

GREEN GOVERNANCE: UNVEILING FACTORS INFLUENCING ENVIRONMENTAL POLICY IN DEVELOPING COUNTRIES

Daria Blinova

Abstract: *What are the factors that contribute to good green governance? While the literature provides answers for developed countries, including a strong institutional capacity or democratic development, these factors have not been thoroughly examined in the context of developing countries. This article aims to test the applicability of these factors to developing countries. The study finds that despite criticisms that Western-style good governance frameworks are not suitable for the developing world, the basic principles of these frameworks, such as the rule of law, civil society, lack of corruption, and a strong bureaucracy, are crucial for developing countries to enhance their institutional capacities and implement effective national environmental policies. The article theorizes that factors such as regime type and corruption significantly contribute to the quality of domestic environmental policies in developing nations. It applies regression analysis to assess the success of national environmental policies in developing countries on a large N and validates the argument by presenting two case studies, namely Chile and the Democratic Republic of Congo (DRC). The findings suggest that before implementing large-scale environmental projects, developing countries should prioritize enhancing their democratic institutions in ways both fundamental and suitable to their contexts, especially by reducing corruption, to achieve a positive impact.*

Increasing globalization and opportunities for economic development have continued to trigger environmental degradation around the globe. The intensification of human activities aimed at meeting various societal needs and desires (such as industrial growth, urbanization, energy production, transportation development, etc.) in recent years has been proven to induce the emissions of greenhouse gasses that “subsequently alter the atmosphere’s radiative properties, resulting in warming of the atmosphere, ocean, and land components of the climate system.”¹

Despite countries undertaking significant efforts to tackle environmental problems by adopting specific solutions via international agreements (e.g. Paris Agreement), the risks of extreme events (such as floods, drought, heatwaves, and others) provoked by the insufficient domestic response to climate change continue to pose humanitarian emergencies and are “increasing in scale, frequency, and intensity.”² Given that “3.6 billion people already live in areas highly susceptible to climate change” and the changing climate is “expected to cause approximately 250,000 additional deaths per year”³ between 2030 and 2050, it is important to understand the ways in which individual countries can improve their domestic environmental policies to respond

more effectively to growing environmental degradation. Understanding the reasons behind the successes and failures of domestic environmental policies is the first step in understanding how to tackle the problem.

Many developed countries, especially with democratic contexts, aim to ensure transparent and efficient management of public affairs, which in turn encourages the adoption of effective domestic environmental policies that align with international standards.⁴ Thus, stable institutional frameworks and sufficient administrative capacity at the local, regional, and national levels allow developed countries to find optimal ways to mitigate the implications of intense anthropogenic impact on the environment. To be sure, it does not exclude the fact that some developed countries are predominantly major contributors to environmental degradation due to their intense activities directed at improving citizens' quality of life.⁵ This, however, means that they are capable of mitigating the adverse effects they pose because of their continued development in comparison to less developed countries (LDCs). On the other hand, many developing countries (e.g., Kazakhstan and others of the former Soviet bloc), have, in a similar vein, undertaken efforts to adopt environmental laws and create "formal governmental structures to address their serious environmental problems, but few have been successful in alleviating those problems."⁶

The question of why some developing countries have successfully implemented environmental policies while others have failed is the main focus of this paper. While the research about what determines the success of national environmental policies in high-income countries is extensive,⁷ the need to understand the context of developing countries is still in demand because developing countries face unique challenges and contexts that impact the effectiveness of their environmental policies.⁸ This paper aims to investigate the factors which contribute to the effectiveness of good green governance in developing countries. The research question is "what contributes to the (in)effectiveness of national environmental policies in developing countries?" While limited financial resources, competing development priorities, weak integration into the global market, and an unstable political landscape may contribute to the inefficiency of environmental regulations,⁹ the main focus of the study is to determine the extent to which institutional weaknesses – such as corruption – and regime factor (or democratization level), can explain the success or failure of national environmental response in LDCs. To note, the literature defines control of corruption as a critical indicator of institutional capacity, which, in turn, is understood as the effective functioning of the state on a multidimensional scale (e.g., rule of law, public good provision, low corruption, etc.).¹⁰ Thus, government effectiveness is associated with the ability of the state to control corruption levels¹¹ and is therefore treated as such in this paper.

These two factors can be revealing because (i) the transition to democracy is an unfinished process in the developing world which manifests, in part, as uneven institutional dynamics with implications for environmental strategies, and (ii) corruption, which, while intersecting with the notion of democracy, appears in all political systems and undermines responsible governance. Given that, due to various instabilities, the risks of corruption are more prevalent in developing countries in comparison to developed ones, corruption directly influences governance quality and thus may be detrimental to environmental policymaking.¹²

While one may argue that democracy implies minimal corruption, there exist non-democracies with a relatively low corruption rate (e.g. Rwanda, China) and democratic countries with a high corruption rate (e.g. Brazil, India). Corruption and democracy are covariant to at least some extent, but as the analysis will show, I find that a higher level of democratization and lower rate of corruption are essential for successful “green governance” in developing countries. On the one hand, this contributes to the scholarly debate about whether good governance is associated with democracy. In the case of environmental governance, such an association is evident. On the other hand, it demonstrates that corrupt governance is incapable of responding to environmental challenges effectively, which poses a double danger to developing countries, given their environmentally vulnerable positions.

This paper is structured as follows. I provide a theoretical framework in the second section, followed by my research design in the third part. Then, in the fourth section, I discuss the results of statistical analyses aimed at testing the hypotheses supplied in the theory section. My analysis will be complemented with two brief case studies – positive (Chile) and negative (Democratic Republic of Congo) cases – which will uncover the findings of my statistical predictions in more detail. Finally, I conclude with recommendations for the policymakers.

Theory

Regime factor

Scholars argue that democracy is a vehicle of good governance¹³ and that good governance is the essence of democratic government.¹⁴ However, it should be noted that good governance is not endemic to democracies alone, since other types of regimes may practice good governance as well.¹⁵ Nevertheless, scholars perceive that democratic regimes produce more stable and well-functioning institutions that are the pillars of effective governments, which in turn accomplish social and sustainable development based on basic principles such as the rule of law.¹⁶ For example, Clulow and Reiner (2022)¹⁷ note that democracy has a positive effect on the promotion of low-carbon energy sources in developing countries. This is consistent with Sandbrook (2000)¹⁸, who argues that democratization and development in Africa are interconnected. He notes that the idea of democratization on the continent is essential for sustainable development and can facilitate government responsiveness to citizens' needs. Mawere and Mwanaka (2015),¹⁹ in a similar fashion, argue that democracy is essential for sustainable development and good governance in Africa. Yet, Mawere and Mwanaka note that liberal democracy in the pure form, as dictated by the global North, ignores practices of coloniality and the indigenous context. Thus, authors argue that while such elements as inclusive political participation of citizens, effective public administration, transparency, and the rule of law, and others are fundamental for promoting an enabling environment for development and fostering the eradication of poverty, they should be combined with the indigenous practices and local turn in their implementation.

Indeed, local focus is increasingly considered by international financial institutions (e.g., IMF, World Bank) responsible for channeling financial aid in service of effective governance and development.²⁰ Yet, the major goal of these institutions is to build

democracies on the assumption that this will lead to good governance. One of the goals of this paper is to test this assumption in the case of environmental policymaking. As democratization and development literature has demonstrated, there is a close association between democracy and good governance, where Stockemer (2009: 252)²¹ has proved that “crucial features of a democracy – accountability, political and civil rights for the citizenry, minority rights, and the implementation of a system of checks and balances between various institutions including the media, civil society, and the state apparatus – lead to better and more effective governance” in African and Latin American countries.

Given green political theorists argue that democracies, especially those that prioritize inclusivity, social justice, equality, participation, deliberation, dialogue, and engagement of people in decision-making, such as Brazil, Sweden, and South Africa, are better equipped to tackle environmental problems like climate change, pollution, and biodiversity loss.²² This paper assumes that democratic development in developing countries plays a crucial role in implementing effective environmental policies at the national level. In this regard, I state my first hypothesis:

H1: Developing countries with higher democratization levels tend to have more successful domestic environmental policies than undemocratic developing countries.

Next, I will turn to a discussion of the second factor contributing to the understanding of successful environmental policies in developing countries.

Corruption

Conditions for success in addressing climate change rest on the vertical and horizontal levels, where the former refers to the top-down international coordination efforts and the latter refers to the lower country levels in the form of municipalities and regions. It is important to note that success in the major part depends on the horizontal level, where the material, institutional, and socio-cultural capacity of a country determines the outcome of environmental policies.²³ Thus, public accountability, transparency, and impartiality of the country's institutions play a major role in the efficient implementation of environmental strategies.²⁴

Corruption, as the opposite phenomenon to conscientious politics, erodes public institutions, undermines public service and subordination of the public interests, and, as follows, hides the true effect of harm posed by corrupt acts of the officials.²⁵ This means that corrupt public servants are incapable of addressing environmental challenges in an effective manner.²⁶ For example, if the state allocates funds toward building resilient homes for communities suffering from climate change, such as a rise in sea levels, but half of these funds are top-down appropriated, then it is impossible to help people to protect their lives, even though the problem is addressed partially with the remaining balance.

It has been proven that corruption leads to unsustainable practices such as unrestricted logging or irresponsible forest management,²⁷ illegal waste disposal,²⁸ oversight of the adverse effects posed by polluting firms,²⁹ and others that undermine the effectiveness

of addressing the climate change problem. Yet, corruption is not a notion of developing countries only, given that there are correlations between weak environmental policies and corruption that have been identified in advanced countries, such as within the Eastern bloc of EU members. For example, Pellegrini and Gerlagh (2006)³⁰ found that new members of the EU had lower environmental standards due to weaker institutional quality, while Teichmann et al. (2020)³¹ found that environmental subsidies allocated to some EU countries are abused by businesses and corporations, which bribe officials and thus circumvent environmental laws.

It should be noted that institutional corruption in the literature is mostly discussed in the traditional sense of failings relating to healthcare, education, life satisfaction, and some other relevant domains. Scholarship on the relations between corruption and environmental protection is less examined, especially with regard to developing countries. Nevertheless, among the existing works in higher-income countries' contexts, there is evidence that a greater perception of corruption and lower trust in government is associated with weaker environmental policies (especially in nonmarket policies) and leads to less stringent environmental regulations.³² Therefore, based on existing works, this paper will test to what extent the corruption level affects developing nations' approach to good environmental governance. Consequently, I state my second hypothesis:

H2: Developing countries with lower corruption levels handle environmental policies more successfully than those with higher levels

By exploring these two dimensions—that is, regime type and corruption level—I aim to bridge the gap in understanding how these factors affect developing countries' institutional capacity in addressing climate change. Thus, I will contribute to the literature intersecting the boundaries of green governance and institutional theory, albeit focusing on the developing world. Next, I will discuss my research design, followed by the results section, which will include data analysis.

Research Design

In this paper, I use a mixed-method approach to test two hypotheses stated in the earlier section. Specifically, in the first part, I will employ statistical analysis of factors affecting the success of environmental policies in developing countries, and in the second, I will use two brief case studies to validate my findings. In the following parts of a given section (before conducting the analysis itself), I will explain the data and variables used in my analysis as well as the limitations of this work.

Data

For the statistical part, I built the dataset based on indicators taken from such websites as the Bertelsmann Stiftung's Transformation Index (BTI), which analyzes the transformation process toward democracy in different nations; the World Bank, which provides economic and policy indicators; EU websites that provide the information about the emissions rate; Transparency International, which suggests indicators on corruption; and UNDP that contains the information on Human Development Index (HDI). For the qualitative part, I use peer-reviewed journals, reports from

international organizations, governmental agencies based in the US and abroad, local and international newspapers, and blogs offered by credible institutions. My search process of these latter resources included utilizing keywords such as 'green governance', 'developing countries', 'Chile', 'DRC', 'corruption', 'democracy', and other related words in Google Scholar and the University library. I complement both parts with different approaches to find evidence of a different nature that could provide the answer to the hypotheses stated.

It should be noted that there are some limitations associated with the methodology of the BTI data,³³ which is coded by the country experts and may produce some unobserved bias. Additionally, indicators on corruption include the Corruption Perception Index (CPI), which is based on the public perception rather than direct measures of the corruption level. This CPI has been criticized by some scholars due to the question of reliability.³⁴

Dependent Variable

My dependent variable is the success of national environmental policy in 2022, taken from the BTI website³⁵. According to the BTI, the success of environmental policy is measured as 10/10 if the "environmental concerns are effectively taken into account and are carefully balanced with growth efforts" and "environmental regulations and incentives are in place and enforced" (BTI Codebook 2022: 35). In other words, the environmental policy in the country is successful if there are policies aimed at solving environmental challenges at the national and local levels and they are not simply declarative but implemented by institutions. This ranking has interim explanations ranging between 3 and 8, and failure as being 1/10 is measured when "environmental concerns receive no consideration and are entirely subordinated to growth efforts," and "there is no environmental regulation" (BTI Codebook 2022: 35). In other words, the policy fails when the government knows about the existing environmental problems that different communities in the country experience, but it does not prioritize these problems or undertake legal efforts to address them.

Independent Variables

Two independent variables are of primary interest as stated in the theory part: regime factor and corruption level. The former, taken from the BTI website, is measured as the democratization status in 2022 on a scale ranging from 1 to 10, where a score closer to 1 means being a hardline autocracy and closer to 10 being a consolidated democracy. Corruption level is measured via Transparency International's³⁶ Corruption Perception Index, ranging from 1 to 100, with scores closer to 1 being more corrupt and those closer to 100 being less corrupt. I use the indicators for independent variables to identify the positive and negative cases for my case study part below.

Control Variables

I use several control variables to distinguish the effects of regime and corruption level. Specifically, I use 2022 GDP levels as determined by the World Bank to control for the possible effect of industrialization on the success of environmental policy. While the debate on the relationship between environmental performance and GDP is ongoing, some research has demonstrated that economic growth affects environmental policies.³⁷

I also control for forest cover, which is measured by the World Bank as forest area as a percentage of total country area. The assumption behind controlling this factor is that countries with larger forest areas may be either (i) more prone to protect their declining forests and undertake more effective environmental policies³⁸ or (ii) use the richness of the forest as a source of gaining income and therefore implementing irresponsible regulations that neglect illegal logging and forest trade.³⁹ Controlling for this factor will remove these two aspects that may impact the success of environmental policy and, therefore, will allow us to understand the more nuanced impact of regime and corruption.

I also control for emissions levels in developing countries, which is measured by the EU Emission Database for Global Atmospheric Research⁴⁰ in megatons. The literature on environmental performance has demonstrated that CO₂ emissions affect the stringency of environmental regulations,⁴¹ namely that countries implement environmental policies to regulate greenhouse gas emissions. Finally, I control for HDI because research has shown that inclusive human development is affected by environmental degradation by contributing to water scarcity, a lack of sanitation, hunger, and inequality.⁴²

Results: Statistical Analysis (Part I)

Given the data described immediately above, it should be noted that the sample size of my dataset consists of all developing countries, including those 'in transition' as defined by the UN. The countries in the dataset are diverse, with different regimes, economic capabilities, and corruption levels. Given the small sample size, the findings below should be interpreted with caution. Nevertheless, they are generalizable due to the strong effect of the association between response and explanatory variables.

For the analysis provided below, I used ordinary least squares regression models to test my hypotheses. Preliminarily, I conducted diagnostic tests for heteroscedasticity and multicollinearity. For the former, I performed the Breusch-Pagan Test to determine if heteroscedasticity is present. For full model 3, the results showed that $BP = 6.0554$, $df = 6$, $p\text{-value} = 0.417$, which means that given the $p\text{-value}$ is not less than 0.05, there is no sufficient evidence to claim that the heteroscedasticity is present in the regression model. In other words, for the given model, error terms in model 3 are normally distributed. In the case of the latter, I estimated the variance inflation factor (VIF). "VIF measures the strength of correlation between predictor variables in a model."⁴³ The desirable threshold for VIF is between 1 and 2. Upon conducting the test, model 3 did not indicate values higher than 1.85 for each variable included in the model, which means that the multicollinearity is not a problem in each analysis.

As can be seen from Table 1 below, three regression models demonstrate the relations between the variables of my interest. The first model shows that both democracy status (or regime factor) and corruption level have positive and significant effects on environmental policy success in developing nations. By adding gradually other control variables in models 2 and 3 the effect remains in place. Specifically, from the full model we can see that while holding all other variables constant, an increase in democracy status by one unit has a positive and significant effect on environmental policy success at $p < 0.05$, meaning that the more democratic a developing country is the higher the

probability it will implement effective and successful environmental performance at the national level (by 14%). This confirms the first hypothesis. Similarly, there is a significant positive relationship between corruption level and environmental policy success at the $p < 0.01$ level, meaning that an increase in the corruption perception index by one unit increases the environmental performance by around 6.3%, *ceteris paribus*. This means that the lower the corruption in a developing country the better the environmental strategy at the national level does it have as predicted by the second hypothesis.

	<i>Dependent variable:</i>		
	environmental policy success		
	(1)	(2)	(3)
democracy status	0.157** (0.066)	0.161** (0.064)	0.139** (0.068)
corruption	0.079*** (0.010)	0.062*** (0.010)	0.063*** (0.011)
log(gdp)		0.009 (0.063)	-0.005 (0.070)
hdi		2.931*** (0.946)	3.013*** (0.956)
forest cover			0.005 (0.004)
emissions			0.0001 (0.0001)
Constant	0.802** (0.340)	-0.677 (0.665)	-0.684 (0.713)
Observations	116	116	116
R ²	0.532	0.583	0.590
Adjusted R ²	0.524	0.568	0.567
Residual Std. Error	1.039 (df = 113)	0.990 (df = 111)	0.990 (df = 109)
F Statistic	64.275*** (df = 2; 113)	38.737*** (df = 4; 111)	26.146*** (df = 6; 109)

Note:

* $p < 0.1$; ** $p < 0.05$; *** $p < 0.01$

Table 1: Ordinary Least Squares Regression for Environmental Policy Success

HDI indicators have positive and significant relations with environmental policy success at the $p < 0.01$ significance level, confirming the theoretical predictions that the higher inclusive human development in the country the higher probability this country will implement effective policy to address environmental degradation.

Concluding this brief statistical test, I should highlight that this modeling approach may suffer from two potential problems: reverse causality and endogeneity (the inability to control for the rule of law, civil society, or legal enforcement). While this is a limitation to urge reader interpret the results with caution, it is also an avenue for further research to test alternative relations.

Results: Case Studies (Part II)

I use two case studies below to validate the findings from the above statistical analysis. I use Chile as a positive case and the Democratic Republic of Congo (DRC) as a negative case. The former has a high score in implementing national environmental policies (9/10) and at the same time, it has a high democracy status (9.2/10) and a relatively low level of corruption (67/100). The latter country is the opposite – unsuccessful in implementing national environmental strategies (2/10), undemocratic (3.67/10), and prominent corruption (20/100). I consider these two cases as a comparative strategy to juxtapose good and bad green governance.

Green Governance in Chile

In the 1990s Santiago was “one of the world’s smoggiest cities.”⁴⁴ Today, Chile has a modest yearly emission rate of 83.5 megatons (Mton), which is comparable to Belgium or Oman. Giving way to neoliberal development after the history of military dictatorship, Chile’s environmental policy is one of the blueprints for the Latin American future or even the world.

The environmental changes took place in Chile in the second half of the twentieth century when a group of naturalists, scientists, and students started to agitate for ecological preservation in the wake of the degradation wrought by Chile’s rapid economic development.⁴⁵ Since the 1980s, however, after mass protests and riots against the repressions and dictatorial rule intensified, Chile’s environmental movement voiced their concerns about threats to biodiversity even more loudly. Centro de Investigación y Planificación del Medio Ambiente (CIPMA) was formed in the 1980s by a group of scholars that “obtained more resonance in the country than earlier preservationist activities” with the goal to inform the public through scientific seminars and environmentalist research.⁴⁶ This eventually led to the mobilization of different concurrent movements such as the pro-democracy movement. Thus, environmental degradation was linked to problems in the country’s development and triggered the growth of civil society and network advocacy institutions and organizations⁴⁷ that affected the country’s leadership.

After the fall of the Pinochet regime in 1990, the country’s political discourse was seeped in environmentalism and sustainable development. However, there remained obstacles to the elitist regime that impacted the expansion and success of Chilean environmental policymaking.⁴⁸ Leftist opposition parties, such as the Socialist Party and Party of Democracy proposed legislation that supported the environmentalist agenda and suggested the creation of the Ministry of the Environment. Eventually, the National Environmental Commission was created in 1994, which in 2010 was replaced by the Chilean Ministry of the Environment. Since the creation of the Commission in 1994, the institutional capacity to address ecological problems relating to unsustainable natural resource management including the excessive mining and extraction of fossil fuels was weak. Yet, continued social dissatisfaction and stronger civil society institutions put pressure on the government due to the unprecedented environmental degradation level,⁴⁹ which eventually had to transform its approach towards the forestry, fishing, and mining sectors.

Authority	Function
Ministry of the Environment (MMA)	Work closely with President to design and implement environmental policies & programs
Council of Ministers for Sustainability	Deals with design and implementation of policies relating to sustainable use of renewable natural resources
Environmental Assessment Service (SEA)	Conducts the environmental impact assessments according to the laws
Superintendence of the Environment (SMA)	“Agency within MMA that is responsible for enforcing environmental regulations (including environmental licenses) and promoting compliance”
Environmental Courts	Jurisdictional bodies that resolve environmental disputes
Other agencies	National Geology and Mining Service; General Water Bureau (DGA); Agriculture and Livestock Service (SAG); National Forestry Corporation (CONAF), etc.

Table 2: Chilean Environmental Enforcement Agencies. Source: Adopted from Global Practice Guide: Chile Environmental Law

As the first democratically elected president of Chile in 1990, Salvador Allende continued the line toward the strengthening of trade liberalization, yet social pressure made him undertake environmental changes as well. “Chile’s three worst areas of environmental degradation soon became the administration’s top three environmental priorities: Santiago’s severe air pollution, widespread water contamination, and pollution caused by the mining industry.”⁵⁰ Finally, in 1994, along with the creation of the National Environmental Commission, Allende signed “Chile’s first-ever comprehensive environmental law,” the Environmental Framework Law directed at the creation of an effective regulatory system for Chile’s nature.⁵¹

Today, Chile’s Constitution states that all people have “the right to live in an environment free of contamination. It is the duty of the State to ensure that this right is not jeopardized and to promote the preservation of nature” (Article 19).⁵² The country has a powerful administrative apparatus that regulates the enforcement of environmental laws (see Table 2). Given the low corruption rate in the country, the quality of the bureaucracy allows Chile to remain one of the top countries managing environmental issues such as waste management, finishing, energy regulations, and others. It conducted different projects since the beginning of the twenty-first century such as the development of non-conventional renewable energy generation sources (NCREs) or the National Lithium Strategy aimed at sustainable mining.⁵³

In June 2022, Chile issued new legislation, the Framework Law on Climate Change, (known also as the Climate Act), that sets a goal of achieving greenhouse gas emissions neutrality by 2050 as suggested by IPCC. “This goal has also been confirmed in other instruments and strategies adopted by the country. Examples of this are the Nationally Determined Contribution (NDC) – updated in 2020 and reinforced in 2022 – and the Long-Term Climate Strategy.”⁵⁴ What is important is that this Climate Act besides creating regulatory mechanisms and the framework for good green governance, also creates “opportunities for public participation.”⁵⁵

Overall, Chile has become one of the developing countries with an effective national policy for climate action. It has transformed from a dictatorial and corrupt regime with a highly problematic environmental situation to a democratic government with minimal corruption and an efficient green governance framework involving civil society groups. This shows that the effect of growing civil society, democratic regimes more generally, and the efficient (minimally corrupt) administrative capacity make a huge difference for good governance in relation to effective environmental policy implementation.

Green Governance in DRC

The Congo Basin, stretching over six countries in central Africa, is a vast and lush rainforest teeming with wildlife.⁵⁶ It covers an area of 1.5 million square miles, making it the second-largest tropical forest in the world, after the Amazon.⁵⁷ The Democratic Republic of Congo (DRC) “is home to 60 percent of the Congo rainforest,”⁵⁸ and this is the country with the largest proportion of forest loss as a result of bad green governance.⁵⁹

Since the 1990s, the Democratic Republic of the Congo (DRC) has been affected by domestic instability.⁶⁰ The country has also been working towards solving the issue of deforestation and has been developing a national forest strategy to prevent rapid ecological degradation. As part of a larger tropical forest strategy promoted by the Food and Agriculture Organization (FAO), the DRC has pledged to implement regulations that aim to conserve biodiversity and promote sustainable forest management.⁶¹ In 1990, the country promised to conduct preventive measures to save forests and involve local communities dependent on them for the sake of carrying out good governance strategies in exchange for the international assistance that the World Bank, IMF, and other international organizations, such as World Wide Fund for Nature (WWF), International Union for Conservation of Nature (IUCN), Norwegian Agency for Development Cooperation (NORAD), and many others offered.⁶²

Nevertheless, international aid had a fragmented nature, which was dependent on the stability of the government and its true concerns in solving environmental problems. Given that the weak governance system developed under the tyrannic Mobutu regime was unreliable, the suspension of aid by various organizations was not a rare occurrence. As Majambu et al. (2021: 327)⁶³ note, however, the World Bank at that time still was interested in changing the governance in DRC, yet, as it is stated in the Bank's official documents, in sparsely populated and forest-rich countries as Zaire, “there [were] still options to conserve natural forest and woodland [...] however, major investments should [have been] preceded by policy reforms, and country capacity building, particularly in countries where the policy framework is poor and institutions weak.”

Indeed, “poor governance and corruption are considered the biggest obstacles to protecting the country's forests from the pressures of subsistence agriculture and fuelwood collection, as well as the expansion of legal and illegal industrial operations.”⁶⁴ In the DRC, the implementation of good governance practices has been impeded by a number of factors, including an undemocratic political landscape, political instability, and pervasive corruption stemming from illegal logging and the trade of endangered species. For example, the U.S. Department of State notes:

“As public officials responsible for wildlife protection, they abused their public positions by trafficking chimpanzees, gorillas, okapi, and other protected wildlife from the DRC, primarily to the People’s Republic of China, using falsified permits, in return for bribes. Their corrupt, transnational criminal actions not only undermined rule of law and government transparency in the DRC but also long-standing wildlife conservation efforts.”⁶⁵

These obstacles have posed significant challenges to the preservation of the country’s ecosystem. Following the Mobutu regime, subsequent governments either claimed ownership of natural resources or enacted superficial reforms that ostensibly regulated illegal practices but ultimately benefited the neo-patrimonial system, which profited from continued excessive logging and exploitation of the country’s biodiversity.

As a result, the exploitation of nature has continued to thrive in the country, perpetuating challenges to the implementation of good green governance practices. Despite the outlawing of illegal logging practices in the country in 2002, the rate of such activities has remained unchanged at around 90%.⁶⁶ This is primarily due to the lack of responsible governance and oversight in the forestry sector. The failure to enforce regulations and to hold those responsible accountable has allowed illegal logging to continue without any significant consequences. Thus, unchecked exploitation of natural resources has led to devastating implications for the environment, including deforestation, soil erosion, and loss of biodiversity.

The failed environmental policy mechanism in the DRC is further catalyzed by the “widespread poverty, recurring conflict and economic dependence on mineral extraction,” which “putting unprecedented pressure on the country’s spectacular biodiversity, with poaching, pollution, deforestation, and soil erosion.”⁶⁷ Hence, there is a systematic institutional weakness combined with the lack of civil society’s engagement in formulating policies and an inability to implement efficient climate policies at the local level due to larger governance problems, which has caused an acute rise in environmental policy failures.⁶⁸

Overall, a lack of transparency, rule of law, and reliable public institutions trapped in an unstable environment made DRC, the country with the most vital resource on the planet, as forest, into a country posing catastrophic danger to the well-being of people and nature. Such an environment makes corruption more likely to thrive and democratization less possible to sprout. As a result, the country is marred in a vicious circle where the inability to increase institutional capacity and improve its regime leads to the inability to promote actionable environmental policies.

Discussion and Conclusion

In this paper, I have argued that good environmental governance in developing countries is closely tied to democracy and corruption. I provide additional knowledge about the role of institutional arrangements and the type of regime in tailoring national policies addressing climate change within the developing world. Both quantitative and qualitative analyses have indicated that developing countries which lack democratic elements and have weak institutional capacities are more vulnerable to climate change.

While it can be argued that pure democracy, as promoted by Western countries, may not be suitable for the context of developing countries, the underlying assumption of this paper is that basic democratic institutions, embedded in local practices, are vital for designing and implementing effective strategies to address environmental problems. As demonstrated by two opposing cases—Chile and DRC—democratization and the creation of civil society groups have a positive impact on advocacy strategies that link development and environmental security, while rent-seeking and illegal activities caused by instability and weak institutional capacity undermine the prospects for a sustainable future.

While in this paper, I performed quantitative and qualitative analyses to systematically explore the question of what contributes to the effectiveness of environmental policies in developing countries, limitations should be noted which provide an avenue for further exploration. First, the statistical approach suffers from potential bias in BTI and CPI measurements that could be better replaced with alternative data in further research. Additionally, reverse causality between environmental policy, corruption, and regime type are difficult to disentangle, since poor environmental policies may undermine the legitimacy of the regime or lead to corruption. There is also a possibility to explore additional measurements not captured by the presented model, such as civil society impact on environmental policy or the quality of legal enforcement on the effectiveness of such policies. Finally, this work presented only two brief case studies. Future work would benefit from testing alternative cases with the suggested theoretical framework presented further above.

The findings in this paper—that is, the impact of corruption and regime type on environmental policy in developing countries—also offer implications for policymakers and international donors. While designing environmental projects with the involvement of international donors and organizations, it may be suggested to first assess the country's profile and evaluate the feasibility of undertaking the efforts in the contexts where democracy is lacking and corruption is high. However, this recommendation does not suggest that stakeholders should abandon the idea of implementing environmental projects in such countries. It suggests that the first step before designing such projects is the creation of ways to elevate countries' capacities to the level where implementation of environmental projects may bring positive effects on the domestic regulations and environmental situation. Otherwise, the corrupt landscape and undemocratic rule will minimize the potential effect that could be maximized in contexts with higher institutional capacity and transparency in place. In simple words, good green governance in developing countries requires an institutional foundation, which should be built before environmental policy is implemented.

Notes

1. IPCC Sixth Assessment Report. (2021). <https://www.ipcc.ch/report/ar6/wg1/chapter/technical-summary/>
2. WHO. (2023). Climate Change. <https://www.who.int/news-room/fact-sheets/detail/climate-change-and-health>
3. Ibid.
4. Schoenefeld, J. J. "The European Green Deal: What prospects for governing climate change with policy monitoring?" (2021).
5. Filonchyk, M., Peterson, M. P., Yan, H., Gusev, A., Zhang, L., He, Y., & Yang, S. "Greenhouse gas emissions and reduction strategies for the world's largest greenhouse gas emitters." (2024).
6. See Russell, C. & Bell, R. (2002). Environmental Policy for Developing Countries. <https://issues.org/greenspan-environmental-policy-developing-countries/>
7. See Westerhoff, L. et al. "Capacities across scales: local to national adaptation policy in four European countries", (2011); Kraft, Michael E. "Environmental policy and politics," (2021); Newig, J. & Fritsch O. "Environmental governance: participatory, multi-level—and effective?" (2009); Dale, A., et al. "Meeting the climate change challenge: local government climate action in British Columbia, Canada," (2020); Koskimaa, V., et al. "Governing through strategies: How does Finland sustain a future-oriented environmental policy for the long term?" (2021).
8. Maja, M. M., & Ayano, S. F. "The impact of population growth on natural resources and farmers' capacity to adapt to climate change in low-income countries." (2021); Konrad, S., van Deursen, M., & Gupta, A. "Capacity building for climate transparency: neutral 'means of implementation' or generating political effects?" (2022).
9. Buhaug, H., & Von Uexkull, N. Vicious circles: violence, vulnerability, and climate change. (2021); Safi, A., Chen, Y., Wahab, S., Ali, S., Yi, X., & Imran, M. Financial instability and consumption-based carbon emission in E-7 countries: the role of trade and economic growth. (2021); Pandey, N., de Coninck, H., & Sagar, A. D. Beyond technology transfer: Innovation cooperation to advance sustainable development in developing countries. (2022).
10. Popov, V. Developing new measurements of state institutional capacity. (2011). Guerriero, C., & Righi, L. The origins of the state's institutional capacity. (2022).
11. Chong, S. P. C., Tee, C. M., & Cheng, S. V. Political institutions and the control of corruption: a cross-country evidence. (2021).
12. Montes, G. C., & Paschoal, P. C. Corruption: what are the effects on government effectiveness? Empirical evidence considering developed and developing countries. (2016).
13. Arowolo, D. & Folorunso A. "Globalisation, good governance and democracy: The interface," (2010).
14. Dalton, Russell J. "Direct democracy and good governance: Does it matter?" (2008).
15. Huynh, C. M., & Nguyen, P. T. P. Climate change, governance quality, and poverty: Empirical insights from Vietnam's provincial level. (2024); Majeed, G. Good governance, institutional capacity and challenges: Case study of floods in Pakistan. (2023); Bambi, P. D. R., Batatana, M. L. D., Appiah, M., & Tetteh, D. Governance, institutions, and climate change resilience in Sub-Saharan Africa: assessing the threshold effects. (2024).
16. Povitkina, M., & Jagers, S. C. Environmental commitments in different types of democracies: The role of liberal, social-liberal, and deliberative politics. (2022).
17. Clulow, Z., & Reiner, D. M. Democracy, economic development and low-carbon energy: when and why does democratization promote energy transition? (2022).
18. Sandbrook, R. "Closing the circle: Democratization and development in Africa. Between the Lines," (2000).
19. Mawere, M., & Mwanaka, T. "Democracy, good governance, and development in Africa," (2015)
20. Grindle, M. S. "Good enough governance revisited," (2007).
21. Stockemer, D. "Does democracy lead to good governance? The question applied to Africa and Latin

America," (2009).

22. See Karin, B. "Environmental politics and deliberative democracy: Examining the promise of new modes of governance," (2010); Povitkina, M, and Jagers, S. "Environmental commitments in different types of democracies: The role of liberal, social-liberal, and deliberative politics," (2022).
23. Jänicke, M. "Conditions for environmental policy success: an international comparison," (1992).
24. Konrad, S., van Deursen, M., & Gupta, A. Capacity building for climate transparency: neutral 'means of implementation' or generating political effects? (2022).
25. Caiden, G. E. "Undermining good governance: Corruption and democracy," (1997).
26. Tawiah, V., Zakari, A., & Alvarado, R. Effect of corruption on green growth. (2024).
27. Piabuo, S. M., Minang, P. A., Tieguhong, C. J., Foundjem-Tita, D., & Nghobuoche, F. Illegal logging, governance effectiveness and carbon dioxide emission in the timber-producing countries of Congo Basin and Asia. (2021); Pellegrini, L. "Corruption, democracy, and environmental policy: an empirical contribution to the debate," (2011).
28. Cesi, B., et al. "Corruption in environmental policy: the case of waste," (2019).
29. Cerqueti, R, & Coppier, R. "Corruption, evasion and environmental policy: a game theory approach," (2016).
30. Pellegrini, L, and Gerlagh, R. "Corruption and environmental policies: what are the implications for the enlarged EU?" (2006)
31. Teichmann, F., et al. "Gaming environmental governance? Bribery, abuse of subsidies, and corruption in European Union programs," (2020).
32. See Rafaty, R. "Perceptions of corruption, political distrust, and the weakening of climate policy," (2018); Dincer, O. C., and Fredriksson, P. G. "Corruption and environmental regulatory policy in the United States: does trust matter?" (2018).
33. Volkel J. C. Complex politics in single numbers? The problem of defining and measuring democracy. (2015).
34. Németh, E., Vargha, B. T., Pályi, K. A. The scientific reliability of international corruption rankings. (2019).
35. BTI: <https://bti-project.org/en/?&cb=00000>
36. Transparency International: <https://www.transparency.org/en/cpi/2023>
37. See Everett, T., et al. "Economic growth and the environment." (2010); Fiorino, D J. "Explaining national environmental performance: approaches, evidence, and implications," (2011).
38. See Messier, C., et al. "Using fast-growing plantations to promote forest ecosystem protection in Canada," (2003); Carlson, M., et al. "Balancing the relationship between protection and sustainable management in Canada's boreal forest," (2015).
39. See Carvalho J., et al. "Effects of illegal logging on Amazonian medium and large-sized terrestrial vertebrates," (2020); Kuemmerle, T., et al. "Forest cover change and illegal logging in the Ukrainian Carpathians in the transition period from 1988 to 2007," (2009).
40. EDGAR: https://edgar.jrc.ec.europa.eu/report_2022
41. See Yirong, Q. "Does environmental policy stringency reduce CO₂ emissions? Evidence from high-polluted economies," (2022); Frohm, E., et al. "Environmental policy stringency and CO₂ emissions: Evidence from cross-country sector-level data," (2023).
42. Zulham, T., et al. "The nexus of human development index, economic and population growth on environmental degradation in Aceh Province, Indonesia," (2021).
43. See more: <https://www.statology.org/multicollinearity-in-r/>
44. Chile: https://www.pbs.org/wgbh/commandingheights/lo/countries/cl/cl_env.html
45. The first ecological non-governmental organization in Chile was CODEFF formed in 1963.
46. Rojas, A. "The Environmental Movement and the Environmentally Concerned Scientific Community in Chile," (1994), p. 97.
47. For example, the Chilean Human Rights Commission (CCHDH) advocated for the environmental

rights for indigenous people; the Institute of Political Ecology promoted eco-philosophy and initiated networks that coordinated activities of local organizations around the country. For more see Rojas, 1994.

48. See more in Carruthers, (2001).

49. Lacunza, S. C. "From dictatorship to democracy: environmental reform in Chile," (1995).

50. Ibid, p. 553.

51. Ibid, p. 554.

52. See Chile's Constitution: https://www.constituteproject.org/constitution/Chile_2021

53. See more: <https://practiceguides.chambers.com/practice-guides/climate-change-regulation-2023/chile/trends-and-developments>

54. Ibid.

55. See more: <https://blogs.law.columbia.edu/climatechange/2022/06/22/chile-adopts-new-climate-change-framework-law-a-paradigm-shift/>

56. WWF: <https://www.worldwildlife.org/places/congo-basin>

57. World Rainforests: <https://worldrainforests.com/kids/elementary/congo.html>

58. Mongabay: <https://worldrainforests.com/congo/#>

59. Lueong, L. A. Role of Governance in Implementing Climate Change Adaptation Strategies in the Congo Basin Case of Cameroon and the Democratic Republic of Congo. (2024).

60. Mongabay: <https://news.mongabay.com/2025/03/the-environmental-toll-of-the-m23-conflict-in-eastern-drc-analysis/>

61. Interactive Country Fiches: <https://dicf.unepgrid.ch/democratic-republic-congo/biodiversity>

62. Majambu, E., et al. "The politics of forest governance failure in the Democratic Republic of Congo (DRC): lessons from 35 years of political rivalries," (2021).

63. Ibid, p. 327.

64. Mongabay: <https://news.mongabay.com/2020/12/poor-governance-fuels-horrible-dynamic-of-deforestation-in-drc/>

65. US Department of State: <https://www.state.gov/designation-of-democratic-republic-of-the-congo-drc-public-officials-for-significant-corruption/>

66. ISS: <https://issafrica.org/iss-today/balancing-protection-and-profit-in-the-congo-basin>

67. Interactive Country Fiches: <https://dicf.unepgrid.ch/democratic-republic-congo/biodiversity>

68. Lueong, L. A. Role of Governance in Implementing Climate Change Adaptation Strategies in the Congo Basin Case of Cameroon and the Democratic Republic of Congo. (2024).