571,83	569,4	16
Israel and Palestine, State of	1.083,55	1.089,25	1.088,80	1.089,92	1.087,90	1.090,24	1.089,2	16
Italy, San Marino and the Holy See	5.200,07	5.263,08	5.254,34	5.264,78	5.238,76	5.266,48	5.257,5	16
Jamaica	135,34	125,36	127,28	125,89	130,54	125,88	127,0	17
Japan	17.109,51	17.930,96	17.788,76	17.910,81	17.543,87	17.919,35	17.818,8	15
Jordan	502,22	472,29	478,10	473,97	487,95	473,96	477,3	17
Kazakhstan	3.973,15	4.256,33	4.206,23	4.247,77	4.120,22	4.250,20	4.216,2	15
Kenya	884,99	537,61	602,27	552,91	712,53	551,49	591,4	30
Kiribati	1,83	1,04	1,19	1,08	1,44	1,07	1,2	35
Kuwait	1.389,17	1.507,50	1.486,41	1.503,70	1.450,25	1.504,64	1.490,5	15
Kyrgyzstan	236,68	208,55	213,87	209,92	222,94	209,85	213,0	18
Laos	175,95	134,70	142,42	136,58	155,57	136,43	141,1	21
Latvia	135,82	134,72	135,00	134,88	135,46	134,91	135,0	16
Lebanon	451,92	443,92	445,65	444,63	448,54	444,72	445,5	16
Lesotho	35,14	21,03	23,66	21,65	28,14	21,59	23,2	31
Liberia	74,27	40,66	46,91	42,13	57,57	41,99	45,9	38
Libya	784,21	813,71	808,70	813,13	800,04	813,48	809,8	16
Lithuania	218,84	219,72	219,68	219,86	219,58	219,93	219,8	16
Luxembourg	139,10	149,30	147,49	148,99	144,39	149,08	147,9	15
Macao	24,73	22,04	22,55	22,17	23,42	22,17	22,5	18
Madagascar	373,22	186,07	220,84	194,22	280,16	193,43	214,9	51
Malawi	240,41	109,21	133,58	114,91	175,14	114,35	129,4	80
Malaysia	3.743,99	3.888,25	3.863,69	3.885,33	3.821,29	3.887,02	3.869,1	16
Maldives	18,59	16,15	16,61	16,27	17,39	16,26	16,5	18
Mali	244,56	105,10	131,00	111,15	175,18	110,55	126,6	123
Malta	19,30	17,70	18,01	17,79	18,53	17,78	18,0	17
Martinique	30,86	31,10	31,07	31,12	31,02	31,13	31,1	16
Mauritania	156,80	135,83	139,79	136,84	146,53	136,78	139,2	18
Mauritius	73,55	70,94	71,46	71,11	72,35	71,12	71,4	16

sum emissions 2020 - 2100 - national budgets -  in Mill. t	RM-1	RM-2	RM-3	RM-4	RM-5	RM-6	average	scope
	const	exp	lin	quadr	rad	abs	budget	average
							RM 2 - 6	budget
Mexico	8.063,50	7.876,26	7.915,33	7.890,83	7.981,03	7.892,11	7.911,1	16
Moldova	172,39	157,24	160,14	158,02	165,06	157,99	159,7	17
Mongolia	524,32	555,11	549,71	554,25	540,44	554,54	550,8	15
Morocco	1.428,63	1.277,94	1.306,57	1.285,45	1.355,27	1.285,11	1.302,1	18
Mozambique	481,58	277,66	315,60	286,61	380,29	285,77	309,2	33
Myanmar/Burma	1.288,11	972,94	1.031,87	987,23	1.132,32	986,07	1.022,1	21
Namibia	88,84	77,55	79,68	78,10	83,32	78,07	79,3	18
Nepal	538,95	356,28	390,32	364,39	448,37	363,66	384,6	26
Netherlands	2.318,42	2.430,52	2.411,11	2.427,76	2.377,67	2.428,92	2.415,2	15
New Caledonia	215,31	236,78	232,93	236,06	226,34	236,22	233,7	15
New Zealand	579,68	603,41	599,35	602,90	592,35	603,17	600,2	16
Nicaragua	156,11	117,95	125,09	119,68	137,25	119,54	123,9	21
Niger	305,40	141,73	172,13	148,84	223,99	148,14	167,0	71
Nigeria	3.714,44	2.423,33	2.663,88	2.480,54	3.074,05	2.475,37	2.623,4	26
North Korea	872,10	751,29	774,09	757,08	812,90	756,74	770,4	18
North Macedonia	145,27	143,72	144,08	143,90	144,69	143,93	144,1	16
Norway	712,89	746,33	740,55	745,53	730,60	745,88	741,8	15
Oman	1.314,61	1.418,17	1.399,77	1.414,92	1.368,20	1.415,77	1.403,4	15
Pakistan	5.568,33	4.350,51	4.578,55	4.406,19	4.967,15	4.401,87	4.540,9	20
Palau	18,22	20,08	19,75	20,02	19,17	20,03	19,8	15
Panama	207,33	194,33	196,85	195,05	201,12	195,04	196,5	17
Papua New Guinea	158,12	101,29	111,87	103,80	129,92	103,57	110,1	27
Paraguay	197,27	159,44	166,54	161,19	178,63	161,06	165,4	20
Peru	1.143,48	994,75	1.022,86	1.001,94	1.070,70	1.001,54	1.018,4	18
Philippines	3.307,94	2.758,49	2.861,82	2.784,27	3.037,80	2.782,54	2.845,0	19
Poland	4.745,49	4.950,44	4.915,23	4.945,81	4.854,52	4.948,07	4.922,8	15
Portugal	776,27	775,66	776,21	776,34	777,04	776,54	776,4	16
Puerto Rico	87,35	72,18	75,03	72,89	79,89	72,84	74,6	19
Qatar	1.475,61	1.615,16	1.590,21	1.610,55	1.547,42	1.611,61	1.595,0	15
Réunion	51,34	49,50	49,87	49,62	50,49	49,63	49,8	16
Romania	1.291,83	1.270,93	1.275,51	1.272,88	1.283,16	1.273,13	1.275,1	16
Russia	25.975,11	27.618,11	27.329,10	27.570,92	26.832,47	27.585,78	27.387,3	15
Rwanda	163,74	74,89	91,39	78,75	119,54	78,37	88,6	77
Saint Helena, Ascension and Tristan da Cunha	0,29	0,27	0,27	0,27	0,28	0,27	0,3	17
Saint Kitts and Nevis	3,24	3,16	3,17	3,16	3,20	3,16	3,2	16
Saint Lucia	6,17	5,30	5,46	5,34	5,74	5,34	5,4	18
Saint Pierre and Miquelon	0,91	0,96	0,95	0,96	0,93	0,96	1,0	15
Saint Vincent and the Grenadines	3,27	2,70	2,81	2,73	2,99	2,73	2,8	19
Samoa	4,20	2,99	3,22	3,04	3,60	3,04	3,2	23
São Tomé and Príncipe	4,68	3,37	3,62	3,43	4,03	3,43	3,6	22
Saudi Arabia	8.723,79	9.400,34	9.280,24	9.379,27	9.074,11	9.384,86	9.303,8	15
Senegal	323,98	221,81	240,86	226,36	273,34	225,96	237,7	24
Serbia and Montenegro	1.067,38	1.106,04	1.099,49	1.105,31	1.088,19	1.105,78	1.101,0	16
Seychelles	15,37	16,25	16,09	16,22	15,83	16,23	16,1	15
Sierra Leone	110,62	56,67	66,70	59,03	83,80	58,80	65,0	46
Singapore	790,66	829,11	822,45	828,16	810,98	828,56	823,8	15
Slovakia	551,25	566,11	563,68	565,95	559,44	566,17	564,3	16
Slovenia	232,43	240,58	239,20	240,43	236,83	240,53	239,5	16
Solomon Islands	9,74	5,15	6,00	5,35	7,46	5,33	5,9	42
Somalia	194,27	84,95	105,25	89,69	139,88	89,22	101,8	105
South Africa	7.387,37	7.709,99	7.654,52	7.702,64	7.558,89	7.706,17	7.666,4	15
South Korea	9.427,25	10.038,09	9.930,51	10.020,36	9.745,69	10.025,82	9.952,1	15
Spain and Andorra	4.060,22	4.113,58	4.105,99	4.114,73	4.092,51	4.116,08	4.108,6	16
Sri Lanka	623,39	511,80	532,76	517,00	568,46	516,63	529,3	19
Sudan and South Sudan	937,62	585,05	650,69	600,60	762,64	599,17	639,6	28
Suriname	34,69	33,61	33,83	33,69	34,20	33,69	33,8	16
Sweden	723,63	718,80	720,09	719,60	722,22	719,78	720,1	16
Switzerland and Liechtenstein	634,31	631,50	632,37	632,14	633,78	632,30	632,4	16
Syria	595,08	516,40	531,26	520,19	556,56	519,98	528,9	18
Taiwan	4.026,56	4.271,41	4.228,42	4.264,51	4.154,54	4.266,76	4.237,1	15
Tajikistan	230,10	176,62	186,63	179,06	203,68	178,86	185,0	21



<b>sum emissions 2020 - 2100 - national budgets -</b>	RM-1 const	RM-2 exp	RM-3 lin	RM-4 quadr	RM-5 rad	RM-6 abs	average budget RM 2 - 6	scope average budget
in Mill. t								
Tanzania	861,10	465,05	538,68	482,37	664,28	480,71	526,2	39
Thailand	4.541,13	4.454,50	4.473,03	4.461,92	4.504,10	4.462,74	4.471,3	16
The Gambia	35,56	19,61	22,58	20,31	27,64	20,24	22,1	37
Timor-Leste	20,38	11,68	13,30	12,06	16,05	12,02	13,0	34
Togo	133,47	79,78	89,77	82,14	106,81	81,92	88,1	31
Tonga	2,96	2,40	2,51	2,43	2,68	2,42	2,5	19
Trinidad and Tobago	459,72	498,85	491,88	497,59	479,92	497,90	493,2	15
Tunisia	571,44	535,68	542,60	537,66	554,35	537,64	541,6	17
Turkey	6.608,39	6.633,93	6.632,89	6.638,37	6.630,29	6.640,28	6.635,2	16
Turkmenistan	1.295,39	1.388,62	1.372,13	1.385,80	1.343,80	1.386,59	1.375,4	15
Turks and Caicos Islands	2,27	2,20	2,22	2,21	2,24	2,21	2,2	16
Uganda	591,60	282,07	339,57	295,54	437,66	294,22	329,8	62
Ukraine	3.175,35	3.154,53	3.160,14	3.158,05	3.169,33	3.158,80	3.160,2	16
United Arab Emirates	3.128,79	3.392,79	3.345,77	3.384,34	3.265,11	3.386,44	3.354,9	15
United Kingdom	5.733,01	5.796,25	5.787,76	5.798,38	5.772,55	5.800,23	5.791,0	16
United States	73.012,60	78.316,86	77.377,80	78.155,49	75.765,53	78.200,54	77.563,2	15
Uruguay	129,50	114,52	117,36	115,25	122,19	115,22	116,9	18
Uzbekistan	1.673,08	1.579,06	1.597,36	1.584,40	1.628,39	1.584,40	1.594,7	17
Vanuatu	4,69	2,66	3,04	2,75	3,68	2,74	3,0	35
Venezuela	1.824,69	1.785,31	1.793,60	1.788,48	1.807,52	1.788,79	1.792,7	16
Vietnam	5.264,64	5.030,81	5.076,93	5.045,00	5.155,01	5.045,31	5.070,6	17
Western Sahara	10,86	7,12	7,82	7,29	9,01	7,28	7,7	26
Yemen	489,51	296,68	332,57	305,17	393,78	304,38	326,5	30
Zambia	311,10	194,25	216,00	199,40	253,11	198,93	212,3	28
Zimbabwe	318,87	230,12	246,69	234,10	274,93	233,76	243,9	22
EU27	45.015,02	46.233,89	46.033,83	46.220,37	45.686,66	46.238,34	46.082,6	16
EU28	50.748,03	52.030,14	51.821,59	52.018,75	51.459,21	52.038,57	51.873,7	16
sub sum 2020 - 2100	682.594	684.790	684.764	685.267	684.635	685.462	684.984	
EU27	-45.015	-46.234	-46.034	-46.220	-45.687	-46.238	-46.083	
EU28	-50.748	-52.030	-51.822	-52.019	-51.459	-52.039	-46.083	
<b>sum</b>	<b>586.831</b>	<b>586.526</b>	<b>586.909</b>	<b>587.028</b>	<b>587.489</b>	<b>587.185</b>	<b>592.819</b>	
base data: budget 2020 - 2100*	587.000	587.000	587.000	587.000	587.000	587.000	587.000	
rounding differences	-169	-474	-91	28	489	185	5.819	
difference in %	-0,03%	-0,08%	-0,02%	0,00%	0,08%	0,03%	0,99%	
scenario type	RM-1 const	RM-2 exp	RM-3 lin	RM-4 quadr	RM-5 rad	RM-6 abs	average RM 2 - 6	
implicit population weighting vs. emissions**	<b>15,4%</b>	<b>6,0%</b>	<b>7,7%</b>	<b>6,4%</b>	<b>10,7%</b>	<b>6,4%</b>	<b>7,4%</b>	
global (start) change rate 2020	-5,8%	-1,5%	-1,5%	-1,5%	-1,5%	-3,0%		
global change rate 2030 vs. 2010	-44%	-20%	-27%	-19%	-33%	-28%		
global overshoot in Gt	0	0	0	0	0	0		
base data: global CO2 budget 2018 - 2100 incl. LUC and ISA in Gt:							<b>680</b>	

\* excl. LUC and ISA

\*\* these figures are only current if their determination was updated before this document was created

national budgets 2020 - 2100 sorted by 'average budget'	RM-1	RM-2	RM-3	RM-4	RM-5	RM-6	average	scope	share in the
	const	exp	lin	quadr	rad	abs	budget RM 2 - 6	average budget	global budget
in Mill. t									
China	173.006	180.033	178.831	179.883	176.758	179.963	179.094	16	30,2%
United States	73.013	78.317	77.378	78.155	75.766	78.201	77.563	15	13,1%
EU28	50.748	52.030	51.822	52.019	51.459	52.039	51.874	16	8,8%
India	51.197	45.294	46.413	45.584	48.316	45.569	46.235	18	7,8%
EU27	45.015	46.234	46.034	46.220	45.687	46.238	46.083	16	7,8%
Russia	25.975	27.618	27.329	27.571	26.832	27.586	27.387	15	4,6%
Japan	17.110	17.931	17.789	17.911	17.544	17.919	17.819	15	3,0%
Germany	10.493	10.948	10.870	10.938	10.735	10.943	10.887	15	1,8%
Iran	10.478	10.936	10.857	10.926	10.721	10.931	10.874	15	1,8%
Indonesia	11.646	10.644	10.835	10.696	11.161	10.694	10.806	17	1,8%
South Korea	9.427	10.038	9.931	10.020	9.746	10.026	9.952	15	1,7%
Saudi Arabia	8.724	9.400	9.280	9.379	9.074	9.385	9.304	15	1,6%
Canada	8.358	8.967	8.859	8.948	8.674	8.954	8.880	15	1,5%
Brazil	8.950	8.154	8.306	8.194	8.564	8.193	8.282	17	1,4%
Mexico	8.063	7.876	7.915	7.891	7.981	7.892	7.911	16	1,3%
South Africa	7.387	7.710	7.655	7.703	7.559	7.706	7.666	15	1,3%
Turkey	6.608	6.634	6.633	6.638	6.630	6.640	6.635	16	1,1%
Australia	6.164	6.633	6.550	6.619	6.407	6.623	6.566	15	1,1%
United Kingdom	5.733	5.796	5.788	5.798	5.773	5.800	5.791	16	1,0%
Italy, San Marino and the Holy See	5.200	5.263	5.254	5.265	5.239	5.266	5.257	16	0,9%
Vietnam	5.265	5.031	5.077	5.045	5.155	5.045	5.071	17	0,9%

<b>central premises</b>	
global CO2 budget 2018 - 2100	680 Gt
emissions in 2018 and 2019, LUC and ISA	-93 Gt
budget 2020 - 2100 to distribute in this tool	587 Gt
minimum annual global emissions	0 Gt
convergence level	0,25 t / capita

<b>gobal path properties</b>	RM-1	RM-2	RM-3	RM-4	RM-5	RM-6
	const	exp	lin	quadr	rad	abs
implicit population weighting vs. emissions**	15%	6%	8%	6%	11%	6%
global (start) change rate 2020	-5,8%	-1,5%	-1,5%	-1,5%	-1,5%	-3,0%
global change rate 2030 vs. 2010	-44%	-20%	-27%	-19%	-33%	-28%
global overshoot in Gt	0	0	0	0	0	0

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<b>the Regensburg Model means:</b>
<ul style="list-style-type: none"> <li>▶ monotonic national paths that are compatible with a given global budget</li> <li>▶ converging emissions per capita</li> <li>▶ implicit population weighting to emissions well below 50% depending on choosen global path (concrete values can be found above under properties)</li> </ul>

[Download tool for the Regensburg Model: www.save-the-climate.info](http://www.save-the-climate.info)

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