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

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## Abstract

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*Index terms—*

## 1 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 ??). 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 ??). These empirical observations challenge the conventional wisdom that resource abundance inherently guarantees economic development, particularly in developing countries characterized by technological and capital deficiencies.

## 2 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.

### 3 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.

### 4 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.

### 5 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.

### 6 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 London Journal of Research in Humanities and Social Sciences 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.

### 7 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.

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. 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. For instance, Angola, a resource-rich country heavily dependent on oil exports, has struggled to diversify its

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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.

## 8 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.

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

## 10 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.

## 11 Strengthen environmental governance

## 12 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. Changes 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. <sup>1</sup>



Figure 1: Figure 1 :Figure 2 :

<sup>1</sup> The Resource Curse Thoughts on How Resource-based Poor Countries can break the Curse



Figure 2: 4 ©



Figure 3: ©

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