

National Climate Policies in International Comparison:

The Climate Change Cooperation Index – Codebook

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1. Overview

The project concentrates on several covariates of countries' cooperative behavior within the UNFCCC. More specifically, the following data collection will focus on countries' ratification behavior in terms of the UNFCCC framework treaty and the Kyoto Protocol, countries' reporting obligations and their financial contributions, as well as emission patterns of UNFCCC states.

2. Data Documents and Initial Steps

All necessary information for compiling the data are available via official UNFCCC websites or other sources indicated below. The research assistant's coding sheet (either Excel or Stata) follows a monadic panel setup, i.e., the unit of observation is the state-year. All states of the international system will be listed in the data, while the temporal span ranges from 1995 to 2010.

3. Data Structure and Variable List

The following set of variables should be coded in an Excel or Stata spread sheet (if any information is not available, please set the corresponding variable cell as missing, i.e., leave it blank):

- *year*: variable that pertains to the country-year under study, i.e., if you code information on the US, France, or Switzerland (or any other country) in 1995, then this variable gets the value of 1995.
- *ccode*: numerical country identifier used by the Correlates of War Data. Please see the specific country codes below. For example, if you code information on the US—regardless of the year under study—then this variable gets the value of 2. Note that some countries such as Niue only have limited sovereignty rights and are associated with some other “bigger” state (in this case: New Zealand). In this context, use the country ccode of the bigger country, although the next variable (cname) should refer to the smaller state.

- *cname*: string variable on the country delegation you code, e.g., USA or Niue.
- *annex*: dummy variable indicating if a country is an Annex I (1) or non-Annex I country (0).
- *unfccc_rat*: dummy variable indicating if a country has ratified the UNFCCC framework convention. The information is available at the following website: http://unfccc.int/essential_background/convention/status_of_ratification/items/2631.php. Essentially, the ratification was open on July 1, 1992, but note our different time frame. Hence, if a country has ratified in 1995 or before, the variable gets a value of 1 in the year 1995 and all subsequent years. If a country has not ratified in 1995, the variable gets a value of 0 in 1995 and for all subsequent years until the UNFCCC has been ratified. For example, Angola (ANG; ccode=540) only ratified in 2000. Thus, ANG receives a value of 0 for the years 1995, 1996, 1997, 1998, and 1999. ANG, on the other hand, receives a value of 1 for the years 2000, 2001, 2002, 2003, and 2004. Note a different treatment for states that gained independence after 1995: those countries are assigned a value of 1 if ratification occurs within one year of independence; otherwise these states are treated the same way as all the other countries.
- *unfccc_dur*: This variable is similar to the previous item, albeit different since it measures promptness of countries' ratification behavior via a count item. Put differently, this variable measures how fast countries ratified the UNFCCC protocol, where countries that ratified the UNFCCC protocol after 1995 receive higher points. All countries that ratified the UNFCCC protocol in or before 1995, receive a value of 1 on this item. If a country ratified in 1996, i.e., one year after the start of our period under study, then this item receives a value of 2. If a country did not ratify until 1997, this state receives a value of 3, etc. Coming back to the ANG example, Angola ratified in 2000 and, hence, would receive a value of 6 on *UNFCCC_dur*. The treatment of newly independent states is similar to the previous variable.
- *kyoto_rat*: dummy variable indicating if a country has ratified the Kyoto Protocol or not. The information is available at the following United Nations website: http://unfccc.int/kyoto_protocol/status_of_ratification/items/2613.php. Essentially, the ratification was open on April 1, 1998. Hence, if a country has ratified in 1998 (or before), the variable gets a value of 1 in the year 1998 and all subsequent years. If a country has not ratified in 1998, the variable gets a value of 0 in 1998 and for all subsequent years until the Kyoto Protocol has been ratified. For example, Angola (ANG; ccode=540) only ratified in 2007. Thus, ANG receives a value of 0 for the all years under study. Note a different treatment for states that gained independence after 1998: those countries are assigned a value of 1 if ratification occurs within one year of independence; otherwise these states are treated the same way as all the other countries.
- *kyoto_dur*: This variable is similar to the previous item, albeit different since it measures promptness of countries' ratification behavior via a count item. Put differently, this variable measures how fast countries ratified the Kyoto Protocol, where countries that ratified the Kyoto protocol after 1998 receive higher points. All countries that ratified the Kyoto Protocol in or before 1998, receive a value of 1 on this item. If a country ratified in 1999, i.e., one year after the start of our period under study, then this item receives a value of 2. If a country did not ratify until 2000, this

state receives a value of 3, etc. Coming back to the ANG example, Angola ratified in 2007 and, hence, would receive a value of 7 on *Kyoto_dur*. The treatment of newly independent states is similar to the previous variable.

- *report_dummy*: each country has to report regularly to the UNFCCC via the National Communication (NC). The submission deadlines differ for Annex I (AI) and Non-Annex I countries. The necessary information for coding this variable is available at the following two websites: http://unfccc.int/national_reports/items/1408.php and http://unfccc.int/national_reports/annex_i_natcom/submitted_natcom/items/1395.php. By the end of 2010, AI countries had to submit five reports. Non-AI countries had to submit only their first NC. More specifically on this variable, it is coded dichotomously: a country receives a value of 1 for this item if an NC has been submitted by the deadline and for all subsequent years until the next NC is due. After that, the procedure starts again. If a country has not submitted an NC by the deadline, it receives a value of 0 until the NC has been submitted. The coding starts again when a new NC is due.
- *report1_dead*: This variable is similar to the previous item, albeit different since it indicates the year of the deadline for the 1st report. Assume the first report was due in 1994, then this item gets a value of 1994 for all observations in the data.
- *report2_dead*: This variable is similar to the previous item, albeit different since it indicates the year of the deadline for the 2nd report. Assume the second report was due in 1999, then this item gets a value of 1999 for all observations in the data.
- *report3_dead*: This variable is similar to the previous item, albeit different since it indicates the year of the deadline for the 3rd report. Assume the third report was due in 2001, then this item gets a value of 1999 for all observations in the data.
- *report4_dead*: This variable is similar to the previous item, albeit different since it indicates the year of the deadline for the 3rd report. Assume the third report was due in 2001, then this item gets a value of 1999 for all observations in the data.
- *report5_dead*: This variable is similar to the previous item, albeit different since it indicates the year of the deadline for the 3rd report. Assume the third report was due in 2001, then this item gets a value of 1999 for all observations in the data.
- *report1_dur*: This variable is similar to the previous item, albeit different since it indicates the year of the submission for the 1st report. Assume the first report was submitted in 1995 by the US, then this item gets a value of 1995 for all US observations in the data.
- *report2_dur*: This variable is similar to the previous item, albeit different since it indicates the year of the submission for the 2nd report. Assume the second report was submitted in 1999 by the US, then this item gets a value of 1999 for all US observations in the data.
- *report3_dur*: This variable is similar to the previous item, albeit different since it indicates the year of the submission for the 3rd report. Assume the third report was submitted in 2001 by the US, then this item gets a value of 2001 for all US observations in the data.

- *report4_dur*: This variable is similar to the previous item, albeit different since it indicates the year of the submission for the 3rd report. Assume the third report was submitted in 2001 by the US, then this item gets a value of 2001 for all US observations in the data.
- *report5_dur*: This variable is similar to the previous item, albeit different since it indicates the year of the submission for the 3rd report. Assume the third report was submitted in 2001 by the US, then this item gets a value of 2001 for all US observations in the data.
- *finance_dummy*: According to this Indicator, an annual financial contribution is made 'if a party has paid all owed amounts up to the present year and at least 50% of the amount of the present year'. It is assessed by means of the "Status of Contributions" reports that are published once to three times a year by the UNFCCC secretariat and indicate if a country has fulfilled the necessary requirements a year.¹ Again, this variable is a dummy item, where 1 indicates if a country has contributed sufficiently to the budget of the UNFCCC in a given year. This item receives a value of 0 if no or no sufficient contributions have been made in a given year. For coding this item, please use a year's final report only.
- *co2_item*: This variable measures a country's CO2 emissions per capita (i.e., actual CO2 per capita level) in a given year. Data can be retrieved from <http://data.worldbank.org/indicator/EN.ATM.CO2E.PC/countries/latest?display=default>.
- *co2_change*: This variable measures the annual change in CO2 emission trends for a specific country. For example, Afghanistan (AFG, ccode=700) has CO2 per capita emissions in 1995 of 0.061 and in 1994 0.0649. Hence, AFG receives a value of -0.0039 in 1995.

¹ http://unfccc.int/documentation/documents/advanced_search/items/3594.php?such=j&keywords=%22budget+contributions%22#beg.

List of Correlates of War Country Codes

2	USA	United States of America	01:01:1816	01:11:2008		
20	CAN	Canada	01:07:1867	01:11:2008		
31	BHM	Bahamas	10:07:1973	01:11:2008		
40	CUB	Cuba	20:05:1902	01:11:2008		
41	HAI	Haiti	01:01:1816	04:07:1915		
41	HAI	Haiti	15:08:1934	01:11:2008		
42	DOM	Dominican Republic	27:02:1844	01:11:2008		
51	JAM	Jamaica	06:08:1962	01:11:2008		
52	TRI	Trinidad and Tobago	31:08:1962	01:11:2008		
53	BAR	Barbados	30:11:1966	01:11:2008		
70	MEX	Mexico	01:07:1821	01:11:2008		
80	BLZ	Belize	21:09:1981	01:11:2008		
89	UPC	United Provinces of Central America			01:07:1823	31:12:1839
90	GUA	Guatemala	01:01:1840	01:11:2008		
91	HON	Honduras	01:01:1840	01:11:2008		
92	SAL	El Salvador	01:01:1840	01:11:2008		
93	NIC	Nicaragua	01:01:1840	01:11:2008		
94	COS	Costa Rica	01:01:1840	01:11:2008		
95	PAN	Panama	03:11:1903	01:11:2008		
99	GCL	Great Colombia	30:08:1821	22:09:1830		
100	COL	Colombia	23:09:1830	01:11:2008		
101	VEN	Venezuela	01:01:1829	01:11:2008		
110	GUY	Guyana	26:05:1966	01:11:2008		
115	SUR	Surinam	25:11:1975	01:11:2008		
130	ECU	Ecuador	13:05:1830	01:11:2008		
135	PER	Peru	09:12:1824	01:11:2008		
140	BRA	Brazil	07:09:1822	01:11:2008		
145	BOL	Bolivia	06:08:1825	01:11:2008		
150	PAR	Paraguay	01:01:1816	01:11:2008		
155	CHL	Chile	01:04:1818	01:11:2008		
160	ARG	Argentina	09:07:1816	01:11:2008		
165	URU	Uruguay	26:05:1830	01:11:2008		
200	UKG	United Kingdom	01:01:1816	01:11:2008		
205	IRE	Ireland	06:12:1921	01:11:2008		
210	NTH	Netherlands	01:01:1816	01:11:2008		
211	BEL	Belgium	04:10:1830	01:11:2008		
212	LUX	Luxembourg	11:05:1867	01:11:2008		
220	FRN	France	01:01:1816	01:11:2008		
225	SWZ	Switzerland	01:01:1816	01:11:2008		
230	SPN	Spain	01:01:1816	01:11:2008		
235	POR	Portugal	01:01:1816	01:11:2008		
240	HAN	Hanover	01:01:1816	17:01:1871		
245	BAV	Bavaria	01:01:1816	17:01:1871		
255	GMY	Germany (Prussia)	01:01:1816	07:05:1945		
260	GFR	German Federal Republic	21:09:1949	01:11:2008		
265	GDR	German Democratic Republic			05:10:1949	02:10:1990
267	BAD	Baden	01:01:1816	17:01:1871		
269	SAX	Saxony	01:01:1816	17:01:1871		
271	WRT	Württemberg	01:01:1816	17:01:1871		

273	HSE	Hesse-Kassel (Electoral)	01:01:1816	17:01:1871	
275	HSD	Hesse-Darmstadt (Ducal)	01:01:1816	17:01:1871	
280	MEC	Mecklenburg-Schwerin	01:01:1816	17:01:1871	
290	POL	Poland	11:11:1918	01:11:2008	
300	AUH	Austria-Hungary	01:01:1816	13:11:1918	
305	AUS	Austria	14:11:1918	01:11:2008	
310	HUN	Hungary	03:11:1918	01:11:2008	
315	CZE	Czechoslovakia	01:01:1919	31:12:1992	
316	CZR	Czech Republic	01:01:1993	01:11:2008	
317	SLO	Slovakia	01:01:1993	01:11:2008	
325	ITA	Italy/Sardinia	01:01:1816	01:11:2008	
327	PAP	Papal States	01:01:1816	22:09:1870	
329	SIC	Two Sicilies	01:01:1816	16:03:1861	
332	MOD	Modena	01:01:1816	16:03:1861	
335	PMA	Parma	01:01:1816	16:03:1861	
337	TUS	Tuscany	01:01:1816	16:03:1861	
338	MLT	Malta	21:09:1964	01:11:2008	
339	ALB	Albania	01:01:1913	01:11:2008	
341	MNG	Montenegro	01:01:1868	01:07:1915	
341	MNG	Montenegro	03:06:2006	01:11:2008	
343	MAC	Macedonia (Former Yugoslav Republic of)	20:11:1991	01:11:2008	
344	CRO	Croatia	25:06:1991	01:11:2008	
345	SER	Serbia	13:07:1878	01:10:1915	
345	SER	Serbia (Yugoslavia)	01:12:1918	01:11:2008	
346	BOS	Bosnia-Herzegovina	03:03:1992	01:11:2008	
347	KOS	Kosovo	17:02:2008	01:11:2008	
349	SLV	Slovenia	25:06:1991	01:11:2008	
350	GRC	Greece	17:05:1827	01:11:2008	
352	CYP	Cyprus	16:08:1960	01:11:2008	
355	BUL	Bulgaria	03:03:1878	01:11:2008	
359	MLD	Moldova	27:08:1991	01:11:2008	
360	RUM	Rumania	13:07:1878	01:11:2008	
365	RUS	Russia (Soviet Union)	01:01:1816	01:11:2008	
366	EST	Estonia	11:11:1918	01:06:1940	
366	EST	Estonia	06:09:1991	01:11:2008	
367	LAT	Latvia	01:11:1918	01:06:1940	
367	LAT	Latvia	06:09:1991	01:11:2008	
368	LIT	Lithuania	16:02:1918	01:06:1940	
368	LIT	Lithuania	06:09:1991	01:11:2008	
369	UKR	Ukraine	01:12:1991	01:11:2008	
370	BLR	Belarus (Byelorussia)	25:08:1991	01:11:2008	
371	ARM	Armenia	23:09:1991	01:11:2008	
372	GRG	Georgia	06:09:1991	01:11:2008	
373	AZE	Azerbaijan	30:08:1991	01:11:2008	
375	FIN	Finland	06:12:1917	01:11:2008	
380	SWD	Sweden	01:01:1816	01:11:2008	
385	NOR	Norway	26:08:1905	01:11:2008	
390	DEN	Denmark	01:01:1816	01:11:2008	
395	ICE	Iceland	17:06:1944	01:11:2008	
402	CAP	Cape Verde	05:07:1975	01:11:2008	
404	GNB	Guinea-Bissau	10:09:1974	01:11:2008	

411	EQG	Equatorial Guinea	12:10:1968	01:11:2008	
420	GAM	Gambia	18:02:1965	01:11:2008	
432	MLI	Mali	22:09:1960	01:11:2008	
433	SEN	Senegal	04:04:1960	01:11:2008	
434	BEN	Benin	01:08:1960	01:11:2008	
435	MAA	Mauritania	28:11:1960	01:11:2008	
436	NIR	Niger	03:08:1960	01:11:2008	
437	CDI	Cote D'Ivoire	07:08:1960	01:11:2008	
438	GUI	Guinea	02:10:1958	01:11:2008	
439	BFO	Burkina Faso (Upper Volta)	05:08:1960	01:11:2008	
450	LBR	Liberia	26:07:1847	01:11:2008	
451	SIE	Sierra Leone	27:04:1961	01:11:2008	
452	GHA	Ghana	06:03:1957	01:11:2008	
461	TOG	Togo	27:04:1960	01:11:2008	
471	CAO	Cameroon	01:01:1960	01:11:2008	
475	NIG	Nigeria	01:10:1960	01:11:2008	
481	GAB	Gabon	17:08:1960	01:11:2008	
482	CEN	Central African Republic	13:08:1960	01:11:2008	
483	CHA	Chad	11:08:1960	01:11:2008	
484	CON	Congo	15:08:1960	01:11:2008	
490	DRC	Congo, Democratic Republic of (Zaire)	30:06:1960	01:11:2008	
500	UGA	Uganda	09:10:1962	01:11:2008	
501	KEN	Kenya	12:12:1963	01:11:2008	
510	TAZ	Tanzania/Tanganyika	09:12:1961	01:11:2008	
511	ZAN	Zanzibar	19:12:1963	26:04:1964	
516	BUI	Burundi	01:07:1962	01:11:2008	
517	RWA	Rwanda	07:01:1962	01:11:2008	
520	SOM	Somalia	01:07:1960	01:11:2008	
522	DJI	Djibouti	27:06:1977	01:11:2008	
530	ETH	Ethiopia	11:02:1855	01:11:2008	
531	ERI	Eritrea	24:05:1993	01:11:2008	
540	ANG	Angola	11:11:1975	01:11:2008	
541	MZM	Mozambique	25:06:1975	01:11:2008	
551	ZAM	Zambia	24:10:1964	01:11:2008	
552	ZIM	Zimbabwe (Rhodesia)	11:11:1965	01:11:2008	
553	MAW	Malawi	06:07:1964	01:11:2008	
560	SAF	South Africa	31:05:1910	01:11:2008	
563	TRA	Transvaal	01:01:1852	30:05:1910	
564	OFS	Orange Free State	28:03:1854	30:05:1910	
565	NAM	Namibia	21:03:1990	01:11:2008	
570	LES	Lesotho	04:10:1966	01:11:2008	
571	BOT	Botswana	30:09:1966	01:11:2008	
572	SWA	Swaziland	06:09:1968	01:11:2008	
580	MAG	Madagascar (Malagasy)	01:01:1816	05:08:1896	
580	MAG	Madagascar	26:06:1960	01:11:2008	
581	COM	Comoros	06:07:1975	01:11:2008	
590	MAS	Mauritius	12:03:1968	01:11:2008	
600	MOR	Morocco	01:01:1816	01:01:1904	
600	MOR	Morocco	02:03:1956	01:11:2008	
615	ALG	Algeria	01:01:1816	05:07:1830	
615	ALG	Algeria	05:07:1962	01:11:2008	

616	TUN	Tunisia	01:01:1816	12:05:1881	
616	TUN	Tunisia	01:01:1956	01:11:2008	
620	LIB	Libya	01:01:1816	31:12:1834	
620	LIB	Libya	24:12:1951	01:11:2008	
625	SUD	Sudan	01:01:1956	01:11:2008	
630	IRN	Iran (Persia)	01:01:1816	01:11:2008	
640	TUR	Turkey (Ottoman Empire)	01:01:1816	01:11:2008	
645	IRQ	Iraq	03:10:1932	01:11:2008	
651	EGY	Egypt	01:01:1827	31:12:1855	
651	EGY	Egypt	28:02:1922	01:11:2008	
652	SYR	Syria	01:01:1946	01:11:2008	
660	LEB	Lebanon	22:11:1944	01:11:2008	
663	JOR	Jordan	25:05:1946	01:11:2008	
666	ISR	Israel	14:05:1948	01:11:2008	
670	SAU	Saudi Arabia	23:09:1932	01:11:2008	
678	YEM	Yemen (Arab Republic of Yemen)	30:10:1918	01:11:2008	
680	YPR	Yemen, People's Republic of	30:11:1967	21:05:1990	
690	KUW	Kuwait	19:06:1961	01:11:2008	
692	BAH	Bahrain	15:08:1971	01:11:2008	
694	QAT	Qatar	03:09:1971	01:11:2008	
696	UAE	United Arab Emirates	02:12:1971	01:11:2008	
698	OMA	Oman	01:01:1816	01:11:2008	
700	AFG	Afghanistan	01:01:1816	30:12:1888	
700	AFG	Afghanistan	01:05:1919	01:11:2008	
701	TKM	Turkmenistan	27:10:1991	01:11:2008	
702	TAJ	Tajikistan	09:09:1991	01:11:2008	
703	KYR	Kyrgyz Republic	31:08:1991	01:11:2008	
704	UZB	Uzbekistan	31:08:1991	01:11:2008	
705	KZK	Kazakhstan	16:12:1991	01:11:2008	
710	CHN	China	01:01:1816	01:11:2008	
711	TBT	Tibet	01:01:1913	01:10:1950	
712	MON	Mongolia	13:03:1921	01:11:2008	
713	TAW	Taiwan	08:12:1949	01:11:2008	
730	KOR	Korea	01:01:1816	22:08:1910	
731	PRK	Korea, People's Republic of	09:09:1948	01:11:2008	
732	ROK	Korea, Republic of	15:08:1948	01:11:2008	
740	JPN	Japan	01:01:1816	01:11:2008	
750	IND	India	15:08:1947	01:11:2008	
760	BHU	Bhutan	01:01:1949	01:11:2008	
770	PAK	Pakistan	14:08:1947	01:11:2008	
771	BNG	Bangladesh	16:12:1971	01:11:2008	
775	MYA	Myanmar (Burma)	01:01:1816	31:12:1885	
775	MYA	Myanmar (Burma)	04:01:1948	01:11:2008	
780	SRI	Sri Lanka (Ceylon)	04:02:1948	01:11:2008	
781	MAD	Maldives	26:05:1965	01:11:2008	
790	NEP	Nepal	01:01:1816	01:11:2008	
800	THI	Thailand	01:01:1816	01:11:2008	
811	CAM	Cambodia (Kampuchea)	09:11:1953	01:11:2008	
812	LAO	Laos	01:05:1954	01:11:2008	
815	VNM	Vietnam (Annam/Cochin China/Tonkin)	01:01:1816	01:01:1893	
816	DRV	Vietnam, Democratic Republic of	01:05:1954	01:11:2008	

817	RVN	Vietnam, Republic of	01:05:1954	30:04:1975
820	MAL	Malaysia	31:08:1957	01:11:2008
830	SIN	Singapore	09:08:1965	01:11:2008
835	BRU	Brunei	01:01:1984	01:11:2008
840	PHI	Philippines	04:07:1946	01:11:2008
850	INS	Indonesia	17:08:1945	01:11:2008
860	ETM	East Timor	20:05:2002	01:11:2008
900	AUL	Australia	01:01:1901	01:11:2008
910	PNG	Papua New Guinea	16:09:1975	01:11:2008
920	NEW	New Zealand	01:09:1907	01:11:2008
940	SOL	Solomon Islands	07:07:1978	01:11:2008
950	FJI	Fiji	10:10:1970	01:11:2008

List of Microstates

54	DMA	Dominica	03:11:1978	01:11:2008	
55	GRN	Grenada	07:02:1974	01:11:2008	
56	SLU	Saint Lucia	22:02:1979	01:11:2008	
57	SVG	Saint Vincent and the Grenadines	27:10:1979	01:11:2008	
58	AAB	Antigua & Barbuda	01:11:1981	01:11:2008	
60	SKN	Saint Kitts and Nevis	19:09:1983	01:11:2008	
221	MNC	Monaco	01:01:1816	01:11:2008	
223	LIE	Liechtenstein	01:01:1816	01:11:2008	
331	SNM	San Marino	01:01:1816	01:11:2008	
232	AND	Andorra	01:01:1816	01:11:2008	
396	ABK	Abkhazia	26:08:2008	01:11:2008	
397	SOT	South Ossetia	26:08:2008	01:11:2008	
403	STP	São Tomé and Príncipe	12:07:1975	01:11:2008	
591	SEY	Seychelles	29:06:1976	01:11:2008	
935	VAN	Vanuatu	30:06:1980	01:11:2008	
970	KBI	Kiribati	12:07:1979	01:11:2008	
971	NAU	Nauru	31:12:1968	01:11:2008	
972	TON	Tonga	04:06:1970	01:11:2008	
973	TUV	Tuvalu	01:10:1978	01:11:2008	
983	MSI	Marshall Islands	21:10:1986	01:11:2008	
986	PAL	Palau	01:10:1994	01:11:2008	
987	FSM	Federated States of Micronesia	03:11:1986	01:11:2008	
990	WSM	Samoa/Western Samoa	01:01:1962	01:11:2008	