

From genes to goods: understanding climate policy diffusion in the Commonwealth

Viet Anh Tran¹  • Thi Dien Tran^{*1} 

¹ Hung Vuong University of Ho Chi Minh City

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Abstract

This letter revisits the relationship between national responses to climate change and genetic distance, which serves as a proxy for biological dissimilarities between countries, as well as the role of trade at both the global level and within a group of countries. Using cross-sectional data from 103 countries worldwide, including up to 23 Commonwealth nations, this study finds that improvements in climate policy are primarily driven by trade integration as an economic intervention tool within this group, rather than by genetic differences. These effects can be explained by the importation of environmental goods and services from the UK.

Keywords: commonwealth, climate change policies, genetic distance, trade from the UK

JEL Classification Codes: J15, O15, Q01, Q56, Q57, Z10

1. Introduction

Climate change has emerged as a critical global issue, prompting numerous international agreements aimed at strengthening collective responses, including the United Nations Framework Convention on Climate Change (UNFCCC) in 1992, the Kyoto Protocol in 1997, and the Paris Agreement in 2015. However, the existing literature highlights that designing effective climate change policies is challenging, as they can create distributional inequalities and are often perceived as enabling free riding on the mitigation efforts of others (Nordhaus, 2015). In addition, cultural traits such as trust and reciprocal beliefs play a critical role in fostering collective climate action, yet climate change policies inherently transcend national borders, underscoring the underexplored role of international policy diffusion (Ostrom, 2000).

Moreover, genetic distance has become a widely used predictor in explaining various

* Corresponding author. E-mail: dientt@dhv.edu.vn.

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economic outcomes (Duong et al., 2024; Spolaore & Wacziarg, 2009). Vu (2025) finds a statistically and economically significant link between national climate change responses and genetic distance, showing that countries more genetically distant from the world leader in climate change mitigation face greater barriers to cross-border policy diffusion and perform worse. The study further suggests that climate policies spread more readily among closely related countries with similar preferences for environmental public goods, emphasizing the need to overcome obstacles to international policy diffusion.

Building on the current literature (Tawiah, 2022; Dai et al., 2023), we hypothesize that countries within internal groups - sharing common values but differing in their genetic distance from the UK - may experience heterogeneous effects on climate change policy stringency. We focus on the Commonwealth, which comprises countries with diverse economic conditions and genetic backgrounds but similar trade linkages with its founder, the United Kingdom. This study revisits Vu (2025) by examining only Commonwealth nations and finds that genetic distance from the UK negatively predicts climate change policy performance, while imports from the UK - especially environmental goods - strongly enhance CCPS. Instrumental variable estimates indicate that trade integration with historically and culturally related countries plays a more decisive role in shaping climate policies than genetic or biological determinants. Moreover, governance quality shows no significant effect, suggesting that value-aligned trade and access to environmental goods are crucial for strengthening national climate change responses. This study attempts to answer the research question “*How do genetic distance and trade integration with the United Kingdom influence climate change policy performance among Commonwealth countries?*”.

Expanding upon these insights, this study contributes to the literature by highlighting the two mechanisms through which international linkages influence climate change policy performance: biological traits and economic integration. While genetic distance captures deep-rooted historical and cultural dissimilarities that can impede the cross-border flow of policy ideas, trade in environmental goods functions as a tangible thing for knowledge transfer and policy emulation. By focusing on the Commonwealth network, our analysis uncovers that value-aligned trade not only facilitates the diffusion of innovative climate solutions but also mitigates the disadvantage faced by genetically distant countries. This finding underscores the importance of coupling international trade strategies with climate diplomacy to reduce informational and institutional frictions in global policy adoption. Finally, our research suggests that promoting targeted trade partnerships with climate leaders, alongside leveraging historical and cultural ties, can accelerate the global convergence of climate change policies and strengthen collective mitigation efforts.

The remainder of this paper is organized as follows. Section 2 summarizes the data and empirical strategies while section 3 will demonstrate our results and discussion. The last section will conclude the paper.

2. Data and empirical strategies

This letter builds on the existing literature by Vu (2025). In addition, we review the original dataset for clarification, including the Climate Change Policy Stringency Index (CCPS), which was introduced by Ang & Fredriksson (2021) and Sharma et al. (2021). These authors reconstruct the Climate Laws, Institutions, and Measures Index (CLIMI) from Steves et al. (2021), while also incorporating countries' ratification of the Paris Agreement as an additional subcomponent reflecting international collaboration. Genetic distance between countries is measured using Spolaore & Wacziarg (2009) index, based on Cavalli-Sforza et al. (1994) measure of allelic frequency differences across ethnic groups. This index aggregates interethnic genetic distances into a country-level measure weighted by each ethnic group's population share. Concomitantly, we also test the role of economic integration throughout the exporting-importing activities. These three variables are the key indicators, which we attempt to examine the effects of biological distance, economic integration and the environmental and climate protection. Therefore, we specify the following cross-sectional model:

$$CCPS_i = \alpha + \beta \text{Genetic distance from the UK}_i + \gamma \text{Import from UK (log)}_i + \delta X_i + \theta \text{Region}_i + \varepsilon_i \quad (1)$$

The main reason for selecting genetic distance from this country is that the United Kingdom is a world leader in climate change mitigation and climate change policy stringency. In Equation (1), we define our notation, including $CCPS_i$, which measures the climate change policy performance of country i . A higher CCPS value indicates better performance by a country in implementing climate change policies. The variable *Genetic Distance from the UK* represents the genetic distance to the UK, as defined in the literature (Spolaore & Wacziarg, 2009). As noted earlier, our analysis focuses on the role of imported goods from the UK. Therefore, *Import from UK (log)* _{i} represents the natural logarithm of total imports from the UK in 2015 (measured in thousands of US dollars), based on data from the United Nations database (2016). The coefficients β and γ indicate the relationship between genetic distance to the global frontier, the value of imports, and international differences in climate change policy performance. X_i is a set of control variables, which are detailed in each table. We also include regional fixed effects, and ε_i represents the unobserved error term. We summarize our descriptive statistics in Appendix A.1. and the correlation matrix from Appendix A.2.

3. Results and discussion

Table 1 presents the coefficients for genetic distance, imports from the UK (log), and climate change policy performance. In column (1), the β coefficient for genetic distance from the UK is precisely estimated, showing a negative and statistically significant effect. This finding aligns with the existing literature (Vu, 2025) in terms of the magnitude of the coefficients. The Column (2) provides the consistent result for the variable 'genetic distance from the UK' and

the import from the UK. The first two columns suggest that an extra standard deviation of genetic distance to the UK predicts a roughly 0.306-standard-deviation decrease in Climate Change Policy Stringency Index (CCPS) and 0.483-standard-deviation increase in the imported values with having regional fixed effects, holding other things equal. Concomitantly, we also perform the Oster's tests (2019) to check the coefficient stability for two variables 'Genetic distance from the UK' ($\delta = 0.542 < 1$) and 'Import from UK (log)' ($\delta = 1.382 > 1$). Accordingly, the genetic distance from the UK could be sensitive to the selection on the unobserved controls while the import from the UK performs well. One might argue that imports from the UK could be correlated with GDP, trade openness, or the structure of manufacturing economies. To address this concern, we included these variables as additional controls, and the results remained robust (see Appendix A.4).

Table 1. Baseline results: Genetic distance to the UK, volume of imports from the UK, and climate change policy performance

| Variables | Full sample | | Commonwealth of Nations | |
|------------------------------|------------------------|-----------------------|-------------------------|-----------------------|
| | (1) CCPS | (2) CCPS | (3) CCPS | (4) CCPS |
| Genetic distance from the UK | -0.0114*** (0.0028) | -0.0078** (0.0032) | -0.0061 (0.0053) | -0.0158 (0.0130) |
| Import from UK (log) | | 3.0307*** (0.6105) | 2.1430*** (0.5765) | 5.3259** (1.8323) |
| Constant | 41.3565*** (4.4517) | -2.0607 (10.9283) | 11.9036 (11.0031) | -27.2943 (29.1411) |
| Observations | 161 | 123 | 30 | 20 |
| R-squared | 0.3844 | 0.5639 | 0.6226 | 0.8432 |
| Region FE | Yes | Yes | Yes | Yes |
| Geographical Control | No | No | No | Yes |

Notes: This table presents estimates of the relationship between a country's genetic distance from the UK, its volume of imports from the UK, and its performance on climate change policies. Regional dummy variables indicate World Bank regions: Europe and Central Asia, Latin America and the Caribbean, the Middle East and North Africa, North America, South Asia, and Sub-Saharan Africa, with East Asia and the Pacific serving as the reference category. Geographic controls include absolute latitude, proximity to the nearest waterway, terrain ruggedness, average agricultural land suitability, mean elevation, and a landlocked-country indicator. Robust standard errors are shown in parentheses. ** $p < 0.05$; *** $p < 0.01$.

It is worth noting that we focus on Commonwealth nations as a subsample for the main results reported in columns (3) and (4). Interestingly, the coefficients for 'Genetic distance from the UK' become imprecisely estimated, while the value of imports shows strong predictive power for CCPS. An additional standard deviation in imports from the UK is associated with approximately a 0.943-standard-deviation increase in CCPS, after controlling for geographical factors and regional fixed effects, holding other factors constant. To test the robustness of our

findings, we conducted placebo tests by randomly assigning values to the variable ‘Import from UK (log)’ 5,000 times and re-estimating the baseline equation (1) from Do et al. (2025)’s approach. The results are illustrated in Appendix A.3. As shown, the placebo coefficients do not overlap with our true estimates, confirming the robustness of our results.

Table 2. 2SLS estimates for baseline results

| Variables | Full sample | | Commonwealth of Nations | |
|---------------------------------|-----------------------------|----------------------|-----------------------------|-----------------------|
| | (1) Import from UK (log) | (2) CCPS | (3) Import from UK (log) | (4) CCPS |
| Ancestry-adjusted state history | 4.9322 (1.6294) | | 10.2206** (4.0111) | |
| Import from UK (log) | | 1.4538 (1.9679) | | 3.2665* (1.8496) |
| Constant | 14.4544 (0.7486) | 11.0582 (31.8180) | 11.3143 (2.3526) | -10.6094 (27.3476) |
| Observations | 103 | 103 | 18 | 18 |
| Uncentered R-squared | | 0.920 | | 0.981 |
| Kleibergen-Paap rk LM statistic | | 8.821 | | 5.559 |
| Region FE | Yes | Yes | Yes | Yes |
| Geographical Control | Yes | Yes | Yes | Yes |

Notes: This table presents estimates of the causal relationship between a country’s volume of imports from the UK and its performance on climate change policies. Regional dummy variables indicate World Bank regions: Europe and Central Asia, Latin America and the Caribbean, the Middle East and North Africa, North America, South Asia, and Sub-Saharan Africa, with East Asia and the Pacific serving as the reference category. Geographic controls include absolute latitude, proximity to the nearest waterway, terrain ruggedness, average agricultural land suitability, mean elevation, and a landlocked-country indicator. Robust standard errors are shown in parentheses. **p < 0.05; ***p < 0.01.

We begin by estimating the baseline model using a two-stage least squares (2SLS) estimator, with ancestry-adjusted state history as the instrumental variable. State history is expected to influence trade integration with a smaller group of nations (Borcan et al., 2018) but should not directly affect climate change policies. To examine this, we conduct estimations for both the full sample of all countries and a subsample consisting only of Commonwealth nations. The IV estimates remain stable in magnitude and statistically precise in the Commonwealth subsample when all key control variables are included. As expected, the results become

insignificant for the full sample of 103 countries, as reported in Table 1. This outcome is consistent with our hypothesis that state history and trade activities primarily matter for a smaller group of countries that share common values such as democracy, human rights, and the rule of law. Our results provide further evidence that trade integration between countries sharing similar values has a stronger influence on climate change policy performance than biological determinants.

Table 3. Mechanism tests with Gross Domestic Product, imported environmental goods and worldwide governance indicators

| VARIABLES | (1) CCPS | (2) CCPS | (3) CCPS |
|--|-------------|-------------|-------------|
| Genetic distance from the UK | -0.0340* | -0.0168* | -0.0099 |
| | (0.0150) | (0.0085) | (0.0149) |
| Import from UK (log) | 28.4612* | | 5.0152** |
| | (13.2848) | | (2.0342) |
| Log of GDP per capita (2000-2015) | 21.6331 | | |
| | (18.1403) | | |
| Import from UK (log) × Log of GDP per capita | -2.7469 | | |
| | (1.4800) | | |
| Worldwide governance indicators (WGI) | | | -31.8841 |
| | | | (28.2433) |
| Import from UK (log) × WGI | | | 2.2096 |
| | | | (1.8861) |
| Total Environmental goods (WTO) (log) | | 5.2421*** | |
| | | (1.6135) | |
| Constant | -173.7576 | -37.3873 | -27.4621 |
| | (149.6230) | (25.5443) | (36.3063) |
| Observations | 20 | 23 | 20 |
| R-squared | 0.9551 | 0.8010 | 0.8619 |
| Region FE | Yes | Yes | Yes |
| Geographic Control | Yes | Yes | Yes |

Notes: This table presents estimates of the relationship between a country's volume of imports from the UK and its performance on climate change policies, which is moderated by GDP and governance index. In addition, the relationship is also re-examined with the imported total environmental goods (WTO) from the UK. Regional dummy variables indicate World Bank regions: Europe and Central Asia, Latin America and the Caribbean, the Middle East and North Africa, North America, South Asia, and Sub-Saharan Africa, with East Asia and the Pacific serving as the reference category. Geographic controls include absolute latitude, proximity to the nearest waterway, terrain ruggedness, average agricultural land suitability, mean elevation, and a landlocked-country indicator. Robust standard errors are shown in parentheses. **p < 0.05; ***p < 0.01.

Table 3 presents additional analyses to examine the mechanisms, focusing on environmental goods and services from the UK, the effects of higher GDP, and the Worldwide Governance

Indicators for Commonwealth nations only. Column (1) shows that countries with higher GDP do not exhibit any statistically significant difference in climate change policy performance. This suggests that the size of a country's economy, measured by GDP, does not explain variations in climate change policy performance within the Commonwealth.¹ Column (2) considers an alternative measure using the total Environmental Goods (WTO) (log) imported from the UK. The coefficients are precisely estimated, and their magnitudes are consistent with previous results, confirming that trade integration within Commonwealth nations plays an important role in shaping climate change policies. Moreover, imports of environmental goods and services are both relevant and critical in supporting climate change policies. Finally, Column (3) shows that the 'Worldwide Governance Indicators' have no significant predictive power for climate change policies, suggesting that governance quality does not substantially affect CCPS among Commonwealth countries.

Our findings carry important implications for understanding the drivers of climate change policy performance. First, the results highlight that trade integration - particularly with countries sharing similar institutional values and historical ties, such as Commonwealth nations - can play a more pivotal role than biological or genetic relatedness in fostering stronger climate policies. The significant impact of imports from the UK, especially environmental goods and services, suggests that access to green technologies and sustainable trade networks can enhance countries' capacity to implement stringent climate measures. In contrast, there is no predictive power of governance indicators, which implies that formal institutional quality alone may be insufficient to drive climate policy improvements without meaningful economic and trade linkages. Taken together, these insights underscore the importance of promoting value-aligned trade partnerships and facilitating the transfer of environmental goods to strengthen global climate policy efforts, particularly in groups of countries with shared historical and institutional contexts.

4. Conclusions

This letter revisits the relationships among biological factors, trade integration, and climate change policy responses across countries, with a focus on Commonwealth nations. The main findings challenge the existing literature by Vu (2025), suggesting that greater genetic distance from the UK—recognized as a leader in climate change mitigation - can negatively affect climate change policy performance within the Commonwealth. In fact, among countries that share common values as members of the Commonwealth, climate policy improvements are primarily driven by trade integration as an economic intervention tool. Furthermore, the study identifies one potential mechanisms: the importation of environmental goods and services from

¹ When we included the high-income country dummy in regression Column (1), both coefficients' genetics and the log of imports from the UK remained significant at the 10% level. The construction of this variable is detailed in Appendix A.1 and A.2. The full results are available upon request.

the UK. Therefore, this study highlights an important policy implication: maintaining international standards for environmental goods and services can facilitate the diffusion of climate change policies. Strengthening such standards may encourage countries to align their domestic policies with global environmental commitments such as green innovation (Nguyen Dang et al., 2025). Surprisingly, governance indicators appear to play little role in strengthening climate change policies. In summary, this letter contributes to the literature by highlighting the importance of internal country groups with shared values, and by emphasizing that climate action can be effectively promoted through trade-based interventions and environmental product exchanges.

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Appendix

The list of Commonwealth nations in our sample includes Antigua and Barbuda, Australia, The Bahamas, Bangladesh, Barbados, Belize, Botswana, Brunei, Cameroon, Canada, Cyprus, Dominica, Eswatini, Ghana, Grenada, Guyana, India, Jamaica, Kenya, Kiribati, St. Kitts and Nevis, Lesotho, Malawi, Malaysia, Maldives, Malta, Mauritius, Mozambique, Namibia, Nauru, New Zealand, Nigeria, Pakistan, Papua New Guinea, Rwanda, St. Lucia, St. Vincent and the Grenadines, Samoa, Seychelles, Sierra Leone, Singapore, Solomon Islands, South Africa, Sri Lanka, Tanzania, Tonga, Trinidad and Tobago, Tuvalu, Uganda, United Kingdom, Vanuatu, and Zambia.

Table 4. Summary of descriptive statistics

| Variables | N | Mean | S.D. | 1 st Perc. | 99 th Perc. | t-value |
|--|-----|-----------|----------|-----------------------|------------------------|---------|
| Panel A: Full sample | | | | | | |
| CCPS | 161 | 29.2055 | 16.9235 | 2.3000 | 77.4000 | 21.8972 |
| Gdist UK | 161 | 858.5516 | 667.2470 | 30.2929 | 2255.2900 | 16.3264 |
| LnimportUK | 123 | 13.4641 | 2.7146 | 4.0357 | 18.4121 | 55.0067 |
| LnEG_WTO_total | 139 | 15.2792 | 2.0217 | 10.5705 | 19.3713 | 89.1026 |
| Wgi | 161 | -0.0733 | 0.9172 | -1.6358 | 1.8076 | -1.0141 |
| Incgroup | 161 | 2.5155 | 1.2098 | 1.0000 | 4.0000 | 26.3814 |
| Abslat | 141 | 26.9651 | 17.2205 | 1.0000 | 64.0000 | 18.5937 |
| Distcr | 141 | 342.2690 | 452.9848 | 20.4568 | 2291.6799 | 8.9720 |
| Ruggavg | 141 | 120.2231 | 115.8900 | 9.5090 | 547.4060 | 12.3183 |
| Suitavg | 141 | 0.3746 | 0.2480 | 0.0032 | 0.9287 | 17.9377 |
| Elevavg | 141 | 578.5847 | 539.5857 | 21.1263 | 2729.6269 | 12.7325 |
| Landlocked | 161 | 0.2236 | 0.4179 | 0.0000 | 1.0000 | 6.7882 |
| Panel B: Commonwealth countries | | | | | | |
| CCPS | 41 | 25.8951 | 13.1362 | 8.5000 | 57.8000 | 12.6223 |
| Gdist UK | 41 | 1312.5556 | 649.1662 | 75.7486 | 2255.2920 | 12.9465 |
| LnimportUK | 30 | 12.3750 | 3.0543 | 1.2092 | 16.4571 | 22.1917 |
| LnEG_WTO_total | 38 | 14.2075 | 2.0724 | 10.2539 | 18.3421 | 42.2605 |
| Wgi | 41 | 0.1887 | 0.7748 | -1.1475 | 1.7618 | 1.5599 |
| Incgroup | 41 | 2.6585 | 1.1960 | 1.0000 | 4.0000 | 14.2328 |
| Abslat | 24 | 15.1250 | 11.1871 | 1.0000 | 41.0000 | 6.6234 |
| Distcr | 24 | 375.8028 | 314.3522 | 25.4552 | 1057.9600 | 5.8566 |
| Ruggavg | 24 | 91.0818 | 86.2479 | 11.7050 | 361.6400 | 5.1735 |
| Suitavg | 24 | 0.3765 | 0.1947 | 0.0457 | 0.7290 | 9.4731 |
| Elevavg | 24 | 690.3852 | 515.8913 | 93.0594 | 2010.0190 | 6.5560 |
| Landlocked | 41 | 0.1463 | 0.3578 | 0.0000 | 1.0000 | 2.6186 |

Notes: The table summarizes the descriptive statistics for the following variables with Panel A (full sample) and Panel B (commonwealth countries only). Climate Change Policy Stringency Index (CCPS), ‘Gdist UK’ (Genetic Distance from the UK), ‘LnimportUK’ (Imports from the UK, log), and ‘LnEG_WTO_total’ (Total Environmental Goods (WTO), log). WGI refers to the Worldwide Governance Indicators, and ‘Incgroup’ represents the income group categories of countries (1 = highest income, 4 = lowest income). For the regression in Table 3, this variable is transformed into a dummy indicator (1 = high-income country, 0 = otherwise). The remaining variables are geographical controls, including ‘Abslat’ (absolute latitude), ‘distcr’ (distance to the nearest waterway), ‘ruggavg’ (terrain ruggedness), ‘suitavg’ (average agricultural land suitability), ‘elevavg’ (mean elevation), and ‘landlocked’ (indicator for landlocked countries).

Table 5. Correlation matrix

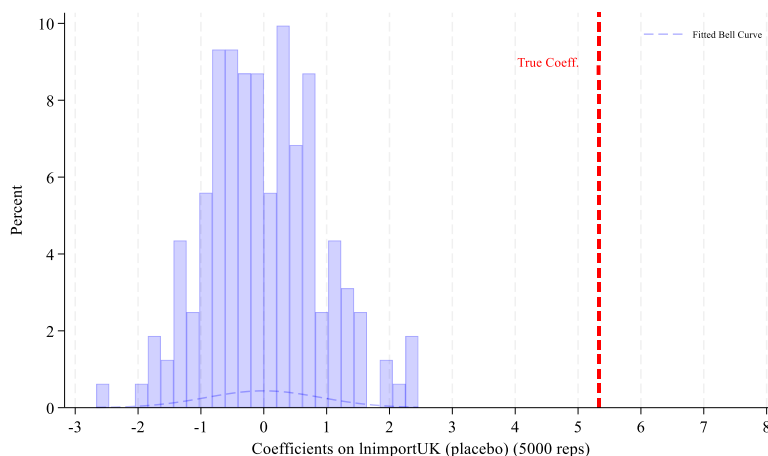
Notes: Climate Change Policy Stringency Index (CCPS), ‘Gdist UK’ (Genetic Distance from the UK),

| Variables | (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) | (11) | (12) |
|-----------|---------|---------|---------|--------|---------|---------|--------|---------|--------|--------|--------|-------|
| (1) | 1.000 | | | | | | | | | | | |
| (2) | -0.460* | 1.000 | | | | | | | | | | |
| (3) | 0.619* | -0.510* | 1.000 | | | | | | | | | |
| (4) | 0.623* | -0.528* | 0.911* | 1.000 | | | | | | | | |
| (5) | 0.638* | -0.383* | 0.447* | 0.328* | 1.000 | | | | | | | |
| (6) | -0.353* | 0.225* | -0.315* | -0.167 | -0.536* | 1.000 | | | | | | |
| (7) | 0.582* | -0.655* | 0.469* | 0.413* | 0.579* | -0.358* | 1.000 | | | | | |
| (8) | -0.192 | 0.204 | -0.223 | -0.176 | -0.376* | 0.214 | 0.011 | 1.000 | | | | |
| (9) | 0.095 | -0.196 | -0.154 | 0.064 | 0.049 | -0.005 | 0.175 | 0.010 | 1.000 | | | |
| (10) | 0.159 | -0.087 | -0.077 | -0.021 | 0.131 | -0.005 | 0.054 | -0.345* | 0.246* | 1.000 | | |
| (11) | -0.109 | 0.164 | -0.361* | -0.116 | -0.221* | 0.175 | -0.024 | 0.423* | 0.665* | -0.111 | 1.0000 | |
| (12) | -0.066 | 0.135 | -0.234* | -0.162 | -0.174 | -0.032 | 0.079 | 0.517* | 0.185 | -0.012 | 0.450* | 1.000 |

1) Ccps, 2) Gdist UK, 3) LnimportUK, 4) LnEG_WTO_total, 5) Wgi, 6) Incgroup, 7) Abslat, 8) Distcr, 9) Ruggavg, 10) Suitavg, 11) Elevavg, 12) Landlocked

‘LnimportUK’ (Imports from the UK, log), and ‘LnEG_WTO_total’ (Total Environmental Goods (WTO), log). ‘WGI’ refers to the Worldwide Governance Indicators, and ‘Incgroup’ represents the income group categories of countries (1 = highest income, 4 = lowest income). For the regression in Table 3, this variable is transformed into a dummy indicator (1 = high-income country, 0 = otherwise). The remaining variables are geographical controls, including ‘Abslat’ (absolute latitude), ‘distcr’ (distance to the nearest waterway), ‘ruggavg’ (terrain ruggedness), ‘suitavg’ (average agricultural land suitability), ‘elevavg’ (mean elevation), and ‘landlocked’ (indicator for landlocked countries). *** p<0.01, ** p<0.05, * p<0.1.

Figure 1. Placebo test for the variable ‘Import from UK (log)’



Notes: This figure presents a placebo test for the effects of imports from the UK on climate change policy stringency, using a placebo variable instead of the actual data. The random variable was generated 5,000 times with the same mean and standard deviation as the original variable in Equation (1). The true estimates from our baseline results, based on the actual data, are overlaid as a red vertical line in the figure.

Table 6. Robustness with additional controls in Commonwealth countries only

| Variables | (1) CCPS | (2) CCPS | (3) CCPS |
|--------------------------------------|-----------------------|-----------------------|-----------------------|
| Genetic distance from the UK | -0.0065 (0.0057) | -0.0046 (0.0058) | -0.0084 (0.0108) |
| Import from UK (log) | 2.2267*** (0.6838) | 2.3076*** (0.7254) | 4.7772* (1.9143) |
| Differences in GDP from UK | 0.5749 (2.4425) | -0.1446 (2.9873) | 8.8189 (4.6505) |
| Trade openness (% of GDP) | | -0.0399 (0.0329) | -0.0216 (0.0836) |
| Manufacturing value added (% of GDP) | | | -0.0567 (0.6939) |
| Constant | 10.5494 (13.4393) | 14.1489 (14.8905) | -31.5476 (21.3301) |
| Observations | 30 | 30 | 20 |
| R-squared | 0.6238 | 0.6489 | 0.9211 |
| Region FE | Yes | Yes | Yes |
| Geographic Control | No | No | Yes |

Notes: This table presents estimates of the relationship between a country's genetic distance from the UK, its volume of imports from the UK, and its performance on climate change policies, focusing only on Commonwealth countries and incorporating additional control variables (differences in GDP from the UK, trade openness, and manufacturing value added from 2000 to 2015, constant 2010 USD prices). Regional dummy variables indicate World Bank regions: Europe and Central Asia, Latin America and the Caribbean, the Middle East and North Africa, North America, South Asia, and Sub-Saharan Africa, with East Asia and the Pacific serving as the reference category. Geographic controls include absolute latitude, proximity to the nearest waterway, terrain ruggedness, average agricultural land suitability, mean elevation, and a landlocked-country indicator. Robust standard errors are shown in parentheses. **p < 0.05; ***p < 0.01.