

Households and heat stress: estimating the distributional consequences of climate change

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Online Appendix

Appendix A. DHS survey and full PEB results for 52 countries

DHS surveys cover a wide range of developing countries, and contain geographic points at the cluster level. There are 52 surveys in the DHS program that contain both GPS information at the cluster level and poverty indicators; these are the countries for which we overlay the temperature data. For each household, the DHS provides the wealth index factor score (typically from -200,000 for the poorest households to +200,000 for the richest, with the median at 0). For the econometric analysis, we normalize this factor score to include only positive numbers (for ease of interpretation), without changing each household's relative position with regard to the factor score. For the poverty exposure bias (PEB) analysis, quintiles have been calculated taking into account household weights, and have been provided in the raw DHS data. We employ this quintile classification for our analysis at the national-level.

One issue with DHS surveys – and almost all other household surveys – is that they have not been designed to be representative at small spatial scales. At best, they are representative at the spatial scale of a large province or area. Furthermore, the process used to select the surveyed households is not always reported explicitly, and often has to account for cost considerations that can bias the sample. We are well aware of this limit, and it implies that results should be interpreted with caution. The fact that we are working on a large sample of 52 countries compensates for the limit of the analysis at the country level. Another major limitation is that the geographic information is not as precise as the household wealth data. First, the coordinates provided by DHS are only at the cluster level, and thus all households in the same cluster are represented spatially with the same set of coordinates. Second, these coordinates have been offset (to guarantee anonymity of the interviewed households), by 2 km in urban areas and 5 km in rural areas, creating a bias in our matching of household to temperature.

The wealth index provided by the DHS has been used previously to represent poverty (Barros *et al.*, 2012; Fox, 2012; Ward and Kaczan, 2014). However, it should be considered as an estimate of “structural” poverty, since asset indices take a long time to change, as opposed to measures like income or consumption, which are more “stochastic” measures of poverty. Additionally, due to the relative nature of the index, defensible comparisons between countries are challenging, and understanding within-country results in terms of real variables (dollars, for example) can be difficult. Wealth scores are thus reported as percentiles of the country-specific wealth distribution, and the results we show below compare poor and non-poor households *within* the 52 countries. The full results are presented in table 1 of the main text.

References

- Barros AJD, Ronsmans C, Axelson H, Loaiza E, Bertoldi AD, França GVA, Bryce J, Boerma JT and Victora CG** (2012) Equity in maternal, newborn, and child health interventions in Countdown to 2015: a retrospective review of survey data from 54 countries. *Lancet* **379**(9822), 1225–1233.
- Fox AM** (2012) The HIV-poverty thesis re-examined: poverty, wealth or inequality as a social determinant of HIV infection in sub-Saharan Africa? *Journal of Biological Sciences* **44**(4), 459–80.
- Ward J and Kaczan D** (2014) Challenging hydrological panaceas: water poverty governance accounting for spatial scale in the Niger River Basin. *Journal of Hydrology* **519**, 2501–2514.

Appendix B. Detailed information on the DHS household surveys used for the analysis

Country	Clusters	Household Observations	DHS Year	Country Code	Household Observations per
Albania	450	7982	2008	AL	17.73777778
Angola	230	7752	2011	AO	33.70434783
Bangladesh	600	17109	2011	BG	28.515
Bolivia	998	19495	2008	BL	19.53406814
Benin	746	17327	2012	BN	23.22654155
Burundi	376	8594	2010	BY	22.85638298
Cambodia	607	15572	2010	CB	25.65403624
Congo	492	16678	2013	CG	33.89837398
Cameroon	577	14172	2011	CM	24.56152513
Comoros	242	4289	2012	CN	17.7231405
Colombia	4868	50169	2010	CO	10.3058751
Central African	231	5536	1994	CT	23.96536797
Dominican	524	11444	2013	DR	21.83969466
Egypt	1246	18641	2008	EG	14.96067416
Ethiopia	571	16013	2010	ET	28.04378284
Gabon	332	9618	2012	GB	28.96987952
Ghana	404	11544	2008	GH	28.57425743
Guinea	300	7108	2012	GV	23.69333333
Guyana	312	5406	2009	GY	17.32692308
Haiti	437	12937	2012	HA	29.60411899
Honduras	1128	20491	2011	HO	18.16578014
Indonesia	1319	31044	2003	ID	23.53601213
Cote d'Ivoire	341	9386	2012	IV	27.52492669
Jordan	806	15186	2012	JO	18.84119107
Kenya	397	9026	2008	KE	22.73551637
Kyrgyzstan	314	7981	2012	KG	25.41719745
Liberia	322	9328	2013	LI	28.9689441
Lesotho	395	9226	2009	LT	23.35696203
Madagascar	585	17567	2008	MA	30.02905983
Moldova	399	11031	2005	MD	27.64661654
Malawi	827	24190	2010	MI	29.2503023
Mali	413	10103	2012	ML	24.46246973
Morocco	480	11505	2003	MO	23.96875
Mozambique	609	13891	2011	MZ	22.80952381
Niger	268	5922	1998	NG	22.09701493
Nigeria	889	38144	2013	NI	42.90663667
Nepal	289	10822	2011	NP	37.44636678
Peru	1131	26529	2009	PE	23.45623342
Philippines	789	12131	2008	RP	15.37515843
Rwanda	492	12538	2010	RW	25.48373984

Senegal	385	7779	2010	SG	20.20519481
Sierra Leone	435	12625	2013	SL	29.02298851
Tajikistan	343	6152	2012	TI	17.93586006
Togo	287	7462	1998	TO	26
Timor-Leste	454	11309	2009	TT	24.90969163
Tanzania	458	9131	2010	TZ	19.93668122
Uganda	400	8932	2011	UG	22.33
Burkina Faso	541	13609	2010	UV	25.15526802
Namibia	491	8997	2006	WA	18.32382892
Swaziland	270	4742	2006	WZ	17.56296296
Zambia	319	7163	2007	ZA	22.45454545
Zimbabwe	393	9417	2010	ZI	23.96183206
TOTAL	31512	690745	-	-	-
MEAN	606	13283.55769	2009.115385	-	24.15331456
MEDIAN	443.5	11170	2010	-	23.8275827

Appendix C. Summary of main results of country-specific estimates

Table A1. Household wealth percentile and hottest month temperature by climate region (no controls)

Country	β_1 (percentiles per degree C) [SE]	P-value	Avg Annual Temperature (°C)	Avg Hottest Month Temperature (°C)	Avg Coldest Month Temperature (°C)	Development Group Classification
Niger	3.1401338349 [1.2845117629]	0.015173182	29.3	34	24	Low
Burkina Faso	-6.0325368321 [0.7483477872]	5.32E-15	28.8	33	25	Low
Mali	-4.4974428529 [0.7562070423]	5.93E-09	28.4	33	24	Low
Cambodia	-3.0897363752 [1.3475072023]	0.022216077	28	30	24	Low
Benin	-12.0542434999 [0.5983345627]	5.50E-72	27.9	30	26	Low
Ghana	-9.2762010854 [0.7197885374]	7.87E-32	27.5	30	25	Lower-Middle
Nigeria	-9.4587110667 [0.6480304872]	2.34E-43	27.3	31	24	Lower-Middle
Senegal	-6.9081420384 [0.4452226744]	7.30E-42	27.3	30	24	Lower-Middle
Togo	-5.0396605864 [0.6642897762]	5.05E-13	27.3	30	25	Low
Cote d'Ivoire	4.1359028329 [1.0562740532]	0.0001102603	26.6	29	25	Lower-Middle
Philippines	3.8501715196 [0.4416408677]	1.85E-17	26.6	28	25	Lower-Middle
Indonesia	3.9457743123 [0.7590565049]	2.35E-07	26.5	27	26	Lower-Middle
Sierra Leone	-16.3998734382 [1.7472021737]	4.41E-19	26.5	29	25	Low
Gabon	12.4263595071 [0.687836411]	1.78E-50	26.1	28	24	Upper-Middle
Guinea	-2.1564755136 [0.8695876215]	0.0137084393	26.1	29	24	Low
Liberia	33.3519349236 [2.0462839492]	1.23E-43	26	28	24	Low
Guyana	15.9074876046 [2.5959256077]	2.81E-09	25.9	28	25	Lower-Middle
Central African	-5.1326973241 [1.0513333562]	2.02E-06	25.5	28	23	Low

Republic						
Comoros	-13.9840294027 [1.408808174]	1.25E-19	25.3	27	23	Low
Cameroon	-3.7838865048 [0.2290714805]	3.78E-50	25.2	28	23	Lower-Middle
Timor-Leste	-17.9247733963 [1.6293191644]	6.28E-25	25.1	26	24	Lower-Middle
Bangladesh	4.840950523 [0.9534171279]	5.15E-07	24.9	29	17	Lower-Middle
Dominican Republic	2.0092268278 [0.544875749]	0.0002509672	24.9	27	23	Upper-Middle
Haiti	7.4354481044 [1.3767115368]	1.12E-07	24.8	27	23	Low
Mozambique	2.2604792472 [0.5927424716]	0.000151428	24.2	27	20	Low
Congo (Kinshasa)	-0.6894417698 [0.5843700037]	0.2386739272	23.9	25	22	Low
Honduras	0.1546457171 [0.2926579541]	0.5973194752	23	25	21	Lower-Middle
Tanzania	2.0813301341 [0.5510707626]	0.0001808892	23	25	20	Low
Uganda	-2.8796140972 [0.4401526253]	1.96E-10	23	25	21	Low
Angola	4.2442668878 [0.5060218274]	5.77E-15	22.4	25	19	Upper-Middle
Egypt	-3.3415928078 [0.3677417257]	3.93E-19	22.4	29	14	Lower-Middle
Malawi	-0.7744239145 [0.5128811758]	0.1314647972	22.3	26	18	Low
Madagascar	-3.0301214679 [0.3106419606]	8.09E-21	21.7	24	18	Low
Zambia	-5.896595524 [1.1160969499]	0.000000244	21.7	25	17	Lower-Middle
Namibia	-5.8104736078 [0.6184752811]	2.59E-19	21.2	25	16	Upper-Middle
Kenya	-2.0048382102 [0.6096883343]	0.0011014264	21	24	19	Lower-Middle
Colombia	-1.5597253721 [0.0810740845]	1.52E-79	20.9	22	20	Upper-Middle
Burundi	3.3185817711 [0.5300266619]	1.07E-09	20.8	23	19	Low
Zimbabwe	-6.7645083105 [0.5802318207]	5.18E-27	20.6	24	15	Low

Swaziland	-3.2818067433 [0.6708934011]	0.000001747	20.5	25	16	Lower-Middle
Nepal	1.4197626971 [0.2370679473]	6.40E-09	20	26	11	Low
Ethiopia	-0.9218627382 [0.2873726045]	0.001414887	19.5	22	17	Low
Rwanda	1.9300293318 [0.3774100009]	4.69E-07	19.3	21	17	Low
Jordan	6.5366544448 [1.3495963117]	1.53E-06	18.5	26	10	Upper-Middle
Morocco	-1.7895094972 [0.5908861628]	0.0025985697	17.8	26	11	Lower-Middle
Peru	1.8781684171 [0.1011099625]	2.29E-67	16	19	14	Upper-Middle
Albania	1.042629319 [0.5236499817]	0.0470858092	14.6	25	6	Upper-Middle
Lesotho	6.3309085416 [0.319551182]	2.73E-60	14.4	20	8	Lower-Middle
Bolivia	0.2862763017 [0.0866422837]	0.0009872642	14.1	17	10	Lower-Middle
Tajikistan	-0.0856815217 [0.2336617479]	0.714082152	11.8	24	-2	Lower-Middle
Moldova	4.0884803483 [1.7279035408]	0.0184609616	10.9	22	-3	Lower-Middle
Kyrgyzstan	0.5846405538 [0.3278196838]	0.0755422916	7.11	20	-8	Lower-Middle

Notes: OLS linear regression of household wealth percentile on hottest monthly temperature. Sorted by average annual temperature.

Table A2. Household wealth percentile and hottest month temperature by climate region
(with controls)

Country	β_1 (percentiles per degree C) [SE]	P-value	Avg Annual Temperature (°C)	Avg Hottest Month Temperature (°C)	Avg Coldest Month Temperature (°C)	Development Group Classification
Niger	-0.58062775 [1.1198932]	0.60458	29.3	34	24	Low
Burkina Faso	-2.0106396 [0.69863937]	0.00417	28.8	33	25	Low
Mali	0.21126458 [0.96721856]	0.82721	28.4	33	24	Low
Cambodia	-4.8617459 [1.636353]	0.00309	28	30	24	Low
Benin	-6.5054552 [0.57889932]	4.06E-27	27.9	30	26	Low
Ghana	-6.5128295 [0.67608657]	8.16E-20	27.5	30	25	Lower- Middle
Togo	-3.5405888 [0.58073089]	3.64E-09	27.3	30	25	Low
Senegal	-4.1714673 [0.36340022]	3.58E-26	27.3	30	24	Lower- Middle
Nigeria	-6.2331911 [0.59049823]	1.33E-24	27.3	31	24	Lower- Middle
Cote d'Ivoire	2.4138272 [0.67177564]	0.00038	26.6	29	25	Lower- Middle
Philippines	2.0976112 [0.37809252]	4.03E-08	26.6	28	25	Lower- Middle
Indonesia	2.2627246 [0.58108183]	0.0001	26.5	27	26	Lower- Middle
Sierra Leone	-5.871334 [1.2680002]	4.91E-06	26.5	29	25	Low
Gabon	8.947171 [0.90808164]	3.99E-20	26.1	28	24	Upper- Middle
Guinea	-3.542454 [0.69010222]	5.22E-07	26.1	29	24	Low
Liberia	19.29442 [2.2276259]	2.55E-16	26	28	24	Low
Guyana	9.3444326 [1.8301401]	5.88E-07	25.9	28	25	Lower- Middle
Central African Republic	-4.3704593 [0.87091193]	1.08E-06	25.5	28	23	Low
Comoros	-14.770104 [2.61593]	4.69E-08	25.3	27	23	Low
Cameroon	-0.90331903 [0.16047154]	2.88E-08	25.2	28	23	Lower- Middle
Timor-Leste	-8.5372101 [2.0562427]	4E-05	25.1	26	24	Lower- Middle
Dominican Republic	1.0241545 [0.56838777]	0.07216	24.9	27	23	Upper- Middle
Bangladesh	4.8173452	1.34E-06	24.9	29	17	Lower-

	[0.98622937]					Middle
Haiti	5.5383516 [0.83052343]	8.27E-11	24.8	27	23	Low
Mozambique	0.29501742 [0.47521627]	0.53497	24.2	27	20	Low
Congo (Kinshasa)	-2.052182 [0.54903613]	0.00021	23.9	25	22	Low
Honduras	0.69436635 [0.2814719]	0.01379	23	25	21	Lower- Middle
Tanzania	-0.21843565 [0.49381811]	0.65846	23	25	20	Low
Uganda	-2.6570787 [0.44017472]	3.74E-09	23	25	21	Low
Egypt	-2.5078512 [0.31992168]	9.73E-15	22.4	29	14	Lower- Middle
Angola	1.812745 [0.67091265]	0.00743	22.4	25	19	Upper- Middle
Malawi	0.16359438 [0.47660903]	0.73151	22.3	26	18	Low
Zambia	-1.2433808 [0.64204155]	0.05373	21.7	25	17	Lower- Middle
Madagascar	-2.7611615 [0.34269114]	5.00E-15	21.7	24	18	Low
Namibia	1.0346204 [0.45712779]	0.02408	21.2	25	16	Upper- Middle
Kenya	-1.8865034 [0.52049087]	0.00033	21	24	19	Lower- Middle
Colombia	-1.2073289 [0.0625475]	4.80E-80	20.9	22	20	Upper- Middle
Burundi	1.3502724 [0.6113885]	0.02782	20.8	23	19	Low
Zimbabwe	-3.2243243 [0.42443163]	2.45E-13	20.6	24	15	Low
Swaziland	-1.0508171 [0.6122296]	0.08727	20.5	25	16	Lower- Middle
Nepal	0.95396568 [0.24575053]	0.00013	20	26	11	Low
Ethiopia	-1.0409564 [0.24797496]	3.1E-05	19.5	22	17	Low
Rwanda	2.8716341 [0.75597578]	0.00017	19.3	21	17	Low
Jordan	6.3264029 [1.1963511]	1.60E-07	18.5	26	10	Upper- Middle
Morocco	-0.7556784 [0.4048611]	0.06262	17.8	26	11	Lower- Middle
Peru	0.38618239 [0.08156083]	2.47E-06	16	19	14	Upper- Middle
Albania	0.86707462 [0.47103403]	0.06632	14.6	25	6	Upper- Middle
Lesotho	4.27286 [0.62661087]	3.68E-11	14.4	20	8	Lower- Middle
Bolivia	0.10595015 [0.07628625]	0.16519	14.1	17	10	Lower- Middle

Tajikistan	-0.83329432 [0.32930191]	0.01185	11.8	24	-2	Lower-Middle
Moldova	-1.3669285 [1.500654]	0.36292	10.9	22	-3	Lower-Middle
Kyrgyzstan	1.1468391 [0.25611554]	1.1E-05	7.11	20	-8	Lower-Middle

Notes: OLS linear regression of household wealth percentile on hottest monthly temperature, controlling for household size, urban/rural status, altitude, and precipitation. Sorted by average annual temperature.

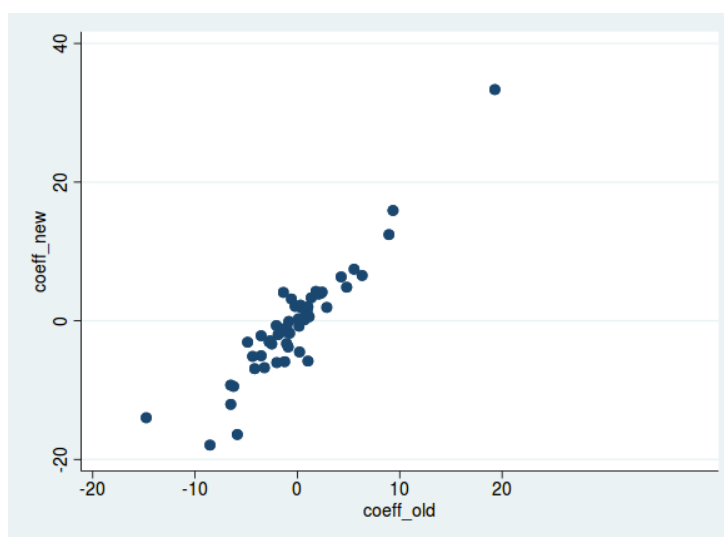
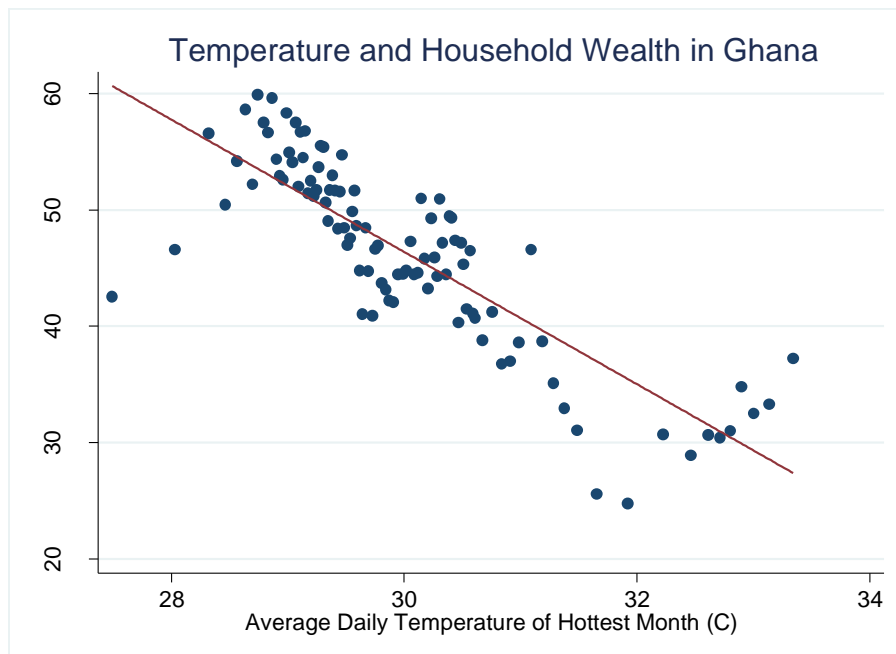
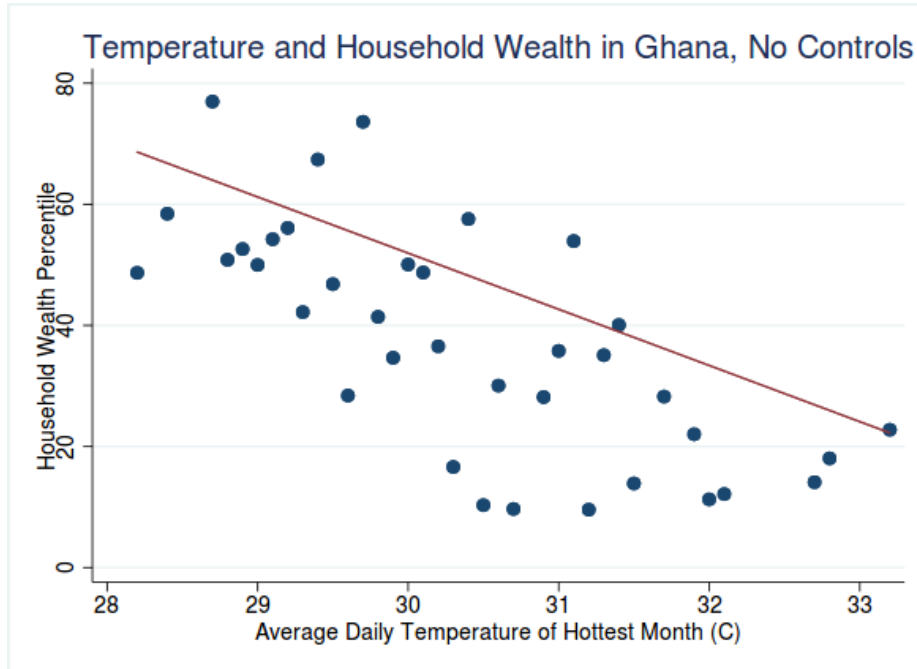


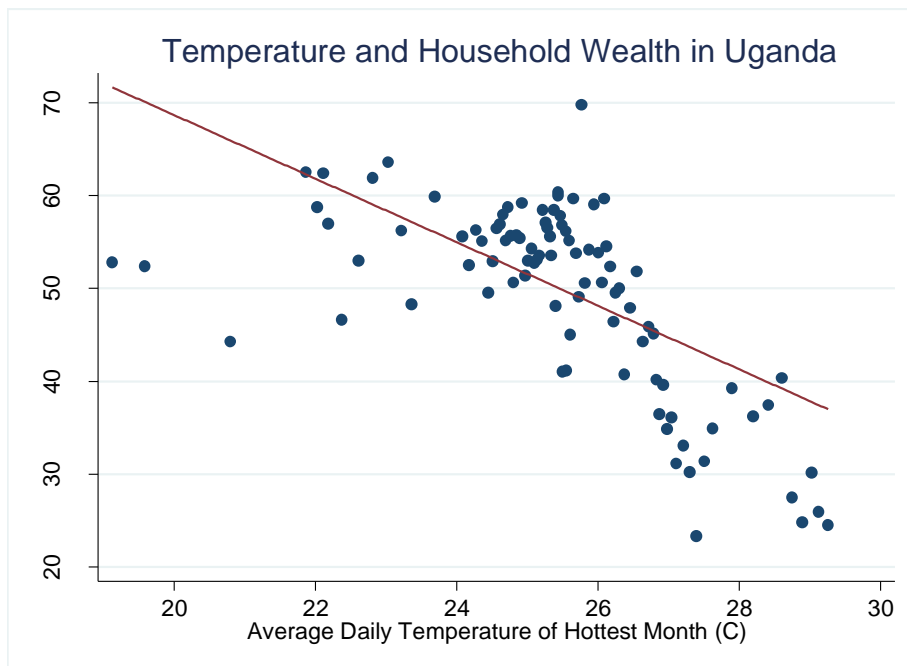
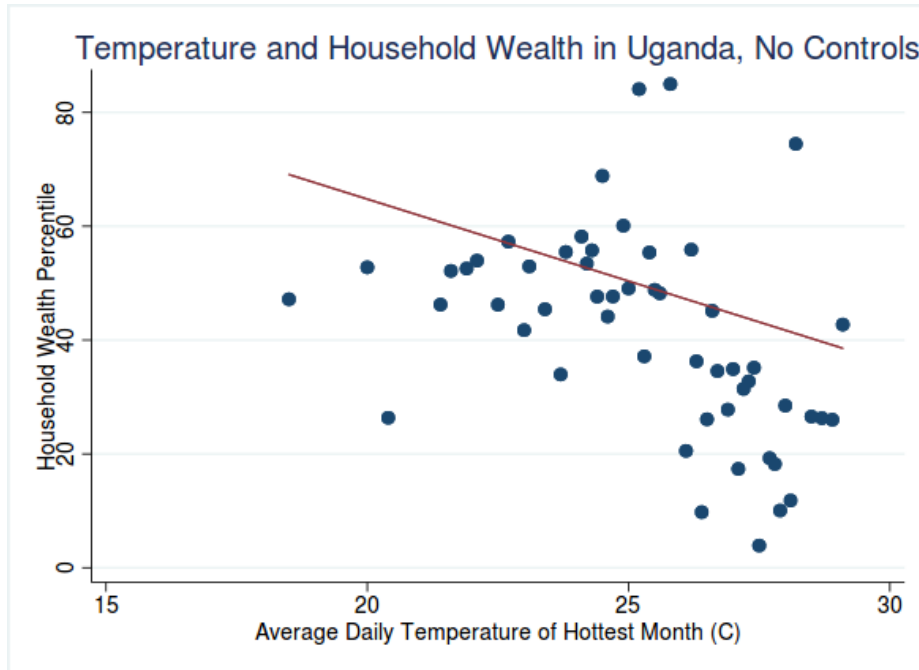
Figure A1. Scatterplot between coefficient without controls (y -axis) and coefficient with controls (x -axis)

Appendix D. Temperature and wealth scatter plots for selected countries

Temperature and household wealth in representative hot countries

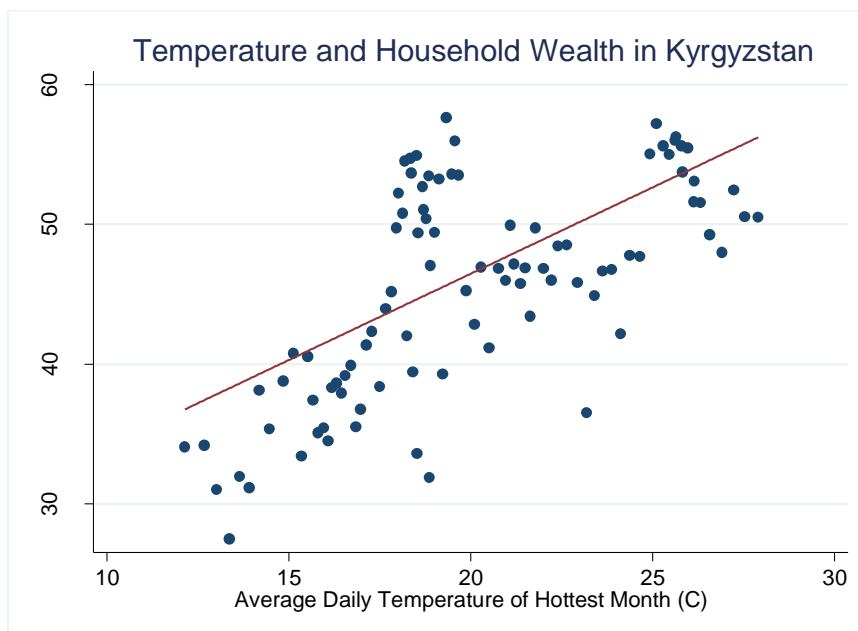
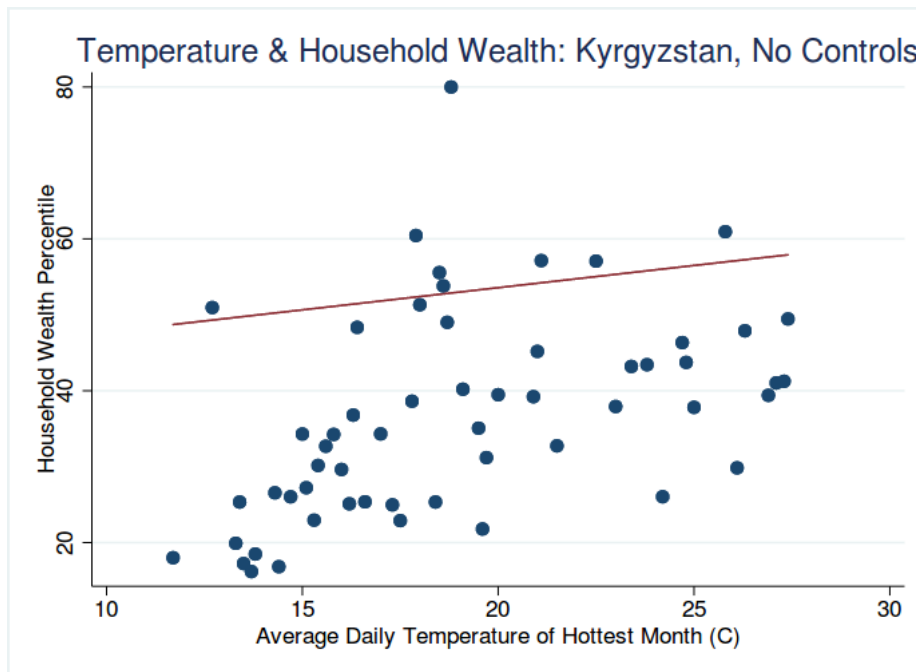


Controls: household size, urban/rural status, altitude, and precipitation

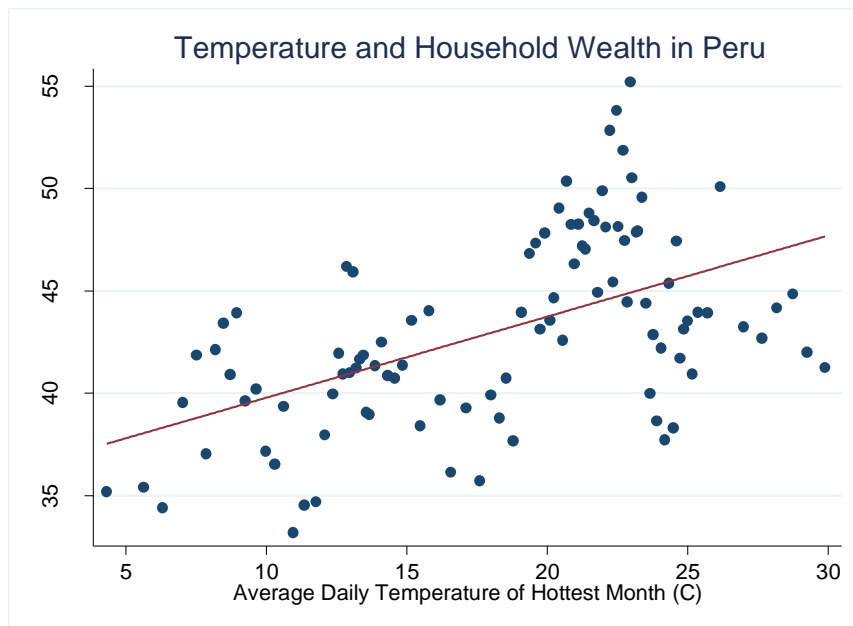
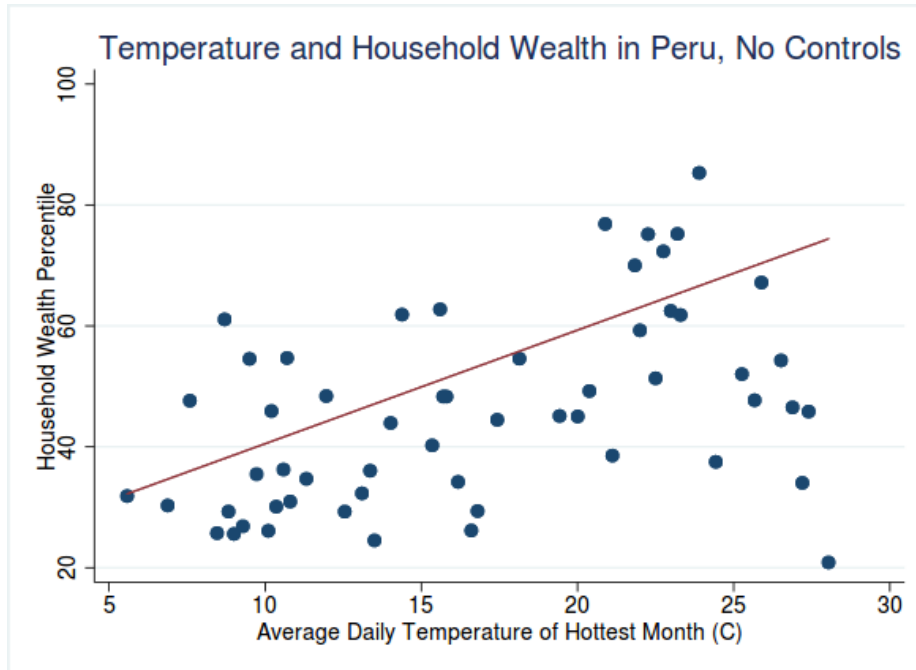


Controls: household size, urban/rural status, and precipitation

Temperature and household wealth in representative cold countries

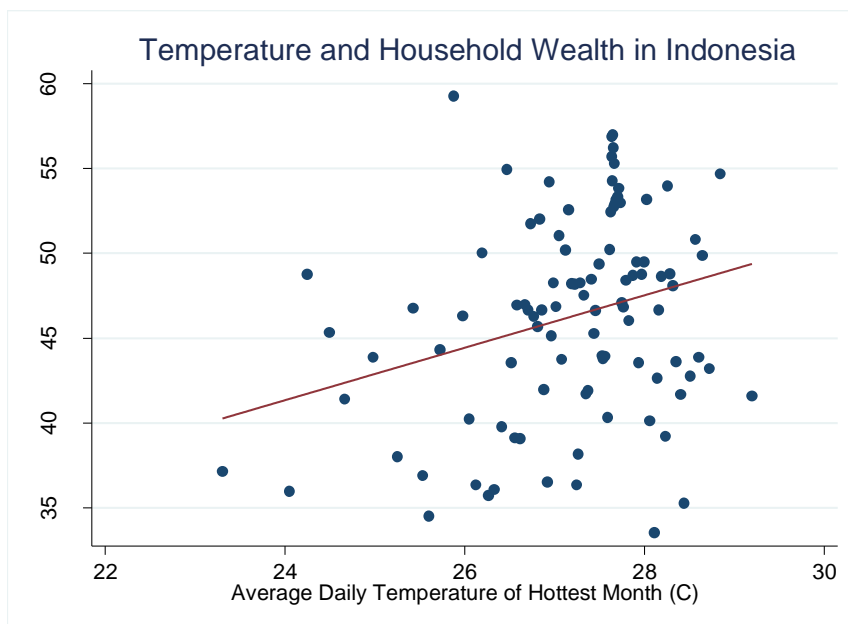
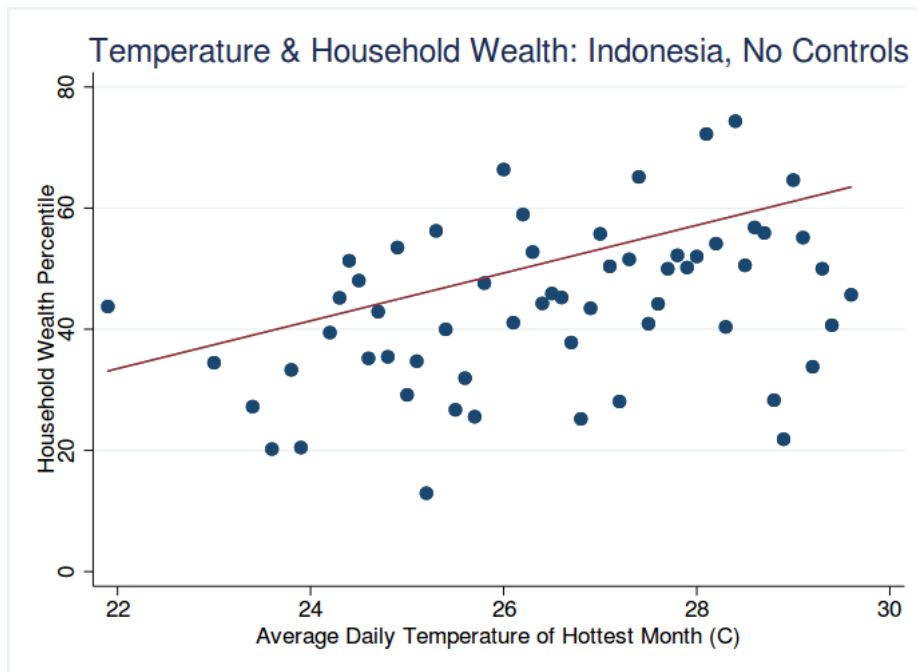


Controls: household size, urban/rural status, and precipitation

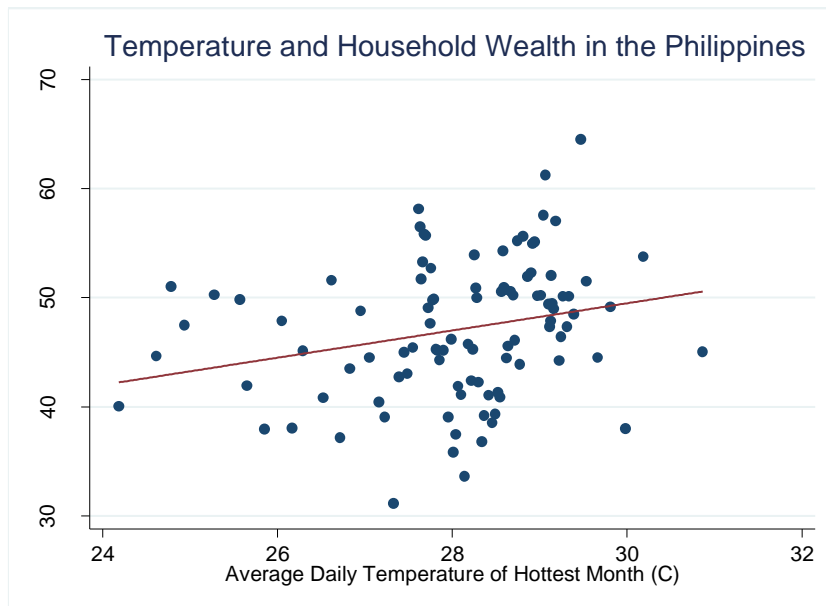
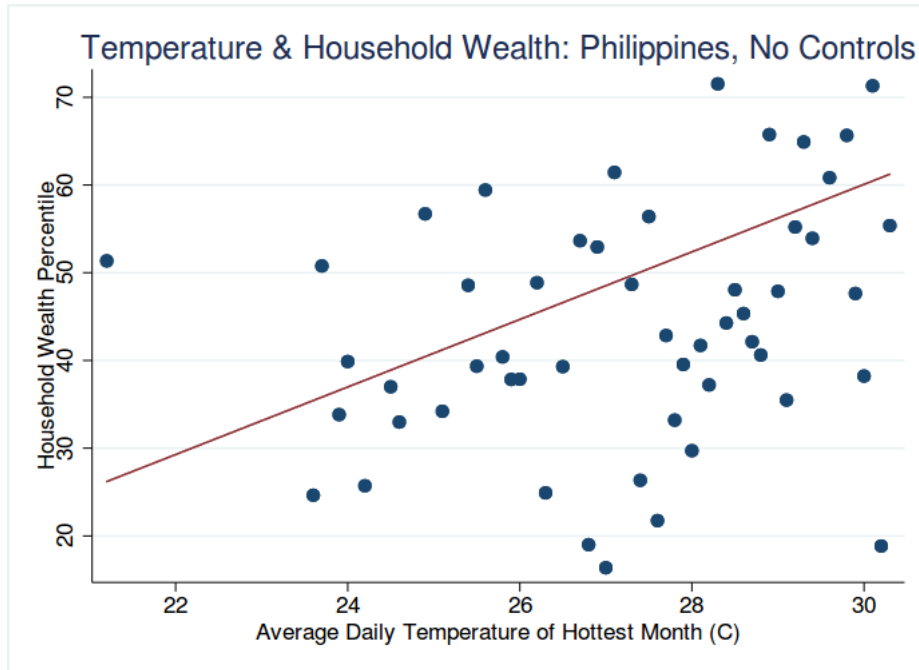


Controls: household size, urban/rural status, and precipitation

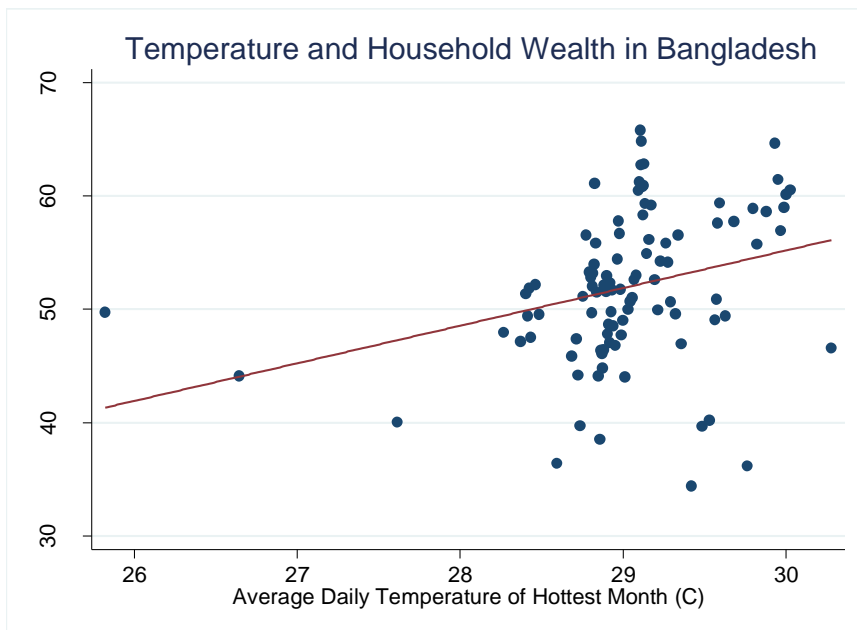
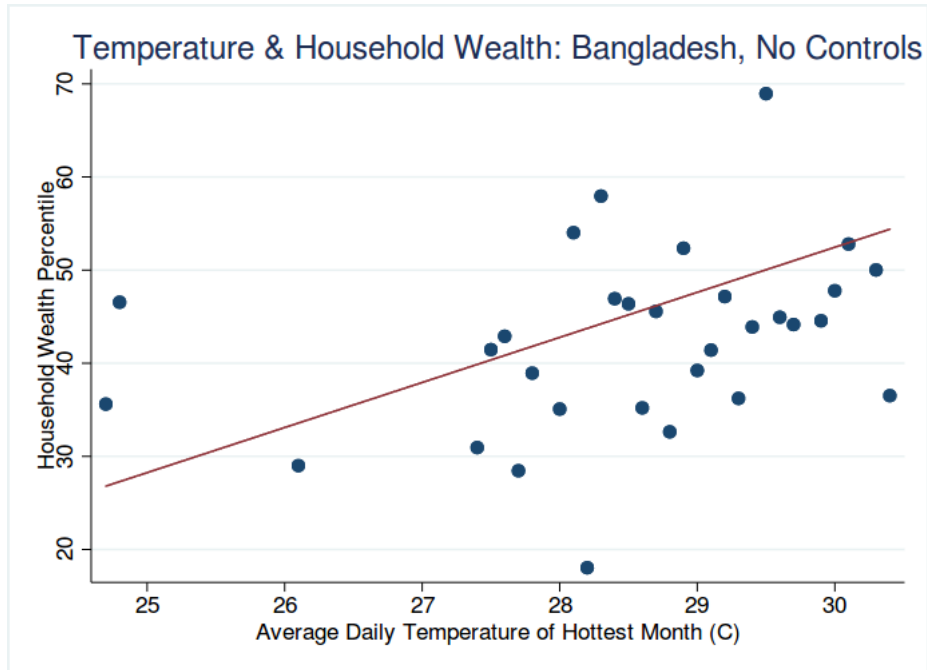
Temperature and household wealth: notable exceptions



Controls: household size, urban/rural status, altitude, and precipitation



Controls: household size, urban/rural status, altitude, and precipitation



Controls: household size, urban/rural status, altitude, and precipitation

Appendix E. Occupational exposure and household wealth

Table A3. Occupational exposure and household wealth: logistical regression results by country

Survey logit regression of an exposure dummy on household wealth percentile, with no controls

Country	Coefficient	Standard error	T-statistic	P-value
Burundi	-0.1455	0.011874	-12.2541	3.85E-29
Rwanda	-0.11149	0.007991	-13.9517	5.41E-37
Madagascar	-0.09444	0.004581	-20.617	3.7E-70
Ethiopia	-0.08694	0.003878	-22.4221	9.09E-79
Bolivia	-0.08392	0.002424	-34.6156	1E-171
Tanzania	-0.08137	0.005277	-15.4218	3.3E-43
Morocco	-0.07929	0.004267	-18.5813	3.75E-54
Central African Republic	-0.07864	0.004728	-16.633	9.04E-41
Egypt	-0.07651	0.00337	-22.7066	7.29E-91
Mozambique	-0.07448	0.002564	-29.0524	5.9E-115
Guinea	-0.07196	0.003079	-23.3705	9.73E-69
Peru	-0.07107	0.001601	-44.3889	2.4E-249
Nepal	-0.07051	0.003538	-19.9284	8.06E-56
Zambia	-0.07027	0.003494	-20.1135	1.68E-57
Niger	-0.06962	0.00263	-26.4667	2.32E-75
Ghana	-0.06842	0.002509	-27.274	1.1E-91
Sierra Leone	-0.06707	0.004745	-14.1362	3.3E-37
Moldova	-0.06549	0.002554	-25.6426	8.96E-86
Burkina Faso	-0.06512	0.002812	-23.1599	1.56E-81
Albania	-0.0629	0.002728	-23.0559	3.25E-77
Indonesia	-0.06225	0.001371	-45.3902	3.2E-267
Cote d'Ivoire	-0.06178	0.00247	-25.0172	3.33E-77
Liberia	-0.06036	0.003011	-20.0444	1.01E-57
Benin	-0.0594	0.001745	-34.0339	2.7E-152
Tajikistan	-0.05785	0.003383	-17.1012	1.6E-46
Cameroon	-0.05779	0.001871	-30.8904	1.2E-122
Timor-Leste	-0.057	0.003077	-18.5271	1.79E-56
Togo	-0.05699	0.002395	-23.7943	8.07E-69
Congo (Kinshasa)	-0.05453	0.002623	-20.7918	1.45E-68
Senegal	-0.04877	0.002392	-20.3864	2.11E-61
Philippines	-0.04798	0.001495	-32.0856	6.5E-142
Honduras	-0.04504	0.00138	-32.6475	1.9E-163
Colombia	-0.04342	0.000833	-52.1063	0
Haiti	-0.04106	0.001478	-27.7718	1.09E-96
Jordan	-0.04102	0.004548	-9.01935	2.11E-18
Guyana	-0.041	0.00273	-15.0154	5.23E-38
Nigeria	-0.03868	0.001229	-31.4665	4.6E-146

Lesotho	-0.03829	0.00216	-17.73	6.75E-51
Namibia	-0.03733	0.002309	-16.1658	3.01E-46
Comoros	-0.03693	0.002809	-13.1482	1.72E-29
Kenya	-0.03683	0.002081	-17.7004	2.5E-51
Gabon	-0.03647	0.002405	-15.1668	2.99E-39
Malawi	-0.03517	0.001229	-28.6202	1.9E-123
Zimbabwe	-0.034	0.002134	-15.9285	1.47E-43
Swaziland	-0.03181	0.002894	-10.9889	3.19E-23
Dominican Republic	-0.03046	0.001514	-20.1205	1.83E-66
Kyrgyzstan	-0.02859	0.002616	-10.9287	1.73E-23

Table A4. Occupational exposure and temperature: logistical regression results by country

Survey logit regression of an exposure dummy on average temperature

Country	Coefficient	Standard Error	T-statistic	P-value
Liberia	-1.70353	0.229483	-7.42336	1.13E-12
Gabon	-0.39196	0.099083	-3.95587	9.46E-05
Haiti	-0.29799	0.066306	-4.49425	9.07E-06
Cote d'Ivoire	-0.24805	0.151657	-1.63561	0.102908
Egypt	-0.21737	0.090527	-2.40116	0.016542
Lesotho	-0.21241	0.039398	-5.39145	1.27E-07
Philippines	-0.20912	0.039714	-5.2657	1.85E-07
Burkina Faso	-0.17491	0.142998	-1.22316	0.221837
Burundi	-0.1734	0.112192	-1.54556	0.123079
Jordan	-0.16503	0.243091	-0.67888	0.497457
Indonesia	-0.1526	0.071513	-2.13391	0.033046
Zambia	-0.13616	0.088017	-1.54692	0.12294
Namibia	-0.10119	0.051115	-1.97971	0.048375
Dominican Republic	-0.06793	0.039961	-1.6999	0.08977
Malawi	-0.06064	0.044944	-1.34927	0.177644
Tanzania	-0.04988	0.045241	-1.10259	0.270818
Albania	-0.04951	0.034361	-1.44094	0.150328
Nepal	-0.0373	0.01753	-2.12771	0.034225
Morocco	-0.03319	0.061865	-0.53654	0.591923
Nigeria	-0.03292	0.040358	-0.81574	0.41487
Zimbabwe	-0.02879	0.059815	-0.48135	0.630565
Honduras	-0.0278	0.01962	-1.41707	0.156757
Kenya	-0.02598	0.021481	-1.20946	0.227252
Congo (Kinshasa)	-0.00918	0.05882	-0.15606	0.876051
Cameroon	0.001544	0.027556	0.056049	0.955323
Central African Republic	0.00237	0.119959	0.019755	0.984256
Bolivia	0.005957	0.008991	0.662531	0.507788
Peru	0.007278	0.009533	0.763484	0.445335
Ethiopia	0.009565	0.028822	0.331877	0.740114
Colombia	0.028399	0.005593	5.077404	3.97E-07
Tajikistan	0.05974	0.024838	2.405179	0.016756
Kyrgyzstan	0.060814	0.028043	2.168589	0.030932
Togo	0.080907	0.099747	0.81112	0.417996
Rwanda	0.082242	0.075475	1.089648	0.276454
Guyana	0.097817	0.184466	0.53027	0.596335
Madagascar	0.104082	0.029947	3.47555	0.000551
Moldova	0.138084	0.190361	0.72538	0.468653
Guinea	0.146896	0.142633	1.029887	0.303918
Senegal	0.26666	0.061857	4.310891	2.12E-05
Swaziland	0.283432	0.06453	4.392255	1.65E-05

Ghana	0.283708	0.113134	2.507708	0.012566
Niger	0.319605	0.107741	2.966429	0.003297
Mozambique	0.33727	0.070032	4.815953	1.88E-06
Timor-Leste	0.415684	0.168723	2.46371	0.014154
Benin	0.444863	0.196749	2.261063	0.024052
Sierra Leone	0.465954	0.265776	1.75318	0.080322
Comoros	0.539392	0.13266	4.065967	6.67E-05