



The Neoliberalization of Nature: The Highest Stage of Ecological Imperialism?

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One of the more critical arguments being made in political ecology concerns the ‘neoliberalization’ of the environment. Heynen et al. (2007) have argued that neoliberalism has restructured the social and property relations governing nature and ultimately allowed for its enclosure, privatization, and marketization. A number of case studies have been conducted describing this process of intensified enclosures and privatization (Robbins and Luginbuhl 2007). In addition to the re-formulation of property relations in the favor of private capital, some scholars have documented the scaling back of environmental protections by the state (McCarthy 2007). In the developing world, for example, this has resulted in the illegal logging of protected areas, the poaching of endangered species, increased corruption, and usurpation of indigenous lands (Tockman 2001). This neoliberalization trend is seen as the most recent phase of capitalism (Heynen and Robbins 2005). Heynen and others denote this broad agenda as the ‘neoliberalization’ of nature, consisting of a number of cohesive ideological and policy attributes, even as this ‘neoliberalization’ often manifests differently according to localized context (Heynen et al. 2007).

Closely related is Marx’s concept of primitive accumulation. The core idea of Marx’s primitive accumulation is that the accumulation of capital necessitates an initial separation of workers from the means of production, such as the land. Modern interpretations argue that primitive accumulation continues to be an essential element of modern societies and its range of action extends to the entire world. Neoliberalism, De Angelis argues, is the current manifestation of continuing primitive accumulation (De Angelis 2001). Similarly Harvey (2005) encapsulates the concept of continuous primitive accumulation in his concept of ‘accumulation by dispossession,’ which includes the enclosure of environmental commons and other forms of commons by private capital.

What is significant about such arguments are that they begin to unveil the link between the accumulation of capital- a process that structurally funnels wealth and power to specific social groups-

and the current regulatory trends governing nature. This subject is utterly obscured in mainstream discourse when market efficiency is promoted as the solution, not the cause, of environmental crises, particularly regarding the developing world (Bhagwati 2003). The reality in the developing world, however, is that global ecological crises have coupled with globally increasing demand and spurred a veritable scramble for resources alongside environmental destruction and dispossession (Carmody 2011; Bond 2006; Klare 2001).

While the devastating environmental and social consequences of such neoliberalization have been well-documented for a multitude of case studies throughout the Global South (Abkaza 2001; Klare 2001), such trends beg a more systematic link to the theory of imperialism, or more specifically, ‘ecological imperialism.’ Taking a broad picture perspective, this essay seeks to contribute to the ‘neoliberalization of the environment’ literature by arguing that when viewed in historical context, the neoliberalization of peripheral resources created the political-socio-economic institutions necessary for the expansion of ecological imperialism. In particular, it seeks to connect the concept of ecological imperialism as espoused in recent years by Marxist Ecologists and the neoliberalization of nature literature, bringing together two important sets of literature in political ecology explicitly for the first time. Specifically, this essay focuses on important historical changes in the regulations surrounding foreign investment in peripheral resources, where the nexus of ecological imperialism and neoliberalization can most clearly be witnessed. When viewed temporally, this neoliberalization can be interpreted as the most recent phase in the ongoing, expansionary tendencies of capital to subsume peripheral resources and part of the most current strategy of accumulation.

Additionally, the neoliberal turn can be interpreted as a kind of Polanyian ‘counter-counter-movement’ against the protective measures many post-colonial countries enacted during the post-independence era in their quest for economic and national sovereignty. In contrast to liberal dismissals of this era as a phase of ineffective, alternative economic policies, from a political ecological perspective understanding this era is crucial, as it contained the most prominent efforts of the ‘Third World’ to regain sovereignty over their own natural resources after a colonial era of rampant exploitation and looting. Yet this era also coincided, fatefully, with the developed world’s increased dependency on strategic resources in the developing world. This political economic/ecological context arguably set the stage for the neoliberal ‘counter-counter’ movement following the debt crisis of the developing world in the early 1980s which restored the accessibility, and amenability, of peripheral resources to foreign capital accumulation.

Ecological Imperialism and the Neoliberalization of Nature

The issue of ecological exploitation of less developed, industrialized regions by more highly developed, industrialized regions has garnered much attention in recent years. Notably, much theoretical and empirical work has been done concerning the theory of ecologically unequal exchange (Hornborg 2001, 2009, 2011; Jorgenson and Clark 2009; Rice 2009), which essentially argues that through international trade core or developed, industrialized regions are able to shift their environmental burdens onto developing, or peripheral regions. The periphery, according to ecologically unequal exchange (EUE) theory, acts as ‘source’ of resources and planetary ‘sink’ for the metabolic¹ needs of the core countries of the world-system. Despite some methodological and

¹ The term ‘metabolic’ here is the same as it is used in ecological economics. In ecological economics, economies are conceptualized as continuously taking in resources from their greater environment, utilizing such resources for

conceptual challenges,² empirical work has generally corroborated EUE (Giljum and Eisenmenger 2004; Jorgenson 2012; Jorgenson, Austin and Dick 2009; Vallego 2010; Perez-Rincon 2006; Manrique et al. 2013; UNEP 2011; UNCTAD 2012). Such empirical findings are significant, raising the issue of ‘ecological’ exploitation, and closely related matters such as environmental justice, ecological debt, and ecological imperialism.

In general, the ecologically unequal exchange literature tends to focus on empirically verifying globally unequal flows of resources rather than uncovering *specific* economic policies- such as current trade or foreign investment regulations- that allow for such unequal flows of resources to occur. To the extent that the world-system is characterized by such inequality, however, it occurs in a global economy shaped by the demands of industrial capitalism, and within the specifically capitalist mode of production. Under global capitalism, the primary economic mechanisms through which the environmental burdens of some countries can be shifted onto other countries- international trade and foreign investment - are ultimately the primary mechanisms of capitalist economic integration. Understanding how the political economy of economic integration ensures the continued flow of both resources and profit from certain regions and social groups to other regions and social groups is, I suggest, the study of ‘ecological imperialism.’ Ecologically unequal exchange, to the extent that it occurs, is an *outcome* of ecological imperialism; it is an historical outcome of a specific arrangement of political economic institutions as much as it is an outcome of the biophysical necessities of industrialization.

In its simplest definition imperialism is the system by which a dominant power is able to control the trade, investment, labor, and natural resources of other peoples. Magdoff (2013) provides a useful description of the fundamentals of imperialism as; the continuous, expansionary drive to accumulate capital; and, the capitalist global economy structured as a world-system, with an international division of labor and global hierarchy that guarantees the economic domination of the decolonized countries. Imperialism is defined not by direct colonial rule (direct rule by force and political control) but by the global capitalist market. Importantly, Magdoff argues, imperialism results not solely from over-accumulation of capital in the core but from any number of reasons, to be ascertained through concrete and historical analysis.

There has always been an ecological dimension to imperialism. Lenin and Magdoff both emphasized the role of raw material investment in the developing world for capitalist industrialization in the core countries. However, there are several reasons for bringing the ecological dimension into the discourse on imperialism more explicitly. To begin with, mainstream discourses on sustainability are proliferating, but often fail to address issues of power imbalance and inequities, or how current economic policies contribute to environmental degradation (e.g. World Bank 2011). Effort must be made to trace and uncover the sources of biophysical accumulation in one place, and the political economy, policies, and ideologies that support it, while also examining the socio-ecological impacts that such accumulation may have in another place. An explicitly ecological theory of imperialism can contribute to these gaps for a less fragmented, more political, discussion of sustainability at the global level. In addition, the study of an explicitly ecological imperialism can integrate the latest advances from the sustainability sciences and ecological economics, as the EUE studies listed above have begun

societal purposes, and releasing pollution and wastes back into the environment. Ecological economists refer to this general process as ‘metabolic,’ and EUE theory applies this concept to the world-systems level.

² See Frame (2014) for an overview of the methodological and conceptual challenges in regards to empirically measuring EUE.

to do. Through such integration, empirical investigation into the effects of ecological imperialism on peripheral countries can be concretely studied with the use of current, environmental-society indicators.

Marxist ecologists such as Clark, Brett, Foster and Moore, and theorists of imperialism such as Magdoff, have already contributed significantly to the topic of ecological imperialism. Magdoff's work (2003), argued that capital, in its drive for endless accumulation, undergoes technological changes that require specific and strategic resources, many of which are largely found overseas. Competition between capitalist powers intensifies the expansionary dynamic. Moore, building on Foster's theory of metabolic rift, has argued that ecologically produced crises of capital accumulation have historically been attenuated through spatial expansion (Moore 2001, 2003, 2011, 2012). Foster (2002) and Burkett (2006) have pointed out that on the level of individual capitals, attempts to overcome ecologically produced crises of capital accumulation can become a new source of profit and investment (Foster 2002, Burkett 2006). Clark, Brett, and Foster (2009) have linked the issue of ecological imperialism with ecologically unequal exchange.

From the work of the above theorists, one can summarize some essential attributes of ecological imperialism. First, ecological imperialism is rooted in the endless drive for capital accumulation and occurs under specifically capitalist relations of production. Further, ecological imperialism hinges upon dynamics of unequal power and dependency within a hierarchical international division of labor in the world-system, as a historical result of colonialism and uneven development. Unequal power can mean economic, political, military, ideological, and so on, and can manifest in large variety of ways. Third, ecological imperialism results in some sort of negative socio-ecological impacts for the peripheral country, for example, this could be in terms of the draining of resources, or social effects, such as the dispossession of land and concurrent evictions. Overall, ecological imperialism allows for displacement of environmental burdens outside of core/semi-peripheral national borders.

What is important to further the work on ecological imperialism- a very broad and complex topic- is continued, additional study of *concrete* political economic structures in the global economy, in particular surrounding international trade and foreign investment. Ecological imperialism can, in turn, provide a vital framework for radical criticism of such global economic policies.

This paper seeks to add to the existing literature on ecological imperialism in a number of ways. First, while previous work does discuss certain social dimensions of ecological imperialism it is the first work on ecological imperialism to explicitly incorporate the role of resistance (in particular Third World resistance) in shaping the current structure of ecological imperialism.

Relatedly, this paper complements Moore's work which represents ecological imperialism as a dynamic, dialectical process. Through his research on the sugar and silver frontiers, Moore theorized that through a dialectical process capital and nature mutually shape and constitute each other. The drive for capital accumulation literally changes local and global ecologies, depleting forests, simplifying landscapes into monoculture plantations, driving climate change, and so on. In turn, nature as well constitutes the forms, possibilities, and strategies of capital accumulation. I would add that while ecological imperialism is an outcome of a nature-capital dialectic it is also an outcome of the dialectical unfolding of movements and countermovements that arise from the particular social resistances and institutions at any given time. Combining these two dialectics allows for a dynamic and temporal reading of ecological imperialism, one where ecological imperialism is in a constant state of flux as it

responds to capitalistically produced ecological crises as well as capitalistically produced social crises. Finally, tracing the historical development of concrete economic policies- in this study, the policies governing foreign investment- allows us to recognize neoliberalism as capital's most current strategy of accumulation.

In sum, to the work of the above theorists, I would add the following essential characteristics of ecological imperialism: First, ecological imperialism necessitates an amenable political-economic context within the imperialized country (most often in the periphery, but not always), of which the 'neoliberalization of nature' is the most current manifestation. As O'Connor (1998) originally noted, nature like labor must be made available to capital in requisite quantities, and qualities, at the right place and time, often by an extra-economic actor such as the state. In the periphery, nationalization of natural resource firms, attempts by peripheral countries to form cartels to raise the price of primary commodities, localized indigenous struggles over the destruction of forest homelands, among many other examples all contest the view that ecological goods have an inherent price independent of political struggles, and issues of structural inequality and power. Contrary to neoclassical economic theory, the 'value' of nature in the periphery depends not only on market supply and demand and ground rent but also on class, anti-imperialist, and environmental struggles.

Thus, ecological imperialism is historically contingent, mutable, and unfolding dialectically in the form it takes according to a number of factors, including: a.) resistances within the periphery, such as internal, domestic class conflict or anti-imperial struggles (movement and countermovement), b.) changes in the metabolic needs of imperialist nations- whether due to technological changes, geopolitical considerations (example competitive capital in Africa), ecological considerations, and so on. Finally, in terms of resource transfer in the current global economy, ecological imperialism occurs through two primary mechanisms- international trade and foreign investment (though illegal activities like smuggling also occur).

Overall, a working definition of ecological imperialism is possible; broadly, as the subjugation of the economic, political, and/or social institutions of a (generally peripheral) country for the biophysical, metabolic needs of the (generally core or semi-periphery), and inextricable from the purpose of making such resources accessible and amenable (in the right quantities and for the right price) to the needs of (foreign) capital accumulation.

It is true some scholars such as Mittelman (2000) have argued that globalization has rendered the simple categories of core, semiperiphery, and periphery inadequate, as regional divisions of labor are increasingly emerging. In Sub-Saharan Africa, for example, foreign investment inflows from China, India, and even South Africa are increasingly prominent, such that one cannot reduce the imperialist actor to transnational corporations from the Global North. However, as this paper discusses in terms of foreign investment, the global power imbalances arising from the current global economic system, are still very much real for many peripheral countries, even if globalization is blurring the capacity for us to generalize entire regions as 'peripheral.'

Neoliberalism as Counter-Countermovement: the Historical Context

Ecological imperialism may have begun with colonialism, but the process of accumulation is never static. At any given point in space and time the ideological, political-economic and policy

context that allows for accumulation are distinct, and respond to a capital-society dialectic of resistance and counter-resistance. From such a perspective, neoliberal policies embody a counter-response to what can be conceived of as a Polanyian 'double-movement' that arose post-independence in many peripheral countries.

Polanyi (1957) argued that the dynamics of 19th and early 20th society were governed by a double movement: the self-regulating market economy expanded continuously (first movement) but this movement was met by a countermovement (second movement) checking the expansion. Though vital for the protection of society, the countermovement ultimately undermined the market system itself. This countermovement manifested through a great variety of forms due to the broad range of social interests affected by the expanding market mechanism. In particular, the countermovement consisted in checking the action of the market in respect to specific factors of production; labor, land, and money.

Polanyi's double-movement expresses the dialectical movement of the market system shaped by social resistance. Already implicit in Polanyi's own work, we can more explicitly broaden this concept to include countermovements against an expanding global market in regards to the environment. Mittelman (1998), Bernard (1997), and Bridge (2007), for example, have extended the Polanyian framework in conceptualizing environmental resistance politics as a countermovement against globalization. In the neoliberalization of nature literature, McCarthy and Prudham (2004) have used the Polanyian dual movement to describe the environmental protection enacted under the Keynesian state, and its subsequent assaults under neoliberalism. To their work, two important considerations should be added. First, many of the previous developmental policies enacted in the mid-20th century by developing countries in their quest for national sovereignty and protection from the vicissitudes of the international market can be included as part of a Polanyian double movement in regards to the environment. That is, not only did the protections enacted under the Keynesian state have important environmental repercussions, but the quest for national sovereignty over resources did as well through affecting the access, and terms of access, to Third World nature to foreign capital.³

Second, we need to conceptualize neoliberalism as a counter-countermovement to both the environmental protections enacted during the Keynesian state as well as Third World attempts at resource sovereignty. Only when we include resource sovereignty in the double movement can we see the long span of ecological imperialism, and neoliberalization as the current phase of ecological imperialism.

During the post-independence period, many developing countries adopted various state-centered, interventionist development plans. While the developmental state was far from a uniform phenomenon, the major point is that many developing countries did not leave important sectors of the economy to the regulation of the market, or even more specifically, to the regulation of the international market and foreign capital (Haque 1999). Subsequently, however, the whole of the neoliberal project was oriented towards the removal of these obstructions.

Other works (Frame 2014) have argued that the meaning of Third World economic nationalism can be understood within the context of the contradictions generated by the expansion

³ It can be argued that the bourgeois state did, in a number of cases throughout the Third World, displace indigenous and colonized groups from natural resources. To discuss imperialism, however, it is crucial to differentiate between foreign capital and indigenous capital.

of the capitalist world system- broadly, as a type of countermovement to the economic dependency created under colonial expansion. More specifically, though, it can be understood as a countermovement against the transnational capitalism characterizing the post-WWII era. Even with independence, foreign control continued to dominate post-colonial economies (Rodney 1981; Nkrumah 1966). In the post-WWII era, transnational corporations (TNCs) became dominant actors in the system of production and accumulation. This new system came to dominate the world economy, whether developed, underdeveloped or socialist. (Girvan 1976, 1975; Magdoff 2003).

Concerning the relation of the Third World to the international capitalist system, the major contradiction after independence arose regarding the issue of economic sovereignty- in general the threat to economic sovereignty posed by foreign control in major sectors of the domestic economy (Girvan 1975, 1976). The political status of the newly independent states, formally sovereign and equal to all other states with admittance into the United Nations, contrasted with their state of economic dependency, and economic sovereignty became inseparable from the objective of greater equality in international economic power-relations (Lozoya 1980).

In the 1960s Third World countries began to challenge the power of transnational capital and their neo-colonial situation under the aegis of economic sovereignty. Significantly, from the perspective of political ecology, during this time period access to energy and raw materials also became crucial to the developed world's economic machinery. (Lozoya 1980; Girvan 1976). Central to this issue of economic sovereignty was sovereignty over their own natural resources, manifest in a series of events from the 1960s to the mid-1970s. Such events included numerous state expropriations of foreign-owned natural resource industries, the formation of primary commodity cartels such as the Organization of Petroleum Exporting Countries (OPEC), and sets of proposals that voiced Third World grievances put forth through the United Nations platform known as the New International Economic Order (NIEO).

The concept behind primary commodity cartels such as OPEC was to allow countries in the Third World to actively control their terms of trade with the industrialized world and the returns they got from the powerful multinational corporations (MNCs). The power of transnational capital and neocolonialism was actively contested through the expropriation of foreign natural resource industries. Conflicts between Third World states and MNCs involved in their natural resource industries took place as early as 1937/38 in Bolivia and Mexico with expropriations of foreign oil companies, reaching their zenith in the mid-1970s (Kennedy 1992). Finally, the Third World realized that without major structural changes in the international economic system, economic independence and development would be difficult. Hence, the Third World adopted a series of coherent demands, despite major ideological differences among individual nations. Known as the New International Economic Order, the NIEO demanded the full and permanent sovereignty of every State over its natural resources and all economic activities, including the right to nationalization or transfer of ownership to nationals (NIEO Charter). Importantly, the NIEO also demanded the right for developing countries to regulate TNCs operating within their territories in accordance with plans of national development. The NIEO also sought to establish a more equitable relationship between the prices of exported raw materials and imported manufactures by improving terms of trade (NIEO Charter).

The reaction of the West to the Third World's demands for adjustment of the international economic order was a resounding rejection, heralding what Amin regards as a new phase of aggressive anti-Third Worldism (Amin 1990). Even before the NIEO, Northern hostility to the increasing economic nationalism of the Third World was apparent (Girvan 1976; Bhagwati 1977). Foreign

investment in African resource industries, for example, dropped dramatically due to uncertainty generated by the backlash against foreign-owned operations in the 1970s (UNCTAD 2005). From a political ecological perspective, the main issue is simple to understand; at a time when the developed countries became crucially dependent on various resources from the periphery, the push for full sovereignty and greater returns for their exports ran directly counter to the concerns of consuming countries to retain assured access to foreign supplies at cheap prices.

Due to a complex convergence of factors, developing countries across the world fell into crippling levels of debt, and were forced to undertake extensive structural adjustment programs. By the 1980s, economic nationalism in much of the Third World had essentially collapsed, and their societies were to undergo an extended series of radical structural adjustments realigning their economies according to the principles of laissez faire capitalism, comparative advantage, and increased external integration. Under the neoliberal reforms, Third World ecological resources were once again made accessible to the demands of foreign capital accumulation, as lingering obstructions enacted during the developmentalist era were removed, one after the other. The Third World countermovement was replaced by the neoliberal counter-countermovement, in a context of economic and political crisis.

Imperialism, Neoliberalization and Foreign Investment in the Periphery

By the late 1970s economic nationalism was replaced by market principles. The new structural adjustments opened countries for foreign capital through privatization and various incentives to attract MNCs. This section discusses two particularly significant changes in foreign investment policy with regards to the neoliberalization of nature; multilateral and bilateral investment treaties and tax regimes governing the natural resource sector.

External Constraints: Multilateral and Bilateral Investment Treaties

Under the auspices of creating favorable investment climates, foreign investment regulations in many multilateral and bilateral treaties have strongly shifted the balance of power to foreign capital. As a result, major sectors such as mining and manufacturing have come under direct control of foreign investors, especially due to acquisition of privatized state-owned enterprises (Haque 1999; Bridge, 2007).

For example, looking at multilateral trade agreements, McCarthy (2007) notes that the North American Free Trade Agreement (NAFTA), and other recent trade agreements, all share the primary goals of increasing FDI and homogenizing regulatory environments across and within national territories, and shifting important state functions to the private sector or NGOs. Concerning multilateral organizations, trade-related investment measures (TRIMs) cover a broad variety of developing country economic activity, and countries that are members of the World Trade Organization (WTO) must satisfy the performance requirements of TRIMs. The central aim of TRIMs is to guarantee protection for Western investments. In doing so it bans most performance requirements on foreign firms; for example, the TRIMs agreement bans performance requirements related to local content (which require that locally produced goods be purchased or used), trade balancing, export requirements (which require the export of a specified percentage of production volume), and it also bans requirements on public agencies to procure goods from local suppliers. A country that tries to impose such requirements can be taken to Dispute Settlement Mechanism, and will usually lose (Wade 2003). Moreover, the US and EU want to modify current TRIMs agreement

so as to ban all performance requirements, including for joint venturing, technology transfer, and research and development. In essence, TRIMS restricts the right of a government to carry through policies that favor growth and technological upgrading of domestic industries and firms for development purposes (Wade 2003). As such, some have argued that the WTO outlaws key investment regulations that were once crucial to many countries' development strategies (Shadlen 1999; Green and Change 2003; Correa and Kuman 2003).

Even more stringent are bilateral investment treaties (BITs) that have been proliferating throughout the developing world since the early 1990s. Bilateral investment treaties require host government to lift even more restrictions on foreign firms, to give even more concessions, in return for better access to US or other powerful party markets (Wade 2003). BITs clearly focus on foreign investment protection, and developing countries sign bilateral investment treaties BITs in order to 'signal' to investors and attract more foreign investment. In recent decades, BITs have become the most important international legal mechanism for the encouragement and governance of FDI (Neumayer and Spess 2005).

Prior to advent of BITs, the protection afforded to foreign investors was minimal, under the customary international legal rule of minimum standard of treatment and the so-called Hull Rule. The Hull Rule dealt exclusively with cases of expropriation and offered no general protection against discriminatory treatment (Neumayer and Spess 2005). During the era of economic nationalism, developing countries had challenged the Hull Rule's validity as part of their demands for the NIEO: the Resolution 1803 of UN General Assembly merely requires 'appropriate compensation' for expropriation (Neumayer and Spess 2005).

In essence, most bilateral investment treaties guarantee certain protection for foreign investors that contrasts strongly with the demands of the NIEO. For example, BITs typically ban discriminatory treatment against foreign investors, guarantee appropriate compensation for expropriated property or funds, guarantee free transfer and repatriation of capital and profits, all areas which the varying policies under economic nationalism sought to regulate. Further, the BIT parties agree to submit to binding dispute settlement should a dispute concerning these provisions arise (Neumayer and Spess 2005). Virtually any public policy regulation can be challenged through the dispute settlement mechanism as long as it affects foreign investors (Neumayer and Spess 2005), and some argue that such treaties have serious implications for developing countries' capacities to achieve upward mobility in the international economy and encourage specialization based on comparative advantage (Shadlen 1999).

The adoption of such treaties has been widespread throughout the developing world; half of the Organization for Economic Cooperation and Development (OECD) foreign direct investment (FDI) into developing countries by 2000, for example, was covered by a bilateral treaty (Hallward-Driemeier 2003). In some regions, like Africa, most countries had by the early 2000s concluded bilateral treaties and signed multilateral agreements with international organizations. Ultimately, these regulations limit the capacity of developing country governments to constrain TNCs (Wade 2003). They also place serious constraints on the national development strategies of developing countries (Wade 2003; Adejumobi 2003; Shadlen 1999).

Mining Codes and the Natural Resource Sector

The mining sector attracts a substantial proportion of FDI in many developing/extractive economies, and from the perspective of political ecology, major changes in mining codes have been

instrumental in making peripheral resources both amenable and accessible to the needs of foreign capital accumulation. The structural adjustments of the 1980s reformulated mining codes to facilitate state withdrawal from the sector, as well as expanded opportunities for the private sector and increased various incentives for investors (UNCTAD 2005). In the ten year period from 1985 to 1995 over ninety countries globally adopted new mining laws or revised existing legal codes in an effort to promote foreign investment in their mining sector. Attracting foreign investors for economic growth and providing hard currency to developing countries is prioritized above other important social and environmental objectives (Tockman 2001; UNCTAD 2005). Unsurprisingly, one of the most consistent outcomes from the IMF imposed SAPS has been the intensification of natural resource extraction for export markets (Tockman 2001)

The reforms have certainly created a more favorable environment for foreign investors, have also undermined norms and standards in areas of crucial importance for social, environmental and economic development (Campbell 2003; Lissu and Curtis 2008; Akabzaa 2001). Developmental objectives that hampered these goals, such as measures that sought to retain greater earnings within the host country, or environmental regulatory measures, were at best placed in secondary position compared to policies to attract foreign investment and promote exports (Campbell 2003). The World Bank's 1992 Strategy for African Mining- the first systematic presentation of reforms considered necessary by the Bank- was based upon a survey that was sent to 80 mining companies, and recommended a stable legal and fiscal framework, contractual stability, a guaranteed fiscal regime, profit repatriation, rule of law, and so on. The report, however, did not articulate how the mining sector would contribute to broader developmental objectives of great import, such as the building of backward and forward linkages or the possibility of value-added processing of minerals (Campbell 2003). For example, the 1998 Tanzanian mineral code introduced as a result of a five-year World Bank financed sector reform project, for example, allows 100 percent foreign ownership, pegs royalty rate at a maximum of a mere 3 percent, and provides guarantees against nationalization and expropriation, among other incentives; a significant policy reversal from a country that once sought to build development based on African socialism and institute indigenous control over their means of production (UNCTAD 2005).

The loss of developing countries' capacities to retain earnings is apparent in the commodity boom of the late 2000s, which resulted in robust world market prices for African metals but, due to low taxation levels, relatively little revenue actually earned by African states. The Africa Progress Report 2013 found that many such policies have continued, even despite the commodity boom of the 2000s and the increased profit margins of mining and petroleum companies. For example, the report writes that until 2010, the average royalty payment on gold exports in Sub-Saharan Africa was only 3 percent, one of lowest in world. However, world prices of gold increased from \$300 to \$1,600 per ounce between 2000 and 2011, while investor profits increased at four times rate of government revenues (Africa Progress Panel 2013).

Further, the report states that revenues secured by many resource rich countries are very low in relation to the value of exports and especially when compared with international standards. In 2011, while Zambia's copper exports generated \$10 billion, government revenues from copper were only \$240 million, or 2.4 percent of export value. In the same year, exports of mining products from Guinea reached \$1.4 billion, representing 12 per cent of Gross Domestic Product (GDP), but government mining revenues were just \$48 million, or 0.4 per cent GDP (Africa Progress Panel 2013).

Another report, written by the German Development Institute, similarly finds that Sub-Saharan Africa generally failed to benefit from the high prices of mineral and energy commodities

from 2003 to 2008. While the extractive sector experienced strong sales revenues and high inflows of direct investments, the three case study countries of Zambia, Namibia, and Ghana indicate that they only profited 'more than moderately' from tax revenues during the commodity boom. In Zambia, the report finds that the copper and cobalt industry sold minerals to the value of over \$13 billion and benefited from nearly \$4 billion of FDI in the period from 2003 to 2008. However, the average implicit tax rate for the extractive sector in Zambia from 2003-2008 was below 2 percent, and consequently the government only raised tax revenues of about \$ 393 million in that same period. In Namibia, sales of minerals were worth \$9.4 billion, and FDI totaled \$ 2.6 billion in the period 2003-2008. In contrast, tax revenues only totaled about US \$893 million. Likewise, Ghana exported minerals and fuels worth \$7.7 billion and attracted over \$4 billion of FDI inflows from 2003- 2008. In contrast, tax revenues totaled only \$426 million from 2003 to 2008 when the average implicit tax rate in that period was 5 percent. Further, the report found that Ghana, if it had the same implicit tax rate of Australia, could have collected tax revenues of \$735 million in period 2003-2008 rather than \$426 million. Namibia could have raised government revenues an additional \$870 million, and Zambia nearly \$1.4 billion from 2003 to 2008 (Sturmer 2010).

Importantly, while the reforms adopted in the 1980s and 1990s may have initiated foreign investment regimes that were highly in favor of investors this trend has been, and continues to be, abetted by the corruption and collusion of local elites. The Africa Progress Report 2013, in a case-study analysis of the Democratic Republic of the Congo (DRC), argues that privatization of the DRC's minerals sector has been plagued by a culture of secrecy, informal deals and allegations of corruption, despite calls (and promises of) change towards transparency. With some of the world's richest mineral resources, DRC state companies are granting concessions to foreign investors, most registered offshore, that systematically undervalue natural resources. An analysis restricted to the years 2010-2012, and focusing on only five deals, finds that between 2010 and 2012, the DRC lost at least \$1.36 billion in revenues from underpricing mining assets that were sold to offshore companies. The report also cites a pervasive problem of tax evasion by offshore companies, and provides an estimate that firms that shift profits to lower tax jurisdictions cost Africa \$38 billion a year (Africa Progress Panel, 2013).

Ecological Imperialism Today: African Trade Flows in Physical Terms and FDI Inflows

Today foreign affiliates account for virtually all non-artisanal production in metals and minerals in countries such as Mali, Tanzania, Zambia, Botswana, Gabon, Ghana, and Namibia among others. In oil and gas, foreign affiliates account for over half of the production on average in Sub-Saharan Africa (UNCTAD 2007). Further, the first decade of the 21st century has witnessed a virtual scramble for the totality of African resources, including its water supplies, timber, fisheries, minerals and fossil fuels, with tens of millions of hectares of land already leased to foreign investors. The proximate cause for this 'new scramble for Africa,' as some scholars have dubbed it, is high commodity prices. The deeper causes includes the tension between a growing global capitalist economy and a world of finite natural resources- and, importantly, the outcome of a historical struggle that has made African ecologies both cheap and accessible (UNCTAD 2005, 2012; Frame 2014).

According to the United Nations Conference on Trade and Development (UNCTAD) 2012 report, the volume of Africa's material trade in physical terms (metric tons) rose substantially, reflecting the global interest in African resources in the twenty-first century. Overall, the volume of Africa's material trade in physical terms rose from almost 260 million tons in 1980 to 506 million tons

in 2008. Fossil fuels, followed by specific metals, are African countries' main exports in physical terms. After a decrease during the mid-1980s, exports of fossil fuels reached a peak in 2008 amounting to 534 million tons.

In addition to an increase in exports in physical terms, the new scramble for Africa is reflected in part in increased FDI inflows. According to the UNCTAD World Investment Report 2013, investment in extractive industries remains the most important driver of FDI to Africa. In East Africa, for example, recently discovered gas reserves in Tanzania and oil fields in Uganda resulted in increased FDI, as inflows to the region rose from \$4.5 billion in 2011 to \$ 6.3 billion in 2012. Central Africa also saw its inflows rise to \$10 billion, a record high, maintaining a trend of increasing FDI into natural resources from mining transnational corporations since 2010. In West Africa, investment in oil-producing Ghana remained stable at \$3.3 billion and mining interests in Mauritania helped that country's inflows double to \$1.2 billion. In the Southern African region, some countries saw substantial increases. Inflows to Mozambique doubled to \$ 5.2 billion, attracted by the country's huge offshore gas deposits (UNCTAD 2013). Some scholars such as Ferguson (2005) argue this creates a form of enclavism and uneven development as foreign investment is centered largely on natural resource industries that lack linkages to the broader economy. Ecologically, despite major reserves, international trade and foreign investment are contributing to the depletion of region's stocks of non-renewables (UNCTAD 2012).

Conclusion

The connection of the ongoing neoliberalization of nature to the broader issue of imperialism is crucial to understanding the accumulation of capital, and biophysical resources, at a global level. Contextualizing the neoliberalization of nature as a historical phase of ecological imperialism, and in particular, as a counter-counter-movement against the economic nationalist policies of the post-colonial era, allows for a radical political ecological critique of some of the most important economic policies currently governing international trade and foreign investment in the periphery of the world-system. To do so, this essay brought together two important sets of literature from critical political ecology for the first time; the neoliberalization of nature literature and the Marxist ecological literature on ecological imperialism. Ecological imperialism is a dynamic and dialectical process, and the current form it takes is shaped from a complex mix of the demands of capital accumulation, biophysical necessities of industrialization, as well as social factors such as Third World resistance.

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