

# Resource wars: searching for a new definition

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It is a sad and startling fact that the second highest segment of global illicit commerce is in wildlife, dead or alive;<sup>1</sup> in May 2012 the average price for rhino horn was higher than that of either gold or cocaine at US\$60,000 per kilo.<sup>2</sup>

The significance of wildlife both as a resource and as a conduit of insecurity shows how the patterns of linkage between natural resources and global demand have changed over the past few decades. We have become accustomed to monitoring the ‘high politics’ of oil, gas and water as part of national security, with disputes labelled as ‘resource wars’; now fresh areas of concern are emerging, subject to new influences. Pressure on governments is increased by commodity price volatility and threats to the global supply of important natural resources, which are increasingly either state-controlled and wielded as tools of geopolitical leverage, or dominated by multinational companies and institutions driven by their own strictly commercial interests.

For sovereignty to be meaningful the state, together with its associated governmental institutions working within the law, has to be the only source of authority empowered to make and enforce laws and to conduct business on behalf of the people within the national territory. However, corrupting and sometimes violent activities by internal and transnational non-state actors can erode sovereign state powers and severely reduce national and regional security, as clearly demonstrated in, for example, Mexico’s ‘drug wars’. Also, vocal non-governmental organizations (NGOs) and environmental movements can mount powerful opposition to governments which threatens their credibility. In fiercely conducted environmental campaigns, such as those to halt hydraulic fracturing—‘fracking’—or to oppose the large dam project planned for the Mekong delta, governments face the danger of being the ‘enemy of the people’. As John Vogler notes, as political discourse increasingly securitizes the environment, ‘people will be tempted to stretch traditional definitions of security’ in accordance with the evolution of the cultural and moral values that motivate the public.<sup>3</sup>

The new influences characterizing this emerging scenario can be broadly summarized under the following headings:

<sup>1</sup> Humane Society International (HSI), Australia, n.d., <http://www.hsi.org.au/?catID=67>, accessed 3 Aug. 2012.

<sup>2</sup> ‘Poachers prevail: the illegal trade in rhino horns is threatening the animal with extinction’, *The Economist*, 12 May 2012.

<sup>3</sup> John Vogler, *The global commons: environmental and technological governance* (New York: Wiley, 2000), p. 366.

- *single-issue campaigning*: powerful lobbies aimed at public opinion, such as that against ‘blood diamonds’;
- *economic*: globalization; market forces; global outlook;
- *technology*: mobile telephony; the internet; new mining and drilling techniques and equipment (e.g. ‘fracking’);
- *demographic*: population change; immigration;
- *territorial*: land sales; habitat loss;
- *environmental*: climate change; pollution; carbon trading;
- *conflict*: violence in the shadow of globalization, by state forces and non-state groups.

These factors are reconfiguring the area of violent conflict as overwhelmingly one of sub-state activity; as a result, agencies of the state are either being ignored or overwhelmed, or becoming complicit with the perpetrators of violence. When power-brokers rely on force it is often through ‘network war’, where, as Mark Duffield has noted, ‘the networks that support war cannot easily be separated out and criminalised in relation to the networks that characterise peace; they are both part of a complex process of actual development’.<sup>4</sup>

Bauman calls these conflicts ‘globalization-induced wars’ and sees their core identity as about delineating spatial control;<sup>5</sup> geographer Derek Gregory points out that there has been a tendency to allocate network war principally to the global South, while in fact war and conflict today are ‘everywhere’, with the threat and use of extreme violence having no front lines, in contrast to ‘the usual configurations of war’.<sup>6</sup>

Furthermore, there is growing evidence that transnational criminal networks are expanding out of their traditional areas of control into others and in the process broadening out the ‘shadow’ economy, which includes natural resources and flora and fauna.<sup>7</sup>

A clear link between resources, the environment, and war and conflict was outlined in 1987 by the ground-breaking World Commission on Environment and Development, better known as the Brundtland Commission after its Norwegian chair, Gro Harlem Brundtland, which stated: ‘Nations have often fought to assert or resist control over war materials, energy supplies, land, river basins, sea passages and other key environmental resources.’<sup>8</sup> Since then, there have been two important developments in the resources–conflict relationship. First, resource issues have increasingly underlain conflict: one recent UN report suggests that 18 of the 35 conflicts recorded since 2000 have been about or fuelled by issues to do with the exploitation and control of natural resources, as opposed to wars fought over issues of ideology or territorial security.<sup>9</sup> (A related point is that the earth’s

<sup>4</sup> Mark Duffield, *Global governance and the new wars: the merging of development and security* (London: Zed, 2001), p. 190.

<sup>5</sup> Zygmunt Bauman, ‘Wars of the globalisation era’, *European Journal of Social Theory* 4: 1, 2001, pp. 11–28.

<sup>6</sup> Derek Gregory, ‘The everywhere war’, *Geographical Journal* 177: 3, 2011, p. 239.

<sup>7</sup> Nigel South and Tanya Wyatt, ‘Comparing illicit trades in wildlife and drugs: an exploratory study’, *Deviant Behaviour* 32: 6, 2011, pp. 538–61.

<sup>8</sup> See [http://www.un.org/esa/dsd/resources/res\\_publiccorepubli.shtml](http://www.un.org/esa/dsd/resources/res_publiccorepubli.shtml), accessed 3 Aug. 2012.

<sup>9</sup> United Nations Environment Programme, ‘From conflict to peacebuilding: the role of natural resources

richest areas of biodiversity lie in tropical and subtropical regions of developing states, many of which have been affected by conflict at one time or another since 1987.) Second, the coinage of the term 'resource war' has been steadily debased to the point where it is now applied to minerals, oil and land; to rhino horn and ivory; to water, timber, wildlife and more. On the one hand, this broadening of use reflects the increasing fragmentation and motivation of conflicts linked to natural resources; on the other hand, it contributes to a lack of focus and priority.

Around this opaque world float other phrases such as 'natural security', 'environmental security' and, at the extreme, 'eco-war'; when these are joined with terms like 'threat multiplier' and 'drivers', as well as competing interpretations of 'militarization' and 'securitization',<sup>10</sup> the scope for misinterpretation expands further. Within the security agenda, the rhetoric of possible threats linked to resources can follow a skewed analysis, so that, for example, the safeguarding of certain strategically important natural resources, such as coltan, or the combating of the illegal trade in certain commodities, such as drugs or diamonds, becomes subsumed within the vernacular of wider threats to national security such as terrorism. This process works either by a kind of osmosis or by a deliberate strategy of insinuation to ramp up or draw attention to a threat, such as speculation on links between Al-Qaeda and Mexican drug cartels.<sup>11</sup> In the process, hypothesis is often conflated with fact to develop a spectrum of scenarios ranging from a subtle reconfiguration of 'known unknowns' to the apocalyptic, in the vein of Robert Kaplan's *The coming anarchy*.<sup>12</sup> Many of these analyses focus on the impact of climate change, such as glacier melt in the Arctic.<sup>13</sup>

While these projections are all certainly plausible, their core identity is speculative and conceptual. This has a damaging and corrosive effect of surrounding the whole question of 'resource wars' with theory and unreality, thereby burying its true significance.

### Revisiting 'resource wars'

Now would seem to be an appropriate moment to revisit the term 'resource wars', especially in the light of the June 2012 Rio+20 Earth Summit and the gathering drawdown of western troops from Afghanistan—a country which is being eagerly eyed for its vast potential in terms of natural resources. A US Geological Survey report compiled between 2009 and 2011 in Afghanistan discovered significant amounts of copper, iron ore, gold, lithium and rare earth metals (REM), as well as coal, oil and gas, prompting a conservative valuation of US\$3trillion.<sup>14</sup>

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and the environment' (Nairobi: UNEP, 2009), [http://www.unep.org/pdf/pcdmb\\_policy\\_01.pdf](http://www.unep.org/pdf/pcdmb_policy_01.pdf), accessed 24 April 2012.

<sup>10</sup> In the context of 'natural security', a major distinction is that between 'securitization' and 'militarization'—a distinction best exemplified by climate change, which cannot be 'militarized' since it presents no concrete enemy, but can be 'securitized' because it is a threat to general security.

<sup>11</sup> Ioan Grillo, *El narco: the bloody rise of Mexican drug cartels* (London: Bloomsbury, 2012), p. 213.

<sup>12</sup> Robert D. Kaplan, *The coming anarchy* (New York: Random House, 2001).

<sup>13</sup> See e.g. Suzanne Goldenberg, 'Prepare for Arctic struggle as climate changes', *Guardian*, 10 March 2011.

<sup>14</sup> J. Edward Conway, 'How Afghanistan can escape the resource curse', *Foreign Affairs*, 29 Feb. 2012, <http://>

The wider review heralded in this article has a fourfold purpose:

- to explore patterns of modern conflict and how they are linked with resources and commodities;
- to develop the interplay between conflict and terrestrial ‘wastelands’ / marine ‘deadzones’;
- to introduce the concept of ‘environmental confrontations’;
- to introduce ‘ecological engagement’: a policy proposal that unites sustainability and ‘natural security’.

In its 2010 annual report the World Trade Organization (WTO) defined natural resources as ‘stocks of materials that exist in the natural environment that are both scarce and economically useful in production or consumption, either in their raw state or after a minimal amount of processing’.<sup>15</sup> The report identifies key characteristics of natural resources:

- *uneven distribution*: some of the world’s most vital natural resources are controlled by a small number of countries;
- some are *non-renewable* (e.g. fossil fuels and metal ores), others are *renewable* (e.g. fish, forests and water)—though they can be exhausted if mismanaged;
- *economic dominance*: extraction industries can have an over-large share of the country’s trade;
- *volatility*: products can be subject to price swings.

Trade in resources differs from trade in manufactured goods because it is more or less homogeneous in nature and therefore more amenable to centralized trading. This helps with exchange transactions and assists with creating a unified price. Cartels are particularly well suited to controlling the start and end of a natural resource delivery system since a tight focus overcomes some of the inherent difficulties of the supply system, bearing in mind that some of the world’s most vital resources are controlled by a small number of countries in inhospitable geographical locations. Resources accounted for over 70 per cent of exports in Africa, the Middle East and the Commonwealth of Independent States (CIS) in 2008. By contrast, the corresponding figures for North America, Europe and Asia were 20 per cent or lower.<sup>16</sup>

The understanding of natural resources as a driver of economic development has gone through great change over the past three decades. Until the 1980s economists generally saw an abundance of resources as an advantage, but in the following decade new scholarship developed the concept of a ‘natural resource curse’ which linked such abundance to slower growth, violent civil conflict and undemocratic regimes. This gave rise to phrases such as ‘greed versus grievance’ and ‘lootability’, which reflected the motivation behind the use of violence to gain

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[www.foreignaffairs.com/articles/137306/j-edward-conway/how-afghanistan-can-escape-the-resource-curse](http://www.foreignaffairs.com/articles/137306/j-edward-conway/how-afghanistan-can-escape-the-resource-curse), accessed 9 Aug. 2012.

<sup>15</sup> World Trade Organization, *World Trade Report 2010* (WTO: Geneva, 2010), executive summary, p. 5, [http://www.wto.org/english/res\\_e/publications\\_e/wtr10\\_e.htm](http://www.wto.org/english/res_e/publications_e/wtr10_e.htm), accessed 4 April 2012.

<sup>16</sup> WTO, *World Trade Report 2010*, p. 6.

control of resources. Sachs and Warner concentrated on the relationship between resources and economic growth, while Collier and Hoeffler showed that resources had an impact on some types of war but not on others, while also looking at other measures of resource wealth.<sup>17</sup> More recently, Brunnschweiler and Bulte have dismissed the ‘resource curse’, having found no strong relationship between resource abundance and the onset of conflict, and headed off in the opposite direction, asserting that: ‘Resource wealth, via an income effect, lowers the probability of conflict, and especially of the onset of a major conflict. Moreover, we find no evidence of an across-the-board link running from resource dependence to civil war.’<sup>18</sup> Other recent research suggests that the presence of cyclical climatic changes like El Niño double the risk of civil war, presenting analysis showing that a sizeable proportion of conflicts between 1950 and 2004 were triggered by the El Niño cycle.<sup>19</sup> Homer-Dixon pioneered ‘resource scarcity’ as a driver of violent conflict, noting how powerless groups got elbowed aside by an elite in a dog-eat-dog struggle while social and economic innovation receded.<sup>20</sup> Meanwhile, the natural resources vital for a nation’s survival, its ‘natural security’, have expanded from oil, gas and food to include REM.

### **Resource wars: new categories**

In view of this expanding conflict–resource matrix—expanding in terms of both scholarship and elasticity of definitions—it is proposed here to deconstruct the term ‘resource wars’, starting by breaking it up and then introducing new compartments, in order to increase the analytical rigour with which the topic can be addressed.

The process begins by allocating the term ‘resource war’ only to conflicts and wars that take place between states, and by restricting the term ‘resource’ to those elements that are key to human survival: namely water, soil, air and ecosystems, which are defined as Resources–Life, and oil and gas, which are defined as Resources–Strategic. Together, these occupy the realm of traditional geostrategic ‘high politics’. In both, the price is controlled not only by supply and demand but also by the additional costs relating to the environmental and securitization impact of changes in the supply, such as around the distribution of water in the Jordan Valley.<sup>21</sup>

By contrast, those conflicts that have been linked with resources not connected with ‘high politics’ should be given another description, specifically ‘commodity

<sup>17</sup> Jeffrey D. Sachs and Andrew M. Warner, ‘Natural resource abundance and economic growth’, working paper, Center for International Development and Harvard Institute for International Development, Cambridge, MA, 1997; Paul Collier and Anke Hoeffler, ‘On economic causes of civil war’, *Oxford Economic Papers* 50: 4, 1998, pp. 563–73.

<sup>18</sup> Christa N. Brunnschweiler and Erwin H. Bulte, ‘Natural resources and violent conflict: resource abundance, dependence, and the onset of civil wars’, *Oxford Economic Papers* 61: 4, 2009, pp. 651–74 at p. 670.

<sup>19</sup> Solomon M. Hsiang, Kyle C. Meng and Mark A. Cane, ‘Civil conflicts are associated with the global climate’, *Nature* 476: 7361, 25 Aug. 2011, pp. 438–41.

<sup>20</sup> Thomas F. Homer-Dixon, *Environment, scarcity and violence* (Princeton, NJ: Princeton University Press, 2001).

<sup>21</sup> See e.g. J. A. (Tony) Allan, ‘Hydro-peace in the Middle East: why no water wars? A case study of the Jordan river basin’, *SAIS Review of International Affairs* 22: 2, 2002, pp. 255–72.

**Table 1: Timeline of changing environment of resources and commodities**

	<i>Up to 1990</i>	<i>1990–2005</i>	<i>2005–2012</i>
<b>Resources</b>			
Replenishable <sup>a</sup>	Fish; water; land; cereals; foodstuffs such as sugar, tea; coffee, cocoa; certain narcotics	Fish; water; foodstuffs; certain narcotics	Fish; water; land; foodstuffs <sup>c</sup>
Non-replenishable <sup>b</sup>	Oil; uranium; coal; iron; gas	Oil; gas; coal; iron; uranium	Oil; non-conventional oil; gas; ‘fracked’ gas; coal; iron
<b>Commodities</b>			
Replenishable	Ivory; rhino horn; wildlife; timber; certain narcotics; cereals; foodstuffs such as sugar, tea; coffee, cocoa; land	Certain narcotics; ivory; rhino horn; wildlife; timber; cereals; cotton; rubber; vegetable oil; land.	Cereals; ivory; rhino horn; timber <sup>c</sup>
Non-replenishable	Diamonds; gold; minerals	Diamonds; gold; minerals	Diamonds; gold; cereals; Rare Earth Minerals; certain narcotics; carbon trading

<sup>a</sup> Replenishables: resources that replace themselves by a natural process.

<sup>b</sup> Non-replenishables: non-replaceable resources which widely occur.

<sup>c</sup> All replenishable but under stress.

conflicts’. The identity of a ‘commodity’ lies in its value being controlled by market forces plus a position on a sliding scale of ‘conflict risk’ that ranges from high (cocaine, coltan, diamonds) to medium/low (copper, gold, rhino horn) to very low (coffee, tea). It is important with ‘commodity conflicts’ to make a distinction between the illegal and legal forms: in the former category they would be defined as ‘lootable’ and in the second as ‘extractible’.

The basic profile of ‘commodity conflicts’ is that they have been:

- localized;
- based on extractive/‘lootable’ commodities;
- violent in short bursts, sometimes over long periods;
- difficult for outside forces to quell;
- often linked to power struggles within the ruling elite.

To provide even greater clarity, a third category in the resource-conflict spectrum is introduced, namely ‘environmental confrontations’: this gathers in the wide range of conflicts that have some element of the environment at their core. These can range from overfishing and riparian access to animal rights, wildlife poaching, illegal timber-felling and environmental campaigns of all types. While the tally of

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human deaths in this category is extremely low, this is no reflection on the huge amounts of passion and commitment involved: for instance, in November 2011 the FBI placed animal rights activist Daniel Andreas San Diego on its list of the 31 'Most Wanted Terrorists', while the Sea Shepherd marine conservation group has taken direct confrontation to new levels.<sup>22</sup>

Finally, there is a fourth category: this is the most problematic, in that it contains elements of both resources and commodities and so makes devising a response especially difficult. This category covers five broad issues:

- *Food security*. Food is both a commodity and a resource: for example, the cocoa commodity market was targeted in 2010 by British financier Anthony Ward, who developed a hoarding strategy,<sup>23</sup> while the British investment fund African Century is attempting to develop fish and chicken farms to provide a major source of food in southern Africa.<sup>24</sup>
- *New sources of energy*. Impact of technological advances on current energy sources: oil, gas, coal, hydro.
- *Land sales/rights*. Land is a resource that is both publicly and privately owned and is often sold as a commodity.
- *The drugs trade*. Drugs are a commodity controlled by market forces: suppliers treat drug users as a resource to be exploited, with ramifications of national and global importance.
- *Flora and fauna*. Both are a commodity and a resource (for firewood and eating).

'Conflict' as defined in respect of this category does not have to involve the use of force or violence: conflict starts with a disagreement. And even the use of force does not have to entail violence, since force can be defined in a variety of ways: as a demonstration of strength and power, or as coercion and compulsion, or simply as the application of influence. Though force is often associated with military power or organized violence, and while it often contains aspects of these elements, it might be best regarded as part of a strategy which comes into play whenever there is a clash of wills or interests. Thus diplomacy and the threat of sanctions are also considered as ways of using force.

The UN Charter enshrines the principle of sovereign equality of all its members and clearly forbids any state to use or threaten force against 'the territorial integrity or political independence of any state' except in case of self-defence against armed attack.<sup>25</sup> However, for developing countries, de facto international recognition depends on a paranormal architecture whose actors range from NGOs to banks which bring the accoutrements of globalization by way of access to capital and credit to build a state-within-a-state.

<sup>22</sup> 'FBI says wanted animal rights activist may be in Mass.', *The Gazette*, 16 Nov. 2011.

<sup>23</sup> Laura Roberts, 'British financier Anthony Ward behind £658 million cocoa trade', *Daily Telegraph*, 18 July 2010.

<sup>24</sup> <http://www.africancentury.co.uk>, accessed 3 Aug. 2012.

<sup>25</sup> UN Charter, Chapter 1: 'Purposes and principles', 26 June 1945, article 2(4).

### Case-study 1: resource war (modern)

While the arena of ‘resource wars’ has been defined above as resting with governments and ‘high-end’ geopolitics, there is one exception to this rule: whales.

The International Whaling Commission (IWC) is the official forum within which agreements and disputes between governments supporting their whaling fleets and those against whaling are thrashed out. In 1986 the IWC declared a moratorium on commercial whaling; however, several governments continue to demand the facility to continue whaling, supporting their case with reference to cultural and economic traditions in which the whales are a resource. This group consists of Norway, Japan, Iceland and the Faroe Islands (a self-governing dependency of Denmark), where the annual ‘grindadráp’ whale-hunt is operationally open to all the community. Meanwhile, the NGOs Greenpeace and Sea Shepherd (a maritime conservation group based in the United States) campaign for a complete halt to whaling.

The confrontations between Sea Shepherd activists and Japanese whalers around Antarctica have been at the extreme end of the passive–aggressive spectrum. Paul Watson, Sea Shepherd’s leader, emphasizes that his organization is merely enforcing international maritime law under the United Nations World Charter for Nature. However, Sea Shepherd’s actions became so politically embarrassing for the Japanese that they raised the matter with US Secretary of State Hillary Clinton. Thanks to Wikileaks, we know that Japan and the United States proposed to investigate and act against Sea Shepherd as part of a political deal to reduce whaling in Antarctic waters. The American proposal would have forced Japan to reduce the number of whales that it killed each year in the Antarctic whale sanctuary in return for the legal right to hunt other whales off its own coasts. Covertly, the US authorities would harass Sea Shepherd via tax investigations and economic pressure while overtly calling for ratification of laws that would ‘guarantee security in the seas’—a reference to acting against groups such as Sea Shepherd. The US proposal was eventually shot down by Britain and the EU in June 2010.<sup>26</sup>

## Resources and conflict: up to the Cold War

The hunt for resources has been driven by outward expansion, conquest, colonialism and conflict for centuries, indeed millennia: the evidence for ‘resource wars’ reaches back to the oldest written histories, with texts from the ancient Near East recording the struggle to control the irrigated river valleys of Mesopotamia.<sup>27</sup> The period from those ancient times up to the seventeenth century represented the first phase in the hunt for resources, as trading patterns expanded across the globe; the second phase began from what Michael Howard calls the ‘Wars of the Merchants’, with the result that ‘the capacity to sustain war and so maintain

<sup>26</sup> John Vidal, ‘Wikileaks: secret whaling deal plotted by US and Japan’, *Guardian*, 6 Jan. 2011.

<sup>27</sup> See e.g. Stephen C. McCaffrey, ‘Water scarcity: institutional and legal responses’, in E. H. H. Brans, E. J. de Haan, A. Nollkaemper and J. Rinzema, eds, *The scarcity of water: emerging legal and policy responses* (Boston, MA: Kluwer Law International, 1997), pp. 43–58.



political power in Europe became, during the seventeenth century, increasingly dependent on access to wealth either extracted from the extra-European world or created by the commerce ultimately derived from that wealth'.<sup>28</sup> Western mercantilist operations were left to non-state organizations, the 'raider-traders' of the early chartered companies, which expanded to control every stage of the delivery chain, from sourcing and transport to sales, while the interest of the state was principally left to gathering taxation and elaborating the geopolitical strategy.

By the nineteenth century this economic model had changed as the independence and power of the old trading organizations had vanished. In 1858 the British East India Company, having effectively ruled large parts of India for a hundred years and been present in Asia for much longer, lost control to the British Crown under the Government of India Act. Similarly the even larger Dutch East India Company (VOC), founded in 1602 with its hub in Batavia (now Jakarta), had made huge profits; but it succumbed to corruption and went into bankruptcy in 1800. These companies' networks and territory were taken over by the British and Dutch governments respectively.

The third phase of the hunt for resources sprang from a combination of western industrialization, including what McNeill calls 'the industrialization of war', and the first phase of modern globalization: 'Cheap machine-made goods and cheap machine-based superiority of armed force were both available for export, and exported they were. As a result, the world was united into a single interacting whole as never before.'<sup>29</sup>

The ever-growing list of imported resources introduced a fourth and more threatening phase in resource collection, namely the scramble by western powers to create empires in a quest for 'natural security' fuelled by the knowledge that 'by the 1880s, when 65 percent of Britain's grain came from overseas, a fleet of enemy cruisers capable of intercepting grain shipments from the other side of the Atlantic could be expected to bring Great Britain face to face with starvation in a matter of months'.<sup>30</sup> Empire-building relied on the one hand on governments providing the troops and funds to maintain the armed domination of resource-rich lands and protect shipping routes back home, giving rise to the 'sea-power' theories of Alfred Thayer Mahan (1840–1914) and Sir Julian Corbett (1854–1922); on the other hand, private investment would fund the expansion along the lines of the chartered companies of the past. In 1902 the British economist John A. Hobson published *Imperialism*, in which he drew on observations from the Boer War to suggest that imperialism was driven by western business groups and cartels searching for new markets which led to large inequalities in wealth distribution.<sup>31</sup> Two years later, one of the founders of geopolitics, Sir Halford Mackinder, outlined his ideas about zones of differing geostrategic importance in his 'Heartland Theory'.<sup>32</sup>

<sup>28</sup> Michael Howard, *War in European history*, updated edition (Oxford: Oxford University Press, 2001), p. 38.

<sup>29</sup> William H. McNeill, *The pursuit of power* (Chicago: University of Chicago Press, 1982), pp. 260–1.

<sup>30</sup> McNeill, *The pursuit of power*, p. 263.

<sup>31</sup> John A. Hobson, *Imperialism* (London: Allen & Unwin, 1948).

<sup>32</sup> Sir Halford Mackinder, 'The geographical pivot of history', *Geographical Journal* 170: 4, 1904, pp. 298–321, accessed 10 Dec. 2011.

This period coincided with a fifth phase of resource hunting that saw the emergence of the 'high politics' of modern Resources–Strategic along with the 'fossil fuel age', prompting expert Daniel Yergin in 2011 to predict: 'By 2020, overall global energy consumption may be 35 or 40 percent greater than it is today. The mix will probably not be too different from what it is today. Hydrocarbons will likely be somewhere between 75 and 80 percent of the overall supply.'<sup>33</sup>

### *Case-study 2: resource wars (historic)*

The Portuguese were the European pioneers of globalization, embarking on a process that started with a search for commodities and ended with the discovery of a major resource that eventually led to warfare. Portuguese monarchs of the late fifteenth and early sixteenth centuries were acutely aware of an ominous geostrategic problem arising from the country's location on the far western rim of Europe: there was every chance that the country would be subsumed by its dominant and much bigger neighbour, Spain. With access to European markets across both land and sea being controlled by relations with Spain, the answer was for Portugal to develop an independent maritime overseas strategy, looking south. Given the lack of geographical knowledge and navigational equipment at the time, and the absence of the Pole Star from the sky south of the Equator to navigate by, the task was daunting.

There was a strong economic motive for this strategy. Silks, spices and precious stones were the major commodities of the day, and one shipload would generate a sizeable income: but here another geostrategic hurdle loomed, as the overland trade routes lay across the unwelcoming Islamic and Persian countries. Furthermore, in the second half of the fourteenth century Europe suffered a great shortage of precious metals, leading all states to devalue and hitting Portugal particularly hard. The problem of metal supply had been building over the previous century and a half as increased trade meant increased demand for coinage: the answer was to devalue the currency, sometimes decreasing the silver content or by simply cutting a coin in half. In response to these challenges, King John II of Portugal (r. 1481–95) summoned a committee of experts who invented new instruments and tables to plot latitude south of the Equator; thus equipped, first Bartholomew Dias and then Vasco da Gama headed south.

The Portuguese adventurers often faced stiff local opposition to their gathering of the commodities they sought; to deal with this, the Portuguese frequently resorted to the tried-and-tested economics of capturing and ransoming local chiefs and notables. Sometimes these and other people were brought back to Portugal where they could make an economic contribution to the costs of the expedition by being sold. Thus African slavery became a growing resource, which would gradually underpin the imperial rivalry of European powers.

<sup>33</sup> Daniel Yergin, *The quest: energy, security and the remaking of the modern world* (London: Allen Lane, 2011), p. 715.

## Resources and conflict: after the Cold War

The end of the Cold War saw the publication of Francis Fukuyama's *The end of history and the last man*, at heart a reworking of Immanuel Kant's 'democratic peace' theory within a neo-conservative context, setting out to show how the historical destiny of trade would eventually bring global prosperity and peace.<sup>34</sup> Whatever the subsequent historical verdict on Fukuyama's theories, the ensuing history of resource wars did point up the marked difference between Resources–Life and Resources–Strategic.

Nowhere in post-biblical history has war occurred over a resource that falls within the criteria of Resources–Life. This reflects the logic that these resources are so crucial that even though conflict over them could theoretically rapidly escalate, in practice it is in the interests of all parties to negotiate rather than to fight. This is borne out in the story of the so-called 'water wars', both past and present, where disagreements and confrontations have not erupted into fighting, and from which emerges a school of thought that sees negotiations over water access creating a 'neutral' zone from which wider antagonisms can be discussed, for example in the Middle East.<sup>35</sup>

Regarding Resources–Strategic, the two Gulf wars of the 1990s and 2000s showed the sharp limits to American geostrategic toleration when its oil supplies in the Middle East were threatened; it was a similar perception from the earlier Soviet invasion of Afghanistan that gave rise to the 1980 Carter Doctrine of 'red lines' in the Middle Eastern sand.<sup>36</sup>

Furthermore, there was a surge in 'commodity conflicts' after the post-Cold War euphoria had ebbed, to be replaced by a 'new wave of ethnic conflicts with unprecedented dimension and geographical spread that brought home the message that domestic conflict would proliferate rather than decline in the post-Cold War era'.<sup>37</sup> These conflicts, predominantly in the global South, often saw an overlap between criminal exploitation of 'lootability' and long-standing ethnic or religious grievances, as 'blood diamonds', 'conflict minerals', gold and illegal timber extraction all helped to fuel conflict as contesting groups battled each other for power, operating within the context of modern globalization, and taking advantage of its new technological developments in communications and transport, as well as of market forces and the 'shadow economy' of undeclared and illegal trading. These, Bauman's 'globalization-induced wars', formed the sixth phase of resource hunting—a reworking of the 'raider-trader' model of the early chartered companies, as clearly demonstrated by the rapid expansion of the Lonrho conglomerate throughout post-colonial Africa.

Lonrho's chairman, the German-born but naturalized British Roland 'Tiny' Rowland, showed that if the 'charter company' concept were repositioned to

<sup>34</sup> Francis Fukuyama, *The end of history and the last man* (New York: Free Press, 1992).

<sup>35</sup> See e.g. Allan, 'Hydro-peace in the Middle East'.

<sup>36</sup> Andrew J. Bacevich, 'The Carter doctrine at 30', *World Affairs*, 1 April 2010, <http://www.worldaffairsjournal.org/blog/andrew-j-bacevich/carter-doctrine-30>, accessed 2 April 2012.

<sup>37</sup> Susanne Peters, 'Coercive western energy security strategies: resource wars as a new threat to global security', *Geopolitics* 9: 1, 2004, p. 187.

pursue a policy of collaboration with (rather than, as in the past, subjugation of) the elites of the emerging nations to control the process of the resource extraction, then handsome profits would follow, even though the methods could be coercive, brutal and shocking to liberal opinion.<sup>38</sup> This process took advantage of the reshaping of many sub-Saharan countries after the end of the Cold War and the concomitant emergence of localized trade networks connected with dubious transglobal networks, whether in diamonds, timber or wildlife—a process mirrored in the reconfiguration of Russia's oil and gas industries during the Yeltsin years. The ensuing conflicts dissolved conventional distinctions between people, army and government, so that 'where the new wars differ from violent peace is in terms of degree rather than absolute or opposed conditions ... network war is an extreme form of the competition that exists between non-state and state systems of regulatory authority and is often connected with the manner in which markets are controlled and integrated into the global economy'.<sup>39</sup>

Chojnacki makes some distinctions within the 'small wars' frame that are useful in understanding these conflicts, designating wars/conflicts between a state and non-state actors as 'intra-state' and those between non-state actors as 'sub-state'. In Chojnacki's view, it is conflicts in this latter category that have increased as 'non-state actors (warlords, local or ethnic militia) are able to establish alternative, territorially restricted forms of centralised violence'.<sup>40</sup>

### *Case-study 3: commodity conflict (historic)*

On 16 December 1780 two opposing groups of men carrying an assortment of wooden staves and heavily loaded flails met in thick woodland in southern England. Following the clash one man died and several others were badly injured; the episode has entered local history as 'The Battle of the Bloody Shard Gate'.

One group were 'keepers' of Cranborne Chase in the county of Dorset who were enforcing laws existing when it was the favoured hunting location of King John (r. 1199–1216). At the time of the Domesday Book in 1086, woodland cover in England was estimated to be around 15 per cent; this proportion is thought to have halved in the following 300 years.<sup>41</sup> The 'chase' was a designated hunting area for the exclusive pleasure of the monarch; today we might call such an area a high-security zone, even a 'Green Zone': an exclusion zone, which in the case of Cranborne Chase was later expanded to an 80-mile perimeter, with patrols by a specialist counter-insurgency force of 'keepers'. The 'chase' laws were called 'vert and venison', the former referring to the timber and the latter to the deer, wild boar and other edible wildlife.

Over time the monarchs came to view the land and forests as a major resource rather than simply a venue for hunting for pleasure: royal coffers were always low,

<sup>38</sup> Tom Bower, *Tiny Rowland: a rebel tycoon* (London: Heinemann, 1993).

<sup>39</sup> Duffield, *Global governance and the new wars*, p. 190.

<sup>40</sup> Sven Chojnacki, 'Anything new or more of the same? Wars and military interventions in the international systems, 1946–2003', *Global Security* 20: 1, 2006, pp. 39–40.

<sup>41</sup> <http://www.woodlandtrust.org.uk>, accessed 3 Aug. 2012.

thanks to continuous warfare, so both 'vert and venison' were sold on the internal markets while special concessions (today's franchises) were sold to royal favourites in a form of patronage which bound these often powerful nobles even closer to the monarch. Poachers caught illegally transgressing 'vert and venison' could expect harsh sentences: not only the Crown's coffers, but also its authority and dignity, had to be protected.

For the poachers, mostly local people making a subsistence living, the timber and wildlife represented major commodities that could be sold, bartered or taken home, and so it was worth risking being captured or getting into a fight with the keepers. Therefore the conflict in this case was not over the key resource of the land, such as took place between France and Britain during the Hundred Years War, but over the control of commodities contained within the resource.<sup>42</sup>

### **Mobile phones, wastelands and deadzones**

Sir Halford Mackinder's 'Heartland Theory', outlined in his article 'The geographical pivot of history', was summarized as: 'Who rules east Europe commands the Heartland; who rules the Heartland commands the World-Island; who rules the World-Island controls the world.'<sup>43</sup> Mackinder defined his World-Island as Europe, Asia and Africa, which together contained 50 per cent of the world's resources; at its centre was 'The Heartland', whose landmass equated to what would become the Soviet Union. Though globalization today has clearly overtaken Mackinder's 'Heartland Theory', a modern geostrategic approach would also highlight the close overlap between the global dispositions of resources and conflict, as demonstrated in the relevance of 'biodiversity hotspots'. Thirty-four 'hotspots' shelter the entire ranges of at least 42 per cent of terrestrial vertebrates and at least 50 per cent of known plant species, while covering only 2.3 per cent of the Earth's surface.<sup>44</sup> These areas, which are concentrated in Africa, Central and South-East Asia, and the Amazon Basin, also contain many important resources and commodities. A report in 2009 showed that 90 per cent of major armed conflicts between 1950 and 2000 occurred in countries containing 'biodiversity hotspots', while, 80 per cent of the 'hotspots' had experienced conflict during the same period.<sup>45</sup> Through the process of conflict, parts of these areas have been turned into 'wastelands', where ecosystems and human structures have been severely dislocated, dispersed and effectively 'wasted'. A list of these 'wastelands' would be dominated by parts of Africa, Central America and Central Asia, along with the Myanmar–China border region: areas that clearly overlap with the list of 'hotspots'.

<sup>42</sup> Desmond Hawkins, *Discover Dorset: Cranborne Chase* (Wimborne: Dovecote Press, 1998).

<sup>43</sup> Mackinder, 'The geographical pivot of history'.

<sup>44</sup> Russell A. Mittermeier, Cristina G. Mittermeier, Thomas M. Brooks, Gustavo A. B. da Fonseca, Michael Hoffmann, John F. Lamoreux, John D. Pilgrim, Justin Gerlach and Ana L. Rodrigues, 'Global biodiversity conservation priorities', *Science* 313: 58, 2006, pp. 58–61.

<sup>45</sup> Thor Hanson, Thomas M. Brooks, Gustavo A. B. da Fonseca, Michael Hoffmann, John F. Lamoreux, Gary Machlis, Cristina G. Mittermeier, Russell A. Mittermeier and John D. Pilgrim, 'Warfare in biodiversity hotspots', *Conservation Biology* 23: 3, 2009, pp. 578–87.

This process of degradation also has a marine equivalent: the 'deadzones' where chemical pollution, mostly from agricultural run-off, has destroyed aquatic ecosystems and where vast algal tides turn the sea anoxic for all or part of the year. Four hundred 'deadzones' have been identified, with one of the biggest, located at the mouth of the Mississippi Delta in the Gulf of Mexico, covering 20,000 square kilometres of ocean.<sup>46</sup>

In the absence of an effective and centralized authority, national borders become merely nominal; and 'where places are pre-constituted as fallen, violated and damaged, always and everywhere [they are] potential targets for a colonising capitalist modernity'.<sup>47</sup> Below the surface, many of the terrestrial 'wastelands' contain the essentials of the 'new economy' such as the REM that are required for advances in technology. These resources represent a new phase and subdivision in 'natural security' which is dominated by market demand: while theoretically it is possible to live without a mobile phone, many people would consider it impossible to do so; in consequence, guaranteeing the supply of these products and their components has become a de facto responsibility of governments. This process is a modernization of the past relationship between the chartered companies and national governments, and rests on a key 'driver' of the global marketplace whereby China and the East form the manufacturing 'hub', with lower labour costs, while the security of the supply chain is allotted to western forces, principally the United States.

The process is clearly at work in Africa, a continent with vast natural resources. In the wake of the 9/11 bombings the US administration of George W. Bush decided to 'securitize' Africa by setting up the United States African Command (AFRICOM).<sup>48</sup> Currently AFRICOM has over a dozen differing initiatives throughout the continent, ranging from combating terrorism to joint training exercises with local forces and oversight of regional security through vehicles such as the Tripartite Plus Mechanism in Kinshasa, which relies on information collated by the Joint Intelligence Fusion Cell.<sup>49</sup> Similarly, the current drive by the United States to increase security across the Sahara region takes place against a background of large-scale drug trafficking and kidnappings along with the presence of Al-Qaeda in the Islamic Maghreb (AQIM). The US response has been to collaborate with local governments under the Trans-Sahara Counter Terrorism Partnership (TSCTP).

AFRICOM's use of drones and eavesdropping technology is part of what Gregory sees as an environment where 'virtual space and physical space, online and offline worlds, intermingle, support and transform one another'.<sup>50</sup> And the location of AFRICOM's headquarters in Stuttgart, Germany, is part and parcel of the globalization of security, as is the remote control of American drones by

<sup>46</sup> 'An ocean of troubles', *The Economist*, 12 May 2012.

<sup>47</sup> Derek Gregory, 'War and peace', *Transactions of the Institute of British Geographers* 35, 2010, p. 166.

<sup>48</sup> See <http://georgewbush-whitehouse.archives.gov/news/releases/2007/02/20070206-3.html>, accessed 3 Aug. 2012.

<sup>49</sup> James Karuhanga, 'Rwanda: U.S., nation plot to rout weakened FDLR', 31 Jan. 2012, <http://www.allafrica.com/stories/201201310075.html>, accessed 2 May 2012.

<sup>50</sup> Gregory, 'The everywhere war', p. 245.

operators thousands of miles from the machine. These arrangements reflect the reworking of Mackinder's 'Heartland Theory' of strategic blocs by globalization and technology to place geostrategic emphasis on the control of access to and supply of resources and commodities: now everywhere is accessible all the time.

### **'Everywhere war', the 'shadow economy' and 'criminalization'**

As the REM of the 'new economy' have gained in importance over the past decade, they have moved from being a commodity to being Resource-Strategic; furthermore, they constitute a substantial part of the 'shadow economy'. Though the 'shadow economy' is often associated with all aspects of illegal trading, it also covers a 'third sector' located between illegal commerce and open trading, based on the 'spot market' principle that was pioneered in oil trading by Marc Rich and his colleagues in the mid-1970s to circumvent the Arab oil embargo of supplies to the West.<sup>51</sup> As a US Geological Survey report in October 2011 noted: 'Niobium and tantalum materials are not openly traded. Purchase contracts are confidential between buyer and seller; however, trade journals report composite prices of tantalite based on interviews with buyers and sellers, and traders declare the value of niobium and tantalum materials that they import or export.'<sup>52</sup> Thus the 'shadow' trade operates on the margins of normal commerce while networking the supply of commodities of dubious origin, such as coltan from the Democratic Republic of Congo, to the wider world.

This process can both feed off and mimic what Gregory calls 'everywhere war', where the opportunities for armed conflict to break out are 'everywhere', with no definable front-lines, and violence may appear from anywhere and at any time across the globe. In some countries the state's monopoly of violence may have collapsed, leading to a position where 'non state actors (warlords, local or ethnic militia) are able to establish alternative, territorially restricted firms of centralised violence'.<sup>53</sup> Equally, the line between crime and insurgency is often undefined, thin or even non-existent; Manwaring not only identifies drug gangs as providers of shadow governance through the accumulation of power and profits, but links third-generation gangs to fourth-generation warfare as part of 'a new urban insurgency'.<sup>54</sup> Like the 'shadow' trade in the margins of commerce, in security terms Gregory sees this connection exemplified by 'borderlands', for example between Afghanistan and Pakistan or between the United States and Mexico, where 'late modern war is being transformed by the slippery spaces within which and through which it is conducted'.<sup>55</sup>

It is through these 'slippery spaces' that the 'criminal' element of commerce has flourished as the networks that traffic one commodity are increasingly involved

<sup>51</sup> See Daniel Ammann, *The king of oil: the secret lives of Marc Rich* (New York: St Martin's Press, 2009).

<sup>52</sup> John F. Papp, 'Niobium (columbium) and tantalum', US Geological Survey, Oct. 2011.

<sup>53</sup> Chojnacki, 'Anything new or more of the same?', pp. 39–40.

<sup>54</sup> Max Manwaring, *Street gangs: the new urban insurgency* (Carlisle Barracks, PA: Strategic Studies Institute, US Army War College, 2005), p. 2.

<sup>55</sup> Gregory, 'The everywhere war', p. 229.

with others. As the UK Serious Organized Crime Agency (SOCA) notes of those operating in this world: 'While some organised criminals may specialise in a particular criminal trade, many are entrepreneurial and opportunistic by nature. Significant numbers of crime groups, especially the larger, more established ones, are involved in two or more profit-making criminal activities.'<sup>56</sup>

## **Environmental confrontations**

It is perfectly logical to assume that, given projected future increases in populations, the destruction of ecosystems and the absorption of land for agriculture and housing, with the ensuing social dislocation, the whole arena covered by biodiversity—including flora and fauna—will become increasingly contested, leading to 'environmental confrontations'. At the heart of these confrontations lie control of and access to resources and commodities, driven on the one hand by the forces of commerce and on the other by the inhabitants and environmentalists for whom the definition of natural resources is rather different from that of the WTO. The word 'confrontation' is used simply because within the environmental arena the received perception of the terms 'conflict' and 'war' does not convey the essence of the many clashes that, while rarely resulting in deaths, do involve deep intensity, passion and commitment to a cause.

The arena of 'environmental confrontations' stretches to fundamental elements of society such as justice and equality: for example, the British lawyer Polly Higgins has been running a growing campaign to get the United Nations to make 'ecocide' (extensive destruction of the environment) a fifth Crime Against Peace.<sup>57</sup> These 'environmental confrontations' are multidimensional, involving ecological, social and economic interests, and operate both within and outside political and legal frameworks.

The clash between the environmentalists and inhabitants on the one hand and commerce and the demand for resources and commodities on the other poses an escalating demand on governments to take sides and justify their stance, in doing which they will inevitably lose some measure of overall support. As such, it goes to the heart of governance, becoming a test of democratic credentials and of whether the power of business can triumph over the power of the people.

The outlines of the struggle pitting the search for resources and commodities against environmentalists and inhabitants are being redrawn under the influence of three main commercial factors:

- 'new wave': new consumer products and technology that bring demand for new commodities;
- 'off the beaten track' commodities, which may appear in areas previously unconsidered in resource terms, such as Mongolia or parts of Australia and the United States;

<sup>56</sup> <http://www.soca.gov.uk/threats>, accessed 3 Aug. 2012.

<sup>57</sup> See <http://www.thisiseccide.com>, accessed 3 Aug. 2012.



## *Resource wars*

- the ever-increasing illegal trade, where environmental elements such as flora and fauna get ‘networked’ with other illegal forms like drugs and guns.

Though ‘environmental confrontations’ are envisaged as distinct from war, their history is rooted in war as it began after the First World War on both sides of the Atlantic, stirred by the wartime destruction: the aim was to fight industrialization and live in harmony with nature, a project which included new farming techniques, and through which, it was believed, new, healthy and peace-loving societies would emerge. Typical of the radicals of this movement was the British author Henry Williamson, whose bestseller *Tarka the Otter* contained the subtext of a rallying cry to promote the redemptive force of Nature. In the United States Aldo Leopold (1887–1948) drew on his work in the Forest Service to blend aspects of ecology (the study of living systems in relation to their environment), ethology (the study of animals in their habitat) and biology; today we would situate Leopold’s writing in the fields of environmentalism or conservation. Around the same time, a radical direct action agenda of ‘monkey wrenching’—acts of sabotage in the cause of environmentalism—was promoted by Edward Abbey (1927–89).

Not only has conflict had an impact on the environment; the impact of the environment on conflict was highlighted recently by research from Columbia University indicating that cyclical climatic changes such as El Niño, which brings hot and dry conditions to tropical nations and cuts food production, doubles the risk of civil war. Analysis showed that 50 out of 250 conflicts between 1950 and 2004 were triggered by the El Niño cycle, prompting Solomon Hsiang of Columbia University to suggest that ‘it could be that agricultural income in El Niño years drops to levels that can trigger violence. Furthermore, psychologists think that aggressive behaviour gets generally more widespread during exceptionally warm conditions.’<sup>58</sup>

## **Conclusion**

To end at the beginning, the current annual value of the illegal wildlife trade is estimated at somewhere between US\$10 billion and US\$20 billion—the wide range itself reflecting the unknown size of this black market as well as the different values that are used to estimate the worth of wildlife and wildlife products.<sup>59</sup> These figures, showing how vast is the ‘shadow’ illegal trade in wildlife, are second only to those describing the trafficking of drugs, which is number one in the illicit trade table. The fact that both wildlife and drug trafficking can be carried out by the same organizations demonstrates how the ‘criminalization’ of commerce is broadening and diversifying.

Today’s debates about the ‘securitization’ of resources and commodities are conducted within a context of massive ‘criminalization’ as opposed to conflict and war. By deciding what is legal and illegal in terms of trade, governments

<sup>58</sup> For the passage quoted, see Quirin Schiermeier, ‘Climate cycles drive civil war: tropical conflicts double during El Niño years’, <http://www.nature.com/news/2011/110824/full/news.2011.501.html>, accessed 3 Aug. 2012.

<sup>59</sup> South and Wyatt, ‘Comparing illicit trades in wildlife and drugs’, p. 540.

bestow upon themselves the power to control commerce; but governments tend to be better suited to fighting conflicts and wars than to dealing with 'criminalization', which entails a vast array of grinding legal and political issues leading to unpredictable outcomes. However, failure to stem 'criminalization' provokes a public perception that governments do not care and thereby are abetting the wildlife trade and its attendant cruelty and misery, further undermining trust in politicians.

Globalization rests on a central paradox: the same forces which enable the market liberalization and deregulation that promote wealth creation and social order also foster the 'criminalization' of international transactions, the 'shadow trade' and the potential for 'network war'. The concept of 'resource wars' has become meaningless, not only because of its lack of clarity but also because the *absence* of resources is a primary driver in war and conflict. The same applies to 'commodity conflicts'. However, this is not the same thing as saying that resources and commodities have not played a role in wars and commodities, as various UN reports have demonstrated.

Conflicts around resources and commodities are more usefully framed within ideas of 'environmental confrontation' and 'criminalization'. These confrontations, from a specifically local campaign to stop a mining company to an international campaign such as those to halt whaling or to stop rhino horn sales, are driven by the passion and will of people assisted by the power of NGOs and special interest groups, making the burden on governments of initiating just due process even heavier.

Also, ecological protection is adopting the mechanics of the marketplace with initiatives like The Economics of Ecosystems and Biodiversity (TEEB), the Reducing Emissions from Deforestation and forest Degradation programme (REDD), and 'catch share' schemes that encourage long-term sustainable management of fish stocks. Furthermore, while peace accords have damped down the open warfare in places such as the Democratic Republic of Congo and the Sudan, and the egregious examples of 'commodity conflicts' that occurred in the 1990s are no longer visible, the intervening decades have given time for the 'networks' of commodity trading to coalesce, harden and expand, both within and outside the 'shadow economy'. To that degree, Fukuyama's prediction of a post-modern history built on trade might well be correct; but the democratic processes of environmental protection will be an ever-increasing challenge for governments.