

CHAPTER 1

The legacy of resource dependence – an introduction

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From the beginning of human civilisation, access to resources has been crucial for the people living in hunter-gatherer tribes, later in villages, cities, city-states, states and empires. Early humans needed flint to produce tools and weapons, while advanced economies rely on energy resources (e.g., natural gas, oil) and rare earth elements (e.g., lithium or cobalt). Raw materials have been both the source of prosperity and armed conflict. Silver enabled Athens to build a powerful fleet that defeated the Persians at the Battle of Salamis in 480 BC. Between 1519 and 1572, the Spanish conquistadors destroyed the Aztec and Inca empires motivated by an intense desire for gold. Later, the influx of gold and silver from South America turned Spain into an empire on which the sun never set. In the late 19th century, Spain and its former colonies of Bolivia, Chile,

Ecuador and Peru fought over the guano-rich Chincha Islands. Following the rise of industrialisation, the amount of raw materials needed to sustain an industrialised economy increased. In the 20th century, oil became the lifeblood of the world economy. Oil was one of the reasons why Hitler decided to advance towards the Caucasus in 1942, an endeavour that ended in disaster for Nazi Germany. Similarly, Japan attacked the United States and conquered Malaya and the Netherlands East Indies because the Empire of Japan needed crude oil to fuel its economy and war effort. For the US – the global superpower – securing its interests in the oil-rich Middle East was an important factor. The Carter Doctrine stated it clearly: “It demands the participation of all those who rely on oil from the Middle East and who are concerned with global peace and stability. [...] We must call on the best that is in us to preserve the security of this crucial region. Let our position be absolutely clear: An attempt by any outside force to gain control of the Persian Gulf region will be regarded as an assault on the vital interests of the United States of America, and such an assault will be repelled by any means necessary, including military force” (138. Address by President Carter on the State of the Union Before a Joint Session of Congress). When Saddam Hussain invaded Kuwait in 1990, largely for economic reasons, including the control of this oil-rich state, the US-led coalition liberated Kuwait and crippled Iraq’s war capabilities (Kostiner, 2009, pp. 78–114; Hallion, 2022, pp. 87–92). After that, Hussein’s regime was not a threat for regional US allies, nor could it attempt to control or destabilise the oil market. Overall, many researchers underline the fact that control over natural resources has been one of the key determinants of military conflicts and wars (Acemoglu, Golosov, Tsyvinski & Yared, 2012; Homer-Dixon, 1991; Tøset, Gleditsch & Havard, 2000; Westing, 1986). In the 1980s, the term “resource war” was popularised, as a metaphor describing tensions between the US and the Soviet Union over the control of fossil fuels and minerals in disputed areas, primarily over oil in the Middle East and minerals in Southern Africa (Le Billon, 2007; Klare, 1981). In the book entitled *Resource Wars: The New Landscape of Global Conflict* (2001), Michael

Klare argues that control of crucial natural resources has become increasingly important and will be the main cause of future wars. These conflicts will be not only about oil, or rare earth metals, but also over water and arable land. In 1980, Boutros Boutros-Ghali commented that “The next war in our region will be over the waters of the Nile, not politics” (Musau, 2023, p. 365).

A resource can be both a blessing and a curse for a state or region. The Democratic Republic of the Congo (DRC) is vivid sample how ineffective governance and external pressure can lead to poverty and conflicts, despite the fact that the DRC is such a mineral-rich country, e.g., housing over 60% of the world’s coltan reserves, essential for renewable energy technologies and almost all electronics. Another negative example is the Panguna copper mine, located in Bougainville, Papua New Guinea. The mine opened in 1972, and at the time it was the largest open-pit copper-gold mine. Prior to its closure in 1989 (as a result of industrial sabotage and the subsequent uprising by local tribes), the Panguna mine accounted for 8% of Papua New Guinea’s gross domestic product, 35% of its export earnings and 12% of the revenue of the central government in Port Moresby (Elek, 1992, p. 62). However, local landowners who lost their land to mining, and faced challenges generated by the contamination of water and soil, received between 0.2 and 1.35% of the mine’s profits (Firth, 2020, p. 192; Regan, p. 358). Most of the revenues were transferred to Papua New Guinea’s central government and the Rio-Tinto company, which resulted in armed conflict in Bougainville (1988–1989). The copper-gold mine is still closed, and Bougainville will probably become an independent state in 2027, if the current political process continues. The disregard of local communities’ interests by large international corporations when exploring for resources also takes place in many other regions of the world. In southern Peru, the Chinese company Minerals and Metals Group owns the Las Bambas copper mine. This has become a source of controversy for local people, who highlight the mine’s significant negative socio-environmental impact on their lives (Johnson, 2022). Uranium has become Niger’s strategic asset, although state

uranium revenues have done little to alleviate poverty or instability in the country. France gained the real benefits of Niger's uranium, although in June 2025 Niger's military junta said it would nationalise the majority French-owned local uranium company (Muia & Winter, 2025). The question is whether it will really improve the situation in deprived areas in Niger. The examples given above show that having resources alone does not guarantee prosperity and development for a local community, region or state. The issue of "resources" has been, and continues to be, analysed by researchers (Auty, 1993; Sachs & Warner, 1995, 2001; Humphreys, Sachs & Stiglitz, 2007). The "resource curse" describes the paradoxical situation in which a country with valuable natural resources underperforms economically, due to poor governance, corruption or just by concentration on a few resource-dependent industries. Apergis and Payne (2014), Ismail (2010), Bruno and Sachs (1982), and many others, have studied the "Dutch disease" issue, which occurs when a resource boom reduces the internal incentives to produce, and/or the international competitiveness of, domestically produced non-resource tradable goods (Mien & Goujon, 2021, p. 2).

The "resource curse" and "Dutch disease" illustrate the problems caused by the abundance of natural resources. It is also worth remembering that, according to the popular proverb: "A great fortune in the hands of a fool is a great misfortune". However, it is clear that minerals, oil and other resources can make those who possess them rich and prosperous, whether they are private individuals, corporations or states and empires. Mining.com (2025) estimates that the world's most valuable miners had a combined market capitalisation of just under \$1.5 trillion, reaching a respectable \$213 billion so far in 2025. States also can benefit from resources. Ville and Wicken (2013) underline that both Australia and Norway have achieved modern levels of development as resource-based economies, simultaneously avoiding the "resource curse". The People's Republic of China is trying to enhance its control over rare earth minerals, which are essential for electronics, automotive systems and defence systems. This is a significant advantage for the PRC in the rivalry

of contemporary great powers. The Russian Federation uses its energy resources to strengthen its geopolitical position by making consumers dependent on Russian energy supplies. Before the full-scale Russian invasion of Ukraine, Russia supplied the EU with fossil fuels (oil, natural gas). Germany, for instance, relied on Russian gas. Berlin sought commercial benefits from importing cheap Russian gas and also had plans to become Europe's major energy hub. However, Russian-German energy cooperation was complicated by Russia's revisionist politics (Kedzierski, 2022; Chikhladze, 2022, p. 2).

Overall, natural resources can be both a source of armed conflict, poverty, inequality and crime, and a foundation for wealth, prosperity, development and progress. They are an essential part of human civilisation; without them, society as we know it would collapse. Therefore, every effort to explain and illustrate the phenomenon and significance of resources is important.

The book *The Resource Nexus: Competition and Cooperation in a Resource-Constrained World* is structured around three analytically distinct yet interrelated thematic threads: (1) natural resources and regional power dynamics, (2) resource management and economic development, and (3) political instability and environmental consequences of resource exploitation. These themes were deliberately selected to capture the multifaceted nature of resource governance, reflecting its geopolitical, socio-economic and environmental dimensions. They emerged from a critical review of contemporary scholarly debates and policy discourses surrounding global resource challenges, particularly under conditions of scarcity and geopolitical contestation. Their inclusion enabled a structured yet interdisciplinary examination of how resource interdependencies shape conflict, cooperation and development trajectories across different regional contexts. Each contributing author concentrated on one of these axes, allowing for a nuanced exploration of the resource nexus from complementary disciplinary and regional perspectives.

The first thematic thread explores how natural resource endowments shape geopolitical influence, economic sovereignty and regional

hierarchies of power. In global politics, resources such as oil, gas, rare earth elements and freshwater are not merely commodities but strategic assets that states leverage to project power and secure autonomy. Moreover, states and regional actors use control over these resources – and the technologies developed from them – to influence international relations and reshape global security dynamics (Klare, 2012, chapter 1; Scholvin & Wigell, 2018, pp. 74–75; Allouche, 2011, p. 54; Boersma & Johnson, 2012). In an era of deepening globalisation and interdependent supply chains, such control over extraction and transit points grants states disproportionate leverage across multiple sectors of the global economy (Korinek & Kim, 2011, pp. 8–15; Ramberg, Chen, Paltsev & Parsons, 2015). Moreover, the uneven structures of extraction and import – where resource-rich regions often serve as primary exporters to industrialised consumer economies – reinforce asymmetries of power and dependency within the international system (Bridge, 2008, pp. 397–404; Burchardt & Dietz, 2014, pp. 472–478). It also addresses the formation of resource-based coalitions and institutions, which exemplify how states can coordinate resource governance to gain geopolitical leverage (Colgan, 2013). The securitisation of resource access further illustrates the strategic importance of controlling production, transit and supply routes (Kaplan, 2010, pp. 35–50; Szyliowicz & Zamparini, 2022, pp. 717–718). Additionally, the thread engages with the rise of resource nationalism, where states reassert sovereignty over extractive sectors to counterbalance external influence (Wilson, 2015). By examining these dynamics, the theme provides a critical framework for understanding how natural resources function as both tools of cooperation and drivers of competition. Its inclusion in the book allows for a nuanced analysis of the enduring and evolving role of resources in shaping regional and global power structures.

The second thematic thread delves into the intricacies of resource management and its intersection with economic development in the contemporary world. A development model based primarily on resources can prove to be an effective path to modernisation for developing countries, but only with careful management of those resources

and the potential wealth they generate. A well-known example of successful implementation is Norway (Okpaleke & Abraham-Dukuma, 2020, pp. 127–130), whereas countries like the Democratic Republic of the Congo illustrate the opposite dynamic (McFerson, 2009, pp. 1535–1537). It can be argued that for resource-rich countries, attracting enterprise and reinvesting earnings in education and the promotion of entrepreneurship is of great importance (Drake, 1972, pp. 960–962). The direct impact of resources on development, and how they shape political dynamics in specific regions, has long been debated by scholars. There is no consensus on the exact relationship between resource abundance and governance or development – in some cases, the correlation has even been described as statistically insignificant (Ning Ding & Field, 2005, p. 501). Some researchers argue that high resource exports often increase corruption levels and negatively affect governance, while others suggest the reverse: that countries with weak institutions and poor governance are more likely to rely on resource exports (Busse & Gröning, 2013, pp. 3–5). Moreover, the lack or scarcity of certain vital resources, such as water or fossil fuels, can have a huge impact on the security and political dynamics of specific countries and regions, including their foreign relations (van Agt, 2013, pp. 196–197). Given the complexity and ambivalence of this relationship, addressing this theme within the book is invaluable. It offers diverse empirical cases showing how natural resources shape economic performance, political stability and institutional development across regions – highlighting the risks and dynamics stemming, *inter alia*, from managing scarce resources and navigating dependence on resource imports.

The third thematic thread addresses the complex chain between resource extraction, political instability and environmental degradation – an intersection that has become increasingly central in both academic analysis and policy debates. The so-called “resource curse” or “paradox of plenty” has demonstrated how natural resource wealth, rather than guaranteeing development and stability, often exacerbates governance failures, deepens institutional fragility and fuels conflict, particularly in

countries with weak regulatory capacity and extractive-dependent economies (Ross, 2004, pp. 338–339). Natural resources, when unequally distributed or controlled by political elites, can serve as both a source of revenue for patronage networks and as a target for insurgent groups, thereby intensifying social fragmentation and state vulnerability (Humphreys, 2005). The environmental consequences of extractive activity, particularly in the so-called Global South, further entrench instability. Large-scale mining, oil drilling and logging frequently result in deforestation, biodiversity loss, water contamination and the displacement of local populations (Bebbington et al., 2018, p. 13165). These disruptions disproportionately affect indigenous communities and marginalised rural populations, leading to contested land claims and resistance movements (Li, 2011, pp. 477–478). The militarisation of extractive zones – under the pretext of “securing” resource corridors – often leads to violent confrontation between state forces, private security actors and local populations, further entrenching cycles of violence (Le Billon, 2001, pp. 565–567). Importantly, these dynamics are embedded within transnational structures of demand and capital flow. The global push for energy transition, including demand for lithium, cobalt and rare earths, risks reproducing extractivist patterns in ecologically sensitive regions (Kiggins, 2015). Environmental degradation and socio-political grievances in such regions are thus not isolated phenomena but are structurally linked to consumption patterns and technological priorities in the so-called Global North. Sustainable and inclusive governance mechanisms are essential to mitigating the destabilising effects of extractivism. These include environmental peacebuilding, participatory resource management, benefit-sharing frameworks and the legal empowerment of affected communities (Brand, Boos & Brad, 2017, p. 38; Maachi, Saadane & Chehri, 2025). Addressing these issues requires not only local reforms but also a rethinking of global supply chains and accountability in international investment regimes. In this light, resource governance emerges not merely as a technical or environmental challenge, but as a central question of justice, sovereignty and long-term peacebuilding.

In addition to the three main thematic threads, the book incorporates several interconnecting themes that recur with varying intensity across different chapters and help weave individual contributions into a cohesive analytical fabric. One such transversal thread interrogates the tension between national sovereignty and the structural dependencies generated by global supply chains, international commodity markets and foreign direct investment. While resource-rich states have historically pursued economic strategies based on comparative advantage – often centring on a single commodity – the volatility of global markets and the complexity of transnational production networks have increasingly constrained their autonomy (Karl, 1997; Moran, 2011; Brunnschweiler & Bulte, 2023, p. 2). The notion of “resource sovereignty” is further complicated by the dominance of multinational corporations in extractive sectors and the geo-economic leverage exerted by consumer economies in the so-called Global North (Bridge & Le Billon, 2017). In this context, the capacity of states to control the terms of extraction, pricing and distribution is often limited by contractual obligations, technological dependencies and the need to maintain investor confidence (Pellegrini, 2011, pp. 21–22, 149–150). Moreover, the integration of raw materials into highly specialised global value chains – especially in strategic sectors such as rare earth elements or lithium – has made unilateral resource governance increasingly difficult (Kiggins, 2015; Farrell & Newman, 2019, p. 48, 74–75). The contributions in this book thus explore whether and how states can reclaim forms of strategic autonomy under such conditions. They examine the viability of industrial diversification, the strategic use of export controls and regional cooperation frameworks as potential pathways to enhance agency within an interdependent system. This theme ultimately underscores the broader paradox of the contemporary resource nexus: that the very instruments of globalisation meant to foster development may, under certain conditions, erode the sovereign capacity to govern resources in the national interest.

Another recurring notion is strongly connected to the colonial legacy of many developing countries whose economies are dependent on natural

resources. More often than not, the divergence in incomes across countries after the Industrial Revolution and the hardship in establishing strong political institutions and effective governance are attributed to the colonial legacy of the Global South (De Juan & Pierskalla, 2017). One of the most important reasons for the colonial expansion of European powers was the acquisition of natural resources (Munyai, 2020, pp. 1–2). This trend often continues today in the form of neo-colonial relationships between developed countries and emerging economies and low-income, resource-rich countries – especially in Africa (Langan, 2017, Chapter 2 & 4). This theme is visibly highlighted throughout most of the chapters, as many of them address the problems faced by countries that are former colonies, with some of them still being subjected to neo-colonial dependence.

Many of the chapters also touch on the issues of violence, corruption and general instability associated with natural resources – mostly in underdeveloped countries – which often stem from the previously described colonial past of these regions. In recent decades, there has been growing scholarly interest in exploring a potential correlation between natural resource abundance and armed conflict, with some studies demonstrating that the presence of natural resources often leads to longer and more violent wars (Hinkkainen Elliot & Kreutz, 2019, pp. 500–501). Evidence from numerous countries – such as Brazil, India and various non-democratic regimes – has also shown a positive correlation between windfalls of natural resource wealth and increased levels of corruption (van der Ploeg, 2011, pp. 374, 378). In general, the contestation over resources by both state and non-state actors has led to a significant decline in stability, particularly in countries and regions with weaker institutions, such as India, Niger, Afghanistan and the Democratic Republic of the Congo, as repeatedly illustrated throughout this book's chapters. However, it is worth noting that contrasting examples – such as Norway or Botswana – also exist (Okpaleke & Abraham-Dukuma, 2020, p. 127; Hillbom, 2008, pp. 191–193, 209–211).

Described cases also frequently draw from the theoretical concept of the “resource curse”. Also referred to as the “paradox of plenty”, this

phenomenon refers to a tendency identified in academic literature: that resource-rich countries often experience slower economic growth than their resource-poor counterparts (Busse & Gröning, 2013, pp. 1–2). The origins of the theory are commonly traced to the discovery of oil reserves in the North Sea, which led to deindustrialisation in the Netherlands and the United Kingdom – a process later dubbed “Dutch disease” (Di John, 2011, pp. 168–170). Although some studies suggest that the resource curse is avoidable in countries with strong institutions (Mehlum et al., 2006, p. 16), the concept remains a valuable analytical tool in examining resource governance and instability in resource-rich nations, as it highlights recurring patterns across numerous distinct cases. This concept also intersects with debates about governance quality, rentierism and institutional development – raising important questions about the extent to which natural wealth supports or undermines democratic stability and long-term economic diversification (Lawson-Remer, 2012).

Another theme is the crisis of state legitimacy in the context of extractive development. In many cases, states have not only failed to safeguard public goods – such as clean water, arable land or air quality – but have actively enabled, or directly participated in, extractive activities that harm both ecosystems and affected populations (Bebbington et al., 2018, pp. 13166–13167; Li, 2011, p. 480). The prioritisation of short-term fiscal or geopolitical gains over long-term sustainability has deepened citizen distrust, particularly in regions where communities experience displacement, pollution or resource scarcity without adequate redress or compensation. This legitimacy crisis is exacerbated in contexts where formal democratic institutions exist, but mechanisms of accountability are weak or co-opted. Governments may invoke the language of development while suppressing dissent and limiting access to legal recourse or participatory governance (Aidee, 2022, pp. 13170–13171). Moreover, shared resources such as rivers, forests or groundwater – often considered part of the commons – are frequently subject to privatisation or elite capture, undermining collective rights and further alienating communities (Le Billon, 2001, p. 568, 570–572). This dynamic creates a paradox: the state,

ostensibly responsible for stewarding national resources and protecting its citizens, becomes complicit in processes that generate ecological harm and socio-political marginalisation. Leifsen et al. (2017, pp. 1051–1052) demonstrate how participatory mechanisms in mining contexts across Latin America and Asia are often instrumentalised to manage dissent rather than empower citizens. While local resistance movements and international watchdogs occasionally force policy change, structural barriers to civic engagement remain high – especially in regions with authoritarian governance or entrenched clientelist networks.

The final cross-cutting theme is resource governance. This topic is addressed – either explicitly or implicitly – in virtually every chapter of the book, as resource governance is a fundamental component of policymaking, both domestic and foreign, and functions across multiple levels: from the rights of individuals and communities, through societal and national perspectives, to regional and international frameworks (Saito-Jensen, 2015, pp. 4–5, 9–11). Various governance tools are examined in the book, including legislation, public consultation processes and accountability mechanisms. It is also important to recognise different models of governance, particularly with regard to the degree of centralisation. The engagement of local and indigenous communities in governance has recently become a particularly significant area of inquiry, as it is part of a broader movement toward the empowerment of marginalised groups and the recognition of their rights (Hernes et al., 2021, pp. 1–4). State ownership of natural resources – and thus the state's direct role in managing them – remains a key factor in the development trajectories of many countries. The role of the state has been extensively analysed in academic discourse, especially concerning how state-society relations in resource-rich countries have often contributed to rentier dynamics and patterns of underdevelopment (Nem Singh, 2024, pp. 30–31). This theme, like the others described above, serves as a conceptual thread connecting the individual chapters of the book into a cohesive whole – contributing meaningfully to the broader discussion on how natural resources shape contemporary economies, development paths and political systems.

This book offers a comprehensive and critical exploration of the contemporary dynamics shaping global resource politics. It brings together selected contributions from emerging researchers whose work spans a wide range of disciplinary perspectives and regional specialisations. The authors draw on international relations, security studies, political economy, environmental governance and development studies, as well as insights from area studies focused on Europe, Eurasia, Asia, the Middle East and Africa. Their analyses are further informed by approaches from migration studies, legal and institutional analysis, and energy and climate policy. Collectively, the chapters reflect the multidimensionality of today's resource-related challenges and contribute to rethinking the conceptual and strategic frameworks through which global interdependencies, contestations and cooperative arrangements over natural resources are examined.

Julia Badura uses the case of the Kumtor gold mine in Kyrgyzstan to explore how large-scale resource extraction shapes political authority, environmental stability and social trust in resource-dependent states. She demonstrates how Kumtor, while central to the national economy since 1997, has also generated long-term socio-environmental harm and contributed to the erosion of institutional legitimacy. The chapter situates the mine within the framework of the resource curse, illustrating how extractive industries can exacerbate state fragility, particularly in post-Soviet contexts marked by limited transparency and weak regulatory oversight. Badura traces how local resistance, geopolitical tensions and the eventual nationalisation of the mine in 2021 reflect a broader crisis of governance and legitimacy, and argues that without robust accountability mechanisms, the economic benefits of resource extraction remain precarious and can deepen social inequalities. The chapter calls for rethinking resource management not merely as an economic issue, but as a deeply political and institutional challenge.

Brian Chaggu utilises the case of coltan mining in the Democratic Republic of the Congo to illustrate how the presence of globally demanded resources can exacerbate political instability and fuel local conflicts. The

chapter highlights the challenges of managing such resources in countries that, despite their abundant natural wealth, suffer from weak institutional and regulatory frameworks. It also describes the relationship between local militias and state actors, and how their activities are shaped by the dynamics of coltan extraction in the DRC. This situation often results in serious social and ecological harm to local communities, which remain impoverished even as their territories generate vast mineral profits. Although certain international initiatives have sought to engage multinational companies and impose due diligence requirements to improve the situation, their impact has so far been negligible. The analysis argues for the urgent need to implement cooperative governance structures and ethical sourcing practices. Furthermore, the chapter underscores the importance of continued research into institutional reforms and technological innovations that could support a transition toward more sustainable and equitable resource governance in the DRC.

Mateusz Jedliński analyses the impact of uranium extraction in Niger on the country's historical, geopolitical and strategic role in international politics. The presence of a strategically crucial resource such as uranium can enhance a country's significance in global energy security, given the importance of nuclear power for many contemporary developed and emerging economies. However, resource abundance without a strong institutional and legislative framework can also deepen underdevelopment and entrench unsustainable extractivist dynamics. This has placed Niger at the intersection of competing foreign interests – particularly from France, China and Russia – each seeking to secure access to its resources. The chapter also examines how the recent coup d'état in Niger has affected its political and economic landscape and sovereignty, focusing on uranium extraction as the central point of analysis. It also contributes to the broader debate on how natural resources and regional power structures shape international alignments and postcolonial state-building in the Sahel region.

Cezary Krata investigates how Germany's long-standing dependence on imported fossil fuels – particularly from Russia – exposed the

structural vulnerabilities of its energy system during the 2022 energy crisis. The chapter situates this fragility within the broader context of the *Energiewende* and the liberal logic of energy markets, showing how these frameworks collided with geopolitical realities after Russia's invasion of Ukraine. Through qualitative analysis of policy reports, party discourse and institutional responses, the chapter argues that the crisis marked a turning point: Germany's previous reliance on trade as a tool of transformation (*Wandel durch Handel*) was supplanted by a securitised, state-led approach to energy policy. Krata examines not only the rapid infrastructural and regulatory shifts – including diversification efforts and expansion of LNG capacity – but also the politicisation of fossil fuels within party politics. He shows that fossil resources now function as contested political symbols, with far-reaching implications for Germany's democratic stability, strategic autonomy and climate agenda.

Weronika Krupa offers a critical examination of the gap between China's ambitions and its current performance in the global semiconductor industry. The chapter explores how, despite possessing abundant natural resources essential for chip production – such as silicon, gallium and germanium – China remains dependent on foreign technologies and supply chains, especially those controlled by geopolitical rivals like the US, Taiwan, Japan and South Korea. Through analysis of industrial strategies, resource endowments and political constraints, the chapter demonstrates that China's struggle to lead the sector stems not from lack of materials, but from systemic economic and political dependencies. It also considers how trade restrictions and export controls have complicated Beijing's goals of self-reliance. At the same time, the chapter highlights the state's ongoing determination to overcome these barriers, positioning semiconductors as a central priority in China's developmental agenda. Ultimately, the study shows that technological leadership in a resource-rich country is shaped less by physical abundance than by the geopolitical structure of the global economy.

Jakub Mądry analyses Poland's natural gas dependency on Russia through the theoretical framework of complex interdependence, focusing

on the political and economic implications triggered by the 2022 Russian invasion of Ukraine. The chapter highlights how the sudden disruption of Russian gas supplies exposed Poland's sensitivity – short-term economic and political costs – while also assessing its longer-term vulnerability regarding alternative supply routes and domestic production capacity. **Mądry** demonstrates that despite Poland's initial heavy reliance on Russian gas, the country swiftly diversified its imports and strengthened infrastructure, thus reducing vulnerability and enhancing energy security. The study further explores how this shift affected Poland's geopolitical position within Central Eastern Europe, revealing the interplay between resource dependency, sovereignty and regional power dynamics. The chapter concludes that Poland's experience underscores the importance of proactive energy policy and infrastructure development in managing complex interdependence in resource-sensitive sectors.

Zuzanna Piotrowicz uses the case of the socio-environmental conflict surrounding the Las Bambas mine in southern Peru to highlight the problems and challenges posed by newly emerging neo-colonial dependencies based on unsustainable extractivist practices. Chinese state-owned enterprises are examined through the lens of their involvement in Peru's mining sector to demonstrate how they leverage investment strategies to secure access to copper – a strategic resource for the Chinese economy. The chapter investigates both the direct impact of these dynamics on Peru and its local communities, as well as the responses of the government in Lima and those directly affected by the project. When situated in a broader context, this case illustrates historical patterns of political violence and exclusion in Peru's rural areas, while also underscoring the need for further examination of Chinese neo-colonial tendencies in their relations with the Global South and the long-term implications of Chinese investment in the Andean part of South America.

Krzysztof Stefan explores how water scarcity and its implications for India shape various dimensions of the country's internal security landscape. Water security – consistently threatened in India by ongoing trends such as climate change, demographic pressure, poor governance

and pollution – is presented as a vital component of national stability. The analysis highlights key structural challenges in managing water scarcity, including an outdated and decentralised governance model and the persistent knowledge-governance gap, which significantly undermines the effectiveness of water management in India. Although the chapter concludes that the outlook for India's water security in the coming years is alarming and that current measures have proven largely ineffective, it suggests that the consequences can still be mitigated. This would require a paradigm shift in governance, substantial investment in the water management sector and legislative reforms aimed at addressing the root causes of insecurity.

Katarzyna Sypień analyses the strategic and multifaceted engagement of China, Japan and South Korea in Arctic extractive industries, focusing on how these East Asian actors navigate legal and geopolitical constraints imposed by Arctic states. The chapter highlights a triadic actor model – governments, state-owned enterprises and private firms – that works in coordinated but low-profile ways, using joint ventures, diplomatic efforts and technological partnerships to gain incremental access to mineral and energy resources without provoking direct conflict. **Sypień** outlines a “salami-slicing” strategy that involves gradually building influence and integrating into Arctic supply chains while adhering to sovereignty norms. The study emphasises the growing geopolitical and economic importance of the Arctic and how East Asian states' investments and cooperation reshape global resource flows and Arctic governance. It provides an examination of the mechanisms and implications of this geoeconomic shift, emphasising its quiet yet transformative impact on the region.

Besmillah Taban offers an in-depth examination of how the Taliban have used Afghanistan's natural resources to finance terrorism and organised crime. Focusing on both the insurgency period (2001–2021) and developments after the 2021 takeover, the chapter illustrates how the group built an extensive and multilayered financing system based on illegal mining, logging and, particularly, narcotics trafficking. The

Taliban's taxation of opium, control over forested areas and strategic use of smuggling routes enabled them to sustain military operations and governance functions. Special attention is paid to the group's interactions with transnational criminal networks, which helped expand the reach of Afghan opiates and minerals. While claiming reformist intentions after 2021, the Taliban's growing involvement in synthetic drug production and continued exploitation of resources raise concerns about the entrenchment of a war economy. The chapter contributes to broader academic debates on the nexus between resources, conflict and non-state armed actors.

This volume, composed of the chapters described above, offers a multifaceted exploration of the complex dynamics shaping resource competition and cooperation in a world facing increasing environmental and geopolitical constraints. By bringing together perspectives from emerging scholars across disciplines and regions, it deepens our understanding of how natural resources influence political, economic and social relations globally. The editors would like to sincerely thank the Strategic Program "Excellence Initiative" at the Faculty of International and Political Studies of the Jagiellonian University for generously funding the publication of this volume. They also extend their gratitude to the Faculty for its continuous support of research conducted by emerging scholars. It is hoped that this collection will provide a thoughtful and multifaceted reading experience, offering useful perspectives on the complex issues surrounding natural resources in the contemporary world.

BIBLIOGRAPHY

- Acemoglu, D., Golosov M., Tsyvinski A., & Yared, P. (2012). A Dynamic Theory of Resource Wars. *The Quarterly Journal of Economics*, 115(1), pp. 283–331. <https://doi.org/10.1093/qje/qjr048>
- Allouche, J. (2011). The sustainability and resilience of global water and food systems: Political analysis of the interdependencies. *Food Policy*, 36, 3–8. <https://doi.org/10.1016/j.foodpol.2010.11.013>

- Apergis, N., & Payne, J. E. (2014). The oil curse, institutional quality, and growth in MENA countries: Evidence from time-varying cointegration. *Energy Economics* 46, pp. 1–9. <https://doi.org/10.1016/j.eneco.2014.08.026>
- Auty, R. (1993). Sustaining development in mineral economies: The resource curse thesis. Routledge. <https://doi.org/10.4324/9780203422595>
- Bebbington, A. J., Bebbington, D. H., Sauls, L. A., Rogan, J., Agrawal, S., Gamboa, C., Imhof, A., Johnson, K., Rosa, H., Royo, A., Toubmourou, T., & Verdum, R. (2018). Resource extraction and infrastructure threaten forest cover and community rights. *Proceedings of the National Academy of Sciences*, 115(52), 13164–13173. <https://doi.org/10.1073/pnas.1812505115>
- Boersma, T., & Johnson, C. (2012). The shale gas revolution: U.S. and EU policy and research agendas. *Review of Policy Research*, 29(4), 570–576. <https://doi.org/10.1111/j.1541-1338.2012.00575.x>
- Brand, U., Boos, T., & Brad, A. (2017). Degrowth and post-extractivism: two debates with suggestions for the inclusive development framework. *Current Opinion in Environmental Sustainability*, 24, 36–41. <https://doi.org/10.1016/J.COSUST.2017.01.007>
- Bridge, G. (2008). Global production networks and the extractive sector: Governing resource-based development. *Journal of Economic Geography*, 8(3), 389–419. <https://doi.org/10.1093/jeg/lbn009>
- Bridge, G., & Le Billon, P. (2017). *Oil*. Polity Press.
- Bruno, M., & Sachs, J. (1982) Energy and Resource Allocation: A Dynamic Model of the “Dutch Disease”, *Review of Economic Studies*, 49(5), 845–859.
- Burchardt, H.-J., & Dietz, K. (2014). (Neo-)extractivism – a new challenge for development theory from Latin America. *Third World Quarterly*, 35(3), 468–486. <https://doi.org/10.1080/01436597.2014.893488>
- Busse, M., & Gröning, S. (2013). The resource curse revisited: governance and natural resources. *Public Choice*, 154(1/2), 1–20. <http://www.jstor.org/stable/23326390>
- Buzan, B., Wæver, O., & de Wilde, J. (1998). *Security: A new framework for analysis*. Lynne Rienner Publishers.
- Chikhladze, M. (2022). The Geopolitics of Energy in Russia-Germany Relations: A Neorealist Interpretation. Master’s thesis in European Studies Supervisor: Tobias Schumacher, (May). Norwegian University of Science and Technology.
- Colgan, J. D. (2013). Fueling the fire: Pathways from oil to war. *International Security*, 38(2), 147–180. https://doi.org/10.1162/ISEC_a_00135
- De Juan, A., & Pierskalla, J. H. (2017). The Comparative Politics of Colonialism and Its Legacies: An Introduction. *Politics & Society*, 45(2), 159–172. <https://doi.org/10.1177/0032329217704434>

- Di John, J. (2011). Is There Really a Resource Curse? A Critical Survey of Theory and Evidence. *Global Governance*, 17(2), 167–184. <http://www.jstor.org/stable/23033728>
- Drake, P. J. (1972). Natural Resources Versus Foreign Borrowing in Economic Development. *The Economic Journal*, 82(327), 951–962. <https://doi.org/10.2307/2230260>
- Elek, A. (1992). *Economic Adjustment to the Bougainville Crisis*. In M. Spriggs & D. Denoon (Eds.) *The Bougainville Crisis: 1991 Update* (pp. 62–82) Department of Political and Social Change, Australian National University, Crawford House Press.
- Farrell, H., & Newman, A. L. (2019). Weaponized Interdependence: How Global Economic Networks Shape State Coercion. *International Security*, 44(1), 42–79. https://doi.org/10.1162/isec_a_00351
- Firth, S. (2020). *Australia in International Politics. An Introduction to Australian Foreign Policy. 3rd Edition*. Routledge: London, New York.
- Hallion, R. P. (2022). *Dester Storm 1991. The most shattering air campaign in history*. Osprey Publishing Ltd.
- Hernes, H.-K., Broderstad, E. G., & Tennberg, M. (2022). *Indigenous rights and governance theory: An introduction*. In M. Tennberg, E. G. Broderstad, & H.-K. Hernes (Eds.), *Indigenous peoples, natural resources and governance: Agencies and interactions* (pp. 1–15). Routledge. <https://doi.org/10.4324/9781003131274-1>
- Hinkkainen Elliott, K., & Kreutz, J. (2019). Natural resource wars in the shadow of the future: Explaining spatial dynamics of violence during civil war. *Journal of Peace Research*, 56(4), 499–513. <https://doi.org/10.1177/0022343318821174>
- Homer-Dixon, T. (1991). On the Threshold: Environmental Changes as Causes of Acute Conflict. *International Security*, 16, 76–116.
- Humphreys, M. (2005). Natural Resources, Conflict, and Conflict Resolution: Uncovering the Mechanisms. *Journal of Conflict Resolution*, 49(4), 508–537. <https://doi.org/10.1177/0022002705277545>
- Humphreys, M., Sachs, J., & Stiglitz, J. (2007). *Escaping the resource curse*. Columbia University Press.
- Hu, X. (2023). Green economic recovery in Central Asia by utilizing natural resources. *Resources Policy*, 83, 103582. <https://doi.org/10.1016/j.resourpol.2023.103582>
- Ismail, K. (2010). The Structural Manifestation of the “Dutch Disease”: The Case of Oil Exporting Countries Prepared by Kareem Ismail. *IMF Working Paper WP/10/103*. <https://www.imf.org/external/pubs/ft/wp/2010/wp10103.pdf>
- Johnson, O. (2022). The case of Las Bambas. The pandemic, Castillo’s government and social media contribute to an increase in protests across

- Peru. *CIMMagazine*, March 10. <https://magazine.cim.org/en/news/2022/the-case-of-las-bambas-en/>
- Kaplan, R. D. (2010). *Monsoon: The Indian Ocean and the future of American power*. Random House.
- Karl, T. L. (1997). *The Paradox of Plenty: Oil Booms and Petro-States*. University of California Press.
- Kędzierski, M. (2022). A dangerous dependence on Russia. Germany and the gas crisis. *OSW Comments*, February 23. <https://www.osw.waw.pl/en/publikacje/osw-commentary/2022-02-23/a-dangerous-dependence-russia-germany-and-gas-crisis> (accessed 24.07.2025).
- Kiggins, R. D. (2015). The strategic and security implications of rare earths. In R. D. Kiggins (Ed.), *The political economy of rare earth elements: Rising powers and technological change* (pp. 1–19). Palgrave Macmillan.
- Klare, M. T. (1981). Resource wars: on the Navy's case for unlimited expansion. *Harper's Magazine* 262 (January), 20–23.
- Klare, M. T. (2001). *Resource Wars: The New Landscape of Global Conflict*. New York Henry Holt.
- Klare, M. T. (2012). The race for what's left: The global scramble for the world's last resources. Metropolitan Books.
- Korinek, J., & Kim, J. (2011). Export restrictions on strategic raw materials and their impact on trade. *OECD Trade Policy Working Papers, No. 95*. <https://doi.org/10.1787/5kg9p39lh1hv-en>
- Kostiner, J. (2009). *Conflict and Cooperation in the Gulf Region*. VS Verlag für Sozialwissenschaften, GWV Fachverlage GmbH, Wiesbaden.
- Lawson-Remer, T. (2012). *Beating the Resource Curse: Global Governance Strategies for Democracy and Economic Development*. Council on Foreign Relations. <http://www.jstor.org/stable/resrep00290>
- Le Billon, P. (2007). Geographies of War: Perspectives on “Resource Wars”. *Geography Compass* 1(2), 163–182. <https://doi.org/10.1111/j.1749-8198.2007.00010.x>
- Le Billon, P. (2001). The political ecology of war: Natural resources and armed conflicts. *Political Geography*, 20(5), 561–584. [https://doi.org/10.1016/S0962-6298\(01\)00015-4](https://doi.org/10.1016/S0962-6298(01)00015-4)
- Leifsen, E., Gustafsson, M., Guzmán-Gallegos, M., & Schilling-Vacaflor, A. (2017). New mechanisms of participation in extractive governance: between technologies of governance and resistance work. *Third World Quarterly*, 38, 1043–1057. <https://doi.org/10.1080/01436597.2017.1302329>
- Li, F. (2011). The political economy of informal settlements in post-socialist China: The case of chengzhongcun(s). *Geoforum*, 42(4), 473–483. <https://doi.org/10.1016/j.geoforum.2011.03.003>

- Maachi, S., Saadane, R., & Chehri, A. (2025). Institutions as a Fundamental Cause for Long-Run Sustainability. *Journal of Risk and Financial Management* 18(3). <https://doi.org/10.3390/jrfm18030114>
- McFerson, H. M. (2009). Governance and Hyper-Corruption in Resource-Rich African Countries. *Third World Quarterly*, 30(8), 1529–1547. <http://www.jstor.org/stable/40388333>
- Mehlum, M., Moene, K. & Torvik, R. (2006). Institutions and the Resource Curse. *The Economic Journal*, 116(508), 1–20. <http://www.jstor.org/stable/3590333>
- Mien, E., & Goujon, M. (2021). 40 Years of Dutch Disease Literature: Lessons for Developing Countries. *Comparative Economic Studies*, 1–33. <https://doi.org/10.1057/s41294-021-00177-w>
- Moran, T. H. (2011). *Foreign Direct Investment and Development: Launching a Second Generation of Policy Research: Avoiding the Mistakes of the First, Reevaluating Policies for Developed and Developing Countries*. Peterson Institute for International Economics.
- Muia, W., & Winter J. (2025). Niger military leaders to nationalise uranium firm. *BBC*, June 20. <https://www.bbc.com/news/articles/cdx5v2x8yejo>.
- Munyai, A. (2020). African renaissance: Effects of colonialism on Africa's natural resources and the right to development. *Journal for Juridical Science*, 45(1). <https://doi.org/10.18820/24150517/JJS45.i1.1>
- Musauh, S. (2023). Regional Intergovernmental Organizations to Conflict Prevention and Resolution: The Case of the African Union in the Nile River Conflict. *Open Journal of Social Sciences*, 11(1). <https://doi.org/10.4236/jss.2023.111026>
- Nem Singh, J. T. (2024). *Business of the state: Why state ownership matters for resource governance*. Oxford University Press. <https://doi.org/10.1093/oso/9780198892212.001.0001>
- Ning Ding, & Field, B. C. (2005). Natural Resource Abundance and Economic Growth. *Land Economics*, 81(4), 496–502. <http://www.jstor.org/stable/4129677>
- Okpaleke, F. N., & Abraham-Dukuma, M. (2020). Dynamics of Resource Governance, Climate Change, and Security: Insights from Nigeria and Norway. *Journal of Strategic Security*, 13(4), 123–140. <https://www.jstor.org/stable/26965522>
- Ramberg, D. J., Chen, Y. H. H., Paltsev, S., & Parsons, J. E. (2015). *The influence of gas-to-liquids and natural gas production technology penetration on the crude oil–natural gas price relationship* (Report No. 288). MIT Joint Program on the Science and Policy of Global Change. <http://globalchange.mit.edu>
- Pellegrini, L. (2011). *Corruption, Development and the Environment*. Springer.

- Regan, A. (2017), *Bougainville: Origins of the Conflict, and Debating the Future of Large-Scale Mining*. In C. Flier & P.-Y. le Mour (Eds.). *Large-scale Mines and Local-level Politics: Between New Caledonia and Papua New Guinea*, ANU Press.
- Ross, M. L. (2004). What do we know about natural resources and civil war? *Journal of Peace Research*, 41(3), 337–356. <https://doi.org/10.1177/0022343304043773>
- Sachs, J. D., & Warner, A. M. (1995). *Natural resource abundance and economic growth*. NBER Working Paper Series. <https://doi.org/10.3386/w5398>
- Sachs, J. D., & Warner, A. M. (2001). Natural resources and economic development: The curse of natural resources. *European Economic Review* 45(4–6), 827–838. [https://doi.org/10.1016/S0014-2921\(01\)00125-8](https://doi.org/10.1016/S0014-2921(01)00125-8)
- Saito-Jensen, M. (2015). *Theories and Methods for the Study of Multilevel Environmental Governance*. Center for International Forestry Research. <http://www.jstor.org/stable/resrep02152>
- Scholvin, S., & Wigell, M. (2018). Power politics by economic means: Geoeconomics as an analytical approach and foreign policy practice. *Comparative Strategy*, 37(1), 73–84. <https://doi.org/10.1080/01495933.2018.1419729>
- Szyliowicz, J., & Zamparini, L. (2022). Freight transport security and the robustness of global supply chains. *Transport Reviews*, 42(6), 717–724. <https://doi.org/10.1080/01441647.2022.2127243>
- The top 50 biggest mining companies in the world (2025). *Mining.com*, April 10. <https://www.mining.com/top-50-biggest-mining-companies/> (accessed 23.07.2025).
- Toset, H., Gleditsch, N. P., & Havard, H. (2000). Shared Rivers and Interstate Conflict. *Political Geography*, 19(8), 971–996. [https://doi.org/10.1016/S0962-6298\(00\)00038-X](https://doi.org/10.1016/S0962-6298(00)00038-X)
- van Agt, C. (2013). *Natural resources*. In J. Rood & R. Dinnissen (Eds.), *An uncertain world: Clingendael 2013 Strategic Monitor* (pp. 185–198). Clingendael Institute. <http://www.jstor.org/stable/resrep05391.16>
- van der Ploeg, F. (2011). Natural Resources: Curse or Blessing? *Journal of Economic Literature*, 49(2), 366–420. <http://www.jstor.org/stable/23071620>
- Westing, A. H. (1986). *Global Resources and International Conflict: Environmental Factors in Strategic Policy and Action*. Oxford University Press.
- Wilson, J. D. (2015). Understanding resource nationalism: economic dynamics and political institutions. *Contemporary Politics*, 21(4), 399–416. <https://doi.org/10.1080/13569775.2015.1013293>
- Ville, S.P., & Wicken, O. (2013). The Dynamics of Resource-Based Economic Development: Evidence from Australia and Norway. *Industrial and Corporate Change* 22(5), <https://doi.org/10.1093/icc/dts040>