CHAPTER 3

ECOLOGICAL-ECONOMIC NARRATIVES FOR RESISTING EXTRACTIVE INDUSTRIES IN AFRICA

Patrick Bond

ABSTRACT

The World Bank report Changing Wealth of Nations 2018 is only the most recent reminder of how much poorer Africa is becoming, losing more than US$100 billion annually from minerals, oil, and gas extraction, according to (quite conservatively framed) environmentally sensitive adjustments of wealth. With popular opposition to socioeconomic, political, and ecological abuses rising rapidly in Africa, a robust debate may be useful: between those practicing anti-extractivist resistance, and those technocrats in states and international agencies who promote “ecological modernization” strategies. The latter typically aim to generate full-cost environmental accounting, and to do so they typically utilize market-related techniques to value, measure, and price nature. Between the grassroots and technocratic standpoints, a layer of Non-Governmental Organizations (NGOs) do not yet appear capable of grappling with anti-extractivist politics with either sufficient intellectual tools or political courage. They instead revert to easier terrains within ecological modernization: revenue transparency, project damage mitigation, Free Prior and Informed Consent (community consultation and permission), and other assimilationist reforms. More attention to political-economic and political-ecological trends — including the end of the commodity super-cycle, worsening climate change, financial turbulence and the potential end of a 40-year long globalization process — might assist anti-extractivist activists and NGO reformers alike.
Both could then gravitate to broader, more effective ways of conceptualizing extraction and unequal ecological exchange, especially in Africa’s hardest hit and most extreme sites of devastation.

**Keywords:** Africa; debt; environment; extractive industries; natural capital accounting; transnational corporations

**INTRODUCTION: CONFLICTING NARRATIVES AGAINST AFRICAN RESOURCE EXTRACTION**

How can we better know — *so as to better resist* — the widening extent of ecological extraction from South to North? Consider the concept of “natural capital accounting,” in which the Net Present Values of ecological resources are estimated. The purpose behind this, in most cases, is more efficient environmental management, within the strategic tradition of “Payment for Eco-System Services.” The grounding for this strategy is the “ecological modernization” philosophy that views rational management of the environment as based largely upon scientific, technical, and economic criteria. While current practices of applying natural capital accounting are often dubious, its potential for radical political ecology is enormous, especially in Africa, although traversing the minefields requires careful attention to the concept’s critics.

As is true everywhere, a variety of African discourses have emerged about the “Resource Curse” faced by citizenries whose elites and transnational corporations (TNCs) extract natural wealth against broader socioecological interests. Countervailing narratives are deployed against such extraction, drawing attention to specific harms. Ecological and climatic narratives stress the degradation and pollution of local land, air and water and fossil fuel emissions (including for mineral smelting) that also affect the global scale. Advocates for labour and health emphasise workplace safety, disease and migrant labour relations. There are spiritual, traditionalist, and sociopsychological narratives that decry damage to sacred sites and common spaces, and oppose community displacement and gendered violence. Critiques of extractivism from a political standpoint (ranging from local to national scales) usually highlight elite formation, compradorism and clashes over resources within and between imperialisms and/or subimperialisms. There are also narratives against extraction based on their maldevelopmental impact, through “Dutch Disease” economic skews, and Illicit (and Licit) Financial Flows to offshore sites with little reinvestment.

Finally, a rare narrative — though the one motivating *The Changing Wealth of Nations 2018* report by the World Bank — is ecological-economic, based upon the depletion of natural capital wealth without sufficient returns.

These critiques of resource extraction gain traction subject to the balance of forces in particular locales. Categories such as climate change, geopolitics and the latter economic curses have much greater scalar import than place-based microstruggles, or what are sometimes termed “militant particularisms.” The pages that follow focus on ecological-economic processes associated with
non-renewable wealth depletion, in part because resistance forces in Africa have begun to identify the winners and losers from resource extraction. Their protests target specific injustices at the sites of extraction or transmission, which are in many cases, rural. But in urban and peri-urban areas, too, the evidence of African elites having appropriated or mismanaged royalties from resource extraction, has helped generate a new round of resistance, as discussed below.

On the other side of the class, racial, gender, and ecological divides are the TNCs — often Western, but also often based within the Brazil, India, Russia, China, and South Africa (BRICS) bloc — which extract Africa’s resources but offer little or no reinvestment. They typically claim to provide benefits by way of jobs for local unemployed people; an infusion of Foreign Direct Investment in the form of fixed capital (usually mining head gear, smelters and drilling platforms); up- and downstream purchases of goods and services; increased infrastructural investment (roads, rail lines, and systems providing greater inflows of water and electricity) that is potentially of use to local people; and export earnings. Therefore, it is vital for critics of extraction who deploy the other (noneconomic) narratives to also consider critical analysis of nonrenewable resource depletion, even natural capital accounting. This might be considered a complementary critique, if indeed the objective of extraction opponents is to slow or even halt the process.

THE WORLD BANK’S PARTIAL ENVIRONMENTAL ACCOUNTING

Ironically, a major ally in counting natural capital depletion is the World Bank (most recently, the Lange, Wodon, and Carey (2018) report referred to as The Changing Wealth of Nations 2018, which is the third in the Bank’s series, following similar studies published in 2006 and 2011). At a time the use of Gross Domestic Product (GDP) is under attack more generally, a team at the Bank has generated an “Adjusted Net Savings” (ANS) measure to track changes in economic, ecological and educational wealth “of nations” (to play on the Adam Smith title) (Fig. 3.1). The first step is to subtract from income the wear and tear on machines (the shrinkage of fixed capital), followed by a second step: add “human capital” investments by way of the education budget (public and private). The third step is the ever more sophisticated bean-counting of nature’s values, as discussed below, and the fourth is to subtract the economic damage done by pollution. The Bank calculates that nature constitutes 9% of world wealth, but in poor countries more than a third of their wealth (Table 3.1).

The reason the Bank became the driving force behind ANS and natural capital accounting reflects institutional contingencies. One of the leading voices in ecological economics, Herman Daly, came to his profession’s attention when he edited the seminal Toward a Steady State Economy (1973). Twenty years later Daly (1996, 220) was advancing his arguments as a staff economist within the World Bank, attempting to instrumentalize this definition of sustainable development: “development without growth beyond environmental carrying capacity, where development means qualitative improvement and growth means quantitative
increase.” It was a framework that, he admitted, “just confirmed the orthodox economists’ worst fears about the subversive nature of the idea, and reinforced their resolve to keep it vague.” To avoid such vagueness, Daly (1996, pp. 88–93) proposed four environmental policy recommendations for both the Bank and governments, centered on the accounting of natural capital. Drawing down natural resources was considered purely as a positive GDP “credit” rather than also as a “debit” from any given country’s genuine wealth, so he admonished,

(1) stop counting natural capital as income;

Table 3.1. Global Wealth by Type of Asset, 1995 and 2014.

<table>
<thead>
<tr>
<th></th>
<th>1995</th>
<th>Percent</th>
<th>2014</th>
<th>Percent</th>
</tr>
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<tbody>
<tr>
<td>Produced capital</td>
<td>164,781</td>
<td>24</td>
<td>303,548</td>
<td>27</td>
</tr>
<tr>
<td>Natural capital</td>
<td>52,457</td>
<td>8</td>
<td>107,427</td>
<td>9</td>
</tr>
<tr>
<td>Forests and protected areas</td>
<td>14,515</td>
<td>2</td>
<td>18,290</td>
<td>2</td>
</tr>
<tr>
<td>Agricultural land</td>
<td>25,859</td>
<td>4</td>
<td>39,890</td>
<td>3</td>
</tr>
<tr>
<td>Energy resources (fossil fuels)</td>
<td>11,087</td>
<td>2</td>
<td>39,094</td>
<td>3</td>
</tr>
<tr>
<td>Metals and minerals</td>
<td>997</td>
<td>&lt;1</td>
<td>10,154</td>
<td>1</td>
</tr>
<tr>
<td>Human capital</td>
<td>475,594</td>
<td>69</td>
<td>736,854</td>
<td>64</td>
</tr>
<tr>
<td>Net foreign assets</td>
<td>−2,890</td>
<td>&lt;1</td>
<td>−4,581</td>
<td>&lt;1</td>
</tr>
<tr>
<td>Total wealth</td>
<td>689,942</td>
<td>100</td>
<td>1,143,249</td>
<td>100</td>
</tr>
</tbody>
</table>

(2) tax labor and income less, and tax resource throughput more;
(3) maximize the productivity of natural capital in the short run, and invest in increasing its supply in the long run; and
(4) move away from the ideology of global economic integration by free trade, free capital mobility, and export-led growth — and toward a more nationalist orientation that seeks to develop domestic production for internal markets as the first option, having recourse to international trade only when clearly much more efficient.

Such advice was anathema to a Bank dedicated to the expansion of world capitalism, especially once the neoliberal era entered its most aggressive period during the 1990s. Daly was ignored (just as is the work of Lange et al in Lange et al., 2018). Bank policies and practices continued to enforce foreign loan repayments and TNC profit repatriation. Nevertheless, in the Bank’s interstices, Daly’s colleague Robert Goodland had persuaded the authorities to initiate a unit specializing in natural capital. The “Wealth Accounting and Valuation of Ecosystem Services” (WAVES) project began the difficult task of measuring non-renewable and renewable resource depletion. By 2017, the Bank (2017) claimed that 21 African countries were engaged in some form of ANS research, but implementation of natural capital accounting for the sake of a more efficient capitalist extraction process has been slow. Even in sites with strong advocates, e.g., Maryland (one of the richest US states with per capita income of nearly US $60,000), it was only in 2010 that far-sighted governor Martin O’Malley agreed to fund a Genuine Progress Indicator (Hayden & Wilson, 2018).

While these concepts are widely endorsed within the sub-discipline of ecological economics, their application within radical political ecology and political economy is controversial. Natural capital accounting is readily dismissed as within the ambit of “neoliberal nature,” Bram Büscher (2018) explains, because the idea “only” has meaning in a capitalist growth context.” In 2012, just as the Gaborone Declaration was circulated, Nigerian environmental justice activist NnimmoBassey warned, “The bait of revenue from natural capital is simply a cover for continued rape of African natural resources.” Because of inadequate state protections against market abuse, “The declaration will help corporate interests in Rio while impoverishing already disadvantaged populations, exacerbate land grabs and displace the poor from their territories” (cited in Bond, 2012a). Sian Sullivan (2013) agreed, especially regarding the danger of business’ surveillance skills: “By making the category of nature more and more legible to capital and market logics we may in fact be enhancing its exposure to market failures[…] [because] ‘nature’ can be put to work as a value-generating asset, just like any other unit of capital.” Sullivan (2013) updates her critique of a variety of green financial instruments thanks to “the increasing legibility, through numbering and (ac)counting practices, of natural capital as an apparently exterior ‘matter of fact’ that can be leveraged financially.”

Büscher, Bassey, and Sullivan are correct to question the underlying philosophy, motives, and techniques of nature’s bean counters, especially at the Bank and especially in sites like Zambia where the Wealth Accounting and Valuation
of Ecosystem Services project has been particularly pernicious in its choice of counting priorities. (Indeed the WAVES team’s more general failure to incorporate platinum and diamonds in natural capital accounts is just one reflection of data-gathering weakness.) Büscher, Bassey, and Sullivan point to a larger terrain on which nature is the next frontier of capital accumulation, especially its securitization through financial instruments (see also Bracking, 2016).

Indeed, there is very good reason to fear that once the “value” of natural capital is estimated, this in turn will catalyze market-based schemes, such as the carbon trading and offsetting that have both proved damaging in Africa. Simultaneously, for example, there emerged powerful African critiques of climate-offset financing schemes: Clean Development Mechanism and Reducing Emissions through Deforestation and forest Degradation (REDD) projects and a “No REDD in Africa” network of Non-Governmental Organizations (NGOs) based at Friends of the Earth’s Mozambique affiliate, Justiça Ambiental (Bond et al., 2012). These groups’ 2015 Durban Declaration on REDD was emphatic:

We are united to oppose and reject the commodification, privatisation and plunder of Nature, which include REDD+ and other market-based mechanisms including biodiversity and conservation offsets that put profit above the wellbeing of humanity and the planet. These mechanisms include the “financialization of nature,” which commodifies, separates and quantifies the Earth’s cycles and functions of carbon, water, forest, fauna and biodiversity — turning them into “units” to be sold in financial and speculative markets.

These are intellectually rigorous and politically heartfelt warnings about risks associated with neoliberalized nature. The potential for the emergence of such markets should be kept firmly in mind in discussions of natural capital. Nevertheless, at a time that TNCs from the BRICS (as well as from Turkey and several East Asian countries) have joined traditional Western TNCs in a renewed “Scramble for Africa” based on the extractive industries (Bond, 2017), there is a need for economic argumentation to contribute to a more universal, unified and coherent resistance, including on the hotly contested terrain of ideas. So far, the intellectual power of the existing narratives about the Resource Curse have not been sufficient, so these additional arguments are meant to assist forces opposed to TNC expropriation, or indeed any extractive industries in which (like Ramaphosa at Lonmin) the local elites’ practices have the same effect.

 Mostly, as discussed below, such resistance has been felt through direct action: rising direct and indirect microprotests against countless destructive mining and oil extraction projects across the world. To illustrate, in 2015 Anglo American Corporation CEO Mark Cutifani conceded that due to community protests, “There’s something like $25 billion worth of projects tied up or stopped,” a stunning feat given that all new mines across the world were valued that year at US$80 billion (Kayakiran & Janse Van Vuuren, 2015). Yet all too often, the basis for such resistance is localized, without a unifying thread.

As a result, this article updates a long-standing concern I have (Bond, 2006) that in Africa, dismissive critiques of ANS from the left, such as those by Büscher, Bassey, and Sullivan, may be premature. This is an ever more
important debate in a context of relatively low minerals and oil prices following
the 2011 plateau and 2015 crash, and as a result, even more intense extraction
metabolisms. Another reason to embark upon the counting of natural wealth is
that the concept of “ecological debt” requires some sort of valuation, even
approximation, even if all political ecologists agree that nature is priceless
(Martinez-Alier, 2003). And notwithstanding the danger of marketization that
might follow more rigorous counting of natural values, ANS based on natural
capital accounting is surely preferable to “Gross National Income” (GNI, a
minor variant of GDP). The latter simply ignores the depletion of non-
renewable natural resources and pollution, not to mention unpaid women’s and
community work and a variety of other factors (Fioramonti, 2017).

Underlying the surface rhetoric of the international environmental debate –
such as shifting focus from GDP to ANS for the sake of sustainability – are
policy narratives with divergent philosophical roots. The dominant approach is
often termed ecological modernization, what with its reliance upon technological
innovation, market-driven efficiencies and the management of externalities
aimed at improving environmental outcomes in a rational manner (see Harvey
(1996) for a critical discussion). After initial argumentation by researchers based
in Berlin and Amsterdam (especially Joseph Huber, Martin Jänicke, and
UdoSimonis) the approach was advanced by the World Business Council on
Sustainable Development, established by Swiss construction billionaire Stephan
Schmidheiny. Today, commodification of nature occurs increasingly under the
rubric of Payment for Ecosystem Services, aiming to “put a price” on the envi-
ronment for the sake of valuing and hence conserving nature. Indeed, full-
fledged financialization is underway, as carbon markets and other forms of emissions
trading and virtual water sales are increasingly packaged within exotic trading
investment instruments, most of which do not hold up under scrutiny (Bond,
2012b; Bracking, 2016).2

This microeconomic approach offers no hope for addressing macro political-
ecological crises, including those most affecting Africa. The Club of Rome
(1972) had, four decades earlier, warned of planetary boundaries, of which the
most serious threat is the diminishing carrying capacity for greenhouse gases
(GHGs) that cause climate change. Africa has produced and consumed the few-
est GHGs and yet is the continent that will be most adversely affected by cli-
mate change (Bond, 2012b). There are other crises: rapid biodiversity loss (a
“sixth mass extinction” now underway), oceanic degradation and acidification,
crises in the biogeochemical nitrogen and phosphorus cycles, other resource
input constraints, chemical pollution, freshwater adulteration and evaporation,
and shortages of arable land (Magdoff & Foster, 2011). Scholarship on plane-
tary boundaries emphasizes “maintenance of the Earth system in a resilient
and accommodating state” and identifies current system threats through over-
shooting of climate change, biosphere integrity, biogeochemical flows, and land-
system change (e.g., Raworth, 2017; Steffen et al., 2015).

Africa is least able to defend against eco-systemic catastrophes given the
substantial drainage of resources discussed below. Inadequate climate adapta-
tion is evident in even the most admired local governments, as witnessed in 2018
when drought-stricken Cape Town neared a so-called “Zero Day” for residential water access (when household taps would go dry), in the context of sustained water apartheid (Environmental Monitoring Group, 2018). The continent’s second wealthiest city, Cape Town is also the world’s fifth most unequal city (Johannesburg ranks first in both categories in a late 2017 survey) (Euromonitor, 2017).

From such examples it is obvious that greater urgency is required to address the structural causes of both economic and ecological crises in Africa. Effective elite leadership of the quality some Africans briefly witnessed in prior decades – e.g., Amilcar Cabral in Cape Verde, Patrice Lumumba in the Democratic Republic of the Congo (DRC), Samora Machel in Mozambique, Julius Nyerere in Tanzania and Thomas Sankara in Burkina Faso – is impossible to identify at present. Yet since 2017, several of Africa’s most important dictators, tyrants and corrupt rulers – Hailemariam Desalegn in Ethiopia, Eduardo dos Santos in Angola, Yahya Jammeh of Gambia, Robert Mugabe in Zimbabwe and Jacob Zuma in South Africa – have lost their grip on power, in part due to social protest, as discussed below. (In early 2018, uprisings continued such that this list might extend to Paul Biya in Cameroon and Faure Gnassingbé in Togo). Some of that protest emanates from the adverse economic conditions associated with the massive outflow of African wealth, including so-called natural capital.

AFRICA’S NATURAL CAPITAL DEPLETED

Applied to Africa, even the most rudimentary ANS analysis is devastating. It is damning that, in one count (World Bank, 2014), 88% of African countries are net losers from resource extraction once ANS is calculated. In the Bank’s latest world survey of The Changing Wealth of Nations 2018 (using 1990–2015 data), Glenn-Marie Lange et al. (2018) conclude that Sub-Saharan Africa loses roughly US$100 billion of ANS annually (not including the platinum and diamond sectors): “It is the only region with periods of negative levels – averaging negative 3% of GNI over the past decade – suggesting that its development policies are not yet sufficiently promoting sustainable economic growth[…] Clearly, natural resource depletion is one of the key drivers of negative ANS in the region.”

Lange et al. (2018) ask, “How does Sub-Saharan Africa compare to other regions? Not favorably” (Fig. 3.2). Contrary to pernicious “Africa Rising” mythology (Perry, 2012) that appeared at the peak of the commodity super-cycle, the ANS decline for Sub-Saharan Africa was worst from 2001 to 2009 and 2013 to 2015. Other regions of the world scored strongly positive ANS increases, in the 5–25% range. Richer, resource-intensive countries such as Australia, Canada, and Norway have positive ANS resource outcomes partly because their TNCs return profits to home-based shareholders.

Essentially, Lange et al. (2018) concede, the neoliberal development policies that attracted Foreign Direct Investment are counter-productive: “Especially for resource-rich countries, the depletion of natural resources is often not compensated for by other investments. The warnings provided by negative ANS in
many countries and in the region as a whole should not be ignored.” African policy-makers do ignore ANC, but Lange et al. (2018) insist, “The measure remains very important, especially in resource-rich countries. It helps in advocating for investments toward diversification to promote exports and sectorial growth outside the resource sector.”

Top-down applications of natural capital accounting to Africa continue to be explored by the Bank and Conservation International (an NGO), which together persuaded Botswana’s President Ian Khama to host ten national leaders from the continent in May 2012. There they signed the “Gaborone Declaration for Sustainability in Africa” a month before the Rio + 10 Earth Summit, itself characterized by extensive discussions of the “Green Economy.” The representatives to Gaborone agreed that because of “limitations that GDP has as a measure of well-being and sustainable growth,” they would begin “integrating the value of natural capital into national accounting and corporate planning” (Gaborone Declaration, 2012). However, in spite of this being advertised as an “African-led initiative for sustainable development,” it is difficult to envisage a major political shift in statistical prioritization within each signatory country, aside from the revealing case of Zambia which began a partial accounting of its natural capital in 2017 — leaving out copper, notwithstanding that mineral’s vast contribution to the country’s declining wealth.

**ZAMBIA’S NATURAL CAPITAL DEPLETION BY WASHINGTON BANKERS AND AN INDIAN TNC**

In early 2017, the Bank appointed Zambia the first “core implementing country” within the World Bank Wealth Accounting and Valuation of Ecosystem Services (2017) project. Zambian forests, wetlands, farmland, and water
resources were considered to be the “priority accounts.” Conspicuously missing was copper, the main component of Zambia’s natural wealth, responsible for a 19.8% decline in annual ANS as a share of GNI according to the Bank’s (2011) prior Changing Wealth of Nations study. The World Bank WAVES (2017) website confirms the objective: “ensuring that natural resources are mainstreamed in development planning and national economic accounts.” According to WAVES program manager Stig Johansson, “The Government of Zambia is very interested in having a better understanding of how natural capital — water, forest, minerals and ecosystems — interact with the economy and contribute to the country’s progress and wealth.” Yet only three aspects of natural capital were chosen for research (World Bank WAVES 2017):

- land accounts, including forests, wetlands, and agricultural lands;
- water accounts, including water supply, use, and quality; and
- forest accounts, including production of timber and non-timber forest products.

According to the World Bank WAVES (2017) discussion of Zambia, “These accounts will be used to inform issues like deforestation, land use planning, and water allocation. There was a remarkable consensus among the working groups on the importance of starting with these three areas.” But were subsoil assets, especially copper, neglected in WAVES because such accounting would show a substantial net loss? After all, were such data widely discussed, it might compel a rethink of Zambia’s privatization of mines and export of unprocessed ore.

Notwithstanding WAVES rhetoric, most World Bank staff work not in Zambians’ interests, but on behalf of other international banks and TNCs. This compels them to seek foreign exchange: first, so TNCs can take profits home in US dollars; and second, so Lusaka repays loans (including to the World Bank) no matter how unaffordable, how irrational or how corrupt the borrowing government. Hard-currency payments are especially difficult from African countries when their currencies crash; Zambia’s kwacha declined from levels of one to the US dollar (K1/US$) during the 1990s, to around K5/US$ from 2003 to 2015, to the K9/US$—K12/US$ range since.

From 2002 to 2008, the government led by Levy Mwanamasa (1948–2008) came under severe pressure from the Bretton Woods Institutions and major donors to sell Zambia’s most valuable state assets to repay older loans. These included loans contracted by his predecessor Frederick Chiluba (1943–2011), who was later convicted of widespread corruption. Instead of the debt having been cancelled on moral and economic-sustainability grounds, according to finance minister Edith Nawakwi, it became a neoliberal policy lever:

We were told by advisers, who included the International Monetary Fund and the World Bank that not in my lifetime would the price of copper change. They put production models on the table and told us that there was no copper in Nchanga Mine, Mufulira was supposed to have five years life left and all the production models that could be employed were showing that for the next 20 years, Zambian copper would not make a profit (Sinyangwe & Silwamba, 2014).
The advice was incompetent, for the copper price rose from a low of US$1500/ton in 2002 to US$3000/ton at the time of the main 2005 privatizations. Reflecting global commodity volatility, copper then soared to US$9900/ton in 2011 before dropping to US$4500 in 2015 and rebounding to nearly US$7000/ton by 2018. The Zambian government should have held onto the asset. However, Mwanamasa faced intense pressure from the Bretton Woods Institutions in 2005, when selling Africa’s largest copper mine (Konkola). Mwanamasa was expected to ensure at least US$400 million went into Zambia’s treasury. But the buyer, Vedanta chief executive Anil Agarwal, bragged to a 2014 investment conference in Bangalore how he tricked Mwanamasa into accepting only US$25 million: “It’s been nine years and since then every year it is giving us a minimum of $500 million to US$1 billion!” (Foil Vedanta, 2014). Zambia’s foreign debt rose from less than US$1 billion at that time, to US$9.2 billion today.

AFRICA’S RENEWED ECONOMIC CRISIS: UNBALANCED TRADE, DISINVESTMENT, DEBT

Zambia is not alone in seeing its wealth evaporate without sufficient reinvestment into areas of economic diversification. The Bank reports that from 1990 to 2015 many African countries suffered massive ANS shrinkage (a process the Bank terms “dissaving”): Angola lost 68%, the Republic of the Congo lost 49% and Equatorial Guinea lost 39% of their wealth. As commodity prices peaked in the 2007–2013 super-cycle period, resource depletion was the major factor for Africa’s wealth shrinkage (Fig. 3.3). At the same time, Africa suffered net
outflows of income. Commodity export values ebbed along with aid, foreign investment and remittances (Figs. 3.4–3.8).

Some of the largest economies in Africa – South Africa, Nigeria, Egypt, and Angola – fared very badly in this process, but the fate of Africa’s 32 “Least

Fig. 3.4. Prices and Volumes of Imports and Exports for African LDCs (Plus Haiti), 2000–2016 (2000 = 100). Imports by Volume (Index); Exports by Volume (Index); Terms of Trade Index. Source: UN Conference on Trade and Development (2018).

Fig. 3.5. LDCs Current Account Balance, 2000–2018. African LDCs and Haiti; Asian LDCs; Island LDCs; LDCs Total. Source: UN Conference on Trade and Development (2018).
Fig. 3.6. Overseas Development Aid to LDCs, 2000–2016. Billions of Constant 2015 Dollars; Percentage Share of LDC GDP. *Source:* UN Conference on Trade and Development (2018).

Fig. 3.7. Foreign Direct Investment Inflows to LDCs, 2000–2016, US$ Billions. African LDCs and Haiti; Asian LDCs; Island LDCs; Share of LDCs GDP. *Source:* UN Conference on Trade and Development (2018).
Developed Countries” (LDCs\(^5\)) is even more revealing. In addition to Zambia, these LDCs include the well-populated countries Angola, the DRC, Ethiopia, Senegal, Sudan, and Tanzania. At the end of the commodity super-cycle upswing in 2011, African LDCs’ terms of trade plateaued in 2011–2014 before suffering a substantial drop. Export revenue from these countries peaked at levels 360% higher than in 2000, but imports continued rising to 570% of the 2000 level by 2014 (Fig. 3.4).

Sub-Saharan Africa’s current account balance — incorporating both the trade deficit and outflows of interest, profits and dividends — then fell to negative US$55 billion per annum (Fig. 3.5). Incoming flows of overseas development aid (ODA), remittances from workers and new foreign direct investment (FDI) declined in absolute and relative terms (Figs. 3.6–3.8). African LDCs were hardest hit of all poor countries in these categories, reports UNCTAD (2018, p. 2). All LDCs witnessed a decline in export revenues: from US$255 billion in 2014 to US$190 billion in 2016 due to “weak global demand and low commodity prices,” a 13% decline in FDI inflows to LDCs from 2015–2016, and total North-South ODA disbursement of just US$43 billion in 2016, far below the UN Sustainable Development Goal target range of US$75–96 billion.

Adding to Africa’s 31 poorest countries, the other 17 in Sub-Saharan Africa reveals even gloomier estimates of looting. The London-based campaigning NGO Global Justice Now and its allies estimate that exploitative economic processes — not including the US$100+ billion in resource depletion — were
responsible in 2015 for a net outflow of US$41.3 billion. According to their report, “African countries received $161.6 billion in 2015 — mainly in loans, personal remittances and aid in the form of grants” (Curtis, 2017). Against that, outflows that year amounted to US$203 billion, including US$68 billion in illicit financial flows (TNCs “deliberately misreporting the value of their imports or exports to reduce tax”), US$32 billion in repatriation of profits and dividends (licit financial outflows), and US$18 billion in debt servicing. Curtis (2017) also recommends adding other costs imposed on Africa: US$37 billion in damages related to climate change; and US$29 billion in illegal logging, fishing, and trading in wildlife and plants. The net negative US$41 billion in 2015 would have been much larger were it not for the dramatic commodity price decline in 2014–2015.6

From mid-2016, commodity prices then rose an average of 11%, but this made little difference to macroeconomic balances by early 2018, when the ordinarily upbeat *African Economic Outlook* issued by the *African Development Bank* (2018) (AfDB) admitted that current account ratios “are not sufficiently robust; dollar interest rates are expected to edge up, bidding up the cost of capital; and external debt ratios have begun to rise across the region.” To repay debt and TNC dividend and profit outflows requires a steady inflow of hard-currency investments, including FDI, portfolio investment, remittances, official development assistance, and external debt. The AfDB (2018) continued,

Unsustainable current account deficits are an indicator of a poor state of the economy. They discourage foreign investors from holding assets denominated in African currencies. Large current account deficits also increase the probability of a currency crisis. They lead to the accumulation of foreign debt, which has to be repaid at some point, triggering expectations by domestic investors of higher taxes to service and repay the debt.

Sub-Saharan Africa’s external debt was in the US$170–210 billion range from 1995 to 2005, at which point the Highly Indebted Poor Countries initiative returned the high stock of debt to more sustainable levels by writing off unrepayable debt, albeit with sometimes extreme conditionality.7 However, the IMF compelled Africa’s lowest income countries to increase their rate of debt payment in the period immediately after the 2006 debt relief. Then came a slew of Chinese loans worth at minimum US$86 billion from 2000 to 2015; a third of these were collateralized by commodities.8 By 2015, Sub Saharan African debt had reached nearly US$400 billion. Adding North Africa, the *Economist Intelligence Unit* (2017) counts US$560 billion in foreign debt for the continent as a whole, up from US$240 billion in 2006.

In addition to Beijing’s credits, there were also numerous Eurobonds subscribed by private investors that represented a substantial share (%) of the total public debt stock in some countries: Gabon (48%), Namibia (32%), Côte d’Ivoire (26%), Zambia (24%), Ghana (16%), Senegal (15%), and Rwanda (13%). Africa’s oil-based economies witnessed an increase in debt servicing from an average of 8% of revenues in 2013 to 57% in 2016, led by Nigeria (66%) and Angola (60%). The continent’s most relatively indebted countries to foreign lenders are Mozambique (79% external debt to GDP ratio), Zimbabwe (77%),
Mauritania (76%), Djibouti (71%), Namibia (64%), The Gambia (61%), Tunisia (56%), and South Africa (49%). Not including Mauritius – due to its complicated status as a tax haven – the highest level of African foreign debt is owed by South Africa: US$163 billion in late 2017 (up from US$25 billion in 1994) followed by Egypt (US$80 billion), Sudan (US$45 billion), and Angola (US$45 billion). By 2014, the danger of such high foreign debt was already a source of concern to The Economist (2014):

The continent has been deep in debt before, and is in danger of a rerun[…]. This time is different – and could be worse. Africa used to borrow from official lenders: governments, the World Bank, the African Development Bank and the IMF. Today most of its borrowing is from private sources. Government loans and “assistance” are out of fashion. Instead it is private investors that are betting on Africa’s future ability to pay, with bond funds, private-equity and individual investors (including African ones) buying government debt[…]. If governments get into trouble and need to reschedule their debts or borrow more even while they pay less, official lenders typically oblige. Private lenders are less forgiving.

Though more than 70% of Africa’s foreign debt is privately sourced, one public lender – Beijing – may also be unforgiving, if the warnings of ideologically conservative critics are to be taken seriously. From Texas, the private intelligence agency Stratfor (2018) issued a warning about Chinese financial geopolitics. Given that African state debt “has increased markedly since the 2008 financial crisis[…] widespread default could create opportunities for outside powers that covet the region’s natural resources.” As Stratfor notes,

China has used a form of financing that functions like a bartering system: In return for investment capital and infrastructure development projects, some sub-Saharan African countries grant China resource concessions. (Such was the case with the Sicomines copper project in the Democratic Republic of Congo and in various oil projects in Angola.) The arrangements differ. Sometimes Chinese entities take an ownership stake in the newly constructed infrastructure project. Sometimes loans are secured against resources as a form of collateral. Sometimes debt service is paid in resources instead of money.

But just because a loan is backed with an asset – in this case, commodities – doesn’t mean loans can’t turn sour if the borrower struggles to extract or sell enough of its natural resource to service the debt. These terms can also leave the borrowing country with little left over from their commodity production to generate their own revenue. Angola and Congo have both encountered this problem.

Africa is a minor player in geopolitics. Unfortunate as it may sound, its relevance stems from how stronger countries interact with it and manipulate it. So while its current indebtedness may not shape the course of international affairs directly, it may, in fact, benefit China. Defaulting on their debt would cause foreign investment to dry up. China’s willingness to accept repayment in commodities would leave it as one of the few remaining options for countries struggling to build infrastructure. Beijing could, therefore, drive as hard a bargain as it wanted. China will continue to mine Africa for its resource needs. The only thing that will constrain its behavior in that regard is its own capital needs.

One key testing ground for whether this strategy will be useful for China is the Belt and Road Initiative (BRI), not only because of enthusiasm that a renewed construction boom similar to the 2009–2013 urban and transport construction boom, will revive demand for raw materials. There is also the matter of rising debt levels in the recipient countries, such as Kenya where the
Mombasa-Nairobi rail line financed and built by the Chinese has already added a crippling debt load. Likewise, the BRI is extremely unpopular with Indian elites, who view China’s Kashmir rail, pipeline and road corridor through Pakistan on land Indians believe is theirs. Critiques of Chinese “creditor imperialism” made by Brahma Chellaney of the Delhi-based Center for Policy Research are hard hitting:

Just as European imperial powers employed gunboat diplomacy, China is using sovereign debt to bend other states to its will [...] As [the bankrupt Sri Lankan port of] Hambantota shows, China is now establishing its own Hong Kong-style neo-colonial arrangements. Like the opium the British exported to China, the easy loans China offers are addictive. And, because China chooses its projects according to their long-term strategic value, they may yield short-term returns that are insufficient for countries to repay their debts [...] China can force borrowers to swap debt for equity, thereby expanding China’s global footprint by trapping a growing number of countries in debt servitude [...] Kenya’s crushing debt to China now threatens to turn its busy port of Mombasa – the gateway to East Africa – into another Hambantota (Chandran, 2017).

Like the 1980s, when Western loans were the source of a debt crisis catalysed by a massive US interest rate increase, this debt allows its holders to gain substantial power. But like the 1980s, social tensions will also rise, as discussed below. As Stratfor (2018) warns, “A debt crisis would have social implications that would make doing business extremely difficult, limiting the upside to China and decreasing the likelihood of other powers opting to compete with it.” The implications of the worsening debt crisis – rising anti-austerity protest – are considered later. However, one vital point in the analysis must still be developed, for when economic justice campaigners such as Jubilee 2000 talked of illegitimate wealth outflows from Africa, it is often with a slogan, “Who owes what to whom?!”

AFRICA AS BOTH VICTIM AND FOSSIL-EXTRACTION VILLAIN IN THE CLIMATE CATASTROPHE

There is no better place to consider the narratives about natural capital flight than when the ANS technique is applied to climate change. But here, the moral responsibility that the North owes to climate change victims in the South – the so-called “climate debt” – is simply ignored by powerful institutions, including the World Bank in its Changing Wealth of Nations 2018. Still schizophrenic, however, the Bank at least recognises another vast African financial liability: for damages caused by the weather and in turn by mainly Northern polluters. But in framing the merits of more rapid fossil fuel extraction mainly through the natural capital narrative, those involved in coal, petroleum and gas make Africa not just a victim but – at least partially – a villain.

The richer (higher-GHG-emitting) countries owe a climate debt to the vast majority of Africans who face worsening environmental devastation. This includes droughts, changing growing conditions (especially as soils dry), and more extreme storms and floods. The African people are, in this instance, especially badly represented by their elites. There are numerous ways to make this
the question of rapidly-shrinking natural capital due to climate change with a
similar flippancy to that revealed in Zambia’s ANS. On the one hand, the Bank
official responsible for the Gaborone Declaration, Kim Reuter (2017), shows
how natural capital accounting assists in understanding the vast damages to
Africa, as natural assets like soils which the majority of direct producers (who
are women) depend upon, become less resilient:

In the future, the need to measure, value, and account for nature will only become greater —
this is particularly true for Africa. For example, while the continent has contributed little to
the causes of climate change, it will be increasingly hard hit as the climate begins to impact
the availability and quality of freshwater, the spread of disease, the integrity of coastal ecosys-
tems and settlements, and agricultural productivity. As a result, it is expected that there will
be a dramatic reduction in the productivity of crops, livestock, and fisheries; this could cost
Africa as much as $50 billion a year.

On the other hand, when Lange et al. (2018) discuss Africa’s own substantial
fossil fuel reserves, they advocate more rapid extraction. Global climate gover-
nance would ideally identify the necessity of preventing these reserves’ exploita-
tion, and instead paying the African people directly by way of compensation (as
has been suggested based on pilot arguments in Ecuador, Namibia and South
Africa) (Bond, 2018). The vast majority of this particular form of natural
capital — often termed “unburnable carbon” — should never be extracted. Indeed on the one hand, Lange et al. (2018) first correctly observe,

meeting the goal of keeping the rise in global ground temperature to less than 2° Celsius by
2050 requires leaving 80 percent of coal deposits, 50 percent of oil reserves, and 40 percent of
gas reserves in the ground. In other words, most of the stock of commercially viable fossil
fuels may have to remain in place, potentially wiping away a large portion of total wealth in
carbon-rich nations. Most oil-rich nations hold more than 21 years of reserves at current rates
of depletion, meaning they may see the value of these reserves fall, or these subsoil assets may
even be stranded if extracting them is no longer economically viable.

Then on the other hand, Lange et al. (2018) dismiss the prospect for rigorous
global climate governance to prevent climate catastrophe:

The concept of stranded assets resulting from climate change policies has received widespread
attention from academics, nongovernmental organizations, and the media in recent years.
However, the concept is often predicated on a hard carbon budget constraint imposed glob-
ally. At present, there is little evidence that this will occur. Furthermore, even if such a budget
constraint were imposed, the effects on the valuation of private companies — which discount
future profits at commercial rates and hold relatively few years’ worth of booked reserves on
their balance sheets — may be modest. Some argue that, even under a sharp decline in the
value of fossil fuels, many firms face low operating costs for existing deposits, while higher-
cost deposits become unprofitable (Lange et al., 2018).

But without a hard carbon budget constraint, the earth faces climate catastro-
phe. One reason to anticipate the worst, Lange et al. (2018) suggest, is that to
avoid losing wealth, a “race” will ensue in which fossil fuel “producers speed up
extraction while prices decline.” Although they do advocate diversification away
from fossil fuels, Lange et al. (2018) even endorse this self-destructive logic of
competition: “To realize the benefits of this wealth, carbon-rich nations should
follow three steps. First, countries should maximize the revenues from fossil fuels through efficient extraction[...]

This scenario reflects a profound desperation — an intensified metabolism of extraction — by carbon-rich countries, especially those in Africa which suffer systemic resource depletion by TNCs without requisite reinvestment. The elites in the most resource-cursed African countries abused the natural wealth, Lange et al. (2018) admit. Yet, in the interests of economic growth, they argue that petroleum, gas and coal extraction should continue, in large part because global policy-makers will never become serious about penalizing carbon-intensive economies. Local elites in countries with large reserves, Lange et al. (2018) agree, have failed to use their fossil fuel wealth sustainably over the long term. Few carbon-rich countries have successfully followed the Hartwick rule by converting their carbon wealth into produced and human capital.

The problem for policy makers is that a decline in fossil fuel demand is not at all certain. A permanent drop in fossil fuel prices could be many decades away. Fossil fuels could continue to be sold by countries for many more years. For many developing countries, the rents and economic possibilities from fossil fuel extraction may continue to play a critical role in meeting development objectives, including domestic financing for the Sustainable Development Goals.

However, the longer the consumption of fossil fuels continues, the more likely many of these countries will face severe negative effects of a changing climate (Lange et al., 2018).

Even in the face of “severe negative effects” such as US$50 billion annual losses to Africa’s wealth (not to mention the priceless loss of hundreds of thousands of human lives annually), the Bank’s refusal to fully acknowledge the catastrophic threat of climate change does have a certain rationale. There are four deep problems anyone working within multilateral climate policy must admit. First, the Paris Climate Agreement of 2015 negated effective global climate governance by not requiring permanently-binding emissions cuts — including in the unmentionable military, maritime and air-travel sectors — of a sufficient depth to ensure average temperature increases by 2100 stay below 1.5°. Second, the agreement fails to offer any penalties against the deal’s saboteurs (e.g., Donald Trump, which could have been accomplished through a global carbon tax on all tradeable US goods and services). Third, the deal allowed a de facto default on the climate debt that the Global North owes the Global South, by invoking a no-liability clause (the Green Climate Fund is no substitute in part because of failure to pay even a small fraction of the US$100 billion anticipated by 2020). Finally, the Paris deal ignores the need to leave fossil fuels underground.

Another aspect of world elites’ failure to address climate change is ongoing mega-project construction aimed at fossil fuel extraction, petroleum refining and transport in Africa. Some of this follows China’s BRI mega-infrastructure projects, touted for restoring some market demand for construction-related commodities. As Xin Zhang (2016) explained, “Although there is an element of US–China competition for global hegemony behind the BRI, the main driving force is the pressure from ‘over-accumulation’ in a typical capitalist economy when it approaches the end of a major cycle of capitalist cyclical change.”
In Africa these mega-projects include “Maritime Silk Road” investments such as a (delayed) US$11 billion port at Bagamoyo, Tanzania which may one day be Africa’s largest. To the north, in Kenya, the US$5 billion Lamu port may eventually provide oil pipelines stretching to South Sudan and as far as Uganda. But there is rising protest by three groups — Save Lamu, Cordio East Africa and Muslims for Human Rights — against the proposed US$2 billion coal fired power plant at the same port, on grounds of climate change. The local movement is backed by 350.org’s deCOALanize Africa campaign (Business Daily Africa, 2017). A US$3.6 billion Uganda–Tanzania oil pipeline and drilling in the vicinity of Lake Albert has also attracted protest from militant civil society organizations including the National Association of Professional Environmentalists (Gaia Foundation, 2014). The controversial, fossil-centric mega-projects follow a series of mishaps by Chinese power plant firms in Botswana, Zambia and Angola (Wall Street Journal, 2014), as well as the cancellation of a massive aluminium plant by BHP Billiton next to China’s proposed US$100 billion Inga Hydropower Project on the Congo River. (Were it to be built, such a dam would also contribute to climate change through rotting tropical riverine plants, generating methane.) Beijing’s efforts to raise funds for Inga alongside US and South African financiers and energy firms have so far failed.

Chinese financing and equipment supply are also evident at South Africa’s two main ports: the massive coal export terminals at Richards Bay — with current capacity of 90 million tonnes to be upgraded to 120 million in coming years — and Durban. At the former, in addition to hosting a proposed Chinese ship repair yard, a major new rail line is proposed in order to extract 18 billion tonnes of South African coal (followed by tens of billions more from Botswana) on 3-km-long trains. This is the country’s first-priority Presidential Infrastructure Coordinating Commission (PICC) project in the National Development Plan co-authored by the new President, Cyril Ramaphosa. The anticipated cost is US$70 billion, an expense which seemed feasible when coal was US$170/tonne in 2011. By 2018, it had slipped to half that price in dollar terms (although the local currency also crashed in half). Project work has continued albeit more slowly than expected. The South African company Shanduka Coal that Ramaphosa founded in 2001 (but that is now partially Chinese owned) will be one of the main beneficiaries (along with Glencore, BHP Billiton, AngloCoal, Exxaro, and Sasol). In the second PICC mega-project, Durban will host a doubling of oil refining and transport capacity and an oft-delayed US$20 billion expansion of what is now the continent’s largest container port, with 2.5 million per annum. The original plan to raise this throughput to 20 million per annum by 2040 was postponed 16 years (Bond, 2016a).

Notwithstanding all the reversals so far, mega-project infrastructure now being built mainly by China and potentially subsidized by the G20’s Compact With Africa — a programme developed by the German finance ministry for the benefit of TNCs from both the West and BRICS — will increasingly be oriented to the extraction or transmission of oil, gas and coal (Bundesministerium der Finanzen, 2017). But all non-renewable mineral resources will potentially be more readily extracted through the African Union’s donor-supported
Programme for Infrastructure Development in Africa. One countervailing strategy is to reform the extractive industries, including fossil-intensive sectors, top-down; another is to block them, bottom-up. To move from the former (ineffectual) approach to the latter with confidence and social solidarity, may require a more complete oppositional narrative, one that incorporates natural capital accounting.

AFRICANS ASSESS UNEQUAL ECOLOGICAL EXCHANGE – WITH INCOMPLETE NARRATIVES

The approaches that Africans are using to challenge TNCs capture of Africa’s non-renewable wealth can roughly be divided into two: top-down through reforms mainly arranged at the multilateral and national scales, and bottom-up through community-based direct actions which block extraction. First, the most far-reaching top-down reform proposals were, in the spirit of *The Changing Wealth of Nations 2018*, based on measuring and then incorporating natural capital accounting into national plans, as mandated in the Gaborone Declaration. However, since 2012, Gaborone gained little of the traction expected within national accounting and corporate planning processes. As a result, the main reform approach has been to challenge what many reformers ultimately see as the primary reason for the Resource Curse: the corruption of Africa’s rulers by TNCs.

This narrative took on greater urgency in 1999, when a Global Witness (1999) report unveiled Angolan oil revenue leakage, thus providing an opportunity to raise concerns about Western oil company bribery of the ruling Dos Santos regime. Several other major international NGOs soon began to more actively tackle high levels of corruption associated with resource extraction, including Human Rights Watch, Oxfam, and the Open Society network’s Revenue Watch Institute. One major sponsor, liberal financier George Soros, then assisted in the establishment of a global “Publish What You Pay” (PWYP) network of NGOs. Soros’ theory is that transparency shines a spotlight on TNC activity sufficiently strong so as to disinfect the corruption. For that to happen, strong civil society and journalistic watchdogging of resource flows is critical. The PWYP NGOs typically research outflows of capital due to illicit accounting strategies, and then lobby their respective governments to address the outflows.

To legitimize this strategy, reformist ideas were promoted at the highest levels of the economics profession. Joe Stiglitz’s 2001 Nobel Economics award brought to the world’s attention the importance of reducing “information asymmetries” and ending opacity. Further intellectual credibility for pro-transparency interventions in resource extraction and finance followed books by Terry Lynn Karl (1997) and Ian Bannon and Paul Collier (2003). But their diagnoses were limited, shying away from the deep-seated critique of value transfers that followed path-breaking work on “How Europe Underdeveloped Africa” by Walter Rodney (1974), or “unequal development” by Senegal-based scholar Samir Amin (1976), or unequal ecological exchange (Hornborg & Martinez-Alier, 2016).
Revealingly, however, economists generally eschewed the new natural capital accounting data. For example, even when economists James Robinson, Torvik, and Verdier (2006, p. 447) included the idea of “over-extraction” in their analysis, it was set within what they presumed to be four localized political—institutional causes of the Resource Curse (with no mention of TNCs accumulation in their diagnosis):

1. politicians tend to over-extract natural resources relative to the efficient extraction path because they discount the future too much;
2. resource booms improve the efficiency of the extraction path;
3. resource booms, by raising the value of being in power and by providing politicians with more resources which they can use to influence the outcome of elections, increase resource misallocation in the rest of the economy; and
4. the overall impact of resource booms on the economy depends critically on institutions since these determine the extent to which political incentives map into policy outcomes.

In another version of blaming Africans, Macartan Humphreys, Sachs, and Stiglitz (2007) cited purely institutional causes of the Resource Curse: asymmetric bargaining power, limited access to information, failure to engage in long-term planning, weak institutional structures, and missing mechanisms of accountability. Hence their prescriptions were limited: recommendations for contracting with oil companies and allocating revenue, guidelines for negotiators, models for optimal auctions, and strategies to strengthen state—society linkages and public accountability.

In practice, the liberal commitment to transparency provided very few if any benefits to Africa, even as the value of commodities extracted soared during the super-cycle price explosion. The main concrete strategy deserves mention: a 2003 effort by the Third Way regime of Tony Blair known as the Extractive Industries Transparency Initiative (EITI). Using the British government’s overseas aid muscle, Blair attracted initial collaboration in the EITI from Azerbaijan, Ghana, the Kyrgyz Republic, Peru, Nigeria, the Republic of Congo, Sao Tome e Principe, Timor Leste, and Trinidad and Tobago. The G8, the Bretton Woods Institutions and the Norwegian social democratic government followed up with US$60 million in financial encouragement and technical assistance, while on the civil society side Soros built PWYP into a formidable network of talented middle-class NGO campaigners.

But from this effort, it was relatively rare for meaningful legislation or even sustained consciousness to result, even after 2009 when the Organization for Economic Cooperation and Development (OECD) gathered both rich and poor countries into a “Global Forum on Transparency and Exchange of Information for Tax Purposes.” Ultimately nearly 150 countries joined the OECD forum, but reformers generally failed to turn research and policy recommendations into action, even after hacked revelations about Illicit Financial Flows created embarrassment in many countries. Emails and documents were liberated by anonymous whistle-blowers from HSBC bank in 2015 and from two law firms
whose accounts became known as the Panama Papers in 2016 and Paradise Papers in 2017.

The one place, ironically, where legislation appeared to make progress was the US. Already, prosecutors were using the Foreign Corrupt Practices Act, a by-product of the Watergate scandal and subsequent mid-1970s flurry of idealism. Moreover, after the 2001 Islamic extremist attack on the World Trade Center and Pentagon, US investigators more actively probed foreign bank accounts and imposed sanctions against institutions assisting in terrorist financing. And following the 2008 US — catalyzed world banking meltdown, Wall Street financiers suddenly found themselves weaker, as the US Congress passed the 2010 Dodd-Frank legislation to slightly reregulate banking. Dodd-Frank included clauses aimed at increasing transparency of payments by oil, gas, and mining companies to governments wherever they operate. And in 2011, Barack Obama’s government even formally joined EITI.

However, these limited reform victories never translated into a reversal of the extreme natural capital-driven outflows identified in Africa, or even an obvious slow-down in Illicit Financial Flows by the same TNCs extracting profits through various tax dodges, such as “mis invoicing” which entails recording imports, exports, revenues, costs, and payments inaccurately usually so as to take advantage of divergent tax codes in different locations (Kar & Spanjers, 2015). Africa’s Illicit Financial Flows of more than US$50 billion annually — as highlighted in research especially by the United Nations Economic Commission on Africa and by Leonce Ndikumana (2015) — became the subject of the African Union’s 2012–2015 Mbeki Commission (2015). Financial outflows were soon targeted up by the Ford-related philanthropy, Trust Africa, alongside Third World Network Africa, the African Network on Debt and Development, the International Trade Union Council-Africa, Femnet, and other campaigners under the rubric “Stop the Bleeding.”

There often seems in this kind of reform agenda, no matter how talented the civil society activists, a fashionability that too quickly fades under duress. One example of the flimsiness of these reforms was the US government’s unilateral withdrawal from EITI in 2017, at the same time Congress began gutting Dodd-Frank of measures that annoyed powerful TNCs. The sponsors of the law’s resource-transparency provision, former Senate Foreign Relations chair Richard Lugar and a lead Democrat, Ben Cardin, were furious that Secretary of State Rex Tillerson made excuses (e.g., a biased read of corporate privacy laws) amounting to a front meant to mask Big Oil and Gas’ money and influence, the real reason fueling this sad day in the movement toward greater global sunlight and transparency in extractive industries [...] U.S. participation was both bipartisan and welcomed by private industry and civil society. It demonstrates that Americans ‘walk the talk’ of good governance. What will those countries, or countries planning to join say now at this American retreat from transparency and accountability? (Cardin & Lugar, 2017)

Meanwhile in Africa, a similar reform process — albeit much weaker — was aimed at strengthening domestic regulation of mining. The African Union and
UN Economic Commission on Africa (2009) developed an African Mining Vision (AMV) in 2008-2009, near the peak of the cycle. Symbolic of its assimilation into world capitalism, the AMV proclaimed, “arguably the most important vehicle for building local capital are the foreign resource investors – TNCs – who have the requisite capital, skills and expertise.” Without any reference to natural resource depletion and natural capital accounting, the AMV considered several aspects of the Resource Curse problem: resource rents, collateral use of resource infrastructure, downstream value addition, upstream value addition, and technology/product development.11

The South African branch of ActionAid (2017) opposed the reformist logic in a 2017 report, The AMV: Are we repackaging a colonial paradigm?: “By ramping up models of maximum extraction, the AMV once again stands in direct opposition to our own priorities to ensure resilient livelihoods and securing climate justice. It is downright opposed to any type of Free Prior and Informed Consent. And it does not address the structural causes of structural violence experienced by women, girls and affected communities.” Moreover, one of the most crucial reforms won within the United Nations Declaration on the Rights of Indigenous Peoples was Free Prior and Informed Consent (FPIC) in 2008. As ActionAid (2017) complained, “The AMV recognizes the need for broader participation but it is specifically unclear and downright opposed to any type of FPIC. This concept of consent does not feature in the AMV at all and thus runs directly contrary to our own stated priorities.”

In contrast to top-down reformism, local opposition aimed at blocking mining and petroleum extraction could become far more effective. As noted, Anglo-American’s CEO was concerned about the “$25 billion worth of projects tied up or stopped” in 2015 (Kayakiran & van Vuuren, 2015). According to the Johannesburg faith-based mining watchdog Bench Marks Foundation (2018) at civil society’s 2018 Alternative Mining Indaba, “Intractable conflicts of interest prevail with ongoing interruptions to mining operations. Resistance to mining operations is steadily on the increase along with the associated conflict.” In this context, the Alternative Mining Indaba typically faced a difficult choice: either embrace this resistance, or retreat into reformist NGO silos, promoting transparency and the AMV even though these were obviously failing. By choosing the reform option, the Indaba participations generally were compelled to ignore mining’s adverse impact on energy security, climate, and resource depletion (Bond, 2015; Maguwu & Terreblanche, 2015).

Another quandary was that the fast-rising African protest wave after 2011 was limited to specific sites of struggle, rather than forming an interconnected ‘contagion’ of dissent (Fig. 3.9).12 There were very few attempts to draw out commonalities, either conceptually or in linking organizations engaged in protest. Important exceptions include Nigeria’s Environmental Rights Action (hosting Oilwatch Africa) and the Health of Mother Earth Foundation; Ghana’s institutes and advocacy projects around Third World Network; in Mozambique, JustiçaAmbiental including Friends of the Earth International’s climate unit; and in Africa’s most prolific site of profit-taking from extractive industries, South Africa, the three major cities (Johannesburg, Cape Town, and Durban) host
impressive civil and uncivil (protest-oriented) society groups fighting the same companies that are also under pressure elsewhere on the continent.\textsuperscript{13}

Whether or not organic community protests became linked or were mediated through NGOs, they continued increasing across Africa after 2011, not just in cities but also rural sites of extraction (Fig. 3.9). According to the most rigorous of at least five continent-wide on-line databases monitoring social unrest, the Armed Conflict Location and Event Dataset (ACLED), so-called “riots and protests” in Africa ratcheted up in number over the past decade, from a monthly average of 20 prior to 2010 (when data were less robust) to nearly 400 during 2010–2012, to 600 from 2012–2015, to 1,000 from 2015–2017. In 2017–2018, the number surpassed 1,500 in two months.\textsuperscript{14}

As one example of linkage between resource extraction and conflict, researchers using the ACLED database considered 1997–2010 incidents associated with mining conflict. Berman, Couttenier, Rohner, and Thoenig (2017, p. 1564) identify how “riots and protests” can become more serious “battles” that involve warlords and rebel groups (Fig. 3.10):

> mining activity does not only increase the scope for localized protests and riots, but it also systematically fuels larger-scale battles[...] gaining the territorial control of a mining area leads rebel groups to intensify and spread their fighting activity elsewhere in the territory in the successive periods[...] mines spread conflict across space and time by making rebellions financially feasible. More precisely we first show that spikes in the price of minerals extracted in the ethnic homeland of a rebel group tend to diffuse its fighting operations spatially outside its homeland[...] the commodities super-cycle (i.e., the steep increase in mineral prices during the 2000s) accounts for 14 percent to 24 percent of the average violence observed in African countries over 1997–2010.

But making such explicit linkages between extraction and resistance is rare even in research. In these instances, the rebel warlords’ objectives in taking control of mining — for financial benefit (there are few if any ideological struggles akin to those of the 1990s when right-wing rebels like UNITA took Angolan

\textbf{Fig. 3.9.} African Riots, Protests and State Violence Against Civilians. Riots and Protests; Violence Against Civilians. \textit{Source: ACLED (2018)}
diamond sites for political purposes) — contrast sharply with dissent which is often aimed at preventing mining. In yet other cases there are religious-extremist “terrorist” activities financed by resource extraction (which are not considered in this analysis). Again the difference between a top-down reformist and bottom-up resistance perspective is obvious. As Berman et al. (2017, 1601) conclude,

It is likely that mineral extraction relaxes the financing constraints of rebels, because armed groups can sell minerals illicitly on the black market through the benefit of tacit or active support in various areas of society. Our empirical results suggest that one way for domestic governments to dampen rebellion feasibility effects would be to put in place more stringent anti-corruption policies, and to support transparency/traceability initiatives in the mining industry.

The main dilemma here is not that resistance to systematic plundering generates warlordism, although that danger exists in some parts of Africa. It is that the protests are too often focused on the most immediate socioeconomic and environmental injustices and do not address the larger levels of political power in society. One example of how such linkages can be made is through expressing opposition to fossil fuels, in ways that are also clearly aimed at slowing climate change. The “Blockadia” mapping within the Environmental Justice Atlas (EJAtlas.org) is an example of preliminary analysis with that aim, beginning with a Nigerian site of struggle:

On every continent there is an increasing frequency and intensity of resistance movements against fossil fuel projects. These interwoven spaces of resistance are Blockadia. Originating from movements such as the Ogoni People against Shell in the Niger Delta since the 1990s and the Yasuni initiative in Ecuador to leave the oil in the soil, local people and activists...
are demanding we keep fossil fuels in the ground. Today there are diverse and widespread resistances such as the Ende Gelände mass civil disobedience in Germany; the indigenous-led Standing Rock camp against the Dakota Access Pipeline; the movement in Kenya to “deCOALonize”; and, amongst many others, the campaigns #BreakFree and #SaveTheArctic. Naomi Klein popularized the term Blockadia in the book *This Changes Everything* describing the “roving transnational conflict zone […] where ‘regular’ people are stepping in where our leaders are failing” along the whole fossil fuel chain, from extraction to transportation to combustion. These struggles are not only against the local impacts of such projects, but also against their impacts on the climate. (EJAtlas, 2018)

For the EJAtlas (2018) mappers,

By bringing together inspiring case studies, the diversity of the movements can be celebrated whilst the connectivity between them can be strengthened and the real ‘glocal’ threats of fossil fuel extractivism can be better understood. The local causes of resistance vary case by case, but many include the violation of human rights, contamination of water, land dispossession, loss of livelihoods, poor working conditions, biodiversity loss, cultural loss, severe health impacts and inadequate compensation. The Blockadia Map serves as a tool for activists to unite their struggles and build a stronger movement against the multitude of injustices presented by fossil fuel projects. When we come together in acts of defiance, our struggles become part of a bigger movement. Just as these resistances are real spaces where people and causes are connected, the Blockadia Map is a space for movement-building and international solidarity.

However, whether in the cases of top-down reformism or bottom-up resistance, only partial narratives are involved in addressing extractivist projects and policies. As noted at the outset of this paper, narratives opposed to the Resource Curse usually include local-ecological, climate change, labour safety and health, spiritual and traditional, sociopsychological, political and geopolitical, mal-developmental, and financial arguments. And as noted, the latter includes rising concerns about Illicit Financial Flows to offshore sites with little reinvestment. But as for objecting to the depletion of natural capital wealth without sufficient returns, i.e., an ecological-economic argument, this opportunity to justify non-extraction has only been utilized rarely. What, finally, is the scope for a deeper engagement with natural capital accounts such as the World Bank’s *Changing Wealth of Nations*?

**CONCLUSION: NATURAL CAPITAL AND RESISTANCE TO UNEQUAL ECOLOGICAL EXCHANGE**

The answer, in conclusion, comes from both activists and intellectuals. The former have driven public policy in all spheres of life, and anti-extractivism is one of the most powerful recent trends. While few activists have publicly grappled with the enormity of the continental resource depletion problem – i.e. the conservatively estimated US$100 billion drawn down from Sub-Saharan Africa’s natural wealth (not including the platinum and diamond sectors) – at least at the local level, their anti-extractivism is enhanced by showing how economic degeneration results from the net decline in natural capital.

To illustrate, in eastern Zimbabwe’s Marange diamond fields, bottom-up resistance has generated not only courageous protests, but also arguments against
extraction that deploy natural capital accounting. According to Marange’s main civil society watchdog, Farai Maguwu (2016) of the Center for Natural Resource Governance, “mining is a disaster unfolding across Zimbabwe. Mining is creating an enclave economy full of white-collar criminals, who make virtually no positive linkages to the broader Zimbabwean economy. They simply deplete our natural capital and provide an inconsequential return.” Even a generally pro-extraction reform organization, the Zimbabwe Environmental Law Association, argued that “Diamond revenue represents natural capital depletion and, therefore, its expenditure should be judicious” (Sibanda & Makure, 2014). In reality, natural capital depletion in Marange appears to have taken place in a manner as injudicious as anywhere on earth.15

Following the logic of natural capital’s depletion, Financial Times writer Tom Burgis (2015), told CNN in 2018,

There is a troubling possibility that it’s not possible to put natural resources in these countries to work for the common good.”[…] He suggests another option is to keep resources in the country and implement high tariffs to protect domestic industries, but African leaders have been reluctant to adopt such measures. “We have a world trading architecture with strict rules on imposing tariffs,” says Burgis. “African countries have adopted the market orthodoxy that led them to pare down states and embrace global economic competition – in which they are overwhelmingly the losers.” (Monk, 2018)

In Western solidarity circuits, there are well-established routes to punish firms and multilateral institutions for their roles in oppressing Africans, the most successful of which was to pull medicines out of the World Trade Organization (WTO) in 2001. Another was the Jubilee debt relief movement, which was important in raising consciousness in the late 1990s and early 2000s about the urgency of cancelling unrepayable loans (even if the campaign was not successful) (Bond, 2003). Solidarity movements with anti-apartheid and anti-colonial struggles also revive warm memories of North-South collaborations, to the benefit of ordinary Africans (Bond, 2003).

What is also needed, now, is a more rigorous narrative specifying the ecological debt the North owes the South. Perhaps this will get underway in a parallel discussion about the climate debt owed Africa and other hard-hit sites (Bond, 2010; German Watch, 2009; Klein, 2014), an idea that was sufficiently threatening that US State Department officials banned its discussion in the UN climate negotiations. What is also needed is much more advanced South–South solidarity, so the likes of Marange diamond dealer Sam Pa (who was apparently jailed in Shanghai in 2015) can be contested when Zimbabwe’s billions of dollars’ worth of diamonds simply disappear.

These are sites where activists are calculating natural capital, first to prevent extraction (in Maguwu’s case), and second so as to strengthen the demand that ecological debt be paid to its victims, also as a disincentive to polluters to continue the environmental damage. But it is here that the intellectual conclusions also require being subjected to critical scrutiny. And so when it comes to framing arguments for maximum political-ecological solidarity, it may be helpful to consider four compelling mandates offered by some of the world’s finest radical thinkers.
First, as Giovanni Arrighi, Hopkins, and Wallerstein (1989) pointed out in their book *Anti-Systemic Movements*:

The more that popular struggles focus in each national setting on whatever regime is in office, and so become focused on who speaks in the name of that national people as a whole, the more will such struggles weaken the workings of the world-scale class-forming process and strengthen the interstate system. The more, on the other hand, the popular movements join forces across borders (and continents) to have their respective state officials abrogate those relations of the interstate system through which the pressure is conveyed, the less likely they are to weaken, and the more likely they are to strengthen, the pivotal class-forming process of the world-economy.

The strengthening of a continental and international “class-forming” political-ecological resistance to world capitalism obviously requires, above all, more effective resistance against TNCs. When TNCs are repeatedly encouraged to view the African continent as a site for extreme extraction, it becomes vital to “abrogate those relations of the interstate system through which the pressure is conveyed.” Institutionally, such relations are diverse, but in terms of the most adverse political-ecological impact, they include the Bretton Woods Institutions — especially after innovations at the World Bank and in the WTO which give TNCs greater investor protection at the cost of environments and societies — and other financial and trade regimes of a multi- and bilateral nature. For even the BRICS have developed oppressive bilateral investment treaties in Africa (Garcia, 2016).

Countervailing power is sometimes conceptualized at sites where popular struggles join forces across borders, at alternative counter-summits, e.g., the World Social Forum, the Alternative Mining Indaba, the People’s Economic Forum (against the World Economic Forum-Africa), the Southern African People’s Solidarity Network (against the Southern African Development Community) and BRICS-from-below events. These are just some of the instances in which strategic work is done to contest several of capital’s interstate relations that draw in far too many African officials as enthusiastic compradors. In some cases, the pressure from popular struggles compels African elites to make major breaks with the interstate system.

Examples include the WTO summits in Seattle and Cancun (whose failures were due to Africans denying consent), and in the most important case, the Treatment Action Campaign of South Africa mobilized activists from the continent and the world to insist on the decommodification of AIDS medicines within the 2001 Doha WTO summit. This activism removed essential medicines from the tyranny of the WTO’s Trade Related Intellectual Property System, and applies not only to AIDS but also to subsequent pandemics including the Zika virus and Ebola. Since that breakthrough, the resulting supply of medicines — in part through a major United Nations fund that purchases generic not branded versions of the AIDS drugs — has raised life expectancy by at least a dozen years in most of the African countries hardest hit by AIDS (Bond, 2014).

These are terrains upon which some well-networked international activists make phenomenal breakthroughs, e.g. in fighting intellectual property rights in the case of AIDS medicines. But they are not fully successful until they contest
the realm of ideas, for there, too, we might seek further ways of abrogating interstate pressures. So, as a second set of mandates that relate to both activists and intellectuals, recall that in books by leading anti-corporate intellectuals — such as Samir Amin’s (1990) *Delinking*, Susan George’s (2014) *Another World is Possible* — If, Walden Bello’s (2012) *Deglobalization*, and Vandana Shiva’s (2016) *Earth Democracy* — the objective of localization and meeting social and environmental needs follows closely the Daly (1996) suggestion to “move away from the ideology of global economic integration by free trade, free capital mobility, and export-led growth.” Daly recovered that from Keynes (1933), who in a similar period of irresponsible corporate over-reach and over-accumulation crisis, argued for a strategic delinking of productive capacities from the world market, “whenever it is reasonably and conveniently possible.”

These narratives should also include natural capital accounting, for when such an exercise shows net loss of national wealth, as in nearly all of Africa, this helps make the case against extreme extractivism. In a third powerful mandate from a leading radical thinker, David Harvey (1996, p. 401) proposes that environmental justice movements engage with those ecological modernization proponents who currently dominate the emerging field of natural capital accounting:

Such a movement will have no option, as it broadens out from its militant particularist base, but to reclaim for itself a non-coopted and non-perverted version of the theses of ecological modernization. On the one hand that means subsuming the highly geographically differentiated desire for cultural autonomy and dispersion, for the proliferation of tradition and difference within a more global politics, but on the other hand making the quest for environmental and social justice central rather than peripheral concerns. For that to happen, the environmental justice movement has to radicalize the ecological modernization discourse.

A core process within that radicalization, Harvey (2014, 168) argues, is articulating how unequal ecological exchange generates not just exploitation but also resistance: “Capital’s ecosystem is riddled with inequalities and uneven geographical developments precisely because of the uneven pattern of these transfers. Benefits pile up in one part of the world at the expense of another. Transfers of ecological benefits from one part of the world to another underpin geopolitical tensions.”

As should be evident, the geopolitical tensions we have reviewed in various parts of Africa in the pages above cannot be resolved from the top down, especially not through transparency-oriented reforms (though these can sometimes be useful in clarifying oppositional power). Instead, more active strategic and intellectual linkages and a more explicit ideology are required. However, before any such ideology — ultimately eco-socialism — might take hold, it would need testing at the site of struggle.16

Yet as noted above, many excellent political ecologists — e.g. Büscher, Bassey, and Sullivan — are still hesitant to engage in the challenge Harvey (1996) sets out, namely to confront the internal contradictions within ecological modernization that natural capital accounting brings to the surface in Africa (e.g., Lange et al., 2018). As a fourth mandate from a leading critical analyst, Alberto Acosta (2014) had many disputes with both Western/BRICS
extractivism and Latin America’s “Pink Tide” neo-extractivism. The visionary Ecuadoran political ecologist has summed up what is probably the most appropriate framing:

Economic objectives must be subordinate to the laws that determine how natural systems operate, without losing sight of respect for human dignity and the need to improve the quality of life of people and communities. This makes it obligatory to maintain (avoid destroying) those territories that possess a wealth of environmental and social values, where the highest levels of biodiversity are concentrated: the Yasuni-ITT Initiative in Ecuador is a global example.

It also leads to establishing the concept of strong sustainability (economic capital must not wholly replace “natural capital”), as a new paradigm for how to organize society. And it also implies replacing conventional macroeconomic calculations with new indicators and indices of sustainability. Likewise, it requires widespread and genuine social participation to confront the challenge of large-scale extractivism.

One way to do so, now deserving much more attention, is a more explicit intellectual confrontation with those engaged in the depletion of resources, so that the very phrase “natural capital” can be eventually eradicated from what must become a new vocabulary for a new way of organizing life: eco-socialism. That new vocabulary would, dialectically, emerge from growing opportunities to set the contradictory narratives in conflict, i.e. when, to follow Harvey, “the environmental justice movement radicalizes the ecological modernization discourse.” It would perhaps only then be clear that instead of simply anti-extractivism motivating those activists defending against resource grabs, a more durable ideology of eco-socialist planning would reveal its usefulness.17

NOTES

1. By way of a brief methodological explanation, when arriving at ANS, Lange et al. (2018) calculate “consumption of fixed capital” (wear and tear on machines), educational expenditure (“human capital”), depletion of non-renewable resources (“natural capital”) and pollution damage. In the world’s poorer countries, the natural capital component of total wealth is typically more than a third, while for the world as a whole it is just 9% (Table 1). In the calculation above, “About half of gross national saving is used for the consumption of fixed assets (depreciation), with a similar negative contribution (with some variation over the years) resulting from natural resource depletion (Fig. 1). The losses from pollution are smaller, as is the positive contribution of spending for education” (Lange et al., 2018). It is important to recognize that the negative contribution to ANS from mining is a highly conservative estimate, especially in Southern Africa, because “some important resources are still not included because of a lack of data, notably platinum group minerals, diamonds, and other minerals.” While three of South Africa’s major mineral exports are calculated — coal, iron-ore, and gold — the country’s reserves of 85% of the world’s platinum are not included. Vast levels of diamond extraction in Zimbabwe, Botswana, the DRC, Sierra Leone, and Liberia are also ignored, so the 3% annual decline in the region’s wealth is likely to be far worse. North African countries which do not effectively recycle their oil wealth through state companies also contribute to the decline for the continent as a whole, though the World Bank’s old-fashioned category “Sub-Saharan Africa” leaves these out these countries. Calculations that involve Libya’s depleted oil resources will be increasingly important, given how the Obama and Sarkozy regimes replaced its dictatorial Gaddafi regime in 2011 with extreme extraction and chaotic malgovernance.
2. In ecological modernization’s most advanced form, Deutsche Bank’s Pavan Sukhdev initiated “The Economics of Ecosystems and Biodiversity” (2018) within the UN Environment Program to “make nature’s values visible” and thus “help decision-makers recognize the wide range of benefits provided by ecosystems and biodiversity, demonstrate their values in economic terms and, where appropriate, capture those values in decision-making.” In the same spirit, the World Bank’s (2012) Inclusive Green Growth mandated “that cities and roads, factories and farms are designed, managed, and regulated as efficiently as possible to wisely use natural resources while supporting the robust growth developing countries still need[...] [to move the economy] away from sub-optimalities and increase efficiency – and hence contribute to short-term growth – while protecting the environment.”

3. Diversification is generally not underway. The share of Africa’s manufacturing industry within GDP continues to shrink, aside from rare cases such as Swaziland which has a large (35%) share due to a super-exploitative Export Processing Zone, and Ethiopia where after bottoming at 4%, sweatshop factories have been constructed by Chinese firms (African Development Bank, 2018). World Bank data record that manufacturing’s share of GDP fell steadily from more than 15% in the early 1980s to below 11% since 2005. The continent’s former industrial powerhouse, South Africa, was submerged by international competitors and witnessed manufacturing shrink from 24% of GDP in 1990 to 13% today (and that has been artificially bolstered by vast electricity subsidies to base metals producers, especially aluminium and steel). Even in the largest national market, Nigeria, manufacturing is less than 10% of GDP.

4. Other agencies which began to assist in Africa after Gaborone included the United Nations Statistical Division, United Nations Environment, and the main German aid agency, Deutsche Gesellschaft für Internationale Zusammenarbeit.

5. Africa’s LDCs in 2018 are Angola, Benin, Burkina Faso, Burundi, Central African Republic, Chad, Comoros, Côte d’Ivoire, Djibouti, Eritrea, Ethiopia, Gambia, Guinea, Guinea-Bissau, Lesotho, Liberia, Madagascar, Malawi, Mali, Mauritania, Mozambique, Niger, Rwanda, Sao Tome and Principe, Senegal, Sierra Leone, Somalia, South Sudan, Sudan, Togo, Uganda, United Republic of Tanzania, and Zambia. The illogical UN statistical habit of including Haiti with African countries continues in the 2018 UNCTAD report.

6. The 2014/2015 crash decimated not just Africans, but also many foreign investors in Africa. Platinum mining house Lonmin’s London listing had peaked at a value of US$28.6 billion in 2007 and then fell 99.4% to a near-bankruptcy level of US$172 million in late 2015, before a fire-sale to a Johannesburg firm at the end of 2017 for US$383. Anglo American’s share value fell 93.6% from a 2008 peak to 2016 trough, and the world’s largest commodity trader, Glencore, fell 86% from a 2011 high to its 2016 low (Bond, 2017).

7. These include the forced rise in the debt repayments/GDP ratio for African low-income countries, confirming that while stocks of debt were indeed reduced, the outflows increased. Another odd example was Nigeria’s enforced liquidation of US$12 billion in foreign reserves so as to retire US$30 billion in Paris Club loans (Bond 2006).

8. For details, see Brautigan (2016), although her figures are underestimates. They do not contain many billions of dollars worth of 2013–2017 South African parastatal debt to the Chinese Development Bank, much of which has been questioned because it is tied to corrupt suppliers via the notorious Gupta family.

9. The 350.org and related divestment networks have begun to make inroads into Western stock markets for their laudable campaigning, but sites like the Johannesburg Stock Exchange and other securities markets in the BRICS are fair game.

10. This article does not address Corporate Social Responsibility within the extractive industry. To illustrate its foibles, recall that the World Bank considered Lonmin’s Marikana operation the poster-child example just before the massacre. For a full critique of this strategy based on lessons from Marikana, see Bond 2014.

11. The AMV solutions were seven mild-mannered reforms set within the context of extractivism: Equitable share of the resource rents;
1) flexible fiscal regime which is sensitive to price movements and stimulates national development;
2) third-party access to the resource infrastructure (particularly transport, energy and water) at non-discriminatory tariffs;
3) the development of the local resource supplier/inputs sector where feasible (particularly capital goods, services & consumables), through the use of flexible local content milestones;
4) the establishment of resource processing industries through the use of flexible value-addition (beneﬁciation) milestones & incentives and the upfront stipulation of competitive pricing of resource outputs/products in the domestic market, for the life of the project;
5) the development of local requisite human resources and technological capacity through stipulated investments in training and R&D, preferably in partnership with the state (joint or matching funding); and Provisions that safeguard transparency and good governance as well as enforce internationally acceptable safety and health standards, environmental and material stewardship, corporate social responsibility, and preferential recruitment of local staff.


13. At the time of writing these include a People’s Permanent Tribunal on Transnational Corporations in Southern Africa at the Alternative Information and Development Center, a site which also hosts the Million Climate Jobs research and organizing project for alternatives to fossil fuel extraction (AIDC, 2017); the Mining Affected Communities United in Action (supported by ActionAid SA, with major struggles underway against various mines at any given moment); several anti-extraction NGOs and lawyers organizations, including ground Work, Earthlife Africa, the Center for Environmental Rights, Legal Resources Center and Lawyers for Human Rights; long-lasting community-based organizations including the South Durban Community Environmental Alliance, Vaal Environmental Justice Alliance and Frack Free South Africa; and the Women in Mining network offering a continent-wide radical eco-feminist perspective (Womin, 2018).

14. Other databases – the Uppsala Conﬂict Data Program Geo-referenced Events Dataset (UCDP GED), the Social Conﬂict in Africa Database (SCAD), and the Global Database of Events, Language, and Tone (GDELT) – suggest similar trends, while the ﬁnal one of the ﬁve – the African Development Bank’s African Economic Outlook (AEO) chapter on governance – ceased publication in January 2018. It should be noted that ACLED is funded by the US Pentagon’s Minerva program, indicating a strong interest in these movements by a regime increasingly exposed on the African continent (Turse, 2017). Finally, there is a potential bias in ACLED’s ﬁgures insofar as the methodology changed in 2012, at which point they gathered more protest information based on active coding. However in my view, the sharp jump of protests observed in 2011 corresponds to not only the explosive North African upsurge of social anger. The 2011 protest spike in Fig. 3.9 also corresponds to AEO data which are drawn from Reuters and Agence France Press reports.

15. Robert Mugabe admitted in 2016 – after his 36 years in power facilitated the emergence of a massive neo-patrimonial system – “We have not received much from the diamond industry at all. I don’t think we have exceeded $2 billion, yet we think more than $15 billion has been earned[…]. Lots of smuggling and swindling has taken place and the companies that have been mining, I want to say, robbed us of our wealth” (Magaisa, 2016). During Mugabe’s overthrow in a relatively peaceful coup by Emmerson Mnangagwa in November 2017, poster-board signs appearing in the supportive crowds of tens of thousands in Harare carried the message, “Police arrest the $15 billion thieves.” Mnangagwa was Defence Minister when the army signed diamond joint venture deals, especially with Sino Zimbabwe Development, Anjin Investments, the Hong Kong ﬁrm Queensway owned by the
mercurial billionaire Sam Pa (Burgis, 2015), and other firms which were responsible for the extraction. Mugabe’s former spokesperson claimed that the US$15 billion figure was ‘metaphorical’, but opposition parties “repeatedly called for Mnangagwa to launch an investigation into the missing money, calling for an audit into the country’s diamond and mineral revenue” (Business Report, 2017). Some of the same firms attempted to re-enter the Marange diamond fields after Mugabe’s removal in late 2017. In January 2018, Mugabe — living as a quiet retiree after the coup — was requested to testify about the depleted diamond fields by his own ruling party’s chairperson of Parliament’s Mines and Energy Portfolio Committee, but refused. Mnangagwa offered a February 2018 amnesty for rich Zimbabweans to return illicit outflows to the country. But this appeared a futile, hypocritical gesture, at the time the cash shortage was so severe that banks only allowed daily withdrawals of US$5 (the US dollar has been Zimbabwe’s official currency since 2009). The point of this reckoning, is not merely that billions of dollars of diamond revenues remained unaccounted for, but that the natural capital is now gone forever.

16. Elsewhere, the natural capital narrative has emerged slowly in anti-extractivist analysis. Hilary Bambrick (2017) writes of how “Extractivism of local resources in small islands in Oceania has contributed to environmental degradation locally through pollution and loss of natural capital… Extractivism depletes natural resources and causes environmental degradation, leaving those exposed increasingly dependent on external income…”

17. The case for building eco-socialism in the most opportune African setting, South Africa, is made in Bond (2016b). However, the crucial missing link is a more actively red-green labor movement, and while there have been extremely impressive rhetorical statements by the likes of the National Union of Metalworkers of South Africa in recent years, when put to the test in potential closure of coal-burning power plants and supplier mines in 2018, the statements proved far weaker than the necessity its leaders felt to save jobs. Thus in the concept’s early stages, eco-socialism has been limited to the realm of utopistic vision.

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