The Resource Curse-Thoughts on How Resource-based Poor Countries can break the Curse

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ABSTRACT

The relationship between natural resources and economic development has long been a subject of debate, with empirical evidence revealing a complex reality that challenges the conventional wisdom. This phenomenon, known as the "Resource Curse," refers to the under- performance of resource-rich economies compared to those with fewer resources. This study delves into the factors contributing to the Resource Curse, including Dutch Disease, crowding out effects, unclear property rights, environmental degradation, and deteriorating terms of trade. Understanding these factors is crucial for mitigating the curse and promoting sustainable economic development in resource-based poor countries. The study proposes several strategies to break the resource curse, such as diversified industrial development, rational resource exploitation, establishment of natural resource revenue funds, political system changes, and strengthened environmental governance. However, each solution must be carefully evaluated for feasibility and potential limitations. By addressing the challenges posed by the resource curse, policymakers and stakeholders can work towards fostering long-term economic growth and resilience in resource-rich developing countries.

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The relationship between natural resources and economic development has long been a subject of debate, with empirical evidence revealing a complex reality that challenges the conventional wisdom. This phenomenon, known as the "Resource Curse," refers to the under-performance of resource-rich economies compared to those with fewer resources. This study delves into the factors contributing to the Resource Curse, including Dutch Disease, crowding out effects, unclear property rights, environmental degradation, and deteriorating terms of trade. Understanding these factors is crucial for mitigating the curse and promoting sustainable economic development in resource-based poor countries. The study proposes several strategies to break the resource curse, such as diversified industrial development, rational resource exploitation, establishment of natural resource revenue funds, political system changes, and strengthened environmental governance. However, each solution must be carefully evaluated for feasibility and potential limitations. By addressing the challenges posed by the resource curse, policymakers and stakeholders can work towards fostering long-term economic growth and resilience in resource-rich developing countries.

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I. INTRODUCTION

The relationship between natural resources and economic development has been a topic of considerable scholarly debate. Early scholars widely espoused the belief that abundant natural resources are a prerequisite for industrialization and can effectively promote a country's economic growth. However, empirical evidence has revealed a more complex reality, demonstrating that countries rich in natural resources do not consistently outperform those with fewer resources. This divergence in outcomes has led to the recognition of a phenomenon known as the "Resource Curse," which denotes the paradoxical under- performance of resource-abundant economies.

During the period spanning the 1960s to the 1990s, notable examples such as Saudi Arabia, Iran, and Venezuela experienced a decline in per capita GDP, despite their abundant reserves of oil, a valuable natural resource (Figure 1). In contrast, countries like Singapore and Hong Kong, which possess limited natural resources, achieved sustained economic growth during the same timeframe (World Bank, 2022) (Figure 2). These empirical observations challenge the conventional wisdom that resource abundance inherently guarantees economic development, particularly in developing countries characterized by technological and capital deficiencies.

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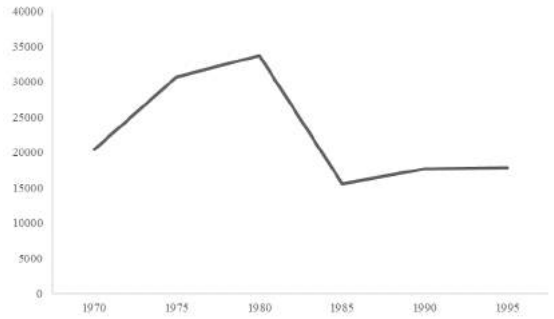

Figure 1: Saudi Arabia's GDP per capita (unit: 2015 constant dollar prices)

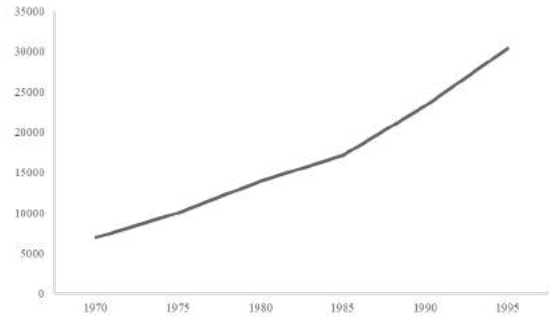

Figure 2: Singapore's GDP per capita (unit: 2015 constant dollar prices)

The emergence of the term "Resource Curse" in the 1990s prompted scholars such as Jeffrey and Warner (2001), and Gylfason (2001) to undertake comprehensive research endeavors aimed at unraveling the mechanisms underlying the relationship between natural resources and long-term economic growth. Their collective findings confirmed the existence of the Resource Curse and underscored the need to critically examine the factors contributing to this paradoxical phenomenon. Scholars have proposed various explanations to elucidate the reasons behind this divergence in outcomes, including the deterioration of terms of trade and inadequate investment in human capital.

This study aims to delve deeper into the multifaceted dimensions of the Resource Curse by examining specific factors that have been identified as crucial contributors. These factors include the "Dutch disease," which originated in the Netherlands and entails the adverse effects of natural resource exploitation on a country's economic structure; the crowding out effects within the natural resources sector, particularly with respect to human capital; the issue of unclear and contested property rights, which impedes investment and development in other sectors; environmental degradation resulting from resource extraction activities; and the deterioration of terms of trade that disproportionately affects resource-based economies.

Understanding these complex dynamics is essential for developing strategies to mitigate the Resource Curse and facilitate sustainable economic development in resource-based poor countries. By addressing the challenges posed by these factors, policymakers and stakeholders can work towards breaking the curse and fostering long-term economic growth. Subsequent sections of this article will analyze each factor in detail, presenting relevant empirical evidence and proposing potential avenues for addressing the resource curse and promoting economic resilience and diversification in resource-based poor countries.

II. THE CAUSES OF THE RESOURCE CURSE

Since the emergence of the resource curse problem, researchers have dedicated their efforts to unraveling its underlying causes. The following factors have been identified as contributing to this phenomenon.

2.1 Dutch Disease

The concept of Dutch disease, originating from the Netherlands where it was first observed, sheds light on one of the causes of the resource curse. In the 1960s, the Netherlands discovered vast natural gas reserves along its coastline, leading the government to prioritize natural gas exports as a major driver of economic growth. Consequently, the country's resource sector expanded rapidly, resulting in a significant appreciation of the Dutch currency, the guilder. Traditional industries such as manufacturing suffered as they became less competitive in the

global market. This distorted economic structure led to a slowdown in overall economic growth. In 1982, W. M. Corden and J. Peter Neary proposed a classic model of Dutch disease, highlighting two key consequences. Firstly, labor and capital tend to shift towards resource-exporting industries, causing manufacturing to face higher labor costs and capital outflows, ultimately impacting its development. Secondly, the increased income generated by resource exports replaces the demand for domestic manufacturing products with imported goods, leading to a decline in the manufacturing industry. As the manufacturing sector plays a vital role in technological innovation, economic structural change, and talent acquisition, the rise of the service sector and the decline of manufacturing indicate an unsustainable economic development trajectory, with detrimental effects, particularly for developing countries.

2.2 Crowding Out Effects in the Natural Resources Sector

The crowding out effect primarily relates to the depletion of human capital inputs, given that previous studies have demonstrated a positive correlation between investment in education and long-term economic growth. In resource-rich countries, the demand for highly skilled and qualified workers in the resource extraction sector tends to be insufficient. Government intervention plays a crucial role in educational resource investment for two reasons. Firstly, education is considered a public good, and therefore, the government bears the primary responsibility for its provision. Secondly, individuals from low-income backgrounds choose to invest in education when the benefits outweigh the opportunity costs. When a country adopts a development strategy to enhance the quality of its workforce, the expected rate of return on education increases, leading to a higher number of individuals opting for educational investments (Auty, 2001). However, in resource-rich countries, where the exploitation of natural resources is often prioritized as the dominant industry, the demand for high-quality labor in other sectors remains insufficient. As a result, the government's investment in education is significantly reduced. Simultaneously, the concentration of income in the natural resource sector, coupled with the neglect of labor-intensive industries, lowers the expected rate of return on education, leading citizens to invest less in this vital sector. This mechanism results in decreased human capital investment, slower cultivation of high-quality talent, inadequate innovation capacity, and hindered long-term economic growth.

2.3 Unclear Definition of Property Rights

Developing countries often grapple with issues related to irregular and unclear property rights, and despite nationalization attempts in many natural resource sectors, the role of nationalization in clarifying property rights remains limited (Mauro, 1995). Ambiguity surrounding property rights hampers the development of industries in other sectors as capital hesitates to make substantial investments due to the associated uncertainty. However, the situation differs in the natural resources sector, which, owing to its high short-term yields, attracts significant capital inflows despite the unclear property rights. In such resource-rich countries, where the rate of return in the resource extraction sector is sufficiently high but property rights implementation faces multiple obstacles, rent-seeking behavior becomes inevitable. When human capital becomes concentrated in unproductive activities, the country's economic development is significantly impeded.

2.4 Environmental Degradation

Developing countries often lack adequate planning and corresponding environmental protection measures for natural resource exploitation, leading to uncontrolled and damaging extraction activities that harm regional ecological environments (Kolstad & Søreide, 2009). Moreover, the mining technologies employed in developing countries tend to be relatively backward, resulting in inadequate disposal of chemical substances and

production waste once resource extraction concludes. The absence of clearly defined property rights and the lack of stringent environmental standards make it challenging to address the negative externalities of pollution generated by production activities. Thus, pollution, whether considered a factor in the utility function or the production function, exerts a detrimental impact. Consequently, the potential for developing other industries in resource-rich areas is significantly diminished, posing severe challenges to the long-term economic development of the affected countries.

2.5 Deterioration of the Terms of Trade

Structuralist scholars such as Prebisch have argued that exporters heavily reliant on primary commodities will inevitably experience a deterioration in their terms of trade. Additionally, due to the generally low-income price elasticity and demand price elasticity of primary products, an increase in the income of other countries does not result in a proportional increase in the demand for primary products. As a result, resource-based countries relying on primary commodity exports as their primary income source do not benefit from income growth experienced by other nations. This disparity perpetuates the widening gap between modern industrialized countries and primary product exporters, leading to a lag in the economic development of resource-rich countries compared to industrialized nations with long industrial chains and high value-added industries. Fluctuations in commodity prices also exert a significant impact on resource-based countries. Sharp fluctuations in the prices of primary commodities on the international market result in significant fluctuations in government fiscal revenue, requiring constant economic policy adjustments to mitigate the challenges posed by price volatility. Furthermore, the natural resources sector exhibits limited forward or backward linkages with other industries. Thus, even if the output value of the natural resource extraction industry continues to increase, its ability to drive growth in other sectors is negligible. Consequently, once resources are depleted and other sectors remain underdeveloped, the country's economy is prone to stagnation or even recession.

III. HOW DEVELOPING COUNTRIES CAN BREAK THE RESOURCE CURSE

When analyzing measures to break the resource curse, it is crucial to consider their feasibility, implementation strategies, and potential outcomes. This section explores several key approaches that can help developing countries overcome the challenges posed by the resource curse. However, it is important to critically assess each solution to gain a comprehensive understanding of their limitations and potential drawbacks

3.1 Diversified development of industries

Breaking the resource curse requires the simultaneous development of multiple industries, reducing dependence on the natural resource sector alone. To achieve such a more sustainable and competitive diversification path, the government should guide and facilitate private sector investment. One example of successful industrial diversification is found in Malaysia. The country, once heavily reliant on rubber and tin exports, implemented a comprehensive industrialization plan known as the New Economic Policy in the 1970s. Through targeted government interventions, infrastructure development, and investment incentives, Malaysia successfully diversified its economy into sectors such as electronics, palm oil, and tourism (World Bank, 2020). This diversification strategy allowed Malaysia to reduce its dependence on natural resources and promote sustained economic growth. This example also shows how collaboration with export trade-oriented industries can enhance the competitiveness of domestic industries in the global market and contribute to economic structural diversification.

However, implementing industrial diversification necessitates the formulation of sound industrial support policies to promote the synergistic development of various industries.

For instance, Angola, a resource-rich country heavily dependent on oil exports, has struggled to diversify its economy. Despite efforts to develop sectors such as agriculture and manufacturing, progress has been slow due to limited infrastructure, institutional weaknesses, and a lack of skilled labor (UNCTAD, 2020). This highlights the importance of addressing these barriers and implementing effective policies to support successful industrial diversification.

3.2 Rationalization of the exploitation of natural resources

Developing countries should adopt a scientific approach to resource exploitation, moving away from excessive focus on rapid extraction. While efficiency remains a crucial principle, it is essential to balance the speed of extraction with sustainable management. Excessive mining and the rapid influx of income can pose challenges to effective income management in developing countries. Slowing down the rate of resource extraction allows for more controlled income inflows, providing opportunities for better income management and regulatory capacity development.

A notable example of rationalizing resource exploitation can be seen in Norway's management of its oil wealth. Norway established the Government Pension Fund Global, commonly referred to as the "Oil Fund," to manage and invest its oil revenues. By following strict guidelines for resource extraction and saving a significant portion of oil revenues, Norway has built a substantial sovereign wealth fund that ensures intergenerational equity and provides stability in times of economic volatility (Gelb, 1988). This approach has allowed Norway to avoid the negative impacts of excessive resource extraction and effectively manage its natural resource wealth.

On the critical side, the Democratic Republic of Congo (DRC) has faced challenges in rationalizing the exploitation of its mineral resources, particularly in the mining sector. Despite having abundant mineral reserves, weak governance, corruption, and illegal mining practices have hindered the country's ability to benefit fully from its resource wealth. These issues have contributed to social unrest, environmental degradation, and limited revenue generation for development (Global Witness, 2021). This underscores the need for robust governance mechanisms, transparent regulations, and effective enforcement to ensure responsible resource extraction.

3.3 Establishment of a natural resource revenue fund

To mitigate the adverse effects of fluctuating resource revenues, establishing a natural resource revenue fund is recommended When natural resources generate significant fiscal revenues, governments often invest in long-term, capital-intensive projects, leading to domestic demand expansion and potential inflation. However, if resource prices decline, government finances may suffer, resulting in tightened demand and significant fluctuations in the national economy, hindering sustainable economic development. A well-structured income fund can smooth income fluctuations, enable diversified investments in various projects, ensure stable cash flow, and serve as a stabilizing force in the economy.

One notable example of a successful natural resource revenue fund is the Alaska Permanent Fund in the United States. Established in 1976, the fund channels a portion of the state's oil revenues into investments, generating returns that benefit current and future generations of Alaskans. The fund has provided economic stability, funded public services, and contributed to the overall well-being of the state's residents (Alaska Permanent Fund Corporation, n.d.). By setting up similar funds, developing countries can effectively manage their resource revenues, preventing economic instability and promoting sustainable development.

However, the effectiveness of such funds relies heavily on prudent management and transparent governance. One critical challenge is ensuring that funds are used for productive investments and not diverted for political or personal gains.

Take Venezuela as example, despite having established the Venezuelan Investment Fund (FIV) in 1999 to manage oil revenues, mismanagement, corruption, and economic missteps have resulted in the depletion of the fund and a severe economic crisis in the country (Council on Foreign Relations, 2021). This serves as a cautionary example highlighting the importance of effective governance, transparency, and accountability in the management of resource funds.

3.4 Changes in the political system

Making changes in the political system can help address issues of rent-seeking and corruption, which often exacerbate the resource curse. Developing countries heavily reliant on resource extraction must carefully consider the choice of institutions. While scholars previously advocated for the promotion of democracy in resource-rich countries, recent economic development trends have shown that democracy does not guarantee economic growth. In resource-dominated economies, wealth polarization and class differentiation hinder the smooth functioning of democracy. Maintaining the status quo of meritocracy, without implementing democratic systems, perpetuates wealth concentration and limits social mobility. This creates a dilemma in the choice of political systems for resource-based developing countries. Moreover, addressing widespread rent-seeking and corruption is crucial. A relevant example of political system changes can be observed in Botswana. Botswana's commitment to transparent and accountable governance, along with the reinvestment of diamond revenues in education, healthcare, and infrastructure, has contributed to sustained economic growth and human development (IMF, 2022).

However, the implementation of such changes can be met with significant resistance from entrenched interests. Moreover, the transition from a rent-seeking system to a more transparent and accountable one requires comprehensive reforms in governance structures and the rule of law. Despite significant oil wealth, Equatorial Guinea has faced issues of corruption, lack of transparency, and limited democratic institutions. This has hindered equitable distribution of resource benefits, leading to persistent poverty and socio-economic disparities among its population (Human Rights Watch, 2020). However, the country has been struggled to realize political transformation.

3.5 Strengthen environmental governance

Developing countries should prioritize environmental governance to mitigate the negative externalities associated with resource extraction. The notion that economic growth will eventually lead to improved environmental quality is not desirable. Instead, strengthening environmental regulations and investing in innovative pollution control technologies are more reliable approaches. By linking governance costs with income growth and actively developing pollution control technologies, developing countries can promote economic growth while preventing environmental degradation caused by resource extraction. An example of strengthening environmental governance is found in Costa Rica. The country has implemented various measures to protect its natural resources, including the establishment of national parks, reforestation programs, and sustainable tourism practices. As a result, Costa Rica has achieved remarkable success in biodiversity conservation and has become a global leader in sustainable development (UNPE, 2023).

However, a critical perspective can be drawn from the case of Nigeria, where the environmental governance of the oil industry has been a significant challenge. Oil spills, pollution, and environmental degradation have had devastating effects on local communities and ecosystems in the Niger Delta region (Amnesty International, 2020). This highlights the importance of robust regulations, enforcement mechanisms, and stakeholder engagement to strengthen environmental governance and mitigate the negative environmental impacts of resource extraction.

III. CONCLUSION

The resource curse is a complex phenomenon that challenges the conventional wisdom that natural resource abundance guarantees economic development. The causes of the resource curse include the Dutch disease, crowding out effects in the natural resources sector, unclear property rights, environmental degradation, and the deterioration of the terms of trade. To break the resource curse, developing countries can employ various strategies.

Industrial diversification is crucial to reduce dependence on the natural resource sector alone. Malaysia's successful diversification through targeted interventions and investment incentives serves as an example. Rationalizing the exploitation of natural resources, as demonstrated by Norway's management of its oil wealth, can prevent excessive extraction and enable sustainable management. Establishing a natural resource revenue fund, like Alaska's Permanent Fund, helps smooth income fluctuations and provides stability in the economy. However, effective governance and transparent management are essential for these funds to succeed. hanges in the political system, such as promoting transparency, accountability, and addressing rent-seeking and corruption, can help mitigate the resource curse. Botswana's commitment to transparent governance and reinvestment of diamond revenues exemplify the positive outcomes of political system changes. Strengthening environmental governance is vital to mitigate the negative externalities of resource extraction. Developing countries should prioritize environmental regulations and invest in pollution control technologies to promote economic growth while preventing environmental degradation.

It is important to note that each solution has its limitations and potential drawbacks, and a comprehensive approach tailored to the specific circumstances of each country is necessary. By addressing these factors and implementing appropriate strategies, policymakers and stakeholders can work towards breaking the resource curse and fostering sustainable economic development in resource-based poor countries.

REFERENCES:

1. Alaska Permanent Fund Corporation. (n.d.). About the Alaska Permanent Fund. *Alaska Permanent Fund Corporation*. Retrieved from https://apfc.org/about-apfc/.
2. Auty, R. (Ed.). (2001). *Resource abundance and economic development*. Oxford, UK: Oxford University Press.
3. Baland, J. M., & Francois, P. (2000). Rent-seeking and resource booms. *Journal of Development Economics*, 61.
4. Corden, W. M., & Neary, J. P. (1982). Booming Sector and De-Industrialisation in a Small Open Economy. *The Economic Journal*, 92(368), 825-848.
5. Damania, R., Fredriksson, P. G., & List, J. A. (2003). Trade liberalization, corruption, and environmental policy formation: Theory and evidence. *Journal of Environmental Economics and Management*, 46(3), 490-512.
6. Kolstad, I., & Søreide, T. (2009). Corruption in Natural Resource Management: Implications for Policy Makers. *Resources Policy*, 34(4), 214-226.
7. Kolstad, I., & Wiig, A. (2015). Is transparency the key to reducing corruption in resource-rich countries? *World Development*, 70, 7-22.
8. Gelb, A. (1988). Oil windfalls: Blessing or curse? New York, NY: Oxford University Press.
9. Gylfason, T. (2001). Nature, power, and growth. *Scottish Journal of Political Economy*, 48 (5), 558-588.
10. International Monetary Fund (IMF). (2022). Botswana: 2022 Article IV consultation—Press release; Staff report; and statement by the Executive Director for Botswana. *International Monetary Fund*. Retrieved fromhttps://www.imf.org/en/Publications/CR/Issues/2022/07/25/Botswana-2022-Article-IV-Consultation-Press-Release-Staff-Report-and-Statement-by-the-521327
11. Mikesell, R. (1997). Explaining the resource curse with special reference to mineral-exporting countries. *Resources Policy,* 23 (4).

London Journal of Research in Humanities and Social Sciences

12. Mauro, P. (1995). Corruption and Growth. *The Quarterly Journal of Economics*, 110(3), 681-712.
13. Ross, M. L. (2001). Does oil hinder democracy? *World Politics,* 53(3), 325-361.
14. Ross, M. L. (2015). What have we learned about the resource curse? *Annual Review of Political Science*, 18, 239-259.
15. Sachs, J. D., & Warner, A. M. (2001). The curse of natural resources. *European Economic Review,* 45(4-6), 827-838.
16. United Nation Environment Programme (UNEP). (2023). Costa Rica launches a project to strengthen its sustainable finance framework. *United Nation Environment Programme*. Retrieved from https://www.unep.org/news-and-stories/press-release/costa-rica-launches-project-strengthen-its-sustainable-finance
17. Sachs D.J. (n.d.). Malaysia's Structural Economic Change: Past, Present, And Future. *Economic History Malaya*. Retrieved from https://www.ehm.my/publications/articles/malaysias-structural-economic-change-past-present-and-future
18. World Bank Data. (2022). GDP per capita (constant 2015 US$) - Saudi Arabia. *World Bank*. Retrieved from https://data.worldbank.org/indicator/NY.GDP.PCAP.KD?locations=SA
19. World Bank Data. (2022). GDP per capita (constant 2015 US$) – Singapore. *World Bank*. Retrieved from https://data.worldbank.org/indicator/NY.GDP.PCAP.KD?locations=SG