

Supplemental Online Material

Table SM.1. Emissions (including land-use change and forestry), GDP, and vulnerability index scores of the 20 largest emitters plus the group of 30 most vulnerable countries.

Actor	% GHG share	% GGP share	Vulnerability index
China	27.3	12.3	0.30
United States	13.6	22.4	0.20
EU	9.0	23.2	0.20
India	6.4	2.5	0.43
Indonesia	4.8	1.2	0.34
Russian Federation	4.7	2.8	0.29
Japan	3.1	6.5	0.29
Brazil	2.2	3.0	0.30
Canada	1.8	2.4	0.23
Iran, Islamic Rep.	1.7	0.5	0.29
Korea, Rep.	1.6	1.8	0.35
Saudi Arabia	1.5	1.0	0.34
Mexico	1.4	1.7	0.29
South Africa	1.3	0.5	0.37
Malaysia	1.1	0.4	0.31
Australia	1.0	2.1	0.24
Venezuela, RB	0.9	0.6	0.29
Thailand	0.9	0.5	0.31
Kazakhstan	0.9	0.3	0.28
Turkey	0.8	1.1	0.28
Vulnerable 30	3.1	1.5	0.54

Sources: Global Carbon Project 2014 (fossil fuel and cement emissions in 2013), World Resources Institute 2014 (land-use change and forestry emissions in 2011), World Bank 2014 (GDP in 2013 at market exchange rates), and Notre Dame Global Adaptation Index 2014 (vulnerability scores for 2012). The vulnerabilities of the EU and “Vulnerable 30” represent the unweighted average of their members’ vulnerabilities. Note that complete data are available for 168 countries, accounting for 98% of both global emissions and Gross Global Product (GGP). The values in the model, which are the ones shown in the table, have been normalized to sum to 100%.

Note: In subsequent tables, “ Δ when USA out” excludes the USA itself.

Table SM.2. Without conditional commitments, CGB-scale 0

Enthusiasts	Emissions covered		Followers	
	USA in	Δ when USA out	USA in	Δ when USA out
USA	0		None	
China, USA	0		None	
USA, EU	0		None	
China, USA, EU	50		None	
China	0	0	None	
EU	0	0	None	
China, EU	0	0	None	
BASIC	37	0	None	
BRICS	42	0	None	
Vulnerable 30	0	0	None	
EU, BASIC	46	0	None	
EU, BRICS	51	0	None	
EU, Vulnerable 30	0	0	None	

Table SM.3. Without conditional commitments, CGB-scale 0.1

Enthusiasts	Emissions covered		Followers	
	USA in	Δ when USA out	USA in	Δ when USA out
USA	41		China	
China, USA	41		None	
USA, EU	50		China	
China, USA, EU	50		None	
China	0	0	None	
EU	36	0	China	
China, EU	36	0	None	
BASIC	37	0	None	
BRICS	42	0	None	
Vulnerable 30	30	0	China	
EU, BASIC	46	0	None	
EU, BRICS	51	0	None	
EU, Vulnerable 30	39	0	China	

Table SM.4. Without conditional commitments, CGB-scale=0.2

Enthusiasts	Emissions covered		Followers	
	USA in	Δ when USA out	USA in	Δ when USA out
USA	47		China, India	
China, USA	47		India	
USA, EU	61		China, India, Indonesia	
China, USA, EU	61		India, Indonesia	
China	0	0		
EU	61	-18	China, USA, India, Indonesia	- Indonesia
China, EU	61	-18	USA, India, Indonesia	- Indonesia
BASIC	37	0		
BRICS	42	0		
Vulnerable 30	30	0	China	
EU, BASIC	64	-18	USA, Indonesia	- Indonesia
EU, BRICS	69	-18	USA, Indonesia	- Indonesia
EU, Vulnerable 30	64	-18	China, USA, India, Indonesia	- Indonesia

Table SM.5. Without conditional commitments, CGB-scale=0.25

Enthusiasts	Emissions covered		Followers	
	USA in	Δ when USA out	USA in	Δ when USA out
USA	100		All other actors	
China, USA	100		All other actors	
USA, EU	100		All other actors	
China, USA, EU	100		All other actors	
China	0	0	None	
EU	100	-14	All other actors	
China, EU	100	-14	All other actors	
BASIC	100	-63	All other actors	- All other actors
BRICS	100	-58	All other actors	- All other actors
Vulnerable 30	30	0	China	
EU, BASIC	100	-14	All other actors	
EU, BRICS	100	-14	All other actors	
EU, Vulnerable 30	100	0	All other actors	

Table SM.6. With conditional commitments, CGB-scale 0. [In the bottom row, the EU leaves]

Enthusiasts	Emissions covered		Followers	
	USA in	Δ when USA out	USA in	Δ when USA out
USA	0		None	
China, USA	0		None	
USA, EU	50		China	
China, USA, EU	50		None	
China	0	0	None	
EU	0	0	None	
China, EU	0	0	None	
BASIC	37	0	None	
BRICS	42	0	None	
Vulnerable 30	30	0	China	
EU, BASIC	46	0	None	
EU, BRICS	51	0	None	
EU, Vulnerable 30	30	0	China	

Table SM.7. With conditional commitments, CGB-scale=0.1

Enthusiasts	Emissions covered		Followers	
	USA in	Δ when USA out	USA in	Δ when USA out
USA	47		China, India	
China, USA	47		India	
USA, EU	56		China, India	
China, USA, EU	56		India	
China	0		None	
EU	50	-7	China, USA	+ India
China, EU	50	-7	USA	+ India
BASIC	51	-14	USA	
BRICS	55	-14	USA	
Vulnerable 30	44	-7	China, USA	+ India
EU, BASIC	60	-14	USA	
EU, BRICS	64	-14	USA	
EU, Vulnerable 30	59	-14	China, USA, India	

Table SM.8. With conditional commitments, CGB-scale=0.2

Enthusiasts	Emissions covered		Followers	
	USA in	Δ when USA out	USA in	Δ when USA out
USA	77		11 actors	
China, USA	77		10 actors	
USA, EU	79		11 actors	
China, USA, EU	79		10 actors	
China	76	-24	10 actors	- 6 actors
EU	79	-24	12 actors	- 7 actors
China, EU	79	-24	11 actors	- 7 actors
BASIC	77	-28	8 actors	- 4 actors
BRICS	79	-20	8 actors	- 5 actors
Vulnerable 30	80	-22	12 actors	- 6 actors
EU, BASIC	80	-21	9 actors	- 6 actors
EU, BRICS	80	-21	9 actors	- 6 actors
EU, Vulnerable 30	83	-25	13 actors	- 9 actors

Table SM.9. With conditional commitments, CGB-scale=0.25

Enthusiasts	Emissions covered		Followers	
	USA in	Δ when USA out	USA in	Δ when USA out
USA	100		All actors	
China, USA	100		All actors	
USA, EU	100		All actors	
China, USA, EU	100		All actors	
China	100	-14	All actors	
EU	100	-14	All actors	
China, EU	100	-14	All actors	
BASIC	100	-14	All actors	
BRICS	100	-14	All actors	
Vulnerable 30	100	-14	All actors	
EU, BASIC	100	-14	All actors	
EU, BRICS	100	-14	All actors	
EU, Vulnerable 30	100	-14	All actors	

Table SM.10. Side-payments

Enthusiasts	Emissions covered		Followers	
	USA in	Δ when USA out	USA in	Δ when USA out
USA	67.2		48 actors	
China, USA	75.7		83 actors	
USA, EU	87.0		89 actors	
China, USA, EU	95.0		109 actors	
China	48.2		41 actors	
EU	62.7		50 actors	
China, EU	71.7		86 actors	
BASIC	61.7		63 actors	
BRICS	62.3		69 actors	
Vulnerable 30	30		China	
EU, BASIC	71		70 actors	
EU, BRICS	72		78 actors	
EU, Vulnerable 30	67		69 actors	

References

- Global Carbon Project. 2014. Fossil fuel and cement emissions 2013. Available from <http://www.globalcarbonatlas.org/?q=en/emissions>, accessed 1 October 2014.
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- World Resources Institute. 2014. CAIT 2.0 Total GHG emissions from land-use change and forestry 2011. Available from <http://cait2.wri.org/wri/Country%20GHG%20Emissions>, accessed 1 October 2014.