

CrossRef DOI of original article:

¹ The Resource Curse-Thoughts on How Resource-based Poor ² Countries can break the Curse

³

⁴ Received: 1 January 1970 Accepted: 1 January 1970 Published: 1 January 1970

⁵

⁶ **Abstract**

⁷ 382ULJP Copyright ID: 573351

⁸

⁹ *Index terms—*

¹⁰ **1 INTRODUCTION**

¹¹ The relationship between natural resources and economic development has been a topic of considerable scholarly
¹² debate. Early scholars widely espoused the belief that abundant natural resources are a prerequisite for
¹³ industrialization and can effectively promote a country's economic growth. However, empirical evidence has
¹⁴ revealed a more complex reality, demonstrating that countries rich in natural resources do not consistently
¹⁵ outperform those with fewer resources. This divergence in outcomes has led to the recognition of a phenomenon
¹⁶ known as the "Resource Curse," which denotes the paradoxical under-performance of resource-abundant
¹⁷ economies.

¹⁸ During the period spanning the 1960s to the 1990s, notable examples such as Saudi Arabia, Iran, and
¹⁹ Venezuela experienced a decline in per capita GDP, despite their abundant reserves of oil, a valuable natural
²⁰ resource (Figure ??). In contrast, countries like Singapore and Hong Kong, which possess limited natural
²¹ resources, achieved sustained economic growth during the same timeframe (World Bank, 2022) (Figure ??).
²² These empirical observations challenge the conventional wisdom that resource abundance inherently guarantees
²³ economic development, particularly in developing countries characterized by technological and capital deficiencies.

²⁴ **2 II. THE CAUSES OF THE RESOURCE CURSE**

²⁵ Since the emergence of the resource curse problem, researchers have dedicated their efforts to unraveling its
²⁶ underlying causes. The following factors have been identified as contributing to this phenomenon.

²⁷ **3 Dutch Disease**

²⁸ The concept of Dutch disease, originating from the Netherlands where it was first observed, sheds light on one
²⁹ of the causes of the resource curse. In the 1960s, the Netherlands discovered vast natural gas reserves along
³⁰ its coastline, leading the government to prioritize natural gas exports as a major driver of economic growth.
³¹ Consequently, the country's resource sector expanded rapidly, resulting in a significant appreciation of the Dutch
³² currency, the guilder.

³³ **4 Crowding Out Effects in the Natural Resources Sector**

³⁴ The crowding out effect primarily relates to the depletion of human capital inputs, given that previous studies
³⁵ have demonstrated a positive correlation between investment in education and long-term economic growth. In
³⁶ resource-rich countries, the demand for highly skilled and qualified workers in the resource extraction sector
³⁷ tends to be insufficient. Government intervention plays a crucial role in educational resource investment for
³⁸ two reasons. Firstly, education is considered a public good, and therefore, the government bears the primary
³⁹ responsibility for its provision. Secondly, individuals from low-income backgrounds choose to invest in education
⁴⁰ when the benefits outweigh the opportunity costs. When a country adopts a development strategy to enhance
⁴¹ the quality of its workforce, the expected rate of return on education increases, leading to a higher number

7 DETERIORATION OF THE TERMS OF TRADE

42 of individuals opting for educational investments (Auy, 2001). However, in resource-rich countries, where the
43 exploitation of natural resources is often prioritized as the dominant industry, the demand for high-quality labor in
44 other sectors remains insufficient. As a result, the government's investment in education is significantly reduced.
45 Simultaneously, the concentration of income in the natural resource sector, coupled with the neglect of labor-
46 intensive industries, lowers the expected rate of return on education, leading citizens to invest less in this vital
47 sector. This mechanism results in decreased human capital investment, slower cultivation of high-quality talent,
48 inadequate innovation capacity, and hindered long-term economic growth.

49 5 Unclear Definition of Property Rights

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

59 6 Environmental Degradation

60 Developing countries often lack adequate planning and corresponding environmental protection measures for
61 natural resource exploitation, leading to uncontrolled and damaging extraction activities that harm regional
62 ecological environments (Kolstad & Søreide, 2009). Moreover, the mining technologies employed in developing
63 countries tend to be relatively backward, resulting in inadequate disposal of chemical substances and London
64 Journal of Research in Humanities and Social Sciences production waste once resource extraction concludes. The
65 absence of clearly defined property rights and the lack of stringent environmental standards make it challenging
66 to address the negative externalities of pollution generated by production activities. Thus, pollution, whether
67 considered a factor in the utility function or the production function, exerts a detrimental impact. Consequently,
68 the potential for developing other industries in resource-rich areas is significantly diminished, posing severe
69 challenges to the long-term economic development of the affected countries.

70 7 Deterioration of the Terms of Trade

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

86 When analyzing measures to break the resource curse, it is crucial to consider their feasibility, implementation
87 strategies, and potential outcomes. This section explores several key approaches that can help developing
88 countries overcome the challenges posed by the resource curse. However, it is important to critically assess
89 each solution to gain a comprehensive understanding of their limitations and potential drawbacks. Breaking
90 the resource curse requires the simultaneous development of multiple industries, reducing dependence on
91 the natural resource sector alone. To achieve such a more sustainable and competitive diversification path,
92 the government should guide and facilitate private sector investment. One example of successful industrial
93 diversification is found in Malaysia. The country, once heavily reliant on rubber and tin exports, implemented
94 a comprehensive industrialization plan known as the New Economic Policy in the 1970s. Through targeted
95 government interventions, infrastructure development, and investment incentives, Malaysia successfully diversified
96 its economy into sectors such as electronics, palm oil, and tourism (World Bank, 2020). This diversification
97 strategy allowed Malaysia to reduce its dependence on natural resources and promote sustained economic
98 growth. This example also shows how collaboration with export trade-oriented industries can enhance the
99 competitiveness of domestic industries in the global market and contribute to economic structural diversification.
100 For instance, Angola, a resource-rich country heavily dependent on oil exports, has struggled to diversify its

101 economy. Despite efforts to develop sectors such as agriculture and manufacturing, progress has been slow due
102 to limited infrastructure, institutional weaknesses, and a lack of skilled labor (UNCTAD, 2020). This highlights
103 the importance of addressing these barriers and implementing effective policies to support successful industrial
104 diversification.

105 **8 Rationalization of the exploitation of natural resources**

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

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

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

124 **9 Establishment of a natural resource revenue fund**

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

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

138 However, the effectiveness of such funds relies heavily on prudent management and transparent governance.
139 One critical challenge is ensuring that funds are used for productive investments and not diverted for political or
140 personal gains. The Resource Curse Thoughts on How Resource-based Poor Countries can break the Curse Take
141 Venezuela as example, despite having established the Venezuelan Investment Fund (FIV) in 1999 to manage oil
142 revenues, mismanagement, corruption, and economic missteps have resulted in the depletion of the fund and a
143 severe economic crisis in the country (Council on Foreign Relations, 2021). This serves as a cautionary example
144 highlighting the importance of effective governance, transparency, and accountability in the management of
145 resource funds.

146 **10 Changes in the political system**

147 Making changes in the political system can help address issues of rent-seeking and corruption, which often
148 exacerbate the resource curse. Developing countries heavily reliant on resource extraction must carefully consider
149 the choice of institutions. While scholars previously advocated for the promotion of democracy in resource-
150 rich countries, recent economic development trends have shown that democracy does not guarantee economic
151 growth. In resource-dominated economies, wealth polarization and class differentiation hinder the smooth
152 functioning of democracy. Maintaining the status quo of meritocracy, without implementing democratic systems,
153 perpetuates wealth concentration and limits social mobility. This creates a dilemma in the choice of political
154 systems for resource-based developing countries. Moreover, addressing widespread rent-seeking and corruption is
155 crucial. A relevant example of political system changes can be observed in Botswana. Botswana's commitment
156 to transparent and accountable governance, along with the reinvestment of diamond revenues in education,
157 healthcare, and infrastructure, has contributed to sustained economic growth and human development (IMF,
158 2022).

12 III. CONCLUSION

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

166 11 Strengthen environmental governance

167 12 III. CONCLUSION

168 The resource curse is a complex phenomenon that challenges the conventional wisdom that natural resource
169 abundance guarantees economic development. The causes of the resource curse include the Dutch disease,
170 crowding out effects in the natural resources sector, unclear property rights, environmental degradation, and
171 the deterioration of the terms of trade. To break the resource curse, developing countries can employ various
172 strategies. Industrial diversification is crucial to reduce dependence on the natural resource sector alone.
173 Malaysia's successful diversification through targeted interventions and investment incentives serves as an
174 example. Rationalizing the exploitation of natural resources, as demonstrated by Norway's management of
175 its oil wealth, can prevent excessive extraction and enable sustainable management. Establishing a natural
176 resource revenue fund, like Alaska's Permanent Fund, helps smooth income fluctuations and provides stability
177 in the economy. However, effective governance and transparent management are essential for these funds to
178 succeed. Changes in the political system, such as promoting transparency, accountability, and addressing rent-
179 seeking and corruption, can help mitigate the resource curse. Botswana's commitment to transparent governance
180 and reinvestment of diamond revenues exemplify the positive outcomes of political system changes. Strengthening
181 environmental governance is vital to mitigate the negative externalities of resource extraction.

182 Developing countries should prioritize environmental regulations and invest in pollution control technologies
183 to promote economic growth while preventing environmental degradation.

184 It is important to note that each solution has its limitations and potential drawbacks, and a comprehensive
185 approach tailored to the specific circumstances of each country is necessary. By addressing these factors and
186 implementing appropriate strategies, policymakers and stakeholders can work towards breaking the resource
curse and fostering sustainable economic development in resource-based poor countries. ¹



12

Figure 1: Figure 1 :Figure 2 :

187

¹ The Resource Curse Thoughts on How Resource-based Poor Countries can break the Curse



Figure 2: 4 ©

Figure 3: ©

188 [About the Alaska Permanent Fund. Alaska Permanent Fund Corporation] *About the Alaska Permanent Fund.*
189 *Alaska Permanent Fund Corporation*, <https://apfc.org/about-apfc/> Alaska Permanent Fund Corpo-
190 ration.

191 [Corden and Neary ()] 'Booming Sector and De-Industrialisation in a Small Open Economy'. W M Corden , J P
192 Neary . *The Economic Journal* 1982. 92 (368) p. .

193 [Botswana: 2022 Article IV consultation-Press release; Staff report; and statement by the Executive Director for Botswana ()]
194 *Botswana: 2022 Article IV consultation-Press release; Staff report; and statement by the Executive*
195 *Director for Botswana*, [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](https://www.imf.org/en/Publications/CR/Issues/2022/07/25/Botswana-2022-Article-IV-Consultation-Press-Release-Staff-Report-and-Statement-by-the-521327)
196 2022. International Monetary Fund.

197 [Mikesell ()] 'Explaining the resource curse with special reference to mineral exporting countries'. R Mikesell .
198 *London Journal of Research in Humanities and Social Sciences* 1997. 23 (4) . (Resources Policy)

199 [Kolstad and Søreide ()] I Kolstad , T Søreide . *Corruption in Natural Resource Management: Implications for*
200 *Policy Makers*, 2009. 34 p. .

201 [Kolstad and Wiig ()] I Kolstad , A Wiig . *Is transparency the key to reducing corruption in resource-rich*
202 *countries?* *World Development*, 2015. 70 p. .

203 [Gylfason ()] 'Nature, power, and growth'. T Gylfason . *Scottish Journal of Political Economy* 2001. 48 (5) p. .

204 [Gelb ()] *Oil windfalls: Blessing or curse*, A Gelb . 1988. New York, NY: Oxford University Press.

205 [Baland and Francois ()] 'Rent-seeking and resource booms'. J M Baland , P Francois . *Journal of Development*
206 *Economics* 2000. p. 61.

207 [Auty ()] *Resource abundance and economic development*, R Auty . 2001. Oxford, UK: Oxford University Press.

208 [Damania et al. ()] 'Trade liberalization, corruption, and environmental policy formation: Theory and evidence'.
209 R Damania , P G Fredriksson , J A List . *Journal of Environmental Economics and Management* 2003. 46
210 (3) p. .

211