

The Geography of “Resource Wars”

Competition over natural resources has figured prominently among explanations of armed conflicts, from Malthusian fears of population growth and land scarcity to national security interests over resources defined as “strategic” because of their industrial or military use, such as oil and uranium.¹ Access to natural resources and the transformation of nature into tradable commodities are deeply political processes, in which military force can play a role of domination or resistance. Armed separatism within Indonesia and Nigeria, annexation attempts on Kuwait and the Democratic Republic of the Congo, protracted civil wars in Angola and the Philippines, and coups d’état in Iran and Venezuela have all incorporated important resource dimensions. Arguably, the radical Islamic terrorism that has affected the United States since the early 1990s is to some extent an oil-related “blowback”: U.S. military deployment in Saudi Arabia, criticisms against the corruption of the Gulf regimes, and ironically, part of the funding made available to terrorist groups.

This chapter examines relations between resources and armed conflicts, with a focus on commodities legally traded on international markets (thereby excluding drugs, as well as water and land involved, for example, in the Israeli-Palestinian conflict) and on extracted resources such as oil, minerals, and timber, in particular. Beyond a simple reading of so-called resource wars as violent modes of competitive behavior, this chapter argues that resource exploitation and the resource dependence of many producing countries play a role in shaping incentives and opportunities of uneven development, misgovernance, coercive rule, insurrection, and foreign interference. This relationship, however, is not systematic: history, political culture, institutions, and regional neighborhoods, as well as a country’s place in the international economy, all play a part these relations. The incorporation of resources into an armed conflict has also specific implications upon its course through their influence on the motivations, strategies, and capabilities of belligerents. Military targets often consist of commercial business opportunities rather than political targets, while the cost of engaging adversaries may be calculated in

terms of financial reward. The following sections explore the contending views about resources and conflicts, the role of resource dependence among the causes of intra-state and international conflicts, and the ways in which natural resource exploitation interplays with the course of conflicts.²

Resource Wars Hypotheses

As noted by Peter Gleick, natural resources “have been used in the past, and will be used in the future, as tools or targets of war and as strategic goals to be fought for.”³ There is much debate, however, on the links between natural resources, conflicts, and violence.

Strategic thinking about resources has been dominated by an equation that links trade, war, and power, at the core of which are valuable overseas resources and maritime navigation. During the mercantilist period of the fifteenth century, trade and war became intimately linked. Naval powers sought to accumulate “world riches,” mostly in the form of precious metals, upon which much of the balance of power was perceived to be based on.⁴ Money was the “sinew of war,” and for political philosopher Raymond Aron, paraphrasing Carl von Clausewitz, commerce had reciprocally become “the continuation of war by other means.”⁵ Since sea power itself rested on access to timber, the supply of this resource became a preoccupation for major European powers from the seventeenth century onward that motivated overseas alliances, trade, and indeed empire building. England in particular pursued a policy of open seas at all costs that led to several armed interventions in the Baltic.

With growing industrialization and increasing dependence on imported materials during the nineteenth century, Western powers intensified their control over raw materials. This, along with many other factors such as political ideologies and prestige, eventually led to an imperialist scramble over much of the rest of the world. Late imperial initiatives also influenced the Prussian strategy of consolidating economic self-sufficiency by securing access to resources provided by a “vital space,” or *Lebensraum*, while the potential role of railways to allow land-based transcontinental control of resources threatened maritime-based power and motivated the idea of containment of the “Heartland” powers advocated by Halford Mackinder at the turn of the twentieth century.⁶ The significance of imported resources, in particular, oil, during World War I reinforced the idea of resource vulnerability, which was again confirmed during World War II. Strategic thinking about resources during the Cold War continued to focus on the vulnerability of rising resource supply dependence and to consider the potential for international conflicts that resulted from competition over access to key resources.⁷

Political scientist Michael Klare notes the growth of mass consumerism and the economization of international affairs in the 1990s and identifies “resource wars” as revolving “to a significant degree, over the pursuit or possession of critical materials,” with the combination of population and economic growth leading to a relentless expansion in the demand for raw materials, expected resource shortages, and contested resource ownership.⁸ Asia’s growing mass consumerism and energy demand are of specific concern with regard to the Persian Gulf, the Cas-

pian region, and the South China Sea. If market forces and technological progress can mitigate some of these problems, Klare remains essentially pessimistic, given the readiness of countries that claim resources or import them, especially the United States, to secure their access to resources through military force, as well as the political instability of many producing regions.

Long ignored by such strategic thinking about resources and security that focuses on the global scale, new hypotheses have focused since the 1970s on the threat of rapid environmental degradation and its effect on local societies and have led to a redefinition of national security.⁹ This concept of "environmental security" came about to reflect ideas of global interdependence, illustrated through the debates on global warming, environmental limits to growth, and links to uncontrolled migrations and political instability that could affect both the South and the North.¹⁰ Along with "human security," this concept also emphasized the security interests of individuals rather than states, especially among the poor in developing countries.¹¹ The "green war" hypothesis associated with the discourse of environmental security argues that a scarcity of mostly renewable resources, such as land, water, or forests, constitutes an underlying stress that contributes to interpersonal or intercommunal violence that possibly escalates into civil wars.¹² As demand grows and depletes environmental resources, resource capture by dominant groups, combined with population pressure, and social frictions increase and lead to weakened institutions, social segmentation, and, ultimately, violent conflicts.¹³ In Rwanda, rising domestic and interpersonal violence exacerbated by growing population, pervasive land conflicts, growing inequalities, and the threat of landlessness has been linked to the civil war and genocide in 1994.¹⁴

Most analyses give particular attention to the history of local environmental conditions and social institutions that allocate resource access while emphasizing the significance of land policy shifts. The long-term crisis of subsistence agriculture in the Peruvian highlands that resulted from the displacement of Indian people to marginal lands during the colonial period, aggravated by population growth and by ineffective land reforms in the 1970s, played a large part in the Sendero Luminoso insurrection.¹⁵ Similarly, in Somalia, tensions over limited riverside agricultural lands that were aggravated by the manipulation of land legislation by Siyad Barre as a strategy to consolidate his regime are identified as being among the major underlying social dynamics in the factional wars that devastated southern Somalia during the 1990s.¹⁶

While there is convincing evidence about environmental marginalization, grievances, and popular forms of resistance, including violence, some arguments counter the green war hypothesis. Market and solidarity mechanisms can to some extent counterbalance localized scarcities as well as motivate and facilitate innovations and shifts in resources and livelihoods. In this regard, resource scarcity and population pressure can result in socioeconomic innovation, including a diversification of the economy, which often leads to greater food security and a more equitable distribution of power across society.¹⁷ This argues in favor of the role of social institutions over deterministic environmental factors. The argument that an ingenuity gap prevents such mechanisms of adaptation because "scarcities will often make tolerance, generosity, and cooperation less abundant" is relevant, but

also dangerous in terms of its cultural and institutional generalization.¹⁸ Critics have frequently denounced the underlying neo-Malthusian assumptions and Western bias of the environmental security agenda and green wars and have stressed the importance of unequal relations of power within local societies and the global political economy, especially through transnational extractive companies, as well as the site specificity of violence “rooted in local histories and social relations yet connected to larger processes of material transformation and power relations.”¹⁹

As the Cold War receded in the late 1980s and more attention was again devoted to the internal mechanisms and outcomes of civil wars, the view that some countries in the South were the victims of environmental degradation gave way to the argument that a new scramble for resources among local warlords and regional powers had become prominent.²⁰ According to the “greed war” argument, rebellion is not a violent form of protest that results from grievances, but a violent way of generating profits. Rather than being driven by political motives, rebellion would reflect the opportunity of seizing profitable opportunities through large-scale banditry.²¹ In this view, wars are driven by greed and the opportunity of looting abundant and internationally tradable natural resources, rather than by grievances over scarce resources mostly associated with subsistence livelihoods.

Oil, diamonds, and timber are some of the resources most frequently listed among the primary commodities that supposedly fuel greed wars.²² Easily taxable, such resources represent the prize of state or territorial control and would thereby increase the risk of greed-driven conflicts while providing armed groups with the “loot” necessary to purchase military equipment.²³ In Cambodia, Liberia, and the Philippines, insurgent groups have thrived from the logging of valuable tropical hardwoods. In the Democratic Republic of the Congo, the control and exploitation of natural resources such as diamonds, coltan (columbite-tantalite), gold, and timber motivate and finance parties responsible for the continuation of conflict.²⁴

Yet given the general absence of foreign state sponsors in most post-Cold War conflicts as well as the frequent lack of popular support for waging war, belligerents have to rely on commercial or predatory sources of funding that often target available natural resources. This does not mean that belligerents are systematically “greedy” and driven by economic agendas, but that they adapt to their new economic environment. Furthermore, a Western-based interpretation of rebellion in peripheral regions of the world as greed driven is somewhat revelatory of the fear of an “anarchic revenge of the poor wanting to get rich,” in line with the nationalization of local Western assets by many liberation movements in the 1960s and 1970s. Finally, the notions of greed and grievances are culturally dependent, if generally widespread, and they often coexist as two sides of the same coin: a relation of exploitation in which the greed of some is the grievance of others. Therefore, the border between an aggrieved rebel movement and a greedy one is often blurred as a multiplicity of individual and often fluctuating motivations and constraints gives it shape and direction.

Quantitative examinations of resource availability and armed conflicts confirm that an abundance of primary commodities resources is correlated with a higher risk of war, while environmental scarcity mostly relates to low levels of violence. Economists Paul Collier and Anke Hoefler find that large primary commodity

exporters face a higher risk of outbreak of armed conflict.²⁵ This risk is maximal when the proportion of primary commodity exports reaches 26% percent of gross domestic product (GDP), with a risk of 23%, compared to 0.5% for a similar country with no primary commodity exports. The risk then drops, which Collier interprets as states being rich enough to defend themselves or deter armed opposition. Many of these states are oil producers in a position to "buy out" social peace from relatively small populations through populist agendas and the co-option of political opponents. In terms of conflict duration, rather than outbreak, Collier finds no correlation with resource dependence, while other scientists and most of the case-study literature argue that continued access to abundant and valuable resources prolongs war.²⁶ Examining more generally the availability of resources, rather than the level of export dependence on primary commodities, political scientist Indra de Soya finds that abundant renewable resources in otherwise poor countries and nonrenewable resources in all countries increase the likelihood of armed conflict.²⁷ With regard to scarce resource wars, low levels of violence (25–1,000 battle-related deaths per year) have a positive relation with environmental degradation.²⁸ Yet a scarcity of renewable resources is not associated with a higher risk of armed conflict.²⁹

Between Resource Curse and Resource Wars

The diversity of cases among resource-rich and resource-poor countries argues against any systematic determinism of "too much" or "too little" resources on the occurrence of armed conflicts. If resource dependence, rather than resource wealth or paucity, links resources to war, Collier's identification of primary commodity dependence as "the most powerful risk factor" of civil war nevertheless requires questioning. The economic and political culture, institutional environment, and individual personalities that create and manage resources, both locally and internationally, are essential factors, but is there a generalized "resource curse" beyond specific contexts? Contemporary resource-linked conflicts are furthermore rooted in the violent history of resource extraction successively marked by mercantilism, colonial capitalism, and state kleptocracy, whether these resources are slaves, rubber, agricultural land, or oil. But are resource sectors specifically more conflictual and violent than others, and if so, in which ways? Moreover, resources present specific contexts and opportunities to belligerents through their different physical characteristics, locations, and modes of production, so how do different resources interplay with conflicts?

An alternative framework of analysis of so-called resource wars should be sensitive to the historical processes and natural resource endowments that create a situation of resource dependence for some countries, and to their associated economic and political vulnerabilities. Resource dependence often reflects a mutual, if unequal, relationship between supply and demand within the world economy. At an international scale, commodity linkages between producers and consumers can reflect a dual dependence, as in the case of petroleum: many oil-export-dependent countries accrue in this way most of their foreign currency earnings, while most other countries are oil import dependent for their energy require-

ments.³⁰ The concentration of supply or demand into the hands of a few countries or companies also influences the degree of dependence. For example, the production and marketing of rough diamonds is largely controlled by a cartel of producers and buyers dominated by the South African company De Beers, which was initially founded by the British imperialist Cecil Rhodes. The dependence created by De Beers has long consolidated its controlling power over mining towns, regional politics, or world diamond prices.³¹ The flow of resources articulated by such dependence is part and parcel of broader core-periphery exploitative relationships and situations of dependence in peripheral producing countries.³²

Resource dependence has important political and economic consequences because it creates place-specific politics and influences the development path of producing regions.³³ Overall, the dominance of primary commodity exports in an economy is largely correlated with poor economic growth, low standards of living, corruption, and a dampening of democracy, all factors that are likely to raise grievances and the vulnerability of a country to insurrection or violent political competition.³⁴ As noted by political economist Michael Moore, many poor and conflict-affected states “live to a high degree on ‘unearned income’—mainly mineral resources and development aid—and correspondingly face limited incentives to bargain with their own citizens over resources or to institute or respect democratic processes around public revenue and expenditure.”³⁵ Essentially relying on resource-dependent clientelist networks, these states and their rulers are particularly vulnerable to economic shocks, such as resource price falls, or political shifts, such as democratization.³⁶ While resource rents occasionally allowed some Third World rulers to maintain a relative political stability—if not through democracy—increasing pressure from declining resource export revenues, as well as terms of trade, structural adjustment, and pressure for democratization from international donors and the frustration of a growing youth population, has led to an aggravation of political instability.³⁷ In this context, even the “stable autocracies” based on resource export revenues face “politics of failure,” that is, a pattern of political instability that results from the failure of successive governments to construct a viable support base for themselves, given the position of the country in the world economy, and leads to systematic disenchantment, opposition, and political turnover through electoral and/or military means.³⁸ In such contexts, the “politics of failure” that characterized many Third World regimes often turned into “spoils politics” that concentrated on profitable remaining economic sectors, such as valuable minerals and timber that require minimal investments.

A framework that analyzes resource wars should also pay attention to the conditions of resource exploitation and its associated conflicts and forms of violence. Distributional conflicts frequently arise that relate to the ownership of natural resources and the allocation of the revenues and negative externalities they generate among the state, businesses, and local communities. These conflicts can be most easily read within a grid of public versus private control and local communities versus central state. Yet these categories frequently oversimplify, because many public figures control private interests and “local community” leaders defend very narrow interests. An analysis of conflicts must therefore be sensitive to local contexts and histories, as well as cultural values and social practices.

For example, on Bougainville Island in November 1989, a local landowner, Francis Ona, walked out of an environmental assessment meeting at the huge copper and gold Panguna mine that had provided nearly half of Papua New Guinea's export earnings during the preceding twenty years. Mining consultants had just rejected demands for compensation for chemical pollution by his local community on grounds of insufficient scientific evidence. With no other weapons than explosives stolen from the mining company, Ona and other militant landowners blew up within days several electric poles at the mine site and boldly demand \$11 billion in environmental compensation payments, the closure of the mine, and secession from Papua New Guinea.³⁹ Initially dismissed, their actions led to the rapid closure of the mine. Repression and a blockade by the government turned the conflict into a war in which possibly more than 10,000 people died during the next decade.

Besides distributional issues, other potential sources of conflict that directly or indirectly result from resource exploitation include loss of local livelihoods due to land-use changes, pollution, or forced displacement, as well as reallocation of employment opportunities and participation in resource management. The changes of social status, order, and values within communities that result from new economic opportunities and social activities, including ostentatious consumption by privileged groups, exacerbate social fault lines. Migration driven by resource development and rapid urbanization often overstretch local services and economic opportunities and can also lead to tensions among and between newcomers and the native population. Abuses by security forces, including forced displacement and heavy-handed law enforcement, can also be a major source of grievance and violent escalation of conflicts.

Resource exploitation frequently involves specific forms of personal/physical and structural violence, such as resource appropriation, price manipulation, forced labor, or population displacement, as well as a militarization of both legal and illegal exploitation schemes. The production of spaces of power and spaces of resistance in relation to resource exploitation comes to define through material and representational practices geographies of violence within and beyond exploitation sites.⁴⁰ Although large-scale armed rebellion is generally the exception in comparison to other social projects, such as accommodation, low-level forms of resistance such as pilfering, or peaceful expressions of grievances such as demonstrations and land occupation, such geographies of violence form the background upon which armed conflict may become a viable and even "justifiable" alternative.⁴¹

In Chiapas, self-defense groups and the Zapatista movement staged a relatively peaceful armed rebellion to respond to an entrenched local political economy of dispossession and neglect toward indigenous communities, to challenge the "global neoliberal order" that supported it, and to attract the attention of the government and the media as a means of improving their bargaining position.⁴² In that case, limited violence was the tool of political leverage and expression rather than a direct mode of reappropriation. The much publicized conflicts over oil exploitation in the Niger Delta embrace such issues as pollution from oil spills and flaring, lack of local employment opportunities and public services, forced

displacement, and fire and explosion hazards, as well as brutal repression. Used as a justification for political and armed resistance as well as economically motivated crimes, these environmental or social issues have fed a specific form of “petroviolece” that ranges from the social violence of corruption, repression, and criminality to the ecological violence perpetrated against the environment and its users.⁴³ The closure of project sites also increases the risk of conflict by, among other factors, raising unemployment and thickening migration flows. A final aspect of the framework, examined in the following section, should consider how the geography of resources and their exploitation comes to influence the course of these wars.⁴⁴

Nature, Resources, and the Geography of War

Belligerents tend to use whatever means are accessible to them to finance or profit from war. Yet the specific characteristics and geography of a resource can provide a context that affects a conflict. During the forty years of conflicts in Angola, the National Union for the Total Independence of Angola (UNITA) armed movement used sources of finance as diverse as foreign support from China and many Western-aligned countries, international investments, gold, timber, wildlife, and diamonds. In the post-Cold War context, however, the geography of oil and diamonds came to dominate the economy of the rebel group and that of the government.⁴⁵ While the government in Luanda benefited from quasi-exclusive access to oil fields that were located offshore and thereby protected from rebel attacks, UNITA maintained throughout the war a capacity to access diamond fields spread over a vast territory that proved difficult to fully control by the government. Similarly, trading networks for oil were only accessible to the recognized government in Luanda, while UNITA benefited from access to a myriad of diamond smugglers, traders, and jewelers who channeled diamonds from battlefields to shopping malls. As a result of this territorialization of their respective war economies and networks that linked places of resource extraction to those of consumption, both sides benefited from a constant flow of revenue during the twenty-six-year civil war that devastated Angola and brought about the death of more than half a million people.

Natural resources are particularly prominent in war economies, not only because they are often the only economic resource in poor countries where most wars take place, but also because their fixed location, frequently in remote areas, makes them susceptible to looting or extortion, and the infrastructures often needed to tax, exploit, or trade them are often minimal. Unlike manufacturing and, to some extent, agriculture, extractive activities cannot be relocated. Confronted by war, extractive companies may decide not to invest or to disengage from their current operations, but they generally seek to sustain their access to resources and protect their investments by paying whoever is in power amounts that range from a few dollars to allow a truck past a checkpoint to multimillion-dollar concessions, with signature bonuses or resource-collateralized loans paid in advance of exploitation, to belligerents. Furthermore, resource exploitation can often be sustained throughout a conflict, either through the military protection of infrastruc-

ture or because low-investment means prove commercially viable. Investors are unlikely to rush to rebuild a multimillion-dollar mining venture after its destruction, but small-scale entrepreneurs and junior companies are more likely to accept risks to access timber and high-value alluvial minerals that can be extracted with minimal outlays and traded without the need for massive transport capacities.

Although a resource-rich environment is generally propitious for financing rebellion, opportunities for government or rebel groups to access resource revenues will also depend upon several other factors. These include the ability to secure resource sites, which is often jeopardized by underpaid and poorly disciplined government security forces, as well as a high level of armed banditry and criminality associated with marginalization; the specific location and mode of exploitation of resources, which determine the accessibility of resources through production, theft, or extortion; the physical and market characteristics of resources, which help determine the accessibility of markets for belligerents; and the practices and complicity of businesses, which will determine the ease with which belligerents can control resources. The properties and geography of resources are particularly significant (see Table 11.1). Required investment, technological demands for exploitation, and price/weight ratio determine what opportunities are available to rebel forces. Trading facilities, such as trucking and international financial networks, also influence the accessibility of many commodities. In areas like central Africa, the degradation of transport infrastructures has limited economically advantageous exploitation to the most valuable and transportable resources, mainly precious and semiprecious minerals.

Resources can be further distinguished in terms of their proximity to the center of power, in both spatial and political terms. Proximate resources are close to the center of power and are less likely to be captured by rebels than those close to a border inhabited by a group that lacks official political representation. Distant resources are located in remote territories along porous borders or within the territory of social groups that are politically marginalized or in opposition to the extant regime. Oil resources, while usually far from a capital, nevertheless tend to be

TABLE 11.1 Resource accessibility by rebel forces

Resource	Accessibility by rebel forces			Price range (\$/Kg) ^a
	Exploitation	Theft	Extortion	
Alluvial gems and minerals	High	High	High	20–500,000
Timber	Medium	Medium	High	0.1
Agricultural commodities	Medium	Medium	Medium	1.5 (<i>coffee</i>)
On-shore oil	Low	Medium	High	0.12
Diamonds in volcanic pipes	Low	Medium	Medium	500,000
Deep-shaft industrial metals	Low	Low	Medium	2 (<i>copper</i>)
Offshore oil	Low	Low	Low	0.12

^a Approximate price in producing country during the 1990s.

Source: Adapted from Richard Auty, "Natural Resources and Civil Strife: A Two-Stage Process," *Geopolitics* 9 (2004): 29–49; and interview with Gavin Hayman, *Global Witness*, London, June 2002.

closely safeguarded by the state and difficult to appropriate or loot on a massive scale by opposition forces since companies will only deal with the recognized government. Still, onshore installations, and especially pipelines, remain highly susceptible to extortion schemes. Resources are more accessible to rebel groups if they are highly valuable, easily transported, and spread over a large territory rather than a smaller area that can be more easily defended. Rebel access also depends on the degree of centralization and mechanization of production.

A broad distinction can also be made as to the nature and concentration of the resource in terms of physical characteristics, spatial spread, and socioeconomic linkages between diffuse and point resources.⁴⁶ Diffuse resources are more widely spread and include mainly resources exploited over large areas, often by less capital-intensive industries that can employ a large workforce. These include alluvial gems and minerals, timber, agricultural products, and fish. Point resources are concentrated in small areas and include mainly resources that can be exploited by capital-intensive extractive industries, such as deep-shaft mining or oil exploitation, and that generally employ a small workforce.

As sociologist David Keen remarked, economically motivated violence among rebels will be more likely when the potential rewards are great and when “natural resources can be exploited with minimal technology and without the need to control the capital or machinery of the state.”⁴⁷ Alluvial diamonds perfectly fit this description and it is therefore not a surprise to see that they have been dubbed a “guerrilla’s best friend” and that about two-thirds of poor countries that produce alluvial diamonds have been affected by armed conflicts. In Angola, diamond exploitation provided up to \$3 billion in revenue to the UNITA rebel movement of Jonas Savimbi during the 1990s.⁴⁸ Similarly, the control of the most prolific diamond areas of Sierra Leone may have generated hundreds of millions of dollars for the Revolutionary United Front (RUF) rebel movement during the same period.⁴⁹ In eastern Democratic Republic of the Congo, several rebel factions operate as intermediaries for the control of the diamonds by Ugandan interests, while the government has granted the Zimbabwean military some of the best diamond concessions in return for its support. Small, low in weight, and easily concealable, as well as anonymous and internationally tradable, alluvial diamonds are not easily amenable to government control and border-crossing checks. Accordingly, diamonds also represent a “currency of choice” for money laundering and financing of clandestine activities, including those of Islamic terrorist groups such as al-Qaeda.⁵⁰ Like gold, diamonds also serve money-laundering purposes for criminal activities, including drug cartels. The low-tech exploitation of alluvial diamonds also facilitates illegal exploitation by networks of diggers, traders, and armed gangs, as well as colluding civilian and military authorities. Unsurprisingly, such a situation erodes the sovereignty and effective rule of states. In response, ruling elites have developed modes of appropriation detached from the legal and institutional apparatus of the state, often by creating parallel mechanisms of involvement and control in the private or informal diamonds sector. The RUF movement argued in its propaganda, “[W]hen a valuable gemstone is found [presidents] jump into a plane and shoot off to Europe to sell the diamonds trusting no one but themselves.”⁵¹

To some extent, the geography of resources can influence the type of armed conflict and its viability. The argument is not that conflicts in oil-producing countries can only be secessions or coups d'état because oil is a point resource, but that resources provide a context for political mobilization as well as the strategy, tactics, and capabilities of belligerents. In other words, because conflicts may need to respond and adapt to the characteristics of available resources presented earlier (point versus diffuse resources and proximate versus distant resources), some types of conflicts are more likely than others (see Table 11.2).

Resources and Coups d'État

Because point resources are generally less lootable than diffuse resources and exploitation and trade often depend on international political recognition for mobilizing investors and accessing markets, they are much more accessible to governments than to rebel movements. In the case of high-investment energy and mineral sectors, only when staff or infrastructures are vulnerable to attacks, as with pipelines or railways, can rebels effectively extort them. In the absence of alternative sources of finance and a political basis for secession, the best option left to an armed opposition movement is to capture the state through a coup d'état in the capital city.

The conflicts between competing politicians in the Republic of the Congo (Brazzaville) in 1993–1994 and 1997, which took place in the context of a botched democratization, were clearly a contest for state power exacerbated by the control of an offshore oil sector that represented 85% of export earnings. The fact that these conflicts took the shape of coup attempts in the capital city was in this respect predictable, and the government of President Pascal Lissouba should have rapidly

TABLE 11.2 Relation between the characteristics of resources and types of conflict

Resource characteristics	Point	Diffuse
Proximate	State Control/coup d'état	Peasant/mass rebellion
	Algeria (gas)	El Salvador (coffee)
	Congo-Brazzaville (oil)	Guatemala (cropland)
	Colombia (oil)	Mexico-Chiapas (cropland)
	Iraq-Kuwait (oil)	Senegal-Mauritania (cropland)
	Yemen (oil)	
Distant	Secession	Warlordism
	Angola/Cabinda (oil)	Afghanistan (gems, timber)
	Chechnya (oil)	Angola (diamonds)
	Indonesia/Aceh–East Timor–West	Burma (timber)
	Papua (oil, copper, gold)	Cambodia (gems, timber)
	Morocco/Western Sahara (phosphate)	DR of the Congo (diamonds, gold)
	Nigeria/Biafra (oil)	Liberia (timber, diamonds)
	Papua New Guinea/Bougainville (copper)	Philippines (timber)
Sudan (oil)	Sierra Leone (diamonds)	

won the war through its control of the oil rent and associated military power. However, the war in 1997 dragged on for five months before being brought to a conclusion in favor of former president Denis Nguesso by a regionalization of the conflict through military intervention of the Angolan government. An ally of Nguesso, the Angolan government was also eager to protect its oil-rich enclave of neighboring Cabinda, where secessionists, have opposed its rule since independence, and to prevent the use of the Congo as a trading platform for UNITA diamonds-for-arms deals. The stalemate in Brazzaville, which destroyed a large part of the capital and left thousands dead, resulted from several factors. First, a large part of the army did not engage in the conflict, while others supported Nguesso, their former patron and ethnic affiliate. Second, both contenders benefited from access to the oil rent, as Nguesso was allegedly favoured over Lissouba by the French oil company that dominated the sector and parallel channels supported Nguesso's arms purchases.⁵² Finally, at the street level, the conflict rapidly changed in nature as the different militias supporting politicians benefited from the looting of the capital city. Urban youths on all sides used the political conflict to challenge the legitimacy of a corrupt political elite that had dominated and plundered the country for more than thirty years.⁵³ Looting became known as "killing the pig" or "taking a share in Nkossa."⁵⁴

Resources and Warlordism

Diffuse resources are more easily exploited and marketed than point resources by illegal groups, especially if they are distant from the center of power. This is typically the case with alluvial diamonds or forests located along so-called porous border areas, hence their association with economically viable forms of warlordism. While rebel movements generally attempt to overthrow the incumbent regime, the existence of accessible (or "lootable") diffuse resources distant from the center of power can provide an economically viable fallback position in case of failure. Rebel groups thereby create areas of de facto sovereignty imposed through violence and defined by criminal and commercial opportunities such as mining areas, forests, or smuggling networks.

In Liberia, Charles Taylor's bid for power in 1989 first targeted the capital, Monrovia. Although he failed to capture the presidential palace because of the intervention of international troops, he nevertheless succeeded in establishing his rule over "Greater Liberia" and took control of lucrative sectors such as timber and rubber, as well as key infrastructure such as the port of Buchanan, which was crucial to iron ore exports.⁵⁵ Taylor did not limit his resource grab to Liberia, but extended it to neighboring Sierra Leone, where his support for the RUF provided him with access to diamonds. Similarly, the RUF was able to sustain a guerrilla war that essentially targeted the civilian population during the 1990s thanks to its control of diamond-mining areas as well as gold and cash crops. In the Philippines, the lucrative taxation of logging sustained many insurgent groups and transformed some from political opposition into self-interested groups.⁵⁶

Resources and Secessions

Most secession attempts have a historical basis, but resource wealth offers a strong incentive for secession to local opposition movements. The location of key oil deposits among populations politically and economically marginalized by the central government, as in the case of the Shi'ias and Kurds in southern and northern Iraq, respectively, can be a powerful factor in domestic and regional politics. To access point resources that require large-scale investments, and in the absence of support from the central state, marginalized groups need to acquire sovereign rights over resources for themselves and are therefore more likely to engage in secessionism than warlordism or a coup d'état if they are unable or unwilling to gain control over the existing center of power. Although these valuable resources can prove difficult, if not impossible, to access through direct exploitation, theft, or extortion, their existence (or in some cases the "myth of easy riches" that they would provide to everyone) is a powerful tool for political justification and mobilization, and the prospect of future revenues is an additional source of motivation.

The economic and social changes associated with the development of Western Sahara's important phosphate industry, for example, laid "the basis for the rise of a modern nationalist movement, setting its sights on the creation of an independent nation-state."⁵⁷ As Saharawis recognized the prospect of an economically viable or even prosperous country, the simplistic assumption that Morocco aimed to capture their newfound mineral wealth served to mobilize armed resistance. Secessionist armed movements can also emerge around the socioenvironmental impact or wealth redistribution associated with the commercial development of resources. Secessionism in Aceh is historically rooted in the independent sultanate, which prevailed until the Dutch militarily defeated it in the late nineteenth century. Yet the formation of the Aceh Freedom Movement (GAM) coincided with the exploitation of major gas reserves in the early 1970s, and GAM's "Declaration of Independence" in 1976 specifically claimed that \$15 billion in annual revenue was exclusively used for the benefit of "Javanese neo-colonialists."⁵⁸ Land expropriation and exploitation of other resources such as timber by Javanese-dominated businesses further exacerbated the conflict.

Similarly, the island of Bougainville has a history of separatism based on geographical and identity distinctiveness. Yet local politicians' demands for "special status," including favorable funding allocations during the period of transition to independence, clearly centered on the economic significance of the island's gold and copper mine in Panguna. The secessionist agenda set in 1989 by Francis Ona was related to the impact of copper mining, compensation, and closure of the mine, as well as a "Government of Papua New Guinea [that] is not run to safeguard our lives but rather to safeguard the few rich leaders and white men."⁵⁹ Ona, a former mine surveyor, is a local dweller but not a titleholder of the mining lease area. As such, he had little say in the allocation of the new trust fund set up in 1980 by the mine to compensate local communities. Although Ona's agenda "is most reasonably understood as part of his conflict with his own relatives in the

kind of land dispute . . . characteristic of [local] Nasioi culture," his analysis nevertheless resonated throughout the local Nasioi community, especially after repression by governmental forces started.⁶⁰

Resources and Peasant/Mass Rebellion

Diffuse resources that involve large numbers of producers are more likely to be associated with rioting in nearby centers of power, such as a provincial or national capital, and with support for peasant or mass rebellions that involve class or ethnicity issues. The displacement or exclusion of peasants by agribusinesses and poor labor conditions on large plantations have prompted political mobilization and the expansion of revolutionary struggles in Latin America and Southeast Asia. In Nicaragua, landlessness as well as neglect by the state and exclusion from or marginalization within local patron-client schemes provided fertile ground for peasant support for the Sandinista revolution. Yet the creation of state farms by the Sandinista regime, rather than the rapid provision of individual plots, reinforced the bonds between some landed patrons and their client peasants and rapidly increased their support for and participation in the U.S.-sponsored Contra movement.⁶¹ In the context of democratization and an economic downturn precipitated by the fall of cacao prices and the liquidation of the commodity Stabilization Fund dictated by the International Monetary Fund (IMF) and the World Bank, the migrant labor issue associated with agriculture was repeatedly used for political gains in Côte D'Ivoire in the late 1990s. Although the media focused on coup attempts in the capital, migrant workers were also the targets of violence, including forced displacement.

Highly coercive forms of warlordism are less likely to be economically viable than participatory forms of rebellions because of the need to sustain a large volume of labor input and the difficulty of controlling workers over large areas. Conditions of slavery and control of labor can be imposed through hostage taking over short periods, but like most predatory economic activities, these cannot be sustained over the long term. Over time, to minimize grassroots challenges, the armed faction is likely to act as a protector toward local populations, even if it does so more in the sense of a Mafia group than a welfare state. The Revolutionary Armed Forces of Colombia (FARC), for instance, provides protection to peasants on land holdings and guarantees minimum prices for both coca and agricultural products.⁶² While there has recently been a drift toward more criminal activities, FARC's maintenance of a balance of threats and economic incentives to sustain peasant productiveness has been key to the viability of the revolutionary movement since its inception in the 1950s. Similarly, the expansion of the New People's Army (NPA) in the Philippines in the 1970s and 1980s largely came from a symbiotic relation with a peasant population whose subsistence agriculture was threatened by agribusinesses, logging companies, and hydropower projects. The NPA provided an alternative to the regime of Ferdinand Marcos that had lost all legitimacy and even presence among rural communities. Yet both the FARC and the NPA secured most of their support and funding from taxation and extortion schemes that

were related to drug trafficking and cattle ranches, and plantations, logging, and mining, respectively.

Resources and Foreign Interventions

Resources and foreign interventions occur in all types of armed conflicts detailed earlier and often involve indirect control over "strategic resources" such as oil or major mineral deposits and the protection of major commercial and strategic interests. The oil production of countries in the Persian Gulf is crucial to the international economy, and international and regional politics have been heavily influenced by questions of access to and control of this "black gold." This has been especially true of U.S. and British influence in the region, and although the "invasion" or "liberation" of Iraq by these two countries in 2003 should not be read through the simplistic perspective of a war for oil, regional petroleum resources represent a key motivating factor in terms of economic and national security.⁶³ Iraq contains the second-largest proven oil reserves in the world after Saudi Arabia, and among the cheapest to exploit, while its economic wealth could make it a potentially powerful enemy sheltered from the usual U.S. influence exercised through financial leverage via aid or market access or through international institutions such as the IMF. Similarly, the tacit U.S. support for a short-lived coup by business leaders and military officers against democratically elected President Hugo Chavez of Venezuela on April 12, 2002, demonstrated its distrust of the government regime of a key oil supplier.

Foreign intervention can also reflect vested commercial interests in a regional context, such as the invasion of Kuwait by Iraq, which was in part motivated by a dispute over the ownership of an oil field that straddles the two countries, or the presence and "self-financing" of Zimbabwean, Rwandan, and Ugandan troops in the Democratic Republic of the Congo in the late 1990s. External actors may also intervene in secessionist attempts by manipulating local political identities into providing access to resources. In the late nineteenth century, the discovery of gold and diamonds in the newly created Boer republics in South Africa led to both stronger resistance to annexation by Britain and a massive influx of British prospectors. The refusal of Boer authorities to grant political rights to these British *uitlanders* (outlanders) led British entrepreneurs such as De Beers's founder Cecil Rhodes to arm British settlers' militias and precipitated the Boer War.⁶⁴ Despite its political character, the Biafra secession in Nigeria and its repression by the government were largely motivated by local oil reserves. French oil interests supported the Biafra secession attempt, and the Nigerian army started fighting in July 1967 "more than a month after the declaration of independence but only days after Shell . . . agreed to pay its royalties to Biafra rather than Nigeria."⁶⁵ Within the turmoil of the Belgian Congo's independence, Anglo-Saxon and Belgian commercial interests eager to secure their hold on copper mines in the province of Katanga supported a secession led by Moise Tshombe that provoked military clashes between corporate-funded foreign mercenaries and UN troops who supported the unity of the country.⁶⁶ More recently, the de facto secession of eastern

provinces in the Democratic Republic of the Congo since 1998 has been accompanied by a virulent debate over the inclusiveness of Congolese citizenship and the rights of populations from so-called Rwandan origins to access land and mineral resources.⁶⁷

Influencing the Course and Duration of Armed Conflicts

The availability of resources and contests over their control influence conflicts in many ways. Natural resources can support the weaker party and allow it to continue fighting and to maintain access to a source of wealth, thereby prolonging the conflict. Furthermore, as profits take priority over politics, the conflict risks become increasingly commercially driven because the belligerents are correspondingly motivated by economic self-interest. These developments also have a significant impact on the organization and cohesion of armed movements and thereby on the course and duration of the conflict. It does not automatically follow, however, that a war would be shorter or have a more benign impact on populations in the absence of resources. Indeed, desperate belligerents who lack access to resources may well intensify predation and attacks on civilian populations.

As natural resources gain in financial importance for belligerents, the focus of military activities becomes centered on areas of economic significance. This has a critical impact on the location of military deployment and intensity of confrontations. As a complement to guerrilla strategies of high mobility, concentration of forces, and location along international borders, rebel groups seek to establish permanent strongholds or areas of “insecurity” wherever resources and transport routes are located. Government troops generally attempt to prevent this by extending counterinsurgency to these areas, and their efforts occasionally displace and “villagize” populations. In many cases, government troops join in the plunder. The overall effect of natural resources in such contexts is ambiguous, however. On one hand, resources can intensify confrontations over the areas of economic significance. This occurred in Sierra Leone over the best diamond areas and in Cambodia over log yards. On the other hand, armed groups can settle for a “comfortable stalemate” in which opposing parties can secure mutually beneficial deals to produce and market resources. Territorial control by different factions or the crossing of international borders often entails a complicity that is not expected from “enemies” or members of the international community that are implementing economic sanctions. In Cambodia, the Khmer Rouge rebel group indirectly benefited from export authorizations granted by the government to Thai companies that were operating in Khmer Rouge-held territories.⁶⁸ The rebel group also collected fees from logging companies licensed and taxed by the government. These fees were crucial to the viability of small Khmer Rouge groups far from their bases.⁶⁹ As both the government and the rebels benefited from logging, neither side had an incentive to change the status quo.

Beyond these financial and military effects, resources can also prolong conflicts by providing political networks of support, including “private resource diplomacy.” In Angola, UNITA’s diamonds not only allowed the rebel movement to buy arms, but also attracted diplomatic and logistical support from regional polit-

ical leaders.⁷⁰ On the other side of that conflict, the Movimento Popular de Liberação de Angola (MPLA) rapidly gained favor with major Western powers and their oil companies once it was established that UNITA had lost the elections and was unable to gain power through military means. In Cambodia, the Khmer Rouge benefited from the support of corrupt Thai military or politicians who used logging revenues to finance their electoral campaigning.

Finally, resource wealth can prolong conflict by weakening the prospects for third-party peace brokerage. Access to resources can act as a divisive factor among international players. Bilateral actors are inclined to accommodate domestic interests in order to secure commercial benefits for their corporations, especially in strategic economic sectors like oil. In addition, the ability of the belligerents to draw on private financial flows decreases the potential leverage of multilateral agencies (e.g., the IMF, the World Bank, and the United Nations) that is exercised through grants and loans. In many contemporary armed conflicts, private capital inflows have assumed greater importance than foreign assistance, especially in comparison to conflicts in the Cold War era.

Although resource wealth tends to prolong wars, it can also shorten them in several ways. Resource wealth can produce an overwhelming concentration of revenues in one party, as oil did in the Angolan government. A government's greater access to resources can also motivate rebel groups to defect to the government, provide an incentive in peace negotiations, or lure rebel leaders to the capital. Agency problems and fragmentation can affect rebel movements as a result of "bottom-up" resource flows.⁷¹ Unless the leadership is able to monopolize the means of exchange (e.g., vehicles, airports, roads, bank accounts, export authorizations, intermediaries, importers) between a resource supplier and its customers, economic space is available for its allies and subordinates to become autonomous through commercial or criminal activities based on local resources. The inherent risk of private appropriation can undermine trust between members of an armed group. More generally, this pattern of resource flow is likely to weaken discipline and chains of command. In contrast, when resources are fed into the conflict from outside—which tended to occur during the Cold War—leaders can maintain the coherence of their armed movements through the tight control of the flow of foreign resources to their allies and subordinates. Complicity in resource trade between "enemies" can also favor local peace agreements and defections. In Cambodia, a Khmer Rouge commander noted, "The big problem with getting our funding from business [rather than China] was to prevent an explosion of the movement because everybody likes to do business and soldiers risked doing more business than fighting."⁷² In order to prevent such explosion, or fragmentation, the Khmer Rouge fully supported soldiers and their families and tightly controlled trade and cross-border movements.

Finally, an armed group that exploits natural resources is vulnerable to losing popular support and political legitimacy in the event that its adversary portrays the group as mere bandits or criminals driven more by economic self-interest than by political ideals. Ignoring similar "criminal" practices on the part of government officials or paramilitary groups thus facilitates in turn the sanctioning and political isolation of rebel movements like the RUF, UNITA, and the FARC. Such a policy

can, of course, run the risk of marginalizing a political resolution of the conflict in favor of a military solution.

Conclusion

In the absence of strong preexisting institutions and a developed economy, a wealth of resources is likely to result in poor governance, economic crisis, and grievances from a population motivated by the high expectations associated with a resource bonanza. Although the resource curse is not inevitable, the availability of large resource rents tends to structure the choice of rulers and shape powerful coalitions of domestic elites and foreign business interests that dampen political accountability. In their quest for power, rulers often capture and redistribute resource rents at the expense of statecraft and democracy and thus dangerously put their discretionary power and fluctuating rents at the core of the political order. While a resource-rich economy is neither a necessary nor a sufficient condition for politically underdeveloped rule and resultant conflict, it can facilitate it.

The exploitation of resources itself also shapes conditions and motivations—for instance, the exacerbation of competitive politics and corruption, state institutional collapse, the delegitimization of the state monopoly on the use of force, and the rise of sectarianism—that are conducive to localized armed conflicts. In these contexts, violence often becomes the prime means of political action, economic accumulation, or simply survival. In these ways, wars cannot simply be related to the greed of rebels over resource grab opportunities. Yet as political instability escalates into full-scale armed conflict, natural resources often come to play a strategic role in motivating and financing belligerents both before a conflict begins and as it unfolds. Although there is no deterministic relationship, resources can participate in shaping the type of armed conflict that takes place, the territorial objectives of belligerents, their relations with populations, and the duration and the intensity of the conflict. Resources can also affect the internal cohesion of armed movements and occasionally lead to their fragmentation, as well as to instances of collusion between adversaries.

Because of their key role as intermediaries between places of resource extraction and markets, businesses often come to support autocratic regimes and even war criminals. In most cases, businesses seek to maintain a profitable and stable political order rather than to intervene in a democratization process that they are not legitimately or politically qualified to get involved in, even if many businesses would prefer a democratic regime with a strong rule of law. Wary of uncertainty, businesses are often distrustful of fledgling democratic regimes because they fear greater political instability, renegotiation of contracts (and possibly bribe payments), and violence that would threaten their investments. If strongly democratic regimes are more stable than autocratic regimes, the risk of instability and conflict is actually higher for formative democracies that are typical in regime-transition processes.⁷³ In the context of civil strife that was affecting the Niger Delta oil-producing region and in the wake of the execution of local activists by the Abacha regime, a Shell manager in Nigeria bluntly argued that “for a commercial com-

pany trying to make investments, you need a stable environment. Dictatorships can give you that."⁷⁴

The problem, however, is that even autocracies have become increasingly unstable as a result of international and domestic pressure for democracy, transition to market economies that are competing on the world market, declining primary commodity prices, and decreasing international assistance. Since most resource-dependent states tend to be autocratic, it is therefore not surprising that, as a group, they are more susceptible to political instability. In turn, the political economy and territoriality of resource exploitation and trade come to define, in part, the geography of war.

Notes

1. Armed conflicts refer to the deployment of organized physical violence and include coups d'état, terrorism, and intra-or interstate armed conflict. The deconstruction of many contemporary armed conflicts also results in a continuum between banditry, organized crime, and armed conflict. In this respect the criteria of annual number of battle deaths (e.g., 25 or 1,000) and of political motivation are not always helpful since the number of violent deaths can be higher in "peacetime" than in "wartime" (e.g., El Salvador, South Africa), and economic motives play a significant role.
2. For a more detailed analysis and examination of initiatives aimed at preventing or ending resource-fueled wars, see Le Billon, *Fuelling War*.
3. Gleick, "Environment and Security," 22.
4. Lesser, *Resources and Strategy*, 9.
5. Aron, *Peace and War*, 244–245.
6. Mackinder, "Geographical Pivot of History"; Ó Tuathail, *Critical Geopolitics*, 314.
7. Westing, *Global Resources and International Conflict*; Cutter, "Exploiting, Conserving, and Preserving Natural Resources."
8. Klare, *Resource Wars*, 10–25.
9. Brown, *Redefining National Security*; Mathews, "Redefining Security."
10. World Commission on Environment and Development, *Our Common Future*; Myers, *Ultimate Security*, 17–30.
11. On the concept of "human security," see Paris, "Human Security."
12. See Bennett, *Greenwar*; Baechler, "Why Environmental Transformation Causes Violence"; Suliman, *Ecology, Politics, and Violent Conflicts*; Homer-Dixon, *Environment, Scarcity, and Violence*.
13. Homer-Dixon, *Environment, Scarcity, and Violence*, 177.
14. André and Platteau, "Land Relations under Unbearable Stress."
15. McClintock, "Why Peasants Rebel."
16. Besteman and Cassanelli, *Struggle for Land in Southern Somalia*.
17. Boserup, *Conditions of Agricultural Growth*; Smith, *Scarcity and Growth Reconsidered*; Tiffen, Mortimore, and Gichuki, *More People, Less Erosion*; Leach and Mearns, *Lie of the Land*.
18. Homer-Dixon, *Environment, Scarcity, and Violence*, 44.
19. Dalby, *Environmental Security*; Jon Barnett, *Meaning of Environmental Security*; Gedicks, *Resource Rebels*; Peluso and Watts, *Violent Environments*, 30.
20. Annan, *Causes of Conflict*; Reno, *Warlord Politics and African States*.

21. Grossman, "General Equilibrium Model of Insurrections"; Keen, *Economic Functions of Violence in Civil Wars*.
22. Le Billon, "Political Ecology of War."
23. Collier, "Economic Causes of Civil Conflict"; Fairhead, "Conflict over Natural and Environmental Resources."
24. Presidential statement dated June 2, 2000 (S/PRST/2000/20), United Nations Security Council Presidential Statement, New York: United Nations Security Council.
25. Collier, "Economic Causes of Civil Conflict," 147. The data set includes fifty-two wars that took place between 1960 and 1999.
26. Collier, Hoeffler, and Söderbom, *On the Duration of Civil War*; Fearon, "Why Do Some Civil Wars Last So Much Longer Than Others?" 34. The data set includes 122 civil wars between 1945 and 1999.
27. Soysa, "Ecoviolence." The dataset includes conflicts with more than twenty-five battle deaths between 1989 and 2000.
28. Hauge and Ellingsen, "Beyond Environmental Scarcity."
29. Soysa, "Ecoviolence," 27.
30. In this chapter, however, "resource dependence" relates to the dependence situation of producing, rather than consuming, countries.
31. Carstens, *In the Company of Diamonds*; Hart, *Diamond*.
32. A discussion of the political-economic concept of "dependency" is beyond the scope of this chapter; for a discussion, see Hout, *Capitalism and the Third World*.
33. Karl, *Paradox of Plenty*; Auty, *Resource Abundance and Economic Development*.
34. Sachs and Warner, *Natural Resource Abundance and Economic Growth*; Leite and Weidmann, *Does Mother Nature Corrupt*; Soysa, "Ecoviolence"; Ross, *Extractive Sectors and the Poor*.
35. Moore, "Political Underdevelopment," 389.
36. Le Billon, "Buying Peace or Fuelling War."
37. On the case of Sierra Leone, see Reno, *Corruption and State Politics in Sierra Leone*; Richards, *Fighting for the Rain Forest*.
38. Taylor and Flint, *Political Geography*, 374.
39. Connell, "Panguna Mine Impact," 43.
40. Pile and Keith, "Introduction."
41. Scott, *Weapons of the Weak*; Cooke, "Vulnerability, Control, and Oil Palm in Sarawak."
42. Harvey, *Chiapas Rebellion*.
43. Watts, "Petro-violence."
44. Le Billon, "Political Ecology of War."
45. Le Billon, "Angola's Political Economy of War," 67.
46. Auty, *Resource Abundance and Economic Development*, 6.
47. Keen, *Economic Functions of Violence in Civil Wars*, 41.
48. Global Witness, *Rough Trade*, 4.
49. Smillie, Gberie, and Hazleton, *Heart of the Matter*.
50. Farah, "Al Qaeda Cash Tied to Diamond Trade," A01.
51. "Footpath to Democracy: Towards a New Sierra Leone." Revolutionary United Front.
52. Pourtier, "1997"; interview with Pascal Lissouba, London, January 2002. Because Nguesso controlled the north of the country, he could also have benefited from logging revenues of timber exports via Gabon and Cameroon (*La lettre du Continent*, January 13, 2000. Cited in "La Forêt Prise en Otage: La nécessité de contrôler les sociétés forestières transnationales: une étude européenne," Cambridge; Forests Monitor, footnote 31).

53. Pourtier, "1997," 7.
54. Nkossa was the name of an oil field recently awarded to the French oil company Elf Aquitaine. Bazenguissa-Ganga, "Milices politiques dans les affrontements," 52.
55. Ellis, *Mask of Anarchy*.
56. Dañguilan-Vitug, *Politics of Logging*.
57. Hodges, *Western Sahara*, vii.
58. Nazarruddin, "Issues and Politics of Regionalism in Indonesia."
59. Cited in Connell, "Bougainville," 8. See also Boge, "Mining, Environmental Degradation, and War."
60. Claxton, "Bougainville, 1988–98."
61. Horton, *Peasants in Arms*, 155.
62. Labrousse, "Colombie-Pérou," 386.
63. Yergin, *Prize*.
64. Pakenham, *Boer War*.
65. Arbatov, "Oil as a Factor in Strategic Policy and Action," 34.
66. Balancie and La Grange, *Mondes Rebelles*, 446–448.
67. Interview with Professor Séverin Mugangu, Université Catholique de Bukavu, April 2002.
68. Le Billon, "Political Ecology of Transition."
69. Interviews with former Khmer Rouge soldiers and commanders, Pailin and Along Veng, January 2001.
70. United Nations, *Report of the Panel of Experts*.
71. On bottom-up violence, see Keen, *Economic Functions of Violence in Civil Wars*.
72. Interview with the author, Cambodia, January 2001.
73. Hegre et al., "Toward a Democratic Civil Peace?"
74. Hammer, "Nigeria Crude: A Hanged-Man and an Oil-Fouled Landscape," 58–69.

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