

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
Afghanistan		431%	143%	635%	237%	11.00	0.29
Albania		-36%	-8%	-77%	-67%	5.66	1.96
Algeria		87%	9%	-64%	-79%	180.57	4.19
Angola		99%	-5%	43%	-32%	25.82	0.81
Anguilla		196%	-25%	26%	-68%	0.02	1.58
Antigua and Barbuda		59%	0%	-75%	-84%	0.51	5.25
Argentina		30%	-27%	-77%	-87%	199.41	4.45
Armenia		-79%	-1%	-92%	-65%	5.92	2.00
Aruba		81%	8%	-78%	-87%	0.78	7.37
Australia		5%	-29%	-93%	-95%	433.38	17.20
Austria		-21%	-34%	-91%	-93%	72.36	8.08
Azerbaijan		-53%	3%	-90%	-78%	35.98	3.58
Bahamas		11%	-3%	-85%	-87%	2.45	6.29
Bahrain		99%	-17%	-88%	-95%	35.44	21.59
Bangladesh		600%	69%	473%	38%	110.16	0.68
Barbados		234%	11%	-74%	-91%	3.83	13.33
Belarus		-58%	-32%	-95%	-91%	66.34	7.02
Belgium		-39%	-38%	-94%	-94%	104.41	9.05
Belize		67%	24%	6%	-21%	0.37	0.95
Benin		1684%	45%	1337%	17%	8.15	0.69
Bermuda		-28%	-32%	-89%	-90%	0.35	5.60
Bhutan		639%	17%	98%	-69%	2.12	2.78
Bolivia		179%	23%	-7%	-59%	24.51	2.13
Bosnia and Herzegovina		-7%	3%	-91%	-90%	33.50	10.15
Botswana		80%	45%	-56%	-64%	7.04	3.06
Brazil		55%	-21%	-51%	-75%	478.15	2.27
British Virgin Islands		226%	20%	-36%	-76%	0.12	4.05
Brunei		42%	-35%	-90%	-96%	7.02	16.20
Bulgaria		-64%	-38%	-95%	-91%	43.31	6.19
Burkina Faso		1441%	212%	2563%	439%	3.64	0.18
Burundi		933%	857%	2617%	2417%	0.34	0.03
Cabo Verde		1482%	132%	490%	-13%	1.02	1.86
Cambodia		3275%	174%	1968%	68%	16.49	1.00
Cameroon		130%	44%	169%	69%	10.10	0.39
Canada		-13%	-30%	-94%	-95%	584.85	15.63
Cayman Islands		88%	-2%	-74%	-86%	0.40	6.20
Central African Republic		612%	221%	1384%	570%	0.49	0.10
Chad		1124%	688%	2844%	1795%	0.89	0.06
Chile		91%	-13%	-67%	-85%	89.89	4.74
China		229%	-14%	-63%	-90%	11,535.20	8.05
Colombia		26%	-1%	-50%	-61%	86.55	1.72
Comoros		481%	112%	763%	215%	0.21	0.25
Congo		98%	-11%	15%	-48%	5.80	1.08
Cook Islands		-25%	-45%	-78%	-84%	0.04	2.50
Costa Rica		133%	-6%	-10%	-64%	8.98	1.78
Côte d'Ivoire		341%	76%	327%	71%	13.56	0.53
Croatia		-47%	-38%	-91%	-89%	19.12	4.63
Cuba		-41%	-33%	-84%	-82%	31.04	2.74
Curaçao		-28%	-36%	-97%	-97%	5.91	36.19
Cyprus		13%	-36%	-84%	-91%	7.41	6.19
Czechia		-56%	-40%	-96%	-94%	105.69	9.89
Democratic Republic of the Congo		383%	444%	1148%	1307%	2.98	0.03
Denmark		-60%	-56%	-94%	-93%	31.12	5.39
Djibouti		-22%	-24%	-55%	-56%	1.05	1.08
Dominica		148%	-1%	14%	-55%	0.10	1.44
Dominican Republic		148%	-7%	-29%	-73%	27.28	2.54
Ecuador		70%	-21%	-47%	-76%	40.70	2.34
Egypt		105%	-12%	-41%	-75%	255.37	2.54
El Salvador		121%	-13%	25%	-51%	7.15	1.11
Equatorial Guinea		2505%	-42%	646%	-83%	3.47	2.56
Eritrea		409%	130%	715%	269%	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
Estonia		-67%	-43%	-98%	-96%	18.50	13.96
Eswatini		58%	-53%	-3%	-71%	1.14	1.00
Ethiopia		1193%	349%	2221%	706%	18.25	0.16
Falkland Islands		66%	-7%	-83%	-91%	0.03	9.40
Faroese		537%	403%	1517%	1178%	0.00	0.04
Fiji		2%	-12%	-55%	-62%	1.36	1.53
Finland		-48%	-55%	-94%	-95%	43.41	7.85
France and Monaco		-43%	-42%	-90%	-90%	314.74	4.83
French Guiana		23%	-14%	-59%	-71%	0.61	2.10
French Polynesia		-47%	-50%	-82%	-83%	0.60	2.15
Gabon		-57%	-55%	-82%	-81%	3.48	1.60
Georgia		-72%	55%	-94%	-65%	13.47	3.37
Germany		-53%	-41%	-95%	-94%	702.60	8.41
Ghana		411%	43%	379%	34%	16.84	0.55
Gibraltar		224%	-2%	-81%	-94%	0.69	20.58
Greece		-43%	-50%	-92%	-93%	65.57	6.26
Greenland		11847%	-45%	1096%	-94%	0.54	9.47
Grenada		129%	20%	-21%	-59%	0.23	2.04
Guadeloupe		50%	10%	-74%	-81%	1.87	4.68
Guatemala		335%	45%	131%	-23%	21.20	1.21
Guinea		281%	194%	493%	357%	2.92	0.23
Guinea-Bissau		214%	52%	389%	136%	0.44	0.23
Guyana		239%	46%	22%	-48%	1.52	1.94
Haiti		273%	81%	391%	139%	3.58	0.32
Honduras		259%	6%	110%	-38%	10.36	1.06
Hong Kong		-11%	-29%	-87%	-90%	44.02	5.92
Hungary		-49%	-29%	-92%	-89%	53.18	5.49
Iceland		14%	-28%	-90%	-94%	3.93	11.58
India		226%	11%	20%	-59%	2,597.36	1.90
Indonesia		181%	10%	-12%	-66%	625.66	2.31
Iran		135%	-16%	-74%	-91%	701.99	8.47
Iraq		99%	10%	-67%	-82%	197.61	5.03
Ireland		-24%	-39%	-91%	-93%	36.55	7.49
Israel and Palestine, State of		35%	-34%	-78%	-89%	68.33	5.06
Italy, San Marino and the Holy See		-46%	-46%	-92%	-92%	331.56	5.47
Jamaica		-28%	-27%	-79%	-79%	7.44	2.52
Japan		-31%	-34%	-93%	-93%	1,153.72	9.09
Jordan		101%	0%	-47%	-74%	28.34	2.81
Kazakhstan		-25%	-23%	-95%	-94%	277.36	14.95
Kenya		240%	67%	306%	99%	19.81	0.38
Kiribati		110%	-18%	192%	14%	0.03	0.29
Kuwait		104%	-23%	-89%	-96%	98.95	23.52
Kyrgyzstan		-62%	37%	-86%	-49%	11.92	1.86
Laos		2562%	233%	1602%	113%	6.78	0.95
Latvia		-71%	-35%	-95%	-88%	8.38	4.39
Lebanon		224%	-6%	-36%	-81%	27.44	4.00
Lesotho		757%	61%	960%	99%	0.75	0.35
Liberia		293%	185%	492%	329%	1.21	0.24
Libya		-4%	-42%	-89%	-93%	52.05	7.68
Lithuania		-73%	-30%	-96%	-89%	13.77	4.99
Luxembourg		-44%	-42%	-96%	-96%	9.74	15.82
Macao		-3%	-20%	-66%	-72%	1.27	1.99
Madagascar		948%	233%	1814%	509%	4.20	0.16
Malawi		822%	187%	1919%	529%	1.62	0.09
Malaysia		197%	-21%	-66%	-91%	248.83	7.79
Maldives		959%	-21%	322%	-69%	0.91	1.72
Mali		939%	590%	2428%	1578%	1.03	0.05
Malta		-67%	-71%	-90%	-91%	1.04	2.37
Martinique		44%	2%	-77%	-84%	1.95	5.20
Mauritania		756%	185%	245%	15%	7.66	1.69
Mauritius		160%	-16%	-41%	-81%	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		18%	-28%	-76%	-85%	485.00	3.80
Moldova		-79%	-19%	-93%	-74%	9.23	2.28
Mongolia		86%	70%	-83%	-85%	35.93	11.14
Morocco		146%	6%	-14%	-63%	73.91	2.03
Mozambique		853%	206%	1182%	312%	9.26	0.30
Myanmar/Burma		823%	381%	516%	221%	48.31	0.89
Namibia		117%	8%	-15%	-58%	4.40	1.76
Nepal		1249%	208%	1211%	199%	15.02	0.52
Netherlands		-34%	-42%	-93%	-94%	156.41	9.15
New Caledonia		543%	111%	-76%	-92%	15.66	55.37
New Zealand		11%	-22%	-88%	-91%	38.67	8.08
Nicaragua		154%	7%	69%	-29%	5.86	0.90
Niger		505%	284%	1173%	708%	2.36	0.10
Nigeria		34%	11%	35%	12%	100.22	0.50
North Korea		-75%	-39%	-90%	-75%	42.17	1.64
North Macedonia		-44%	-31%	-90%	-87%	8.92	4.28
Norway		-12%	-30%	-91%	-93%	47.99	8.92
Oman		301%	19%	-75%	-92%	92.78	18.65
Pakistan		183%	21%	69%	-28%	223.63	1.03
Palau		-59%	-58%	-99%	-99%	1.33	73.84
Panama		209%	-11%	-16%	-76%	11.63	2.74
Papua New Guinea		81%	36%	91%	43%	4.07	0.46
Paraguay		201%	31%	60%	-30%	8.47	1.20
Peru		105%	-5%	-19%	-63%	56.29	1.73
Philippines		169%	35%	27%	-36%	150.64	1.39
Poland		-41%	-34%	-94%	-93%	317.65	8.38
Portugal		-22%	-37%	-87%	-89%	48.47	4.74
Puerto Rico		50%	33%	-27%	-35%	3.91	1.33
Qatar		319%	2%	-82%	-96%	106.53	37.61
Réunion		114%	-27%	-52%	-84%	3.02	3.40
Romania		-70%	-33%	-94%	-87%	78.63	4.06
Russia		-49%	-30%	-96%	-94%	1,792.02	12.28
Rwanda		452%	266%	1093%	691%	1.15	0.09
Saint Helena, Ascension and Tristan da		21%	1%	-66%	-72%	0.02	2.61
Saint Kitts and Nevis		299%	-4%	-15%	-80%	0.19	3.67
Saint Lucia		201%	6%	25%	-56%	0.30	1.63
Saint Pierre and Miquelon		-71%	19%	-97%	-89%	0.06	10.64
Saint Vincent and the Grenadines		203%	7%	50%	-47%	0.15	1.32
Samoa		-3%	6%	-23%	-16%	0.14	0.71
São Tomé and Príncipe		204%	7%	133%	-18%	0.16	0.74
Saudi Arabia		139%	-13%	-85%	-94%	614.61	17.94
Senegal		286%	31%	242%	17%	9.81	0.60
Serbia and Montenegro		-27%	-19%	-91%	-90%	70.69	7.52
Seychelles		148%	-23%	-77%	-93%	1.05	10.75
Sierra Leone		203%	206%	424%	429%	1.40	0.18
Singapore		15%	-29%	-88%	-93%	53.37	9.19
Slovakia		-59%	-38%	-95%	-92%	35.99	6.59
Slovenia		-36%	-41%	-92%	-93%	15.37	7.39
Solomon Islands		54%	12%	150%	81%	0.14	0.21
Somalia		367%	292%	1001%	824%	0.97	0.06
South Africa		8%	-27%	-88%	-92%	494.86	8.45
South Korea		63%	-26%	-87%	-94%	651.87	12.73
Spain and Andorra		-22%	-38%	-88%	-91%	259.31	5.54
Sri Lanka		416%	59%	159%	-20%	27.57	1.29
Sudan and South Sudan		331%	44%	383%	61%	22.57	0.42
Suriname		61%	-15%	-65%	-81%	2.06	3.54
Sweden		-46%	-41%	-90%	-89%	44.75	4.46
Switzerland and Liechtenstein		-39%	-41%	-89%	-89%	39.37	4.56
Syria		-33%	-64%	-73%	-86%	29.16	1.71
Taiwan		51%	-31%	-87%	-94%	276.78	11.64
Tajikistan		-39%	139%	-61%	52%	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		784%	159%	1269%	302%	13.34	0.23
Thailand		109%	-21%	-58%	-84%	275.06	3.95
The Gambia		431%	67%	687%	148%	0.59	0.25
Timor-Leste		264%	88%	396%	156%	0.38	0.30
Togo		326%	28%	428%	59%	2.85	0.35
Tonga		59%	-42%	-17%	-70%	0.13	1.22
Trinidad and Tobago		74%	-43%	-90%	-97%	32.74	23.47
Tunisia		58%	-17%	-57%	-77%	32.07	2.74
Turkey		93%	-6%	-68%	-84%	415.78	4.98
Turkmenistan		34%	-1%	-90%	-93%	90.52	15.23
Turks and Caicos Islands		1275%	-10%	201%	-80%	0.13	3.53
Uganda		1609%	192%	3310%	482%	5.34	0.12
Ukraine		-82%	-55%	-97%	-92%	196.40	4.46
United Arab Emirates		163%	-13%	-85%	-95%	222.61	22.78
United Kingdom		-57%	-49%	-93%	-92%	364.91	5.40
United States		-32%	-38%	-95%	-96%	5,107.26	15.52
Uruguay		27%	-23%	-53%	-72%	6.56	1.90
Uzbekistan		-44%	-36%	-86%	-83%	94.99	2.88
Vanuatu		-17%	-10%	15%	24%	0.09	0.29
Venezuela		-24%	-59%	-85%	-92%	110.06	3.86
Vietnam		970%	41%	157%	-66%	305.25	3.16
Western Sahara		105%	11%	103%	10%	0.30	0.51
Yemen		76%	-53%	112%	-44%	10.89	0.37
Zambia		168%	249%	200%	291%	7.50	0.42
Zimbabwe		-44%	-3%	-57%	-26%	10.86	0.74
EU27		-47%	-41%	-93%	-92%	2,939.07	6.60
EU28		-48%	-42%	-93%	-92%	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' vs. reference year	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
	1990	2010	1990	2010				
China	229%	-14%	-63%	-90%	11,535	8.0	31.5%	31%
United States	-32%	-38%	-95%	-96%	5,107	15.5	13.9%	45%
EU28	-48%	-42%	-93%	-92%	3,304	6.4	9.0%	45%
EU27	-47%	-41%	-93%	-92%	2,939	6.6	8.0%	45%
India	226%	11%	20%	-59%	2,597	1.9	7.1%	52%
Russia	-49%	-30%	-96%	-94%	1,792	12.3	4.9%	57%
Japan	-31%	-34%	-93%	-93%	1,154	9.1	3.1%	61%
Germany	-53%	-41%	-95%	-94%	703	8.4	1.9%	62%
Iran	135%	-16%	-74%	-91%	702	8.5	1.9%	64%
South Korea	63%	-26%	-87%	-94%	652	12.7	1.8%	66%
Indonesia	181%	10%	-12%	-66%	626	2.3	1.7%	68%
Saudi Arabia	139%	-13%	-85%	-94%	615	17.9	1.7%	70%
Canada	-13%	-30%	-94%	-95%	585	15.6	1.6%	71%
South Africa	8%	-27%	-88%	-92%	495	8.5	1.3%	72%
Mexico	18%	-28%	-76%	-85%	485	3.8	1.3%	74%
Brazil	55%	-21%	-51%	-75%	478	2.3	1.3%	75%
Australia	5%	-29%	-93%	-95%	433	17.2	1.2%	76%
Turkey	93%	-6%	-68%	-84%	416	5.0	1.1%	77%
United Kingdom	-57%	-49%	-93%	-92%	365	5.4	1.0%	78%
Italy, San Marino and the Holy S	-46%	-46%	-92%	-92%	332	5.5	0.9%	79%
Poland	-41%	-34%	-94%	-93%	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	960.65	521.80	594.41	496.80	731.38	565.57	582.0	53
Albania	133.96	113.20	116.62	111.96	123.06	115.23	116.0	20
Algeria	3,219.32	3,157.24	3,167.18	3,151.88	3,185.09	3,161.91	3,164.7	18
Angola	1,014.41	690.23	743.83	671.58	844.87	722.41	734.6	28
Anguilla	0.62	0.50	0.52	0.49	0.55	0.51	0.5	22
Antigua and Barbuda	8.56	8.69	8.67	8.69	8.62	8.67	8.7	17
Argentina	3,495.59	3,461.00	3,466.35	3,457.01	3,475.53	3,462.76	3,464.5	17
Armenia	138.95	117.92	121.39	116.67	127.91	119.98	120.8	20
Aruba	12.24	12.96	12.84	12.99	12.61	12.88	12.9	16
Australia	6,040.14	6,850.80	6,715.83	6,892.37	6,459.11	6,766.08	6,736.8	16
Austria	1,111.01	1,188.06	1,175.18	1,191.70	1,150.52	1,179.75	1,177.0	16
Azerbaijan	673.23	642.83	647.79	640.74	656.99	645.56	646.8	18
Bahamas	39.47	41.02	40.76	41.08	40.25	40.84	40.8	17
Bahrain	484.86	556.30	544.41	559.99	521.81	548.86	546.3	15
Bangladesh	4,916.59	3,198.58	3,482.70	3,100.02	4,018.36	3,369.37	3,433.8	31
Barbados	54.73	61.10	60.04	61.42	58.02	60.43	60.2	16
Belarus	1,045.30	1,100.66	1,091.38	1,103.13	1,073.55	1,094.57	1,092.7	16
Belgium	1,573.28	1,701.43	1,680.03	1,707.64	1,639.15	1,687.74	1,683.2	16
Belize	13.13	9.30	9.93	9.07	11.12	9.68	9.8	26
Benin	358.13	234.24	254.73	227.14	293.36	246.56	251.2	31
Bermuda	5.79	5.93	5.90	5.93	5.86	5.91	5.9	17
Bhutan	43.41	39.53	40.17	39.29	41.36	39.90	40.0	19
Bolivia	559.38	481.32	494.19	476.64	518.37	488.91	491.9	20
Bosnia and Herzegovina	496.05	542.08	534.40	544.35	519.75	537.19	535.6	16
Botswana	139.00	128.90	130.56	128.25	133.65	129.85	130.2	19
Brazil	10,619.55	9,263.08	9,486.69	9,181.29	9,906.42	9,394.60	9,446.4	20
British Virgin Islands	2.19	2.13	2.14	2.13	2.16	2.14	2.1	18
Brunei	98.39	111.21	109.08	111.87	105.01	109.87	109.4	16
Bulgaria	700.41	726.39	722.01	727.42	713.54	723.42	722.6	17
Burkina Faso	484.86	244.66	284.40	231.00	359.39	268.64	277.6	76
Burundi	253.18	112.42	135.72	104.43	179.68	126.49	131.7	390
Cabo Verde	24.85	20.74	21.42	20.49	22.69	21.14	21.3	21
Cambodia	564.98	405.08	431.51	395.85	481.32	420.93	426.9	26
Cameroon	686.68	394.94	443.20	378.29	534.24	424.02	434.9	43
Canada	8,224.56	9,276.79	9,101.56	9,330.53	8,768.15	9,166.63	9,128.7	16
Cayman Islands	6.51	6.76	6.71	6.76	6.63	6.73	6.7	17
Central African Republic	108.69	51.68	61.12	48.44	78.92	57.38	59.5	120
Chad	355.56	161.99	194.02	151.00	254.47	181.33	188.6	211
Chile	1,549.07	1,548.62	1,548.53	1,547.68	1,547.93	1,547.90	1,548.1	17
China	177,238.82	189,444.28	187,402.83	190,019.36	183,496.64	188,126.06	187,697.8	16
Colombia	2,184.24	1,789.62	1,854.77	1,766.36	1,977.31	1,828.33	1,843.3	21
Comoros	21.08	11.18	12.82	10.62	15.91	12.17	12.5	59
Congo	189.74	138.65	147.10	135.70	163.01	143.71	145.6	25
Cook Islands	0.94	0.83	0.85	0.83	0.88	0.84	0.8	19
Costa Rica	222.83	184.04	190.44	181.75	202.48	187.84	189.3	21
Côte d'Ivoire	727.02	446.17	492.63	430.10	580.23	474.13	484.7	36
Croatia	331.63	330.31	330.50	330.04	330.75	330.28	330.4	17
Cuba	638.34	579.37	589.07	575.71	607.23	585.00	587.3	19
Curaçao	78.53	91.81	89.60	92.50	85.40	90.43	89.9	15
Cyprus	119.89	124.33	123.58	124.50	122.13	123.82	123.7	17
Czechia	1,571.14	1,713.04	1,689.36	1,720.02	1,644.18	1,697.96	1,692.9	16
Democratic Republic of the Congo	1,911.29	852.92	1,028.07	792.86	1,358.59	958.68	998.2	335
Denmark	519.24	528.78	527.14	529.00	523.91	527.56	527.3	17
Djibouti	34.32	25.07	26.60	24.54	29.48	25.99	26.3	25
Dominica	2.86	2.24	2.35	2.21	2.54	2.31	2.3	23
Dominican Republic	577.72	516.32	526.43	512.56	545.38	522.22	524.6	19
Ecuador	891.18	782.98	800.81	776.43	834.27	793.45	797.6	20
Egypt	5,405.55	4,832.53	4,926.89	4,797.44	5,103.76	4,887.64	4,909.7	19
El Salvador	229.93	169.14	179.18	165.61	198.11	175.15	177.4	25
Equatorial Guinea	73.33	65.66	66.92	65.19	69.29	66.40	66.7	19
Eritrea	84.96	43.93	50.72	41.60	63.53	48.03	49.6	66

sum emissions 2020 - 2100 - national budgets -	RM-1	RM-2	RM-3	RM-4	RM-5	RM-6	average	scope
	const	exp	lin	quadr	rad	abs	budget	average
in Mill. t							RM 2 - 6	budget
Estonia	263.27	294.81	289.56	296.42	279.56	291.50	290.4	16
Eswatini	39.28	28.13	29.98	27.49	33.45	29.24	29.7	26
Ethiopia	2,650.80	1,321.26	1,541.26	1,245.67	1,956.34	1,454.00	1,503.7	82
Falkland Islands	0.48	0.52	0.51	0.52	0.50	0.51	0.5	16
Faroes	1.08	0.48	0.58	0.45	0.77	0.54	0.6	292
Fiji	36.47	29.05	30.28	28.62	32.58	29.78	30.1	22
Finland	670.00	714.27	706.87	716.34	692.68	709.48	707.9	16
France and Monaco	5,398.20	5,411.26	5,408.52	5,408.81	5,401.86	5,407.28	5,407.5	17
French Guiana	14.02	12.02	12.35	11.91	12.97	12.22	12.3	20
French Polynesia	13.63	11.75	12.06	11.64	12.64	11.93	12.0	20
Gabon	91.09	73.41	76.33	72.38	81.83	75.15	75.8	22
Georgia	257.15	242.88	245.22	241.94	249.56	244.19	244.8	18
Germany	10,713.16	11,503.43	11,371.33	11,541.11	11,118.78	11,418.45	11,390.6	16
Ghana	870.13	540.01	594.62	521.12	697.58	572.87	585.2	35
Gibraltar	9.52	10.90	10.67	10.97	10.24	10.76	10.7	15
Greece	1,057.62	1,098.46	1,091.57	1,100.11	1,078.28	1,093.82	1,092.4	17
Greenland	8.03	8.72	8.61	8.75	8.39	8.65	8.6	16
Grenada	5.32	4.53	4.66	4.49	4.90	4.61	4.6	20
Guadeloupe	32.39	32.32	32.33	32.29	32.33	32.31	32.3	17
Guatemala	648.32	487.15	513.78	477.79	563.94	503.08	509.1	24
Guinea	312.72	163.40	188.10	154.90	234.72	178.30	183.9	63
Guinea-Bissau	47.01	24.54	28.26	23.27	35.27	26.79	27.6	63
Guyana	36.20	30.52	31.46	30.19	33.22	31.08	31.3	21
Haiti	288.48	159.38	180.74	152.02	221.03	172.25	177.1	50
Honduras	341.72	248.77	264.14	243.40	293.08	257.98	261.5	25
Hong Kong	718.73	741.16	737.37	741.99	730.00	738.55	737.8	17
Hungary	883.51	902.02	898.86	902.53	892.65	899.72	899.2	17
Iceland	57.10	63.08	62.09	63.38	60.18	62.45	62.2	16
India	62,435.03	52,364.56	54,026.38	51,767.03	57,150.28	53,349.09	53,731.5	21
Indonesia	13,776.35	12,069.39	12,350.73	11,966.23	12,878.72	12,234.69	12,300.0	20
Iran	10,692.35	11,488.44	11,355.38	11,526.46	11,101.02	11,402.89	11,374.8	16
Iraq	3,354.65	3,382.60	3,377.61	3,382.18	3,367.26	3,378.12	3,377.6	17
Ireland	568.89	603.39	597.61	604.98	586.54	599.63	598.4	16
Israel and Palestine, State of	1,157.97	1,168.76	1,166.85	1,168.68	1,162.92	1,167.10	1,166.9	17
Italy, San Marino and the Holy See	5,512.65	5,625.52	5,606.22	5,628.55	5,568.26	5,611.42	5,608.0	17
Jamaica	158.01	141.03	143.83	140.00	149.07	142.67	143.3	19
Japan	17,369.82	18,793.78	18,555.97	18,862.82	18,101.82	18,641.62	18,591.2	16
Jordan	577.46	526.63	534.99	523.46	550.64	531.47	533.4	19
Kazakhstan	3,917.99	4,407.07	4,325.61	4,431.99	4,170.60	4,355.82	4,338.2	16
Kenya	1,386.12	791.55	889.91	757.62	1,075.44	850.81	873.1	44
Kiribati	2.97	1.61	1.83	1.53	2.26	1.74	1.8	53
Kuwait	1,345.73	1,549.83	1,515.87	1,560.40	1,451.32	1,528.59	1,521.2	15
Kyrgyzstan	289.68	241.69	249.61	238.84	264.50	246.38	248.2	21
Laos	240.79	170.25	181.91	166.18	203.89	177.25	179.9	27
Latvia	147.43	145.66	145.94	145.48	146.42	145.77	145.9	17
Lebanon	495.94	482.65	484.80	481.62	488.73	483.75	484.3	18
Lesotho	55.44	31.29	35.28	29.91	42.82	33.69	34.6	46
Liberia	121.89	64.36	73.88	61.09	91.84	70.10	72.3	60
Libya	806.35	857.63	849.05	860.01	832.61	852.06	850.3	16
Lithuania	234.22	235.93	235.62	235.88	234.97	235.64	235.6	17
Luxembourg	136.81	154.43	151.49	155.33	145.91	152.58	151.9	16
Macao	29.95	25.37	26.12	25.10	27.54	25.81	26.0	20
Madagascar	635.40	314.98	368.00	296.77	468.04	346.97	359.0	85
Malawi	422.61	197.97	235.14	185.21	305.29	220.41	228.8	142
Malaysia	3,845.36	4,096.11	4,054.15	4,107.81	3,973.80	4,068.93	4,060.2	16
Maldives	23.04	18.87	19.56	18.63	20.85	19.28	19.4	21
Mali	437.42	198.61	238.13	185.06	312.70	222.47	231.4	224
Malta	22.74	20.03	20.48	19.86	21.31	20.29	20.4	20
Martinique	32.89	33.32	33.25	33.33	33.10	33.26	33.3	17
Mauritania	194.83	159.04	164.95	156.93	176.06	162.55	163.9	21
Mauritius	82.34	77.94	78.66	77.65	80.00	78.35	78.5	18

sum emissions 2020 - 2100 - national budgets -	RM-1	RM-2	RM-3	RM-4	RM-5	RM-6	average	scope	
	const	exp	lin	quadr	rad	abs	budget	average	
in Mill. t							RM 2 - 6	budget	
Mexico	8,904.64	8,591.26	8,642.22	8,568.56	8,736.13	8,618.45	8,631.3	18	
Moldova	204.32	178.51	182.77	176.96	190.75	181.01	182.0	20	
Mongolia	525.28	578.54	569.65	581.19	552.73	572.91	571.0	16	
Morocco	1,724.65	1,467.71	1,510.10	1,452.39	1,589.74	1,492.76	1,502.5	20	
Mozambique	772.91	423.84	481.59	403.95	590.53	458.65	471.7	51	
Myanmar/Burma	1,779.29	1,240.31	1,329.42	1,209.25	1,497.35	1,293.77	1,314.0	27	
Namibia	109.65	90.38	93.56	89.24	99.54	92.27	93.0	21	
Nepal	808.02	495.42	547.13	477.54	644.63	526.54	538.3	36	
Netherlands	2,352.71	2,547.01	2,514.56	2,556.44	2,452.60	2,526.26	2,519.4	16	
New Caledonia	204.66	241.66	235.51	243.60	223.82	237.83	236.5	15	
New Zealand	593.64	634.85	627.96	636.79	614.77	630.40	629.0	16	
Nicaragua	215.59	150.33	161.12	146.57	181.46	156.81	159.3	27	
Niger	533.11	252.87	299.24	236.95	386.75	280.86	291.3	123	
Nigeria	5,609.01	3,399.54	3,765.02	3,273.21	4,454.24	3,619.54	3,702.3	37	
North Korea	1,088.86	882.61	916.66	870.48	980.74	902.87	910.7	22	
North Macedonia	158.14	155.62	156.02	155.39	156.74	155.80	155.9	17	
Norway	724.73	782.71	773.02	785.51	754.52	776.50	774.5	16	
Oman	1,284.03	1,462.75	1,433.00	1,471.95	1,376.43	1,444.10	1,437.6	15	
Pakistan	7,510.78	5,428.65	5,772.82	5,308.29	6,421.27	5,634.87	5,713.2	26	
Palau	17.25	20.47	19.93	20.64	18.92	20.13	20.0	15	
Panama	239.20	217.11	220.74	215.74	227.55	219.22	220.1	19	
Papua New Guinea	241.12	143.85	159.94	138.29	190.28	153.54	157.2	39	
Paraguay	259.43	194.78	205.46	191.03	225.59	201.17	203.6	24	
Peru	1,415.59	1,161.74	1,203.64	1,146.77	1,282.46	1,186.63	1,196.3	21	
Philippines	4,244.21	3,305.55	3,460.62	3,250.78	3,752.54	3,398.09	3,433.5	23	
Poland	4,846.33	5,202.04	5,142.58	5,218.99	5,028.89	5,163.78	5,151.3	16	
Portugal	835.46	835.15	835.11	834.64	834.81	834.76	834.9	17	
Puerto Rico	112.91	86.98	91.26	85.47	99.33	89.54	90.5	23	
Qatar	1,412.12	1,652.69	1,612.68	1,665.25	1,536.67	1,627.74	1,619.0	15	
Réunion	57.51	54.40	54.91	54.20	55.86	54.69	54.8	18	
Romania	1,415.20	1,380.59	1,386.17	1,377.83	1,396.34	1,383.38	1,384.9	18	
Russia	25,875.11	28,715.47	28,242.06	28,858.36	27,340.33	28,416.30	28,314.5	16	
Rwanda	287.19	135.07	160.24	126.43	207.74	150.26	155.9	135	
Saint Helena, Ascension and Tristan da Cunha	0.33	0.30	0.30	0.30	0.31	0.30	0.3	19	
Saint Kitts and Nevis	3.60	3.45	3.47	3.44	3.52	3.46	3.5	18	
Saint Lucia	7.71	6.24	6.48	6.15	6.94	6.38	6.4	22	
Saint Pierre and Miquelon	0.91	1.00	0.99	1.00	0.96	0.99	1.0	16	
Saint Vincent and the Grenadines	4.24	3.26	3.42	3.20	3.73	3.36	3.4	23	
Samoa	6.02	3.96	4.30	3.84	4.94	4.16	4.2	30	
São Tomé and Príncipe	6.66	4.43	4.80	4.30	5.49	4.65	4.7	30	
Saudi Arabia	8,534.16	9,701.92	9,507.51	9,761.91	9,137.79	9,579.96	9,537.8	16	
Senegal	476.17	301.35	330.26	291.33	384.78	318.74	325.3	33	
Serbia and Montenegro	1,099.37	1,166.63	1,155.36	1,169.72	1,133.78	1,159.30	1,157.0	16	
Seychelles	15.43	16.95	16.69	17.02	16.21	16.79	16.7	16	
Sierra Leone	186.42	94.06	109.34	88.81	138.18	103.28	106.7	76	
Singapore	802.07	868.72	857.59	871.96	836.34	861.60	859.2	16	
Slovakia	574.16	600.14	595.78	601.25	587.37	597.24	596.4	17	
Slovenia	239.73	253.92	251.54	254.56	246.98	252.37	251.9	16	
Solomon Islands	16.23	8.36	9.66	7.91	12.12	9.14	9.4	68	
Somalia	345.63	158.44	189.42	147.81	247.87	177.14	184.1	190	
South Africa	7,539.87	8,099.74	8,006.16	8,126.47	7,827.27	8,039.57	8,019.8	16	
South Korea	9,372.76	10,428.55	10,252.61	10,481.81	9,917.54	10,317.47	10,279.6	16	
Spain and Andorra	4,299.09	4,394.34	4,378.10	4,397.11	4,346.23	4,382.61	4,379.7	17	
Sri Lanka	809.89	619.21	650.72	608.12	710.04	638.04	645.2	23	
Sudan and South Sudan	1,449.21	845.78	945.61	811.33	1,133.88	905.91	928.5	41	
Suriname	38.66	36.84	37.13	36.71	37.69	37.00	37.1	18	
Sweden	784.15	776.54	777.71	775.65	779.72	776.92	777.3	17	
Switzerland and Liechtenstein	685.57	681.34	681.97	680.70	682.97	681.43	681.7	17	
Syria	738.29	603.99	626.16	596.07	667.87	617.16	622.2	21	
Taiwan	4,023.36	4,446.80	4,376.21	4,468.00	4,241.70	4,402.12	4,387.0	16	
Tajikistan	314.31	222.87	237.98	217.59	266.47	231.93	235.4	26	

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 2 - 6	scope average budget
in Mill. t								
Tanzania	1,421.32	743.30	855.48	704.71	1,067.13	810.96	836.3	63
Thailand	4,991.30	4,847.07	4,870.43	4,836.09	4,913.22	4,859.14	4,865.2	18
The Gambia	58.19	30.88	35.40	29.33	43.93	33.61	34.6	58
Timor-Leste	32.79	17.90	20.36	17.05	25.01	19.38	19.9	52
Togo	210.67	118.77	133.97	113.53	162.65	127.93	131.4	46
Tonga	3.88	2.93	3.08	2.87	3.38	3.02	3.1	24
Trinidad and Tobago	445.37	512.87	501.64	516.37	480.29	505.85	503.4	15
Tunisia	659.17	598.42	608.42	594.65	627.13	604.22	606.6	19
Turkey	7,073.86	7,123.81	7,114.77	7,122.42	7,095.77	7,115.28	7,114.4	17
Turkmenistan	1,276.28	1,437.29	1,410.47	1,445.50	1,359.45	1,420.42	1,414.6	16
Turks and Caicos Islands	2.54	2.42	2.43	2.41	2.47	2.43	2.4	18
Uganda	1,023.31	493.33	581.03	463.22	746.51	546.26	566.1	106
Ukraine	3,440.40	3,407.68	3,412.73	3,403.83	3,421.34	3,409.28	3,411.0	17
United Arab Emirates	3,034.07	3,489.49	3,413.70	3,513.06	3,269.65	3,442.07	3,425.6	15
United Kingdom	6,085.44	6,199.18	6,179.68	6,201.93	6,141.17	6,184.71	6,181.3	17
United States	71,873.41	81,033.10	79,507.68	81,500.73	76,605.26	80,074.04	79,744.2	16
Uruguay	157.98	132.43	136.65	130.91	144.57	134.93	135.9	21
Uzbekistan	1,916.62	1,757.04	1,783.27	1,747.02	1,832.34	1,772.18	1,778.4	19
Vanuatu	7.57	4.11	4.68	3.91	5.76	4.45	4.6	53
Venezuela	2,011.29	1,945.50	1,956.18	1,940.65	1,975.83	1,951.14	1,953.9	18
Vietnam	5,953.39	5,557.54	5,622.48	5,531.98	5,743.62	5,594.51	5,610.0	18
Western Sahara	16.34	9.96	11.01	9.59	13.00	10.59	10.8	36
Yemen	767.57	437.51	492.11	418.68	595.11	470.41	482.8	44
Zambia	480.69	280.69	313.78	269.27	376.18	300.62	308.1	41
Zimbabwe	453.88	302.06	327.17	293.34	374.50	317.15	322.8	30
EU27	46,878.68	49,009.88	48,651.70	49,100.91	47,962.08	48,771.84	48,699.3	17
EU28	52,964.12	55,209.06	54,831.38	55,302.83	54,103.26	54,956.54	54,880.6	17
sub sum 2020 - 2100	731,225	735,628	734,819	735,442	733,094	734,822	734,761	
EU27	-46,879	-49,010	-48,652	-49,101	-47,962	-48,772	-48,699	
EU28	-52,964	-55,209	-54,831	-55,303	-54,103	-54,957	-48,699	
sum	631,382	631,409	631,336	631,038	631,028	631,094	637,362	
base data: budget 2020 - 2100*	630,000	630,000	630,000	630,000	630,000	630,000	630,000	
rounding differences	1,382	1,409	1,336	1,038	1,028	1,094	7,362	
difference in %	0.22%	0.22%	0.21%	0.16%	0.16%	0.17%	1.17%	
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**	26.4%	11.4%	13.8%	10.5%	18.5%	12.9%	13.4%	
global (start) change rate 2020	-5.4%	-1.5%	-1.5%	-1.5%	-1.5%	-2.8%		
global change rate 2030 vs. 2010	-41%	-18%	-24%	-17%	-31%	-26%		
global overshoot in Gt	0	0	0	0	0	0		
base data: global CO2 budget 2020 - 2100 incl. LUC and ISA in Gt:							650	

* 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	average	global
in Mill. t							RM 2 - 6	budget	budget
China	177,239	189,444	187,403	190,019	183,497	188,126	187,698	16	29.4%
United States	71,873	81,033	79,508	81,501	76,605	80,074	79,744	16	12.5%
EU28	52,964	55,209	54,831	55,303	54,103	54,957	54,881	17	8.6%
India	62,435	52,365	54,026	51,767	57,150	53,349	53,731	21	8.4%
EU27	46,879	49,010	48,652	49,101	47,962	48,772	48,699	17	7.6%
Russia	25,875	28,715	28,242	28,858	27,340	28,416	28,315	16	4.4%
Japan	17,370	18,794	18,556	18,863	18,102	18,642	18,591	16	2.9%
Indonesia	13,776	12,069	12,351	11,966	12,879	12,235	12,300	20	1.9%
Germany	10,713	11,503	11,371	11,541	11,119	11,418	11,391	16	1.8%
Iran	10,692	11,488	11,355	11,526	11,101	11,403	11,375	16	1.8%
South Korea	9,373	10,429	10,253	10,482	9,918	10,317	10,280	16	1.6%
Saudi Arabia	8,534	9,702	9,508	9,762	9,138	9,580	9,538	16	1.5%
Brazil	10,620	9,263	9,487	9,181	9,906	9,395	9,446	20	1.5%
Canada	8,225	9,277	9,102	9,331	8,768	9,167	9,129	16	1.4%
Mexico	8,905	8,591	8,642	8,569	8,736	8,618	8,631	18	1.4%
South Africa	7,540	8,100	8,006	8,126	7,827	8,040	8,020	16	1.3%
Turkey	7,074	7,124	7,115	7,122	7,096	7,115	7,114	17	1.1%
Australia	6,040	6,851	6,716	6,892	6,459	6,766	6,737	16	1.1%
United Kingdom	6,085	6,199	6,180	6,202	6,141	6,185	6,181	17	1.0%
Pakistan	7,511	5,429	5,773	5,308	6,421	5,635	5,713	26	0.9%
Vietnam	5,953	5,558	5,622	5,532	5,744	5,595	5,610	18	0.9%

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

gobal path properties	RM-1	RM-2	RM-3	RM-4	RM-5	RM-6
	const	exp	lin	quadr	rad	abs
implicit population weighting vs. emissions**	26%	11%	14%	11%	19%	13%
global (start) change rate 2020	-5.4%	-1.5%	-1.5%	-1.5%	-1.5%	-2.8%
global change rate 2030 vs. 2010	-41%	-18%	-24%	-17%	-31%	-26%
global overshoot in Gt	0	0	0	0	0	0

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the Regensburg Model means:
▶ monotonic national paths that are compatible with a given global budget
▶ converging emissions per capita
▶ implicit population weighting to emissions well below 50% depending on choosen global path (concrete values can be found above under properties)

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

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