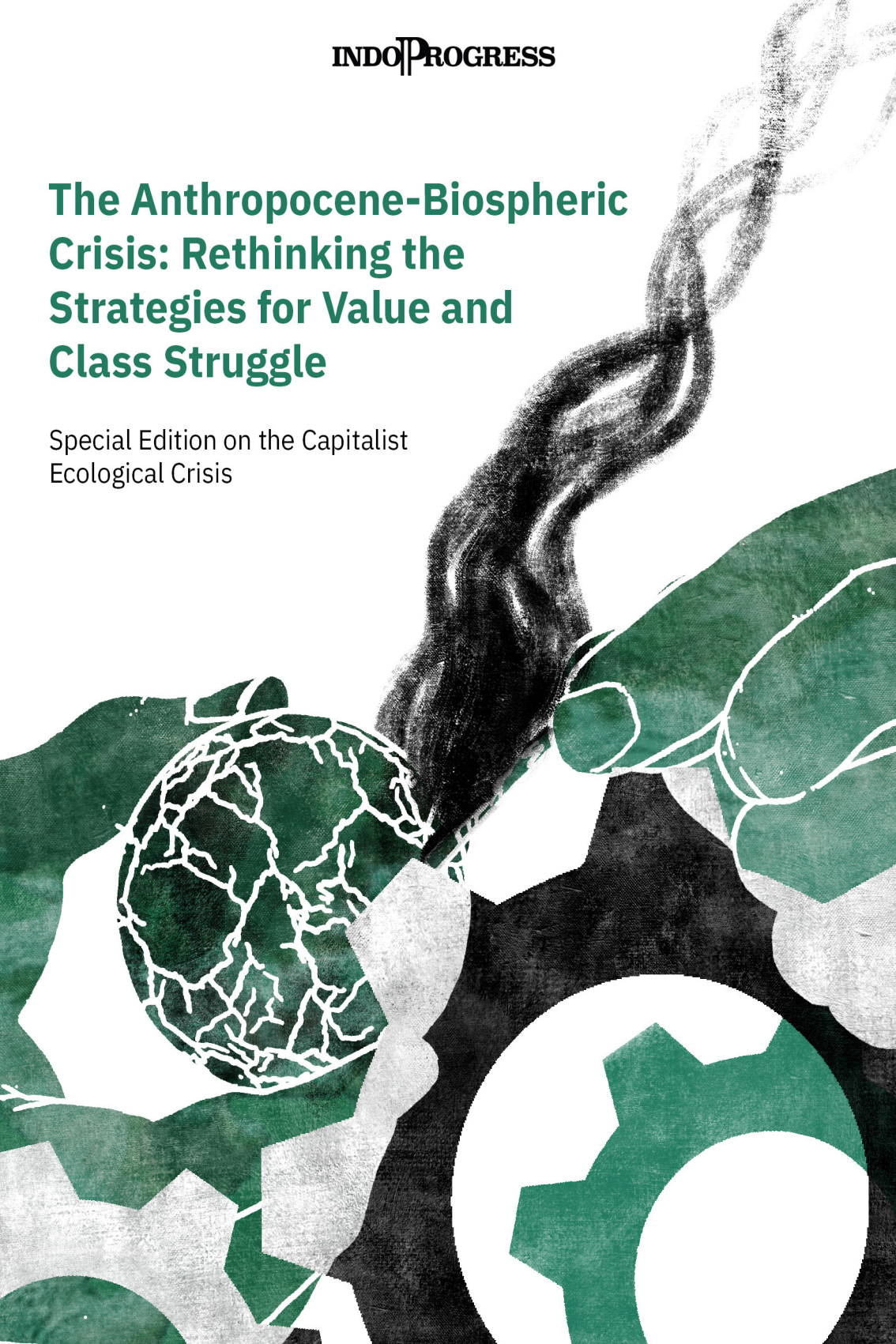
INDOPROGRESS

The Anthropocene-Biospheric Crisis: Rethinking the Strategies for Value and Class Struggle

Special Edition on the Capitalist Ecological Crisis



Jurnal IndoPROGRESS (JIP) is an Indonesian-based journal published twice a year (February and August) to advance Marxist understanding and critique of contemporary capitalism. JIP offers analyses of political economy, and discussions on contemporary social theory, state power and social movements, evolving modes of production, media and literature, as well as history and philosophy.

All articles are peer-reviewed and published in Bahasa Indonesia and English, and available for open access. JIP accepts original and conceptual articles, and curates, translates and republishes excellent analyses on contemporary dynamics of capitalism, especially in Indonesia and Southeast Asia. JIP welcomes thematic submissions for special issues proposed by a group of authors, and organises online panels to promote intellectual discussions.

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THE CAPITALIST ECOLOGICAL CRISIS

Board of Editors

How do we reflect on the anthropocene-biospheric crisis? How do we rethink strategies for value and class struggles? These are the questions that guide this special edition.

"Labour is *not the source* of all wealth. *Nature* is just as much the source of use values as labour, which itself is only the manifestation of a force of nature," thus says Marx in *Critique of Gotha Program* (1875). More than a century ago, Marx already stressed the central role of nature as the source of use values, more so than labour. Amid today's never-ending ecological crisis, and on the other hand, the persistence of capital's profit accumulation out of the biosphere, how do we make of nature's prowess to create value?

The present volume of Jurnal IndoProgress gathers several scholars from the Marxist tradition who endeavour to tackle today's ecological problems from the perspective of critique of capitalism. Marx's historical materialism situates nature in relation to value and work. However, the latter is much less studied among progressive, critical academics and activists when dealing with environmental and ecological crises. Despite their frequent citings of Marx, crucial Marxian tenets such as 'value' and 'work' tend to be overshadowed by the overly-popular—to the point of being turned into commonsensical jargon—terms of 'exploitation' and 'enclosure'. In praxis, such analyses risk self-degeneration into demonisation and melancholia (Brown, 1999; Traverso, 2017). 'Capitalism' is becoming an epithet for 'evil' instead of understanding it as a rational object that needs to be put under analytical scrutiny. As such, the affordable conclusion of such analyses is distorted into ethico-moralist cries

as material strategic planning for historically-situated class struggles in seizing the means of value production become more and more marginalised.

This Special Issue endeavours to situate itself in the interventions done by thinkers in the tradition of Marxism that aim to overcome the Cartesian dualism, which sees humans and nature as two separate entities; and capitalism as their externalisation. These thinkers, in their respective dosage, set out to investigate what capitalism has done to nature, as it paradoxically sets capitalism apart from the very nature it exploits. Problematically, they embark on how capitalism works with nature. Such is a view that takes capitalism as part and parcel with nature in a relationship that István Mészáros (1995) calls the 'social metabolic reproduction'. This is a notion fitting to times when the human body and medical engineering are intertwined and materialised in such massive ways during the global pandemic. Kohei Saito's (year) article situates itself precisely within this problematique. Contra to Jason Moore's (year) claim that Marx's approach is dualistic, Saito demonstrates that Marx's dualism is unavoidable if we are to comprehend the historical intricacies and specificities of capitalism. Accordingly, capitalism separates and sequesters the monistic unity of men and nature. The apparent dualism of Marx's analysis manifests his dialectical materialist commitment to shed light on the metabolic rift between man and nature, which is undeniably the result of capitalist intrusion. In this rift, capital "exhausts labour power and robs nature" (source, year, page).

In *Capital,* Marx notices that capitalism's interest towards nature is quite palpable in its manoeuvre in "robbing the soil by increasing its fertility" (Marx, 1976, p.?). The conquest of capitalism in expanding and intensifying capital accumulation by way of robbing the soil, two of which take place in the agricultural and extractive/mining sector. Arianto Sangadji's contribution discusses how the conquest in magnifying and intensifying the accumulation of mining capital, in its turn aggravate ecological crises. When capitalism brings about a rift in men and nature's metabolic relations, it actively transforms the constitution of life itself. Sangadji demonstrates, in this sense, the formation of proletarian

class as a result of the mining operations in the islands of Sulawesi and Papua.

The robbing of the soil by capital also uses the hand of the state. In this sense, soil robbing ironically appears with a legalistic face. In his contribution to the present volume, Roy Murtadho traces the genealogy of the reduction of the idea of 'agrarian reform' as a concept into no less than the legalisation and certification of land for the interest of big capital. Of interest in Murtadho's intervention is how the populist root of agrarian reform is so permeable by the co-optation of neoliberal agenda as that which the Post-Washington Consensus directs. Nonetheless. The two were never meant to be together forever; at least, this encouraged Murtadho to be optimistic amidst the public agenda of agrarian reform. By exploiting the inherent contradiction (between populism and neoliberalism) within the agenda of agrarian reform in Indonesia, Murtadho suggests several strategic points for the progressives to seize the agrarian reform agenda from the clutch of neoliberalism.

One crucial thing that deserves no less critical attention is how often the vocabularies of those who claim themselves to be progressive slip into the mire of liberal humanist criticism. In ecological issues, the progressives also often share a term or two, and thus political agenda, with those of the critical liberals. One thing that frequently comes to the fore is the notion of 'social-ecological justice'. Bosman Batubara attempts to shed light on the matter in a more comprehensive manner and away from the artificial use of the word in activists' circles. He shows how the matter of justice in the social-ecological context will never be sufficient just by focusing on workers/labours; it needs to also take into account those who are not workers/labours, which are not involved in the production process. By discussing the drought of shallow wells in Yogyakarta as an impact of the nearby hotel industry, Batubara attests that analysing the hydraulic cycle of well water may grant better understanding on how hostelry capital snatches value not exclusively from labour, but also from the people in the vicinity who suffer from drought. Batubara insists that the matter of ecological justice/injustice requires an embedding to the discussion of the production process instead of the narrative of fulfilment like one commonly found in liberal narratives.

Besides providing analyses, the present volume of Jurnal IndoProgress brings an intervention from the scholars working in the social-political movement. Rosalinda Pineda Ofreneo's contribution enriches and deepens Marx's idea of nature by complementing it with the ecofeminist perspective. With this, Ofreneo elucidates important accounts of the lineage of patriarchy in capitalism's predatory nature. Ofreneo provides analytical intervention and champions materialistic ecofeminism that provides practical ideas to remedy men's relation with nature as well as offer ways to unify diverse, progressive social movements. In his turn, Muhammad Ridha's book review appraises the People's Green New Deal proposal from Max Ajl. More importantly, in light of its difference with the mainstream Green New Deal political agenda that is becoming increasingly popular among liberal environment activists.

Last but not least, this present edition can never see the day without the helping hands of the editorial team and writers. We are grateful to Rosalinda Pineda Ofreneo and Kohei Saito for their permission to republish (and translate into Indonesian) their articles in this volume. Our thanks also go to the editors from *Prisma* for allowing us to republish and translate the articles from Roy Murtadho, Bosman Batubara, and Arianto Sangadji. We genuinely hope that the collection of articles in the present volume may ignite thinking and movement in transforming the metabolic rift brought about by today's capitalism.

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MARX IN THE ANTHROPOCENE: VALUE, METABOLIC RIFT, AND THE NON-CARTESIAN DUALISM

Kohei Saito[1]

ABSTRACT

Characteristic to the Anthropocene is global ecological crisis that humans have created without knowing any effective solution. Beyond the division of humanities, social sciences and natural sciences, there thus emerged a series of serious attempts to figure out an adequate theoretical framework for comprehending the formation, development and future of the Anthropocene. Ecological Marxists also actively participate in this discussion to problematize the relationship between the Anthropocene and capitalism, which results in a new debate. While second-stage ecosocialists such as John Bellamy Foster and Paul Burkett are trying to connect the general issues of the Anthropocene to the concept of the 'metabolic rift', Jason W. Moore not only replaces the concept of the Anthropocene with the 'Capitalocene' and rejects the metabolic rift approach as falling into the 'Cartesian division', which cannot aptly theorize the nature of today's crisis. Critically analyzing Moore's 'monist' understanding of the history of capitalist development, this paper examines why Marx used apparently 'dualist' terminologies in his analysis. Moore claims that his post-Cartesian approach is the correct interpretation of Marx's political economy, but a closer examination of Marx's method reveals his non-Cartesian dualism, which functions as a basis for a radical critique of today's ecological crisis. Furthermore, this paper argues that Marx's theory of metabolism must be understood in relation to his intensive research on natural sciences and non-Western societies to envision possibilities of the revolutionary subjectivity.

Keywords: Ecology, Anthropocene, crisis, capital, Ecosocialism, metabolism

THE LIMITS OF THE EARTH

It was in 2002 when Paul Crutzen, a Nobel prize winner in chemistry for his research on ozone holes, in his article 'The Geology of Mankind', published in Nature, proposed the new concept of the 'Anthropocene' as a designation for the latest geological epoch (Crutzen, 2002). With this concept he intended to point to the most recent period of time in the history of the earth whose determining factor consists of various human activities. These are accompanied by the emission of greenhouse gas, massive monoculture, excessive deforestation and numerous experiments of nuclear bombs which have significantly altered the natural environment, leaving their ecological footprints everywhere on the surface of the planet.

Ironically, although mankind's impact upon the earth has become so encompassing and powerful today, its modern dream to realize the 'absolute mastery over nature' did not come true. On the contrary, it sounds more reasonable to argue that the Anthropocene is characterized by a definite failure of this modern project. Global warming, desertification, extinction of species, nuclear catastrophe in Chernobyl and Fukushima are all characteristic to today's ecological crises, and they threaten the planet as uncontrollable ecological disasters. As a series of research conducted by Johan Rockström from the Stockholm Resilience Center and Will Steffen from the Australian National University warns us, four 'planetary boundaries' in nine earth systems (climate change, loss of biodiversity integrity, nitrogen and phosphorus flows, land-system change, ocean acidification, freshwater consumption, stratospheric ozone depletion, atmospheric aerosols loading, chemical pollution) are already disrupted, reaching a level where an irreversible and extreme environmental change is likely to occur if this tendency continues (Rockström et al., 2009; Steffen et al., 2015). It is probable that other boundaries will be superseded—or they might have been already superseded because some boundaries cannot be measured by current technology—, but one cannot predict with certainty what will actually happen. The 'dialectic of Enlightenment', with particular regard to the domination over nature, is at work here: Enormous development of productive forces, which enables humans to transform the entire earth without leaving any part untouched, makes it at the same time almost impossible to organize a sustainable social production. Mass production and mass consumption under anarchic competition among modern atomistic individuals

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undermines its material conditions. This dialectic of Enlightenment, which began with the 'death of nature' (Merchant, 1990), now casts a dark shadow on the future of the Anthropocene.

Anthropocene's ecological disaster reminds us of Friedrich Engels famous warning: 'Let us not, however, flatter ourselves overmuch on account of our human victories over nature. For each such victory nature takes its revenge on us. Each victory, it is true, in the first place brings about the results we expected, but in the second and third places it has quite different, unforeseen effects which only too often cancel the first' (Marx & Engels, 1987). According to Engels, ancient civilizations in Mesopotamia, Greece, and Asia Minor, despite their high levels of development, had to collapse because their squandering social production neglected the laws of nature and undermined their own material foundation of production. Engels believed that modern capitalist production too, which only seeks to maximize profit in a shortsighted manner, would be following the same path to its decay. This remark was often highlighted as a proof for Engels' ecological interest hidden in his otherwise highly abstract Dialectics of Nature (Salleh, Goodman & Hosseini, 2015). Is Engels' notion of a 'revenge of nature' apt to adequately grasp the ecological crises in the Anthropocene?

ANTHROPOCENE, OR CAPITALOCENE?

Even self-claimed Marxists, confronted with worsening environmental problems in capitalism as well as in 'really existing socialism', repeatedly pointed to the theoretical limitation of Marx and Engels as a characteristic of nineteenth-century social theory. Accordingly, their vision of socialism is based on the idea of hyperindustrialism (or Prometheanism) aiming at the absolute mastery over nature by unlimited development of productive forces. Therefore, their optimistic belief in technological progress proved useless for critical theory of the new age that takes 'limits of nature' more seriously as to the coexistence of humans and nature (Benton, 1989). Those self-proclaimed Marxists such as Ted Benton, André Gorz and Alain Lipietz, whom John Bellamy Foster (2014) categorized as 'first-stage ecosocialists', pointed to the acute necessity to unify Red and Green thought for the rehabilitation of the left movement in the 1980s and 90s, but they actually intended to supplement ecological aspects, which do not exist in Marx's own critique of political economy. In doing so, the first-stage ecosocialists advocated abandoning Marx's theory of value, class and socialism and tried to subsume the traditonal labor movements completely under newly emerging environmental campaigns after the collapse of 'really existing socialism'.[2]

However, the discursive constellation around 'Marx's ecology' has radically changed since then. It is actually no exaggeration to say that those who call Marx's theory 'anti-ecological' are now a minority among serious Marxist scholars and activists. This significant change mainly owes to two American Marxists. After 2000, the 'second-stage ecosocialists' represented by Paul Burkett (1999) and Foster (2000) convincingly showed through their careful analyses of texts by Marx and Engels that ecological thoughts of these founders of socialism were already seriously concerned with environmental issues and thus are still highly relevant today in order to comprehend and criticize the current ecological crises as a manifestation of the contradiction of the capitalist mode of production. Especially, Foster carefully analyzed Marx's research in the field of natural sciences and revealed the theoretical importance of the concept of 'metabolism' (Stoffwechsel) through a careful examination of the seventh edition of Justus von Liebig's Agricultural Chemistry. Foster's examination explicated that Marx regarded 'metabolic rifts' under capitalism as a fatal distortion of the relationship between humans and nature and even highlighted the importance for the socialist strategy to fix these rifts to realize a sustainable production in the future society. Ecology was integrated as an important object of analysis for Marxism.

In fact, the concept of 'metabolism' soon came to be regarded as a 'conceptual star', since it promised to overcome the longtime antagonistic relationship between Red and Green and provided environmental studies with a methodological foundation for critical analyses of contemporary ecological issues (Fischer-Kowalski, 1997). Especially in the U.S., a new current of so-called 'third-stage ecosocialists' emerged beyond a

2 This anti-ecological characterization of traditional Marxism, however, remains oblivious to a long tradition of classical Marxists who were greatly concerned with environmental issues even before the emergence of political ecology. The list should include Herbert Marcuse, Shigeto Tsuru, Barry Commoner, Paul Sweezy, István Mészáros. (See Foster and Burkett, 2016).

small far-left circle of classical Marxism and went on to analyze the limitations of sustainability under capitalism in various fields such as global warming, agriculture and fishery (Klein, 2014; Longo et al., 2015).

Marxists are now eager to integrate the new concept of the Anthropocene which has become another conceptual star in environmental studies, and they study the impacts of human activities of production and consumption upon the planet from multiple perspectives (Angus, 2016; Foster, 2016). Nevertheless, the academic validity of the concept of the Anthropocene is still controversial, and there is no consensus in terms of when this geological epoch actually started. For example, while Crutzen finds the origin of the Anthropocene in the Industrial Revolution in the eighteenth century as the beginning of a rapid increase of carbon dioxides in the atmosphere, others see its inception in the 'use of fire' as a trigger to the later usage of fossil fuels and thus as the ultimate cause for the emergence of the antagonistic relationship between humans and nature (Raupach & Canadell, 2010). Ian Angus (2016) argues that the Anthropocene started with the 'Great Acceleration' around 1950.

Notably, there are also critiques of the Anthropocene concept on the Marxist side: Andreas Malm, author of Fossil Capital, points to the possible fallacy of 'fetishism' in that concept. According to Malm, identifying the ultimate cause of today's environmental catastrophe in the 'use of fire' reduces the problem to a certain 'essential' human activity and thereby abstracts from the social and material relations. Consequently, it prevents us from investigating the ecological crises in relation to the modern social system and its specific relations of power, capital, hegemony and technology. Furthermore, the discussion about humanity as such inherent in the term 'Anthropocene' conceals economic inequality brought about by technological changes characteristic to the modern usage of coal and oil. Geographical and political inequalities in emission of greenhouse gas clearly indicate that humans as such are by no means responsible for today's global climate change. The Anthropocene narrative 'denaturalizes' the current ecological crisis only to 'renaturalize' it as human essence, so that it cannot critically examine the capitalistically constituted social relations as a historically specific cause of today's environmental crisis (Malm & Hornborg, 2014).

Without questioning the existing mode of production and its specific technologies, the proponents of the Anthropocene aspire to further technological development and 'domination over nature' as a solution to the coming ecological catastrophe. For example, Crutzen proposes as a geoengineering solution to disseminate sulfate aerosol in the atmosphere to cut the sun light and to cool down the planet (Crutzen, 2006). Such scientific discussions are often lacking the ethical and normative considerations whether some elites in developed countries are allowed to make a political decision that has a significant impact upon the entire planet, while the people who are more likely to experience the negative consequences are excluded from the decision-making process. Opposed to the Anthropocene's line of argument, Malm rightly emphasizes the importance of examining how capitalism develops a certain form of technology, and how it reorganizes and even destroys the metabolic relationship between humans and nature through its appropriation of economic, political and geographical inequalities. In this vein, Malm proposes an alternative geological epoch the 'Capitalocene' instead of the Anthropocene in order to highlight the 'geology not of mankind, but of capital accumulation.... [C]apitalist time, biochemical time, meteorological times, geological times are being articulated in a novel whole, determined in the last instance by the age of capital' (Malm, 2014). His point is that the surface of the entire planet is covered by capital's footprints, and it is the logic of capital that needs to be analyzed as the organizing principle of the entire planet over the past 200 years.

Inspired by Malm's argument, Jason W. Moore, advocator of world-ecology analysis, also adopted the concept of the Capitalocene, rejecting the ahistorical understanding of human-nature-relationship suggested by the Anthropocene narrative. Yet it is noteworthy that Moore criticizes Engels' 'revenge of nature' on humans from the perspective of the Capitalocene. According to him, Engels' theoretical limitation is apparent in his 'static' and 'ahistorical' treatment of nature. His conceptualization consequently suffers from the 'fetishization of natural limits' (Moore, 2015). This is an inevitable consequence, Moore argues, because Engels' ecological critique is trapped in a 'dualism' of 'Society' and 'Nature', two independent entities, so that his analysis can only con-

firm the obvious fact that capitalism destroys nature. Moore argues that Engels' conclusion is correct but at the same time somewhat banal. What is more important for a critical analysis of the Capitalocene is to analyze the world-historical process of how humans and nature are incessantly 'co-produced' within the web of life.

Moore's critique, however, does not end with simply rejecting Engels' idea. Engels has been criticized by the first-stage ecosocialists anyway. Moore's main opponent now is actually Foster and his concept of metabolic rift. This rejection is surprising, considering the concept's popularity among Marxists as well as the fact that Moore used to employ Foster's approach to grasp the unique historical relationship between humans and nature under capitalism (Moore, 2000). All the same, in recent works such as Capitalism in the Web of Life, he altered his attitude toward the theory of metabolic rift, arguing that the 'Cartesian dualism' of the rift approach only deals with the 'consequences': The concept of metabolic rift represents the highest stage of 'Green Arithmetic': Society plus Nature equals Crisis (Moore, 2015). According to this scheme, humans' active agency brought about an ecological crisis by working upon static and passive nature, but it cannot adequately analyze the development of historical capitalism 'through' nature, i.e. the dialectical 'co-production' of society and nature. Although the problem of nature was added to a long list of Marxist agenda, Moore believes that this is by no means enough. He instead proposes the new paradigm of 'worldecology' to radically rethink the crisis of 'modern-in-nature' without dualism.

What distinguishes Moores critique of the metabolic rift approach from that of the first-stage ecosocialists is quite noteworthy: He criticizes Foster and Engels, not Marx. On the contrary, he seems to defend his own interpretation as the true successor of Marx's 'theory of value' and 'philosophy of internal relations', claiming that only by combining his critique of political economy with his ecological analysis the potential of Marx's theory in the Capitalocene can be fully developed (Moore, 2015). Foster's interpretation, on the contrary, falls into an 'epistemic rift' between 'political economy' based on 'theory of monopoly capital' (Paul Sweezy and Paul A. Baran) and 'ecology' based on 'theory of metabolism' (György Lukács and István Mészáros). As is clear from Moore's

critique of Foster, the debate over whether 'Marx's ecology' exists or not is over. Contemporary Marxist controversy rather centers on the question of an adequate method to conceptualize the relationship between humans and nature and its contradictions in the Anthropocene.

ECOLOGICAL THEORY OF VALUE

Central to Moore's ecological theory of value is Marx's 'law of tendency of the profit rate to fall'. The rate of profit is defined as the division of surplus value (s) by a sum of constant (c) and variable capital (v): Marx famously argued that the profit rate tends to fall with the development of capitalism because the organic composition of capital (c/v) increases faster than the rate of surplus value (s/v), which causes an immense difficulty for capital accumulation.

Obviously enough, capitalists seek to maintain a higher rate of profit and to attain a larger amount of it. One way to achieve this aim is to increase the amount of surplus value by extending the work day (i.e., the production of absolute surplus value) and by intensifying labor. Another one is to minimize the increase of constant and variable capital as far as possible. As a countermeasure to the falling rate of profit due to the increasing organic composition of capital, earlier literature paid attention to the economy and cheapening of the 'fixed capital', especially machines being introduced thanks to the development of productive forces. By contrast, Moore focuses on Marx's discussions of the economy of 'circulating capital'. He argues that capitalism's lifeline is an abundant and cheap supply of what he calls 'Four Cheaps', namely, 'labor-power', 'food', 'energy' and 'raw materials'. Moore emphasizes their highest importance for capitalism: 'The law of value in capitalism is a law of Cheap Nature' (Moore, 2015).

It is not a coincidence that Moore includes 'labor-power' in 'Cheap Nature'. Capital, appropriating various forces of nature without paying for them, increases productive forces and attains extra surplus value. But Moore's point is that this 'Cheap Nature' includes a large number of humans such as the poor, women, people of color, and slaves. Capital not simply expropriates natural resources but also constitutes and thoroughly utilizes gender hierarchy, violent colonial rule, and tech-

nological domination over nature to secure profitability and to expand the capitalist mode of production. Moore argues that capitalism did not simply develop through the exploitation of (male and white) workers. Rather, it is significantly dependent on the appropriation of the 'unpaid work' of Four Cheaps including labor-power (Moore, 2015). Thus, the neat separation of 'Society' and 'Nature' does not work. Moore rejects an inadequate dualist understanding that capitalism works upon nature as a passive medium and destroys it. He instead proposes to analyze how capitalism developed and worked 'through' nature and how it is not only co-producing nature and but also being co-produced by nature (Moore, 2015).

Capitalism radically transforms and reorganizes the entire world without leaving any space on the planet untouched and creates an environment most favorable to its boundless self-valorization, resulting in the Anthropocene. However, the project of capitalism as a historical system confronts various difficulties in reality: natural resources may exhaust, and the supply of raw materials may suddenly diminish in a bad season, or political stability in colonies may be lost. Facing these moments of acute crisis of accumulation, capital, in an attempt to overcome them, develops new use-values, discover substitute materials and invent new technologies to exploit natural resources in hitherto inaccessible places. Marx wrote in the Grundrisse that this tendency of capital produces a 'system of general utility' on a global scale, creating 'the universal appropriation of nature as well as of the social bond itself by the members of society':

Hence exploration of all of nature in order to discover new, useful qualities in things; universal exchange of the products of all alien climates and lands; new (artificial) preparation of natural objects, by which they are given new use values. The exploration of the earth in all directions, to discover new things of use as well as new useful qualities of the old; such as new qualities of them as raw materials etc.; the development, hence, of the natural sciences to their highest point. (Marx, 1993)

However, even this 'great civilizing influence of capital' does not last forever. Capital, with its boundless drive for a larger surplus value, is increasing productive forces and expanding the scale of production,

but nature cannot keep providing its supply as fast as capital demands.[3] The time necessary for production and reproduction is significantly different between capital and nature, and a higher organic composition of capital tends to induce 'underproduction' of raw materials in the long run. Entropy increases, available energy decreases, and natural resources get exhausted. No matter how hard capital attempts to discover new frontiers of nature, there is no infinite space on the earth. Hence the 'tendency of the ecological surplus to fall' (Moore, 2015). As a result, the appropriation of the unpaid work of Cheap Nature becomes increasingly hard, and the 'end of Cheap Nature' lets the rate of profit go down. Capital is not an abstract movement of value (M-C-M'), its dependency upon Cheap Nature proves decisive for the development of capitalism.

Moore shows that the accumulation of capital is dependent not only on the exploitation of labor but also on a series of other material factors, not least on the fact that capital and nature share an inseparable relation of co-production. This understanding certainly helps to refute a stereotypical critique of Marx's theory as economic determinism. In recent years, Nancy Fraser, critically reflecting on the affinity of recent feminism and neoliberalism, advocates the necessity of a 'multistranded' critique that takes into account the complex interrelations of capital, gender, ecology and the state (Fraser, 2014). In this vein, she argues that Marx did not pay enough attention to issues such as social reproduction and environmental protection because he was mainly concerned with workers' exploitation and the possibilities of class struggle. Fraser deems it necessary to supplement Marx's critique of capitalism by revealing 'background conditions of possibility' for the existence of capital (Fraser, 2014). According to Fraser, since capital cannot valorize itself in reality without social reproduction, external nature, and political stability—which Marx rather took for granted—, today's critical reflection on capitalism, corresponding to this 'expanded view of capitalism', would have to include those spheres. However, she only juxtaposes them without explaining how they actually relate to each other and how they constitute a totality under capitalism in a multi-stranded manner. Fra-

3 Marx argued that 'it was likely that productivity in the production of raw materials would tend not increase as rapidly as productivity in general (and, accordingly, the growing requirements for raw materials).' (Lebowitz, 2005)

ser simply adds new objects of analysis to critical theory without contributing to an understanding of their co-production within capitalism. Fraser's 'additive' critique—we may name it 'Left Arithmetic'—cannot explain the specific logic of organizing the multi-stranded spheres in the capitalist mode of production.

Despite Fraser's critique, Marxists need to develop a 'multi-stranded critique' of capitalism based on the theory of value. Marx's theory of value is not a theoretical tool for revealing the exploitation of workers by capitalists. Rather, it provides a method to analyze how capital, in accordance with its own logic of self-valorization, reorganizes and transforms various spheres such as family, nature, the state, and appropriate natural elements as 'free natural power of capital' (Marx, 2015).

Furthermore, although this 'appropriation' of material wealth in the era of neoliberalism is now often analyzed as an 'accumulation by dispossession' enforced by state (and other institutional) violence, which might be regarded as a reinterpretation of Marx's theory of 'primitive accumulation' (Harvey, 2009).[4] Nevertheless, it is necessary to examine the appropriation precisely as a manifestation of the reified power of capital because it is the 'normal capitalist process of exploitation' (Brenner, 2006). For example, the exploitation of house work and the squandering of natural resources provide an indispensable material foundation for capitalist production, but it does not require additional costs. This 'free natural power' has a singular significance for capital as Moore discusses it as 'unpaid work' of nature. The power of nature goes into the labor process with a number of positive effects to capital, but does not enter the valorization process. Thus, though it does not produce value, it possesses a special utility unique to value production because its increase of productive forces and its reduction of production costs produce extra-profit. Capital, seeking after the possibilities to appropriate this natural power, thoroughly reorganizes the fields of social reproduction and nature—sometimes accompanied even by state violence.

Fraser is wrong when she says that Marx neglected background conditions of capitalism and that he was mainly concerned with the exploitation of workers in factories. Marx was greatly interested in those spheres because capital is in many ways interwoven with social reproduction and natural resources as well as with the development of technologies to utilize them. This is why a prevailing ecosocialist claim, namely, that the capitalist system would destroy the environment due to its indifference to nature, also reveals an insufficient understanding of Marx's ecology. On the contrary, capital has a great interest in nature to a considerable extent, but precisely this interest turns out quite problematic. Since the development and reorganization of nature by capital is not founded on the principle of sustainable production, but on the logic of value abstracted from material aspects of production, the incessant technological revolution in the production process only aggravates the disharmonies in the metabolic interaction between humans and nature: 'Capitalist production, therefore, only develops the techniques and the degree of combination of the social process of production by simultaneously undermining the original sources of all wealth—the soil and the worker' (Marx, 1976).

Marx's value theory must not be too narrowly understood, as if it was limited to class struggle. Value theory is not simply a tool for disclosing the exploitation of workers, but rather for comprehending the capitalistically constituted 'metabolism' between humans and nature. In other words, it provides us a methodological foundation for analyzing how the penetration of the reified power of capital into various spheres transforms and disrupts both society and nature. Fraser's critique misses the simple fact that it was obvious already to Marx that capital is dependent on 'background conditions of possibility' of gender, nature and the state. When he developed his theory of value, Marx actually aimed at analyzing the process of capital accumulation in which capital radically alters material dimensions of these spheres and finally undermines the material conditions of sustainable production. In other words, Marx did not solely focus on the issues related to labor, but rather on the contradiction between value and its background conditions. Thus, he provided a theoretical framework to understand how elements excluded from value production are utilized for maximizing profit.

4 Fraser (2014, 60) also affirmatively refers to Harvey's concept of 'accumulation by dispossession

As seen above, Moore also emphasizes the importance of Marx's value theory to extend the scope of his critique of political economy. This is certainly an important step forward. Yet he goes even further beyond Foster's ecological analysis which does not sufficiently take value theory into account. To highlight the uniqueness of his own contribution, Moore underlines the difference between 'Cartesian dualism' and 'post-Cartesian monism', arguing that the latter alone is the correct interpretation of Marx's ecology. Nevertheless, it is strange that Moore does not mention Marx's own concept of 'rift', when he, for example, writes: 'Rather than ford the Cartesian divide, [Foster's] metabolism approaches have reinforced it. Marx's "interdependent process of social metabolism" became the "metabolism of nature and society". Metabolism as "rift" became a metaphor of separation, premised on material flows between Nature and Society' (Moore, 2015). 'Metabolism of nature and society' is Foster's formulation, and thus it sounds as if Foster produced the dualist understanding of metabolism in favor of the concept of metabolic 'rift', distorting Marx's original and post-Cartesian expression of 'interdependent process of social metabolism'. However, the passage to which Moore refers, shows that Marx himself already thought of a concept of rift:

Large-scale landownership, on the other hand, reduces the agricultural population to a constantly decreasing minimum and confronts it with a constantly growing industrial population conglomerated together in large towns; in this way it produces conditions that provoke an irreparable rift in the interdependent process between social metabolism and natural metabolism prescribed by the natural laws of the soil.[5]

Moreover, this passage shows that Moore arbitrarily cuts Marx's original sentences in favor of his monist understanding of capitalism in the web of life, although Marx explicitly highlighted 'an irreparable rift in the interdependent process between social metabolism and

5 Engels modified this passage. The new translation of Marx's economic manuscript of 1864/65 regrettably misses this modification and simply reproduces the old translation: 'In this way it produces conditions that provoke an irreparable rift in the interdependent process of social metabolism, a metabolism prescribed by the natural laws of life itself' (Marx, 2015).

natural metabolism'. Did he also fall into the 'Cartesian divide' by mistake?

DUALISM OF 'FORM' AND 'MATERIAL'

Moore criticizes the separation between 'Society' and 'Nature' as the 'Cartesian division' and at the same time puts forward a new monist understanding of the human-nature-relationship, 'oikeios', but this kind of epistemological critique reminds us of Marx's famous thesis: 'The philosophers have only interpreted the world, in various ways; the point is to change it' (Marx & Engels, 1987). Thereby Marx rejected Feuerbach's philosophy of essence (Wesensphilosophie) that aimed at enlightening the masses by pointing out that God, an alienated omnipotent being, is nothing but a projection of humans' own infinite essence as 'species-being'. Marx argued that it is not sufficient to reveal what the essence of Christianity is, and on his part posed the question in a 'materialist manner', namely, why and how people accept such an illusion and it actually dominates people's life (Marx, 1976).

Similarly, it is not enough to replace the dualism of society and nature with monism. Marx recognizes the necessity to explain under which social relations this dualism comes to possess real force. In other words, when Marx describes it in a dualist manner, it is not because he wrongly fell into the Cartesian dualism, but because the social relations exert a unique social power in reality, which has become an independent object of scientific investigation. If one is to claim a 'correct' interpretation of Marx's value theory, one ought to take Marx's intentional separation between society and nature under capitalism more seriously. In this context it is noteworthy that after parting from Feuerbach's philosophy, Marx made it clear in The German Ideology that this materialist analysis needs to start from the problem of 'labor' as a unique human act of production: 'All historical writing must set out from these natural bases and their modification in the course of history through the action of men.... They themselves begin to distinguish themselves from animals as soon as they begin to produce their means of subsistence, a step which is conditioned by their physical organization' (Marx & Engels, 1987).

Marx later defined labor in Capital as the mediation of the metabolism between humans and nature: 'Labor is, first of all, a process between man and nature, a process by which man, through his own actions, mediates, regulates and controls the metabolism between himself and nature' (Marx, 1976). Humans repeatedly work upon nature, produce and consume to live on the planet. Certainly, other animals such as bees and beavers also work upon nature and conduct their metabolism within nature. This is a simple physiological fact. However, human labor is distinctive in that humans consciously and teleologically relate to nature, change it, and constantly invent new means of production to satisfy expanding desires. Their activities are, of course, not fully arbitrary but restrained by various material conditions of the external nature. Famously, Marx claimed that labor cannot be realized without nature's assistance: 'Labor is therefore not the only source of material wealth, i.e. of the use-values it produces. As William Petty says, labor is the father of material wealth, the earth is its mother' (Marx, 1976). Due to this constraint, human knowledge and activity are always already mediated by society and nature, and in this sense 'co-produced' as Moore argues. This is a transhistorical condition of survival that remains valid as long as humans live and work on earth. The concept of a 'metabolism between humans and nature' does not separate humans and nature as irrelevant entities but is essential as to express their integral and monistic relationship.

Marx, however, points out that this way of 'treating of the general preconditions of all production' are hammered out into 'flat tautologies', which simply 'indicate nothing more than the essential moments of all production' (Marx, 1993). Obviously, humans produce as a part of nature and their activities are entangled with extra-human nature. But the important question is how this metabolism between humans and nature works under the capitalist mode of production. It depends on the social organization of labor, and Marx argued that it is necessary to understand the metabolism between humans and nature in its historical specificity under the conditions of a capitalist society. This is why despite the monistic view of that metabolism, Marx also emphasized the importance to separate 'economic form determination' (ökonomische Formbestimmung) as a necessary step to grasp the historical specificity of capitalism (Heinrich, 2012).

What is characteristic to a society based on commodity production is that the social division of labor is conducted by isolated individuals who carry out their labors as 'private labors', which means that products necessary for social reproduction are not the result of a certain mutual arrangement prior to the act of production (Marx, 1976). Labors of private producers do not directly possess any social character, so they unconsciously bestow a 'purely social' property of 'value' on their own products and exchange them as commodities. This is how they manage to organize the allocation of a sum of social labors and the distribution of products among the members of the society. Although humans like other animals conduct their physiological metabolic interaction with nature, the social behavior that inevitably emerges under commodity production forms unique social relations and bestows a purely social property of value on products that does not exist in nature. This social property of value develops the 'language of commodities' and becomes more and more independent as 'money' and 'capital', so that it begins to radically transform the universal metabolism of nature in a historically unique manner.[6]

Marx's 'dualist' approach rigorously separates purely social 'form determinations' from their material bearers in order to reveal the capitalist metabolism between humans and nature. This separation is the key to his method of critique of political economy. It aims at revealing the logic of economic forms that emerge from human behavior independently of will and desires but attain an independent power over humans. Also, it explains how those economic forms transform the material world (human consciousness and desire, social norms and institutions, and nature) as their concrete bearers. To begin with, it is necessary to deduce the economic forms in their purity as an organizing principle of the material world. Otherwise, it is not possible to comprehend how the actual process of capitalist accumulation develops 'through nature'. In this sense,

6 Marx 1976, 144. Although 'social relations' are repeatedly highlighted as a key term for Marx's analysis, his explanation of how these 'social relations' are formed (namely, though 'private labor') is too often neglected and reduced to an abstract 'philosophy of internal relations.'

even though the metabolism between humans and nature is monistic from a 'material' perspective, Marx's critique, as a 'method', is dualist because economic forms are independent from the material world. This methodological dualism reflects the real social domination exerted by abstract economic categories.

Therefore, Marx's analysis is quite consistent. After, developing a series of purely social economic categories, he investigates how the material production process is being subsumed and subjugated to the primacy of value. As the capitalist mode of production covers the entire society and the formal logic of value deeply modifies the metabolism between humans and nature through the real subsumption, it inevitably results in various disharmonies within that metabolism:

[Capitalist production] disturbs the metabolic interaction between man and the earth, i.e. it prevents the return to the soil of its constituent elements consumed by man in the form of food and clothing; hence it hinders the operation of the eternal natural condition for the lasting fertility of the soil. Thus, it destroys at the same time the physical health of the urban worker, and the intellectual life of the rural worker. (Marx, 1976).

Consequently, there emerges an 'irreparable rift' emerging in the metabolism between humans and nature. As seen above, this metabolic rift comes into being because value as the objectification of abstract labor transforms and reorganizes the entire production process abstracted from complex material elements in the relations between humans and nature: economic forms modify the material world in favor of capital's valorization without considering natural limits. Put this way, 'rift' is not a 'metaphor' as Moore argues. It also has nothing to do with the 'Cartesian divide' in absence of a 'value theory'. Rather, Marx's ecological critique of metabolic rift can be consequently deduced from his method and theory of value.

Since Moore, despite his criticism of Foster's concept of rift, misses the significance of 'economic form determination' in Marx's method, he does not fully succeed in connecting Marx's ecology to his theory of value but instead neglects Marx's own concept of 'rift' because it implies a dualism. There is no reason to be afraid of a dualism in Marx's sense, however. He rather analyzed how the monistic relationship of human-nature-metabolism is modified by purely social forms that contain 'not an atom of matter' under certain social relations, and how social formation mediated by human beings as the personification of commodities, money, and capital results in a series of disharmonies and contradictions in reality. Marx's dualism is not a Cartesian one which is based on a modern binary of 'Society' and 'Nature', but a critique of reification in modern society.

Moore's problem is most clearly discernible in his treatment of the category of labor, which does not play any noticeable part in his reconceptualization of 'metabolic rift' into 'metabolic shift' within a 'singular metabolism of human-in-nature' (Moore, 2015). While labor is quite central to Marx's theory of metabolism, the decisive factor for the development of capitalism is, according to Moore's scheme, not exploitation of value-producing labor but appropriation of nature's unpaid 'work'. The commodity of labor-power is only listed as one of 'Four Cheaps', which count as costs for production. As a result, the capitalist form determinations of labor as 'private labor' and 'wage labor' cannot be grasped. What theoretical consequence does this neglect of labor bring about for Moore's project?

ECONOMIC CRISIS AND ECOLOGICAL CRISIS

Marx's analysis of the social system, in contrast to Moore's, starts with laboring individuals and, most crucially, their alienation from nature due to the dissolution of the 'original unity' between humans and the earth:

It is not the unity of living and active humanity with the natural, inorganic conditions of their metabolic exchange with nature, and hence their appropriation of nature, which requires explanation or is the result of a historic process, but rather the separation between these inorganic conditions of human existence and this active existence, a separation which is completely posited only in the relation of wage labor and capital. (Marx, 1993)

The 'separation' of labor from nature is the object of political economy not only because it reveals the specificity of the capitalist mode of production but also because it has grave practical consequences on the metabolism between humans and nature: Exhaustion of labor-power and robbery of natural resources.

The question is whether it is sufficient to analyze this process as an economic crisis. Moore believes that the destructive character of capital exhausts the Four Cheaps and results in the crisis of capital's accumulation. If we take the astonishing 'elasticity of capital' seriously (Akashi, 2016), the rising price of food and oil alone may not bring about a serious economic crisis that would threaten capitalism to collapse.

If we recall the problem of the exhaustion of labor-power in Marx's discussion on the production of absolute surplus-value, the constraint of the work day by state regulation of the maximal work hours induced technological changes for producing relative surplus-value. Since this technological progress is mediated by the logic of valorization, 'machinery and large-scale industry' only ends with an even more serious destruction and alienation of workers' lives and nature. In the same way, capital's attempt to appropriate the free gift of nature—fracking and geoengineering can be such a technology—would allow capital to continue its self-valorization, though accompanied by more serious ecological disasters. Capital may find new opportunities for investments in such disasters too (Burkett, 2005). As far as the logic of capital's accumulation is being estranged from human life and sustainability of the ecosystem, the capitalist system might continue to exist even if all planetary boundaries are fully overcome and the most part of the earth becomes unsuitable for living beings. In this sense, the pressure on profit rate due to the increasing costs of the circulating capital would not bring about an 'epochal crisis' any time soon, as Moore assumes (Moore, 2015). This is too optimistic.

By contrast, Marx's theory of metabolism in Capital points out the possibility of an ecological crisis that may threaten humanity:

> Large-scale industry and industrially pursued agriculture go hand in hand. If they are originally distinguished by the fact that the former lays waste and ruins labor-power and thus the natural power of man, whereas the latter does the same to the natural power of the soil, they link up in the later course of development, since the industrial system applied to agriculture also debilitates the workers there, while industry and trade for their part provide agriculture with the means of exhausting the soil. (Marx, 2015)

The crisis being described here is not an economic, but an ecological crisis that indicates the impossibility of the sustainable metabolic interaction between humans and nature (Foster & Burkett, 2016). As a contradiction emerging from the discrepancy between the logic of capital and the logic of the material world, Marx sought to analyze not only the increasing difficulty of capital's accumulation but also the grave disturbances of the metabolism between humans and nature. This is clearly discernible from Marx's intensive research in the field of natural sciences. He read Liebig's Agricultural Chemistry alredy in the 1850s and 60s, and after the publication of Capital volume 1 continued to study new ecological issues such as deforestation, exhaustion of mines, and extinction of species. His notebooks document the deepening of his ecological interests even beyond Liebig's critique of robbery of soil's mineral nutrients (Saito, 2017).

If we keep waiting for a serious degradation of the material conditions for capital's accumulation due to the end of the Cheap Nature, it will be too late to save the planet from an environmental catastrophe. For example, it is necessary to reduce 40 to 70 % of greenhouse gas by 2050 to keep the global warming within 2 °C by 2100. When this line is crossed, various effects might combine, thereby reinforcing their impact on global climate, so that the average temperature may increase by 4 °C. Even 2 °C will surely cause significant negative changes on a global scale, though probably not on capitalism as such: It 'represents a threshold, not between acceptable and dangerous climate change, but between dangerous and "extremely" dangerous climate change' (Anderson & Bows, 2011). This example shows an enormous difference between the material conditions for capital's accumulation and the maintenance of the ecospheres. From this point of view, it is apparent that the general social engagement with environmental issues cannot succeed without

fundamentally changing the capitalist relations of production. Herein lies the possibility for a unity of the Green critique of environmental change and the Red critique of political economy as a theoretical foundation for struggles against capitalism.

However, when Moore analyzes today's general crisis mainly from the perspective of capital, the vision of future emancipation turns out as something different from Marx's. The economic crisis for capital is, according to Immanuel Wallerstein's world-system theory, rooted in the exhaustion of nature's frontier available for free or cheap appropriation, while the theorization of subjective resistance against the domination of reification remains marginalized. By contrast, Marx's analysis is based on the perspective of 'laboring individuals.' It not only reveals the exploitation of workers in the capitalist centers, but also includes the possibilities of resistance in the peripheries of capitalism. People there are not only subjugated to exploitation as a 'semi-proletariat', but also strive against it. Since capital thoroughly modifies and destroys the traditional ways of metabolic interactions between humans and nature, it will always provoke new forms of alienation and resistance. Marx's notebooks related to topics such as Taiping Rebellion, England's colonial domination in Ireland, Civil War in the U.S., and Russian agrarian communes, document his great interest in capital's violence and people's opposition to it in the peripheries of capitalism. With regard to this point, David Norman Smith writes:

> Now [Marx] needed to know concretely, in exact cultural detail, what capital could expect to confront in its global extension. So, it should not be surprising that Marx chose to investigate non-Western societies at precisely this point. Euro-American capital was speeding into a world dense with cultural difference. To understand this difference, and the difference it makes for capital, Marx needed to know as much as possible about non-capitalist social structures. (Smith, 2002)

The confrontation of capital with non-capitalist societies undermines the traditional forms of the metabolism between humans and

nature, and here Marx tried to find a 'source of revolutionary subject' against capitalism (Anderson, 2015).[7]

The same can be true of the resistance against capital's robbery of nature: the expropriation of the commons of natives under the construction of oil pipelines, destruction of traditional agriculture by the introduction of genetically modified products, pesticide and synthetic fertilizers. Tuvalu and other countries in the Global South will also experience the consequences of environmental changes much faster than the developed countries, and furthermore, the financial and technological means for countermeasures are largely missing, so that the ecological crisis will hit them even harder. Consequently, people recognize alienation from nature due to the domination of capital over the world. Global objections to economic and ecological inequality are the expressions of an 'unconscious socialist tendency' in the Anthropocene (Marx & Engels, 1987).

After 1868 Marx attempted to supplement his critique of political economy with new findings both in natural sciences and the cultures of non-Western societies based on his theory of metabolism. However, the rapid progress of natural sciences and anthropology in the second-half of 19th century made the completion of this task extremely hard. As a result, the project of Capital remained unfinished. Nevertheless, Marx at least clearly showed that the abolition of 'private labor' and 'wage labor' is the fundamental condition for a conscious realization of the sustainable metabolism between humans and nature. This point, however, is completely missing in Moore's analysis because he treated 'labor-power' only as one of the Four Cheaps. In a future society, says Marx, 'the associated producers govern their metabolic interaction with nature rationally, bringing it under their collective control instead of being dominated by it as a blind power' (Marx, 2015). In order to overcome the metabolic rift and establish 'a new and higher synthesis, a union of agriculture and industry' (Marx, 1976), a social transformation of labor into a mode

7 Kevin B. Anderson formulates this point as a critique of Rosa Luxemburg whose underconsumption theory did not pay sufficient attention to the emergence of revolutionary subjectivity in the peripheries but problematized the extinction of space outside capitalism as the ultimate limit of capital accumulation. Her view had a strong influence on the world-system theory. The fundamental problem is that Luxemburg and Wallerstein seriously underestimate potentialities of capitalism by identifying the most vital condition of its existence with the appropriation from non-capitalist societies

of production governed by associated producers would be required, so that the one-sided mediation of social and natural metabolism by value can be replaced by a more sustainable organization of social production. With the emancipation from the alienated power of reification, the work day would be shortened, and the squandering of labor and natural resources in various branches would cease to exist. This is the necessary first step toward a rational rehabilitation of the metabolism between humans and nature.

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MARXISM AND ECOFEMINISM IN THE ERA OF CLIMATE CHANGE: CONVERGENCE AND DIVERGENCE[1*]

Rosalinda Pineda Ofreneo[2]

ABSTRACT

Marxists lay the blame for climate disasters on the doorstep of global capitalism, but ecofeminists add to and critique the Marxist discourse via gendered explanations about capitalism's predatory nature rooted in its patriarchal moorings. Women's relationship to nature, due to their socially constructed reproductive functions, is in many ways different from that of men. Women-led ecofeminist movements also have a multiplicity of inclusive and participatory goals and strategies for global resistance and alternative development that may overlap with and at the same time depart from those of men-led class-based movements. To survive as an activist these days, we have to wear three colours: green for the environmental movement, red for the class-based movements, and violet for the women's movement. We need to be animated and inspired by these social movements today to be able to diagnose and transform our political present. This paper firstly provides the context which is climate change and its disastrous impact on life on the planet. Secondly, it reviews what Karl Marx said about the environment and what Marxists say now about the problem of planetary sustainability. Marx

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is often stereotyped as anti-environment, productivist, and indifferent to the advocacies of the environmental movement. I articulate recent discoveries in Marx's writings that are sympathetic to the environmental cause and quoted by ecosocialists of today who comprise what is called the "Green Left." The third section features the ecofeminist perspective which both affirms and critiques Marxism. And by way of conclusion, the last section spells out some implications on praxis.

Keywords: Marxism, ecofeminism, ecosocialism, climate change, Green Left.

INTRODUCTION

Global warming results in many disasters. According to the United States Environmental Protection Agency (2016), climate change has potential adverse impacts on *health* specifically in connection to weather-related mortality (e.g., super typhoons), infectious diseases, and air-quality respiratory illnesses; on *agriculture* with decreasing crop yields and increasing irrigation demands; *on forest health and productivity;* on *water resources* with the dwindling of supply, worsening quality, and increasing competition for water; on coastal areas with the erosion of beaches, inundation of coastal lands, and additional costs to protect coastal communities; and on species and natural areas with the loss of habitat and species and the diminishing of glaciers.

In terms of the impact of global warming on sea level rise, it is reported that the great cities of Asia would sink by 2050 (Climate Central 2019; Cooper 2020). Among these are Metro Manila, Jakarta, Bangkok, Ho Chi Minh City, and Yangon, among others. Metro Manila, in particular, is suffering subsidence of ten centimetres a year. Salination of fresh water and drying up of aquifers will affect the quantity and quality of drinking water. Agriculture will suffer because of the disappearance of fertile coastal land with sea level rise, greater frequency and intensity of floods and drought, and loss of biodiversity. This will result in food insecurity, increasing hunger, and eventually, social unrest.

The National Framework Strategy on Climate Change 2010–2022 produced by the Climate Change Commission (2010) reveals that the Philippines is highest in the world in terms of vulnerability to tropical cyclone occurrence and third in terms of people exposed to such seasonal events. In addition, the country experiences an average of twenty

typhoons yearly and increasing disaster risks with geologic/seismic dangers closely interacting with such meteorological hazards. The abovementioned document further claims that climate change also threatens the ability of the country's ecosystems to provide life-support services.

It is common knowledge that the poor, who are the most vulnerable and disadvantaged among the urban and rural population, suffer most from the impact of climate change. Those living in urban areas make do with makeshift, easily destroyed houses usually located in informal settlement areas close to or on danger zones prone to flooding and other hazards. The rural poor, on the other hand, are hit by drought, typhoons, and resultant floods, which destroy crops and livelihoods more and more frequently, intensely, and unpredictably. Pests and vector-borne diseases also have their destructive effects, along with the loss of fertile lands as storm surges and sea level rise erode coastal areas. Fisherfolk are among the most endangered as fish stocks decrease with continuing destruction of coral reefs, among other hazards.

According to the United Nations Framework Convention on Climate Change (UNFCCC 2019), "2018 saw unprecedented heat waves, storms and floods across the globe, and global greenhouse gas emissions continued to grow last year, with the current concentration of carbon dioxide in the atmosphere the highest it has been in 3 million years". Yet climate action is lagging far behind what is necessary to stem the already alarming level of global warming, reflecting "environmental policy failure" on the part of many governments (ibid.). If there is no change in the trend of rising global temperature by December 2040, we would have reached the tipping point, the point of no return when the climate would irrevocably change for the worse with either extreme heat or extreme cold. That would be the future of our children and grandchildren. Given the urgency and complexity of the problem, it is a challenge for us to determine where we stand and how to address the problem effectively.

MARX AND MARXISTS ON THE ENVIRONMENT

Marx had a lot of valid observations about the relationship of human beings to nature and the environment. Yet, Marxism has also been under criticism for its perceived inadequacies. For feminists, classical

Marxism did not give sufficient attention to the crucial role of women's reproductive work. For the environmentalists, the "actually existing socialist societies" under the influence of Marxism tended to be productivist; that is, they gave too much emphasis on production regardless of the environmental costs, and put too much faith in technological fixes to the environmental damages that their productivism brought about.

Nevertheless, with this said, one defining characteristic of Marxist thought is its dynamism. As Marx famously quipped, "What is certain is that I myself am not a Marxist" (cited in Engels 1882). Further, Marx's work is also distinguished by its political commitment to social change as ensconced in this famous quotation, "The philosophers have only interpreted the world in various ways; the point is to change it" (Marx, 1845, p. 101). As rightly pointed out by Ana Maria Nemenzo in her opening remarks (2019), Marx left us a method of analysis and action which puts a premium on praxis—the unity of theory and practice. Action and practice must draw from a deep understanding of theory and vice versa. We have to critically diagnose the changes that shape our world, and to do this, we usually borrow and take inspiration from the works of Marx and those who still find Marx's core insights useful.

One exciting work that has recently come out is entitled *Karl Marx's Ecosocialism: Capital, Nature, and the Unfinished Critique of Political Economy* (2017) by Kohei Saito who earned his Ph.D. degree in Philosophy from Humboldt University. In this work, Saito traced and revisited Marx's notebooks, letters, and unpublished manuscripts on natural science. And Saito came to the conclusion that Marx can be appropriated by the ecosocialists of today by virtue of his writings' comprising an "unfinished critique of political economy" which is still unpublished and is supposed to be part of *Capital Volume 1*. This contains his critique of the devastation that capitalism wrought on the environment. In a book review of Saito's work, Hannah Holleman describes the brilliance of Marx's methodology (2018):

> "Marx's broad engagement with intellectual and scientific developments across continents … demonstrates his extraordinary ability to put these in conversation with one another in order to arrive at his own critical understanding of what exists, as well as what is possible. In this we see Marx's methodology for studying the world in order to change it".

Life, Nature, and Labour

There is an intimate link between humans and nature. Humans are part of nature and are sustained by nature. It is labour that makes us human. It is worth quoting Marx at length to spell out this point:

> *"Labour is, first of all, a process between man and nature, a process by which man, through his own actions, mediates, regulates and controls the metabolism between himself and nature. He confronts the materials of nature as a force of nature.* He sets into motion the natural forces which belong to his own body, his arms, legs, head, and hands, in order to appropriate the materials of nature in a form adapted to his own needs. *Through this movement he acts upon external nature and changes it, and in this way he simultaneously changes his own nature. … It [the labour process] is the universal condition for the metabolic interaction between man and nature, the everlasting nature-imposed condition of human existence"* (Marx, 1976, pp. 283, 290; emphasis added).

At this point, it is important to highlight the concept of metabolism which is key to the thinking and theorizing of ecofeminists, a term we shall return to later. The feminist critique of Marx's conception of the relationship of man and nature attempts to put equal attention and importance on women's invisible reproductive work. According to this view, Marx's conception focuses exclusively on man's productive labour which is the kind valorised in the market place. Man's evolution from the ape is characterized by discovery and possession of tools that make him productive. Man uses tools to get what he needs from nature. Consequently, the tools became weapons. Men have the monopoly of weaponry which is why men are the ones who make war. All the while, the women remain stuck with domestic work. Approximately close to half of women in the world are housewives, unable to join the labour force.

Marx's dominant critique of capitalism is captured by what is called *metabolic or ecological rift*. This describes the disembedding of man from nature because of the development of capitalism. An example of this would be man's invention of synthetic fertilizer to maximize the val-

ue that can be extracted not only from the worker but also from the soil. This process is also facilitated by the growing separation of town and country. Marx describes the situation this way:

> "Capitalist production collects the population together in great centres, and causes the urban population to achieve an ever-growing preponderance. This has two results. On the one hand it concentrates the historical motive force of society; on the other hand, *it disturbs the metabolic interaction between man and the earth, i.e. it prevents the return to the soil of its constituent elements consumed by man in the form of food and clothing; hence it hinders the operation of the eternal natural condition for the lasting fertility of the soil* … But by destroying the circumstances surrounding that metabolism … it compels its systematic restoration as a regulative law of social production, and in a form adequate to the full development of the human race … [a]ll progress in capitalist agriculture is a progress in the art, not only of robbing the worker, but of robbing the soil; all progress in increasing the fertility of the soil for a given time is a progress toward ruining the more long-lasting sources of that fertility … *Capitalist production, therefore, only develops the techniques and the degree of combination of the social process of production by simultaneously undermining the original sources of all wealth—the soil and the worker"* (ibid., 637–38; emphasis added).

Marx drew from the work of Carl Schorlemmer, a German chemist-naturalist who claimed that the soil would be defiled if one puts chemicals on it such as fertilizers and pesticides, among others. This would also poison not just the environment but also the workers tilling it. Some examples of metabolic or ecological rift are cash crop monoculture towards the production of biofuel which is food not of the human but of the machine, industrial farming, and desertification. Hunger and pollution are the major consequences of this phenomenon. Another form of ecological destruction is the use of fossil fuel, the vast amount of which can be traced to only seven corporations. Indeed, capitalism is destroying the earth for profits.

Of course, the ecological rift is part of the larger and more familiar story of the grave destruction and exploitation under the capitalist system. Capitalism is an economic system in which the means of production of goods and services are privately owned and operated for profit. This

leads to the overconcentration of wealth in a few hands, with eight men owning as much wealth as the bottom half of the population of the whole world (Oxfam International, 2017a). This also means that the super-rich, those who own most of the wealth in the society, are also those who influence or even control the state. They enforce their rule through the army, the prison, and the court system, and secure public acquiescence by influencing culture and ideology. They are also the ones enjoying and amassing the wealth and value created by the workers and farmers at the very bottom of the economic pyramid.

(Green) Marx's Vision: A Return to Nature

Marx envisions "a society in which the 'associated producers'—the majority of society— voluntarily and democratically decide the direction of the economy in the interest of human need rather than profit," effectively "removing the divide between town and country" (Terzakis, 2018). This society would have a direct and appreciative relationship with nature and a whole lot more free time through which to develop it. This society would also be characterized by a "post-revolutionary" return to nature—"collective, democratic and informed involvement of workers in the rational planning of our labor and our relationship to nature." It would mean "democratically reorganizing production to satisfy human needs and reclaim our place in nature, with nature being the collective 'property' of the people rather than the private property of a small minority" (Terzakis 2018).

Tony Phillips (2018) spells out the main tenets of Karl Marx's Ecosocialism as follows. First, "the metabolic rift between humanity and the natural world" is "the central contradiction of capitalism". This means that the social forces supporting the current economic system are fundamentally aligned against the social forces opposing the status quo and want another way of organising the economy and the society to be in harmony with nature. Second, "[t]he labour process is a 'metabolic interaction with nature' which changes through time according to the mode of production" (Saito, 2017, cited in Phillips, 2018). "Capitalism is qualitatively and quantitatively different from previous modes in its impact on the environment as breakneck accumulation comes up against the limits of the Earth's resources" (ibid). It is inherent in and unique to

capitalism as an economic system to accumulate endlessly, regardless of the exhaustion and cannibalisation of the Earth's resources which are the condition of its possibility. Third, as proposed by Saito, "if the environment is being destroyed by capitalism it can only be saved by replacing it with a higher mode of production, socialism" (ibid). Because the destruction of the environment is the natural and necessary outcome of capitalist exploitation, the only way to solve it is through system change, not the so-called "sustainable development growth," "reformed capitalism," among others.

ECOFEMINIST PERSPECTIVE: AFFIRMING AND CRITIQUING MARXISM

Ecofeminism is a "'new term for an ancient wisdom' which grew out of various social movements—the feminist, peace, and ecology movements—in the late 1970s and early 1980s" (Mies and Shiva, 1993, p. 13). It is the belief that both women and nature are united through their shared history of oppression by an uncaring patriarchal society. An icon of ecofeminism and Indian physicist, Vandana Shiva has been working with Indian farmers for a long time. She said, "We are either going to have a future where women lead the way to make peace with the Earth or we are not going to have a human future at all" (Shiva, cited in Friends of the Earth Limited, 2017).

Ecofeminists seek to overcome and transform the patriarchal ideology. The patriarchal ideology is characterised by the following beliefs: first, men must conquer nature by force, and therefore set themselves apart from it; second, men must be on top of the hierarchy of domination, lording it over women, indigenous peoples, and nature; and third, men must be superior to women, and culture must be higher than nature because the world is constructed in dualisms where one part is opposed to and dominates the other.

Ecofeminists stress the importance of both nature and women as producers of life. Women's bodies are productive in themselves. They give birth, feed babies with natural milk, and then take care of them after. Women are especially intrinsically linked with nature because women give birth; women give life. As such, the violation of nature is linked with the violation and marginalization of women, especially in

the South. Women produce and reproduce life not merely biologically, but also through their social role in providing sustenance. Further, all ecological societies of forest dwellers and peasants, whose life is organized on the principle of sustainability and reproduction of life in all its richness, also embody the feminine principle; that is, life-giving and giving primacy to life. There is usually no socially constructed relationship of domination between women and nature. In many societies, especially among indigenous peoples and in subsistence economies, women do not see nature as property but as a partner in producing life and happiness. In such societies, women are different from men in their relationship with nature because women experience birthing and suckling; perform care work and maintenance chores which serve as a "bridge" between men and nature; perform manual work as cooks, farmers, herbalists; and serve as symbolic representations on feminine relations to "nature".

The basic tenet of ecofeminism is the primacy of life. This is further explicated in the following principles. First, human beings are part of nature and cannot exist outside it. Second, everything has its cost. Third, there should be no hierarchy of domination. And fourth, there should be a re-conceiving of power in forging new relationships from life-hostile power to nurturant power. Ecofeminism reimagines power not as domination ("power over") where one kills, maims, or jails those who are against him or her. Rather, nurturant power ("power with") enables people, plants, and animals to grow.

The Iceberg Model of Capitalist Patriarchal Economies succinctly illustrates the hierarchy and domination of workers, women, and nature (Mies, 2007). According to the model, the two topmost layers of the pyramid structure belong to what is called the visible economy which is typically measured in Gross National Product (GNP) and operationalised through labour contracts and wage labour. Capital sits and reigns at the tip of the iceberg. Just below capital is wage labour. The succeeding layers all the way down to the bottom comprise the invisible economy which is not registered in the GNP. The layers include the informal sector such as the homeworkers and child labour, the subsistence peasants' work, domestic work usually performed by women in the family, internal and external colonies, and nature, respectively. It is also important to

note that nature and women's work are treated as free goods which are readily disposable and exploitable.

The title of a provocative book captures women's subordination–Women: The Last Colony (Mies et al. 1988). Women's invisible and unpaid domestic labour resembles the exploited labour in a workplace setting. Further, women's care work is also what enables the male breadwinner to go to the factory, assembly work, or office work everyday. As Red Women's Workshop (1974) puts it: "a woman's work is never done".

Ecofeminists claim that the international system, defined and run from the North by male-dominated institutions, harms not only women but also the environment, indigenous peoples, and less developed countries. It is a system conceptualised and structured to benefit the strong and exploit the weak and the vulnerable. It is a model of maldevelopment which is profoundly patriarchal, bereft of the feminine, the conservation, and the ecological principles.

IMPLICATIONS ON PRAXIS: FROM DIVERGENCE TO CONVERGENCE

The ecofeminist vision is animated by self-provisioning, self-sufficiency, and sustainable livelihood; decentralisation; producing not for profit but for sustaining life and satisfying human needs; participatory and grassroots democracy; production for happiness and fulfillment; peace and disarmament; and recognition of traditional knowledge and technology (Mies as cited in Pineda-Ofreneo, 1997). Secondly, the anti-imperialist struggle.

It covers a wide array of strategies which include voluntary simplicity, consumer liberation, environmental preservation and conservation, garbage recycling, shifting to a plant-based diet, and direct action for solidarity economy. It also includes educational campaigns for clean and renewable energy, freedom from debt, peace and disarmament, food security, reproductive rights, and recognizing, reducing, and redistributing unpaid care work.

Some concrete examples of these strategies abound. First is the Chipko movement which is a "hug a tree movement" in India where

women surround a huge tree and hug its trunk so the loggers would not be able cut it. Second example is the organizing and mobilizing of indigenous women for the defence of their ancestral domain; e.g., the Dumagat indigenous community and the recognition of their traditional knowledge and the importance of going "back to basic". Third, various women's organsations also mobilize to fight mining and public-private partnerships (PPP). Fourth is solidarity economy which is hailed to be the socialism of the 21st century by progressives in Latin America. It is an economy where engagement in business whether by cooperatives, self-help groups, fair trade associations, or social enterprises should be for the people, for the planet, and for prosperity. In some way, these businesses carve out alternative spaces even from inside the "belly of the beast" called capitalism. Fifth is the campaign for the Reproductive Health (RH) Bill in the Philippines which is still an ongoing struggle due to ineffective implementation at the local level and the absence of civil society organizations (CSOs) that sit at the implementation teams. Last example is the campaign to foreground unpaid carework as a precondition for achieving women's political, social, and economic empowerment, and addressing poverty and inequality. This is to be done by recognizing care work; reducing difficult, inefficient tasks in the home; redistributing responsibility for care more equitably (from women to men and from families to the State/employers); and representation of carers in decision-making (Oxfam International, 2017b).

According to Burkett (2017), the exploitation of the proletariat has always been intricately linked with the exploitation of the environment originating from the "forcible separation of the direct producers from their land" to "their conversion into wage-laborers". Under exploitative conditions, the working people have to make sure that they would not get ill, which calls for a work environment that is free from occupational hazards, is unpolluted, and is conducive to productivity. Burkett (2017) continues:

> "The proletariat's struggle for a decent life has always been a struggle in and against unhealthy conditions both inside and outside the workplace, at home and at work—a struggle for a healthier connection with nature as a condition of human de-

velopment. The climate crisis sheds new light on the different phases in this struggle, and their lessons for today".

Drawing on John Bellamy Foster, Burkett (2017) also claims that due to the erasure and blurring of the previous distinctions between workplace exploitation and environmental degradation, there has been a growing "convergence of economic and environmental struggles around the world" which is composed of diverse alliances along the lines of gender, race, class, indigenous, and environmental movements. This heralds "the rise of a *globalized* environmental proletariat as a conscious class *for itself*, i.e., as a worker-community formation" with "a new ecological sociability, embracing a vision of human production in its most fundamental sense as the metabolism of nature and society" (Foster, 2013 cited in Burkett, 2017).

Echoing Rosa Luxemburg and giving her words an environmental twist, ecosocialists began their impassioned declaration with this phrase: "Humanity today faces a stark choice: ecosocialism or barbarism" (Belem Ecosocialist Declaration, 2008). "The ecosocialist movement aims to stop and to reverse this disastrous process of global warming in particular and of capitalist ecocide in general" by claiming that only a profound change in the very nature of civilization can save humanity from the catastrophic consequences of climate change (ibid). The long-term commitment to the structural transformation of capitalism and thriving of ecosystems is expressed this way in another version of the manifesto:

> "We will fight to impose every possible limit on capitalist ecocide, and to build a movement that can replace capitalism with a society in which common ownership of the means of production replaces capitalist ownership, and in which the preservation and restoration of ecosystems will be a fundamental part of all human activity" (Ecosocialist Manifesto, n.d.).

Crucial to the project of building a "radical civilizational alternative" to capitalism is an economic system which puts primacy on non-monetary criteria such as "social needs and ecological equilibrium" as well as "ecological rationality, democratic control, social equality, and

the predominance of use-value over exchange-value" (Ecosocialist Manifesto, n.d.). Another cornerstone of this ecosocialist civilisation is gender justice which foregrounds care work and the intimate link between women and nature. As further explained:

> "Emancipation of gender is integral to ecosocialism. The degradation of women and of nature have been profoundly linked throughout history, and especially the history of capitalism, in which money has dominated life. To defend and enhance life, therefore, is not just a matter of restoring the dignity of women; it also requires defending and advancing those forms and relations of labor that care for life and have been dismissed as mere 'women's work' or 'subsistence'" (ibid).

Ian Angus (2016, 207) and the Belem Ecosocialist Declaration (2008) sum up the radical transformations that must happen under the sign of ecosocialism, specifically in the following areas. First is the energy system, which is to be replaced by carbon-based fuels and bio-fuels with clean sources of power under community control: wind, geothermal, wave, and above all, solar power. Second is the transportation system, which needs to be drastically reduced the use of private trucks and cars, replacing them with free and efficient public transportation. Thirdly, decrease present patterns of production, consumption, and building, which are based on waste, inbuilt obsolescence, competition, and pollution, by producing only sustainable and recyclable goods and developing green architecture. Fourth is transforming food production and distribution, by defending local food sovereignty as far as this is possible, eliminating polluting industrial agribusinesses, creating sustainable agro-ecosystems, and working actively to renew soil fertility.

Around the world and across various issues, political formations and campaigns have been working towards more convergence. "Solidarity among people, and between people and the earth (with all its inhabitants), and the search for sustainable modes of good living (placing use value ahead of exchange value), seem to be the ideological glues holding the emergent eco-proletarian coalition together" (Burkett, 2017). To illustrate, the ecological and communitarian values of some indige-

nous communities are beginning to make contact with newer varieties of feminism and more "traditional proletarians" (ibid). Meanwhile, "new circuits of sustainable material provisioning" have been emerging in and around urban centres for municipal power and public transit, cooperatives, worker-community groups, public schooling, community-based health care alternatives, among others.

The Ecosocialist Declaration was very clear in its reliance on global mass mobilisation:

> "Global Warming will not be stopped in conference rooms and treaty negotiations: only mass action by the oppressed, by the victims of ecocide can make a difference. Third World and indigenous peoples are at the forefront of this struggle, fighting polluting multinationals, poisonous chemical agro-business, invasive genetically modified seeds, and so-called "bio-fuels" that put corn into car tanks, taking it away from the mouths of hungry people. Solidarity between anti-capitalist ecological mobilizations in the North and the South is a strategic priority" (2008).

The Ecosocialist Declaration is not an academic statement, but "a call to action" (Belem Ecosocialist Declaration, 2008). It further claims that "the entrenched ruling elites are incredibly powerful", and the forces of radical opposition are still small. But these forces are the only hope that the catastrophic course of capitalist "growth" will be halted.

CONCLUDING REMARKS

This article discussed how ecofeminism adds to and critique the Marxist discourse, by explaining the predatory nature of capitalism being patriarchally-rooted. By providing the context of climate change and its destructive effects on Earth, it deepened the link between Marx's statement of nature. This was achieved by examining more recent work on Marx that sympathise with the environmentalist agenda and furthering the agenda of the ecosocialists of today, comprising of what is called the "Green Left".

The paper stressed that there many strands of ecofeminism, and the strand proposed in this paper is materialist. It does not essentialise and idealise women as privileged subjects who shall predominantly ad-

dress climate change and environmental degradation. Instead, the materialist approach puts a premium on the structural analysis of society and the social construction of reality. Within this analytical framework, the value extracted not only from the workers but also from the soil,encompass various types of violence such as armed such as armed conflict and development aggression in the form of mining and logging. These are examples of what Tony Phillips (2018) spells out as the main tenets of Karl Marx's Ecosocialism: "the metabolic rift between humanity and the natural world" is "the central contradiction of capitalism".

This paper added that social movements are also often confronted with conflicts among themselves, often for ideological reasons where some vested interests play one social group against another. To be able to address these tensions, this article urged that it is important to assess possibilities for constructing the fulcrum of solidarity by looking at the forces that are aligning or in contradiction with one another. More importantly, building solidarity means focusing on the bottom line of environmental movements in general which is saving the planet, a goal which makes all other considerations somehow peripheral.

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PRIMITIVE ACCUMULATION: HISTORICAL ACCOUNTS FROM INDONESIA'S MINING INDUSTRY

Arianto Sangadji

ABSTRACT

The dispossession of indigenous land by massive natural resource-based capital and the ensuing agrarian disputes had been compiled through various studies, mainstream media reporting, as well as reports from non-governmental organizations. This paper aims to frame these accounts through the conceptual lens of primitive accumulation. Taking into account the numerous historical debates pertaining to the term, including David Harvey's introduction of the term of "accumulation by dispossession" which aimed to expand the notion, the paper emphasizes the postulation of primitive accumulation through the workings of contemporary capitalism. By seeing the continuation of historical primitive accumulation within the context of expanding capital reproduction, this article highlights the moments of mining capital expansion in Indonesia since the New Order era.

Keywords: Primitive Accumulation, mining industry, capitalism, dispossession, capital reproduction

INTRODUCTION

The expansion of massive capital in the extractive industry sector has led to various prolonged and chronic land disputes in rural Indonesia. In particular, foreign investment in the mining sector has prompted agrarian conflicts marked with bloody violence, especially since the New Order regime (see Leith, 2003; Marr, 1993). Through various government regulations in various sectors, indigenous lands have been converted to mining areas, while the remaining agricultural lands became affected by multiple environmental damages of mining activities such as floods and contamination, paralyzing the livelihood of farmers.

This paper applies Marx's theoretical framework on "primitive accumulation" to illuminate how massive mining operations have seized

ancestral lands belonging to indigenous peoples, destroying natural ecosystems while simultaneously displacing the traditional custodians of these lands. After outlining the concept of primitive accumulation and utilizing it to portray two cases of foreign-owned massive mining operations in Indonesia, the paper demonstrates how Marx's notion remains relevant and useful in understanding how capitalism ravages indigenous communities through mechanisms of displacement, and as such, steadily generates a landless working class.

Karl Marx coined "primitive accumulation" as an analysis that is simultaneously conceptual and descriptive. He emphasized the distinction between *primitive accumulation* and *capital accumulation*, positing the former as an abstract concept of the moment that marks the genesis of capitalism. Within this moment is the precondition of the subsequent accumulation of capital, namely the divorce between independent producers and their modes of production; the establishment of a capitalistic private property; as well as the creation of a free wage laborer class (see Marx, 1976). Primitive accumulation creates the modern working class, as farmers who lose their independent means of production are subsequently forced to sell their labor for survival. This stage occurs prior to capital accumulation, namely the expansive "extended capitalist reproduction" based on exploitation or the extraction of surplus value through free labor (Marx, 1976, p. 732). Such line of interpretation builds on Marx's emphasis in Capital that primitive accumulation happens before accumulation proper, and is designated to be primitive as "the [mechanism] outlines a prehistory of capitalism and relations of production built on capital" (Marx, 1976, p. 875).

In his outline of the concept, Marx illustrated the experiences of English farmers who were forcibly displaced from their agricultural lands, as well as their conversion into members of the working class through enclosure (Marx, 1976, p. 885-889). However, Marx also claimed that "separate moments of primitive accumulation have also specifically occurred in Spain, Portugal, Netherlands, France, and England, more or less chronologically. These different moments have been systematically put together by the end of the 17th Century in England" (Marx, 1976,

p. 915). As such, these processes were regarded by Marx to have been achieved in much of Western Europe.

Multiple interpretations on the notion of primitive accumulation have emerged since Marx postulated "primitive accumulation". One that managed to spark a wide debate is David Harvey's "accumulation by dispossession". Harvey argues that many of Marx's descriptive accounts on primitive accumulation remain relevant to this day (Harvey, 2003, p. 145). However, he also contends that primitive accumulation is not merely "the original sin of capitalism" as Marx claimed it to be, but rather an ongoing process which has actually grown in magnitude within the context of contemporary capitalism. What he terms as accumulation-by-dispossession is the mechanism of primitive accumulation in current times (Harvey, 2003, p. 144), where "the cannibalistic and predatory practices that have occurred, even in developed capitalist countries under the guise of privatization, market reforms, and withdrawal of welfare programs, is better described as accumulation by dispossession" (Harvey, 2006a, p. 158). These practices became particularly salient during moments of crisis in capitalism or over-accumulation (Harvey, 2003, 140-142, 149-150). They are, in fact, the primary characteristic of the capitalist accumulation process (Harvey, p. 153).

Unsurprisingly, these characteristics entail that accumulation by dispossession encompasses a wider set of practices than the displacement of independent producers from their tools of production through violent means, but also includes the privatization of national industries that is imbibed in accumulation as well (Harvey, 2003, p. 146). Criticism towards Harvey's concept has been voiced by several Marxist scholars (Dunn, 2007; Fine, 2006; Wood, 2006), particularly in his endeavors to mold multiple conceptually-distinct phenomena into a unified category. Ben Fine, for example, raises the question on how Harvey had simply changed the term "primitive accumulation" to "accumulation-by-dispossession" (see Fine, 2006). Refuting Harvey's illustration of the massive economic growth in contemporary China as, Bill Dunn points asserts that the country's development should be seen as a manifestation of capital accumulation instead of that by dispossession (see Dunn, 2007). Finally, Ellen Meiksins Wood regards that Harvey's conception

emphasizes on the issue of asset redistribution as the precondition of investment, instead of the creation and perpetuation of the social relations of ownership (Wood, 2006, p. 23).

Aside from Harvey's excessive notion of accumulation-by-dispossession as a conceptual substitute for primitive accumulation and the critique towards it, Marx's original concept remains largely open to interpretation. Central to the debates surrounding primitive accumulation is the question of whether it is a "prehistoric phase" that prcedes capitalist relations, or rather an ongoing, continual process tied to the trajectory of capitalism itself. While the former view holds firm Marx's assertion that primitive accumulation is not a result of capitalist relations of production, but rather its starting point (Marx, 1976, p. 775), recent arguments such as those of Michael Perelman's contend that primitive accumulation has been paramount to the subsequent capitalist developments (Perelman, 2000, p. 369). These arguments nonetheless refer to Marx's own statement that capital will "take over the final residue of direct producers who still possess something left to plunder" (Marx, 1993, p. 348).

In his attempt to synthesize both viewpoints, Jason Read argues that primitive accumulation encompasses "both the conditions for the historicity of capital formation and its expansion to other spaces and relations of production" (Reid, 2003, p. 23). The logic behind Read's argument can be traced back to Marx's own assertion that primitive accumulation being "none other than the historical process of displacing producers from their means of production" as the precondition of capital accumulation (Marx, 1976, p. 875). The distinct moments of this process has to be understood across different timeframes and various spatial contexts. This argument goes in hand with the historical reality of the expansion of capital production—which was originally dependent on the exploitation of labor in developed industrial nations—to countries where pre-capitalist societies exist in the midst of the predominant capitalistic relation of production. Within these communities, independent producers manage to survive under an underdeveloped modern wage relationship, and it is here that primitive accumulation continues to play an important role for capital accumulation, particularly by sacrificing small producers within the remnants of a noncapitalist society.

Building on this line of argument, this article utilizes the concept of primitive accumulation to illuminate specific historical realities on the expansion of capital, or the expansion of the reproduction of present-day capital. In particular, this concept will be of great use in explaining the historical moments within extractive industries working on natural resources, of which this paper highlights the chronicles of two giant mining corporations—PT Freeport Indonesia in West Papua and PT Inco (now known as PT Vale) in Sulawesi—during their early phase of operations.

HISTORICAL MOMENTS OF THE EXPANSION OF CAPITAL REPRODUCTION

It is necessary to understand the large-scale investments in Indonesia's mining sector as part of a global expansion of capital reproduction. The mining capital invested within Indonesian territories is generally categorized as foreign direct investment—namely, capital owned by transnational corporations from developed capitalist nations. Corporations expand their operations to other, less-developed countries with the aim of reducing production costs by taking advantage of cheap labor and, in the case of extractive industries, to secure access to mineral deposits within the host countries' territories.

The export of capital from developed capitalist countries had already occurred in Indonesia since pre-independence times. The mining of coal, tin, and oil have begun since the 19th century, and grew dramatically in the first half of the 20th century (see Braake, 1977; Reed, 1958; Lindblad, 1989; Heidhues, 1992; Gerretson, 1955). Following national independence, with increasing anti-West and anti-imperialist sentiments that also manifested as "resource nationalism"—asserting state sovereignty and its exclusive control of natural resources within state territories, against foreign capital—the flow of foreign capital was halted, especially in the mining sector. The fall of President Soekarno and the Westren-backed massacre of members and sympathizers of the Indonesian Communist Party (PKI) (see Simpson, 2008) unfurled the red carpet for foreign investment and welcomed back Indonesia's integration into the global accumulation circuit, especially through the export of mining capital.

As the Indonesian state assumes the function of ensuring the perpetuation of global capital reproduction, any mention of "state sovereignty" as such becomes problematic. The New Order regime itself provided a set of regulations intent on attracting foreign investment in the mining sector, which are underlied by two key conditions. The first revolves on the basal nature of capitalism in relation to the mining industry: investment in the mining sector requires a larger proportion of constant capital such as factory buildings, machines, raw material, and infrastructure. Due to the complexity of technical factors of mineral extraction (including its technological aspects and production methods), mining industries always tend to be capital intensive. As technical and financial aspects assume a central role to its entire production process, Third World nations such as Indonesia have very little capacity or say in its operations. Eventually, the capital-intensive facet of the industry reflects the objective power of monopolistic international capital. Such objective power, along with their political influences, enables mining capital to extract higher profits by reducing rent costs in the host countries.

The second factor pertains to a shift in class relations on the global scale, particularly in the return of imperialism after the annihilation of Indonesia's communist forces as the historical result of class struggle. Soon after the complete disintegration of PKI and Indonesia's reentry into the orbit of the Western bloc, capitalist development intensified under political oppression. In relation to the external pressure of foreign investment, the birth of Soeharto's regime marked an era of substantial weakening of state sovereignty. The state now plays a role of facilitating and protecting select few transnational capital interests by liberalizing policies in the the mining sector. Amid the heavy pressure of economic downfall in the second half of the 1960s, the military regime aimed to restore the capitalist order by introducing monetary, fiscal, and investment policies to attract the investment of global mining capital.

One key aspect of these policies is the introduction of Business Contracts (*Kontrak Karya*; abbreviated as KK) with foreign corporations in the mining sector to lure as many foreign mining investments as possible (see Sembiring, 2009; Poeradisastra and Haryanto, 2016). To that end, the government treats the KK as *lex specialis*, which enables it to su-

persede general regulations. Lex *specialis* safeguards investors from legal uncertainty for long-term investment. With it, regardless of future policy or regulatory change, the government must abide by the agreed terms of the contract. In short, KK is key in shaping the social, economic, political, and environmental terrain in support of global capital accumulation in the mining sector.

However, granting rights to mineral wealth did not necessarily mean that transnational companies would quickly move to extract them; if anything, this merely secures a monopolistic, exclusive control of mining companies over mineral properties against their competitors, as well as enabling greater control over the price of commodities by controlling the production upstream (see Bina, 1985, p. 231). In return, the New Order regime imposed companies with multiple types of rent which made accumulation possible. Aside from paying royalties (based on the type of mineral, sales, or profits), companies were also required to pay a vast array of taxes ranging from income tax, value-added tax (VAT), tax deduction on dividends, interest, rent, taxes on land and buildings, stamp duties, import duties, as well as land rent based on the number of hectares of a concession area.

Under KKs, companies have the advantage of a "stable" tax system, as well as further tax and fiscal incentives, and in some cases tax cuts, tariff deductions, and even tax holidays. Throughout the New Order era, the state would also occasionally readjust the terms and conditions within a KK contract to foster a more profitable and competitive climate for global mining investment. Adjustments were also driven by state interests in extracting higher rent. Yet in general, it can be emphasized that since "the taxing system is merely a special form of class power" (see O'Connor, 2002), KK contracts ultimately reflect an imperative power of transnational mining companies in relation to the post-1965 state.

The global capitalist integration policy had shaped Indonesia to become one of the foremost destinations for mining investment on a global scale. Transnational mining enterprises operating through their subsidiaries—such as Freeport-McMoRan Copper and Gold, Rio Tinto, Newmont, and Inco—have benefitted greatly from this integration. The

first KK was granted on 7 April 1967 to the American company Freeport Sulphur (now Freeport-McMoRan) operating in West Papua as the exclusive contractor of the Erstberg mine on a 10 square-kilometer area. As its mineral deposits became absorbed into the global capital accumulation of the Arizona-based Freeport-McMoRan Copper and Gold, Papua Province would soon be Indonesia's most heavily militarized region, with Indonesian counterinsurgency military operations trying to quell the protracted struggles of West Papua independence.[1]

Significantly, Soeharto's administration agreed to the terms and conditions of the KK proposed by Freeport in advance (Leith, 2003, p. 60). As this KK agreement was issued prior to the ratification of Law Number 11/1967 on Mining, the contract was based on the provisions of Law Number 1/1967 on Foreign Investment (Simpson, 2008, p. 234). The most important facet of the latter is that it protects Freeport from the possibility of nationalization that foreign companies faced during Soekarno's leadership. Furthermore, the contract asserts that disputes between the Indonesian government and Freeport that cannot be resolved domestically will be resolved through international arbitration mechanisms. Aside from the permit to extract minerals from over 250,000 acres of land in a period of 30 years, Freeport also enjoyed other "special privileges" in the form of being exempted from paying land rent, royalties, as well as corporate tax for three years; no requirement to divest; the lack of obligation to compensate for affected local residents; as well as the annulment to adhere to restriction standards in environmental management.

In 1991, the government and PT Freeport further renewed their contract, which was set to expire by December 2021. The updated terms and conditions moved away from the first to the fifth generation, and required divestment of a part of the shares to domestic entities, along with

1 The contexts surrounding Freeport mining operations in Papua, as well as the armed resistance that has happened in the region, necessitates a wider scope of geopolitical understanding. The militarization of Papua's mining areas is closely linked to Papua's independence struggle—a movement which itself is a reaction towards Papua's integration into Indonesian territory through an intransparent and undemocratic plebiscite. Within the larger frame of the Cold War, both the United States and Australia were in support of Papua's integration after the previous Dutch occupation—something seen by the Papuan people as a betrayal; see, Patricia O'Brien, "The Politics of Mines and Indigenous Rights: A Case Study of the Grasberg Mine in Indonesia's Papua Province", in Georgetown Journal of International Affairs, Winter/Spring, 2010, p. 47-56; also see New Internationalist, May 2017, p. 124.

the construction of a domestic smelter facility (Leith, 2003, p. 60-61, 68). Freeport's current operation area encompasses 212,950 hectares—a significant decrease from the 2.6 million hectares stipulated in the second KK contract back in 1991. In December 2015, the company controlled up to 28 billion pounds of copper reserves, as well as 26 million ounces of gold.

And since the exploitative nature of mining industries illustrate the specific characteristics of the relations between capital and state in the production of surplus value, it is worthwhile to note how much of such surplus value has flowed back into state coffers. Freeport Indonesia, a subsidiary of Freeport-McMoRan Copper and Gold, the ninth largest mining enterprise in the world by 2014 market capitalization (PWC, 2015, pp. 42-43), claimed to have invested up to USD 8.6 billion since the beginning of its operations in Papua—one of the richest areas for the mining of gold, silver, and copper in the world. In 2013, the average profit that the company made per every worker (before tax) was USD 115,138 (Sangadji, 2017). From 1992 to 2015, Freeport claims to have paid up to USD 16.1 billion in contributions towards the Indonesian government through state dividends, royalties, and different types of taxes (Freeport, 2016).

The second transnational mining enterprise to enjoy Indonesia's newfound investment climate during the New Order period was Inco Limited Canada—one of the world's largest nickel producers at the time. In the case of Inco, favorable investment conditions was not the only force that brught it into Indonesia: competition between monopolistic companies also played a role. After enjoying dominance as the foremost global nickel producer for a couple of decades, Inco saw tightening competition by the end of the 1960s. As the ratio of global laterite mines production to sulphide increased in the 1970s, Inco's contribution towards world production of refined nickel started to decline (Cairns, 1984). Furthermore, the company's decision to enter countries with abundant laterite reserves in the 1960s, namely Indonesia and Guatemala, was partly influenced by the internal tension surrounding labor, finance, and crises in Canada (Bradbury, 1985).

In the 1950s, Inco suffered a series of strikes in its mines and refineries began. At the end of 1959, around 14,500 factory, smelting, and mining workers sat out of work for three months in Sudbury and Port Colborne, Ontario, demanding pay raise and additional benefits. Towards the end of 1969, over 15,800 Inco steel factory workers conducted a four-month strike with similar demands to the one a decade earlier.[2] These events illustrate how the expansion of capital is consistent with David Harvey's notion of a "spatial fix" to mitigate moments of over-accumulation or periodically-occurring crises (Harvey, 2006b; Bradbury, 1985). The expansion also illustrate precisely the reaction of the capitalist class in overcoming "the development of a spatially uneven [working] class struggle" (Peet, 1984). By exporting their capital elsewhere, corporations are thus able to keep yielding higher rates of profit—something enabled only by the super-exploitation of the working class under repressive political conditions in other parts of the world.

In 1968, unlike Freeport, Inco received their first long-term KK contract under the terms and conditions of the "Second KK Generation" after beating rival bidders Société Le Nickel from France in partnership with United States-based Kaiser Aluminium Co and Sumitomo. After penning the deal, a major Canadian newspaper described Inco's investment as "an important part of the test of international capitalism in Indonesia." Under their subsidiary Inco Indonesia, the enterprise acquired mining permits for a nickel-rich concession area of 6.6 million hectares in the eastern part of Sulawesi. The contract period lasted for 30 years once commercial production commenced, with Inco Indonesia holding 75 percent of shares and several Japanese companies owning the rest. Along with mining projects and an integrated smelter, Inco Indonesia had also begun to build roads, a hydroelectric power plant, ports, airfields and other infrastructure in Sorowako, South Sulawesi, since the 1970s. In 1996, they penned a permit extension with Soeharto's regime that would last for another 30 years until 2025. Its current concession area encompasses 118,345 hectares, containing 100.8 million tonnes

2 See, Minister of Supply and Service Canada, Strikes and Lockouts in Canada (Ottawa: Canadian Government Publishing Center, 1978).

of laterite nickel ore reserves that the company mines and smelts into semi-finished matte.

After the historical acquisition of Inco Limited by Vale Canada in 2006, Inco Indonesia became Vale Indonesia. Currently, Vale Canada holds 58.73 percent of shares in the company, while Sumitomo Metal Mining Co. Ltd owns 20.09 percent; the other 21 percent are traded in the Indonesian stock exchange since 1990. Inco/Vale have accrued massive profits from their Indonesian operations. Official company reports show that before taxes relative to their market capitalization, the company yielded an average profit rate of around 15 percent. In 2007, as global nickel prices soared, the number managed to reach 16.3 percent. Furthermore, Inco/Vale's average rate of return on capital for ten years up to 2011 was around 34 percent, while in 2017 this number shot up to 108 percent (see Sangadji, 2017).

HISTORICAL MOMENTS OF PRIMITIVE ACCUMULATION

Dispossessed of Their Land

Capitalist production based on natural resources is reliant on securing access to land (and the riches contained within) to further reproduce capital. One of the main obstacles in securing this access is the precapitalist ownership claims—either individual or collective—on the land. As such, the mineral extraction process under privately-owned enterprises necessitates seizing control over non-capitalist property. Thus, notwithstanding communities' dependence on having traditional access to land for their livelihood, mining companies can easily dispossess communities of their land through land-grabs. Even without the physical land-grab per se, the ecological impact of mining activities—also called "negative externalities" in mainstream economics—impact the economic life of precapitalist communities, such as traditional farmers, by rendering their access to land, forests, rivers, lakes and the ocean unproductive.

This is what the indigenous folk in Papua experienced after Freeport began their operations in 1967. The KK with Freeport was made without any consultation with the traditional owners of the land. With the vast amounts of land for mining operations, as well as infrastructure

such as roads, bridges, processing factories, ports, airfields, and entire mining towns, Freeport's activities had inevitably altered and disrupted the terrain where the local populace dwelled. As the New Order ensured political stability through brutal repression, corporations were given leeway to ignore the traditional claims of land by indigenous groups, such as the Amungme and the Komoro folks. KK agreements were devised without any prior consultation to the traditional owners of these lands; as Denise Leith puts it, "Freeport has completely disregarded the rights of [indigenous] land owners" (Leith, 2003, p.8).

The Amungme people, for example, are the traditional "owners" of the land where the Grastberg and Erstberg highland mining are located, as well as Freeport's processing factory and Tembagapura mining town. Meanwhile, the Komoro people's land is now part of Freeport's concession area, spanning all the way from Puncak Jaya to the coastal regions. These territories include the city of Timika and Kuala Kencana, as well as the region leading to Amamapare Port, which is also designated as tailings deposit area (Leith, 2003, p. 85-87). The lives of these folk have been disrupted by the arrival of engine roars, buildings, and roads to facilitate mining activities (Ballard, 2002; Marr, 1993; Abrash and Kennedy, 2001), jeopardizing subsistence farming practices, as well as hunting and foraging activities. Recently, the National Commission for Human Rights (Komnas HAM) found that Freeport has never paid compensation for the Amungme people as landowners in Mimika in the last 50 years of their operation, and determined this to be a violation of their human rights. (Leith, 2003, p. 166-172; Abrash and Kennedy, 2001, p. 64-67 Singgih, 2017).

Mining always entails massive environmental impact on the landscape, and Freeport is especially renowned for its ill reputation and dismal track record in environmental management in Papua over the many decades of its operations. Besides scarring the sacred lands of the Amungme at peaks of Jayawijaya range, another stark impact is the damage they have caused on the riparian ecosystem from the massive amounts of tailings the company disposes into rivers that flows all the way to the Arafura Sea (Leith, 2003, p. 166-171). Huge amounts of sedimentation flow downstream along the Ajikwa river, destroying forest

ecosystems where the Koperakopa people harvest sago palms as their primary source of nutrition, as well as traditional medicinal plants, vegetables, fruits, fish, and build materials (Marr, 1993, p. 79).

Unsurprisingly, a myriad of protests have taken place dating all the way back to Freeport's early period of operations in Papua. In 1973, a protest broke out opposing the construction of company housing in Tembagapura. This and other protests compelled Freeport to make an agreement with the local populace, known as the "January 1974 Agreement". The company promised to build schools, clinics, as well as providing facilities and working opportunities (Marr, 1993, p. 73). Chris Ballard reported that the formal deal involved Freeport, military and civil officials, as well as traditional leaders of the Amungme folk. However, this agreement was built upon an asymmetry in knowledge which left indigenous leaders not fully grasping its future implications. There have also been reports that the leaders themselves endured intimidation from authorities, forcing them to accept its terms.

However, discontent continued amongst the local populace well after the agreement was ratified as mining operations and supporting infrastructure continued to expand at pace, displacing the Amungme folk from mining areas and other lands. These tensions eventually erupted in a riot near Tembagapura in November 1976, followed by a "rebellion" in June 1977 when villagers chased away two policemen from Akimuga Village. In response, the military bombarded the village with two Bronco ground attack planes. A few days later, the armed rebellion group Free Papua Movement (*Organisasi Papua Merdeka*, or OPM) retaliated by storming Freeport facilities; the military cracked down even harder by fusillading Akimuga, killing 30 peasants, while the Amungme settlements in Waa, Timika, as well as areas along Tembagapura were razed to the ground (see Ballard, 2001; Ballard, 1996).

What followed these brutal events is the history of bloody violence across Papua—both directly or indirectly connected to Freeport. As the national Papua liberation movement intensified within the territory of Freeport operations, conflicts between the corporation and Papua natives overlapped with the Washington-backed counterinsurgency violence orchestrated by the government in Jakarta. Murders, kidnapping, torture and rape took place around Freeport's perimeter under the banner of eradicating the Free West Papua movement, along with the violation of cultural and subsistence rights of indigenous folk (see Abrash and Kennedy, 2001). To ensure the stability of their mining operations, Freeport Indonesia had officially poured millions of dollars annually to receive protection from Indonesian security forces (see Freeport McMoRan Copper and Gold Inc, Annual Reports, 2003-2016). Military personnel were deployed in large numbers throughout the territory as local Papuans keep feeling aggrieved and dismayed by the presence of Freeport encroaching throughout multiple aspects of their lives.

A similar experience pertaining to the expansion of mining capital also occurred in South Sulawesi following Inco's arrival in 1968. During the Dutch colonial period, what was to be Inco's concession territory around Lake Matano—an area rich with laterite nickel deposits—was briefly mined by *Mijnbouw Maatschappij Celebes* (MMC) in the early 1940s (see Braake, 1977). However, unlike Freeport where violent armed conflict between the Indonesian military and Papuan liberation group takes place directly within Freeport's concession area, Inco Indonesia's land used to be controlled by the Darul Islam/Islamic Armed Forces of Indonesia (DI/TII) under the leadership of Kahar Muzakkar (see Harvey, 1974). Although Kahar was reportedly killed in 1965—three years before Inco received their KK contract—surveyors conducting exploration around Lake Matano were still facing sporadic security threats (Abubakar and Muis, 2002).

Due to DI/TII insurgency in the region, the small indigenous communities, such as Sorowako and Karonsi'e Dongi people, mere displaced and had to leave their homeland. As they gradually returend to Sorowako after DI/TII insurgency abated, they found their lands entirely transformed (Lihat Sangaji, 2002; Tyson, 2008). Inco emerged against such backdrop, as these communities were only starting to rebuild their lives on their home soil.

Inco's concession area is situated in an extremely remote part of Sulawesi. Its inhabitants, such as the Sorowako and Karonsi'e Dongi people, are small communities who subsisted on farming, agriculture, and foraging. The indigenous Sorowako folk, who adhere to the Islamic

faith, are culturally and linguistically connected to the Mori people of Central Sulawesi, although they have also retained strong Bugis influence (Robinson, 1986, p.1). Their neighbors, the Karonsi'e Dongi, similarly possess links to the Morinese, although they are Christians instead. Years of DI/TII insurgency had left a mark for these local populace, who had to flee their land for safety and only returned after DI/TII activities subsided.

As is the case with other giant mining operations, Inco requires vast expanses of land which it uses for its complex operations, from open mining areas, nickel smelter, infrastructures such as roads, an airfield, a hydroelectric power plant, the Sorowako mining town, a golf course, and others. All these developments have directly affected the subsistence farming activities of local folk. Ever since its early days of operation, the construction of roads and excavation have affected farmers' lives (Robinson, 1986, p. 178-188). The vast open mining method conducted on the hills surrounding Lake Matano requires a vast amount of land, both for the mining operation itself and for disposal of overburden and waste. The construction of the 165-Megawatt Larona hydroelectric power plant to supply electricity for the company dammed the Larona River, which flooded farmlands, homes, and place of worship belonging to dozens of families along the banks of Lake Towuti (Aditjondro, 1998, p. 37-38). The construction of the company's golf course and employee housing complex (who come from different parts of Indonesia, as well as overseas) took place directly above the settlements and agricultural lands of Karonsi'e Dongi people who were just returning to Sorowako after the DI/TII insurgency abated only to find their village transformed completely (see Sangaji, 2002; Tyson, 2008). The area that used to be their traditional territory, such as Kopatea and Bumi Perkemahan, is now under Inco's control per the Jakarta-issued KK contract (Tyson, 2008, p. 216-218).

All of these activities overlap lands that have traditionally been used by indigenous peoples for rice farming, agriculture, as well as foraging forest resources and have directly impacted the lives of subsistence farmers in the area. They are then alienated from their own traditional grounds as Inco took over.

Although may not be as brutal as that in Papua, Inco's operations had induced a protracted agrarian conflict exacerbated by the complexity and uncertainty of land compensation. When the town of Sorowako was about to be constructed, the government "persuaded" around 200 farmers to let go of their lands with very low compensation (see Aditjondro, 1982). But even in 2000, the people of Sorowako still disputed land compensation—26 years after the deal was struck in 1974. In April 2000, with the support of several Non-Governmental Organizations and an Inco employee in Canada, a Sorowako native named Andi Baso managed to deliver his grieavnces directly during a general shareholder meeting of Inco Limited (Inco Indonesia's parent company) in Toronto (Sangaji, 2002, p. 147-148). Some 20 years prior, in 1980, around 95 households living along Lake Towuti demanded that Inco provide compensation for the flooding of their farmlands, coconut plantations, houses and mosque due to the construction of Larona dam (Aditjondro, 1998, p. 37-38). Meanwhile, the Karonsi'e Dongi people still struggle to gain recognition for their territorial claims, although the land is now part of Inco's concession area (Tyson, 2008, p. 194-222).

Conversion to the Working Class

An important precondition for the emergence of the generate working class in rural areas is the separation of farmers from their primary means of production: land. People who are deprived of their land would turn to the labor market to sell their labor to survive, effectively converting from being agrarian producers to modern proletariat class. The aggressive expansion of capitalist industries in rural areas—often assuming the form of large-scale enterprises extracting natural resources—entails the displacement of traditional farmers, hence giving rise to the possibility of their absorption into the modern proletariat workforce. However, these displaced people would only sell their labor under a certain guise of "freedom", namely the freedom to exchange their manpower for a wage to ensure survival.

In Papua, the indigenous folk impacted by Freeport mining operations did not necessarily convert from independent agrarian producers to wage laborers in the mining sector. Although Freeport would have benefitted from employing local manpower given the very remote loca-

tion of its mining operation, the type of available work required a certain level of qualification not possessed by local residents. To quell the growing dissatisfaction among the local populace, in the 1974 January Agreement the company agreed to provide job opportunities to local communities. Following this agreement, around 40-200 Amungme people were temporarily employed by Freeport contractor Bechtel (Ballard, 1996, p. 25). From the beginning, Freeport had been mostly employing people from outside of Papua and barely involved the local populace around their mining area. This practice eventually sparked complaints by Papuans, namely that Freeport had been employing too many laborers from Java. In 1991, 95 percent of the company's workers were Indonesian citizens, while 13 percent of them were indigenous Papuan folk (Far Eastern Economic Review, 1991, p. 47-48). According to Michael Howard, Freeport employed around 7.500 people that year, stationing them to live in dormitories equipped with various facilities. Although the company initially faced difficulties in attracting people to work in an isolated location, they managed to solve this problem by offering competitive wages. Most administrative and managerial employees were Americans, while operational duties were assigned to Indonesians instead. Of the 1.500 Papuans employed by the company, only a handful originated from around Freeport's area—most are members of different ethnic groups, such as people coming from Biak or other places around the Gulf of Cenderawasih, who have been more adept in finding work outside their traditional economies (see Howard, 1994).

Meanwhile, the process of proletarianization of indigenous folk in Sorowako, Sulawesi, occurred over a prolonged period of time. Despite losing large swaths of their traditional lands, the local population were not driven to immediate bankruptcy as they had still owned other (albeit significantly smaller) pieces of land, and as such did not have to sell their labour despite the mounting pressure to encash on these estates as well. Furthermore, the local populace did not possess the qualifications required by Inco to employ them as well. Of the Sorowako people who did manage to get employed by Inco and its contractors, Kathryn Robinson described them as "the least skilled, who receive the lowest wages, as well as the most exploited and having the least possibility to mobilize vertically within the company through trainings provided by Inco" (Robinson, 1986, p. 139-140). Until the turn of the century, only 143 of Sorowako's 2.549 residents are employed by Inco—some as field laborers or in smelting facilities, while several others held clerical jobs. However, they also felt to have been treated unjustly: despite possessing the same education degree and working experience, local Sorowako residents often find themselves stationed in lower positions compared to other laborers with the same qualifications. Protests demanding Inco/Vale to employ more local people had been occurring since 1998 (Sangadji, 2002, p. 151-152). Moreover, only very few members of the indigenous ethnic groups living in the area—such as the Karonsi'e Dongi, Padoe, or Tambee people—have ever been employed the company. Only around 200 people out of the thousands of workers employed by Vale came from these three communities. Describing themselves as "local people with agrarian lands being affected by Inco/Vale", they have voiced the desire for the company to employ more members of their local ethnic groups.

CONCLUSION

This paper problematizes the continuation of primitive accumulation histories within the trajectory of capitalist development. If modern accounts of primitive accumulation emphasize those happening on a national or continental scope (namely the cases of formerly communist countries such as China, Russia, or Eastern European Nations—Holmstrom and Smith, 2000, p. 1-15), similar processes in countries of the global south have occurred in a more localized manner, illustrating the unevenness of the development of social capitalist relations on a global scale. Indonesia's specific experiences pertaining to the extractive industry suggests that primitive accumulation needs to be understood within the context of expanding capital reproduction. The import of capital from developed capitalist countries in the mining sector necessitates primitive accumulation within a more restricted scale in order to enable the accumulation of natural resource-based capital to happen. The accounts of two mining operations in Papua and Sorowako show that primitive accumulation works as a precondition of capital accumulation.

I have demonstrated how the expansion of mining capital to hitherto isolated regions have disrupted the relations between farmers

and their traditional agrarian lands. Mining enterprises, which require educated and skilled workers, do not immediately provide employment for the local populace due to the differences between labor profile and requirement. It takes a long period of time for local residents, who had previously worked as traditional farmers, to be able to work for these mining companies after being dispossessed of their lands. The nature of mining industries as a capital-intensive sector—or "technologically intensive", which underlies the lack of need for employing large numbers of people—had rendered affected local residents to become members of a "reserve army of labour" (Marx, 1976), either as traditional farmers, working in the informal sector, or simply unemployed. These conditions inadvertently created a shared feeling of dissatisfaction and discontentment amongst the people living around mining areas. Empirically, traditional farmers had paid the highest price of primitive accumulation. These accounts demonstrate that the "victims" of such accumulation processes contain theoretical and political implications—and not only to figure a way out of mining capital controlled by transnational companies, but something even larger in scope: a way out of capitalism itself.

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CRISIS, INJUSTICE, AND SOCIO-ECOLOGICAL JUSTICE[1]

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ABSTRACT

This article theorizes on crises, injustice, as well as socio-ecological justice by taking the case study of a drought crisis occurring in shallow wells belonging to local residents vis-à-vis the deeper wells of hotel establishments in Yogyakarta. The hotel establishments themselves are facing a crisis of overproduction—an integral part of "Accumulation by Dispossession" (AbD). However, the theory of AbD, grounded in the contradiction between labour and capital, is inadequate in explaining this crisis. As the drought phenomenon comprises non-labour elements, the theory of overproduction needs to be supplemented with a theory of crisis of underproduction (*aleon*). The socio-ecological injustice resides in the operation of hotel wells that is dictated by exchange-value, while all household wells are governed by use-value. To achieve socio-ecological justice, this article suggests positing use-value as an axis in determining the relationship between humans and non-human elements to build an interconnected anti-capitalism movement.

Keywords: Accumulation by Dispossession, *aleon*, overproduction, socio-ecology, capitalism.

In their endeavours to illustrate unfurling crises, injustice, as well as to bring forth imaginations of justice, non-governmental organisations, researchers and corporations often invoke the phrase "socio-ecological" (see Jatam, 2018; Setyawan, 2018; Luthfi, 2017). One such researcher is the environmental scholar Hendro Sangkoyo who in the past two decades had strived searching for ways for society to recover from socio-ecological crises (see Sangkoyo, 2016). In his elucidation of this crisis, Sangkoyo views capitalism as the primary engine propelling the multiple processes that are happening right now (see Sangkoyo, 2018, p.

1 This article is taken from a previous publication, Bosman Batubara. "*Krisis, Ketidakadilan, dan Keadilan Sosio-Ekologis*". 2019. *Jurnal Prisma,* Vol. 38, Number. 3, p. 66-84.

137-151). Meanwhile, Dian Yanuardi and Swanvri put forth a theoretical discussion on socio-ecological crises being the result of capitalist expansion. They analysed these conditions as the consequence of capitalism's internal contradictions leading to a crisis of overaccumulation (see Yanuardi, 2014, p. 31-45).

As the term "socio-ecological" gained popularity and became more ingrained in public conscience—or as Gramsci (2000) puts it, "philosophy for the non-philosophers''—it is reasonable to expect that a more theoretical problematisation on what "crises, injustice, and socio-ecological justice" actually means is needed. In this regard, neither Sangkoyo nor Yanuardi and Swanvri have been sufficiently convincing in their arguments. Sangkoyo's account and analysis had been too general (see Sangkoyo, 2018), while Yanuardi and Swanvri approached the crisis of overproduction by emphasising the analysis of capitalism as a relation of production where capitalists exploit their underclass labourers. The question is, how do non-labour forces (or to be more precise, *non-human* forces) contribute to these crises? Is ecology merely the result of capitalist expansion? What role does ecology play within this crisis that it is dubbed a "socio-ecological crisis" rather than simply a "social crisis"? And finally, how should we conceptualise our understanding of crisis, injustice, and socio-ecological justice?

This article attempts to tackle these questions via a dialogism between the theory of "Accumulation by Dispossession" (hereinafter abbreviated as AbD) and the theory of the "crisis of overaccumulation" reintroduced by David Harvey for pragmatic reasons: by positing Accumulation-by-Dispossession as an explanatory framework for the rapid process of capital accumulation in Indonesia within the past few decades, one creates a resonance among users of the term "social-ecology" who tend to identify the genesis of socio-ecological crises within the expansion of capitalism.

Among other cases, this framework of AbD and capitalist expansion had been utilised to explain how residents in Yogyakarta had faced a water crisis due to their shallow wells drying up over the years. This particular case is chosen for its strategic advantage to problematise the aforementioned framework because it contains two separate dimen-

sions. The first dimension is the groundwater extraction activity, especially via wells "owned" by hotels in Yogyakarta. While the second dimension is the amount of time needed to refill the aquifers cannot keep up with the speed with which groundwater is extracted. It is the dialectic between these two dimensions that results in the drying up of the shallow wells belonging to local residents. The utilisation of AbD as a theoretical framework in this drought case, namely to illustrate groundwater extraction as a process of accumulation through mechanisms of dispossession, will prove to be insufficient: it fails to take into account the scarcity of water supply within the process of refilling the extracted aquifers, because the hydrological cycle as a factor within capitalist production involves non-labour elements. In other words, a different theory is needed to illuminate this drought crisis in Yogyakarta—one that opens up the space to complement, and not replace, the explanatory framework of Accumulation-by-Dispossession.[2]

To supplement the aforementioned theoretical concoction, this article incorporates Jason Moore's conceptualisation of capitalism as the combination between human and nonhuman elements, of which both provide value within capitalist production (see Moore, 2015). The value that capitalists "snatch" is not only from exploiting surplus-value of labour in an industrial system, but also appropriating other non-labour aspects. This framework of Moore's will be employed to explain the process of groundwater appropriation in Yogyakarta. The drying up of residents' wells because the hydrological cycle that replenishes the water table cannot keep up with the amount of water being extracted is identified in this paper as a moment of "crisis of underproduction" or *aleon*[3].

2 The contradiction between "shallow wells" versus "deep wells" did not only happen in Yogyakarta. A drought crisis in shallow wells had also occurred in the Gunung Pati District of Semarang, Central Java. In a discussion entitled "Mbalekke Banyu" (returning water) in the Kampong of Gebyok (12 July 2019), the narrative that developed was that newly-drilled deeper wells in a recently-constructed housing complex had taken all the water supply from the wells of local residents. In Labuan Bajo, East Nusa Tenggara, the shallow wells of local residents also ran dry due to extraction of groundwater from deeper wells belonging to commercial entities, namely hotels and industries (see, www.youtube.com/watch?v=G9732OmrWZc&feature=youtu.be). And in Jakarta, especially in its northern areas, groundwater extraction from deep wells have been the main culprit of land subsistence within the region (writer's research; yet to be published).

3 *Aleon* is a Mandailing word that explains "scarcity" (of harvest yields and commodities).

THE DIALOGUE BETWEEN "ACCUMULATION-BY-DISPOSSESSION" AND THE CRISIS OF OVERPRODUCTION

David Harvey formulated the theory of AbD in several instances over his career as a geographer (see Harvey, 2003; Harvey, 2004; Harvey, 2005a; Harvey 2005b). Introducing it in his 2003 book *New Imperialism*, Harvey employed the theory to explain the constellation of international geopolitics hegemonised by the United States, albeit one that is characteristically different during the 1970s to the 2000s from its hegemony in the previous period (see Harvey, 2003). To explain this distinction, Harvey bases his analysis on two dialectic logics: the logic of state power and the logic of capital expansion. While state power is *fixed* within a defined territory, capital expansion is always *mobile*, bypassing borders hitherto defined in the workings of state power itself. Both logics were at work throughout the change of hegemony post-World War II.

From 1945 to the 1970s, the United States conducted their hegemony through state power, utilising their political and military might to become the dominant force in international geopolitics. Meanwhile, the 1970s to the 2000s became the era of neoliberal hegemony. The United States remained hegemonic in world geopolitics, but this time it is supported by big corporations that consolidated and managed to take over and supplant the Keynesian state since the 1970s.

Corporate consolidation of this era resulted in the over-accumulation of capital in the hands of American businessmen. Such excessive accumulation of capital necessitates its injection into the capitalistic circuit for it to sustain and generate new surpluses. Capital must always be on the move to keep generating profit—either via the exploitation of labour taking away the surplus-value generated through their work, or by appropriating anything that has yet to be usurped into the capitalist system. In short, capital must keep expanding geographically to ensure its continued existence.

Compared to AbD, over-accumulation theory has had a longer history. Harvey himself analysed the capitalist crises by understanding the contradictions between capital and labour. He laid out three types of crises which had become inseparable to capitalist development (see Harvey, 1981, p. 1-12). The first is borne as excessive capital accumulation in the hands of the capitalist class occurs alongside a lack of demand amongst consumers (which often turns out to be labourers as well). As commodities cannot be sold in the market, this "crisis of over-accumulation" becomes near-synonymous with the "crisis of overproduction". When commodities cannot be sold, a drop in factory productivity follows, which results in layoffs of labourers.4 The capital's way out of this crisis of over-accumulation, Harvey argues, is to expand geographically, otherwise known as a "spatial fix" (see Harvey, 1981). In new territories, capital will find new resources, labour, and market. In other words, capital is in a constant desire to seek new frontiers to integrate into its circuit.

The second form of capitalist crisis arises from a contradiction within financial capitalism. This crisis is tied to the first, namely that capital pursues its spatial fix with the help of financial schemes. In essence, financial schemes merely postpone crises by "pawning" the future by disbursing credit to expand capital by deferring payment. At this point, spatial fix encounters temporal fix, morphing into a "spatio-temporal fix" (see Harvey, 2006, p. 142-166). Eventually, the newly opened frontier—now taken hostage by the laws of capitalist contradiction—will inevitably descend into yet another crisis of over-accumulation. The inherently speculative nature of financial schemes means that investments tend to be disjoined from effective demand. Harvey illustrates this with the example of property sector speculation (see Harvey, 2012). While real housing demand is not actually high, the "iron law of competition" (see Woods, 2002) dictates the capitalist to keep investing their capital—lest another capitalist will—even in less rewarding sectors with a long turnover time such as property.

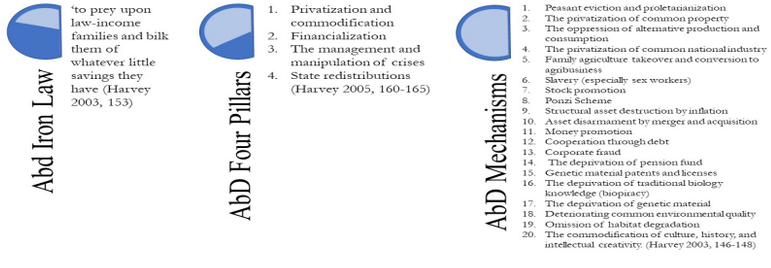
Finally, the third kind of crisis involves a geographically uneven development. This crisis is the result of the asynchronous rhythm of development—a flux of capital within a certain region (see Smith, 2008) which "ravages" a territory before moving on to ravage the next one. This crisis is also exacerbated by international trade organisations, which are steered by the interests of gargantuan multinational enterprises.

4 This dynamic prompted some to identify the crisis of over-accumulation as an over-accumulation of labour.

These capitalist expansions, intended to mitigate the neoliberal crisis of over-accumulation, are what lead to Accumulation-by-Dispossession. In its utilisation, however—particularly within agrarian academic circles—AbD tends to be divorced from the context of the crisis that precede it (see Hall, 2013). David Harvey was inspired by Karl Marx's account of primitive accumulation (see Marx, 1982)—the divorce between "traditional" independent producers and their means of production, otherwise referred to as the process of "proletarianisation" that forces people to sell their labour for a wage. Harvey argues (see Harvey, 2003; Harvey, 2005a) that the adjective "primitive" within "primitive accumulation" has misled us to think of this phenomenon as something that occurred in the distant past and is finished. In reality, the process of creating new proletarian subjects continues to this day in this neoliberal age. Accumulation happens not only through labour exploitation within productive sectors, but also through dispossession of things that already exist.

Although he did not organise it systematically, Harvey posited that AbD consists of three important, yet distinct, elements: an "iron law" which dictates the entire process of Accumulation-by-Dispossession; the "pillars" which enable the conditions of which AbD can flourish; as well as its specific mechanisms (see Schema 1).

Schema 1. The theory of Accumulation-by-Dispossession



This article employs various sets of data to examine how the shallow well drought in Yogyakarta is an integral part of the process of AbD, the crisis of overproduction, and *aleon*. The data on hotel occupancy in Yogyakarta from 2013-2017, which suggests a symptom of overproduction, was acquired from the Central Statistics Bureau (BPS) of the Province of the Special Region of Yogyakarta (DIY) in 2018. Meanwhile, information on what constitutes a minimally "secure" occupancy for hotels in Yogyakarta was derived from statements of several actors within the industry. Information regarding groundwater *aleon*, as well as the dynamics of drought in household wells, was gathered from different media reports. This article uses the Mount Merapi aquifer as a methodological instrument to gauge the volume and monetary value of groundwater extracted by hotels in the region. Merapi aquifer is the hydrogeological unit from where groundwater is extracted; geologically, its rocks are sediments coming from Mount Merapi (see Putra and Indrawan, 2014, p. 106). Hydrologically, the Merapi watershed unit is called the "Yogyakarta-Sleman basin". In this article, the distribution of Merapi aquifers is analysed using a Geographic Information System software (ArcGIS—see Putra and Indrawan, 2014). The aquifers throughout Sleman Regency and the City of Yogyakarta, as well as some points in the Regency of Bantul (see, map on Image 1) are chosen as the hydrogeological units for analysis due to their important function in providing groundwater for all three areas. If drought or contamination occurs in any of these regions, the first hydrogeological unit that is investigated is the Merapi aquifer. In other words, this article proposes a method of groundwater-monitoring based on a hydrogeological unit that coincides with the socio-spatial footprint for socio-ecological justice.

The data on two types of hotels—namely "star hotels" (S) and "non-star hotels" (NS)—is acquired from BPS DIY featured hotel directory that lists hotels down to subdistricts level (see, Badan Pusat *Statistik Daerah Istimewa Yogyakarta*, 2016). BPS also provides the data on hotel occupancy in 2016, as well the average occupancy per room (*Badan Pusat Statistik Daerah Istimewa Yogyakarta*, 2018). Meanwhile, the information on water consumption per hotel room of 380 liters a day (or a daily rate of 0,38 m^3) is taken from the documentary film "Behind the Hotel" (Belakang Hotel) produced by Watchdoc (2015). The water tariffs refer to Yogyakarta Mayor Regulation Number 56/2013 on Drinking Water Tariffs for Regional Drinking Water Company (PDAM) Tirtamarta Yogyakarta, which stipulates a tariff of IDR 5,500/m^3 for inns and lodgings,

categorised as "small business", and IDR 10,500/ m^3 for hotels, categorised as "large business". The tariff actually increases for every $10m^3$ of water consumption, but this article does not take that into account. All water tariff conversions are calculated similarly at 0-10 m^3 increments. Following Yogyakarta Mayor Regulation Number 56/2013, star hotels are designated as "Hotels", while non-star hotels as "Inns/Lodgings".

There are nonetheless two methodological limitations for such calculation methods. *Firstly*, the distribution of Merapi aquifers are concentrated within a central area and thins out toward the peripheries. This means that hotels and inns located throughout the latter are unable to extract groundwater from these aquifers. *Second*, the sorting of hotels by subdistricts means that the outlines of Bantul Regency may not precisely coincide with the distribution of Merapi aquifers. In other words, hotels and inns in subdistricts that are largely located outside of Merapi aquifers, such as Pajangan and Piyungan, may actually extract groundwater from Merapi aquifers, while those located within aquifer areas may actually extract their groundwater from elsewhere.

ACCUMULATION BY DISPOSSESSION OF GROUNDWATER AND THE CRISIS OF HOTEL OVERPRODUCTION

The documentary film "*Belakang Hotel*" illustrates how shallow wells belonging to residents in Yogyakarta were hit with severe drought in 2014 due to the presence of deeper wells belonging to hotels within the city. As such, groundwater extraction from aquifers beneath Yogyakarta became a competition between a group with lesser resources (in this case the residents) and another group with better resources (hotel owners). This asymmetry of resources is directly manifested in the depth of groundwater well of each: residents usually owning traditional wells of more shallow depth, while the more sophisticated hotel wells are able to penetrate deeper into the ground. This entire process can be argued as Accumulation-by-Displacement as hotels now dominate groundwater extraction—a resource that originally belonged to no one, but is then claimed by the state, which then levies taxes for its usage. This extraction process allows hotel owners to conduct accumulation by renting out hotel rooms while, on the other hand, the wells belonging to local residents dry up. In other words, residents bear the brunt of the effects of capital accumulation by being dispossessed of the groundwater which they were able to acquire for free before. By being pumped up from underground, water is brought to the surface-world of commodity relations.

Within the overall scheme of AbD (as summarised through Scheme 1 above), the act of acquiring groundwater can be categorised as the "privatisation of previously commonly-owned property"; indirectly, it is also the commodification of groundwater. However, it is worth noting that groundwater itself is *not* the traded commodity as such: what the hotels are actually offering are the rooms for their guests, of which groundwater is part of the services one gets by acquiring the rooms. This is different from the commodification of bottled drinking water that directly trades water as the commodity. In the case of Yogyakarta's hotels, water assumes a "lubricating" function in the overall capitalist production process of hotel businesses and the hospitality sector.

Furthermore, there is also the moment of an overproduction crisis in the form of an oversupply of hotel rooms that exceeds effective demand. One can outline this crisis by measuring how occupancy rates of hotel rooms in Yogyakarta have always been short of "healthy market conditions". From 2013 to 2017, hotel occupancy in DIY Province—both that of star and non-star hotels—had always been under 60 percent (see, Graph 1). According to the Director of the DIY chapter of the Indonesian Association of Hotel and Restaurants (PRHI) Istidjab M. Danunegoro, a 60 percent occupancy signifies the minimal level of optimal market conditions, with lower rates leading to unhealthy competition between hotels, including price wars (Wardhani, 2018). Below the 60 percent threshold, capitalist hotel owners are also likely to suffer a significant dip in revenue, even losses. As such, maintaining that 60 percent rate seems to be essential to enable capitalists to accrue profit, as well as avoiding "price wars" among hotel owners.

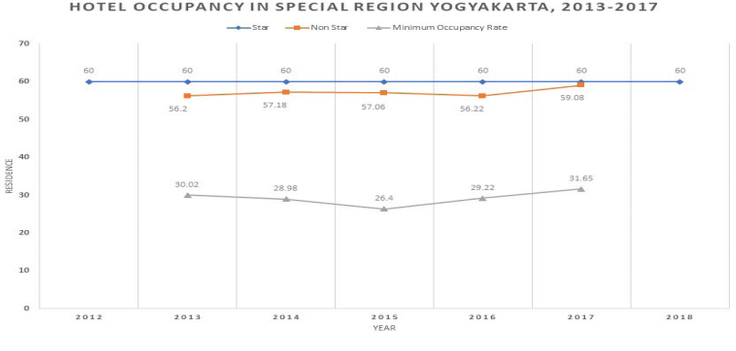
However, a new contradiction had since appeared in spite of these low hotel occupancy rates: in January 2019, the City Government of Yogyakarta ended the moratorium of new hotel building in the city. In spite of the already-sluggish market condition among the existing 624 hotels in Yogyakarta, the city government now allows new ones to be constructed—in particular four-star and five-star hotels, as well as guesthouses.

The government claims that the moratorium was ended to anticipate the influx of visitors to the city after the completion of the New Yogyakarta International Airport (NYIA). The increased tourist traffic is expected to increase the earning of local residents as well as the income of hotel owners (See Wijaya, 2019).

The question: if the demand for hotel rooms has been lower than its supply and market conditions are unhealthy, thus forcing hotel owners to descend into price war, why keep building new hotels at all? Aside from the alleged need to cater for the (projected) influx of tourists, it is the crisis of capital overaccumulation, or in other words, overproduction, which forces them to continue building new hotels in Yogyakarta. With low occupancy rates signifying an excess supply of hotel rooms, further injection of capital into an already sluggish market suggests that the capital accumulated in the hands of capitalists or financial institutions need to be keep being mobilised within the capitalist production circuit to generate further revenue, no matter the margin.

However, the overproduction or oversupply of hotel rooms is only one part of the conjuncture of crises that led to the drought of wells in Yogyakarta; the other part involves the Merapi aquifer itself as the site of groundwater extraction. Yet if moments of overproduction can be theoretically elucidated by outlining the internal contradictions of capitalism—namely between capital and labour, or between supply and demand—it takes a different theory to explain the role of aquifers, a non-human factor, within this crisis.

Graph 1. Hotel Occupancy in Special Region Yogyakarta, 2013-2017



- Bintang: Star
- Non-Bintang: Non-Star
- Pasar Sehat: Minimum Occupancy Rate
- Y Axis = Hunian [%] : Occupancy [%]
- X Axis = Tahun : Year

Sources: 1. Occupancy rates for Star and Non-Star Hotels 2013-2017 from the Central Statistics Bureau (BPS) of the Special Region of Yogyakarta (DIY) (2018); 2. Minimum occupancy rates for a healthy market condition from jogja.tribunnews.com (2018)

- Source: Central Statistics Bureau of the Special Region of Yogyakarta, Occupancy Rate of Hotel Rooms (Yogyakarta: BPS DIY, 2018).

The *Aleon* Crisis in Capitalism

In his analysis of industrial capitalism, Karl Marx heavily emphasised the process of exploitation towards labourers. He imagined surplus-value being derived from the excess unpaid work of the proletariat converted to a commodity for trade; it is through this process that capitalists are able to make a profit. The first three chapters of *Capital* volume I, for example, can be read as Marx's unrelenting attempt to posit labour as the epicentre of his book about capital (see Marx, 1982). He mentioned, "The truth is, the value of every yard (linen fabric) is none other than the materialisation of several homogeneous labour work whose uniform quantity is determined socially" (see Marx, 1982, p. 202). So important is this particular passage that the Institute of Marxism-Leninism was "compelled" to provide a footnote to it:

> "In a letter dated 28 November 1878 to NF Danielson, the translator of Capital to Russian, Marx made these following changes: 'In truth, the value of every yard is none other than the materialisation of several quantities of social labour work inscribed within several yards itself'." (see Marx, 1982, p. 202).

The distinction between the original passage in *Capital* and its accompanying footnote lies in *how* far labour-work plays a role in the production of value embedded within linen fabrics: in the first passage, labour tends to assume a determinant role. In its following footnote, this determination is visibly tuned down.

The perspective that puts great emphasis on such labour contribution is better understood by outlining the process of valourisation of capital in factories (see Marx, 1982, p. 321). A single production cycle begins with a certain starting point in time (t0) and ends when the product has been made (tn). In the beginning of this process (t0), capitalists own a total amount of capital (C) in the form of means of production (denoted as c, or constant capital—for example: machines, fuel, and raw resources), as well as cash to purchase labour-power (referred to as V—variable capital). Brought together, the starting condition of production (t0) is notated as follows:

$$C = c + V \text{ ... (Formula I)}$$

By the time production has ended (tn), capitalists had exploited their labourers and now possessed the surplus-value embedded within their products. This means that their total capital has already grown from its initial starting point—now denoted as C′— due to the addition of surplus-value (S) acquired by the exploitation of labourers. This exploitation process is as exemplified as the following: in truth, a factory worker only needs to work for two hours a day to fulfil their living needs (something Marx refers to as "necessary labour"). However, labourers work for 8 hours a day while being paid the value equivalent of only 2 hours of work (V). It is these 6 hours of "surplus-labour" that is taken away, or exploited, by capitalists for their own profit. As such, Formula I has now been altered to:

$$C' = c + V + S \text{ .... (Formula II)}$$

The caveat here is that several elements, such as groundwater, are not explicitly taken into account within both formulations. In other words, their contribution is rendered invisible compared to that of workers in the production of surplus-value. As elements such as groundwater in Formula I and II are subsumed under the more general category of

constant capital (c), we need to adjust these formulas to bring light to their contribution in the valourisation of capital from C to C′. In this regard, the conceptual distinctions presented by Jason Moore are of great help (see Moore, 2015). He differentiates between "value" and "value-relations"; of "what becomes the character of capital" and "what is done by capital"; the "logic of capital" and "history of capital"; as well as "exploitation" versus "appropriation".

In the production of capital, "value" is a specific term which refers to the process by which wealth is created—something that Marx stipulates as originating from the contribution of surplus-value exploited from surplus-labour of workers. However, Moore contends that in reality the creation of wealth is not merely generated from surplus-labour, but also the appropriation of non-labour elements such as water, land, groundwater, to the various forms of "reproductive work" done by domestic helpers, housewives, and the like, so that other members of the household can continue working as labourers for the capitalist class. These non-labour relations are referred to by Moore as "value-relations".

Ultimately, the logic of capital is to accumulate as much profit as possible. As the personification of capital itself, capitalists are only willing to pay for wage labour and explicitly refuse to compensate for other non-labour contributions as this might reduce their profits, or even make them suffer a loss. If we pay attention to the history of capital, the accumulation of wealth has not only been enabled by exploiting labour, but also seizing others' means of production, such as land belonging to peasant farmers, until eventually these people are forced to sell their labour. As stated before, Marx refers to this process as "primitive accumulation", while Harvey designates it as AbD.

For Moore, "exploitation" is a specific terminology used to explain how capitalists accumulate profits from extracting surplus-labour out of workers. "Appropriation", on the other hand, is the act of dispossession done by capitalists to non-labour elements. Moore argues that these non-labour elements—such as energy, raw materials, fuel, food and the non-labour "reproductive" work—are considered "cheap" because capitalists do not put in the effort to produce them. Fossil fuels such as oil or natural gasses, for example, are the result of thousands of

years of naturally-occurring geological processes; all that capitalists do is just appropriate them. Even though these appropriation processes surely incur some sort of cost, the non-labour elements themselves are nonetheless not "paid for", but are freely taken away. This also applies to the groundwater underneath Yogyakarta: capitalists do not "produce" water—they drill a hole in the ground, pump the groundwater up, and then distribute it to their hotel rooms.

If Marx's formulation had rendered these non-labour elements to be invisible by meshing them under constant capital (c) in both Formula I and II, the distinction offered by Moore through reconceptualising the valourisation of capital might be notated as follows:

$$C' = A + Ac + T + V + S \ldots. \text{(Formula III)}$$

C′ is the capital after the production process had ended (tn)

A is the notation for energy, raw materials, food and drink, as well as the various "cheap" non-labour work being appropriated.

Ac is the notation for energy, raw materials, food and drink, as well as the various "cheap" non-labour work being appropriated.

T refers to the tools needed by capitalists for their production process.

V is the variable capital, namely wage for the laborers

S stands for surplus-value

Formula III provides an "expanded conception of capitalism" as employed by Nancy Fraser to explain how capital has always derived profits not only from elements directly related to the market, such as labour or factory machinery (see Fraser, 2014, p. 55-72), but also those that seem disconnected to it—such as the non-labour workforce, and care or household work. Henri Lefebvre and Rosa Luxemburg designate these processes involving non-labourers as "the reproduction of relations of production" and "social reproduction", respectively (see Lefebvre, 1973; Luxemburg, 2003). It seems that Fraser (see Fraser, 2014), Moore (see Moore, 2015), Lefebvre and Luxemburg here are all referring to the same process, namely the non-labour elements which had greatly contributed to the valourisation of capital, and as such require to be brought forth in a more explicit manner.

This does not mean that Marx was oblivious to the processes involving non-labour elements. His great emphasis on labourers might be

the result of his own political aim, namely that "labourers are the fervour of the revolution". In other words, the proletariat is his main interlocutor. Meanwhile, in *Grundrisse*, Marx explicitly identified the appropriation of non-labour workforces, which he described as the "appropriation of alien labour" (see Marx, 1993, p. 458), namely the workforce which still exists outside the circuit of capital and, for valourisation purposes, are appropriated by capital to be part of the circuit itself.

Marx's political vision aside, the distinction on how capital is valourised between Formula II and III consequently leads us to a different imagining of the capitalist crisis. As mentioned by Karl Marx and Frederich Engels (see Marx and Engels, 2008, p. 70) and subsequently expanded by David Harvey, the crisis of capitalism, in accordance with Formula II, is the crisis of overproduction. Through Formula III, however, our attention is shifted along the realisation that capital is dependent on appropriating cheap non-labour elements to survive.

In providing this different formulation, I also respond to Noer Fauzi Rachman and Dian Yunardi's account of socio-ecological crises being "created by the expansion of capital" (see Rachman and Yunardi, 2008, p. 68). In capitalism, crises are not a consequence, but a prerequisite: in order to keep on thriving, capitalist relations of production are *dependent* on crises. Theoretically, this means that a crisis is not merely a moment of overproduction and overaccumulation in the hands of capitalists, as well their over-investment which results in the excess of commodity in the market, but also involves moments of lack and even scarcity of production (*aleon*). Simply put: the flow of cheap non-labour elements from the frontiers are not sufficient to cater to the demands of the system.

THE *ALEON* CRISIS OF GROUNDWATER EXTRACTION IN YOGYAKARTA

In January 2018, the Director of PDAM Tirtamarta Yogyakarta Dwi Agus Triwidodo disclosed that only 156 out of the 418 hotels in the region subscribed to water from the company. We can be sure that the other 262 hotels extract groundwater independently. Moreover, despite having pipe connections to PDAM, some hotels also opt to extract

groundwater to cut operational costs. For hotel owners, freely extracted groundwater is truly a gift of nature; one only needs to purchase a pump and pay their relatively meagre electric bills and maintenance costs (PDAM Kota Yogyakarta, 2019; Amrta Institute, 2017).

By drilling their own wells, hotel owners have committed an investment that will be converted to profits in the future. Within the logic of Formula III, groundwater is "appropriated" by hotel owners for their business operations. Here, the relation between hotels and Merapi aquifers is dictated by the logic of exchange-value, where groundwater is extracted, processed, and integrated into the world of commodities. This entire process stands in contradiction with the utilisation of groundwater by ordinary residents who do not draw water for exchange via market mechanisms, but for daily use. Their relation to the Merapi aquifer is that of a simple use-value.

Image 1. Map of Merapi Aquifer Distribution

Kabupaten Sleman = Sleman Regency

Kota Yogyakarta = City of Yogyakarta

Kabupaten Bantul = Bantul Regency

Legend: Aquifer Merapi -> Merapi Aquifers ; DIY -> Special Region of Yogyakarta

Source of Merapi Aquifer Map: Putra and Indrawan (2012)

Gambar 1. Peta Persebaran *Aquifer* Merapi

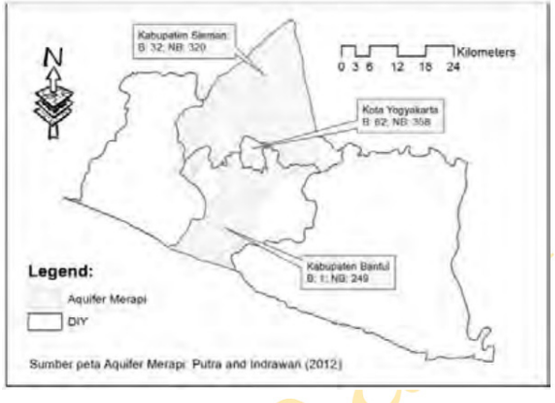


Image 1 illustrates the distribution of Merapi aquifers. In this case, the hotels that are most likely to extract water from Merapi aquifers are 32 star hotels and 320 non-star hotels in the Sleman Regency; 62 star hotels and 358 non-star hotels in the City of Yogyakarta, as well as one star hotel and 249 non-star hotels in the Regency of Bantul. Table 1 shows the locations of both S and NS hotels in Yogyakarta, as well as the occupancy in all hotels throughout 2016. The total number of occupants in this table have been converted proportionally. For example, there are 96 star hotels in the entire Yogyakarta Province, while 95 of these hotels are expected to extract water from Merapi aquifers. Proportionally, the number of occupants in star hotels that have extracted groundwater from Merapi aquifers is simply derived by this simple formula: (the number of hotels suspected to extract from aquifers *divided by* (/) the total number of hotels in Yogyakarta), *multiplied by* (x) (total number of hotel occupants throughout 2016). In numbers, this would lead to a calculation of (95/96) x (3,371,195) = 3,336,078 occupants (see, Table 1 and Table 2). The same formula also applies to occupants of non-star hotels.

Meanwhile, the number of "occupied rooms" is derived by dividing the "number of occupants" with "the average guest per room". These rooms are then multiplied by the daily rate of water use per room (0.38 m^3), and then converted to a monetary value of IDR 10,500/m^3 for star hotels and IDR 5,500/m^3 for non-star hotels (inns and lodgings) per Yogyakarta Mayor Regulations Number 56/2013. Using this formulation, the total monetary value of extracted groundwater from Merapi aquifers in the entire Yogyakarta Province for all hotels (Star and Non-Star) is estimated to be around IDR 8.2 billion in 2016 (Table 2).

Finally, continuous extraction of groundwater in Yogyakarta has also led to the consistent fall of the water table in the region. According to Totok Gunawan, Professor of Hydrology at Universitas Gadjah Mada's Faculty of Geography, the water table throughout Yogyakarta has fallen at a rate of 1-2 meters per year (see Republika, 2017). This consistent drop is what led to the crisis of drought of shallow wells belonging to local residents. Here, "crisis" is defined as a condition where the rate replenishment of groundwater in aquifers cannot keep up with

the speed with which groundwater is extracted by a capitalistic-parasitic city. In other words, it is the moment of *aleon*.

Table 1. Total Number of Hotels and Occupants in both Star (S) and Non-Star (S) Hotels throughout Yogyakarta (2016)

	Regency	Subdistrict	Star (S)	Non-Star (NS)
Merapi Aquifers	Sleman Regency		32	360
	City of Yogyakarta		62	358
	Bantul Regency	Srandakan		4
		Sanden		22
		Kretek		212
		Banguntapan		5
		Sewon	1	6
		Kasihan		9
	Total		95	976
Non -Merapi Aquifer	Gunung Kidul		1	87
	Kulon Progo			26
	Bantul	Pajangan		1
		Piyungan		1
	Total		1	115
Total number of hotel occupants (persons) in all hotels throughout Yogyakarta, 2016			3.371.195	2.726.129

Table 2. Estimated Groundwater Extraction from Merapi Aquifers from Star and Non-Star Hotels in the Special Region of Yogyakarta (2016)

	Star	Non-Star	Total
Number of hotel room occupants consuming groundwater	3.336.078	2.438.774	5.774.852
Average number of guests per room	2,54	1,74	
Occupied rooms	1.313.417	1.401.594	2.715.011
Water consumption (m^3)	499.098	532.606	1.031.704
Monetary value of consumed groundwater	5.240.532.582	2.929.331.405	8.169.863.987

TOWARDS A THEORY OF SOCIO-ECOLOGICAL CRISIS

Through the theory-case dialectic of drought in household wells throughout Yogyakarta occurring simultaneously within moments of overproduction as well as *aleon*, this part will theorise the socio-ecological crisis as the eventual culmination of both events. Here, dialectics is posited as "creating real movement" (see Lefebvre, 2009, p. 29) from an idea toward praxis through synthesis. In theorising this socio-ecological crisis, we are informed by the realisation that crises are something *produced*: in the context of capitalism. Crises are not posited as an effect, but a precondition for its perpetual operation. Consequently, this point will lead our theorisation to engage with theories of the "production of nature" exemplified by Neil Smith (see Smith, 2008). This theory attempts to reconstruct the relation between humans and nonhumans—hitherto simply referred to as "nature"—which had previously been treated as two separate entities. Such dualistic conception is the consequence of a Cartesian paradigm that pave the way for capitalist expansion. By imbuing the idea of nature being something outside the realm of human subjects, this dualism gives rise to the attempt of subjugating the external "non-human" object of nature.

As the drought crisis in Yogyakarta sees the entanglement of human subjects doing the extraction with "non-human factors" that replenish Merapi aquifers, a significant part of this theorisation will attempt to shed light on this entanglement through the terms "socio-ecology" and "socio-nature". Finally, the role of non-labour elements in the production process will also be explained through the aforementioned expanded conception of capitalism.

To explain how nature itself "produces", Smith provided us with what he designates as three distinct production processes: (1) production in general, (2) the production of nature, and (3) capitalist production. In the case of "production in general", the relation between humans and nature operates under the logic of use-value, such as when one pumps groundwater to simply utilise it for their daily needs. However, the "production of nature" converts natural objects from their "first nature"—the immediate manifestation of nature during production-in-general for their use-value—to a "second nature", in which the relations between nature and humans are governed by the logic of exchange-value. When one extracts water from underground to sell it to others, the act is not driven by a desire to satisfy one's needs; it is not dictated by use-value, but to derive exchange-value from the profits accrued by the transaction of water-as-commodity. Eventually, all production processes under capitalist production are directed to accumulate as much profit as possible, and social relations (between humans) are also consequently affected by the pursuit of profits through the extraction of surplus-value.

Neil Smith employed the term "production of nature", although in his book *Uneven Development* he argued that both nature and society/humans are to be seen as a singular entity during the production of nature. Yet Smith was not always consistent: in several other parts of his book, he still utilises the binary division of "nature versus society". This binary thinking has been criticised by Eric Swyngedouw who argued that Smith's conception of a "socially-produced" nature nonetheless favours social relations as a determining factor, thus enabling the pretence of perpetuating binary oppositions between nature versus society (see Swyngedouw, 1996, p. 68-80). Thus, we require the concept of a social ecology (or socio-ecology) introduced by Murray Bookchin (see Bookchin, 1982), as well as the socio-nature approach of Swyngedouw. While socio-ecology is "a more reconstructive approach towards the serious problems culminating from the pseudo-contradiction of man versus nature" (see Bookchin, 1982, p. 21), socio-nature attempts to reconstruct both humans and non-human objects into a single inseparable ecology.

The city of Yogyakarta is a socio-ecological illustration of how mushrooming hotel establishments have led to a crisis of drying household wells through the continuous extraction of groundwater. The drying wells are social ecology proper—a phenomenon resulting from the co-production of human and non-human elements. The human factor is the deeper wells of hotels with more powerful pumping capacity, and the non-human part is the metabolic process of aquifers that replenishes the water table below the city of Yogyakarta from the Mount Merapi watershed (see Karnawati, Pamumijoyo and Hendrayana, 2006, p. 6-10). It is virtually impossible to separate the human and non-human factors within the drying household wells: under an expanded conception of capitalism, both are intertwined and enmeshed into a single socio-ecological crisis. Non-labour elements are now explicitly included as providing value within the capitalist process of wealth accumulation; in turn, the socio-ecological crisis leads to a socio-ecological injustice in access of water.

SOCIO-ECOLOGICAL INJUSTICE

In 2014, a local media reported about the drying up of wells of residents of Kampung Miliran in Yogyakarta. The residents suspected that Fave Hotel, which reportedly supplied their water from an 80-meter deep well, was responsible for their predicament (see Tribun Jogja, 2014). Prior to 2014—the year the hotel was erected—the residents' wells in the area had never dried up, even during prolonged dry seasons (see Kompas, 2014). Local wells are comparably much more shallow, with average depth of 16-20 meters, and cost around IDR 15 million to construct.[5] Meanwhile hotel wells may cost up to IDR 400-500 million to drill (see Amrta Institute, 2017).

5 There are at least three main components in installing drilled wells in a residential home: (1) the well itself; (2) a water pump, and; (3) the installation of the pump. The internet provides plenty of information on well-drilling prices. For example, http:/ /www.ahlisumurboryogyakarta.com/ mentions that the construction of a shallow

This particular crisis affecting residents of Kampung Miliran also demonstrates how experts often assume a central role in forming public opinion. This phenomenon is part of the standard formula of neoliberalism which favours the individual while being averse to the voices of the ordinary people (see Harvey, 2005a, p. 66). In particular, experts, while giving an impression of neutrality, have been utilised by companies to win over cases against the concerns of regular folk, effectively serving as an instrument of the iron law of Accumulation-by-Dispossession.

As Noel Castree had identified (see Castree, 2001, p. 189-207), experts do not exist within a vacuum: to an extent, experts' opinions are also conditioned by the interests and agendas of institutions where they preside. Geologists affiliated with PT Lapindo, for example, will never reveal arguments that might undermine the interests of their client corporation (see Batubara and Utomo, 2010, p. 67-96). Similarly, in the case of PT Semen Indonesia (SI) most experts have testified positively about their much-ridiculed operations in Rembang Regency, Central Java (see Batubara, 2015, p. 55-64). In essence, these experts are an extension of the Cartesian paradigm which has always assumed that they can "subjugate" nature, while simultaneously use their expertise to pave the way for the expansion of capital.

It was no different in the case of Kampung Miliran dry well crisis. Experts have rationalised that the groundwater extraction by hotel establishments still falls within "acceptable levels" and poses no detrimental effects. One expert had even challenged the residents' claim by asserting that their shallow wells did not dry up due to the deeper well operated by Fave Hotel, but because of an especially prolonged dry season. They also offered an argument that they have run a series of pumping tests to observe the effects on the water table and the relationship between shallow and deep wells in the area. After running the hotel's pump for 8,45 hours straight, they claimed that the water table in shallower household wells actually rose by 8 centimetres, while the deeper well water table

well will cost IDR 250.000-300.000 per meter. For a 30 meter-deep well, this component costs up to IDR 7,5 million. Meanwhile, the internet page http://www.liatharga.com/harga-pompa-air/ puts the price of a water pump able to extract groundwater to a depth below 9 meters at around IDR 3 million. Finally, installation costs will take half of the total amount of drilling activities and pump price, namely IDR 5 million. Summed up, the total cost of all three components will be IDR 15 million.

decreased. They further supported their case by claiming that there is a 6-metre-thick layer of claystone at 40 metre of depth that separates the shallow and deeper groundwater.

While it is understandable that an expert or public officer have their own vested interest of publicly demonstrating that their institution has done their job well, this alone cannot preclude that there may be other possibilities, or that it is a guarantee of the truthfulness and/or scientific accuracy of their claims. Moreover, the writer contends that the aforementioned expert claim was not backed by convincing technical evidence. Even if a geological survey proves the existence of a layer of impermeable claystone separating higher and lower groundwater under Kampung Miliran, this does not necessarily prove that the layer is *completely* impermeable. Although their capacity in letting water seep through is relatively lower than sandstone, claystone layers are nonetheless permeable. Similarly, the pumping test might have failed to detect a drop of the higher water table as the dense claystone layer 40 meters below may have delayed the drop. Given enough time, water levels will eventually drop. This is proven after the City of Yogyakarta's Department of Order sealed off the deep well belonging to Fave Hotel, water "reappeared" in Miliran household wells (see Astuti, 2017, p. 104).

Table 3 provides a quantitative and qualitative schema on the asymmetry of socio-ecological access to groundwater in several Yogyakarta areas. It clearly shows how an iron law preys and dispossesses until one party is run aground and demolished; the hotel wells "emerge victorious" over and over, while residents' wells suffer continuous "defeats".

Table 3. Contradiction of Hotel Wells versus Wells Belonging to Residents: A Schema on Socio-Ecological Injustice in the Case of Drought Occurring Within Shallow Household Wells in Yogyakarta

Number	Hotel Wells	Household Wells	Score (Description)
1	Large Capital	Small Capital	1:0
2	Exchange-Value	Use-Value	2:0 (hotel owners derive profits through exchange-value)
3	Deep	Shallow	3:0
4	More powerful pumps	Less powerful pumps	4:0
5	Abundant	Dry	5:0
6	Clean Water	Relatively Less Clean Water Quality	6:0
7	Defended by Experts	Unsupported by Expert Opinion	7:0

TOWARDS A SOCIO-ECOLOGICAL JUSTICE: ANTI-CAPITALIST MOVEMENTS

This section aims to invoke the imagination of socio-ecological justice by adopting Socratic methodswhich begins from the notion of injustice itself (see Plato, 2000). In other words, we learn about socio-ecological injustice to attain an ideal/dream/utopia of socio-ecological justice: if drought is a socio-ecological *crisis*, while the contradiction between deep hotel wells and shallow household wells constitutes a socio-ecological *injustice*, then socio-ecological justice is a vision of ways to eradicate such injustices.

In our attempts to outline this crisis, we contend that socio-ecological (in)justice is both a "process" as well as a "product". This is of salience if we are to avoid the standard neoliberal interpretation which tends to favour results/products, while being largely oblivious to the production processes that propel a structure into existence. Through a neoliberal

lens, access to water is an essential Human Right that must be fulfilled. However, its preoccupation with simply "fulfilling" a right means that liberal interpretations would be receptive to privatisation of water management (see Baker, 2010, p. 150). On the other hand, a non-liberal reading (or critical reading) of the situation would put greater emphasis on a production process. Although both share a common goal of fulfilling access to water, a critical lens would still problematise the means and organisation by which this access to water is fulfilled. If it is fulfilled by neoliberal means of surrendering water management to market mechanisms, convinced that this is the best way of fulfilling access to water, critical interpretations would reject this solution by demonstrating how some individuals/groups/companies will have greater leeway in accumulating wealth through dispossessing access to water—inherently, a "commons"/owned by no one. Consequently, the idea of socio-ecological justice chronicled throughout this article is situated deeply within a tradition critical of capitalism.

The conception of an "expanded capitalism" aids us in recognising cases involving the appropriation of non-labour elements such as energy, resources, materials for food and drink, as well as cheap non-labour work as a part of capitalistic production processes. In turn, this reading enables us to see the opportunity in building a more connected anti-capitalism movement across sectors and areas—from movements opposing extractive industries, to those espousing an environmental, labour, agrarian, and women agenda, as well as involving the urban poor, domestic workers, et cetera.

It might sound utopian to posit the primacy of use-value as the central node toward which this movement would gravitate, supplanting exchange-value and surplus-value in human (social) and non-human relations. However, it is also necessary to understand the trajectory of this growing movement: in the case of wells drying up throughout Yogyakarta and the treatment of Merapi aquifers, it is essential for use-value to be the axis in achieving socio-ecological justice by governing human interactions with aquifers within a socio-spatial site. This means that water from Merapi aquifers must not be exploited for commercial purposes

nor traded as a commodity, but should be used by everyone living on top of it.

There is no single solution to every problem. In the times of capital accumulation employing mechanisms of dispossession—supported by various pillars and mechanisms, although under the same logic of iron law—it might be necessary to conceive a sketch on the direction of anti-capitalism movements. The uniqueness of each case will bring us further to a point where every problem has to develop their own organic alternatives; what needs to be established is the connection, solidarity, and horizontal relations between specific cases (see Springer, 2016). As the progressive capitalist revolution has crammed spaces, to counter it it is necessary to build an anti-capitalist movement that can similarly cram these spaces as well.

One possible trajectory is to rebuild mechanisms of collective ownership and care, or by abolishing the notion of ownership at all, within sectors of productive resources as an antithesis to private ownership and rule. And there are plenty of examples of collective organisations for us to learn from—from the cooperative efforts within the property sector in Denmark, to the collective management of drinking water in Bolivia. The final trap to be avoided is how these schemas do not descend into practices of gentrification (see Leach, 2016). Other forms of collectivity that can be practiced include urban land management, such as "community land trusts" (see Mackenzie, 2008), or the communal lands that still exist to this day around the slopes of Bukit Barisan range in Sumatera. Like how rural residents of Bukit Barisan manage their rivers without "owning it", alternatives can only be established if there are people armed with praxis—practices equipped with theoretical knowledge and/or experience—to begin gathering, following Springer's formula, as a movement in the here and now (see Springer, 2016. p. 20).

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CRITIQUES OF JOKOWI'S POLITICAL ECONOMY OF AGRARIAN REFORM AND SOCIAL FORESTY (RAPS) AS INSTRUMENTS OF UNIVERSAL AGRARIAN REFORM

Roy Murtadho

ABSTRACT

Agrarian reform is an essential populist development program as the bedrock of economic development. Without agrarian reform, economic development agenda will be crippled as it perpetuates economic inequality due to the gap in control of and access to agrarian resources, as we are now witnessing. The existence of current agrarian policy that merely adopts the terminology of agrarian reform is not aimed to enact agrarian reform consistently and comprehensively, but as a mechanism to allow the use of land for the purposes and interests of large capital imbued with post-Washington Consensus economic policy formula.

Keywords: neoliberalism, Washington Consensus, Social Forestry, Agrarian Reform, Agrarian Law

After the agrarian reform agenda was put into dormant for decades by the New Order, the term started to be introduced gradually in the government's agrarian programs and discourses, particularly under the presidencies of Susilo Bambang Yudhoyono (SBY) and then Joko Widodo (Jokowi). It is now a subject of intense discourse among researchers, agrarian sector workers and activists, and the general public.

Some organizations claim that the Indonesian government's agrarian policy is a political arena that might be advantageous for agrarian reform agenda in Indonesia[1] — at the least, there is a possibility for an

1 Among them are Serikat Petani Indonesia (SPI; eng: Indonesian Peasant Union) and Konsorsium Pembaruan Agraria (KPA; eng: Consortium for Agrarian Reform). KPA proposed a priority map of agrarian reform objects with, supposedly, a participatory approach, yet never issued an institutional statement renouncing RAPS. As a matter of fact, they organized the Global Land Forum, an International Land Coalition (ILC) event in collaboration with the government that includes Presidential Staff Office, Ministry of Agrarian Affairs and Spatial Planning/National Land Agency, Ministry of Environment and Forestry, as well as National Commission on Human Rights in Bandung, 24-27

intervention by the agrarian movement to transform the current agrarian policy into an instrument of agrarian conflicts settlement — with, hypothetically, a clear political orientation. These organizations consider the adoption of agrarian reform terms into the government's land policy discourses as a step forward after decades of deadlocked struggles for agrarian justice. Therefore, the Agrarian Reform and Social Forestry (*Reforma Agraria dan Perhutanan Sosial,* RAPS) policy is regarded as a political opportunity worth of support, despite its artificial implementation.

Meanwhile, other organizations recognize that RAPS has reduced the terminology, concept, and implementation of genuine agrarian reform as declared in the populist Agrarian Law 1960.[2] Rather than reconditioning the agrarian structure and mechanisms of conflict resolution, RAPS's artificial implementation of agrarian reform has proved that it is the main obstacle for a more consistent implementation of agrarian reform. Moreover, RAPS is seen as nothing more than a government agenda to cater the needs of large capital for roads and land access through a land legalization (certification or titling) scheme.

Departing from observation of political conditions, conjunctures of the agrarian movement, and trajectory of the government's economic policy, an analysis of agrarian policy enacted by the government and legal basis of the Agrarian Law through a critical political economy perspective is imperative to examine the possibilities (and impossibilities) of existing agrarian policies as an instrument for reforming the structure of control and conflict resolution of Indonesian agrarian sector. The analysis serves to uncover the connection between neoliberal-leaning economic development strategies on one hand and the government's attempts to perform agrarian reform on the other, in which both presuppose and are contingent to each other. In its essence, the strategy for

September 2018; see https://konferensitenurial2017.id/percepat-reforma-agraria-kpa-tawarkan-lpra/ (accessed 12 September 2019).

2 Among them are Aliansi Gerakan Reforma Agraria (AGRA; eng: Alliance for Agrarian Reform Movement) and local peasant organizations with no association to KPA. They have been firmly against the implementation of neoliberal agrarian policies stamped as agrarian reform by the Jokowi administration since 2017, see https://www.suaralidik.com/agra-menolak-reforma-agraria-palsu-jokowi-dan-tidak-bergabung-aksi-knpa/ (accessed 12 September 2019).

economic development is the umbrella term determining the trajectory of other sectoral policies.

In terms of economic development strategies, peripheral capitalist countries have long been dictated by global economic institutions—i.e., World Bank, IMF, and WTO—to integrate their economies into the global economic system. In the context of market liberalization in peripheral capitalist countries, IMF and the World Bank operate to engage with private corporations in order to compel them to invest in these countries, in the premise that the investment will automatically result in a positive outcome for "development." Per contra, in reality, all corporations aim for as much profit as possible for their shareholders and by no means intend to promote development or democracy in poor countries. Reasonably, to accrue accumulated profit, corporations often go hand in hand with dictators or authoritarian leaders with human rights violation records in peripheral capitalist countries (see Danaher, 2005).

EXPANSION OF MARKET-ORIENTED ECONOMIC DEVELOPMENT

A closer look reveals that the historical trajectory of Indonesia's economic policy—with the exception of the Soekarno administration—has been an overt attempt to integrate its national economy into the global capitalist system, rather than a development plan for national economic sovereignty in accordance with the vision once championed by the founders of the Republic inscribed in Article 33 of the 1945 Constitution. Since the overthrow of Soekarno's populist administration, every bit of people-oriented legal products including the Agrarian Law and the Basic Profit-Sharing Law (*Undang-undang Perjanjian Bagi Hasil,* UUPBH) have been put in a cryonic state and replaced by Law Number 1 of 1967 on Foreign Investment, a significant marker of the opening of foreign investment in Indonesia. The issuance of the Foreign Investment Law, followed by the Law no. 6 of 1968 on Domestic Investment, thoroughly transformed Indonesia's political and economic trajectory from the previous populist policies (limiting the role of the private sector and foreign capital) into the pathway of capitalism by implementing an open-door policy for foreign capital (see Hertz, 2004, pp. 40-73). In lieu of continuing agrarian reform, Suharto instead chose to implement the

Green Revolution, in line with the interests of global capitalist economy, and subsequently received great support from the World Bank.

Within the same period (around the 1970s), Latin America, particularly Chile, was chosen as a site to implement pilot project for privatization of state resources and public assets of developing countries, marked by the overthrow of the democratic socialist leader Salvador Allende through military operations. Augusto Pinochet's bloody coup had the full support of the United States. Ever since, Chile has privatized 521 of its 524 SOEs after implementing an open-door policy (see Kikeri, 2007, p. 10). Other peripheral capitalist countries also endured similar ordeal (see Amin, 1976; Cardoso, 1979; Frank, 1969).

After the fall of the Soekarno administration, the authoritarian New Order government established Rostow-style economic growth as the groundwork for long-term development determined on a five-year basis, also known as the Five-Year Development (*Rencana Pembangunan Lima Tahun,* Repelita) (see Fakih, 2001, pp. 55-57). Proponents of the growth theory, who posit modernization as a metaphor of stages similar to growth experienced by organisms, generate an assumption that transformation from traditionalism to modernism is an inevitable necessity, as the One path that Third World countries must undergo if they wish to achieve "progress" through economic growth.

Based on such framework of development, the New Order government invited foreign capital to compete for control of thousands—even hundreds of thousands—of land in Indonesia, in multiple forms of forestry and mining concessions that set the course for land grabbing, agrarian conflicts, human rights violations, and environmental destruction. By capitalistic calculations, the two extractive sectors contributed to the increase in timber, oil and gas, and gold commodities as their main products (see Mas'oed, 1989; Bachriadi, 1998).[3] Therefore, the main actor driving modernization and development (capitalistic and authoritarian) was the state through its apparatus: civil bureaucrats and the military (see Tjahjono, 2004, p. 54).[4] Such policy model is identified as state capitalism (See Petras, 1978, pp. 86-87), where the government does not adopt a liberal economy by minimizing state intervention in economic affairs, but by becoming the main driving force of the economy through crony capitalism and serving the interests of global capitalism through the authorization of various foreign capital investments on natural resources.

In post-authoritarian, reformation period, the oligarchs quickly consolidated as the popular movement started to decline (see Ford and Pepinsky, 2014),[5] which resulted in stalled changes for an egalitarian and just social structure in Indonesia and served as a grand opportunity for the reintegration of national economy into global capitalism. The trajectory of Indonesia's economic development was then solidified, as proven in President Susilo Bambang Yudhoyono (SBY)'s statement in the Asia-Pacific Economic Cooperation (APEC) CEO Summit at Nusa Dua, Bali, October 6, 2013. In his opening speech, SBY stated,

"To accelerate development, in May 2011, we launched the Master Plan for the Acceleration and Expansion of Indonesia's Economic Development (*Master Plan Percepatan Pembangunan Ekonomi Indonesia*, MP3EI) 2011-2025. Over the next 14 years, we are targeting USD 450 billion to be invested in 22 major economic activities, which are integrated into eight programs: mining, energy, industry, marine, tourism, and telecommunications. Therefore, this Master Plan provides a great opportunity for international investors. Finally, in your capacity as Chief Salesperson of Indonesia Inc., I invite you to expand your business and investment opportunities in Indonesia."

The speech was a marker of a new era of the state's commitment to invite foreign capital with full open arms to invest, emphasized by the mantra: "invest, invest, invest!", followed by Jokowi with his new mantra: "work, work, work!" It would be a mistake to see that SBY's and Jokowi's economic development trajectories as disparate and unrelated

3 Between 1967-1971, the export value of wood and oil and gas increased 47 times and 4 times respectively. Meanwhile, the value of foreign investment reached 2.5 billion US dollars.

4 During the New Order era, the Indonesian Army sent many of its officers to study in the United States (US) and learn to serve the interests of the global capitalist order, particularly that of the US, in Indonesia.

5 This volume offers debates on how the oligarchs consolidated and adjusted themselves in procedural democracy and upheld the economic equality in Indonesia.

to each other. The success story of Jokowi's development, widely praised by liberal exponents in Indonesia, is constructed upon the political and juridical foundation laid down by SBY's administration.

Development strategy adopted by the government—market-oriented economic policies enacted by inviting as much capital as possible to invest, development mechanisms through debt, minimization of state intervention in economic affairs, low wage policies, and social subsidy cuts—are general characteristics of neoliberal policies which embodies at least three main components. *First*, increasing role of the market in economic management and the flow of goods and capital mediation (through mechanisms such as elimination of aid and price benchmarks, free trade, and market-determined exchange rates, among others). *Second*, increasing role and scope of property rights of the private sector (through privatization, deregulation, and the like) *Third*, the promotion of ideas of strong economic policies through balanced budgets, labor market flexibility, and low inflation rates (see for example Chang and Grabel, 2004, p. 12).

AGRARIAN REFORM AND SOCIAL FORESTRY PROGRAM: EMPOWERING THE PEOPLE OR BENEFITING CORPORATIONS?

The 'land reform' rhetoric reappeared in government policy in 2001 under the Parliamentary Decree of TAP MPR No. IX/2001 on Agrarian Reform and Natural Resource Management (see Nirwana et al, 2003; Ya'kub, 2003)[6], followed by the Presidential Decree No. 34/2003 that gave a mandate to the National Land Agency (*Badan Pertanahan Nasional*, BPN) to improve the Agrarian Law (see Wiradi, 2005, p. 32).[7]

Under Jokowi's administration, agrarian reform arose as a national priority set out within the 2015-2019 National Medium-Term Development Plan (*Rencana Pembangunan Jangka Menengah Nasional*, RPJMN) (see Bappenas, 2017). It was further regulated in the Presidential Regulation no. 45/2016 on the 2017 Government Work Plan and followed by the Presidential Decree No. 86/2018 on Agrarian Reform. The Agrarian

6 On the perspectives and interpretations of agrarian activists on TAP MPR IX/2001.

7 The law apparently was not aimed for improvement of Agrarian Law, but to change its substance.

Reform program is enacted under the Coordinating Ministry for Economic Affairs who formed a working team through the Decree Number 73/2017 on the Agrarian Reform Team in May 2017. The team consists of three working groups (Pokja) and one secretariat unit. *Pokja* I governing forest area release and social forestry is chaired by the Minister of LHK; *Pokja* II governing legalization and land redistribution is chaired by the Minister of Agrarian Affairs and Spatial Planning/Head of BPN; and *Pokja* III governing community economic empowerment is chaired by the Minister of Villages, Development of Disadvantaged Regions, and Transmigration.

Jokowi government's agrarian policy focuses on the legalization and redistribution of assets classified as Land Objects for Agrarian Reform, covering an area of 9 million hectares and social forestry of 12.7 million hectares up to 2019 (see Coordinating Ministry for Economic Affairs of the Republic of Indonesia, 2018).[8] His administration's agrarian policy also includes Social Forestry. However, in contrast to "agrarian reform" that seeks to secure ownership rights permits of Land Objects, Social Forestry scheme targets state forest management permits or recognition of customary forests, whose beneficiaries are local communities and governments in rural areas.

In the *Guidelines for Identification, Verification, and Determination of Land Objects for Agrarian Reform and Social Forestry Areas at the Regency Level* issued by the Office of the Presidential Staff of the Republic of Indonesia (*Kantor Staf Presiden*, KSP), Jokowi's administration defined the president's brand of "Agrarian Reform" as "[..] policies, legalization, and government program intended and executed as a coordinated and systematic operation to: (a) distribute land ownership, recognize claims, and land rights; (b) providing access to land use, natural resources, and land rights; (b) providing access to the use of land, natural resources, and territories; and (c) creating new productive forces collectively in villages and rural areas. These are intended to increase the status, power,

8 From this area, 4.5 million hectares are targeted for asset legalization, consisting of 3.9 million hectares for certification of people's lands and 0.6 million hectares for transmigration land. The remaining 4.5 million hectares are allocated for asset redistribution consisting of 0.4 million hectares of expired and abandoned Cultivation Rights Title (HGU) and 4.1 million hectares of release of state forest areas.

and absolute and relative income of the poor, so that would incite changes in the condition of the poor over land/land control before and after the existence of these policies, legislation and programs" (see Office of the Presidential Staff of the Republic of Indonesia, 2017, p. 3).

The objectives of Agrarian Reform are defined as "providing tenure certainty for people whose land claims are still engulfed in agrarian conflict, identifying subjects of beneficiaries and objects of land whose relations of ownership will be reorganized, overcoming land tenure gaps by distributing and legalizing the Land Objects for Agrarian Reform in groups and individually as belonging to the people, alleviating poverty by improving land use and forming new productive forces, ensuring the availability of institutional support in the central and local governments, and enabling villages to regulate the control, ownership, use and utilization of land, natural resources, and the area of the village's management" (see Office of the Presidential Staff of the Republic of Indonesia, 2017, p. 6).

Up until the end of Jokowi's first term of office, the promised land redistribution has not been widely implemented. Nevertheless, the fundamental issue lies not within the (un)realization of the promised or the amount of land that has been redistributed, but rather within the RAPS program itself, being an integral part of the neoliberal economic development scheme. As a program that appropriated the term "Agrarian Reform", RAPS has obscured the substance of the struggle for genuine agrarian reform. On these grounds, it is fundamental to ask the question: by appropriating the term "agrarian reform", what kind of agrarian policy is being enacted by Jokowi's administration?

Based on its ideological basis, the concept of Agrarian Reform can be divided into three main models: capitalist, socialist, and neopopulist. On the basis of its enactment, it can be divided into two: agrarian reform by grace, with a dominant government role in its implementation, and agrarian reform by leverage, with the role of organized working people through large peasant organizations and warranted by national legislation.

Thus, how do we classify RAPS; what ideology is RAPS inclined to? Is it truly aimed for the welfare of the people by eradicating inequality in agrarian resources and resolving agrarian conflicts as the government claims? Who benefits from RAPS? What and who is it for? (See Bernstein, 2010, pp. 22-23).

Claims of "providing tenure security for people whose land is in agrarian conflict" and "overcoming land tenure gaps" must be examined at conceptual and implementation levels, along with their link to the larger picture of government's economic policy orientation. On the one hand, the government continues to pursue a neoliberal economic development strategy. On the other hand, it implements agrarian programs and policies under Agrarian Reform and Social Forestry scheme. Both are run simultaneously—they even seen to be complementary. However, upon a closer observation, the two mutually negate each other. It is an impossibility to commit to the substance and objectives of the Agrarian Law that embodies populist characteristics of defending the interests of small farmers in need of land while at the same time permeating neoliberal economic policies that defend land-hungry large capital.

Th enactment of Jokowi's "agrarian reform" through land certification is an attempt to accelerate and facilitate the sale and purchase of land as well as land acquisition for the benefit of large capital. Land certification provides an opportunity to legally transfer ownership and control of land. In fact, once in an occasion of land title distribution, President Jokowi encouraged the use of certified as an asset for business (see Bramantyo, 2019). The certification program is in line with development policies which prioritize legal certainty as an effortless step for investment. By ensuring legal certainty, investment may easily turn a land acquisition scheme through a profoundly accommodative legal framework, without the need for coercive land grabbing that slows down acquisition and requires greater financial and social costs.

In a press release on July 20, 2018, the World Bank's Board of Executive Directors supported and approved the Jokowi government's "Program to Accelerate Agrarian Reform" by disbursing hundreds of millions of dollars in loans to accelerate "Sustainable Land Management", one of the post-Washington Consensus principles. The distinguishing

element of post-Washington Consensus from Washington Consensus is that Washington Consensus ignores or pays little attention to governance issues, while post-Washington includes keywords such as 'governance', 'legal certainty', and 'sustainable development'. Washington Consensus minimized the role of the state and considered that the state needed to be separated from the market, while the state in Post-Washington Consensus plays an important role in economic reform along with bureaucratic reform (see Abrahamsen, 2000, p. 30; Stiglitz, 2001, p. 57-93).

The World Bank's Head of Representatives for Indonesia and Timor Leste, Rodrigo A Chaves, financially supports Indonesia's agrarian program, which in his view will provide clarity on land use. The Bank is very interested in the success of the Jokowi government's One Map Policy through agrarian reform, particularly in its main goal to have a centralized spatial database as a reference for all development planning, infrastructure provision, issuance of permits and land rights, as well as various other national policies. Legal capacity, transparency, and efficiency are needed to make it easier to access land for accommodating investment. For the Bank, an inefficient, fragmented, and incomplete land information system will hinder land and natural resource governance in Indonesia and by extension access to land for investment.

There is no such thing as free lunch. Each assistance provided by the World Bank or other global financial institutions always takes effect in one way or another, through which the accumulation of capital will be much greater in all development sectors. RAPS is an integral part of a market-led neoliberal economic policy reform that positions land as a commodity, seeking to encourage the implementation of free buying and selling of land by prioritizing the legitimacy of (private/individual) land ownership rights. However, RAPS's commitment to restructure the mechanism of ownership and control of agrarian resources in accordance to the needs of peasants or smallholders is highly doubtful. Up until now, there has been almost no evaluation, moratorium, or even revocation of the Cultivation Rights Title for large-scale, corporate-based land tenure in mining and plantation sectors. Data and access to information regarding large-scale land ownership or tenure are not transparent either. Although Forest Watch Indonesia (FWI), a forest monitoring

institution, has won a lawsuit against BPN at the Supreme Court for information disclosure, up until now the names of companies holding Cultivation Rights have never been disclosed by ATR/BPN on privacy grounds in order to protect corporate and oligarchic interests. Therefore, the extensive land tenure of the oligarchs remains untouched under the government's current agrarian policy. The oligarchs' ownership of land is considered legal and therefore not included in the Land Objects for Agrarian Reform map.

Agrarian policy under Jokowi's administration, in concept and in implementation, is not designed to improve the welfare of the people, particularly smallholders and landless peasants, through a just and comprehensive rearrangement of agrarian ownership and control structure in accordance with the populist spirit of the Agrarian Law. Rather, it is as a policy alignment of the land sector in favor of capital interests permeated by the Post-Washington Consensus principles on sustainable economic development whose main prerequisite is legal land management. That is the actual purpose of sustainable development: the assurance of legal certainty on land tenure for investors. There are several indications of the neoliberal, pro-capital orientation of Jokowi's agrarian policy. First, the formation of the Agrarian Reform Team under the Ministry of Economy, rather than formation of an ad hoc team in implementing Agrarian Reform. Second, the implementation of agrarian reform through individual land certification rather than communal land ownership schemes. Third, an enormous financial support received from the World Bank for the agrarian policy. Fourth, the legalization of land only with clean and clear status, excluding land with disputed status, leading to very few land dispute resolution until now. Fifth, the Agrarian Reform Team did not review or revoke large-scale ownership and control of the capitalists.

The contradiction is even more visible when it rhetorically tries to eradicate inequality and agrarian conflicts but at the same time welcome investments with door wide open by issuing numerous pro-investment economic development policies that contributes to the exacerbation of agrarian conflicts, particularly land grabbing for transportation and energy infrastructure across the nation. President Joko Widodo's statement

on the 2019 presidential debate that "in the past four and a half years, there have been almost no conflicts over land acquisition for infrastructure, because there is no compensation. There is only a change in profit," does not match the reality. People who refuse their land to be grabbed for infrastructure development are often intimidated, experience physical violence, and even persecuted and criminalized.

URGENCY OF AGRARIAN LAW AND GENUINE AGRARIAN REFORM

What is in general referred to as a genuine agrarian reform in Indonesian context is the mandate of the 1960 Agrarian Law. 'Genuine agrarian reform' is increasingly being voiced amidst the pro-capital orientation of existing agrarian policies that continues to stray further away from the principles of the Agrarian Law. However, it should not be implied that the Law is flawless and free from criticism. As a groundwork for agrarian policymaking in Indonesia, the Agrarian Law is the minimum benchmark to pay attention to in order to achieve a comprehensive agrarian reform for the welfare of the people and a foundation for development.

In concept and in practice, genuine agrarian reform in Indonesia is enacted through neopopulist approach – land is redistributed to smallholders. Historically, agrarian reform cannot be separated from anti-colonial struggle pioneered by the founders of the nation. By eradicating the remnants of feudalism and colonialism in the land sector, they aim to create a just and prosperous life for the Indonesian people. As such, we shall not declare ourselves independent even if we have our own government and our own nation before justice and welfare have been served for the people. This spirit was clearly expressed in Bung Karno's statement that land reform—a part of agrarian reform—was the foundation of Indonesian revolution. A revolution without land reform is like a building without a foundation, a tree without a trunk, big talk with no sense.

Naturally, for most of the people in early days of independence, the struggle against the colonialists was experienced as a struggle to reclaim the lands of former foreign plantations in Indonesia previously occupied by Dutch and foreign companies. To describe the revolutionary

sense of the people's struggle, Muhamad Tauchid wrote, "...thousands of hectares of *onderneming* land and forests are used as agricultural land of the people, to grow food and to build huts of houses, in which they have been living on other people's yards..." (see Tauchid, 1952, p. 11).

The leaders of the republic, not long after the Proclamation of Independence, had thought about and planned to formulate a new agrarian law replacing the 1870 Colonial Agrarian Law. The formation of the agrarian committee continued for twelve years, from the Yogyakarta Agrarian Committee in 1948, the Jakarta Agrarian Committee in 1952, the 1956 Suwahyo Committee, the 1958 Sunaryo Committee, and the 1960 Sujarwo Draft. Genuine agrarian reform was attempted in 1960, but failed due to the bloody 1965 incident and regime change. Both the program design and its implementation were not completed. The 1960 Agrarian Law, written on Law no. 56/1960 and known as land reform, was limited to smallholder agriculture. Other sectors, including plantations, mining, marine, forestry, and others, had not been formulated.

Essentially, the land reform program includes (1) prohibition on excessive control of agricultural land; (2) prohibition of ownership over absentee; (3) redistribution of excessive lands in excess beyond maximum limit as well as lands subject to the prohibition of absenteeism; (4) arrangements of retaking pawned agricultural lands; (5) rearrangement of agricultural products sharing agreements followed by a prohibition commit acts that may result in the division of agricultural land ownership into too small of a share (see Harsono, 1968, p. 241).

Meanwhile, the implementation of genuine agrarian reforms, particularly land reform, has three main characteristics carried out within a fixed time frame, i.e. four time period in Japan, five years in India, seven years in Egypt, and so on; supervised by ad hoc implementing agencies in accordance with the predetermined time frame; and is executed swiftly. These are performed by an agency with full authority in implementing agrarian reform tasked to coordinate all relevant sectors, accelerate the implementation process, and deal with conflicts of interest that are likely to occur. The main objective of Agrarian Reform, in this case, is to reorganize the structure of ownership, control, and use of agrarian resources, notably the land, for the benefit of the people, particularly the

peasants, the landless, and the homeless, in a comprehensive method (see Parlindungan, 1990, p. 1).

Therefore, these are the principles to be adhered to ensure the implementation of Agrarian Reform in accordance with its intended purpose; providing land to those who actually work on it (cultivators), not for the absentee landlords who snatch away all the profits, and mainstreaming land as a social function[9] rather than a commodity. Therefore, it is stated in the Provisional People's Consultative Assembly in the Decree No. II/MPRS/1960 on the Outlines of the Planned Universal National Development Pattern for the First Stage, 1961-1969, Article 4 paragraph 3, that land reform, as an absolute part of the Indonesian revolution, is the foundation of universal development based on the principle of land as a means of production should not be used as a means of exploitation (see Summary of Decrees of the Provisional People's Consultative Assembly of the Republic of Indonesia No. 1 and II/ MPRS/1960).

To that end, the 1960 Agrarian Law has regulated the overall Indonesian agrarian governance to be fair and just.[10] Chapter II Article 16, for instance, regulates land rights, as stated in Article 4 which includes 1) property rights; 2) cultivation rights; 3) building rights; 4) usage rights; 5) lease rights; 6) the right to clear land; and 7) the right to collect forest crops. Unfortunately, many land rights arrangements have been distorted due to the capitalist trajectory of Indonesian development. People's rights to land are subordinated to national and developmental interests for large capital investments (see Schoorl, 1984, pp. 226-245; Erari, 1999, pp. 18). In contrast to RAPS, the Agrarian Law prohibits excessive land ownership (see, Table 1); it is not allowed to have "extensive land tenure (*latifundias*) through the ceiling mechanism of the amount of land a person may own (see Parlindungan, 1984, p. 43).

MINIMALIST STRUGGLE AND ITS REPERCUSSIONS

It is indisputable that capitalist development requires land. Thus, a mechanism to change the agrarian landscape for a specific purpose is

9 The social function of land is one of the main principles of Agrarian Law No. 5/1960 stated in Article 6.

10 The UUPA was authorized in the State Gazette 1960-104 and since September 24, 1960, it has been running or in effect in accordance with the new legal order in the field of agrarian law.

necessary, from the subtlest ways of negotiation to the most brutal ones involving the army as a tool of state violence to intimidate people who reject "national development." One of such mechanisms is to take over the land managed by the people for the construction of special economic zones, airports, transportation networks, and coal-fired power plants.

On one hand, the government needs land to achieve its market-oriented development and investment ambitions. On the other hand, the people who own and manage the land do not share the ambitions. This set the course for land conflict and will continue in that way if the Agrarian Reform is not implemented thoroughly. Land conflicts in contemporary Indonesia are the result of accelerated changes in economic structure that have been taking place since the mid-1980s. Compared to the past, conflicts taking place today are not only over land used for agriculture, but also over multitudes of development projects, including forestry, real estate, tourism, mining, road and dam construction, industrial estates, and others (see Kano, 1997, p. 31).

Table 1 UUPA and RAPS Comparison

	UUPA (Law on the Fundamental of Agrarian Affairs, *Landreform***)**	**Reforma Agraria dan Perhutanan Sosial (RAPS, Agrarian Reform and Social Forestry)**
Ideological Orientation	Populism	Neoliberalism
Legal Basis	Law no. 5 year 1960 on Basic Regulation on the Fundamental of Agrarian Affairs	Regulation of the President of the Republic of Indonesia No. 86 year 2018 on Agrarian Reform
Goals	Restructurization over ownership, control, and utilization of agrarian resource, especially land for the small peasant (cultivator peasant, worker peasant, and homeless). Eliminating the inequality of ownership/control and land use as a development foundation.	Land and road mapping for land control and ownership aiming for investment through asset certification.
Objects	Framework: the state determine the minimum and maximum limitation for controlling and owning the land. Land ownership that exceeds maximum limitation will become the reform object.	Framework: there are no minimum and maximum limit for control and ownership of the land. Not all land exceed the maximum limit. Only the expired or non-submitted cultivation rights (HGU, *Hak Guna Usaha*) and building rights (HGB, *Hak Guna Bangunan*) within 1 year after the rights ends, and also unproductive land like ex-mining land, outside the forest area.
Subjects	small peasant i.e. the tillers as the main cultivator of the land (*landreform slogan: land to the tillers*)	Besides the cultivator peasants, there are also: Honorary teacher non-government employees; freelancer; private sector workers with income under the non-taxable income; Government employees III/a group without land ownership; Army/Police at second liutenant/second inspector position or another level.
Executor	The *adhoc* Agrarian Reform Committee	Central government and local government under the coordination of The Coordination Ministry of Economy Sector including The Ministry of Agrarian and Interior/National Land Agency, and The Ministry of Environment and Forestry.
Implementation	executed rapidly and the deadline for the implementation is determined.	No deadline for the implementation.

The incessant development in infrastructure, mining, and energy sectors to attract investors under the National Strategic Development (PSN) mega project has triggered the emergence of new conflicts.[11] Concurring conflicts are a logical consequence of the implementation of the capitalist economy through neoliberal policies. RAPS is also being enacted simultaneously with village empowerment policy through mentoring programs under the title Village Innovation Program (VIP). The program, which cost 4.5 billion US dollars from the World Bank, aims to increase benefits received by villages by improving local governance and socio-economic conditions (see Makki, 2018).[12] It is similar to the District Development Program that arose from the Post-Washington

11 In the first quarter of 2019, after the government evaluated National Strategic Development (PSN), as many as 10 projects were completed, 14 projects were removed from the list, and the government added 1 project so that the number of projects included was 222 projects.

12 This goal is achieved through three components: grants at the sub-district level, community empowerment, and facilitation, including implementation support and technical assistance. On the total World Bank assistance for active projects in Indonesia

Consensus in the 1990s as a technical effort by the World Bank to achieve an efficient society through by emphasizing individual abilities to compete and manage businesses as means of alleviating poverty within the rural community. This approach has been widely criticized as a form of "technicalization" of the actual problem. All the implemented programs never addressed the root causes, one of which is social inequality caused by land grabbing for large investment projects (see Li, 2007).

The separation of the means of production (land) from the producers (peasants) occurring through a series of violence, intimidation, and expropriation legitimized by pro-capital laws are not much different from Karl Polanyi's description of the industrial revolution—from 1795 to 1834—in England. In order to create a labor market in a market economy system, the traditional social order was destroyed by separating the peasants from their land. Therefore, most people refuse to be used as mere complements of the market, as there is no market system that does not presuppose labor in it (see Polanyi, 2001). The deprivation of the peasants' means of production and subsistence agricultural production[13], termed as primitive accumulation by Marx, (see Fine, 1983, pp. 393-394) in rural Indonesia has forced farmers to become cheap laborers and precarious reserve army of labor in urban areas, some of them even become homeless (see Cohen, Gutkind and Braziers, 1979; Habibi, 2016).

The re-occurrence of the 18th century England is still happening in many parts of the Third World, including Indonesia. Hundreds of thousands of hectares of land previously cultivated by peasants and farmers are now controlled by capitalists, who are inclined to clear out forests across Indonesia. Among them are Salim Group which controls around 1,155,745 hectares of land; Wilmar International Group around 210,000 hectares; Sinar Mas Group around 2,309,511 hectares, Riau Pulp Group around 1,192,387 hectares; Kayu Lapis Indonesia Group around 1,445,300 hectares; Alas Kusuma Group around 1,157,700 hectares; Barito Pacific Group around 1,036,032 hectares; Korindo Group around 951,120

13 Subsistence farmers refer to farming households that cultivate small plots of land for their own consumption or simply to survive.

hectares; Jati Group around 965,410 hectares; Suma Lindo Lestari Jaya Group around 515,000 hectares; and many others.[14]

Land tenure through various confiscation schemes from illegal to legal via regulations is increasingly difficult to contain. This reflects the political conditions in post-Reformasi Indonesia, marking the victory of the oligarchic forces over the entire agenda of the struggle for popular movements in Indonesia. The reconstruction of the power of the oligarchs and military elements in the political arena far exceeds the consolidation efforts of popular movements to participate in electoral struggle. By the virtue of their large share of economic capital, the oligarchs can easily overcome the hurdle of Indonesia's highly costly election administration and maintain their hegemonic and almost permanent dominance in elections and politics (see Hadiz and Robinson, 2014, pp. 35-56). Such configuration leaves no room for political intervention from the popular movements, particularly the agrarian movement, to be involved in any formulation of economic development agenda. The only way out of this gridlock is through "political collaboration", both in individual context and organizational context, by lobbying politicians and political parties while urging populist perspectives to be taken into account in every process of policymaking.

This strategy is erroneously considered as a 'struggle from within', a strategy of struggle that starts from the moral imperative that amidst of a dark fog that is getting thicker, there must be a party who dares to bring light. Amidst defeat after defeat, somebody will be courageous enough to speak truth to power Frustratingly, by ignoring the hegemony of the oligarchs and the power of capital through neoliberal policies, the existing approach does not help to dismantle the patrimonial relations of capitalists, bourgeois politicians, and military elements and their hegemonic control of economic resources in Indonesia. In fact, to a certain extent, the more radical political struggle led by thevictims of agrarian conflicts has gradually diminished. The people have been discouraged to demand better social services and subsidies, equitable and comprehensive land redistribution, or fight for political and economic rights

14 Cited from press conference of Alliance for Agrarian Reform Movement (AGRA).

that have been undermined by neoliberal-style governance. Instead, they were led to accept the existing political arrangement as a reality that they had to endure. Consequently, many exponents of agrarian reform movement retain an accommodative position by accepting RAPS and accept it i as an intervenable political arena. This is a wishful thinking.

CONCLUSION

Agrarian policy under Jokowi's administration is an acceleration strategy to cater to the interests of large capital seizing access to land in Indonesia. In principle, the current political-economic policy trajectory of the government is similar to restoring the 1870 *Agrarische Wet Law* with a newer neoliberal orientation. The previously *staatbedrif* (state company) plantation business was then turned into privately owned business after 1870. After receiving the support from commercial banks back in the Netherlands (since 1850), Dutch capitalists invested in the construction of Dutch East Indies railroads, mining, banking, and plantations (see Kartodirjo, 1999, p. 19). Thus, *Agrarische Wet* 1870 served as a legal precondition for the commodification of land and labor in the colony. Based on this legislation, the colonial government issued certificates of property rights to legalize dispossession practices.

Based on historical data and concrete circumstances, Indonesia has not yet undergone a fair and comprehensive agrarian transition. Industrialization has started (and failed), but agrarian reform as basis for development has never been enacted completely, which should have been enacted before the industrialization process. Since the New Order until now, the Indonesian state's notion of agrarian policy has prioritized attempts to create a climate favorable for investment. Policies issued since the period of land deregulation around the 1980s were only aimed on catering to the interests of investors, both foreign and domestic. Attempts to deregulate and warrant legal certainty were established to stimulate a high level achievement of economic growth, thereby attracting many investors to invest and as they are able to swiftly acquire land in Indonesia.

The struggle for agrarian reform should be in the hands of the people whose interests are directly tied to the land (land reform by leverage). Therefore, it takes groups of agrarian reform advocates coming from local peasant organizations, especially small farmers and landless peasants, to fight for the implementation of a genuine Agrarian Reform in Indonesia.

It is undeniable that agrarian policies pursued by the government are quasi-reforms or pseudo-reforms. Agrarian policy in Indonesia today is a violation of the genuine spirit of Agrarian Reform as stipulated in the 1960 Agrarian Law and the populist-socialist tradition in Indonesia. As such, the responsibility to secure agrarian reform agenda falls in our hands collectively.

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BOOK REVIEW: A PEOPLE'S GREEN NEW DEAL BY MAX AJL (PLUTO PRESS, 2021)

Muhammad Ridha[1]

Amidst the worsening climate crisis, the Socialist-Marxist camp bears some responsibility to examine eco-socialism, as there is no escaping from the reality of unlimited profit accumulation in capitalism as a key factor of the current climate and environmental deterioration. In contrast to traditional Marxism that lacks environmental analysis, the incorporation of environmental sustainability is essential for a future socialist agenda, as an alternative system that overcomes the acute problem of capitalism—not only by protecting human welfare but also by conserving environmental sustainability.

In light of the necessity for such political agenda, A *People's Green New Deal* by Max Ajl (2021) bears relevance as a response to Green New Deal's (GND) policy widely backed by mainstream socialist figures such as Alexandria Ocasio-Cortez (AOC).

Ajl intervenes the GND agenda by proposing a more radical perspective, a GND with the working class at its core agency—People's Green New Deal (PGND). For Ajl, PGND is a modern manifestation of radical eco-socialist political agenda. By utilizing world-system theory developed by several Marxist intellectuals such as Immanuel Wallerstein and Samir Amin as his analytical tool, Ajl argues that an understanding of assymetric political economic system and exploitative production occurring not only within capital-worker relations, but also between the Global North (GN) and the Global South (GS), is essential for any climate

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and environmental crisis analysis. Eco-socialist political agenda, therefore, is directed not only to criticize, but strive for an imagination of a system beyond the current form of global capitalism.

The two main sections of the book consist of: (1) four chapters of Ajl's position of political ecology approach that, indeed, poses critical yet limited concerns in tackling the asymmetry in the capitalist world-system; and (2) three chapters of Ajl's political proposal of how eco-socialism is essential to the struggles of environmental sustainability for all inhabitants of Mother Earth.

A CRITICAL OBSERVATION OF MAINSTREAM GND

In chapter 1, Ajl discusses the necessity for political ecology in contemporary context. Ajl observes the intellectual consensus of the significance of implementing political ecology as a system that, unfortunately, has not been well-equipped with elemental criticism of capitalism as the fundamental cause of climate and environmental catastrophe. Instead, several contemporary political ecology ideas go full circle in reproducing power and economic imbalance birthed by capitalism.

In chapter two, Ajl starts to introduce PGND as a critique of eco-modernism. Even when eco-modernism is a common proposition among the Right, it remains attractive to the Left. The appeal of eco-modernism for both the Left and the Right lies on its pro-technology proposals, that technology is a proficient force to solve current ecological issues. Ajl notes that this perception is not only inaccurate, but misleading, as it distracts us from the crucial conversation on environmental destruction and its affinity with capitalist social relations. Such an appeal is illusive, as technological development requires certain social contexts and relations.

In chapter three, Ajl takes the current literature of energy management on review, and with it, exposes the seemingly 'realistic' arguments of energy management that actually blurs our understanding of the underlying issue of environmental and climate crisis. The so-called 'realistic' energy management arguments present a co-opted political ecology incapacitated of actually overcoming climate crisis, as they are, in reality, preserving the patterns of capitalistic socio-economic relations. In

light of this, Ajl sympathizes with the de-growth movement that rejects economic growth, where political economic trajectory of a nation may be altered radically upon transforming its production and consumption patterns away from economic growth objectives. Particularly, Ajl notes that the significant reduction of global north energy consumption may be an entry point for a radical political ecology.

In chapter four, Ajl presents us with options for an alternative political action for environmental sustainability; green social democracy (GSD) or eco-socialism. PGND explicitly criticizes the undeniably GSD-leaning GND, that leaves us with eco-socialism for the better option. Based on his elaborate analysis in previous chapters, Ajl points out that GSD is profoundly limited as a Left agenda, as it lays its foundation on the current capitalistic political space — it is hence no surprise to find recurring capitalistic features in GSD agenda, such as the perpetuation of imperialistic, commoditive, and hierarchal relations of Northern and Southern countries.

A PROPOSAL FOR A PEOPLE'S GND

In the next chapters, we encounter Ajl's proposal to "expand the scope of what is understood to be feasible" (p. 12). He asks us to (re) imagine PGND as an eco-socialist agenda to grapple with the structural grip of capitalism of our world, and reminds us not to engage with it as a programmatic positionality but as an analytical notion open to adjustment of spatial-historical contexts (p. 100).

The starting point for Ajl's imagination of eco-socialism lies in the social practices of ecological communities marginalized under capitalism — practices whose reproduction is more or less independent of the existing configuration of imperialism. By observing those communities, Ajl believes we can find an alternative logic of ecological management with socialist principles as its foundation. The alternative logic may then be useful for subsequent steps of organizing development agendas that favor the interests of the working class.

Pro-ecology socialist development agendas include, for instance, a re-evaluation of what we [should] define as work that must be compensated for. Ajl believes that reproductive work such as managing

household, caring for children, washing, and preparing food must be compensated with public budget. He also argues that city management should include a carbon footprint reduction plan as well as a strategic decision prioritizing massification of public transportation followed by a communally managed decentralized industrial development. Decentralization takes central role in Ajl's eco-socialist arguments. In his views of PGND, the dominance of big corporations marked by centralization must be broken down into smaller economic units. Support for small agricultural producers whose practices are proven to be ecologically sustainable is also essential.

Political prerequisites for building eco-socialist agenda is a political revitalization based on the national question: the right to self-determination in pushing for political and economic sovereignty. Although it bears similarities with nationalism, national question-based politics has a distinctive anti-imperialist character. It targets the systemic problem of capitalism that perpetuates oppressive relations against the Global South, and thus fights for structural political economic sovereignty beyond the nation-state that includes the abolition of American militarism and climate debt created by the Global North.

COMMENTARY

With regard to Southeast Asian experience, Ajl argues for a further examination of local ecological initiatives. By endorsing local ecological initiatives with practices (more or less) independent from imperialist mechanism as favorable agents of socialism, Ajl's argument indirectly criticizes leading works on Southeast Asian politics that sometimes are way too dismissive of the working masses in local politics (e.g. Hadiz 2010 and Sidel 1999). It highlights the needs to reevaluate the assumption that the configuration of social power in local context is customarily dominated by the ruling class — a reminder to examine thoroughly the local social power configuration based on its patterns of reproduction and its relations to the dominant social structure.

I am in agreement with Ajl's criticism of mainstream ecological agenda, but with further notes. One of them is Ajl's criticism of eco-modernism. While I agree that proponents of eco-modernism's proposition

on technology is often ignorant of its socio-political background, the question of technological development in the context socialist development agenda remains crucial, particularly in the Global South. Here I would like to position Ajl's criticism as one aimed at ideological assumptions behind eco-modernism rather than an integral attack on technological development.

Another note is on Ajl's emphasis of flexibility in PGND'S operations, in which centralized approach on planning is combined with decentralized autonomy with rooms for initiatives from below. While it sounds compelling, his illustration on how it would work is yet to be explained, including an explanation on what tensions or reconciliations would arise from such combination. These concerns need to be addressed so that we can identify which plans are realistically feasible to execute within the dialectical centralized-decentralized approach.

CONCLUSION

I reckon that *A People's Green New Deal* is an influential literature on contemporary socialist politics amidst the ongoing climate crisis. Ajl's pushes us to reevaluate the meaning of socialism in contemporary context of knowledge and technological development, particularly on energy and food. Relying on past strategies is no longer adequate for future socialist development, yet we are still required to reflect on them to cultivate relevant practices based on lived experiences of the working class and integrate them into the broader socialist agenda. Ajl's proposal is significant in ensuring that our socialism is an agenda for the future and an answer for present issues. *A People's Green New Deal* is an appropriate starting point for us to advance socialism with an ecological consciousness.

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