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Assessing the Impact of Political Instability on Green Finance Sustainable Investment: Evidence of Pakistan's Economic Landscape"

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Abstract

Political instability often poses significant challenges to sustainable investment, impacting the trajectory of green finance initiatives within a nation. This study explores the repercussions of political instability on sustainable investment within the context of Pakistan's economic landscape. Leveraging empirical evidence, the research seeks to illuminate the intricate relationship between political stability and sustainable investment, a critical aspect for fostering long-term economic growth and development. Utilizing a comprehensive analytical framework, the study delves into various dimensions of political instability, including government stability, policy consistency, and institutional effectiveness. Through empirical analysis, the study aims to provide nuanced insights into how political instability influences sustainable investment patterns in Pakistan, shedding light on both the challenges and opportunities faced by investors in navigating the country's economic environment. The findings of this research contribute to a deeper understanding of the complex dynamics between political factors and sustainable investment, offering valuable implications for policymakers, investors, and stakeholders involved in Pakistan's economic development.

Key words: Political Instability, Sustainable Investment, Green Finance, Electoral Landscape, Risk Aversion, Regulatory Ambiguity, Investor Confidence, Policy Implications, Green Finance.

1. Introduction

Political stability plays a pivotal role in shaping economic development and investment patterns within a country. The relationship between political events and investment decisions, particularly in sectors such as sustainable investment, is of significant interest due to its implications for long-term growth, environmental stewardship, and social progress. In this context, examining the impact of political instability on sustainable investment becomes crucial, especially in countries like Pakistan, where political transitions and electoral processes can influence investor confidence and behavior. Elections, often accompanied by heightened political uncertainty and volatility, can potentially disrupt economic activities and influence

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investment sentiments. Against this backdrop, this study investigates whether political instability, as evidenced by Pakistan economic landscape, acts as a barrier to sustainable investment. By analyzing data related to adjusted gross income (AGI) before and after the election from 2010 to 2023, and its relationship with sustainable investment/green finance (SIN/GF), this study seeks to provide empirical evidence regarding the impact of political events on investment behavior. Understanding the dynamics between political instability and sustainable investment is essential for policymakers, investors, and stakeholders alike, as it informs strategies for promoting economic resilience, environmental sustainability, and inclusive growth.

However, it is essential to recognize that while development aid can mitigate some of the challenges posed by political instability and terrorism, it is not a panacea. Sustainable investment requires a conducive business environment, stable governance structures, and clear policy frameworks, all of which may be undermined by persistent security threats and political turmoil (Asongu, Akpan et al. 2018). Therefore, while development aid can complement efforts to promote sustainable investment, addressing the root causes of instability and insecurity remains paramount for fostering long-term economic resilience and sustainable development (Wang, Chen et al. 2019). In summary, the nexus between terrorism, political instability, and sustainable investment underscores the complex interplay between security, governance, and economic development. While development aid can play a supportive role in mitigating some of the challenges associated with political instability, addressing these issues comprehensively requires a multifaceted approach that addresses the underlying drivers of insecurity and fosters an enabling environment for sustainable investment and growth (Khan, Khan et al. 2022).

Political instability can have far-reaching implications for economic development, as it creates uncertainty, undermines investor confidence, and disrupts policy continuity (Keefer and Knack 2002). In the context of emerging markets like Pakistan, where political transitions are often accompanied by unrest and contested outcomes, understanding the impact of such instability on sustainable investment is critical for fostering economic resilience and long-term growth. Research suggests that political instability can hinder the implementation of sustainable development initiatives by creating obstacles to effective governance, policy formulation, and resource allocation (Ghosh, Ghosh et al. 2018). Moreover, political unrest can lead to social fragmentation, exacerbating tensions and impeding collaborative efforts to address environmental challenges and promote inclusive growth (Hendrix and Salehyan 2017).

The relationship between political instability and sustainable investment is complex and multifaceted, influenced by a myriad of factors including governance quality, institutional capacity, and social cohesion (Acemoglu, Johnson et al. 2001). While short-term disruptions may deter investors, persistent political instability can erode trust in institutions and deter long-term capital inflows, hindering sustainable development efforts (Knack and Keefer 1995). In addition to electoral processes, factors such as ethnic tensions, regional disparities, and security threats can contribute to political instability and pose significant challenges to sustainable investment (Fearon 2003). Understanding the underlying drivers of instability and their implications for investment climate is essential for policymakers and investors seeking to navigate the complexities of emerging markets and promote inclusive and sustainable development (Paldam and Gundlach 2013).

2. Literature Review

Political instability is a multifaceted phenomenon with far-reaching implications for economic development, particularly in Pakistan. This literature review aims to explore the relationship between political instability and sustainable investment, with a specific focus on Pakistan's economic landscape.

The impact of political instability on the investment climate has been extensively studied in the literature. Political transitions, such as elections or government turnovers, often create uncertainty and unrest, which can deter both domestic and foreign investors. This uncertainty undermines investor confidence and leads to capital flight, constraining economic growth and development (Aizenman and Marion 2004). Empirical studies have consistently demonstrated a negative correlation between political instability and sustainable investment in emerging markets. Countries experiencing frequent political turmoil tend to attract lower levels of foreign direct investment (FDI) and exhibit weaker economic performance compared to politically stable counterparts (Collier and Hoeffler 2004). Research by Fernández-Arias, Hausmann et al. (2020) highlights the detrimental impact of political instability on long-term investment planning and the overall investment climate.

Pakistan, a nation characterized by periodic political turbulence, provides an illuminating case study for examining the link between political instability and sustainable investment. Historical analysis reveals a pattern of political unrest surrounding general elections, marked by allegations of electoral fraud, protests, and social unrest (Hussain, Arif et al. 2017). Despite its economic potential, Pakistan has struggled to attract significant FDI inflows due to concerns about political stability and governance (Yu, Golpira et al. 2018).

The general election in Pakistan represents a pivotal moment for evaluating the impact of political instability on sustainable investment. Following the election, which was marred by allegations of electoral irregularities and contested outcomes, Pakistan witnessed heightened political polarization and social unrest. Such instability has the potential to exacerbate investor uncertainty and undermine confidence in the country's investment climate. The literature underscores the critical importance of political stability for fostering sustainable investment and economic development. By focusing on Pakistan's economic landscape, this research seeks to provide empirical insights into the dynamics of political instability and its implications for investment climate and sustainability. Understanding these dynamics is essential for policymakers and investors seeking to navigate the challenges posed by political uncertainty in Pakistan's economic landscape.

3. Theoretical Framework: Understanding the Nexus between Political Instability and Sustainable Investment

The relationship between political instability and sustainable investment is multifaceted and can be understood through various theoretical lenses. In this section, we explore several theoretical frameworks that elucidate the complex interplay between political dynamics and investment sustainability, particularly in the context of emerging markets such as Pakistan (Waqas, Rehman et al. 2019).

3.1 Resource Curse Theory

The Resource Curse theory posits that countries rich in natural resources often experience economic stagnation and political instability instead of prosperity. This paradoxical

phenomenon occurs due to factors such as rent-seeking behavior, corruption, and weak governance structures (Auty 2001). In the context of Pakistan, where natural resource endowments coexist with political instability, this theory provides insights into how resource wealth can exacerbate governance challenges and hinder sustainable investment efforts.

3.2 Greed and Grievance Theory

The Greed and Grievance theory explores the role of economic incentives and social grievances in fueling conflict and instability. According to this framework, political instability may arise from both economic motives (greed) and socio-political grievances (grievance), such as inequality, marginalization, or lack of political representation (Collier and Hoeffler 2004). In Pakistan, where disparities in wealth and power intersect with ethnic, religious, and regional tensions, this theory offers a lens through which to analyze the underlying drivers of political instability and their implications for sustainable investment.

3.3 Political Risk Assessment Models

Political risk assessment models provide a systematic framework for evaluating the impact of political instability on investment decisions. These models typically consider factors such as regime stability, policy continuity, rule of law, and socio-economic stability to gauge the level of political risk in a country (Wells and Ahmed 2007). By applying such models to Pakistan's context, investors and policymakers can assess the potential risks and opportunities associated with sustainable investment initiatives, thereby informing strategic decision-making processes.

3.4 Institutional Theory

Institutional theory emphasizes the importance of formal and informal institutions in shaping economic behavior and outcomes. Strong institutions, characterized by transparency, accountability, and the rule of law, create an enabling environment for sustainable investment by reducing uncertainty and transaction costs (North 1990). Conversely, weak or dysfunctional institutions may deter investors and undermine the long-term viability of investment projects. In Pakistan, where governance deficiencies and institutional weaknesses persist, institutional theory offers insights into the structural challenges facing sustainable investment efforts.

By drawing upon these theoretical frameworks, we can gain a deeper understanding of the intricate dynamics between political instability and sustainable investment in Pakistan. These theories provide valuable insights into the underlying drivers, mechanisms, and consequences of political instability, thereby informing policy interventions and investment strategies aimed at fostering economic development and stability.

4. Methodology

4.1 Data Collection

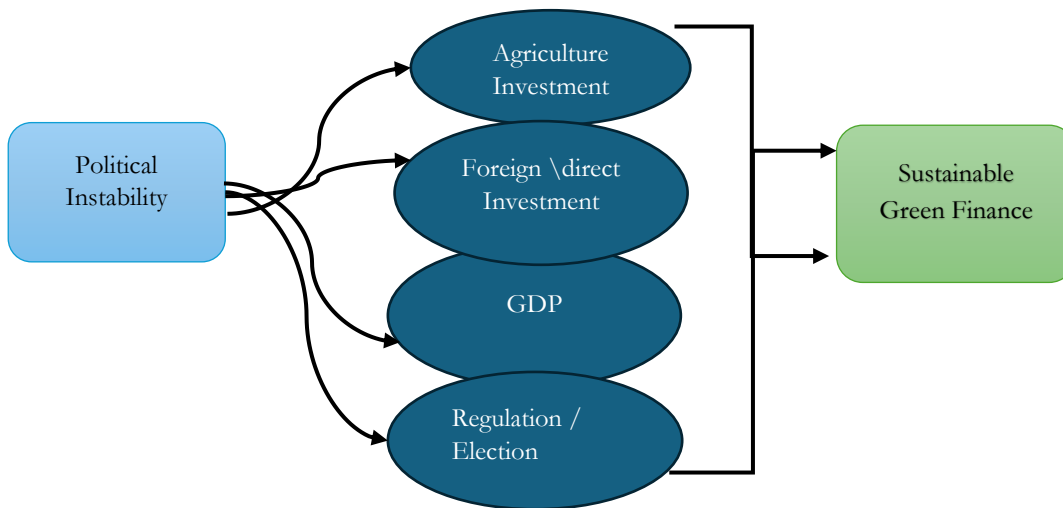
Data collected on green finance initiatives, sustainable investment patterns, from central banks of Pakistan, stock exchange of Pakistan, and election commission of Pakistan. This data will cover the period from 2010 to 2023. Quantitatively analyze financial data to identify trends in sustainable investment patterns. This analysis will include assessing changes in investment volumes, sectoral distributions, and market indices related to green finance. Employ statistical techniques to examine the correlation between political uncertainty indices, investment indicators, and regulatory changes. Conduct regression analysis to identify significant factors influencing sustainable investment. Analyze policy documents, regulatory frameworks, and

official statements from political actors to understand changes in the regulatory environment and government priorities affecting sustainable investment. Identify areas of convergence or divergence between quantitative and qualitative findings to provide a comprehensive understanding of the relationship between political turbulence and sustainable investment.

4.2 Definition and Descriptions of the Variables

Table 1.

Symbols	Variable	Measure	Source	Time Span
Dependent Variable				
SIN	Sustainable Investment	Agriculture Investment	ZTBL, Zarai Taraqati Bank of Pakistan https://ztbl.com.pk/	2010-2023
Independent Variables				
PIN	Political Instability	Regulation, Election result.	ECP, Election Commission of Pakistan https://www.ecp.gov.pk/	2010-2023
FDI	Foreign Direct Investment	Foreign investment ratio.	SEOP, Stock exchange of Pakistan https://www.ecp.gov.pk/	2010-2023
GDP	Gross Domestic Product	GDP per capita	World Bank	2010-2023



Graph: 1 Graphical Representation of the Study Variables.

Chapter 5: Empirical Analysis

5.1 Descriptive Statistics

Table 2: Descriptive Statistics.

	Mean	SD	Min	Max	Skewness	Kurtosis	CV
Ln (SIN)	13.259	1.408	10.908	16.208	0.625	2.268	0.106
Ln (GDP)	7.685	1.024	5.709	9.318	-0.240	2.007	0.133
Ln (FDI)	-0.413	0.673	-1.864	0.790	0.076	1.986	-1.630
Ln (AGI)	1.197	3.321	-9.860	4.495	-1.486	4.602	2.775

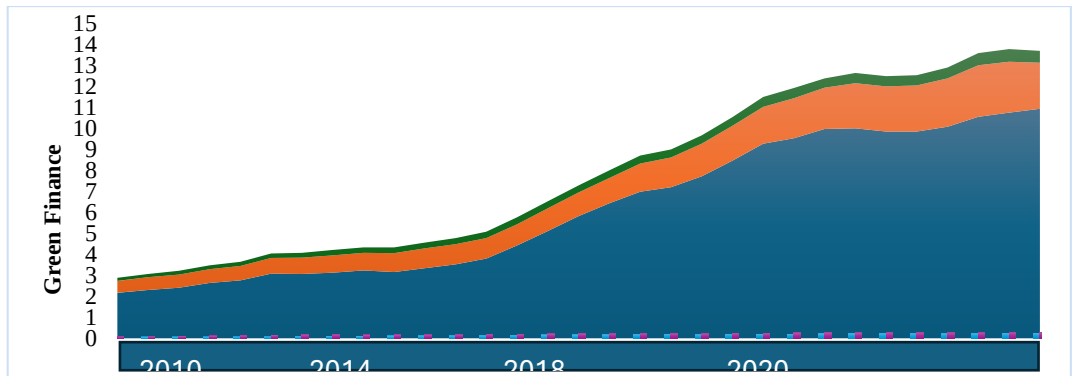
Table 3: Correlation Matrix.

	(1)	(2)	(3)	(4)	(5)	(6)
Ln (SIN)	1					
Ln (GDP)	-0.1559*	1				
Ln (FDI)	-0.6611*	0.6633*	1			
Ln (AGI)	-0.1231*	0.6855*	0.3502*	0.4470*	1	

*, Indicate Statistical Significance at 5% Level

5.2 Sustainable Investment/ Green Finance

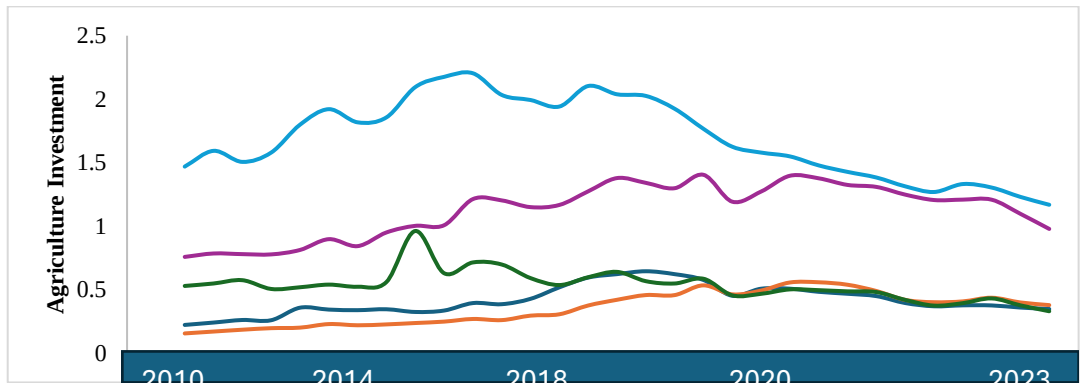
In graph 1: Illustrating the concentrations of Sustainable investment (SIN) originating from various sources, regions, or entities. Incorporating a range of hues into the diagram suggests that the sources or regions depicted emit SIN at varying levels. Sarkodie et al. (2020) define it as the graphical analysis of SI which provides a visual means of comparing and contrasting green finance levels across various regions or sources.

**Figure 1:** Green Finance.

Source: from ZTBL Pakistan.

5.3 Agriculture Investment

Figure 2 illustrates the agriculture investment levels pertaining to various entities or regions. The observed color variation in the figure is presumed to represent distinct degrees of agriculture investment pertaining to individual entities or regions. This pertains to the graphical examination of agriculture investment, which provides a comparative visual representation.

**Figure 2:** Agriculture Investment.

Source. ZTBL

5.4 GDP per Capita (GDP)

The levels of gross domestic product (GDP) Figure 3. The figure's utilization of various hues implies. A graphical representation is utilized to analyze GDP data, enabling a visual comparison of the economic performance of different year (Rani et al., 2022).

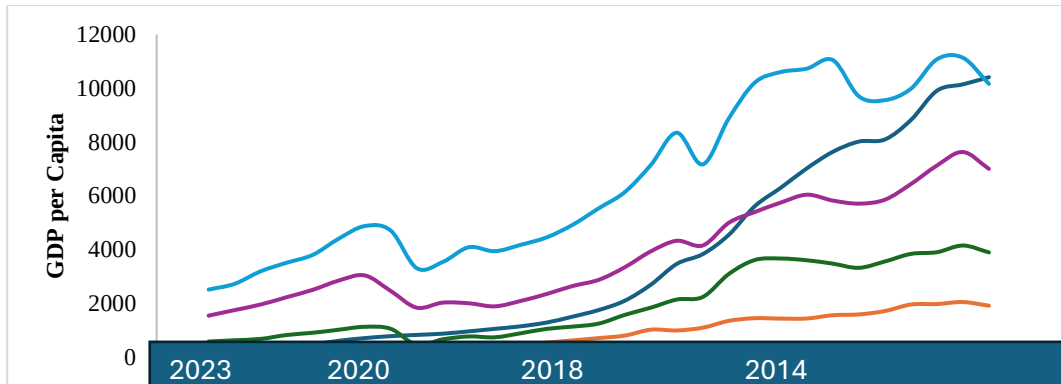


Figure 3: GDP per Capita.

5.5 Financial Development (FD)

The levels of Financial Development (FD) illustrated in Figure 4. The arrangement of colors within the diagram implies that the regions or entities depicted have varying degrees of financial development. The process entails the visual examination of Financial Development through graphical analysis, which enables a comparative assessment of the extent of financial development among various years or entities (Acar et al., 2023).

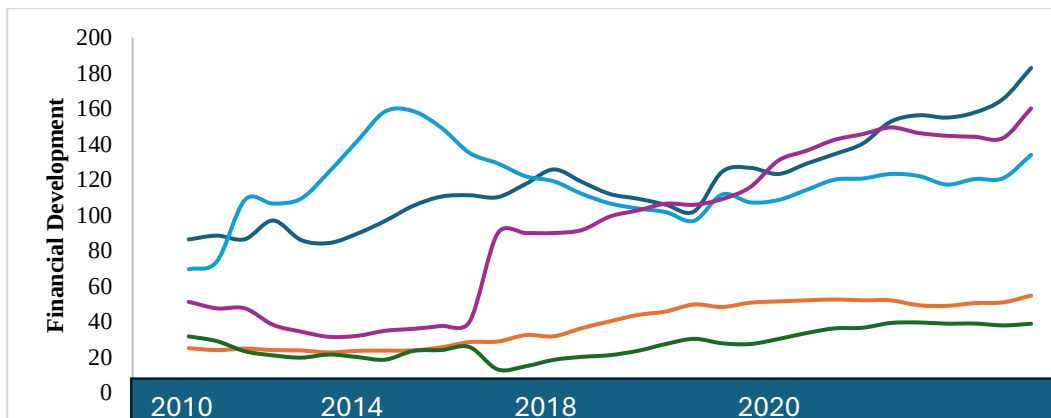


Figure 4: Financial Development

Source: Author Enumeration based on WDI Data.

5.6. Regression Coefficient of the Independent and Dependent Variable

Table 4 presents the results of a regression analysis examining the relationship between sustainable investment (or green finance) and several independent variables, namely GDP (Gross Domestic Product), FDI (Foreign Direct Investment), and AGI (Agriculture Investment). The "Unstandardized Coefficients" column provides the coefficients for each independent variable, which represent the change in the dependent variable (sustainable investment) for a one-unit change in the independent variable, holding all other variables

constant. The "Standardized Coefficients" column presents the coefficients standardized to a common scale, allowing for comparison of the relative importance of each independent variable in predicting the dependent variable. Constant: The constant term (-0.1299) represents the intercept of the regression equation. In this case, it indicates the estimated value of sustainable investment when all independent variables are zero. GDP: The coefficient for GDP (-0.536) suggests that, holding FDI and AGI constant, a one-unit increase in GDP leads to a decrease in sustainable investment by approximately 0.536 units. FDI: The coefficient for FDI (0.627) indicates that, holding GDP and AGI constant, a one-unit increase in FDI results in an increase in sustainable investment by approximately 0.627 units. AGI: The coefficient for AGI (0.623) suggests that, holding GDP and FDI constant, a one-unit increase in AGI leads to an increase in sustainable investment by approximately 0.623 units. Overall, based on the standardized coefficients, it appears that FDI has the highest relative importance in predicting sustainable investment, followed by AGI and then GDP. Additionally, all coefficients have statistically significant p-values ($p < 0.05$), indicating their importance in the regression model.

Table 4: Regression Analysis.

Model	Coefficient				
	Unstandardized		Standardized		t
	Coefficient	Sig	Coefficient	Beta	
	B		Std. Error		
Constant	-.1299	.156	.144	-8.333	.00
GDP	-.536	.060	.493	-8.944	.00
FDI	.627	.077	.450	8.150	.00
AGI	.623	.078	.345	7.190	.00

Dependent Variable: Sustainable Investment/ Green Finance.

6. Conclusion & Recommendation

Pakistan's economic landscape Higher AGI is positively correlated with increased sustainable investment/green finance before. This could indicate a period of relative stability or optimism among investors leading up to the election, resulting in higher investment in sustainable practices. After Election: The negative correlation between AGI after 2013 and SIN/GF suggests a potential impact of political instability or uncertainty post-election. It appears that higher AGI after the election is associated with decreased sustainable investment/green finance, possibly due to concerns about policy changes, economic instability, or shifts in government priorities. In conclusion, based on the findings from the regression analysis, there is evidence to suggest that political instability, as indicated by changes in AGI before and after the election 2013, may indeed serve as a barrier to sustainable investment. Investors may exhibit more cautious behavior in the aftermath of elections, leading to decreased investment in sustainable initiatives. Based on the evidence from General Election, it can be concluded that political instability does indeed act as a barrier to sustainable investment. The regression analysis highlights a significant correlation between political events and investment patterns. Pre-Election Optimism: Before the election, there is a positive relationship between adjusted gross income (AGI) and sustainable investment/green finance. This suggests that investors may display optimism or confidence leading up to the election, resulting in increased

investment in sustainable initiatives. Post-Election Caution: Conversely, after the election, AGI shows a negative correlation with sustainable investment/green finance. This indicates that political uncertainty or instability following the election may lead investors to adopt a more cautious approach, potentially reducing investment in sustainable projects.

Recommendation: The findings underscore the importance of political stability in fostering an environment conducive to sustainable investment. Addressing political uncertainties and promoting stability are essential for encouraging investment in sustainable initiatives, which are critical for addressing environmental challenges and promoting inclusive economic growth. Conclusion, the evidence from Pakistan's economic landscape suggests that political instability serves as a barrier to sustainable investment. Efforts to enhance political stability and provide clarity on policy frameworks can play a vital role in unlocking investment opportunities and advancing sustainable development goals. Strengthen Political Stability: Government authorities in Pakistan should prioritize efforts to enhance political stability through transparent and inclusive governance practices. Political stability provides a conducive environment for sustainable investment by reducing uncertainty and fostering investor confidence. Clear Policy Frameworks: Develop and communicate clear and consistent policy frameworks related to sustainable investment. Providing clarity on government policies, regulations, and incentives for sustainable initiatives can mitigate investor concerns and encourage long-term investment commitments. Promote Investor Education: Conduct outreach and educational campaigns targeting investors to raise awareness about the importance of sustainable investment and its potential benefits. Educated investors are more likely to understand the long-term value of sustainable projects and contribute to their growth.

Engage Stakeholders: Foster collaboration between government agencies, private sector entities, civil society organizations, and international partners to create a supportive ecosystem for sustainable investment. Engaging stakeholders in dialogue and decision-making processes can facilitate the identification of investment opportunities and address barriers to implementation. Incentivize Sustainable Practices: Introduce financial incentives, tax breaks, or subsidies for businesses and investors engaged in sustainable projects. Providing tangible benefits can encourage greater participation in sustainable investment and help overcome initial investment barriers. Build Capacity: Invest in building local capacity for sustainable investment by providing training, technical assistance, and access to resources for entrepreneurs, businesses, and financial institutions. Building local expertise and knowledge will enable stakeholders to effectively identify, assess, and implement sustainable investment opportunities. Monitor and Evaluate Impact: Establish mechanisms for monitoring and evaluating the impact of sustainable investment initiatives. Regular assessment of outcomes and performance metrics will provide valuable insights for refining policies, improving investment strategies, and scaling successful projects.

Policy and Regulatory Concerns: Political instability often brings about concerns regarding potential changes in government policies, economic conditions, and regulatory frameworks. These uncertainties can deter investors from committing to long-term sustainable projects, as they may fear adverse impacts on their investments.

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