

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		359%	110%	-100%	-100%	11,00	0,29
Albania		-63%	-47%	-100%	-100%	5,66	1,96
Algeria		-1%	-42%	-100%	-100%	180,57	4,19
Angola		35%	-36%	-100%	-100%	25,82	0,81
Anguilla		76%	-55%	-100%	-100%	0,02	1,58
Antigua and Barbuda		-17%	-48%	-100%	-100%	0,51	5,25
Argentina		-32%	-61%	-100%	-100%	199,41	4,45
Armenia		-88%	-43%	-100%	-100%	5,92	2,00
Aruba		-8%	-45%	-100%	-100%	0,78	7,37
Australia		-48%	-65%	-100%	-100%	433,38	17,20
Austria		-60%	-67%	-100%	-100%	72,36	8,08
Azerbaijan		-75%	-44%	-100%	-100%	35,98	3,58
Bahamas		-43%	-50%	-100%	-100%	2,45	6,29
Bahrain		-2%	-59%	-100%	-100%	35,44	21,59
Bangladesh		394%	19%	-100%	-100%	110,16	0,68
Barbados		66%	-45%	-100%	-100%	3,83	13,33
Belarus		-79%	-65%	-100%	-100%	66,34	7,02
Belgium		-69%	-69%	-100%	-100%	104,41	9,05
Belize		9%	-19%	-100%	-100%	0,37	0,95
Benin		1152%	2%	-100%	-100%	8,15	0,69
Bermuda		-62%	-65%	-100%	-100%	0,35	5,60
Bhutan		308%	-36%	-100%	-100%	2,12	2,78
Bolivia		59%	-30%	-100%	-100%	24,51	2,13
Bosnia and Herzegovina		-53%	-48%	-100%	-100%	33,50	10,15
Botswana		-2%	-21%	-100%	-100%	7,04	3,06
Brazil		-12%	-55%	-100%	-100%	478,15	2,27
British Virgin Islands		73%	-36%	-100%	-100%	0,12	4,05
Brunei		-30%	-68%	-100%	-100%	7,02	16,20
Bulgaria		-81%	-68%	-100%	-100%	43,31	6,19
Burkina Faso		1380%	200%	-100%	-100%	3,64	0,18
Burundi		1154%	1062%	-100%	-100%	0,34	0,03
Cabo Verde		819%	35%	-100%	-100%	1,02	1,86
Cambodia		2087%	78%	-100%	-100%	16,49	1,00
Cameroon		85%	16%	-100%	-100%	10,10	0,39
Canada		-57%	-65%	-100%	-100%	584,85	15,63
Cayman Islands		-3%	-50%	-100%	-100%	0,40	6,20
Central African Republic		655%	241%	-100%	-100%	0,49	0,10
Chad		1308%	806%	-100%	-100%	0,89	0,06
Chile		0%	-54%	-100%	-100%	89,89	4,74
China		67%	-56%	-100%	-100%	11.535,20	8,05
Colombia		-26%	-42%	-100%	-100%	86,55	1,72
Comoros		419%	90%	-100%	-100%	0,21	0,25
Congo		27%	-43%	-100%	-100%	5,80	1,08
Cook Islands		-58%	-69%	-100%	-100%	0,04	2,50
Costa Rica		36%	-45%	-100%	-100%	8,98	1,78
Côte d'Ivoire		230%	32%	-100%	-100%	13,56	0,53
Croatia		-72%	-67%	-100%	-100%	19,12	4,63
Cuba		-68%	-63%	-100%	-100%	31,04	2,74
Curaçao		-65%	-69%	-100%	-100%	5,91	36,19
Cyprus		-42%	-67%	-100%	-100%	7,41	6,19
Czechia		-78%	-70%	-100%	-100%	105,69	9,89
Democratic Republic of the Congo		480%	554%	-100%	-100%	2,98	0,03
Denmark		-79%	-77%	-100%	-100%	31,12	5,39
Djibouti		-50%	-51%	-100%	-100%	1,05	1,08
Dominica		50%	-40%	-100%	-100%	0,10	1,44
Dominican Republic		38%	-48%	-100%	-100%	27,28	2,54
Ecuador		-4%	-56%	-100%	-100%	40,70	2,34
Egypt		14%	-51%	-100%	-100%	255,37	2,54
El Salvador		40%	-45%	-100%	-100%	7,15	1,11
Equatorial Guinea		1350%	-68%	-100%	-100%	3,47	2,56
Eritrea		371%	113%	-100%	-100%	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	-84%	-72%	-100%	-100%	18,50	13,96		
Eswatini	3%	-70%	-100%	-100%	1,14	1,00		
Ethiopia	1167%	340%	-100%	-100%	18,25	0,16		
Falkland Islands	-16%	-53%	-100%	-100%	0,03	9,40		
Faroese	656%	498%	-100%	-100%	0,00	0,04		
Fiji	-39%	-47%	-100%	-100%	1,36	1,53		
Finland	-74%	-77%	-100%	-100%	43,41	7,85		
France and Monaco	-70%	-70%	-100%	-100%	314,74	4,83		
French Guiana	-30%	-51%	-100%	-100%	0,61	2,10		
French Polynesia	-70%	-71%	-100%	-100%	0,60	2,15		
Gabon	-74%	-73%	-100%	-100%	3,48	1,60		
Georgia	-85%	-17%	-100%	-100%	13,47	3,37		
Germany	-76%	-70%	-100%	-100%	702,60	8,41		
Ghana	278%	6%	-100%	-100%	16,84	0,55		
Gibraltar	60%	-52%	-100%	-100%	0,69	20,58		
Greece	-71%	-74%	-100%	-100%	65,57	6,26		
Greenland	5926%	-72%	-100%	-100%	0,54	9,47		
Grenada	31%	-31%	-100%	-100%	0,23	2,04		
Guadeloupe	-21%	-42%	-100%	-100%	1,87	4,68		
Guatemala	172%	-9%	-100%	-100%	21,20	1,21		
Guinea	248%	168%	-100%	-100%	2,92	0,23		
Guinea-Bissau	186%	39%	-100%	-100%	0,44	0,23		
Guyana	96%	-16%	-100%	-100%	1,52	1,94		
Haiti	215%	53%	-100%	-100%	3,58	0,32		
Honduras	130%	-32%	-100%	-100%	10,36	1,06		
Hong Kong	-54%	-63%	-100%	-100%	44,02	5,92		
Hungary	-73%	-63%	-100%	-100%	53,18	5,49		
Iceland	-43%	-64%	-100%	-100%	3,93	11,58		
India	89%	-36%	-100%	-100%	2.597,36	1,90		
Indonesia	59%	-38%	-100%	-100%	625,66	2,31		
Iran	19%	-57%	-100%	-100%	701,99	8,47		
Iraq	4%	-43%	-100%	-100%	197,61	5,03		
Ireland	-61%	-69%	-100%	-100%	36,55	7,49		
Israel and Palestine, State of	-29%	-66%	-100%	-100%	68,33	5,06		
Italy, San Marino and the Holy See	-72%	-72%	-100%	-100%	331,56	5,47		
Jamaica	-60%	-59%	-100%	-100%	7,44	2,52		
Japan	-65%	-67%	-100%	-100%	1.153,72	9,09		
Jordan	11%	-45%	-100%	-100%	28,34	2,81		
Kazakhstan	-63%	-62%	-100%	-100%	277,36	14,95		
Kenya	176%	35%	-100%	-100%	19,81	0,38		
Kiribati	82%	-29%	-100%	-100%	0,03	0,29		
Kuwait	0%	-62%	-100%	-100%	98,95	23,52		
Kyrgyzstan	-78%	-20%	-100%	-100%	11,92	1,86		
Laos	1645%	118%	-100%	-100%	6,78	0,95		
Latvia	-85%	-66%	-100%	-100%	8,38	4,39		
Lebanon	72%	-50%	-100%	-100%	27,44	4,00		
Lesotho	606%	32%	-100%	-100%	0,75	0,35		
Liberia	253%	156%	-100%	-100%	1,21	0,24		
Libya	-51%	-70%	-100%	-100%	52,05	7,68		
Lithuania	-86%	-64%	-100%	-100%	13,77	4,99		
Luxembourg	-72%	-71%	-100%	-100%	9,74	15,82		
Macao	-44%	-54%	-100%	-100%	1,27	1,99		
Madagascar	936%	229%	-100%	-100%	4,20	0,16		
Malawi	905%	213%	-100%	-100%	1,62	0,09		
Malaysia	51%	-60%	-100%	-100%	248,83	7,79		
Maldives	523%	-54%	-100%	-100%	0,91	1,72		
Mali	1103%	699%	-100%	-100%	1,03	0,05		
Malta	-82%	-84%	-100%	-100%	1,04	2,37		
Martinique	-25%	-47%	-100%	-100%	1,95	5,20		
Mauritania	404%	68%	-100%	-100%	7,66	1,69		
Mauritius	40%	-55%	-100%	-100%	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		-37%	-62%	-100%	-100%	485,00	3,80
Moldova		-88%	-54%	-100%	-100%	9,23	2,28
Mongolia		-7%	-15%	-100%	-100%	35,93	11,14
Morocco		41%	-39%	-100%	-100%	73,91	2,03
Mozambique		713%	161%	-100%	-100%	9,26	0,30
Myanmar/Burma		512%	219%	-100%	-100%	48,31	0,89
Namibia		27%	-37%	-100%	-100%	4,40	1,76
Nepal		910%	131%	-100%	-100%	15,02	0,52
Netherlands		-67%	-71%	-100%	-100%	156,41	9,15
New Caledonia		213%	3%	-100%	-100%	15,66	55,37
New Zealand		-44%	-61%	-100%	-100%	38,67	8,08
Nicaragua		68%	-29%	-100%	-100%	5,86	0,90
Niger		545%	309%	-100%	-100%	2,36	0,10
Nigeria		2%	-16%	-100%	-100%	100,22	0,50
North Korea		-85%	-64%	-100%	-100%	42,17	1,64
North Macedonia		-70%	-64%	-100%	-100%	8,92	4,28
Norway		-56%	-65%	-100%	-100%	47,99	8,92
Oman		98%	-41%	-100%	-100%	92,78	18,65
Pakistan		82%	-22%	-100%	-100%	223,63	1,03
Palau		-80%	-80%	-100%	-100%	1,33	73,84
Panama		70%	-51%	-100%	-100%	11,63	2,74
Papua New Guinea		40%	5%	-100%	-100%	4,07	0,46
Paraguay		88%	-18%	-100%	-100%	8,47	1,20
Peru		21%	-44%	-100%	-100%	56,29	1,73
Philippines		64%	-18%	-100%	-100%	150,64	1,39
Poland		-70%	-66%	-100%	-100%	317,65	8,38
Portugal		-59%	-67%	-100%	-100%	48,47	4,74
Puerto Rico		-8%	-18%	-100%	-100%	3,91	1,33
Qatar		105%	-50%	-100%	-100%	106,53	37,61
Réunion		15%	-61%	-100%	-100%	3,02	3,40
Romania		-84%	-64%	-100%	-100%	78,63	4,06
Russia		-75%	-65%	-100%	-100%	1.792,02	12,28
Rwanda		497%	296%	-100%	-100%	1,15	0,09
Saint Helena, Ascension and Tristan da		-33%	-44%	-100%	-100%	0,02	2,61
Saint Kitts and Nevis		114%	-48%	-100%	-100%	0,19	3,67
Saint Lucia		78%	-37%	-100%	-100%	0,30	1,63
Saint Pierre and Miquelon		-86%	-40%	-100%	-100%	0,06	10,64
Saint Vincent and the Grenadines		86%	-34%	-100%	-100%	0,15	1,32
Samoa		-32%	-26%	-100%	-100%	0,14	0,71
São Tomé and Príncipe		110%	-26%	-100%	-100%	0,16	0,74
Saudi Arabia		18%	-57%	-100%	-100%	614,61	17,94
Senegal		180%	-5%	-100%	-100%	9,81	0,60
Serbia and Montenegro		-63%	-59%	-100%	-100%	70,69	7,52
Seychelles		25%	-61%	-100%	-100%	1,05	10,75
Sierra Leone		192%	194%	-100%	-100%	1,40	0,18
Singapore		-42%	-64%	-100%	-100%	53,37	9,19
Slovakia		-79%	-68%	-100%	-100%	35,99	6,59
Slovenia		-68%	-70%	-100%	-100%	15,37	7,39
Solomon Islands		44%	4%	-100%	-100%	0,14	0,21
Somalia		431%	346%	-100%	-100%	0,97	0,06
South Africa		-45%	-63%	-100%	-100%	494,86	8,45
South Korea		-19%	-63%	-100%	-100%	651,87	12,73
Spain and Andorra		-59%	-68%	-100%	-100%	259,31	5,54
Sri Lanka		218%	-2%	-100%	-100%	27,57	1,29
Sudan and South Sudan		241%	14%	-100%	-100%	22,57	0,42
Suriname		-13%	-54%	-100%	-100%	2,06	3,54
Sweden		-72%	-69%	-100%	-100%	44,75	4,46
Switzerland and Liechtenstein		-68%	-69%	-100%	-100%	39,37	4,56
Syria		-60%	-79%	-100%	-100%	29,16	1,71
Taiwan		-24%	-65%	-100%	-100%	276,78	11,64
Tajikistan		-60%	57%	-100%	-100%	8,92	0,96

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
Tanzania		705%	136%	-100%	-100%	13,34	0,23
Thailand		11%	-58%	-100%	-100%	275,06	3,95
The Gambia		374%	49%	-100%	-100%	0,59	0,25
Timor-Leste		212%	61%	-100%	-100%	0,38	0,30
Togo		251%	6%	-100%	-100%	2,85	0,35
Tonga		-1%	-64%	-100%	-100%	0,13	1,22
Trinidad and Tobago		-15%	-72%	-100%	-100%	32,74	23,47
Tunisia		-13%	-54%	-100%	-100%	32,07	2,74
Turkey		1%	-51%	-100%	-100%	415,78	4,98
Turkmenistan		-33%	-51%	-100%	-100%	90,52	15,23
Turks and Caicos Islands		639%	-51%	-100%	-100%	0,13	3,53
Uganda		1670%	202%	-100%	-100%	5,34	0,12
Ukraine		-91%	-76%	-100%	-100%	196,40	4,46
United Arab Emirates		29%	-57%	-100%	-100%	222,61	22,78
United Kingdom		-78%	-74%	-100%	-100%	364,91	5,40
United States		-66%	-69%	-100%	-100%	5.107,26	15,52
Uruguay		-27%	-55%	-100%	-100%	6,56	1,90
Uzbekistan		-69%	-65%	-100%	-100%	94,99	2,88
Vanuatu		-28%	-22%	-100%	-100%	0,09	0,29
Venezuela		-59%	-78%	-100%	-100%	110,06	3,86
Vietnam		481%	-23%	-100%	-100%	305,25	3,16
Western Sahara		55%	-16%	-100%	-100%	0,30	0,51
Yemen		43%	-62%	-100%	-100%	10,89	0,37
Zambia		112%	176%	-100%	-100%	7,50	0,42
Zimbabwe		-61%	-33%	-100%	-100%	10,86	0,74
EU27		-73%	-70%	-100%	-100%	2.939,07	6,60
EU28		-73%	-70%	-100%	-100%	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	67%	-56%	-100%	-100%	11.535	8,0	31,5%	31%
United States	-66%	-69%	-100%	-100%	5.107	15,5	13,9%	45%
EU28	-73%	-70%	-100%	-100%	3.304	6,4	9,0%	45%
EU27	-73%	-70%	-100%	-100%	2.939	6,6	8,0%	45%
India	89%	-36%	-100%	-100%	2.597	1,9	7,1%	52%
Russia	-75%	-65%	-100%	-100%	1.792	12,3	4,9%	57%
Japan	-65%	-67%	-100%	-100%	1.154	9,1	3,1%	61%
Germany	-76%	-70%	-100%	-100%	703	8,4	1,9%	62%
Iran	19%	-57%	-100%	-100%	702	8,5	1,9%	64%
South Korea	-19%	-63%	-100%	-100%	652	12,7	1,8%	66%
Indonesia	59%	-38%	-100%	-100%	626	2,3	1,7%	68%
Saudi Arabia	18%	-57%	-100%	-100%	615	17,9	1,7%	70%
Canada	-57%	-65%	-100%	-100%	585	15,6	1,6%	71%
South Africa	-45%	-63%	-100%	-100%	495	8,5	1,3%	72%
Mexico	-37%	-62%	-100%	-100%	485	3,8	1,3%	74%
Brazil	-12%	-55%	-100%	-100%	478	2,3	1,3%	75%
Australia	-48%	-65%	-100%	-100%	433	17,2	1,2%	76%
Turkey	1%	-51%	-100%	-100%	416	5,0	1,1%	77%
United Kingdom	-78%	-74%	-100%	-100%	365	5,4	1,0%	78%
Italy, San Marino and the Holy S	-72%	-72%	-100%	-100%	332	5,5	0,9%	79%
Poland	-70%	-66%	-100%	-100%	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	355,51	205,47	233,31	198,52	252,10	203,99	218,7	20
Albania	63,69	56,51	57,87	56,18	58,80	56,47	57,2	10
Algeria	1.683,06	1.659,00	1.664,57	1.658,08	1.668,37	1.659,90	1.662,0	9
Angola	424,01	312,89	333,61	307,76	347,61	311,90	322,8	13
Anguilla	0,28	0,24	0,25	0,24	0,26	0,24	0,2	11
Antigua and Barbuda	4,58	4,61	4,61	4,62	4,61	4,62	4,6	9
Argentina	1.838,95	1.823,97	1.827,99	1.823,49	1.830,73	1.825,09	1.826,3	9
Armenia	66,24	58,97	60,35	58,63	61,28	58,93	59,6	10
Aruba	6,73	6,96	6,93	6,98	6,90	6,97	6,9	9
Australia	3.481,41	3.751,37	3.704,10	3.764,37	3.672,29	3.756,93	3.729,8	9
Austria	615,21	640,38	636,17	641,62	633,34	641,10	638,5	9
Azerbaijan	345,88	334,93	337,18	334,46	338,71	335,05	336,1	9
Bahamas	21,44	21,93	21,85	21,95	21,80	21,95	21,9	9
Bahrain	281,68	305,52	301,33	306,67	298,51	305,99	303,6	9
Bangladesh	2.003,81	1.415,38	1.524,96	1.388,18	1.598,95	1.409,98	1.467,5	13
Barbados	31,21	33,32	32,95	33,42	32,71	33,37	33,2	9
Belarus	572,84	590,70	587,81	591,60	585,87	591,31	589,5	9
Belgium	877,83	919,94	912,80	922,01	908,00	921,04	916,8	9
Belize	5,61	4,30	4,54	4,24	4,71	4,29	4,4	12
Benin	146,40	103,96	111,87	102,00	117,20	103,58	107,7	13
Bermuda	3,11	3,15	3,15	3,16	3,15	3,16	3,2	9
Bhutan	21,63	20,27	20,54	20,21	20,72	20,27	20,4	10
Bolivia	268,96	241,92	247,07	240,69	250,56	241,79	244,4	10
Bosnia and Herzegovina	278,74	293,93	291,33	294,67	289,58	294,30	292,8	9
Botswana	70,08	66,52	67,22	66,36	67,70	66,53	66,9	9
Brazil	5.149,90	4.679,11	4.769,21	4.657,76	4.830,12	4.677,27	4.722,7	10
British Virgin Islands	1,14	1,12	1,12	1,12	1,13	1,12	1,1	9
Brunei	56,58	60,84	60,10	61,05	59,59	60,93	60,5	9
Bulgaria	379,96	388,14	386,90	388,57	386,07	388,50	387,6	9
Burkina Faso	172,91	90,82	106,03	87,01	116,30	89,99	98,0	27
Burundi	84,94	36,86	45,76	34,63	51,77	36,36	41,1	122
Cabo Verde	11,72	10,30	10,57	10,24	10,75	10,29	10,4	10
Cambodia	243,36	188,50	198,75	185,97	205,68	188,03	193,4	12
Cameroon	261,79	162,00	180,53	157,38	193,04	161,03	170,8	17
Canada	4.722,44	5.072,50	5.011,35	5.089,39	4.970,20	5.079,85	5.044,7	9
Cayman Islands	3,53	3,61	3,60	3,61	3,59	3,61	3,6	9
Central African Republic	37,66	18,18	21,79	17,28	24,22	17,98	19,9	40
Chad	120,71	54,60	66,84	51,53	75,10	53,92	60,4	68
Chile	820,12	818,55	819,40	818,57	819,99	819,10	819,1	9
China	98.113,81	102.098,99	101.433,26	102.296,61	100.986,23	102.213,83	101.805,8	9
Colombia	1.018,88	882,75	908,48	876,52	925,87	881,89	895,1	10
Comoros	7,71	4,32	4,95	4,17	5,37	4,29	4,6	22
Congo	82,64	65,10	68,39	64,30	70,60	64,96	66,7	11
Cook Islands	0,46	0,42	0,43	0,42	0,44	0,42	0,4	10
Costa Rica	104,45	91,07	93,60	90,45	95,31	90,98	92,3	10
Côte d'Ivoire	286,95	190,83	208,70	186,38	220,77	189,92	199,3	15
Croatia	175,15	174,40	174,65	174,38	174,83	174,51	174,6	9
Cuba	317,43	296,81	300,82	295,88	303,53	296,79	298,8	10
Curaçao	46,22	50,66	49,87	50,87	49,34	50,74	50,3	9
Cyprus	65,03	66,43	66,22	66,51	66,08	66,49	66,3	9
Czechia	881,50	928,28	920,28	930,57	914,90	929,44	924,7	9
Democratic Republic of the Congo	642,66	281,19	348,10	264,41	393,27	277,46	312,9	105
Denmark	278,28	281,05	280,73	281,21	280,52	281,27	281,0	9
Djibouti	14,95	11,77	12,37	11,63	12,77	11,75	12,1	11
Dominica	1,30	1,09	1,13	1,08	1,15	1,09	1,1	11
Dominican Republic	284,49	263,09	267,22	262,12	270,01	263,04	265,1	10
Ecuador	434,14	396,54	403,75	394,84	408,63	396,41	400,0	10
Egypt	2.662,39	2.462,67	2.501,22	2.453,67	2.527,29	2.462,22	2.481,4	10
El Salvador	100,54	79,66	83,57	78,70	86,21	79,49	81,5	11
Equatorial Guinea	36,15	33,48	33,99	33,36	34,34	33,47	33,7	10
Eritrea	30,67	16,65	19,25	16,00	21,00	16,51	17,9	24

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	150,42	160,90	159,08	161,41	157,85	161,13	160,1	9	
Eswatini	16,91	13,08	13,80	12,91	14,28	13,05	13,4	12	
Ethiopia	939,60	485,29	569,48	464,21	626,31	480,70	525,2	29	
Falkland Islands	0,27	0,28	0,28	0,28	0,28	0,28	0,3	9	
Faroes	0,36	0,16	0,20	0,15	0,22	0,16	0,2	92	
Fiji	16,72	14,17	14,65	14,05	14,98	14,15	14,4	11	
Finland	370,24	384,67	382,27	385,39	380,66	385,10	383,6	9	
France and Monaco	2.863,07	2.862,55	2.864,60	2.862,86	2.866,05	2.864,55	2.864,1	9	
French Guiana	6,73	6,04	6,17	6,01	6,26	6,03	6,1	10	
French Polynesia	6,56	5,91	6,03	5,88	6,12	5,91	6,0	10	
Gabon	42,07	35,97	37,12	35,69	37,90	35,93	36,5	10	
Georgia	131,19	126,10	127,13	125,88	127,82	126,14	126,6	9	
Germany	5.948,80	6.207,53	6.164,02	6.220,31	6.134,79	6.214,69	6.188,3	9	
Ghana	345,53	232,54	253,55	227,31	267,74	231,47	242,5	14	
Gibraltar	5,52	5,98	5,90	6,01	5,85	5,99	5,9	9	
Greece	574,30	587,20	585,22	587,87	583,90	587,75	586,4	9	
Greenland	4,49	4,72	4,68	4,73	4,66	4,73	4,7	9	
Grenada	2,54	2,27	2,32	2,26	2,36	2,27	2,3	10	
Guadeloupe	17,13	17,07	17,09	17,07	17,11	17,08	17,1	9	
Guatemala	287,05	231,67	242,05	229,12	249,06	231,23	236,6	11	
Guinea	113,47	62,43	71,90	60,07	78,29	61,92	66,9	23	
Guinea-Bissau	17,05	9,37	10,80	9,02	11,76	9,30	10,0	23	
Guyana	17,19	15,22	15,60	15,14	15,85	15,21	15,4	10	
Haiti	107,70	63,55	71,74	61,51	77,27	63,12	67,4	19	
Honduras	148,51	116,60	122,57	115,13	126,60	116,34	119,5	12	
Hong Kong	388,42	395,38	394,37	395,76	393,69	395,74	395,0	9	
Hungary	474,31	479,79	479,10	480,10	478,65	480,18	479,6	9	
Iceland	32,32	34,31	33,96	34,40	33,73	34,35	34,2	9	
India	29.546,16	26.066,05	26.726,25	25.907,26	27.172,39	26.046,52	26.383,7	10	
Indonesia	6.699,19	6.106,37	6.219,97	6.079,52	6.296,77	6.104,21	6.161,4	10	
Iran	5.939,81	6.200,54	6.156,66	6.213,41	6.127,18	6.207,72	6.181,1	9	
Iraq	1.786,15	1.792,56	1.792,60	1.793,07	1.792,67	1.793,89	1.793,0	9	
Ireland	313,29	324,49	322,64	325,05	321,41	324,84	323,7	9	
Israel and Palestine, State of	616,95	619,55	619,49	619,74	619,47	620,01	619,7	9	
Italy, San Marino and the Holy See	2.958,52	2.991,80	2.987,71	2.993,71	2.985,01	2.994,26	2.990,5	9	
Jamaica	77,75	71,83	72,97	71,56	73,74	71,82	72,4	10	
Japan	9.694,90	10.162,87	10.083,45	10.185,86	10.030,07	10.175,08	10.127,5	9	
Jordan	288,04	270,24	273,71	269,44	276,06	270,23	271,9	10	
Kazakhstan	2.245,41	2.408,03	2.379,66	2.415,88	2.360,57	2.411,49	2.395,1	9	
Kenya	526,46	323,10	360,86	313,68	386,35	321,12	341,0	17	
Kiribati	1,10	0,63	0,72	0,61	0,78	0,63	0,7	20	
Kuwait	783,85	851,98	839,99	855,25	831,91	853,32	846,5	9	
Kyrgyzstan	136,64	120,06	123,21	119,31	125,33	119,97	121,6	10	
Laos	102,88	78,69	83,21	77,57	86,26	78,48	80,8	12	
Latvia	77,45	76,72	76,91	76,69	77,03	76,76	76,8	9	
Lebanon	257,98	253,01	254,10	252,80	254,84	253,13	253,6	9	
Lesotho	20,93	12,67	14,20	12,28	15,23	12,58	13,4	18	
Liberia	44,47	24,80	28,45	23,89	30,91	24,61	26,5	22	
Libya	444,89	461,58	458,81	462,41	456,96	462,08	460,4	9	
Lithuania	124,62	124,99	125,00	125,02	125,02	125,08	125,0	9	
Luxembourg	78,59	84,45	83,43	84,74	82,74	84,58	84,0	9	
Macao	14,26	12,68	12,98	12,60	13,18	12,67	12,8	10	
Madagascar	224,62	115,13	135,42	110,05	149,12	114,03	124,8	30	
Malawi	145,37	68,63	82,84	65,07	92,44	67,85	75,4	47	
Malaysia	2.123,76	2.205,45	2.191,88	2.209,51	2.182,77	2.207,88	2.199,5	9	
Maldives	10,75	9,31	9,58	9,24	9,76	9,30	9,4	10	
Mali	148,27	66,71	81,81	62,92	92,00	65,87	73,9	72	
Malta	11,10	10,15	10,33	10,11	10,46	10,15	10,2	10	
Martinique	17,57	17,69	17,68	17,69	17,67	17,70	17,7	9	
Mauritania	90,67	78,33	80,66	77,77	82,24	78,25	79,4	10	
Mauritius	42,07	40,50	40,81	40,43	41,03	40,51	40,7	9	

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	4.605,90	4.491,19	4.515,44	4.486,39	4.531,90	4.493,09	4.503,6	9	
Moldova	99,19	90,23	91,94	89,82	93,10	90,19	91,1	10	
Mongolia	296,74	314,36	311,32	315,22	309,28	314,77	313,0	9	
Morocco	823,57	734,66	751,57	730,61	763,00	734,21	742,8	10	
Mozambique	287,44	168,09	190,23	162,55	205,18	166,91	178,6	19	
Myanmar/Burma	754,06	569,23	603,74	560,70	627,04	567,62	585,7	12	
Namibia	51,34	44,69	45,95	44,38	46,80	44,65	45,3	10	
Nepal	318,76	211,77	231,67	206,82	245,10	210,76	221,2	15	
Netherlands	1.313,65	1.377,53	1.366,68	1.380,66	1.359,39	1.379,19	1.372,7	9	
New Caledonia	121,29	133,67	131,48	134,27	130,00	133,90	132,7	8	
New Zealand	328,73	342,19	339,94	342,86	338,43	342,58	341,2	9	
Nicaragua	91,38	69,01	73,18	67,97	76,01	68,81	71,0	12	
Niger	184,48	88,74	106,48	84,30	118,44	87,77	97,1	41	
Nigeria	2.198,92	1.442,83	1.583,37	1.407,82	1.678,26	1.435,63	1.509,6	15	
North Korea	504,59	433,49	446,91	430,23	455,98	433,02	439,9	10	
North Macedonia	82,86	81,86	82,10	81,82	82,26	81,90	82,0	9	
Norway	404,00	423,04	419,82	423,98	417,65	423,55	421,6	9	
Oman	742,32	801,88	791,43	804,74	784,40	803,09	797,1	9	
Pakistan	3.250,42	2.535,85	2.669,48	2.502,91	2.759,72	2.529,87	2.599,6	12	
Palau	10,26	11,33	11,14	11,39	11,02	11,35	11,2	8	
Panama	118,95	111,23	112,73	110,88	113,74	111,22	112,0	10	
Papua New Guinea	93,73	60,45	66,63	58,91	70,81	60,13	63,4	16	
Paraguay	114,81	92,60	96,76	91,58	99,57	92,42	94,6	11	
Peru	660,99	573,41	589,97	569,41	601,16	572,86	581,4	10	
Philippines	1.919,80	1.596,87	1.657,57	1.582,04	1.698,57	1.594,48	1.625,9	11	
Poland	2.690,44	2.806,88	2.787,31	2.812,63	2.774,16	2.810,11	2.798,2	9	
Portugal	442,29	441,42	441,88	441,43	442,20	441,72	441,7	9	
Puerto Rico	50,74	41,82	43,50	41,41	44,63	41,75	42,6	11	
Qatar	831,73	912,20	897,97	916,05	888,39	913,71	905,7	9	
Réunion	29,37	28,26	28,48	28,21	28,64	28,27	28,4	9	
Romania	737,31	724,25	727,15	723,73	729,13	724,61	725,8	9	
Russia	14.693,11	15.634,65	15.471,56	15.680,33	15.361,84	15.655,84	15.560,8	9	
Rwanda	98,98	47,01	56,63	44,60	63,13	46,48	51,6	45	
Saint Helena, Ascension and Tristan da Cunha	0,16	0,15	0,15	0,15	0,16	0,15	0,2	10	
Saint Kitts and Nevis	1,85	1,80	1,81	1,80	1,82	1,80	1,8	9	
Saint Lucia	3,57	3,06	3,16	3,04	3,22	3,06	3,1	10	
Saint Pierre and Miquelon	0,51	0,54	0,54	0,54	0,53	0,54	0,5	9	
Saint Vincent and the Grenadines	1,90	1,57	1,63	1,55	1,67	1,56	1,6	11	
Samoa	2,47	1,76	1,89	1,73	1,98	1,76	1,8	13	
São Tomé and Príncipe	2,75	1,98	2,13	1,95	2,22	1,98	2,1	13	
Saudi Arabia	4.926,71	5.315,75	5.247,58	5.334,48	5.201,69	5.323,70	5.284,6	9	
Senegal	191,12	131,27	142,41	128,50	149,93	130,71	136,6	14	
Serbia and Montenegro	605,63	627,47	623,87	628,56	621,45	628,15	625,9	9	
Seychelles	8,70	9,20	9,12	9,23	9,06	9,21	9,2	9	
Sierra Leone	66,48	34,92	40,77	33,45	44,71	34,60	37,7	27	
Singapore	447,98	469,90	466,17	470,97	463,67	470,47	468,2	9	
Slovakia	313,10	321,41	320,10	321,83	319,22	321,72	320,9	9	
Slovenia	131,90	136,50	135,74	136,73	135,23	136,64	136,2	9	
Solomon Islands	5,85	3,16	3,65	3,03	3,99	3,13	3,4	24	
Somalia	117,68	53,74	65,58	50,78	73,57	53,09	59,4	61	
South Africa	4.188,02	4.371,37	4.340,51	4.380,42	4.319,79	4.376,42	4.357,7	9	
South Korea	5.331,69	5.681,90	5.621,15	5.698,88	5.580,27	5.689,69	5.654,4	9	
Spain and Andorra	2.309,75	2.338,17	2.334,52	2.339,77	2.332,11	2.340,11	2.336,9	9	
Sri Lanka	362,31	296,76	309,06	293,74	317,37	296,25	302,6	11	
Sudan and South Sudan	556,77	350,35	388,69	340,79	414,58	348,35	368,6	16	
Suriname	19,83	19,18	19,31	19,15	19,41	19,19	19,2	9	
Sweden	412,57	409,27	410,16	409,16	410,77	409,52	409,8	9	
Switzerland and Liechtenstein	361,56	359,49	360,12	359,43	360,55	359,72	359,9	9	
Syria	344,07	297,74	306,50	295,62	312,41	297,45	301,9	10	
Taiwan	2.278,30	2.418,51	2.394,28	2.425,32	2.377,99	2.421,73	2.407,6	9	
Tajikistan	134,52	103,15	109,01	101,70	112,97	102,88	105,9	12	



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	515,97	284,22	327,19	273,47	356,20	281,90	304,6	23
Thailand	2.592,70	2.539,09	2.550,72	2.536,90	2.558,63	2.540,29	2.545,1	9
The Gambia	21,28	11,95	13,68	11,52	14,85	11,86	12,8	22
Timor-Leste	12,17	7,07	8,02	6,84	8,66	7,02	7,5	20
Togo	79,48	48,05	53,88	46,59	57,82	47,74	50,8	18
Tonga	1,72	1,39	1,46	1,38	1,50	1,39	1,4	11
Trinidad and Tobago	259,40	281,93	277,97	283,01	275,29	282,37	280,1	9
Tunisia	327,85	306,59	310,73	305,64	313,52	306,58	308,6	10
Turkey	3.763,26	3.773,73	3.774,38	3.774,67	3.774,90	3.776,49	3.774,8	9
Turkmenistan	732,03	785,58	776,23	788,16	769,94	786,71	781,3	9
Turks and Caicos Islands	1,30	1,26	1,27	1,26	1,27	1,26	1,3	9
Uganda	356,88	175,82	209,36	167,41	232,00	173,97	191,7	36
Ukraine	1.810,38	1.796,09	1.799,96	1.795,64	1.802,61	1.797,19	1.798,3	9
United Arab Emirates	1.765,60	1.917,59	1.890,85	1.924,89	1.872,84	1.920,59	1.905,4	9
United Kingdom	3.262,13	3.295,19	3.291,34	3.297,12	3.288,82	3.297,86	3.294,1	9
United States	41.256,42	44.303,39	43.771,29	44.450,45	43.413,16	44.367,54	44.061,2	9
Uruguay	74,74	65,91	67,58	65,50	68,71	65,86	66,7	10
Uzbekistan	959,21	903,21	914,16	900,71	921,57	903,23	908,6	10
Vanuatu	2,80	1,62	1,84	1,56	1,98	1,60	1,7	20
Venezuela	1.042,08	1.017,87	1.023,03	1.016,86	1.026,54	1.018,32	1.020,5	9
Vietnam	3.014,33	2.874,31	2.902,12	2.868,14	2.920,96	2.874,81	2.888,1	9
Western Sahara	6,42	4,24	4,65	4,14	4,92	4,22	4,4	15
Yemen	291,24	178,36	199,32	173,13	213,46	177,26	188,3	17
Zambia	184,73	116,31	129,02	113,14	137,60	115,65	122,3	16
Zimbabwe	187,35	135,33	145,03	132,93	151,57	134,86	139,9	13
EU27	25.567,62	26.248,81	26.141,04	26.283,65	26.068,88	26.274,61	26.203,4	9
EU28	28.829,75	29.544,00	29.432,38	29.580,77	29.357,70	29.572,47	29.497,5	9
sub sum 2020 - 2100	388.743	389.566	389.681	389.651	389.767	389.848	389.703	
EU27	-25.568	-26.249	-26.141	-26.284	-26.069	-26.275	-26.203	
EU28	-28.830	-29.544	-29.432	-29.581	-29.358	-29.572	-26.203	
<b>sum</b>	<b>334.346</b>	<b>333.774</b>	<b>334.108</b>	<b>333.787</b>	<b>334.340</b>	<b>334.001</b>	<b>337.296</b>	
base data: budget 2020 - 2100*	334.000	334.000	334.000	334.000	334.000	334.000	334.000	
rounding differences	346	-226	108	-213	340	1	3.296	
difference in %	0,10%	-0,07%	0,03%	-0,06%	0,10%	0,00%	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>16,5%</b>	<b>6,8%</b>	<b>8,6%</b>	<b>6,4%</b>	<b>9,8%</b>	<b>6,7%</b>	<b>7,7%</b>	
global (start) change rate 2020	-9,7%	-1,5%	-1,5%	-1,5%	-1,5%	-5,2%		
global change rate 2030 vs. 2010	-65%	-57%	-60%	-59%	-62%	-54%		
global overshoot in Gt	0	0	0	0	0	0		
base data: global CO2 budget 2018 - 2100 incl. LUC and ISA in Gt:							<b>420</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	average	
in Mill. t							RM 2 - 6	budget	global
China	98.114	102.099	101.433	102.297	100.986	102.214	101.806	9	30,2%
United States	41.256	44.303	43.771	44.450	43.413	44.368	44.061	9	13,1%
EU28	28.830	29.544	29.432	29.581	29.358	29.572	29.497	9	8,7%
India	29.546	26.066	26.726	25.907	27.172	26.047	26.384	10	7,8%
EU27	25.568	26.249	26.141	26.284	26.069	26.275	26.203	9	7,8%
Russia	14.693	15.635	15.472	15.680	15.362	15.656	15.561	9	4,6%
Japan	9.695	10.163	10.083	10.186	10.030	10.175	10.127	9	3,0%
Germany	5.949	6.208	6.164	6.220	6.135	6.215	6.188	9	1,8%
Iran	5.940	6.201	6.157	6.213	6.127	6.208	6.181	9	1,8%
Indonesia	6.699	6.106	6.220	6.080	6.297	6.104	6.161	10	1,8%
South Korea	5.332	5.682	5.621	5.699	5.580	5.690	5.654	9	1,7%
Saudi Arabia	4.927	5.316	5.248	5.334	5.202	5.324	5.285	9	1,6%
Canada	4.722	5.072	5.011	5.089	4.970	5.080	5.045	9	1,5%
Brazil	5.150	4.679	4.769	4.658	4.830	4.677	4.723	10	1,4%
Mexico	4.606	4.491	4.515	4.486	4.532	4.493	4.504	9	1,3%
South Africa	4.188	4.371	4.341	4.380	4.320	4.376	4.358	9	1,3%
Turkey	3.763	3.774	3.774	3.775	3.775	3.776	3.775	9	1,1%
Australia	3.481	3.751	3.704	3.764	3.672	3.757	3.730	9	1,1%
United Kingdom	3.262	3.295	3.291	3.297	3.289	3.298	3.294	9	1,0%
Italy, San Marino and the Holy See	2.959	2.992	2.988	2.994	2.985	2.994	2.990	9	0,9%
Vietnam	3.014	2.874	2.902	2.868	2.921	2.875	2.888	9	0,9%

<b>central premises</b>	
global CO2 budget 2018 - 2100	420 Gt
emissions in 2018 and 2019, LUC and ISA	-86 Gt
budget 2020 - 2100 to distribute in this tool	334 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**	16%	7%	9%	6%	10%	7%
global (start) change rate 2020	-9,7%	-1,5%	-1,5%	-1,5%	-1,5%	-5,2%
global change rate 2030 vs. 2010	-65%	-57%	-60%	-59%	-62%	-54%
global overshoot in Gt	0	0	0	0	0	0

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

<b>the Regensburg Model means:</b>
▶ 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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