reference values selected scenario type: RM-6 abs	target year 2030		target year 2050		emissions 2019 in Mill. t	per captia emissions 2019 in t
vs. reference year	1990	2019	1990	2019		
Afghanistan	306%	58%	578%	164%	7.45	0.20
Albania	-42%	-22%	-73%	-63%	4.96	1.69
Algeria	84%	-29%	-52%	-81%	176.24	4.13
Angola	101%	-10%	59%	-29%	25.33	0.80
Anguilla	246%	-23%	55%	-66%	0.03	1.82
Antigua and Barbuda	53%	-27%	-52%	-77%	0.33	3.13
Argentina	27%	-29%	-66%	-81%	177.54	3.94
Armenia	-77%	-25%	-91%	-69%	6.18	2.11
Aruba	98%	-30%	-54%	-84%	0.53	5.03
Australia	1%	-32%	-86%	-91%	413.08	16.46
Austria	-23%	-31%	-86%	-87%	68.56	7.82
Azerbaijan	-52%	-28%	-86%	-80%	36.50	3.64
Bahamas	18%	-29%	-70%	-82%	1.70	4.21
Bahrain	107%	-33%	-74%	-92%	36.83	22.48
Bangladesh	614%	-5%	551%	-13%	107.16	0.64
Barbados	2%	-27%	-65%	-75%	0.77	2.69
Belarus	-59%	-31%	-92%	-86%	61.30	6.50
Belgium	-41%	-31%	-90%	-88%	100.05	8.65
Belize	103%	-6%	82%	-16%	0.26	0.66
Benin	1800%	-7%	1553%	-19%	8.09	0.69
Bermuda	1%	-30%	-78%	-85%	0.34	5.64
Bhutan	722%	-26%	203%	-73%	2.00	2.42
Bolivia	153%	-24%	9%	-67%	21.87	1.92
Bosnia and Herzegovina	-36%	-30%	-87%	-86%	22.59	6.45
Botswana	89%	-27%	-41%	-77%	7.34	3.09
Brazil	60%	-25%	-37%	-71%	468.01	2.20
British Virgin Islands	228%	-26%	23%	-72%	0.08	2.36
Brunei	50%	-32%	-80%	-91%	7.41	16.86
Bulgaria	-61%	-30%	-92%	-86%	44.57	6.38
Burkina Faso	2081%	37%	3148%	104%	5.30	0.26
Burundi	1184%	246%	2844%	692%	0.76	0.07
Cabo Verde	1160%	-22%	525%	-61%	0.88	1.57
Cambodia	3143%	-15%	2139%	-41%	16.05	0.97
Cameroon	139%	12%	186%	34%	10.20	0.40
Canada	-9%	-32%	-87%	-91%	593.98	15.93
Cayman Islands	132%	-30%	-50%	-85%	0.36	5.71
Central African Republic	558%	286%	1445%	805%	0.28	0.06
Chad	1743%	95%	3372%	267%	2.26	0.14
Chile	102%	-30%	-54%	-84%	94.82	5.17
China	238%	-31%	-40%	-88%	11,819.36	8.32
Colombia	20%	-22%	-42%	-62%	81.48	1.63
Comoros	793%	18%	1041%	51%	0.30	0.36
Congo	143%	-19%	37%	-54%	7.21	1.30
Cook Islands	116%	-31%	-59%	-87%	0.13	7.18
Costa Rica	119%	-22%	5%	-62%	8.19	1.64
Côte d'Ivoire	353%	2%	370%	6%	13.19	0.52
Croatia	-49%	-29%	-87%	-82%	17.94	4.33
Cuba	-52%	-25%	-81%	-70%	24.55	2.14
Curaçao	-36%	-32%	-91%	-91%	2.50	15.41
Cyprus	8%	-30%	-77%	-85%	7.21	6.02
Czechia	-57%	-31%	-93%	-89%	103.27	9.71
Democratic Republic of the Congo	437%	440%	1233%	1239%	3.35	0.04
Denmark	-60%	-30%	-91%	-84%	30.08	5.21
Djibouti	-36%	-7%	-45%	-19%	0.68	0.69
Dominica	234%	-16%	115%	-46%	0.08	1.08
Dominican Republic	140%	-26%	-10%	-72%	25.94	2.36
Ecuador	73%	-26%	-36%	-72%	40.77	2.38
Egypt	91%	-25%	-27%	-72%	234.34	2.32
El Salvador	154%	-19%	47%	-53%	8.10	1.26
Equatorial Guinea	5727%	-29%	1384%	-82%	5.84	4.29
Eritrea	339%	103%	744%	290%	0.71	0.13
Estonia	-74%	-32%	-96%	-89%	14.71	11.28
Eswatini	-6%	-11%	-28%	-32%	1.17	0.83
Ethiopia	1382%	76%	2547%	215%	18.38	0.17
Falkland Islands	163%	-31%	-49%	-87%	0.02	6.96
Faroes	559%	406%	1520%	1144%	0.00	0.04

reference values selected scenario type: RM-6 abs	target year 2030		target year 2050		emissions 2019 in Mill. t	per captia emissions 2019 in t
vs. reference year	1990	2019	1990	2019		
Fiji	49%	-25%	-40%	-70%	1.97	2.14
Finland	-46%	-31%	-90%	-87%	43.71	7.86
France and Monaco	-41%	-30%	-86%	-83%	321.67	4.91
French Guiana	19%	-18%	-28%	-50%	0.35	1.18
French Polynesia	-5%	-29%	-74%	-81%	1.11	3.85
Gabon	-33%	-26%	-77%	-74%	5.58	2.64
Georgia	-75%	-27%	-92%	-77%	11.73	3.01
Germany	-53%	-31%	-92%	-88%	693.51	8.41
Ghana	503%	-6%	434%	-17%	20.09	0.67
Gibraltar	237%	-32%	-57%	-91%	0.72	20.57
Greece	-45%	-30%	-88%	-85%	61.45	5.52
Greenland	30590%	-31%	5164%	-88%	0.51	9.01
Grenada	142%	-19%	35%	-55%	0.14	1.32
Guadeloupe	-1%	-24%	-57%	-67%	0.85	1.90
Guatemala	318%	-17%	162%	-48%	19.71	1.12
Guinea	384%	41%	638%	115%	3.31	0.25
Guinea-Bissau	226%	84%	496%	237%	0.30	0.16
Guyana	71%	-28%	-51%	-79%	2.79	3.55
Haiti	285%	25%	426%	71%	3.51	0.31
Honduras	262%	-16%	135%	-45%	10.16	1.06
Hong Kong	-14%	-30%	-81%	-85%	43.35	5.79
Hungary	-49%	-30%	-89%	-84%	52.07	5.39
Iceland	-7%	-31%	-84%	-88%	3.17	9.29
India	224%	-23%	43%	-66%	2,541.37	1.86
Indonesia	195%	-26%	10%	-72%	636.79	2.36
Iran	124%	-31%	-60%	-88%	664.10	8.02
Iraq	91%	-29%	-54%	-83%	187.05	4.63
Ireland	-22%	-31%	-85%	-87%	36.26	7.48
Israel and Palestine, State of	30%	-29%	-69%	-83%	64.78	4.70
Italy, San Marino and the Holy See	-45%	-30%	-88%	-85%	331.78	5.60
Jamaica	-18%	-27%	-73%	-76%	8.44	2.90
Japan	-33%	-31%	-89%	-88%	1,127.74	8.89
Jordan	74%	-26%	-34%	-72%	23.55	2.34
Kazakhstan	-41%	-32%	-91%	-89%	214.69	11.55
Kenya	248%	16%	334%	45%	19.42	0.37
Kiribati	382%	-8%	309%	-22%	0.09	0.71
Kuwait	105%	-33%	-75%	-92%	98.20	23.11
Kyrgyzstan	-67%	-22%	-84%	-62%	10.16	1.63
Laos	5519%	-27%	1806%	-75%	19.35	2.74
Latvia	-72%	-29%	-93%	-81%	7.87	4.12
Lebanon	220%	-29%	-20%	-82%	27.02	4.46
Lesotho	702%	26%	1006%	74%	0.70	0.31
Liberia	381%	32%	595%	91%	1.39	0.28
Libya	22%	-31%	-79%	-88%	57.82	8.80
Lithuania	-71%	-30%	-93%	-84%	14.29	4.99
Luxembourg	-44%	-32%	-92%	-91%	9.67	16.20
Macao	107%	-29%	-47%	-82%	2.72	4.23
Madagascar	737%	90%	1458%	253%	4.00	0.15
Malawi	371%	32%	580%	91%	5.50	0.28
Malaysia	211%	-31%	-43%	-87%	254.42	7.84
Maldives	1803%	-30%	315%	-85%	2.53	5.61
Mali	2199%	29%	3136%	81%	5.79	0.29
Malta	-49%	-29%	-86%	-81%	1.67	3.86
Martinique	-6%	-25%	-63%	-71%	0.86	2.24
Mauritania	402%	-13%	270%	-36%	4.12	0.88
Mauritius	156%	-28%	-23%	-78%	4.21	3.31
Mexico	19%	-28%	-66%	-80%	482.30	3.64
Moldova	-79%	-25%	-92%	-71%	9.04	2.24
Mongolia	24%	-31%	-77%	-87%	23.56	7.44
Morocco	143%	-24%	3%	-68%	71.84	1.96
Mozambique	889%	33%	1338%	94%	8.63	0.27
Myanmar/Burma	658%	-5%	581%	-15%	35.44	0.65
Namibia	160%	-22%	27%	-62%	4.23	1.60
Nepal	1253%	6%	1395%	17%	13.89	0.46
Netherlands	-34%	-31%	-89%	-88%	157.84	9.21
New Caledonia	179%	-33%	-66%	-92%	6.49	22.89

reference values selected scenario type: RM-6 abs	target year 2030		target year 2050		emissions 2019 in Mill. t	per captia emissions 2019 in t
vs. reference year	1990	2019	1990	2019		
New Zealand	9%	-31%	-80%	-87%	37.59	7.84
Nicaragua	139%	-11%	83%	-32%	5.31	0.84
Niger	832%	149%	1848%	421%	2.32	0.10
Nigeria	60%	-4%	49%	-10%	123.31	0.61
North Korea	-68%	-25%	-87%	-70%	56.41	2.19
North Macedonia	-45%	-29%	-86%	-82%	8.68	4.16
Norway	-16%	-31%	-85%	-88%	44.61	8.26
Oman	276%	-32%	-50%	-91%	86.27	17.25
Pakistan	156%	-14%	79%	-40%	195.46	0.96
Palau	-61%	-33%	-96%	-93%	1.27	57.11
Panama	250%	-27%	9%	-77%	13.11	3.10
Papua New Guinea	202%	-11%	131%	-32%	7.19	0.84
Paraguay	218%	-18%	89%	-52%	8.50	1.22
Peru	115%	-23%	-2%	-65%	58.15	1.77
Philippines	173%	-20%	49%	-56%	148.80	1.38
Poland	-42%	-31%	-90%	-88%	312.34	8.21
Portugal	-25%	-29%	-81%	-83%	46.40	4.53
Puerto Rico	-52%	-28%	-86%	-79%	12.26	3.36
Qatar	306%	-33%	-55%	-93%	102.64	37.41
Réunion	106%	-27%	-34%	-77%	2.65	2.98
Romania	-69%	-29%	-92%	-81%	80.58	4.14
Russia	-46%	-32%	-92%	-90%	1,877.02	13.04
Rwanda	505%	122%	1109%	343%	1.51	0.12
Saint Helena, Ascension and Tristan da	26%	-29%	-67%	-81%	0.02	4.13
Saint Kitts and Nevis	361%	-25%	86%	-70%	0.12	2.12
Saint Lucia	248%	-22%	67%	-63%	0.30	1.65
Saint Pierre and Miquelon	-68%	-30%	-93%	-86%	0.04	6.27
Saint Vincent and the Grenadines	209%	-13%	128%	-35%	0.10	0.88
Samoa	158%	-25%	6%	-69%	0.41	2.08
São Tomé and Príncipe	269%	-9%	204%	-25%	0.16	0.74
Saudi Arabia	126%	-32%	-70%	-91%	579.89	16.99
Senegal	379%	-9%	297%	-24%	12.40	0.74
Serbia and Montenegro	-38%	-30%	-87%	-86%	58.62	6.26
Seychelles	157%	-32%	-59%	-89%	1.02	10.62
Sierra Leone	223%	117%	540%	329%	0.96	0.12
Singapore	22%	-31%	-80%	-89%	55.99	9.54
Slovakia	-60%	-30%	-92%	-86%	34.48	6.32
Slovenia	-31%	-31%	-87%	-87%	14.88	7.15
Solomon Islands	132%	-2%	124%	-5%	0.37	0.58
Somalia	434%	310%	1167%	875%	0.83	0.05
South Africa	5%	-31%	-81%	-88%	478.35	8.24
South Korea	63%	-32%	-76%	-90%	651.45	12.69
Spain and Andorra	-22%	-30%	-83%	-85%	257.11	5.54
Sri Lanka	363%	-17%	189%	-48%	23.63	1.12
Sudan and South Sudan	365%	8%	431%	24%	23.76	0.44
Suriname	196%	-29%	-28%	-83%	2.66	4.64
Sweden	-49%	-29%	-87%	-81%	40.20	4.00
Switzerland and Liechtenstein	-39%	-29%	-85%	-82%	38.38	4.46
Syria	-34%	-21%	-66%	-59%	27.61	1.49
Taiwan	55%	-32%	-76%	-90%	276.60	11.64
Tajikistan	-37%	-15%	-57%	-41%	9.04	0.97
Tanzania	923%	40%	1451%	112%	15.27	0.25
Thailand	113%	-29%	-44%	-81%	281.55	4.06
The Gambia	511%	43%	847%	122%	0.53	0.24
Timor-Leste	39830%	4%	42446%	11%	0.67	0.49
Togo	291%	35%	477%	99%	2.18	0.27
Tonga	70%	-23%	-22%	-65%	0.19	1.76
Trinidad and Tobago	71%	-33%	-79%	-92%	32.07	23.32
Tunisia	52%	-26%	-46%	-74%	30.27	2.57
Türkiye	88%	-30%	-56%	-84%	415.24	5.01
Turkmenistan	-1%	-32%	-85%	-89%	66.00	11.11
Turks and Caicos Islands	no data	no data	no data	no data	0.10	2.84
Uganda	1460%	88%	2788%	248%	6.89	0.15
Ukraine	-82%	-29%	-96%	-83%	201.53	4.60
United Arab Emirates	136%	-32%	-70%	-91%	198.54	20.51
United Kingdom	-57%	-30%	-90%	-84%	357.88	5.34

reference values **selected scenario type:** **RM-6 abs**	target year 2030		target year 2050		emissions 2019 in Mill. t	per captia emissions 2019 in t
vs. reference year	1990	2019	1990	2019		
United States	-32%	-32%	-91%	-91%	4,966.97	15.09
Uruguay	37%	-24%	-43%	-69%	7.12	2.04
Uzbekistan	-31%	-28%	-81%	-80%	123.19	3.75
Vanuatu	121%	-13%	63%	-35%	0.25	0.88
Venezuela	-20%	-28%	-77%	-79%	114.17	3.48
Vietnam	1067%	-28%	242%	-79%	333.62	3.42
Western Sahara	75%	12%	110%	35%	0.23	0.40
Yemen	93%	10%	126%	28%	12.45	0.42
Zambia	191%	7%	225%	19%	8.24	0.45
Zimbabwe	-40%	-4%	-45%	-12%	10.85	0.63
EU27	-47%	-31%	-89%	-86%	2,904.19	6.55
sub sum					39,416.83	
EU27					-2,904.19	
sum					36,512.65	
global 2019*					36,512.65	
difference					-0.004	

* excl. LUC and ISA

reference values scenario: RM-6 abs sorted by 'emissions 2019'	target year 2030		target year 2050		emissions 2019 in Mill. t	per captia emissions 2019 in t	share in the global emissions in 2019	share cumulative emissions without EU
vs. reference year	1990	2019	1990	2019				
China	238%	-31%	-40%	-88%	11,819	8.3	32.4%	32%
United States	-32%	-32%	-91%	-91%	4,967	15.1	13.6%	46%
EU27	-47%	-31%	-89%	-86%	2,904	6.5	8.0%	46%
India	224%	-23%	43%	-66%	2,541	1.9	7.0%	53%
Russia	-46%	-32%	-92%	-90%	1,877	13.0	5.1%	58%
Japan	-33%	-31%	-89%	-88%	1,128	8.9	3.1%	61%
Germany	-53%	-31%	-92%	-88%	694	8.4	1.9%	63%
Iran	124%	-31%	-60%	-88%	664	8.0	1.8%	65%
South Korea	63%	-32%	-76%	-90%	651	12.7	1.8%	67%
Indonesia	195%	-26%	10%	-72%	637	2.4	1.7%	68%
Canada	-9%	-32%	-87%	-91%	594	15.9	1.6%	70%
Saudi Arabia	126%	-32%	-70%	-91%	580	17.0	1.6%	72%
Mexico	19%	-28%	-66%	-80%	482	3.6	1.3%	73%
South Africa	5%	-31%	-81%	-88%	478	8.2	1.3%	74%
Brazil	60%	-25%	-37%	-71%	468	2.2	1.3%	76%
Türkiye	88%	-30%	-56%	-84%	415	5.0	1.1%	77%
Australia	1%	-32%	-86%	-91%	413	16.5	1.1%	78%
United Kingdom	-57%	-30%	-90%	-84%	358	5.3	1.0%	79%
Vietnam	1067%	-28%	242%	-79%	334	3.4	0.9%	80%
Italy, San Marino and the Holy S	-45%	-30%	-88%	-85%	332	5.6	0.9%	81%
France and Monaco	-41%	-30%	-86%	-83%	322	4.9	0.9%	81%

sum emissions 2020 - 2100 - national budgets -	RM-1 const	RM-2 exp	RM-3 lin	RM-4 quadr	RM-5 rad	RM-6 abs	average budget RM 3 - 6	scope average budget
in Mill. t								
Afghanistan	879.54	341.05	527.17	371.74	634.64	494.08	506.9	68
Albania	125.55	96.89	106.77	98.58	112.47	105.08	105.7	21
Algeria	3,161.95	3,076.85	3,105.32	3,083.72	3,121.51	3,102.60	3,103.3	18
Angola	994.88	595.07	733.15	618.09	812.86	708.87	718.2	28
Anguilla	0.67	0.53	0.58	0.54	0.61	0.57	0.6	21
Antigua and Barbuda	6.37	5.84	6.02	5.87	6.13	5.99	6.0	18
Argentina	3,229.79	3,112.24	3,151.92	3,120.96	3,174.57	3,147.21	3,148.7	18
Armenia	141.24	116.51	125.03	117.99	129.94	123.59	124.1	20
Aruba	9.09	9.18	9.15	9.18	9.13	9.16	9.2	17
Australia	5,832.36	6,765.19	6,440.48	6,716.91	6,252.35	6,503.88	6,478.4	16
Austria	1,064.92	1,150.21	1,120.35	1,146.15	1,103.01	1,126.59	1,124.0	16
Azerbaijan	679.57	644.18	656.22	646.61	663.12	654.56	655.1	18
Bahamas	30.26	29.56	29.79	29.62	29.93	29.78	29.8	18
Bahrain	507.35	599.55	567.48	594.74	548.90	573.69	571.2	16
Bangladesh	4,916.68	2,717.90	3,477.46	2,844.12	3,915.95	3,343.46	3,395.2	32
Barbados	15.96	14.07	14.72	14.19	15.09	14.61	14.7	19
Belarus	985.83	1,037.98	1,019.62	1,035.72	1,008.93	1,023.71	1,022.0	17
Belgium	1,528.22	1,671.27	1,621.28	1,664.29	1,592.26	1,631.53	1,627.3	16
Belize	11.52	6.44	8.19	6.73	9.21	7.88	8.0	31
Benin	352.56	199.96	252.67	208.73	283.10	243.38	247.0	31
Bermuda	5.68	5.85	5.79	5.85	5.76	5.81	5.8	17
Bhutan	43.12	36.99	39.10	37.36	40.31	38.75	38.9	19
Bolivia	520.56	418.09	453.40	424.17	473.76	447.40	449.7	21
Bosnia and Herzegovina	363.84	382.68	376.04	381.87	372.18	377.53	376.9	17
Botswana	144.23	131.66	135.97	132.46	138.44	135.29	135.5	18
Brazil	10,483.78	8,761.31	9,354.26	8,864.60	9,696.01	9,254.78	9,292.4	20
British Virgin Islands	1.65	1.41	1.49	1.42	1.54	1.48	1.5	20
Brunei	104.37	121.26	115.38	120.38	111.98	116.53	116.1	16
Bulgaria	719.47	755.42	742.75	753.89	735.37	745.61	744.4	17
Burkina Faso	496.17	205.98	306.28	222.54	364.19	288.46	295.4	56
Burundi	253.62	81.14	140.77	90.96	175.20	130.15	134.3	177
Cabo Verde	23.13	17.46	19.42	17.79	20.54	19.08	19.2	22
Cambodia	553.30	355.25	423.63	366.69	463.10	411.65	416.3	26
Cameroon	664.22	314.18	435.14	334.20	504.98	413.71	422.0	41
Canada	8,411.88	9,735.03	9,274.40	9,666.64	9,007.52	9,364.46	9,328.3	16
Cayman Islands	5.96	6.15	6.08	6.14	6.04	6.10	6.1	17
Central African Republic	105.22	33.19	58.09	37.29	72.47	53.66	55.4	200
Chad	362.19	130.45	210.56	143.65	256.81	196.30	201.8	89
Chile	1,603.72	1,627.81	1,618.97	1,627.53	1,613.73	1,621.81	1,620.5	17
China	181,673.82	197,755.72	192,132.39	196,977.46	188,867.54	193,292.72	192,817.5	16
Colombia	2,096.44	1,602.09	1,772.55	1,631.13	1,870.87	1,743.24	1,754.4	22
Comoros	21.81	9.92	14.03	10.60	16.40	13.30	13.6	45
Congo	209.37	148.54	169.53	152.08	181.64	165.88	167.3	23
Cook Islands	1.98	2.11	2.06	2.11	2.04	2.07	2.1	17
Costa Rica	210.47	160.95	178.03	163.86	187.88	175.09	176.2	22
Côte d'Ivoire	707.30	363.49	482.27	383.18	550.86	461.27	469.4	36
Croatia	317.50	311.91	313.75	312.44	314.78	313.66	313.7	17
Cuba	557.27	461.60	494.54	467.32	513.53	488.99	491.1	20
Curaçao	35.58	41.07	39.16	40.79	38.05	39.53	39.4	16
Cyprus	117.88	122.69	120.99	122.50	120.00	121.39	121.2	17
Czechia	1,549.97	1,717.35	1,658.93	1,709.02	1,625.04	1,670.72	1,665.9	16
Democratic Republic of the Congo	1,870.20	570.59	1,019.86	644.50	1,279.31	939.80	970.9	290
Denmark	507.93	516.21	513.19	516.09	511.39	514.13	513.7	17
Djibouti	29.46	16.72	21.12	17.45	23.66	20.34	20.6	30
Dominica	2.61	1.73	2.04	1.78	2.21	1.98	2.0	25
Dominican Republic	564.76	481.01	509.83	486.07	526.43	505.03	506.8	20
Ecuador	883.73	754.85	799.19	762.65	824.73	791.83	794.6	19
Egypt	5,140.25	4,356.03	4,625.88	4,403.31	4,781.38	4,580.90	4,597.9	20
El Salvador	239.84	168.20	192.92	172.36	207.18	188.62	190.3	23
Equatorial Guinea	103.64	101.64	102.30	101.82	102.67	102.26	102.3	18
Eritrea	121.01	43.06	70.00	47.50	85.56	65.21	67.1	94
Estonia	216.35	243.37	233.95	242.00	228.48	235.82	235.1	16
Eswatini	44.89	27.23	33.33	28.25	36.85	32.26	32.7	28
Ethiopia	2,556.27	950.72	1,505.67	1,042.20	1,826.13	1,406.97	1,445.2	79
Falkland Islands	0.32	0.34	0.34	0.34	0.33	0.34	0.3	17
Faroes	1.07	0.33	0.59	0.37	0.74	0.54	0.6	270

sum emissions 2020 - 2100 - national budgets -	RM-1 const	RM-2 exp	RM-3 lin	RM-4 quadr	RM-5 rad	RM-6 abs	average budget RM 3 - 6	scope average budget
in Mill. t								
Fiji	44.62	36.99	39.62	37.45	41.13	39.18	39.3	20
Finland	678.35	733.13	713.96	730.52	702.82	717.96	716.3	16
France and Monaco	5,509.65	5,541.94	5,529.05	5,543.81	5,521.13	5,535.64	5,532.4	17
French Guiana	10.76	7.39	8.55	7.58	9.22	8.35	8.4	24
French Polynesia	20.36	19.53	19.81	19.59	19.97	19.77	19.8	18
Gabon	116.05	101.90	106.76	102.77	109.56	105.97	106.3	19
Georgia	232.91	211.19	218.64	212.56	222.92	217.47	217.9	19
Germany	10,641.23	11,598.22	11,263.64	11,551.79	11,069.40	11,332.55	11,304.3	16
Ghana	892.00	501.10	636.13	523.55	714.08	612.32	621.5	31
Gibraltar	9.95	11.70	11.09	11.61	10.73	11.21	11.2	16
Greece	1,023.31	1,050.38	1,040.69	1,049.55	1,035.00	1,043.24	1,042.1	17
Greenland	7.75	8.51	8.25	8.48	8.09	8.30	8.3	16
Grenada	4.14	2.95	3.36	3.02	3.60	3.29	3.3	23
Guadeloupe	20.39	16.31	17.71	16.55	18.52	17.48	17.6	21
Guatemala	623.44	420.48	490.54	432.25	530.97	478.31	483.0	25
Guinea	324.71	132.78	199.12	143.73	237.42	187.33	191.9	58
Guinea-Bissau	45.07	16.52	26.39	18.15	32.09	24.63	25.3	83
Guyana	52.44	49.42	50.45	49.63	51.04	50.30	50.4	18
Haiti	281.89	123.18	178.03	132.24	209.70	168.30	172.1	49
Honduras	332.05	219.76	258.52	226.26	280.90	251.75	254.4	25
Hong Kong	714.46	738.97	730.27	738.08	725.17	732.40	731.5	17
Hungary	872.01	891.51	884.49	891.00	880.36	886.44	885.6	17
Iceland	47.82	52.72	51.01	52.48	50.02	51.36	51.2	16
India	61,466.51	48,858.76	53,203.65	49,604.67	55,709.16	52,462.88	52,745.1	21
Indonesia	13,854.71	11,804.92	12,510.12	11,928.77	12,916.44	12,392.88	12,437.1	20
Iran	10,271.67	11,129.48	10,829.35	11,088.36	10,655.05	10,891.73	10,866.1	16
Iraq	3,253.00	3,236.48	3,241.19	3,239.57	3,243.63	3,242.84	3,241.8	17
Ireland	567.64	609.56	594.87	607.59	586.34	597.97	596.7	16
Israel and Palestine, State of	1,121.81	1,119.48	1,119.93	1,120.35	1,120.10	1,120.72	1,120.3	17
Italy, San Marino and the Holy See	5,507.56	5,666.61	5,609.83	5,661.38	5,576.56	5,624.38	5,618.0	17
Jamaica	169.56	152.45	158.32	153.52	161.70	157.39	157.7	19
Japan	17,152.38	18,817.37	18,235.69	18,735.69	17,898.12	18,354.45	18,306.0	16
Jordan	514.58	437.25	463.86	441.92	479.19	459.43	461.1	20
Kazakhstan	3,148.24	3,549.15	3,409.40	3,528.83	3,328.37	3,437.18	3,425.9	16
Kenya	1,349.34	622.14	873.43	663.70	1,018.53	828.89	846.1	44
Kiribati	3.64	2.09	2.63	2.18	2.94	2.53	2.6	30
Kuwait	1,350.42	1,598.11	1,511.95	1,585.16	1,462.05	1,528.62	1,521.9	15
Kyrgyzstan	261.48	199.80	221.07	203.43	233.34	217.41	218.8	22
Laos	397.27	351.99	367.54	354.79	376.49	365.02	366.0	19
Latvia	141.32	137.45	138.75	137.76	139.48	138.62	138.7	18
Lebanon	474.77	468.95	470.82	469.60	471.86	470.85	470.8	17
Lesotho	57.32	24.91	36.11	26.76	42.58	34.12	34.9	50
Liberia	122.67	51.87	76.34	55.91	90.47	71.99	73.7	53
Libya	880.78	965.14	935.67	961.01	918.56	941.69	939.2	16
Lithuania	243.82	245.93	245.12	245.97	244.64	245.46	245.3	17
Luxembourg	136.78	158.48	150.93	157.36	146.55	152.41	151.8	16
Macao	48.40	47.33	47.69	47.42	47.89	47.66	47.7	18
Madagascar	619.55	224.81	361.25	247.29	440.04	336.98	346.4	87
Malawi	486.02	205.58	302.50	221.58	358.47	285.29	292.0	53
Malaysia	3,950.45	4,268.13	4,156.93	4,253.00	4,092.34	4,180.15	4,170.6	16
Maldives	42.06	43.28	42.85	43.24	42.59	42.96	42.9	17
Mali	489.09	210.01	306.46	225.94	362.15	289.34	296.0	51
Malta	30.60	29.37	29.79	29.46	30.02	29.73	29.7	18
Martinique	19.18	16.10	17.16	16.28	17.77	16.98	17.0	20
Mauritania	151.15	93.82	113.62	97.13	125.04	110.14	111.5	27
Mauritius	80.86	75.03	77.03	75.41	78.17	76.73	76.8	18
Mexico	8,980.43	8,512.94	8,671.96	8,545.06	8,763.08	8,650.04	8,657.5	18
Moldova	200.94	168.76	179.83	170.69	186.21	177.98	178.7	20
Mongolia	369.16	396.14	386.69	394.88	381.19	388.69	387.9	16
Morocco	1,694.25	1,368.92	1,481.00	1,388.24	1,545.63	1,461.98	1,469.2	20
Mozambique	772.50	325.38	479.90	350.89	569.13	452.47	463.1	54
Myanmar/Burma	1,599.75	891.40	1,136.09	932.07	1,277.35	1,092.93	1,109.6	31
Namibia	110.04	83.57	92.70	85.12	97.96	91.13	91.7	22
Nepal	809.13	400.87	541.94	424.24	623.38	516.97	526.6	38
Netherlands	2,387.61	2,630.05	2,545.39	2,618.09	2,496.26	2,562.59	2,555.6	16
New Caledonia	89.24	105.56	99.88	104.71	96.60	100.98	100.5	16

sum emissions 2020 - 2100 - national budgets -	RM-1 const	RM-2 exp	RM-3 lin	RM-4 quadr	RM-5 rad	RM-6 abs	average budget RM 3 - 6	scope average budget
in Mill. t								
New Zealand	583.57	630.54	614.10	628.30	604.55	617.53	616.1	16
Nicaragua	202.01	122.92	150.23	127.48	166.00	145.44	147.3	28
Niger	518.06	175.28	293.77	194.79	362.20	272.67	280.9	121
Nigeria	5,817.04	3,172.53	4,086.09	3,324.27	4,613.50	3,924.85	3,987.2	32
North Korea	1,266.27	1,056.72	1,128.86	1,069.28	1,170.43	1,116.75	1,121.3	20
North Macedonia	155.43	151.48	152.80	151.80	153.55	152.68	152.7	18
Norway	686.52	746.59	725.59	743.69	713.39	729.93	728.1	16
Oman	1,213.02	1,411.42	1,342.37	1,401.13	1,302.36	1,355.83	1,350.4	16
Pakistan	6,820.01	4,349.75	5,202.68	4,492.42	5,694.98	5,053.22	5,110.8	26
Palau	16.75	20.44	19.16	20.25	18.42	19.41	19.3	15
Panama	257.31	235.08	242.69	236.49	247.07	241.51	241.9	18
Papua New Guinea	273.22	166.34	203.25	172.49	224.56	196.76	199.3	28
Paraguay	256.19	177.69	204.78	182.25	220.41	200.06	201.9	24
Peru	1,440.52	1,127.65	1,235.50	1,146.11	1,297.70	1,217.05	1,224.1	21
Philippines	4,188.11	3,027.42	3,427.88	3,095.11	3,658.93	3,358.46	3,385.1	23
Poland	4,811.49	5,228.89	5,082.91	5,208.76	4,998.15	5,113.10	5,100.7	16
Portugal	811.85	804.29	806.66	805.26	807.95	806.85	806.7	17
Puerto Rico	234.45	218.18	223.74	219.25	226.93	222.91	223.2	18
Qatar	1,375.73	1,660.25	1,561.34	1,645.26	1,504.06	1,580.34	1,572.7	15
Réunion	52.84	47.82	49.54	48.14	50.53	49.27	49.4	19
Romania	1,445.07	1,406.63	1,419.48	1,409.74	1,426.79	1,418.27	1,418.6	18
Russia	27,131.86	30,918.97	29,599.62	30,725.28	28,834.93	29,859.90	29,754.9	16
Rwanda	288.94	100.43	165.59	111.17	203.22	154.00	158.5	105
Saint Helena, Ascension and Tristan da Cunha	0.30	0.30	0.30	0.30	0.30	0.30	0.3	18
Saint Kitts and Nevis	2.72	2.25	2.41	2.28	2.51	2.39	2.4	20
Saint Lucia	7.63	5.86	6.47	5.96	6.82	6.36	6.4	21
Saint Pierre and Miquelon	0.65	0.68	0.67	0.68	0.66	0.67	0.7	17
Saint Vincent and the Grenadines	3.57	2.21	2.68	2.29	2.95	2.60	2.6	27
Samoa	9.49	7.80	8.38	7.90	8.72	8.28	8.3	20
São Tomé and Príncipe	6.53	3.81	4.75	3.97	5.29	4.59	4.7	29
Saudi Arabia	8,164.79	9,490.61	9,029.14	9,421.91	8,761.78	9,119.15	9,083.0	16
Senegal	511.93	298.33	372.11	310.62	414.70	359.12	364.1	29
Serbia and Montenegro	949.89	994.60	978.83	992.73	969.63	982.42	980.9	17
Seychelles	15.06	16.85	16.22	16.76	15.86	16.35	16.3	16
Sierra Leone	178.41	62.36	102.48	68.97	125.64	95.34	98.1	102
Singapore	842.50	931.65	900.53	927.23	882.47	906.82	904.3	16
Slovakia	557.49	584.62	575.06	583.48	569.48	577.22	576.3	17
Slovenia	234.97	250.79	245.24	250.06	242.02	246.43	245.9	17
Solomon Islands	18.13	9.70	12.61	10.19	14.29	12.10	12.3	33
Somalia	340.10	106.52	187.26	119.80	233.90	172.88	178.5	215
South Africa	7,365.14	8,007.05	7,782.56	7,976.06	7,652.21	7,828.97	7,809.9	16
South Korea	9,446.04	10,739.30	10,288.70	10,673.28	10,027.52	10,377.74	10,341.8	16
Spain and Andorra	4,279.65	4,394.56	4,353.45	4,390.99	4,329.33	4,364.21	4,359.5	17
Sri Lanka	746.28	503.79	587.49	517.84	635.79	572.88	578.5	24
Sudan and South Sudan	1,449.35	704.26	961.71	746.89	1,110.36	916.13	933.8	39
Suriname	46.23	46.02	46.08	46.07	46.11	46.11	46.1	17
Sweden	727.99	703.79	711.94	705.63	716.59	711.02	711.3	18
Switzerland and Liechtenstein	674.19	666.04	668.65	666.94	670.10	668.70	668.6	17
Syria	744.18	552.37	618.53	563.59	656.70	607.10	611.5	22
Taiwan	4,051.98	4,571.47	4,390.38	4,545.12	4,285.40	4,426.36	4,411.8	16
Tajikistan	311.81	200.13	238.69	206.58	260.94	231.93	234.5	26
Tanzania	1,479.36	607.58	908.88	657.32	1,082.86	855.37	876.1	57
Thailand	5,075.15	4,922.23	4,973.58	4,934.16	5,002.82	4,968.18	4,969.7	18
The Gambia	53.77	21.79	32.85	23.62	39.23	30.88	31.6	60
Timor-Leste	37.06	18.74	25.07	19.79	28.72	23.95	24.4	37
Togo	200.52	83.78	124.13	90.44	147.42	116.96	119.7	55
Tonga	4.81	3.76	4.12	3.82	4.33	4.06	4.1	21
Trinidad and Tobago	440.80	521.89	493.68	517.65	477.35	499.14	497.0	15
Tunisia	636.93	555.04	583.19	560.05	599.40	578.57	580.3	19
Türkiye	7,079.41	7,144.77	7,119.94	7,145.83	7,104.99	7,129.91	7,125.2	17
Turkmenistan	972.62	1,092.44	1,050.66	1,086.39	1,026.44	1,058.99	1,055.6	16
Turks and Caicos Islands	2.10	1.88	1.95	1.89	2.00	1.94	1.9	19
Uganda	1,051.55	382.83	613.98	420.93	747.46	572.86	588.8	85
Ukraine	3,510.20	3,488.56	3,494.96	3,492.11	3,498.35	3,496.50	3,495.5	17
United Arab Emirates	2,753.19	3,237.44	3,068.96	3,212.20	2,971.37	3,101.65	3,088.5	16
United Kingdom	6,005.74	6,130.70	6,085.57	6,127.71	6,058.98	6,098.39	6,092.7	17

sum emissions 2020 - 2100 - national budgets -	RM-1 const	RM-2 exp	RM-3 lin	RM-4 quadr	RM-5 rad	RM-6 abs	average budget RM 3 - 6	scope average budget
in Mill. t								
United States	70,707.35	81,509.58	77,748.40	80,952.64	75,569.00	78,485.28	78,188.8	16
Uruguay	164.75	134.75	145.08	136.53	151.04	143.33	144.0	20
Uzbekistan	2,272.91	2,168.49	2,203.93	2,175.85	2,224.21	2,199.25	2,200.8	18
Vanuatu	9.32	5.78	7.00	5.98	7.71	6.79	6.9	27
Venezuela	2,156.55	2,023.91	2,069.15	2,032.76	2,095.11	2,062.60	2,064.9	18
Vietnam	6,336.12	5,923.68	6,064.47	5,950.96	6,145.29	6,043.82	6,051.1	18
Western Sahara	15.26	7.20	9.99	7.66	11.60	9.49	9.7	42
Yemen	783.05	375.70	516.46	399.00	597.73	491.53	501.2	40
Zambia	487.96	240.14	325.77	254.32	375.21	310.61	316.5	38
Zimbabwe	503.77	276.91	355.28	289.94	400.53	341.45	346.8	32
EU27	46,630.65	49,154.64	48,266.43	49,044.56	47,749.22	48,463.54	48,380.9	17
sub sum 2020 - 2100	677,909	679,883	678,988	680,224	678,414	679,673	679,325	
EU27	-46,631	-49,155	-48,266	-49,045	-47,749	-48,464	-48,381	
sum	**631,279**	**630,728**	**630,722**	**631,179**	**630,664**	**631,210**	**630,944**	
base data: global budget 2020 - 2100*	630,000	630,000	630,000	630,000	630,000	630,000	630,000	
rounding differences	1,279	728	722	1,179	664	1,210	944	
difference in %	0.20%	0.12%	0.11%	0.19%	0.11%	0.19%	0.15%	
scenario type	RM-1 const	RM-2 exp	RM-3 lin	RM-4 quadr	RM-5 rad	RM-6 abs	average RM 3 - 6	
implicit population weighting vs. emissions	**25.7%**	**7.3%**	**13.7%**	**8.3%**	**17.4%**	**12.5%**	**13.0%**	
global normalised change rate 2020		-0.5%	-0.5%	-0.5%	-0.5%			
global change rate 2030 vs. 2019	-45%	-13%	-25%	-15%	-32%	-29%		
global overhoot in Gt	4	37	26	34	18	32		
base data: global CO2 budget 2020 - 2100 incl. LUC and ISA in Gt:							**650**	

* excl. LUC and ISA

national budgets 2020 - 2100 sorted by 'average budget'	RM-1 const	RM-2 exp	RM-3 lin	RM-4 quadr	RM-5 rad	RM-6 abs	average budget RM 3 - 6	scope average budget	share in the global budget
in Mill. t									
China	181,674	197,756	192,132	196,977	188,868	193,293	192,818	16	30.6%
United States	70,707	81,510	77,748	80,953	75,569	78,485	78,189	16	12.4%
India	61,467	48,859	53,204	49,605	55,709	52,463	52,745	21	8.4%
EU27	46,631	49,155	48,266	49,045	47,749	48,464	48,381	17	7.7%
Russia	27,132	30,919	29,600	30,725	28,835	29,860	29,755	16	4.7%
Japan	17,152	18,817	18,236	18,736	17,898	18,354	18,306	16	2.9%
Indonesia	13,855	11,805	12,510	11,929	12,916	12,393	12,437	20	2.0%
Germany	10,641	11,598	11,264	11,552	11,069	11,333	11,304	16	1.8%
Iran	10,272	11,129	10,829	11,088	10,655	10,892	10,866	16	1.7%
South Korea	9,446	10,739	10,289	10,673	10,028	10,378	10,342	16	1.6%
Canada	8,412	9,735	9,274	9,667	9,008	9,364	9,328	16	1.5%
Brazil	10,484	8,761	9,354	8,865	9,696	9,255	9,292	20	1.5%
Saudi Arabia	8,165	9,491	9,029	9,422	8,762	9,119	9,083	16	1.4%
Mexico	8,980	8,513	8,672	8,545	8,763	8,650	8,658	18	1.4%
South Africa	7,365	8,007	7,783	7,976	7,652	7,829	7,810	16	1.2%
Türkiye	7,079	7,145	7,120	7,146	7,105	7,130	7,125	17	1.1%
Australia	5,832	6,765	6,440	6,717	6,252	6,504	6,478	16	1.0%
United Kingdom	6,006	6,131	6,086	6,128	6,059	6,098	6,093	17	1.0%
Vietnam	6,336	5,924	6,064	5,951	6,145	6,044	6,051	18	1.0%
Italy, San Marino and the Holy See	5,508	5,667	5,610	5,661	5,577	5,624	5,618	17	0.9%
France and Monaco	5,510	5,542	5,529	5,544	5,521	5,536	5,532	17	0.9%

central premises	
global CO2 budget 2020 - 2100	650 Gt
LUC budget 2020 - 2100	0 Gt
ISA budget 2020 - 2100	-20 Gt
budget 2020 - 2100 to distribute in this tool	630 Gt
minimum annual global emissions	-0.73 Gt
convergence level	0.5 t / capita

properties of the global paths	RM-1 const	RM-2 exp	RM-3 lin	RM-4 quadr	RM-5 rad	RM-6 abs
implicit population weighting vs. emissions	26%	7%	14%	8%	17%	13%
global normalised change rate 2020		-0.5%	-0.5%	-0.5%	-0.5%	
global change rate 2030 vs. 2019	-45%	-13%	-25%	-15%	-32%	-29%
global overhoot in Gt	4	37	26	34	18	32
year emissions neutrality	2092	2050	2064	2054	2073	2057

the Regensburg Model means:

- ► monotonic national paths that are compatible with a given global budget
- ► converging emissions per capita
- ► the implicit weighting of population vs. emissions depends on the chosen
  - ► global path
  - ► convergence level

Download tool for the Regensburg Model: www.save-the-climate.info

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Note: Actual emissions after 2019 are not taken into account.