

DEMOCRACY AND ENVIRONMENTAL CARE IN LATIN AMERICA AND THE CARIBBEAN: A QUANTITATIVE STUDY OF THE GLOBAL ENVIRONMENT FACILITY (GEF) PROJECT DATABASE (1991-2023)

RENATO REVOREDO DE A. MACHADO¹
(University of Bucharest)

Abstract. This paper explores the relationship between democracy and environmental care in the Latin America and Caribbean (LAC) region, by presenting the variable-multilateral resources mobilized for environmental projects, mostly on a per capita basis. By analyzing data from the Global Environment Facility (GEF) database, which covers investment cycles from the early 1990s through June 2023, the correlation between amounts mobilized for environmental projects and political freedom scores across twenty-four countries in LAC is explored, under two dimensions: project generation, and project completion. The findings suggest that high-quality democracies have mobilized more GEF resources. However, the relationship is less clear for lower quality democracies. Smaller democracies display the best results, although the Caribbean cases excel at generating projects but show poor results in completing them. The largest LAC countries show disappointing results, which can be partly attributed to their political landscape complexity. Additionally, regression analyses were conducted to test some of the independent variables that influence the results, and the findings suggest that lower levels of corruption and higher number of environmental laws passed are statistically significant, explaining the superior GEF per capita mobilization results. Hence, the trio of a higher quality democracy, higher number of environmental laws enacted, and lower levels of corruption seem to be especially beneficial for environmental action.

Keywords: Latin America, Global Environment Facility, environmental projects, political freedom, comparative environmental care

¹ Renato Revoredo De A. Machado is a PhD student at the Faculty of Political Science, University of Bucharest (renato.revoredo-de-almeida-machado@s.unibuc.ro). Orchid: 0000-0001-9402-1774

Introduction

The debate on whether democracy promotes environmental protection is a highly engaging topic. This paper focuses on whether democracy champions superior environmental care in the Latin America and Caribbean (LAC) region, by using a data analysis approach primarily based on economic and objective descriptors such as the resources mobilized by countries for environmental projects. More specifically, the study is focused on one of the main funding sources available in the multilateral space: the Global Environment Facility (GEF). The GEF is a multilateral fund, headquartered in Washington, D.C., dedicated to combating biodiversity loss, climate change, pollution, and the strain on land and ocean health. Ever since its creation, which developed its pilot cycle just prior to the 1992 Earth Summit in Rio de Janeiro, through 2023, the GEF has provided more than \$30 billion in grants and blended finance and has mobilized additional \$140 billion in co-financing (where funds from various sources participate, with government funds being more relevant) for more than five thousand national and regional environmental projects. GEF Council's approved funds are transferred through GEF agencies to government agencies, civil society organizations, private sector companies, research institutions, and a wide variety of other potential partners, in order to implement projects and programs in recipient countries.² The GEF occupies a central position in the debate on the Global North and the Global South in international relations. Its headquarters in Washington, D.C., a key political center of the Global North, has drawn criticism from some developing countries. These critics are wary of the GEF's role as "the operating entity for the financial mechanism to implement [the environmental] Agenda 21."³ However, it is important to emphasize that the GEF itself is "simply a «capital provider» that does not directly participate in project implementation."⁴ One of the key implementation

² *The Global Environment Facility*, accessed March, 30, 2023, <https://www.thegef.org/>.

³ Joyeeta Gupta, "The Global Environment Facility in its North-South Context," *Environmental Politics* 4, no. 1 (2017): 19-43.

⁴ Patrick Bayer, Christopher Marcoux, and Johannes Urpelainen, "When International Organizations Bargain: Evidence from the Global Environment Facility," *Journal of Conflict Resolution* (2014): 1-17.

agencies of GEF is the United Nations Environment Programme (UNEP). Management-wise, UNEP treats the Latin America and Caribbean regions as one, under the term "LAC," similarly to the ways in which Africa and (mainly Southeast) Asia are also approached.

Academic analysis of GEF figures is not new. Monika Figaj correlated GEF projects data from 1995-2006 with several variables, and poverty and environmental factors were more determinant in explaining higher levels of environmental aid received.⁵ A study by Patrick Bayer, Christopher Marcoux, and Johannes Urpelainen analyzed the GEF database of projects from 1991 to 2011 and concluded, among other findings, that economically important countries presented superior levels of resources mobilized by bargaining power with international organizations, especially when World Bank resources were involved.⁶ Lianbiao Cui, Yi Sun, Malin Song, and Lei Zhu also worked on the GEF database from 1991-2018 with a specific focus on the co-financing part of the projects, concluding that its ratio has almost doubled throughout the period in comparison to the GEF grants, which demonstrated an increased mobilization by non-GEF parties to contribute.⁷ Isabella Alcañiz and Agustina Giraudy analyzed the influence of human development factors on the allocation of GEF funds to the three largest countries in Latin America and the Caribbean (Argentina, Brazil, and Mexico) from 1997 to 2017. Their study highlighted that the size of these countries introduces a higher complexity of analysis due to the existence of more subnational levels, and of political conflicts over resource allocation, which in turn postpone or hinder more efficient action.⁸

Using the GEF projects database, which covers all investment cycles since its inception in the early 1990s, the paper primarily examines the GEF funds and accompanying co-financing funds that have been

⁵ Monika Figaj, "Who Gets Environmental Aid? The Characteristics of Global Environmental Aid Distribution," *Environmental Economics and Policy Studies* 12, no. 3 (2010): 97-114.

⁶ Bayer, Marcoux, and Urpelainen, "When International Organizations Bargain."

⁷ Lianbiao Cui, Yi Sun, Malin Song, and Lei Zhu, "Co-financing in the Green Climate Fund: Lessons from the Global Environment Facility," *Climate Policy* 20, no. 1 (2019): 95-108.

⁸ Isabella Alcañiz and Agustina Giraudy, "From International Organizations to Local Governments: How Foreign Environmental Aid Reaches Subnational Beneficiaries in Argentina, Brazil, and Mexico," *Environmental Politics* 32, no. 4 (2022): 663-683.

mobilized in the region, deriving per capita/per population indicators to form the basis of an environmental care index. Beyond the importance of this index, some independent variables are tested through regression analysis as part of the corroboration process. This analysis aims to identify the drivers behind the per capita results of GEF grants. Specifically, corruption levels and the number of environmental laws enacted by LAC countries over the past twenty-five years have been found to be statistically significant factors influencing the varying levels of GEF fund mobilization to these countries.

In addition to the GEF literature, other scholars have also examined the democracy-environment dichotomy with mixed, and oftentimes, conditional conclusions.⁹ Most of these studies focus either on large

⁹ Manus I. Midlarsky, "Democracy and the Environment: An Empirical Assessment," *Journal of Peace Research* 35, no. 3 (1998): 341-361; Daron Acemoglu and James A. Robinson, *Economic Origins of Dictatorship and Democracy* (Cambridge: Cambridge University Press, 2005); Matthew Cole, "Corruption, Income and the Environment: An Empirical Analysis," *Ecological Economics* 62, no. 3-4 (2007): 637-647; Raijev K. Goel, Risto Herrala and Ummad Mazhar, "Institutional Quality and Environmental Pollution: MENA Countries Versus the Rest of the World", *Economic Systems* 37, no. 4 (2013): 508-521; Stefan Wurster, "Comparing Ecological Sustainability in Autocracies and Democracies," *Contemporary Politics* 19, no. 1 (2013): 76-93; Marina Povitkina, Sverker C. Jagers, Martin Sjöstedt and Aksel Sundström, "Democracy, Development and the Marine Environment – A Global Time-series Investigation," *Ocean & Coastal Management* 105 (2015): 25-34; Wan-Hai You, Hui-Ming Zhu, Keming Yu and Cheng Peng, "Democracy, Financial Openness, and Global Carbon Dioxide Emissions: Heterogeneity Across Existing Emission Levels," *World Development* 66 (2015): 189-207; Samia Nasreen, Mahmood Ul-Hassan and Riaz Muhammed Faraz, "Relationship between Corruption, Income Inequality and Environmental Degradation in Pakistan: An Econometric Analysis," *Bulletin of Energy Economics (BEE)* 4, no. 1 (2016): 12-22; Jeong Hwan Bae, Dmitriy D. Li and Meenakshi Rishi, "Determinants of CO₂ Emission for Post-Soviet Union Independent Countries," *Climate Policy* 17, no. 5 (2017): 591-615; Muhammad Haseeb and Muhammad Azam, "Dynamic Nexus Among Tourism, Corruption, Democracy and Environmental Degradation: A Panel Data Investigation," *Environment, Development and Sustainability* 23 (2021): 5557-5575; Marina Povitkina and Sverker Carlsson Jagers, "Environmental Commitments in Different Types of Democracies: The Role of Liberal, Social-liberal, and Deliberative Politics," *Global Environmental Change* 74 (2022): 1-11; Smarnika Ghosh, Md. Shaddam Hossain, Liton Chandra Voumik, Asif Raihan, Abdul Rahim Ridzuan and Miguel Angel Esquivias, "Unveiling the Spillover Effects of Democracy and Renewable Energy Consumption on the Environment Quality of

samples of countries, or on developing regions of the world, with relatively little attention given to Latin America. The earliest of these papers, authored by Manus I. Midlarsky, states that there is not a uniform relationship between democracy and the environment.¹⁰ Stefan Wurster proposes weak and strong sustainability factors to study how they interact with different political regimes.¹¹ Similarly, Marina Povitkina used one of these factors, marine protection, in their study.¹² In a later study which did not focus on the democracy-autocracy dichotomy, Marina Povitkina and Sverker Carlsson Jagers examined different levels of democracy and concluded that more liberal types of it tend to be more beneficial for the environment.¹³

Jeong Hwan Bae, Dmitriy D. Li and Meenakshi Rishi focused on the post-Soviet Union independent countries (SUIC) and argued more firmly that democracies tend to harm the environment, as they associate their strengthening with rising CO₂ emissions.¹⁴ Muhammad Haseeb and Muhammad Azam tend to agree but point out that a country's pollution is highly dependent on the type of governance it has established.¹⁵ The latter two references worked with large data studies. Relying less on data and more on qualitative factors, Daron Acemoglu and James A. Robinson posited that democracies allow more citizens to express their preferences, and the government is supposed to represent that in its economic and environmental policies, as opposed to autocratic regime.¹⁶ Two other studies focused on democracy in relation to environmental concerns but included additional relevant factors/independent variables in quantile regression analyses. In a somewhat neutral stance, Smarnika Ghosh observed a two-way causal relationship between democracy and

BRICS Countries: A New Insight from Different Quantile Regression Approaches," *Renewable Energy Focus* 46 (2023): 222-235.

¹⁰ Midlarsky, "Democracy and the Environment."

¹¹ Wurster, "Comparing Ecological Sustainability in Autocracies and Democracies."

¹² Povitkina, Jagers, Sjöstedt, Sundström, "Democracy, Development and the Marine Environment."

¹³ Povitkina and Jagers, "Environmental Commitments in Different Types of Democracies."

¹⁴ Bae, Li, Rishi, "Determinants of CO₂ Emission."

¹⁵ Haseeb, Azam, "Dynamic Nexus Among Tourism, Corruption, Democracy and Environmental Degradation."

¹⁶ Acemoglu, Robinson, *Economic Origins of Dictatorship and Democracy*.

CO₂ emissions (in a kind of vicious cycle) for BRICS countries (Brazil, Russia, India, China, and South Africa) with varying degrees of political freedom.¹⁷ The authors conclude that democratic practices are beneficial, but other conditions such as the government promoting environmentally friendly projects and renewable energy sources, as well as control over population growth, are also conducive to a healthier environment. In turn, Wan-Hai You, Hui-Ming Zhu, Keming Yu and Cheng Peng claim that higher democracy (*i.e.*, greater political openness) appears to reduce emissions but financial openness acts in the opposite direction.¹⁸

Three other studies focused more on the corruption-environmental degradation conundrum, but democracy is also connected to them, at least indirectly. Matthew Cole concluded that corruption is estimated to have a positive direct impact on greenhouse gases (GHG) per capita emissions (meaning more corruption catalyzes more pollution), even though he acknowledges indirect effects, such as income per capita rising as corruption reduces, which could compensate or even negatively surpass that stand-alone impact in many countries, especially in the case of developing ones.¹⁹ As this author also posits that the level of democracy within a country tends to be negatively correlated with the degree of corruption, lowering corruption and strengthening democracy could serve as a positive means for better environmental care.²⁰ However, this would be more limited in the case of already developed countries. Samia Nasreen, Mahmood Ul-Hassan and Riaz Muhammed Faraz examined Pakistan's nexus of corruption-income inequality and environmental degradation and concluded that corruption causes superior levels of environmental degradation.²¹ Ultimately, Rajev Goel is more pragmatic to affirm that nations from the developing region of the Middle East and North Africa (MENA) tend to pollute more, given the high-carbon

¹⁷ Ghosh, Hossain, Voumik, Raihan, Ridzuan and Esquivias, "Unveiling the Spillover Effects of Democracy and Renewable Energy Consumption."

¹⁸ You, Zhu, Yu and Peng, "Democracy, Financial Openness, and Global Carbon Dioxide Emissions."

¹⁹ Cole, "Corruption, Income and the Environment."

²⁰ *Ibid.*, 643.

²¹ Nasreen, Ul-Hassan, Faraz, "Relationship between Corruption, Income Inequality and Environmental Degradation in Pakistan."

intensities of their industries.²² Highlighting the oil sector, the authors argue that results could ensue to be even worse in the case of countries that usually display higher levels of corruption and shadow activities (e.g., a polluting plant not registering its business), which hide the official recording of additional pollution. Considering this region to be more connected to the increasingly important and polluting oil-business and to both anocracies and autocracies, the rise in the degree of democracy could lead to higher officially recorded degrees of pollution in the short-term. This expected outcome could be balanced out by more knowledgeable governance geared towards environmental protection.

As all these studies show, there are many factors at play in the complex democracy-environment debate. There are numerous ways to quantify how a country damages the environment, while increasing their carbon footprint and all its various relationships, such as industry, transportation, energy, waste generation/recycling, individual lifestyles, meat and milk consumption, etc., usually being the main avenue of research. To analyze the GEF numbers and political freedom, this paper cross-checks the amounts mobilized through direct grants and co-financed funds for projects against political freedom scores for twenty-four countries. The period of analysis consists of the last thirty-two years, during which environmental awareness and politics have climbed up the international agenda.

Structurally, this paper draws on a somewhat similar classification of Latin American countries according to different degrees of political freedom, in the framework developed by Scott Mainwaring and Anibal Perez-Liñan, and proposes environmental care scores for the twenty-four selected LAC countries.²³ These environmental scores are composed of two quantitative elements: an assessment of project generation rating and of project follow-through, with criteria such as completing existing projects. The former qualitative element in this analysis has double the weight of the latter, as explained further in the section on *Operationalization* in this paper.

²² Goel, Herrala, Mazhar, "Institutional Quality and Environmental Pollution."

²³ Scott Mainwaring and Anibal Perez-Liñan, "Cross-Currents in Latin America," *Journal of Democracy* 26, no. 1 (2015): 114-127.

This paper is structured as follows: after this introduction, it presents a very brief overview of LAC democracy in recent times. Taking a 1991-2023 period perspective, it then presents the operationalization of the study, including (1) a reassessment of the political scores for LAC; (2) details on the GEF project database that have led up to the sample of LAC projects used; (3) the proposed environmental care ranking structure; the considerations and calculations for (4) the project generation rating and the follow-through assessment. The next section links the results of the previous sections, culminating in the construction of the environmental care ratings (for GEF projects). The following section employs regression analysis to examine factors, independent variables, that influence various levels of GEF funding being mobilized for LAC countries. Finally, this paper draws and expands on its conclusions.

LAC Democracy and Its Cross-current Politics

It would be fair to ascertain that Latin America and Caribbean are mostly a democratic region, especially in the context of the Global South. This assertion is corroborated by Freedom House's "Global Freedom Status," since the majority of LAC countries are either "free" or "partly free," which does not happen with the same intensity in the macro-regions of Africa and Asia.²⁴ Scott Mainwaring and Anibal Perez-Liñan aptly coined the term "cross-currents" to define Latin American politics, referenced as "M&P-L 2015" throughout this paper.²⁵ Mainwaring and Perez-Liñan divided the twenty countries of the region into five groups with differing levels of democracy, also considering the total absence in one of the described instances: (1) three cases of high-quality democracies – Chile, Costa Rica and Uruguay; (2) seven cases of stable democracies with several shortcomings – Argentina, Brazil, Dominican Republic, El Salvador, Mexico, Panama and Peru; (3) four cases of

²⁴ Freedom House, accessed March, 30, 2023, <https://freedomhouse.org/explore-the-map?type=fiw&year=2024>.

²⁵ Mainwaring, Perez-Liñan, "Cross-Currents in Latin America."

stagnant democracies with severe democratic deficits – Colombia, Guatemala, Haiti and Paraguay; (4) five cases of democratic erosion – Bolivia, Ecuador, Honduras, Nicaragua and Venezuela; and (5) one case of longstanding authoritarian regime – Cuba.²⁶ One of the objectives of this paper is to combine an updated analysis of political freedom for the region, including four countries – Antigua and Barbuda, the Bahamas, Jamaica and Trinidad and Tobago, with a comparative analysis of environmental care as measured through GEF projects funds mobilized to climate change mitigation and adaptation in LAC. These four Caribbean countries which are included in this assessment present relatively good scores for democracy and for environmental care, as measured by entering GEF projects.

Operationalization

This paper proposes a two-step approach and the creation of environmental care scores for all twenty-four LAC countries, to which their political freedom assessments are linked. In the first step, the Environmental care score is based on the following formula:

$$\text{Environmental care (GEF projects) score} = \text{GEF project generation score (weight 2)} + \text{GEF project completion assessment score (weight 1)}$$

The rationale behind the different weights given to the two dimensions (project generation and project completion) relies on the fact that the former activity demands more preparation and political willingness than the latter. The design and consequent approval of a project by the GEF implies a well-rounded, heavily discussed, and scrutinized process that a country undergoes in the first place. Execution is also important, but to a lesser extent.

The operationalization process to derive the environmental rankings for the twenty-four LAC countries follows three main steps:

²⁶ Ibid.

(1) reassessing democracy scores, (2) assessing the generation of GEF projects, and (3) assessing the completion of GEF projects.

The results of the first step include per capita ratios for GEF and cofinancing funds for each country. In a subsequent step, specific independent variables have been tested to examine their explanatory power regarding the GEF funds per capita ratio results. Thus, the overarching research hypothesis tested is whether higher levels of democracy and its underlying aspects are conducive to higher levels of resources mobilized for environmental projects in LAC.

Reassessing Mainwaring and Perez-Liñan 2015 Classification of LAC's Political Freedom

The first step is to re-evaluate Mainwaring and Perez-Liñan's 2015 classification of countries by political freedom and update it with ratings awarded through 2023. The primary institution that is used is Freedom House, which is considered in this paper to be a trustworthy source for comparing political freedom, or the "state of democracy," among countries. It uses a comprehensive methodology which encompasses meaningful elements being analyzed and scored to arrive to its results. One of the elements evaluated by Freedom House is corruption.²⁷ Additionally, to corroborate the appropriateness of this source, several cross-checks have been performed. Firstly, a correlation between Freedom House and Varieties of Democracy indexes is performed for 175 countries in the ten-year period from 2012 to 2021 and the R^2 found is a robust 0.90.²⁸ Additionally, "Regimes of the World" by Anna Lührmann is also used

²⁷ "Freedom House," accessed July 2023 and July 2024, at <https://freedomhouse.org/>. According to their score methodology, at <https://freedomhouse.org/reports/freedom-world/freedom-world-research-methodology>, corruption is an element specifically evaluated at sub-item B3 "Are the people's political choices free from domination by forces that are external to political sphere or by political forces that employ extrapolitical means?" of item B Political Pluralism and Participation and sub-item C2 "Are safeguards against official corruption strong and effective?" of item C "Functioning of Government".

²⁸ Varieties of Democracy, accessed July 2023; <https://ourworldindata.org/grapher/varieties-democracy-vdem>.

as a cross-check, as it employs a somewhat different approach, which classifies countries into four types: liberal democracy, electoral democracy, electoral autocracy, and closed autocracy.²⁹ Interestingly, in this study, Costa Rica and Uruguay emerge as the only two liberal democracies in the region—an outcome that aligns with the main findings in this paper, where both countries present the best results for environmental care through GEF resources. Four countries that have not been considered by Mainwaring and Liñan are subsequently included in the present study: Antigua and Barbuda, Bahamas, Jamaica, and Trinidad and Tobago. Considering the M&P-L 2015 classification as baseline, analyzing Freedom House's ratings from 1992 to 2023, and factoring in Anna Lührmann's "Regimes of the World," a reassessment is presented in the right column, see Table 1.

Firstly, comments on the new countries are added to the original twenty-country list. The Bahamas can be considered a "high-quality democracy," according to its political freedom scores presented in Table 1. In turn, the other three, Antigua and Barbuda, Jamaica and Trinidad and Tobago, can be deemed as "stable democracies with shortcomings." Jamaica and Trinidad and Tobago share the fact that they both have been consistently qualified by Freedom House as free countries – the former is considered "free" in all fifty observations from 1973-2023, while the latter forty-six times over the same time span. The main issues both Jamaica and Trinidad and Tobago face in achieving a higher democratic score relate to long-standing corruption, gang and vigilante violence, as well as harassment of LGBT communities.³⁰ Antigua and Barbuda is becoming more democratic, after being rated "partly free" for thirteen consecutive years, coincidentally since GEF began in the early 1990s.

At this stage, all the classifications made by M&P-L 2015 for the twenty countries are maintained. There are some controversial cases, such as Ecuador with degrees of democratic erosion, Colombia with

²⁹ Anna Lührmann, Marcus Tannenberg and Staffan I. Lindberg, "Regimes of the World (RoW): Opening New Avenues for the Comparative Study of Political Regimes," *Politics and Governance* 6, no. 1 (2018).

³⁰ "Freedom House 2018-2021 Individual Country reports," last modified July 2023, <https://www.freedomhouse.org>.

severe democratic deficits, Peru with several democratic shortcomings, and Venezuela also considered to have a certain degree of democratic erosion. According to political scientist Carlos Granés, three of these countries suffer from individual “curses,” which are violence for Colombia, authoritarianism for Peru, and militarism for Venezuela.³¹ Ecuador could perhaps be attributed with one curse, which is corruption. As observed by Catherine M. Conaghan, Ecuador leads Latin America in the number of former presidents who have been prosecuted for corruption.³² Or, in the words of the Ecuadorian social scientist Iván Fernández Espinosa, Ecuador has been historically marred by a quasi-complete ungovernability, oftentimes flirting to a failed state status, and where political arrangements have been done mainly through *caciquismo*, *caudillismo* and *populismo*.³³ These last three features are not atypical in South America but seem to have been especially pronounced in Ecuador.

The first three countries from the “debatable four” from Table 1 – Ecuador, Colombia and Peru - shared the same Global Freedom Score in the latest Freedom House report: 70/100. And all of them have gravitated between the “Partly Free” and “Free” orbits in the last few decades. More recently, Ecuador and Colombia have shown positive signs of democracy. The former country has been distancing itself from a fourteen-year period in which Rafael Correa had the key influence to designate himself or someone of his preference to the presidency. The latter country was able to elect a truly leftist president for the first time in its history when Gustavo Petro won the 2022 elections, in a relatively peaceful political climate. In contrast, Peru had a very troubled political year in 2022, when President Pedro Castillo was impeached and removed from office after attempting to illegally dissolve Congress. This presidential impeachment was the third such event to occur in Peru in less than five years, as Pedro Pablo Kuczynski and Martín Vizcarra

³¹ Carlos Granés, *Delirio americano - Una historia cultural y política de América Latina* [American Delirium – A cultural and political history of Latin America] (Barcelona: Taurus, 2022), 307.

³² Catherine M. Conaghan, “Prosecuting Presidents: The Politics within Ecuador’s Corruption Cases,” *Journal of Latin American Studies* 44, no. 4 (2012): 654.

³³ Iván Fernández Espinosa, *La Construcción del Estado en el Ecuador* [The Construction of the State of Ecuador] (Quito: Published by the author, 2021): 86-93.

experienced the same fate in 2018 and 2020, respectively. Considering these recent persisting political difficulties, Peru's status of having a more positive political freedom scenario could be challenged, especially when comparing its context to that of Ecuador or Colombia. Considering the analysis of this paper, it is unlikely that it could be questioned. Firstly, the dynamics of presidential impeachment exemplify an inherent feature of democratic systems, namely the "checks and balances" that serve to curtail the authority of the executive branch. It is important to recall that the Peruvian "curse" is authoritarianism, as it was stated above (per Carlos Granés). Secondly, when considering the long-term perspective of this paper, Peru is the country that has received the fewest "partly free" annual ratings from Freedom House during the 1992-2023 period, counting to just eleven, whereas Colombia and Ecuador exhibited considerably higher rankings, with 30 and 23, respectively. It is also pertinent to consider whether Ecuador could upgrade its status from "democratic erosion" to "stagnant democracy with severe deficits." In 2015, Mainwaring and Perez-Liñan posited that Ecuador shifted from weak democracy to semi-democracy.³⁴ In light of these observations and in retrospect to the end of *Correísmo* (2006-2017), this political period has been regarded as a competitive authoritarian one, where political competition was fundamentally unfair (Sanchez-Sibony 2017).³⁵ In August 2023, amidst a turbulent political climate that anticipated the presidential elections, candidate Fernando Villavicencio was assassinated, in a frontal attack on democracy. Given this more recent iteration of Ecuador, even though it has made strides away from the shadow of Correa, it still exhibits high levels of political instability and violence, and its classification of "democratic erosion" is likely to remain.

Venezuela is also another debated case. In 2015, Mainwaring and Perez-Liñan classified it as a case of democratic erosion. Ever since 2017, Venezuela has been given the rating "not free" by Freedom House. In the same year, Venezuela's membership in Mercosur was suspended due to human rights violations. The M&P-L 2015 classification only

³⁴ Mainwaring, Perez-Liñan, "Cross-Currents in Latin America."

³⁵ Omar Sanchez-Sibony, "Classifying Ecuador's Regime under Correa: A Procedural Approach," *Journal of Politics in Latin America* 9, no. 3 (2017): 121-140.

included Cuba in a special category, “longstanding authoritarian regime,”³⁶ while according to Freedom House, Cuba has always been “not free” ever since 1973. The term “longstanding” implies extended time, and to apply it to Venezuela might be an over-stretch. Nevertheless, Venezuela’s latest score attributed by Freedom House was a very low one, at 15/100, with political rights rated at the absolute bottom at 1/40 points.³⁷ This status is even worse than Nicaragua’s, at a rating of 19/100 points.³⁸ Its rating is also considerably lower than Haiti’s most recent Freedom House score: 31/100 points³⁹, a country that was never rated as a free country by Freedom House, although it was awarded the “partly free” rating twenty-four times, and the “not free” rating for another twenty-six times. Venezuela held elections in July 2024, which were highly contested by the international community and resulted in re-electing Nicolás Maduro. The overly complex political situation of Venezuela could generate a long debate about its democratic status. But one conclusion seems to be clear: Venezuela is very far from being a high-quality type of democracy. Given that most of the significant findings of this study pertain to higher-quality democracies, Venezuela’s status will continue to be classified as “democratic erosion.” However, the justification for reclassifying it as a “longstanding authoritarian regime” becomes more compelling as time passes and the country’s political situation remains largely unchanged.

Getting the GEF Numbers – A Quantitative Comparative Analysis

GEF fundraising and allocation operate in cycles. Since 1991, there has been a pilot phase and eight four-year replenishment cycles. Image 1 shows the years and amounts mobilized. It shows that the project pipeline has been consistently growing. The current GEF cycle we are in, GEF-8, runs from 2022 to 2026 and a record \$5.3 billion has already been approved as of 2022.⁴⁰

³⁶ Mainwaring, Perez-Liñan, “Cross-Currents in Latin America.”

³⁷ “Freedom House,” accessed July 2023 and July 2024, at <https://freedomhouse.org/>

³⁸ Ibid.

³⁹ Ibid.

⁴⁰ The GEF website, <https://www.thegef.org/projects-operations/database>, retrieved June 2023.

Methodology and Sampling

From the GEF project database, multi-layered filters were applied to include all projects that individually belong to the twenty-four selected LAC countries. It is important to note that the GEF also has multi-country projects, which are usually referred to as “regional,” “global,” or “world” projects. The latter two labels are not included in the analysis. However, projects labeled as “regional” which involve only one country are taken into consideration. Data formatting has been executed for many projects that had broken text, and data quality control has been achieved through verification procedures – the extracted data filtered and pivoted results for each country have been cross-checked against the filter of the GEF website for each country. The numbers for the selected LAC region countries are presented in Table 2.

The calculated database for the LAC region amounts to just over \$21 billion (\$3.34 billion GEF grants plus \$17.70 billion of co-financing). However, the total resources analyzed in this paper aggregate to almost \$20 billion (\$3.16 billion GEF grants plus \$16.77 billion of cofinancing, because of registered projects cancellations amounting to \$1.1 billion (\$186 million GEF grants plus \$946 million of cofinancing). This “cancellation rate” of around five per cent is not very significant, therefore this issue has not been part of the primary analysis of this paper. Furthermore, the GEF website does not specify the reason why a project was cancelled. Therefore, it is not worthwhile to speculate on why exactly that may have happened.

Before moving on to the construction of sustainability indicators, it is important to mention possible limitations of the GEF data interpretations. The amounts reported by the GEF and used for the cross-country comparisons are budgetary ones. The actual amounts spent can vary. However, practical experience suggests that the GEF grant budgets are usually adhered to. The original GEF budget is set in stone from the beginning (*i.e.*, it cannot be changed under any circumstance), is heavily controlled by the implementing agency such as the UNEP or others – as the implementers need to periodically account for and justify all expenditure –, and in many cases it is independently audited. Regarding cofinancing amounts, actual variations from budget can be greater.

Notwithstanding this last comment, the budgeted cofinancing amounts are reasonable benchmarks to be considered, as the decisions to commit them, although not binding, are made after extensive discussions and as official letters from the cofinancing parties must be submitted to the GEF. These parties can be either governmental entities, or NGOs, foundations, or private entities, etc.

The GEF project data was retrieved and exported for analysis on June 30, 2023. The whole GEF database selected and processed for LAC – 854 projects plus twenty-four cancelled ones, as well as the original raw data and applicable comments on data quality control, are available at a public repository, see the Data Availability Statement section below.

Creating Environmental Care Indices for LAC Countries – Analyzing Project Generation

The amount of around \$20 billion funds dedicated to LAC environment is analyzed on a country-by-country basis. The unit of analysis used is the size of the population. Three GEF sustainability indices are proposed: (1) number of projects/100,000 inhabitants, (2) GEF grant/population, and (3) cofinancing/population. For all indices, larger means better. Countries are also classified by size according to three categories: small countries with a population below ten million inhabitants, medium countries with a population between ten and forty million inhabitants, and large countries with a population larger than forty million inhabitants. Microsoft Excel Conditional Formatting function applies, which establishes numerical scaling distribution for the indices. Four different project generation ratings are proposed: superior, intermediate, inferior, and large underachiever. The quantitative color-coded exercise with further explanations is available in Table 3.1. The results and the main qualitative considerations that support them are presented in Table 3.

Stronger Democratic Values Did Steer Superior grants and Cofinance Ratios (per Population)

Setting up each of the LAC countries through the GEF cycles as individual data points, and observing how they performed on the two GEF sustainability indices (GEF grant/population and cofinancing/population), charts 1.1 to 1.4 clearly show a trend in which countries with superior political rights and civil liberties, thus registering higher democracy levels, are able to attract higher amounts of resources directed to environmental projects.⁴¹ In opposition, countries with lower democratic values do not show cycles with higher or otherwise significant resources mobilized for GEF projects.

The Size Factor Stands Out at Generating Projects

Drawing from the results of Table 3, two countries stand out in particular: Antigua and Barbuda and Bahamas. These examples of SIDS (Small Island Developing States) are very small countries, in terms of size and population, and both are Caribbean islands that are more susceptible to sea-level rise and extreme weather events, so the need for action is important.⁴² Their ratios of GEF projects over 100,000 inhabitants are impressive, eighteen for Antigua and Barbuda, and four for Bahamas; the ratios of GEF grants/population and cofinancing/population exceed \$50 on a per capita basis. These are numbers situated very far from the figures for other countries in the Americas. Beyond necessity, what other factors underlie the success of these two countries?

⁴¹ Seven GEF cycles have been considered for this exercise: Pilot+GEF 1 (1991-1998), GEF 2 (1999-2002), GEF 3(2003-2006), GEF 4 (2007-2010), GEF 5 (2011-2014), GEF 6 (2015-2018), and GEF 7-8 (2019-2023).

⁴² Ellis Kalaidjian and Stacy-ann Robinson, "Reviewing the Nature and Pitfalls of Multilateral Adaptation Finance for Small Island Developing States," *Climate Risk Management* 36 (2022): 1-16; Matthew Lai, Stacy-ann Robinson, Emmanuel Salas, William Thao and Anna Shorb, "Climate Justice for Small Island Developing States: Identifying Appropriate International Financing Mechanisms for Loss and Damage," *Climate Policy* 22, no. 9-10 (2022): 1213-1224.

First, the fact that they are small in population and in size leads to a particular circumstance: their centers of power are small, less populated areas. The capitals of both countries, St. John's and Nassau, respectively, have populations of around twenty-five, and two-hundred thousand, and are the smallest in the LAC sample. Nimbleness to make faster decisions may be an important factor to consider, drawing from academic findings suggesting that local democracy generally performs better in smaller municipalities.⁴³ Second, remoteness, less distance between those who govern and those who are governed, and more open and flexible political processes are hypothesized to explain why democracy generally performs better in smaller nations.⁴⁴ Third, following Dahl and Tufte, they hypothesized that since the invention of democracy, the Greeks have found that a good polity must be small in territory and population, and the same reasoning progressed in time through Montesquieu and Rousseau.⁴⁵ The latter even posited that the decision-making process varies inversely with size: the larger the number of citizens, the smaller the average citizen's share in the decision. Thus, these historical observations helped make the case that size seemed to matter for more effective politics. Finally, Westminsterian and parliamentary democratic systems, which are the cases of Antigua and Barbuda, and the Bahamas, might also contribute to superior political nimbleness to generate a pipeline of environmental projects.⁴⁶ More important than the factors mentioned above, SIDS are regarded by the multilateral community as "special cases for environment and development."⁴⁷ Consequently, they receive special attention and dedicated resources.

Regarding the other twenty-two countries, the next best environmental caretaker in terms of generating new projects with GEF in the Americas

⁴³ Adam Gendzwill and Pawel Swianiewicz, "Does Local Democracy Perform Better in Smaller Jurisdictions? Survey Evidence from Poland," *Journal of Local Self-Government* 14, no. 4 (2016): 759-782.

⁴⁴ Dag Anckar, "Why Are Small Island States Democracies?" *The Round Table: The Commonwealth Journal of International Affairs*, 91 no. 365 (2002): 375-390.

⁴⁵ Robert A. Dahl and Edward R. Tufte, *Size and Democracy* (Stanford, CA: Stanford University Press, 1973), 4-6.

⁴⁶ Jack Corbett and Wouter Veenendaal, "Westminster in Small States: Comparing the Caribbean and Pacific Experience," *Contemporary Politics* 22, no. 4 (2016).

⁴⁷ Kalaidjian and Robinson, "Reviewing the Nature and Pitfalls of Multilateral Adaptation," 2.

sample would be Costa Rica. This is a country which, deservedly, carries an international brand related to the environment, through their slogan “pura vida” [pure life]. As mentioned earlier, it scored high on democracy indices as well. Carlos Granés highlights some

“surprising, disconcerting, very original measures, for a continent like Latin America, taken by Costa Rica, after its civil war in the middle of last century, that led to superior social achievements which were appropriately integrated within a solid democratic institutional system, which resists until our days.”⁴⁸

Neighboring Panama, Trinidad and Tobago, and Uruguay would come next, with superior performances relative to all the three proposed indices. This reinforces the sense that smaller democracies are indeed greener. This assertion may relate to empirical observations such as the ones of Kemal Derviş and Caroline Conroy, who argue that

“global markets are more important than national markets for smaller countries; and climate change is a successful example of a form of localized global politics,”⁴⁹

which is more common in small nations. Looking at the other superior environment care takers based on the indices, Jamaica comes next with similar performances, followed by Paraguay and Chile. The latter did not perform significantly well in the two first indices but presented an impressive index of cofinancing mobilized resources – over \$55 per capita. These examples would narrow down the group of LAC countries with superior environmental care in terms of generating new projects. Once again, it is worth reemphasizing the fact that these are all generally “smaller” countries.

The next group of countries is rated as “medium” on environmental care. They include Cuba, Ecuador, Haiti, Honduras, Nicaragua, and Peru. These countries basically perform in the middle of the sample in terms of the three proposed sustainability indices, related to GEF project generation. The relationship between the level of generating new environmental care projects and political freedom of these countries is not very conclusive. Cuba

⁴⁸ Granés, *Delirio americano*, 310.

⁴⁹ Kemal Derviş and Caroline Conroy, “Global Politics for a Globalized Economy,” *Project Syndicate* 7 August 2018. 1-3.

is a very closed political regime, Nicaragua has rapidly become so in recent years, and Haiti is not free either, per Freedom House. On the other hand, per the same source, Ecuador, Honduras, and Peru are partly free nations.

The other group is rated as the “inferior environmental care” one, and is comprised of Bolivia, the Dominican Republic, El Salvador, Guatemala, and Venezuela. The first three countries share, on average in the period of analysis between 1991 and 2023, very similar scores for political freedom and civil liberties, according to the Freedom House. Guatemala registers less political freedom in the same period, and Venezuela even less, in comparison with previous countries. As a side and negative remark on the environment, Venezuela is a country that over-relies on oil, a fossil fuel. As Catalina Lobo-Guerrero points out, at the zenith of *chavismo* (c. 2009), the state-owned oil company PDVSA contributed with a staggering ninety-four per cent of the country’s income, and this has not changed much; nevertheless, according to Lobo-Guerrero, what has been seen in Venezuela since then is a deepening of country’s petrol rentism.⁵⁰

In trying to establish a pattern for the countries which do not have a high level of environmental care, it would be reasonable to ascertain that they tend to be far from being well-established democracies. Looking again at the long-term perspective (1991-2023), the three most politically closed countries in the LAC sample, Cuba, Venezuela and Haiti, are rather far from being environmentally friendly when it comes to generating new GEF projects. Thus, a case can be made that autocracy is less concerned about the environment. However, there is another side to the coin. The majority of all the other countries from this “intermediate” and “inferior” environmental care groups tend to be “partly free” nations. Therefore, there is no clear direction as to how power is taken, either in the hands of the democrats or in the hands of autocrats. As defined by Marshall et al., these cases can be called “anocracies.”⁵¹ Barbara F. Walter theorized on the so-called “dangers of anocracy” to catalyze civil wars. According to Walter,

⁵⁰ Catalina Lobo-Guerrero, *Los restos de la revolución: crónica desde las entrañas de una Venezuela herida* [The Remains of the Revolution: Chronicle from Inside a Hurt Venezuela] (Bogotá: Penguin Random House, 2021): 379, 449.

⁵¹ M.G. Marshall, T.R. Gurr and K. Jaggers, *Polity5: Political Regime Characteristics and Transitions, 1800–2015 (dataset)* (Vienna: Center for Systemic Peace, 2014), <https://www.dante-project.org/datasets/polity5>.

“leaders in an anocracy tend to be not powerful enough, and the government tends to be disorganized and riddled with internal divisions, struggling to deliver basic services (or even security).”⁵²

It would not be far-fetched to apply the same logic to environmental measures.

What about the four largest Latin American countries, Brazil, Argentina, Mexico, and Colombia? The figures show that these countries are only slightly better than, or on par with, the “inferior environmental care” ones, but their performances can certainly be considered disappointing. The fact that these countries are large in terms of territory and population should imply that their work on the environment can be relatively more complex than that of their smaller neighbors. As noted by Alcañiz and Giraudy, who analyzed Brazil, Argentina, and Mexico in more detail, a special complexity arises because more ramified governmental structures (states, provinces, municipalities, etc.) do exist, and more negotiations and political fights over allocations take place.⁵³ However, these factors do not exempt them from the comparative numerical finding that they are underperforming in terms of generating pro-environmental projects.

Testing Follow-through – Assessing the Completion Levels of Projects

Until now, the focus has been on the generation of projects. What about completing these projects? Generation can be understood as the most important task, but execution is also important. It is not unusual for projects to be delayed, to stall, and often to need extensions in order to continue with the planned activities. A typical GEF project takes around three to five years. It is important to emphasize that project cancellation implies a different course of action, one that is usually rarely taken while projects are underway. Some anecdotal occurrences in Latin America that affected the flow of GEF projects, supported by publicly available reports

⁵² Barbara F. Walter, *How Civil Wars Start - And How to Stop Them* (London: Viking, 2022), 15.

⁵³ Per GEF and UNEP publicly-available reports, GEF ID 9142 and 10465 Smart Cities Brazil projects, as well as the GEF ID 10466 Smart Cities Argentina project, all experience delays and postponements. These issues were primarily due to the complex interactions between municipalities, states, and provinces in supposedly “national” projects.

highlighting risks and consequences, can be cited: (1) the short-lived coup d'état that happened in Bolivia in 2019 delayed the execution of an important project the country has in energy efficiency, (2) the 2022-2023 Brazilian transition from Jair Bolsonaro to Luiz Inácio Lula da Silva delayed the execution of the main national project; and (3) the June 2022 assassination of the Dominican Republican Minister of the Environment Orlando Jorge Mera delayed the execution of a project by several months. These practical examples show how more turbulent, "cross-current"-type politics can affect the progress of projects. Therefore, following through does have its challenges, and its merits as well.

Analyzing Project Completion – Size Matters Less

Of the 851 projects in the LAC database, 513 of them have been completed, amounting to nearly sixty percent, according to the extracted data, at the end of June 2023. The percentages of these completions, for each LAC country, are presented and further explained in Table 4. By applying Microsoft Excel Conditional Formatting function, which established numerical scaling distribution for the indices, three different project completion assessments are proposed: superior, medium, and poor. This quantitative color-coded exercise with further explanations is available in Table 4.1.

An assessment of how each country completed its projects shows that the "the smaller, the better" reasoning observed for generating projects does not apply with the same intensity. Curiously, the Caribbean countries which have excelled in generating projects (Antigua and Barbuda, Bahamas, and Trinidad and Tobago), present rather disappointing percentages of completion of projects, GEF grants, and cofinancing values. On the contrary, the large "underachieving" countries identified in the project generation analysis show positive indicators. Argentina and Mexico are considered superior performers, while Brazil and Colombia medium performers.

Results. Bringing Democracy Scores Together with Environmental Projects' Generation and Follow-through

The results from the quantitative and comparative analyses of political score generation of new projects, and follow-through assessment on the latter are presented in Table 5. The resulting environmental rankings for GEF projects vary within a range of 3.0 (minimum) to 9.0 (maximum) points. Interestingly, small countries show better outcomes. A higher level of democracy is also an important factor. Two pairs of countries stand out in the comparison: firstly, Costa Rica and Uruguay, and then, Jamaica and Panama, all of them being small countries. Costa Rica and Uruguay share the fact that they are both high-quality democracies.

Regression Analysis on Independent Variables Influencing GEF per Capita Mobilized Funds to LAC

The quantitative validity of the results outlined above has been established. However, to achieve further and more robust corroboration, the per capita per population indicators have been tested against some independent variables that help explain them. Taking care of the environment obviously involves more than simply obtaining GEF and cofinancing funds for projects. The array of influencing factors is enormous, but four national variables are examined: (1) corruption levels, (2) environmental laws passed, (3) carbon footprints (*i.e.*, CO₂ emissions on yearly tons per capita), and (4) share of terrestrial and marine protected areas.⁵⁴ Aiming to cover the same GEF period (1991-2023), data was researched and was available for most, but not all, of these years.

⁵⁴ Transparency International corruption levels (1998-2015), extracted in November 2023 at <https://www.transparency.org/en/>; Climate Change Laws of the world (from first year available until June-2023), extracted in November 2023 at <https://climate-laws.org/>; UNSD marine protected areas (1990-2009), extracted in October 2023 at <https://unstats.un.org/unsd/envstats> and World Bank Terrestrial and marine protected areas (% of total territorial area) index (2016-2022), extracted in October 2023 at <https://data.worldbank.org/indicator/ER.PTD.TOTL.ZS>; World Bank CO₂ emissions (metric tons per capita) (1992-2021), extracted in October 2023 at https://data.worldbank.org/indicator/EN.ATM.CO2E.PC?most_recent_value_desc=true.

The four variables were tested. GEF grants per capita represented the dependent variable, and cofinancing per capita was used as a control variable. With regards to the data treatment of the tested independent variables, every single LAC country in each of the designated seven GEF cycles, when GEF funds were mobilized, was set up as an individual data point. As an initial result, the last two variables tested above did not show statistical significance in explaining GEF per capita funds mobilization per country. However, in a more recent test, the level of corruption and environmental legislation showed statistical significance. As shown in Table 6, the regression yielded an R^2 of 0,53 and corruption and environmental laws showed statistically significant p -values of up to 0,05. There was a total of 129 data points in the regression, meaning there were 129 occasions on which there was data for all the variables, with twenty-seven cases showing a zero-value (no laws passed or no cofinancing awarded for the specific country within a selected GEF cycle). These results support the idea that lower corruption levels and a higher number of environmental laws passed influenced the GEF decision to allocate funds to certain countries. Similarly, Freedom House data on political rights and civil liberties, measured as averages for each of the seven GEF cycles analyzed, did not show statistical significance. Therefore, the Environmental care index was adjusted to include these new variables – corruption and environmental laws enacted in a quantitative and qualitative ranking (Table 7). The results support the case that high-quality democracies, such as Costa Rica, Uruguay, and Chile, demonstrate superior environmental care based on GEF funds per capita. Importantly, these countries' lower levels of corruption, and the higher number of environmental laws enacted over the past few decades seemed to have served as important catalysts for this positive outcome. Curiously, Brazil appears with the "ideal" combination on the two factors – stressing the fact that this assertion is made for LAC realities: lower corruption level and the largest number of environmental laws enacted, but its size and political complexities seem to hinder a better performance.

Conclusion

This paper proposed the operationalization of a comparative environmental care ranking for a 24-country LAC sample, based specifically on the

countries' adoption of GEF projects, in all GEF cycles' numbers available from the early 1990s until the first half of 2023. The combined project portfolio analyzed amounted to around \$20 billion. This ranking encompassed two dimensions of the projects that LAC countries undertake with GEF: generation and completion. The conclusions from this ranking were connected to a reassessment of the political freedom of the countries for the same period. The main findings suggest that a high quality democracy and a smaller population have led to a higher take-up of environmental projects by the GEF. Costa Rica and Uruguay are the best performers according to the comparative analysis proposed in this paper. Based on the Freedom House data, both are high-quality democracies, with smaller populations; also, they are the only two countries in the region qualified as liberal democracies (Lührmann et al., 2018).⁵⁵ Both countries are the only ones in this study that have achieved quantitatively superior ratings for both generation and completion of GEF projects. Following this pair of champions, two other small countries with higher-quality democracies, Jamaica and Panama, also qualified very well in the comparative rankings.

As a general trend observed, higher-quality democracies and the size of their population index contributed to better qualification in the ranking. The democracy-sustainability relationship becomes less clear for lower-quality democracies, even though a perhaps moderate, direct, tendency for the nexus surfaces. Larger countries also exhibit disappointing performances in generating new projects, even though their comparative follow-through is generally positive. The lower per capita generation of projects in larger countries can be partially attributed to their wider and more complex political ramifications⁵⁶, which impact negotiations and the subsequent generation of projects within the GEF framework.

Analyzing the successful cases in the Caribbean, the heightened focus on environmental issues is driven by necessity, particularly for low-lying countries, and is further enhanced by the special treatment afforded to Small Island Developing States (SIDS) by multilateral

⁵⁵ Lührmann, Tannenbergh and Lindberg, "Regimes of the World (RoW)."

⁵⁶ Isabella Alcañiz and Agustina Giraudy, "From International Organizations to Local Governments: How Foreign Environmental Aid Reaches Subnational Beneficiaries in Argentina, Brazil, and Mexico," *Environmental Politics* 32, no. 4 (2022): 663-683.

organizations.⁵⁷ The size of a country seems to matter, as nimbler political processes seem to catalyze faster action through the adoption of more projects through GEF. But the success in generating more environmental projects has not been accompanied by adequate follow-through, as the cases of Antigua and Barbuda, the Bahamas, and Trinidad and Tobago portray. Countries located in South or Central America such as Chile, Ecuador, Nicaragua, and Paraguay present a more balanced score between project generation and completion, allowing them all to qualify for the upper part of the ranking. As a short conclusion to these last observations, “Westminsterian” Caribbean countries are very good at generating projects, but are not good at implementing them, and the opposite is true for the larger countries not located in the Caribbean.

Finally, some factors were tested to examine their potential explanatory power regarding the GEF funds per capita ratio results. The findings suggest that lower levels of corruption and a higher number of environmental laws enacted throughout the majority of the GEF cycles have enabled countries to mobilize greater amounts of funds for environmental projects. High-quality democracies Costa Rica and Uruguay emerged as the top performers in the initial quantitative exercise on environmental performance in Latin America and the Caribbean (LAC). The statistical regression analysis confirms the significant influence of these two factors on their successes. Regarding the other high-quality democracies, as proposed by Mainwaring and Perez-Liñan and validated in this paper, Chile is a country well-positioned in the proposed environmental ranking which also enjoys superior GEF funds due to the higher status of its democracy per se, but also due to lower corruption and higher number of environmental laws passed. In turn, the Bahamas seemed to enjoy the same benefits with the difference that this is a country which has not enacted a high number of environmental laws.

The conclusions above add to the debate on the democracy-environment relationship by presenting an approach based on relevant economic figures being mobilized in GEF projects towards the environment in Latin America and the Caribbean, in the last three decades. The results of this approach were statistically tested, and the findings suggest that higher levels of

⁵⁷ Kalaidjian and Robinson, “Reviewing the Nature and Pitfalls of Multilateral Adaptation.”

enacted environmental laws and lower levels of corruption are significant catalysts for these outcomes. This is especially valid for LAC's high-quality democracies. The acknowledgment that smaller, oftentimes high-quality, democracies tend to dedicate comparatively superior resources for GEF environmental projects can be instrumental to provide lessons on how the nimbler political processes underlying them could be applied not only to bigger and less politically open geographies, but also to larger, multilateral or national, political arrangements for the environment. Costa Rica and Uruguay walk off this study as the champions of high democracy and high environmental care for GEF projects in the LAC region, and their lower levels of corruption and higher number of environmental laws enacted seem to enhance a virtuous cycle which benefits the environmental cause.

Data availability statement: The retrieved and worked data are available at: <https://osf.io/4whav/>

Table 1

Latin America and Caribbean democracy assessment.

(*) Political Rights (PR) and Civil Liberties (CL) are ranked from 1.00 (free) to 7.00 (not free). These data were retrieved in November 2023, from the Freedom House website, Data section at: <https://freedomhouse.org/report/freedom-world>

Country	Freedom House		Political Rights Average score (1992-2022)*	Civil Liberties Average score (1992-2022)*	Luhmann et al. 2018 (Row)	2023 Reassessment
	Monitoring and Perspectives in 2018	2019				
Costa Rica	High-Quality Democracy	1.00	1.37	1.37	High-Quality Democracy	High-Quality Democracy
Cuba	Longstanding Authoritarian Regime	7.00	6.33	6.33	Dictatorship	Longstanding Authoritarian Regime
Dominican Republic	Stable Democracy with Shortcomings	2.50	2.57	2.57	Electoral Democracy	Stable Democracy with Shortcomings
Ecuador	Stable Democracy with Shortcomings	2.75	3.07	3.07	Electoral Democracy	Stable Democracy with Shortcomings
El Salvador	Stagnant Democracy with Severe Democratic Deficits	5.57	3.10	3.10	Electoral Democracy	Stagnant Democracy with Severe Democratic Deficits
Guatemala	Stagnant Democracy with Severe Democratic Deficits	5.10	4.13	4.13	Electoral Democracy	Stagnant Democracy with Severe Democratic Deficits
Haiti	Case of Democratic Erosion	3.33	3.47	3.47	Electoral Democracy	Case of Democratic Erosion
Honduras	Stable Democracy with Shortcomings	2.83	3.13	3.13	Electoral Democracy	Stable Democracy with Shortcomings
Jamaica	Not rated				Electoral Democracy	Case of Democratic Erosion
Mexico	Stable Democracy with Shortcomings	2.00	2.73	2.73	Electoral Democracy	Stable Democracy with Shortcomings
Nicaragua	Case of Democratic Erosion	4.00	3.67	3.67	Electoral Democracy	Case of Democratic Erosion
Paraguay	Stable Democracy with Shortcomings	1.37	2.23	2.23	Electoral Democracy	Stable Democracy with Shortcomings
Peru	Stagnant Democracy with Severe Democratic Deficits	3.30	3.10	3.10	Electoral Democracy	Stagnant Democracy with Severe Democratic Deficits
Trinidad and Tobago	Stable Democracy with Shortcomings	1.90	2.67	2.67	Electoral Democracy	Stable Democracy with Shortcomings
Uruguay	High-Quality Democracy	1.10	1.27	1.27	High-Quality Democracy	High-Quality Democracy
Venezuela	Case of Democratic Erosion	4.27	4.37	4.37	Electoral Democracy	Case of Democratic Erosion

Note: Trends in PR and CL ratings are shown in more detail in expanded Table 1.1. Source: This table was made by the author based on the data collected and analyzed.

Table 1.1.

Latin America and Caribbean democracy assessment – includes trends

(*) Freedom House ratings: NF= not free, PF= partly free, F=free.
(**) Political Rights and Civil Liberties are ranked from 1.00 (free) to 7.00 (not free).
(Source: This table was made by the author based on the data collected and analyzed)

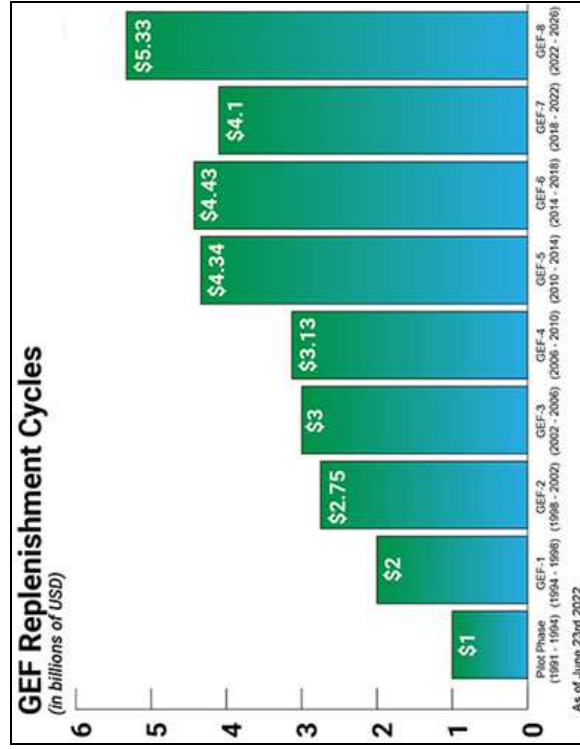


Image 1. GEF Replenishment cycles

(Source: The GEF website, <https://www.thegef.org/projects-operations/>, retrieved June 20, 2023)

Table 2

LAC Grants and Cofinancing

Country	Sum of GEF Grants (US\$)	Sum of Cofinance (US\$)	Count of Projects	Project(s) cancelled?	% GEF Grant Cancelled	% Cofinance Cancelled
Antigua And Barbuda	19,993,775	43,572,406	17	No	N/A	N/A
Argentina	187,845,187	897,641,897	46	Yes	1.5%	2.3%
Bahamas	23,493,026	48,847,119	17	No	N/A	N/A
Bolivia	85,405,512	256,483,331	27	Yes	10.5%	13.0%
Brazil	700,463,168	3,322,010,821	78	Yes	12.5%	8.2%
Chile	127,132,084	1,082,447,240	46	Yes	7.9%	22.8%
Colombia	252,884,697	1,180,946,733	59	Yes	5.7%	5.0%
Costa Rica	100,629,265	449,780,279	41	No	N/A	N/A
Cuba	81,940,282	456,413,834	37	Yes	12.3%	13.8%
Dominican Republic	31,336,164	135,913,523	16	No	N/A	N/A
Ecuador	166,961,484	730,531,928	57	No	N/A	N/A
El Salvador	22,284,592	68,410,312	19	No	N/A	N/A
Guatemala	56,808,948	195,153,208	28	Yes	12.3%	19.6%
Haiti	67,232,625	341,464,406	24	No	N/A	N/A
Honduras	74,737,166	405,251,250	30	No	N/A	N/A
Jamaica	29,833,249	104,805,936	23	Yes	2.3%	1.3%
Mexico	583,568,109	3,845,991,567	80	Yes	0.9%	0.1%
Nicaragua	62,488,007	311,752,897	28	No	N/A	N/A
Panama	67,953,211	253,143,587	33	No	N/A	N/A
Paraguay	56,927,912	450,776,780	23	No	N/A	N/A
Peru	222,554,774	1,558,808,692	59	Yes	0.4%	0.1%
Trinidad and Tobago	15,407,624	69,256,328	13	Yes	30.5%	26.0%
Uruguay	51,209,678	247,708,487	34	No	N/A	N/A
Venezuela	71,044,863	284,086,102	19	Yes	17.2%	16.5%
Grand Total	3,160,135,402	16,771,198,683	854			

Note: GEF Project database, Sums of Grants, Cofinancing and Projects are net of cancelled projects.

Source: The GEF website, <https://www.thegef.org/projects-operations/database>, retrieved June 2023. The author's own elaboration, based on the data collected and analyzed.

Table 3

LAC GEF portfolio (1991-2023) – project generation rating

Country	Population (thousands) *	Projects	Projects /100k inhabitants	GEF Grant/Per capita	Cofinance/Per Capita	Proposed project generation rating
Antigua And Barbuda	93	17	18.24	214.48	467.42	Superior
Argentina	45,277	46	0.10	4.15	19.83	Large underachiever
Bahamas	408	17	4.17	57.59	119.75	Superior
Bolivia	12,079	27	0.22	7.07	21.23	Inferior
Brazil	214,326	78	0.04	3.27	15.50	Large underachiever
Chile	19,493	46	0.24	6.52	55.53	Superior
Colombia	51,517	59	0.11	4.91	22.92	Large underachiever
Costa Rica	5,154	41	0.80	19.52	87.27	Superior
Cuba	11,256	37	0.33	7.28	40.55	Middling
Dominican Republic	11,118	16	0.14	2.82	12.22	Inferior
Ecuador	17,798	57	0.32	9.38	41.05	Middling
El Salvador	6,314	19	0.30	3.53	10.83	Inferior
Guatemala	17,608	28	0.16	3.23	11.08	Inferior
Haiti	11,448	24	0.21	5.87	29.83	Middling
Honduras	10,278	30	0.29	7.27	42.35	Middling
Jamaica	2,828	23	0.81	10.55	37.06	Superior
Mexico	126,705	80	0.06	4.61	30.35	Large underachiever
Nicaragua	6,851	28	0.41	9.12	45.51	Middling
Panama	4,351	33	0.76	15.62	58.18	Superior
Paraguay	6,704	23	0.34	8.49	67.24	Superior
Peru	33,715	59	0.17	6.60	46.23	Middling
Trinidad and Tobago	1,526	13	0.85	10.10	45.39	Superior
Uruguay	3,426	34	0.99	14.95	72.30	Superior
Venezuela	28,200	19	0.07	2.52	10.07	Inferior
Total	648,474	854	N/A			

Note: Population, GEF grants and Cofinancing indices are in US dollars.

(*) Source: Author's own elaboration based on UN Population Division – Department of Economic and Social Affairs, as of 1 July, 2022³; the GEF website, retrieved June 2023.

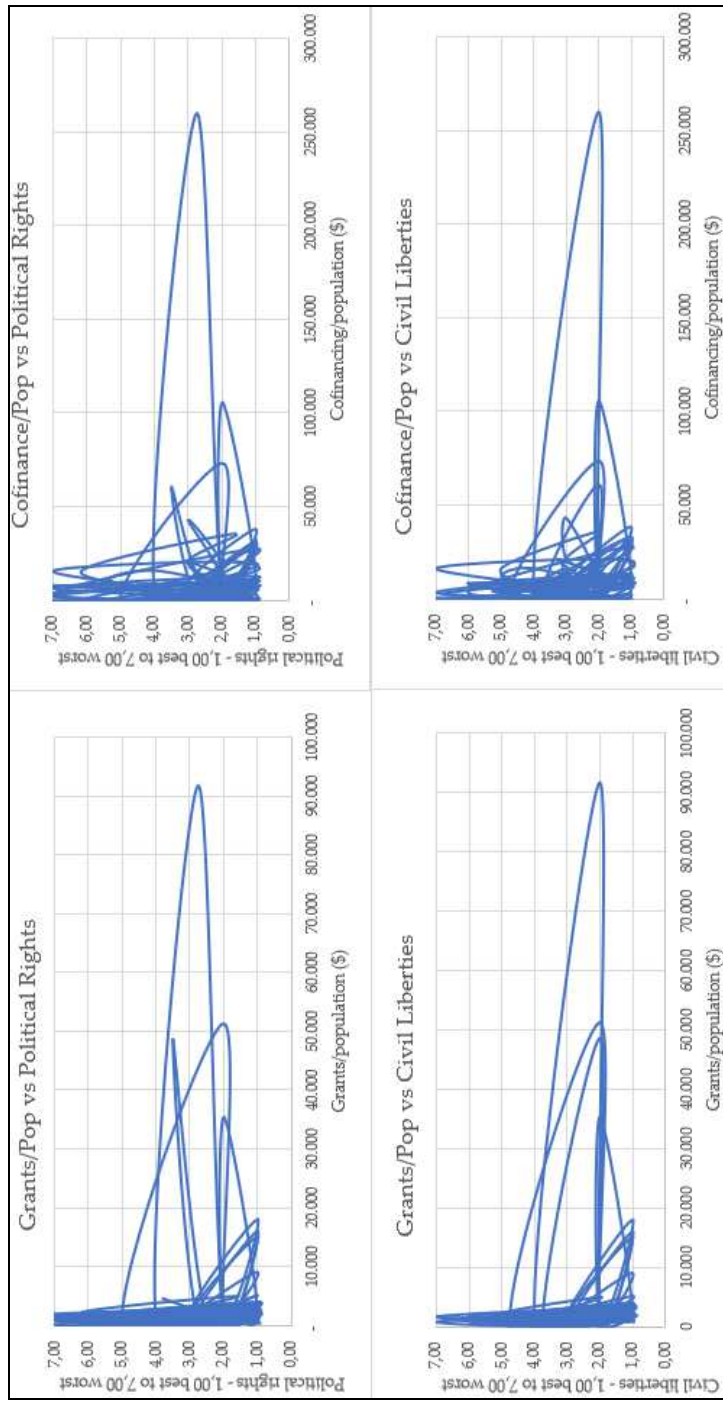
Table 3.1.

Project generation rating vs political freedom

Country	Projects/100k Inhabitants	GEF Grant/Per capita	Corruption/Per capita	Environmental Ranking		Political Ranking
				Superior	Large underachiever	
Antigua And Barbuda*	18.24	214.48	467.42	Superior	Large underachiever	Stable Democracy with Shortcomings
Argentina	0.70	4.15	19.83	Superior	Superior	High-Quality Democracy
Bahamas**	4.17	57.59	119.75	Superior	Superior	Case of Democratic Erosion
Bolivia	0.22	7.07	21.23	Inferior	Large underachiever	Stable Democracy with Shortcomings
Brazil	0.01	3.27	15.50	Superior	Superior	High-Quality Democracy
Chile	0.24	6.57	55.53	Superior	Large underachiever	Stagnant Democracy with Severe Democratic Deficits
Colombia	0.11	4.91	22.92	Superior	Superior	High-Quality Democracy
Costa Rica	0.80	19.52	87.27	Superior	Superior	Case of Democratic Erosion
Cuba	0.33	7.28	40.55	Middling	Middling	Longstanding Authoritarian Regime
Dominican Republic	0.14	2.82	12.22	Inferior	Inferior	Stable Democracy with Shortcomings
Ecuador	0.32	9.38	41.05	Middling	Middling	Case of Democratic Erosion
El Salvador	0.30	3.57	10.83	Inferior	Inferior	Stable Democracy with Shortcomings
Guatemala	0.16	3.23	11.08	Inferior	Inferior	Stagnant Democracy with Severe Democratic Deficits
Haiti	0.71	5.87	79.83	Middling	Middling	Stagnant Democracy with Severe Democratic Deficits
Honduras	0.29	7.27	42.35	Middling	Middling	Case of Democratic Erosion
Jamaica	0.81	10.55	37.06	Superior	Superior	Stable Democracy with Shortcomings
Mexico	0.06	4.61	30.35	Large underachiever	Large underachiever	Stable Democracy with Shortcomings
Nicaragua	0.41	9.72	45.31	Middling	Middling	Case of Democratic Erosion
Panama	0.76	15.62	58.18	Superior	Superior	Stable Democracy with Shortcomings
Paraguay	0.34	8.49	67.24	Superior	Superior	Stagnant Democracy with Severe Democratic Deficits
Peru	0.17	6.60	46.23	Middling	Middling	Stable Democracy with Shortcomings
Trinidad and Tobago	0.85	10.10	45.39	Superior	Superior	Stable Democracy with Shortcomings
Uruguay	0.94	14.95	72.30	Superior	Superior	High-Quality Democracy
Venezuela	0.07	2.52	10.07	Inferior	Inferior	Case of Democratic Erosion

Notes: (*) and (**): Numbers for Antigua and Barbuda and the Bahamas were not colored because they are clear outliers in the sample, but the ratings of project generation apply. All other 22 countries were colored according to numerical scaling by Microsoft Excel Conditional Formatting tool. The results presented by this Excel function derived the creation of three comparative performance indices: superior, intermediate and inferior, as well as a fourth category, which encompasses the four largest countries in LAC, and that have also shown inferior results.

Source: Author's own elaboration based on the aforementioned sources.



Charts 1.1 to 1.4. Indices vs democratic aspects.

Note: each individual point means a country within a GEF cycle.

Source: Author's own elaboration based on previously mentioned sources.

Table 4

LAC GEF portfolio (1991-2023) – project completion assessment

Country	Population (thousands)*	Size	Completion of Projects	Completion of GEF Grants	Completion of Cofinance	Assessment of following-through of projects
Antigua And Barbuda	93	Small	35%	23%	14%	Poor
Argentina	45,277	Large	62%	50%	39%	Superior
Bahamas	408	Small	35%	7%	6%	Poor
Bolivia	12,079	Medium	48%	49%	23%	Poor
Brazil	214,326	Large	60%	51%	37%	Medium
Chile	19,493	Medium	52%	45%	28%	Poor
Colombia	51,517	Large	66%	50%	33%	Medium
Costa Rica	5,154	Small	73%	68%	58%	Superior
Cuba	11,256	Medium	46%	42%	27%	Poor
Dominican Republic	11,118	Medium	56%	48%	37%	Medium
Ecuador	17,798	Medium	67%	60%	50%	Superior
El Salvador	6,314	Small	63%	66%	54%	Superior
Guatemala	17,608	Medium	64%	48%	34%	Medium
Haiti	11,448	Medium	54%	37%	26%	Poor
Honduras	10,278	Medium	67%	45%	40%	Medium
Jamaica	2,828	Small	57%	49%	32%	Medium
Mexico	126,705	Large	65%	68%	68%	Superior
Nicaragua	6,851	Small	68%	70%	61%	Superior
Panama	4,351	Small	48%	55%	26%	Medium
Paraguay	6,704	Small	52%	43%	10%	Poor
Peru	33,715	Medium	66%	52%	33%	Medium
Trinidad and Tobago	1,526	Small	38%	31%	42%	Poor
Uruguay	3,426	Small	71%	67%	59%	Superior
Venezuela	28,200	Medium	63%	55%	38%	Superior
Total	648,474					

Note: Completion of projects refers to number of projects completed over total GEF projects; completion of GEF Grants and Cofinance refer to budgets utilized versus original budgets.

(*) *Source:* UN Population Division – Department of Economic and Social Affairs, as of 1 July, 2022; the GEF website, retrieved June 2023. This table was made by the author based on the data collected and analyzed, retrieved from previously mentioned sources.

Table 4.1.

Project follow-through assessment vs political freedom

Country	Completion of projects	Completion of GEF Grants	Completion of Cofinancing	Project Follow-through assessment	Political Ranking
Antigua And Barbuda	35%	23%	14%	Poor	Stable Democracy with Shortcomings
Argentina	63%	50%	39%	Superior	Stable Democracy with Shortcomings
Bahamas	35%	7%	6%	Poor	High Quality Democracy
Bolivia	48%	49%	23%	Poor	Case of Democratic Erosion
Brazil	60%	51%	3%	Medium	Stable Democracy with Shortcomings
Chile	52%	45%	28%	Poor	High-Quality Democracy
Colombia	66%	50%	33%	Medium	Stagnant Democracy with Severe Democratic Deficits
Costa Rica	73%	68%	58%	Superior	High-Quality Democracy
Cuba	46%	42%	27%	Poor	Longstanding Authoritarian Regime
Dominican Republic	56%	48%	37%	Medium	Stable Democracy with Shortcomings
Ecuador	67%	60%	50%	Superior	Case of Democratic Erosion
El Salvador	63%	66%	54%	Superior	Stable Democracy with Shortcomings
Guatemala	64%	46%	34%	Medium	Stagnant Democracy with Severe Democratic Deficits
Haiti	54%	37%	26%	Poor	Stagnant Democracy with Severe Democratic Deficits
Honduras	67%	45%	40%	Medium	Case of Democratic Erosion
Jamaica	57%	49%	32%	Medium	Stable Democracy with Shortcomings
Mexico	65%	68%	68%	Superior	Stable Democracy with Shortcomings
Nicaragua	68%	70%	61%	Superior	Case of Democratic Erosion
Panama	46%	55%	20%	Medium	Stable Democracy with Shortcomings
Paraguay	52%	43%	10%	Poor	Stagnant Democracy with Severe Democratic Deficits
Peru	66%	52%	33%	Medium	Stable Democracy with Shortcomings
Trinidad and Tobago	38%	31%	42%	Poor	Stable Democracy with Shortcomings
Uruguay	71%	64%	54%	Superior	High-Quality Democracy
Venezuela	63%	55%	38%	Superior	Case of Democratic Erosion

Note: All three completion indicators of the 24 countries presented above were color-distributed, according to numerical scaling by Microsoft Excel Conditional Formatting tool. However, for the final assessment of the Project Follow-through, an auxiliary calculation was performed considering a weight of 1 for the project's indicator, and a weight of 2 for the GEF Grants and Cofinancing ones.

Source: This table was made by the author based on the data collected and analyzed, retrieved from previously mentioned sources.

Table 5

Environmental Ranking (GEF projects) for LAC

Country	Population Size	Political Ranking	Project Generation Index (Weight 2)	Project Follow-through assessment (Weight 1)	Environmental Ranking
Costa Rica	Small	High-Quality Democracy	Superior (3 pts)	Superior (3 pts)	9.0
Uruguay	Small	High-Quality Democracy	Superior (3 pts)	Superior (3 pts)	9.0
Jamaica	Small	Stable Democracy with Shortcomings	Superior (3 pts)	Medium (2 pts)	8.0
Panama	Small	Stable Democracy with Shortcomings	Superior (3 pts)	Medium (2 pts)	8.0
Antigua And Barbuda	Small	Stable Democracy with Shortcomings	Superior (3 pts)	Poor (1 pt)	7.0
Bahamas	Small	High-Quality Democracy	Superior (3 pts)	Poor (1 pt)	7.0
Chile	Medium	High-Quality Democracy	Superior (3 pts)	Poor (1 pt)	7.0
Ecuador	Medium	Case of Democratic Erosion	Middling (2 pts)	Superior (3 pts)	7.0
Nicaragua	Small	Case of Democratic Erosion	Middling (2 pts)	Superior (3 pts)	7.0
Paraguay	Small	Stagnant Democracy with Severe Democratic Deficits	Superior (3 pts)	Poor (1 pt)	7.0
Trinidad and Tobago	Small	Stable Democracy with Shortcomings	Superior (3 pts)	Poor (1 pt)	7.0
Honduras	Medium	Case of Democratic Erosion	Middling (2 pts)	Medium (2 pts)	6.0
Peru	Medium	Stable Democracy with Shortcomings	Middling (2 pts)	Medium (2 pts)	6.0
Argentina	Large	Stable Democracy with Shortcomings	Large underachiever (1 pt)	Superior (3 pts)	5.0
Cuba	Medium	Longstanding Authoritarian Regime	Middling (2 pts)	Poor (1 pt)	5.0
El Salvador	Small	Stable Democracy with Shortcomings	Inferior (1 pt)	Superior (3 pts)	5.0
Haiti	Medium	Stagnant Democracy with Severe Democratic Deficits	Middling (2 pts)	Poor (1 pt)	5.0
Mexico	Large	Stable Democracy with Shortcomings	Large underachiever (1 pt)	Superior (3 pts)	5.0
Venezuela	Medium	Case of Democratic Erosion	Inferior (1 pt)	Superior (3 pts)	5.0
Brazil	Large	Stable Democracy with Shortcomings	Large underachiever (1 pt)	Medium (2 pts)	4.0
Colombia	Large	Stagnant Democracy with Severe Democratic Deficits	Large underachiever (1 pt)	Medium (2 pts)	4.0
Dominican Republic	Medium	Stable Democracy with Shortcomings	Inferior (1 pt)	Medium (2 pts)	4.0
Guatemala	Medium	Stagnant Democracy with Severe Democratic Deficits	Inferior (1 pt)	Medium (2 pts)	4.0
Bolivia	Medium	Case of Democratic Erosion	Inferior (1 pt)	Poor (1 pt)	3.0

Source: This table was made by the author based on the data collected and analyzed.

Table 6

Regression analysis

SUMMARY OUTPUT

Regression Statistics	
Multiple R	0.726674439
R Square	0.528055741
Adjusted R Square	0.508871015
Standard Error	1734.566713
Observations	129

ANOVA

	df	SS	MS	F	Significance F
Regression	5	414072309.3	82814462	27.5248	1.2893E-18
Residual	123	370072767.1	3008721.7		
Total	128	784145076.4			

	Coefficients	Standard Error	t Stat	P-value	Lower 95%	Upper 95%	Lower 95.0%	Upper 95.0%
Intercept	-66.36141321	860.4965273	-0.0771199	0.9386535	-1769.661528	1636.938701	-1769.661528	1636.938701
PR	32.03577896	268.8801303	0.1191452	0.9053547	-500.1959525	564.2675104	-500.1959525	564.2675104
CL	-184.1572208	325.6316901	-0.5653384	0.5727378	-828.7251853	460.4107437	-828.7251853	460.4107437
Corruption	30.98669643	14.3040733	2.1662848	0.032218	2.672660393	59.30073246	2.672660393	59.30073246
Laws	-81.36790127	41.94228927	-1.9399967	0.054669	-164.3900912	1.654288649	-164.3900912	1.654288649
Cof/Pop	0.177846966	0.019465452	9.1365445	1.631E-15	0.139316298	0.216377634	0.139316298	0.216377634

Notes: The dependent variable is GEF funds/population. "PR" means Political Rights and "CL" means Civil Liberties, both dimensions of Freedom House assessment of political freedom of countries. Other sources: the GEF website, retrieved June 2023, Transparency International and Climate Change Laws of the world websites, retrieved November 2023.

Table 7

Environmental Ranking (GEF projects) for LAC with additional data

Country	Population size	Political Ranking	Environmental Ranking Score	Corruption score	Competition level	Environmental laws passed	Environmental level level
Costa Rica	Small	High-Quality Democracy	9.0	51.80	Lower	22	Higher
Ecuador	Small	High-Quality Democracy	9.0	61.13	Lower	39	Higher
Paraguay	Small	Stable Democracy with Shortcomings	8.0	38.13	Lower	3	Medium
Panama	Small	Stable Democracy with Shortcomings	8.0	35.32	Middling	17	Medium
Antigua And Barbuda	Small	Stable Democracy with Shortcomings	7.0	NA	NA	3	Lower
Bahamas	Small	High-Quality Democracy	7.0	67.69	Lower	8	Lower
Chile	Medium	High-Quality Democracy	7.0	70.36	Lower	31	Higher
Ecuador	Medium	Case of Democratic Transition	7.0	28.29	Higher	14	Medium
Nicaragua	Small	Case of Democratic Transition	7.0	25.54	Higher	11	Lower
Paraguay	Small	Suggest Democracy with Shortcomings	7.0	23.87	Higher	18	Medium
Trinidad and Tobago	Small	Stable Democracy with Shortcomings	7.0	39.45	Lower	7	Lower
Uruguay	Medium	Case of Democratic Transition	6.0	25.46	Higher	14	Medium
Peru	Medium	Stable Democracy with Shortcomings	6.0	37.40	Middling	14	Medium
Argentina	Large	Stable Democracy with Shortcomings	5.0	32.96	Middling	33	Higher
Cuba	Medium	Longstanding Authoritarian Regime	5.0	43.99	Lower	10	Lower
El Salvador	Small	Stable Democracy with Shortcomings	5.0	37.08	Middling	28	Higher
Haiti	Medium	Suggest Democracy with Severe Democratic Deficits	5.0	16.33	Higher	2	Lower
Mexico	Large	Stable Democracy with Shortcomings	5.0	32.84	Middling	23	Higher
Venezuela	Medium	Case of Democratic Transition	5.0	20.24	Higher	10	Lower
Brazil	Large	Stable Democracy with Shortcomings	4.0	38.28	Lower	71	Higher
Colombia	Large	Suggest Democracy with Severe Democratic Deficits	4.0	36.16	Middling	38	Higher
Dominican Republic	Medium	Stable Democracy with Shortcomings	4.0	30.27	Middling	16	Medium
Guatemala	Medium	Suggest Democracy with Severe Democratic Deficits	4.0	27.36	Higher	18	Medium
Bolivia	Medium	Case of Democratic Transition	3.0	26.64	Middling	21	Medium

Notes: Corruption score refers to the simple average of annual corruption scores awarded to each country by Transparency International in the 1998-2015 period (retrieved from Transparency International website, <https://www.transparency.org/en>, retrieved in November 2023). Environmental laws passed are the absolute number of such laws enacted, per data extracted and handled from the Climate Change Laws of the World website (retrieved from Transparency International website in November 2023). For both assessments, the classifications into lower, middle, and higher categories were based on a simple mathematical division of the results into top third, middle third, and lower third segments. The shaded boxes in the table indicate the more “ideal” results for corruption and environmental laws enacted: lower, and higher, respectively.

Source: This table was made by the author based on the data collected and analyzed.