

The deforestation–income relationship: evidence of deforestation convergence across developing countries

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ONLINE APPENDIX

Appendix 1

Table A1. Variable descriptions

Variable	Description	Sources
Long-run deforestation rate per capita	Long-run change (-) of forest area per capita	FAO
Long-run GDP growth rate per capita	Average growth rates over time PPP (US\$, 2005)	PWT
Average PIB per capita	PPP (US\$, 2005)	PWT
Average Agricultural land	Long-run Agricultural land (% of land area)	FAO
Trade openness	(Import+Export)/2PIB	UNCTAD
Population density	People per hectare	WDI
Political institutions	Political rights + civil liberties	FH
Literacy Rate	Literacy rate of the adult population	WDI

FAO: Food and Agriculture Organization of United Nation; FH: Freedom House 2004; PWT: Penn World Table, version 8.0 (Feenstra et al., 2013); WDI: World Development Indicator, 2013; UNCTAD: United Nation Conference on Trade and Development.

Appendix 2

Table A2. List of countries

Africa						
Angola		Cote d'Ivoire		Liberia		South Africa
Benin		Equatorial Guinea		Madagascar		Swaziland
Botswana		Ethiopia		Malawi		Tanzania
Burundi		Gabon		Mozambique		Togo
Cabo Verde		Gambia, The		Namibia		Uganda
Cameroon		Ghana		Nigeria		Zambia
Central African Republic		Guinea		Rwanda		Zimbabwe
Congo, Dem. Rep.		Guinea-Bissau		Senegal		
Congo, Rep.		Kenya		Sierra Leone		

Latin America		East Asia & Pacific		South Asia	Europe & Central Asia	
Argentina	Guatemala	Cambodia	Malaysia	India	Albania	Lithuania
Bahama	Honduras	China	Mongolia	Nepal	Armenia	Slovenia
Belize	Jamaica	Fiji	Philippine	Sri Lanka	Croatia	Moldova
Bolivia	Mexico	Indonesia	Thailand		Bulgaria	Romania
Brazil	Panama		Vietnam		Belarus	Slovakia
Chile	Peru				Bosnia	Kirghizstan
Colombia	Paraguay				Cyprus	Turkey
Costa Rica	El Salvador				Georgia	Ukraine
Cuba	Uruguay				Kazakhstan	Tajikistan
Dominican	Venezuela					
Ecuador						

Appendix 3

Table A3. Summary of descriptive statistics for African countries

Variables	Obs	Mean	Std. Dev.	Min	Max
\hat{F}_i	34	-0.0302756	0.0133581	-0.0651121	0.0013995
\hat{G}_i	34	0.014878	0.041225	-0.0323229	0.2107544
G_i	34	2206.879	2416.883	269.6569	8988.261
F_{i0}	34	2.856074	4.615588	0.0447289	23.68138
G_{i0}	34	1825.365	1845.871	211.0596	8824.812
$Agri-Land_i$	34	0.4597217	0.2043641	0.0821008	0.8017636
$Deg-Open_i$	34	0.3664432	0.1840745	0.1423956	0.9085419
$Pop-density_i$	34	65.11939	72.98519	2.259702	335.1343
$Literacy-rate_i$	34	0.6600574	0.2032705	0.2530774	0.9483
$Pol-inst_i$	34	8.588235	3.105398	2	14

Notes: \hat{F}_i is long-run forest cover change rate per capita of country i ; \hat{G}_i is long-run growth rate of GDP per capita of country i ; G_i is the log of income per capita averaged over time in country i ; F_{i0} and G_{i0} are the log of the per capita forest area and the log of per capita GDP of the early period of country i respectively; $Agri-Land_i$ is the agricultural land (% of land area) of country i ; $Deg-Open_i$ is the degree of openness of country i ; $Pop-density_i$ is the population density of country i ; $Literacy-rate_i$ and $Pol-inst_i$ are the literacy rate and institutions of country i respectively.

Table A4. Summary of descriptive statistics for non-African countries

Variables	Obs	Mean	Std. Dev	Min	Max
\hat{F}_i	51	-0.0100437	0.0155995	-0.0423974	0.0266352
\hat{G}_i	51	0.0237559	0.0214699	-0.0323142	0.1062578
G_i	51	6561.419	4630.106	484.2162	20637.53
F_{i0}	51	1.283796	1.976293	0.0706946	9.430802
G_{i0}	51	5504.7	3991.317	527.7496	17182.39
$Agri-Land_i$	51	0.4200101	0.1868758	0.0127492	0.848752
$Deg-Open_i$	51	0.4087841	0.1757845	0.1081645	0.8885788
$Pop-density_i$	51	92.04002	81.88333	1.556966	352.7694
$Literacy-rate_i$	51	0.9362815	0.0707684	0.6275448	0.9965
$Pol-inst_i$	51	6.27451	3.305017	2	13

Notes: \hat{F}_i is long-run forest cover change rate per capita of country i ; \hat{G}_i is long-run growth rate of GDP per capita of country i ; G_i is the log of income per capita averaged over time in country i ; F_{i0} and G_{i0} are the log of the per capita forest area and the log of per capita GDP of the early period of country i respectively; $Agri-Land_i$ is the agricultural land (% of land area) of country i ; $Deg-Open_i$ is the degree of openness of country i ; $Pop-density_i$ is the population density of country i ; $Literacy-rate_i$ and $Pol-inst_i$ are the literacy rate and institutions of country i respectively.