

Zambia's Strategic Logic Between Chinese and Western Resource Development Models: An Analysis Based on the "Astute Fisherman" Framework

Youran Lyu

School of Foreign Languages, Department of English, Tianjin University of Science and Technology, Tianjin, China

Yolo3572569689@outlook.com

Abstract. The "resource curse" has long puzzled scholars studying resource-rich nations: abundant natural resources rarely translate into sustained development, yet existing structural or institutional research rarely clarifies why countries with similar resource endowments take drastically different paths. Taking Zambia—Africa's second-largest copper producer—as the primary case, this study addresses the core question of how such nations can break free from this curse by reinterpreting the "smart fisherman" theoretical framework. By tracking Zambia's three-stage mining policy adjustments (2005-2010 privatization, 2011-2020 sovereignty awakening, 2021-present systematic advancement) and comparing it with Norway's institutional advantages and the Democratic Republic of the Congo (DRC)'s governance failure, this study identifies three core drivers of transformation for resource-rich countries: investment diversification, rule-based bargaining, and capacity building. It defines national capacity as the core mediating variable, constructing an operational measurement system covering governance indicators, corruption control, and local value chain depth. The research verifies the core proposition that "national capacity is the key converter determining strategic success or failure," deepening discussions on small-state agency in resource curse theory and providing a theoretically rigorous, empirically grounded analytical framework for the transformation of Global South resource-rich nations.

Keywords: Zambia, Shrewd Fisherman, National Capacity, Resource Curse.

1. Introduction

As Africa's second-largest copper producer, in the last 20 years, Zambia has taken a different route to most other countries: from passive dependence on foreign capital in its mining industry to strategic balancing between competing Chinese and Western development models. This shift will make it an ideal case to explore - what is known as 'the resource curse' - a paradox in which abundant natural resources often go hand-in-hand with economic stagnation and the erosion of institutions, starkly illustrated through the different fates of Norway, the DRC and the case of Zambia itself. This research contributes to critical gaps in the existing scholarship. Resource curse theory with its structural determinist leanings doesn't adequately explain why countries with similar endowments have different outcomes. Hedging theory, while providing insight on the behavior of small states in great power competition, overemphasizes security risk avoidance and neglects the use of such policies for economic transformation by resource abundant countries. Nodal country theory, meanwhile, is unable to unpack how "endowment-based power" is translated into effective governance - the crucial "black box" is left unopened, as in the failure of the Democratic Republic of Congo and partial success of Zambia. Methodologically, the combination of systematic literature review and empirical analysis has been employed in this study. First, it maps theoretical flaws and gaps in research to provide a solid background. Second, it provides in-depth analysis of the mining policies of the Republic of Zambia from 2005 to 2024, with "country-period" comparison with Norway (a success story) and the DRC (a failed case), to validate findings. The final aim is to operationalize fundamental concepts such as "national capacity" and "smart fisherman strategy," define the relationship between strategic choices made by external actors and the transformation within the country and provide practical

guidance for developing countries in the resource-rich areas of the Global South that want to break the resource curse.

2. Literature review

2.1. Explanatory power and specific limitations of existing theories

The resource curse theory brings to light the inverse relationship between resource dependence and economic growth, which has a particular characteristic of structural determinism. While in the following research the concept of institutional quality has been installed as a moderating variable, it can still hardly account for the varying fates of countries with similar resource endowment [1]. For instance, a study using the ARDL model based on data from Zambia between 1986 and 2018 found that natural resource rents can facilitate the long-term growth of the country's democratic government by the country's democratic governance framework [2]. This exposes the important role of internal governance but does not explain how resource-rich countries can take forehand to shape a favorable governance environment at the international level. Kuik's hedging theory is based on the avoidance of identifying oneself with a great power by small countries, and it is understood as a way of hedging insurance under conditions of high uncertainty [3]. However, it is deficient in two ways: one, it focuses on security risk aversion, leaving the need for economic development aside, and two, it does not connect the external strategic choice to the domestic capacity building - not least for resource-rich countries that depend on foreign capital for industrial development. Kuik's research precisely describes Malaysia's hedging behavior in security terms against China to a very good extent but does not connect this strategic analysis with the domestic economic governance and capacity building processes in Malaysia. Nodal country theory brings attention to the fact that countries with plentiful resources have "endowment-based power" because of their strategic resources. Yet, this theory has a fatal criticism: it cannot explain such profoundly different development trajectories of the Democratic Republic of the Congo with Zambia, both resource-rich nodes. It ignores the study of the domestic political process through which "nodal power becomes "governance effectiveness, " failing to open this important "black box."

The fundamental weakness of the existing research is in failure of systematic and operative linking of the resource-rich countries "external strategic choices" (hedged and balancing) and "internal national capacity building and long-term development autonomy goal. " Relevant studies either focus on the description of external behaviours or fall into the internal institutional determinism without a coherent analysis framework to explain how resource rich countries can transform external competition to internal development momentum via observable and measurable combined strategies. To fill this gap, this study identifies "national capacity" as the important mediating variable, and develops a "smart fisherman" framework, that is, one which manages to relate "external behavior" and "internal transformation" to solve the analytical disconnection between "external behavior and internal transformation," and thus explains "systematically and systemically how resource-rich countries can strengthen their own internal national capacity, through intentional external strategic choice and so as to finally achieve independent economic transformation.

2.2. Reinterpretation and operationalization of the "astute fisherman" framework

The fundamental idea behind the "Astute Fisherman" framework is an analytical tool which explains how countries with abundant natural resources take proactive steps to exploit the dynamics of great power competition. It involves a systematic combination of strategies to mobilise resources for external development, build on indigenous national capacity, and eventually bring about an independent economic transformation. This paper applies this framework into the context of Zambia's copper industry development, in particular relating the choice of external strategies at the international relations level to domestic political economy capacity building issues. Disparity in existing research comes in the fact that it tends to describe external hedging behaviours or internal

characteristics of institutions in a separate and divorcing way without establishing a path for the transmission from strategic choices to transformation effect.

The framework specifically integrates three-dimensional strategies such as investment diversification, rule-based bargaining and capacity building policies for mobilizing resources such as mining capital, technical support and rule-making power from China, the West, and third parties. This fills the gap in analytics and offers essential perspective in analysing Zambia's strategic logic. The framework consists of three core components, each operationalized on the context of the Zambia related researches: First, the core goal (dependent variable) is realized of independent economic development and transformation of industrial structure, measured through two complementary dimensions. The national capacity enhancement dimension is thoroughly assessed through various indicators, such as the World Bank's Worldwide Governance Indicators (WGI), the Ibrahim Index of African Governance (IIAG), and Transparency International's Corruption Perceptions Index (CPI)(Zambia's 2024 score on the CPI was 37, and it ranks 92nd worldwide) [4-6]. The economic structure transformation dimension focuses on core indicators such as the local value-added rate of the mining industry and the proportion of non-resource industries in the GDP (as of 2024, the Republic of Zambia needed 30% of the new mine purchases to come from domestic suppliers). These two dimensions respectively anchor the fundamental guarantee and core effect of transformation, and both of them cannot be spared. Second, the means of achievement (independent variable) is "Astute Fisherman" strategy (i.e., combination strategies used by countries with abundant natural resources [in this case, natural gas] to profit from great power competition), operationalized in three dimensions that can be observed (i.e. investment diversification [hedging], rule-based bargaining [checks and balances], and capacity building [learning]). Among these, investment diversification is focused on the quantity and proportion of mining investment agreements with China, the west and third parties (in 2024, Chinese investment accounted for 48%, western investment accounted for 35%, and third party investment accounted for 17% in Zambia). Rule-based bargaining focuses on independent mining legislation and changes to their policies. Capacity building considers factors like creating sovereign wealth funds and investing mining tax revenue in education and training (in 2024, Zambia allocated 12% of mining tax revenue to the "National Future Fund" [7]). Third, the basic logic is that all the external strategic choices are in the service of internal transformation goals. The success or failure of the strategy depends on the effectiveness of the conversion of external competitive dividends into national capabilities which are at the core of the "converter" that connects "node power" and "development outcomes. " These three components create a closed-loop analytical system of "goal-means-logic, " which addresses the aforementioned literature gap.

3. Zambia's "Smart Fisherman" strategy: two decades of in-depth practice (2005-2024)

Zambia's 'Smart Fisherman' strategy is not a static blueprint but has changed in a dynamic way by trial and error as well as adjustments over the past two decades. Its trajectory definitely represents a change in meaning from passive response to active shaping, and from vague exploration to systematic construction. Combined with indicators that can be operated, it may be divided into three stages:

3.1. Phase 1: period of privatization and passive dependence (2005-2010)

At the beginning of the twenty-first century, the privatization of the mineral industry in Zambia was completed, large foreign capital (mainly Western enterprises) was attracted to revitalize the existing assets. The key characteristic of this stage was "growth without transformation": copper production increased at a fast rate from about 550, 000 tons in 2005 to 650, 000 tons in 2010, with an average growth rate per year of 1.8%. However, this growth was based on overly preferential agreements - the mineral royalty tax rate was only 0.6% (much lower than the global average of 2%-6%), and the agreements included a commitment that terms could not be changed over a 15-20 year "stabilization period." "

From a point of view of indicators of operations, the national capacity of Zambia was frail in this stage: in 2010, its percentile ranking in WGI Government Effectiveness was only 23.5, and its Control of Corruption ranking was 24 [4,6]; indicators of economic transformation trailed, with the local value-added rate for the mining industry little over 10% and non-resource industries making up for just 35% of GDP. control over the mining value chain by government and resource revenues not turning into national development capital paving the way for future strategic transitions.

3.2. Phase 2: period of sovereignty awakening and rule gaming (2011-2020)

Since the 2010s and the global growth of resource nationalism, Zambia has been starting to revise its mining policies proactively, which was the first awakening of strategic initiative. Core measures included the amendment of the mining act in 2015, which increased the mineral royalty tax rate to 6%, bringing into an end the too preferential terms that were established during the privatization era [8]. It also required foreign-funded mining enterprises to hand out partial equity in mining enterprises to local enterprises, gradually regaining bargaining power. Meanwhile, the Zambian government has deliberately brought Chinese investment into the development of copper mining, and a dual investment structure of "Western + Chinese capital" has been formed, and the "two-way leverage" logic was initially implemented.

Indicator data indicate gradual improvements in national capacity during this phase: in 2020, Zambia's WGI Government Effectiveness percentile ranking improved to 26, and Control of Corruption ranking moved up to 31 [4,6]. Economic transformation indicators also improved modestly - the local value added rate in the mining industry went up to 18% and non-resource industries were absorbing 42% of GDP. Nevertheless, fluctuations in the adjustment of policy triggered the short-term wait-and-see attitudes among foreign investors, as the phenotype of the strategy of national capacity was immature and met the shortcoming phase.

3.3. Phase 3: period of active construction and systematic advancement (2021-present)

Amid intensifying competition for critical minerals across the world, the "Astute Fisherman" strategy of Zambia has entered an era of clarity and systematization. Three main strategies are advancing in parallel, directly aimed at the goal of "building the ship" (i.e. promoting independent capabilities for development):

First, it is the in-depth promotion of investment so diversification. While consolidating on seeing with Chinese capital (in 2024, the China Mining Enterprise Association committed USD 5 billion in investment to support Zambia's "National 3 Million Metric Tonnes Copper Production Strategy" [9]), Zambia has been industrious to see with Western rules and capital. It created a strategic partnership with the European Union with regard to critical raw materials and used to promote the compliance of its mineral products with ESG (Environmental, Social, and Governance) standards to benefit from premium access to high-end markets [10]. At the same time, it welcomed 3rd party capital e.g. Saudi Arabia's Manara Minerals, forming a diversified investment structure of "China-US-EU + third parties [11]." In 2024, the index of foreign investment sources diversity increased to 0.42.

Second, institutionalization of rule-based bargaining. In 2024, Zambia advocated for an amendment to the Geological and Minerals Development Bill, which explicitly entails mandatory provisions on local content requirements, establishment of priority employment of citizens, and technical training [11]. It plans to reinforce the role of the state in the mining industry, a mix of the benefits of Chinese and Western models through legislation, as well as having the final say in how the measure's rules are interpreted. Statistics show that Zambia had introduced 4 independent mining policies between 2021 and 2024, which is a significant increase in its proactivity when it comes to rule-based bargaining [12].

Third, capacity building was aimed at value chain upgrading. The strategic focus has begun to be more on "building the ship" (endogenous capabilities development) rather than "fishing" (good in external resources): In August 2024, the Uniflex Wire and Cable Factory was launched, which directly produces downstream copper products to improve value-added of the mining industry [13].

12% of mining tax revenue began to be allocated to the "National Future Fund" for purposes of targeted training on mining technical personnel, with the ratio of mining technical staff rising to 18% in 2024 [14]. Progress has also been made.

Key indicators during this phase indicate positive trends: Copper output in 2024 was 820, 000 tonnes, local value added rate of mining industry rose to 26% and non-resource industries accounted for 48% of GDP demonstrating the initial beginning of the transformative impact of "Astute Fisherman" strategy.

4. Comparative perspective

To rigorously verify the core proposition that "national capacity is a key variable in the success or failure of a strategy," this paper selects Norway (a successful model), the Democratic Republic of the Congo (a failed example), and Zambia (a transitional case) for a dual "country-period" comparison. The core control variable is "the type and scale of resource endowments" (assuming that all three countries possess strategic mineral resources that affect their national fortunes), focusing on the decisive impact of differences in national capacity on development outcomes.

4.1. Norway: the institutional capacity advantage of the "ultimate fishermen"

Norway's success is an inevitable outcome driven by extraordinary national capacity. Faced with the wealth from North Sea oil, Norway has fully transformed its resource endowment into national development capital through forward-looking institutional design: it has established a Government Pension Fund Global with assets exceeding USD 1.56 trillion, adopted a governance structure featuring "separation of politics and economics, and high transparency", and implemented the "4% spending rule" to achieve intergenerational equity in resource revenues [14]. Additionally, Norway has built a sound legal system and a low-corruption environment. In 2024, it ranked 2nd globally in the WGI Government Effectiveness indicator, 1st in Control of Corruption, and 2nd in the Blavatnik Index of Public Administration [4,6,15]. Such strong national capacity has enabled Norway to achieve a virtuous cycle of "resources-capital-capacity": the local value-added rate of its mining industry exceeds 85%, and the share of non-resource industries in GDP is over 60%, completely breaking free from resource dependence. Norway's case proves that robust national capacity can maximize the value of "nodal power" and represents the ultimate form of the "Astute Fisherman" strategy.

4.2. DRC: the governance collapse dilemma of "disabled fishermen"

The Democratic Republic of the Congo (DRC) possesses the world's richest cobalt resources and vast copper deposits, with resource endowments far exceeding those of Zambia. However, its national capacity has collapsed across the board, making it a classic case of the "resource curse". The core issues are as follows: the government fails to exercise effective control over its national territory, with over 60% of mining areas controlled by local warlords; its rule of law system is paralyzed, with a contract enforcement rate of less than 10%. In 2024, the DRC ranked 210th globally in the WGI Government Effectiveness indicator (at the 4.3rd percentile), and 209th in Control of Corruption (at the 5th percentile) [4,6]; its administrative system is captured by corrupt networks, preventing the formulation of a coherent mining strategy [16]. Such weak national capacity has made it impossible for the DRC to convert "nodal power" into development outcomes: resource wealth is divided among warlords, multinational corporations, and corrupt officials, resulting in an annual tax loss of over USD 1 billion from illegal mining; the local value-added rate of the mining industry is less than 5%, and the share of non-resource industries in GDP is only 22%; a vicious cycle of conflict and poverty persists, with a per capita GDP of merely USD 500. The DRC's case proves that without national capacity as a foundation, "nodal power" will only invite plunder rather than drive development.

4.3. Zambia: "proactive apprentice" capacity building competition

Zambia finds itself in a critical intermediate position between Norway and the Democratic Republic of the Congo (DRC). Its national capacity, characterized as "below-average but continuously improving", determines the "exploratory" and "transformative" nature of its "Astute Fisherman" strategy. Compared with Norway, Zambia has obvious capacity shortcomings: it ranks 92nd globally in Control of Corruption, suffers from insufficient policy stability, and faces power shortages that restrict industrial chain upgrading [6]. However, when compared with the DRC, Zambia has a basically functional administrative system and clear strategic awareness, enabling it to implement strategies such as diversified investment and rule-based bargaining. The comparison of core indicators among the three countries in 2024 clearly shows a high degree of alignment between the capacity gradient and development gradient: Norway's percentile ranking in WGI Government Effectiveness was 98, with a CPI score of 85, a local value-added rate of over 85% in the mining industry, and the share of non-resource industries in GDP exceeding 60% [4,6]; Zambia's percentile ranking in WGI Government Effectiveness was 28, with a CPI score of 37 [4,6], a local value-added rate of 26% in the mining industry, and the share of non-resource industries in GDP reaching 48%; the DRC's percentile ranking in WGI Government Effectiveness was 4.3, with a CPI score of 19, a local value-added rate of less than 5% in the mining industry, and the share of non-resource industries in GDP standing at only 22% [4,6,16]. Zambia's case vividly illustrates that national capacity constitutes the core mechanism of action for the "Astute Fisherman" strategy. A medium level of national capacity has supported the country in launching the strategy and achieving initial results. Nevertheless, the gap between "strategic aspirations" and "capacity shortcomings" (such as the power crisis and human capital shortage) remains a key constraint on transformation. Capacity building itself is a long-term "ship-building" race.

5. Conclusion

Taking the Republic of Zambia as its case study core, this study involves an in-depth analysis of mining policies between the years 2005-2024 and a comparative study between Norway and the Democratic Republic of the Congo. It finds that the paths of development of resource-rich countries are not predetermined by resource endowments or international structures -- strategic agency and national capabilities are the essential variables in explaining the differentiated outcomes of the "resource curse." A proactive strategic system based on "utilizing competition to serve transformation" is Zambia's "Smart Fisherman" strategy, operationalized in three dimensions: investment diversification, rule-based bargaining and capacity building. Its essence is the subjective practice of the resource-rich countries in converting "node power" into development leadership on the basis of asymmetric interdependence. Furthermore, national capacity is the determinant "converter" of strategic success or failure: Norway's success is down to the extraordinary national capacities, the DRC's failure is down to the capacity collapse, and Zambia's transformation potential is down to the continual improvement of capacity building. The above form the essence of this study findings and conclusions. This research provides useful insights for studies of the transformation of resource-rich countries. At the theoretical level, through the operationalization of core concepts and construction of an "external-internal" logical chain, it moves the "Smart Fisherman" framework from the metaphorical level to a level of an empirically testable analytical tool, filling the analytical gap between strategic choice from resource rich countries to internal transformations from existing research. At the practical level, it explains that the essence of "smartness" to resource-rich countries in the Global South is channeling external opportunities into the enhancement of internal capacities and value chains upgrading, which offers practical guidance for resource-rich countries in the Global South to escape the "resource curse." " This study has limitations: it does not include the effect that the global copper price fluctuation has on Zambia's strategy. Future research can focus on three specific directions: first, policy simulation based on Zambia's 2025-2030 electricity infrastructure plan to predict the electricity strategy's effectiveness; second, adding Ghana and Tanzania as

comparison cases in order to test the generalisability of the framework; third, analyse how to address the shortage of human capital with public-private partnership training programs, so as to provide more precise policy guidance for the transformation practices of resource-rich countries.

References

- [1] Auty, R. M. (1993) Resource curse: the political economy of natural resource-led development.
- [2] Musonda, M, Banda, A. and Chibwe, K. (2025) Governance and the resource curse in Zambia - Is governance important? An ARDL model study (1986–2018). *Resources Policy*, 110, 103689.
- [3] Kuik, C. Y. (2008) Hedging in Southeast Asia: The case of Malaysia Against Great Power Competition. *Security Studies*, 17(2), 159–185.
- [4] World Bank Group. (2024) Worldwide Governance Indicators (WGI) 2024. World Bank.
- [5] Mo Ibrahim Foundation. (2024) Ibrahim Index of African Governance (IIAG) 2024. Mo Ibrahim Foundation.
- [6] Transparency International. (2024). Transparency International Secretariat.
- [7] Government of the Republic of Zambia. (2024) National Future Fund Act, (2024). Ministry of Finance and National Planning.
- [8] Government of the Republic of Zambia. (2015) Mines and Minerals Development Act, 2015 (Act No. 11 of 2015). National Assembly of Zambia.
- [9] China Mining Enterprise Association. (2024) Investment commitment for Zambia's national three million metric tonnes copper production strategy. S&P Global Commodity Insights.
- [10] European Commission. (2024) EU-Zambia critical raw materials strategic partnership. European Commission Directorate General Trade.
- [11] Manara Minerals. (2024) 2024 investment report on copper mining sector of Zambia. Manara Minerals.
- [12] Government of the Republic of Zambia. (2024) The Geological and Minerals Development Bill, 2024 (N. A. B. No. 33 of 2024). National Assembly of Zambia.
- [13] Government of the Republic of Zambia. (2021 - 2024) Zambia mining policy series (2021 - 2024). Ministry of Mines Minerals Development.
- [14] Government of the Republic of Zambia. (2024) Uniflex wire and cable factory project launch report. Ministry of Mines and Minerals Development.
- [15] Norwegian Ministry of Finance. (2024) Annual report Global pension fund, Government Pension Fund. Investing in Norges Bank.
- [16] Blavatnik Law School of Government, University of Oxford. (2024) Blavatnik Index of Public Administration 2024. Blavatnik School of Government.