An alternative socio-economic model for climate debt: How a movement emerged, waned and can be revived

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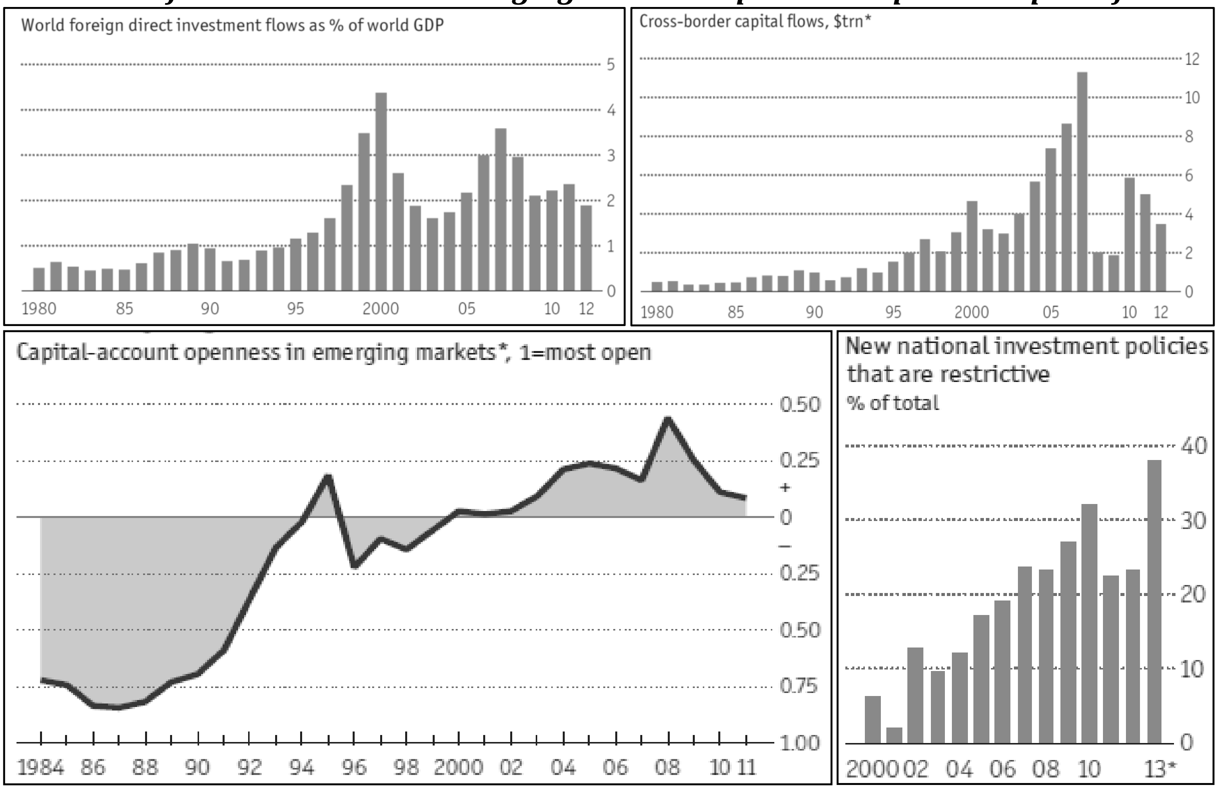
Abstract

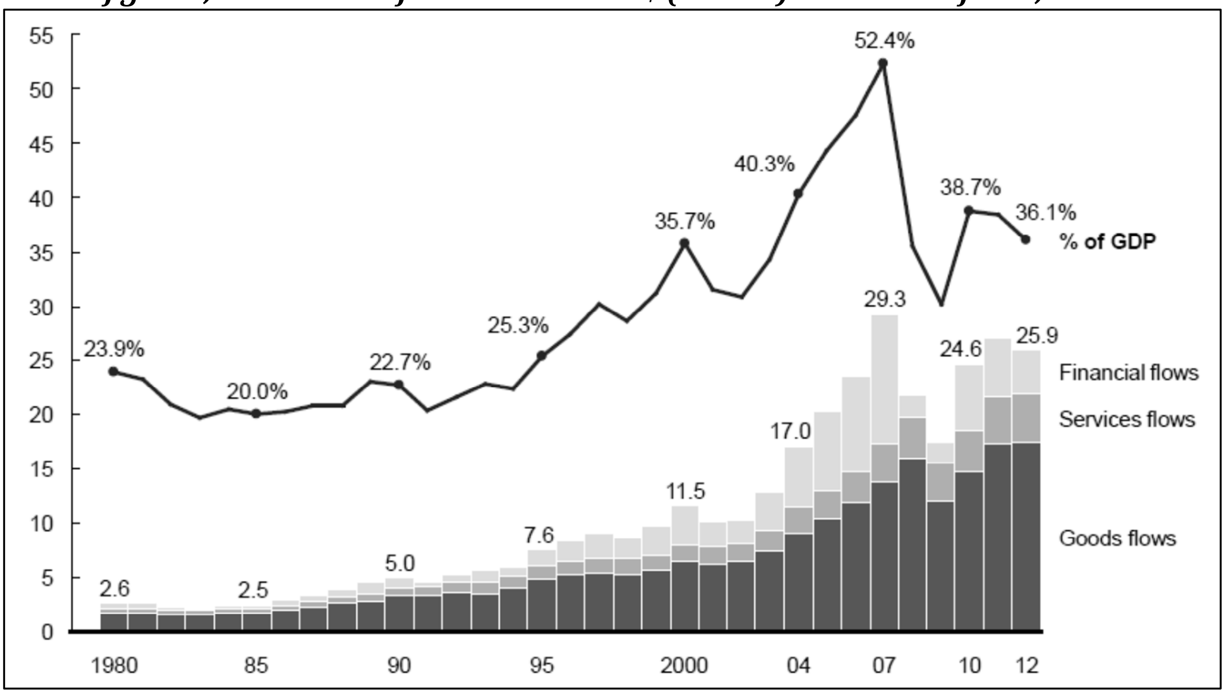
Enormous damage is already being done by climate change, with far worse to come. Who should pay the bills, and how? The main way in which 'climate debt' has been counted and 'financialised' is through carbon trading, in which the obligation to address excess carbon emissions is being directed through the decade-old European Emissions Trading Scheme and other new markets, including Korea. This is not working even though the several of the countries in the Brazil-Russia-India-China-South Africa (BRICS) bloc are warmly embracing emissions trading and the purchase of carbon 'offsets.' Indeed the BRICS' spatial extension of capitalism in the early 21st century is one of the most celebrated phenomena in contemporary economics, given that notwithstanding Russian sanctions, most BRICS financial markets are emerging to fuse with – not oppose – the Western-dominated institutions. This is important for boosting climate-related financial flows, at a time global environmental governance decisively fails to impose state solutions for the inclement climate catastrophe. Meant to conclude in Paris in December 2015 with a comprehensive United Nations deal similar to the 1997 Kyoto Protocol (but with much greater emphasis on the responsibilities of large middle-income countries), recent rounds of world climate negotiations have indisputably served capital's interests. Greenhouse gas emissions will continue on an unsustainable trajectory. There has only been marginal emissions-cutting progress in the North through outsourcing of pollution especially to China. Cuts in US coal emissions are negated by the rise of fracking gas, what with leaked methane that may be doing more not less damage. The relatively stagnant world *productive* economy is another factor in slowing Northern emissions. In turn, the persistent failure of carbon markets in the US and Europe reveals severe flaws in the character of global capitalism, the role of the state in its transformation and state-capitalist relations. An entirely different approach is needed, one which takes as a starting point an uncontroversial doctrine, 'polluter pays,' but transcends the existing strategy of carbon trading and the Incheon-based Green Climate Fund (which has already failed on many fronts as a route to direct finance to victims of climate change). From there, the alternative socio-economic model appropriate to promote is the careful allocation of 'climate debt' obligations and payment systes. Given the failure of the main case to date ('Yasuni', in the Ecuadoran Amazon), a case study in South Africa – 'Fuleni' – has the potential to not only develop an innovative pilot project but also a model for systemic eco-socialist strategy.

Indicators of 'The Gated Globe': emerging limits to capitalism's spatio-temporal fixes



Source: *The Economist* (2013)

Flows of goods, services and finance: absolute $ (trillion) and share of GDP, 1980-2012



Source: McKinsey (2014, 14)

1. Introduction: Climate-crisis capitalism

The hope for survival in the face of a likely climate catastrophe has been vested in a combination of multilateral emissions rearrangements and national regulation (Bond 2012), and ths approach is not working. According to Joel Wainwright and Geoff Mann (2013, page 8), for world capitalist managers to maintain any such hope 'will require both an institutional-juridical structure of planetary climate sovereignty, and the construction of sophisticated and liquid global markets in a series of novel enviro-financial instruments.' In lieu of a working 'Climate Leviathan' on that scale, the multilateral institutions' more limited premise, embodied in the 1997 Kyoto Protocol, has persevered. With a degree of state subsidization and caps on emissions, Kyoto posited that market-centric strategies such as emissions trading schemes and offsets can allocate costs and benefits appropriately so as to shift the burden of mitigation and carbon sequestration most efficiently. Current advocates of emissions trading still insist that this strategy will be effective once the largest new emitters in the Brazil-Russia-India-China-South Africa (BRICS) bloc are integrated in world carbon markets.

In the United Nations' and European Union's construction of the initial market arrangments and, later, an accompanying Green Climate Fund (based in Incheon, Korea) to support emissions mitigation and climate change adaptation, there has necessarily arisen a high degree of uneven geographical development. Moreover, the market strategies remain subordinated to the ongoing neoliberal accumulation strategy of financialization, which is both a consequence and cause of worsening capitalist crises. As a result, this process of addressing climate change through financial markets is fraught with contradictions, resulting in amplified problems, not solutions. The system has taken increasing resort to both temporal and spatial fixes, as well as accumulation by dispossession, i.e., the three modes of crisis *displacement* (not resolution) identified by David Harvey (1982, 2003). All come together in the carbon markets. As climate crisis looms ever larger on the horizon, the demise of the Kyoto Protocol's commitments on wealthier countries to making legally-binding emissions cuts will in the near future compel from them a renewed effort to promote market-incentivized reductions. In spite of widely-acknowledged market failure in the emissions trade, especially in Europe, several 'emerging markets', especially the BRICS, have begun the process of setting up or expanding their carbon trading and offset strategies now that (since 2012) they no longer qualify for Clean Development Mechanism (CDM) credits. The Kyoto Protocol had made provision for low-income countries to receive CDM funds for emissions reductions in specific projects, but the system was subject to repeated abuse, especially in the BRICS and especially in vulnerable investment sites like the African continent (Bond et al 2012).

As a result of this quandary, Adrian Parr (2013, page 11) observes, the idea of 'climate capitalism' is now 'gaining popularity among scholars and policymakers who hope to put the mechanisms of capitalism to work in the service of decarbonizing the economy.' The social, geopolitical and ecological implications of the new spatial range of profit-seeking environmental capitals are intimidating. They are especially sobering for a Climate Justice movement that, contrary to market logic, seeks to radically reduce greenhouse gas (GHG) emissions in a way that permits Southern industrialization, to decommission carbon markets and to enforce payment of the North's 'climate debt.' Aligned against that agenda, the re-articulated state-capitalist relations in the North as well as in the BRICS represent formidable adversaries. But as we will see, the displacement processes are futile on their own terms given the contradictions implicit within such spatial and ecological fixes to *climate-crisis* capitalism. For climate is not just a source of profits, in this reading of the situation: it is a source of further crisis formation, as new fictitious capitals are created to distract attention from the underlying need to address the overaccumulation of capital and its devalorization.

In this context, the utilization of 'spatial fix' terminology in climate analysis is increasingly common. The most obvious way in which we confront the spatial mobility of GHGs is in the *outsourcing* of pollution production from the North to the South, for since 1990, three quarters of the North's actual growth in what are termed 'consumption-based emissions' actually occurred in China. According to Glen Peters *et al* (2011), 'net emission transfers via international trade from developing to developed countries increased from 0.4 Gt CO_2 in 1990 to 1.6 Gt CO_2 in 2008, which exceeds the Kyoto Protocol emission reductions.' As John Bellamy Foster (2011) put it, 'Whenever the destruction is too severe the system simply seeks to engineer another spatial fix', but, when it comes to climate, 'there is nowhere finally to externalize the social and environmental costs of capitalist destruction.' But on the contrary, Leigh Johnson (2015, page 3) suggests, 'rather than posing an existential threat, the impacts of global climate change could constitute a recurrent "catastrophic fix", orchestrated through the planet's changing metabolism, which may create transient conditions for profitable spatial fixes in the short to medium term.' In that spirit, John McCarthy, Jacqueline Vel and Suraya Afiff (2012, page 525) critique the 'new "spatial fix" that effectively works to relocate the climate-food and energy crisis to frontier areas.'

No matter what happens on the ground as climate catastrophe presses, it is what happens in the air – its commodification through carbon markets – that concerns us more immediately, for here the spatial fix combines with financial mechanisms to move tens of billions of dollars, and potentially trillions. A great deal is at stake, for thanks to 'the wrath of capital,' Parr (2013, page 36) shows how 'The voluntary carbon-offset market displaces the more pressing and pertinent question of how to end the current dependence on fossil fuels.' Adds Larry Lohmann (2011, page 103), 'Offsets take the "spatial fix" of cap and trade (which moves pollution around a "capped" landscape to wherever it is cheapest to abate) one step further, to territories not covered by caps, especially the global South, where carbon clean-up is cheaper.' Under such 'accumulation by decarbonization,' according to Adam Bumpus (2009, page 86), 'the use of this spatial fix to find cheap emissions reductions parallels other ways that capital avoids economic crises under neoliberalism and enlists the developing world in the pursuit of further accumulation as locally specific nature is incorporated as new revenue streams.'

During the 2005-12 era, three of the five BRICS (China, India and Brazil) were the most active offset sites, and from India, argue Gareth Bryant, Siddhartha Dabhi and Steffen Böhm (2015, page 1), we learn crucial lessons about scale politics:

> The CDM is a spatial fix to the ecological crisis of climate change which secures conditions of production for fossil fuel industries and promotes new sites of accumulation for other companies. The political-economic 'fix' is dependent on 'fixing' a global socio-spatial divide between developed and developing countries down to 'fixed' projects at the local level.

However, it is in Harvey's (1982) original meaning of the term, integrally related to capitalist crisis *displacement*, that this article proceeds. It is in the *financial* sphere that we can learn most about the prospects for and limits of carbon markets' revived spatio-temporal fixes. Though they disagree, Noel Castree and Brett Christopher (2015, page 1) concede, 'In the context of our current political economy, a fix is typically seen as capitalism trying to negotiate its inherent crisis tendencies to reproduce itself in perennially iniquitous forms.' If so, an accumulation process now addicted to financial profits will increasingly rely upon global environmental managerial elites' strategy of turning a medium/long-term humanity-threatening prospect – already responsible for extreme, immediate damage to infrastructure and agriculture – into a 'false solution' to the crisis. In part these limits arise because the spatial fix embodied in carbon markets represents a short-term source of financial-speculative profit, which as we will see, is a temptation that characterizes the capitalist system as the next crisis looms.

As a result of this underlying dynamic, attempts to resurrect market strategies will become more visible as the next global-scale climate treaty takes shape in December 2015 at the Paris summit of the United Nations Framework Convention on Climate Change (UNFCCC). Most notably, that 21st Conference of the Parties (COP21) is anticipated to remove the critical 'Common but Differentiated Responsibility' clause that traditionally separated national units of analysis by per capita wealth. The COP21 appears to already have been forestalled in late 2014 by the climate agreement between Xi Jinping and Barack Obama, representing the two largest absolute GHG emitters. That deal ensures world catastrophe, for in it China only begins to reduce emissions in 2030 and the US commitment (easily reversed by post-Obama presidents) is merely to reduce emissions by 15 percent from 1990 levels by 2025 (Solon 2015). The BRICS bloc's role in forging global climate policy of this sort dates to the 2009 Copenhagen Accord at the COP15 when for four of the five *(not Russia), a side-deal with Obama derailed the much more ambitious UNFCCC (Bond 2012).

The idea of global climate governance is thus negated by the negotiators' lack of ambition, and the BRICS are amongst the main offenders. The UNFCCC's Ad Hoc Working Group on the Durban Platform for Enhanced Action released its first draft of this language in February 2015. According to former Bolivian negotiator Pablo Solon (2015),

> When it comes to this decade and the next, there are no concrete targets and just general references about 'enhancing the mitigation ambition' that appears 61 times in the text. The targets that are needed are very clear in different studies. The UN Environment Programme's Emissions Gap report and other studies show that to be consistent with a trajectory that limits the increase of the temperature to 2ºC, global greenhouse gas emissions have to be reduced to 44 Gigatons (Gt) of CO_2e by 2020, 40 Gt by 2025 and 35 Gt by 2030. This is the cap the world needs to avoid a future too dire to imagine. Now, in the text there are no references to these figures… These omissions in the text are not an accident, they reflect an agreement that for the coming years until 2030, every country will do what they can/want and the UNFCCC will just summarize the 'intended nationally determined contributions'. No single country has challenged this suicidal path.

Instead, Solon fears the Paris agreement will further draw in capital to a spatial climate fix, especially where funds will be directed into geo-engineering, Carbon Capture and Storage and revived carbon markets and offset schemes. The dramatic transformations that the world requires in energy, transport, agriculture, urbanization, production, consumption and distribution systems are not likely to gain funding unless there are obvious profits, such as some areas of renewable energy. Instead, Paris will create a broader field of climate policy through which capital can flow, Solon (2015) predicts: 'Even with the failure of carbon markets, the debate is not if this mechanism should continue or not, but how to enhance the current ones and develop new ones.' Solon also warns that the 2009 commitments to 'mobilize' vast amounts of climate finance – $100 billion annually after 2020 offered by Hillary Clinton (then US Secretary of State) – for funding adaptation and mitigation expenditures in poor countries will also amplify carbon trading:

> Developed countries prefer to use the term 'mobilize' instead of 'provide' and they do not limit the obligation of funding to developed countries but to all countries in a position to do so, further diluting the responsibilities of the developed countries as they spread it to developing countries. The term 'mobilize' is not associated with any figure in particular and in general includes 'from a variety of sources, public and private, bilateral and multilateral, including alternative sources' which means that even loans and carbon markets will be accounted in the process of mobilization of financial resources.

If the COP21 combines the erasure of Common but Differentiated Responsibility (a casualty already of the Durban COP in 2011) with a return to a carbon market fix, this will be welcomed by policy strategists associated with footloose finance, still searching for outlets for overaccumulated capital. The BRICS group is especially well positioned to launch innovations in emissions trading given their own accumulation trajectories and neoliberal finance ministries. The indicators of this strategy's durability already include commodification of nearly everything that can be seen as a carbon sink, especially forests but also agricultural land and even the ocean's capacity to sequester carbon dioxide (CO_2) for photosynthesis via algae. The financialization of nature is proceeding rapidly, but bringing with it all manner of contradictions.

The visionary idea behind the European Union Emissions Trading Scheme, the Kyoto Protocol's Clean Development Mechanism, offsets and other for-profit climate financing programs, is to harness and direct liquid financial capital towards lower-emissions productive investments, public transport, renewable energy and various kinds of carbon sinks. However, all the evidence suggests that the worst-ever case of market failure, as Nicolas Stern (2007) described GHG emissions causing climate change, cannot be solved by recourse to even more chaotic, crisis-ridden financial markets (Lohmann 2006, 2012). Moreover, due to internecine competition between blocs influenced by national fossil fuel industries, the COPs appear unable to either cap or regulate GHG pollution at its source, or jump-start the emissions trade in which so much hope is placed. European and United Nations turnover plummeted from a peak of $140 billion in 2008 to $130 billion in 2011, $84 billion in 2012, and $53 billion in 2013, even as new carbon markets began popping up (Reuters 2014). But after dipping to below $50 billion in 2014, volume on the global market is predicted by industry experts to recover in 2015 to $77 billion (worth 8 Gigatonnes of CO_2 equivalents) thanks to higher European prices and increased US coverage of emissions, extending to transport fuels and natural gas (Nichols 2015).

However, geographically extreme uneven development characterizes the markets in part because of the different regulatory regimes. Since 2013 there have been new markets introduced in California, Kazakhstan, Mexico, Quebec, Korea and China, while Australia's 2012 scheme was discontinued in 2014 due to the conservative government's opposition. The price per tonne of carbon also differs markedly, with early 2015 rates still at best only a third of the 2006 European Union peak: California around $12, Korea around $9, Europe around $7.3, China at $3-7 in different cities, the US northeast Regional Greenhouse Gas Initiative's voluntary scheme at $5, New Zealand at $4 and Kazakhstan at $2. The market for CDMs collapsed nearly entirely to US$0.20/tonne.

These low prices indicate several problems. First, extremely large system gluts continue: two billion tonnes in the EU, for example, in spite of a new 'Market Stability Reserve' backstopping plan that aimed to draw out 800 million tonnes (Van Renssen 2015). Second, the new markets suffer from unfamiliarity with such an ethereal product, emissions. So trading volume has slowed to a tiny fraction of what had been anticipated (especially as in China and Korea). Third, fraud continues to be identified in various carbon markets (as can be witnessed at the http://map.carbonmarketwatch.org/ website). This is a debilitating problem especially in the timber and forest-related schemes that were meant to sequester large volumes of carbon. Fourth, resistance continues to rise against carbon trading and offsets in Latin America, Africa and Asia, where anti-REDD movements are linking up (as the http://redd-monitor.org website documents, and, more generally as one of the main websites of climate justice analysis – http://www.iicat.org/ – also reveals). As a result, the introduction of market incentives to make marginal changes to emissions is simply not working: the cost of switching from coal to renewable energy remains in the range of $50/tonne, in contrast to the prevailing price of carbon at best a fifth as high in California.

This sustained market failure is evident at a time the world economy continues to suffer overaccumulation crisis tendencies, with poor prospects for strengthening the international financial architecture, aside from slap-dash repairs (Bond 2014a). These crisis tendencies are not likely to be resolved to the extent that they were in the 1930s-40s, i.e. with a sufficiently far-reaching devalorization of capital that the stage is set for a new round of capital accumulation and restructured class, social and state relations (although see Johnson 2015 on climate-catastrophic devalorization). Instead, today's crises that are manifest in financial markets tend to be displaced by bailouts, as identified by David Harvey using at least three distinct crisis-management techniques corresponding to space, time and extra-economic power: the 'spatial fix', the 'temporal fix' and 'accumulation by dispossession'.

For our purposes of exploring how the fixes affect society-nature relations, these concepts refer in the pages below, respectively, to: *globalization's* ability to *shift* problems around spatially, without actually solving them; *financialization's* capacity to *stall* problems temporally, by generating credit-based techniques – including securitization of toxic loans and commodified nature – that permit the purchase of products today at the expense of future arrears and defaults later on, when the upside-down pyramid topples; and *imperialism's* compulsion to *steal* from weaker territories via extra-economic extractive systems, variously termed 'articulations of modes of production', 'primitive accumulation', 'uneven and combined development', the 'shock doctrine', and 'accumulation by dispossession'. The *shifting, stalling, stealing strategy* is now at the heart of the management and mismanagement of capitalist crises.

Such techniques were obvious most spectacularly in 2008–09, when vast taxpayer bank bailouts were required. As financial bubbles burst, three bouts of 'Quantitative Easing' by the US Federal Reserve, joined by the British and European central banks, pushed their currencies into the economy as an artificial stimulant. These techniques, in turn, set the stage for another coming round of subprime disasters, including further bubbles bursting, more sovereign debt defaults, inflation and devaluation of the dollar – as well as a more frantic push by capital into nature under the auspices of the 'Green Economy'. That push is explored in Harvey's (2014, page 167) *Seventeen Contradictions of Capitalism:*

> It may be perfectly possible for capital to continue to circulate and accumulate in the midst of environmental catastrophes. Environmental disasters create abundant opportunities for a 'disaster capitalism' to profit handsomely. Deaths from starvation

> of exposed and vulnerable populations and massive habitat destruction will not necessarily trouble capital (unless it provokes rebellion and revolution) precisely because much of the world's population has become redundant and disposable anyway. And capital has never shrunk from destroying people in pursuit of profit. Private property entails enclosure of nature's commons. While some aspects of nature are hard to enclose (such as the air we breathe and the oceans we fish in), a variety of surrogate ways can be devised (usually with the help of the state) to monetize and make tradable all aspects of the commons of the natural world. State interventions are also often developed to correct for market failures.

It is these state facilitations of financialized nature that we explore in this article, with most attention to how the BRICS have emerged as sites for shifting, stalling and stealing. As Harvey (2014, pages 167-168) continues,

> their effect is to further promote the penetration of market processes and market valuations into all aspects of our life-world. This is the case with carbon trading and the growing market in pollution rights and ecological offsets. When the natural commons are privatized, then all things, objects and processes therein are assigned a value (sometimes arbitrarily by bureaucratic fiat) no matter whether any social labour has been expended on them or not. This is how capital creates its own distinctive ecosystem. Private individuals are then free to extract social wealth from their ownership of a commodified nature. They can even capitalize it as monetary wealth… Capital's ecosystem is riddled with inequalities and uneven geographical developments precisely because of the uneven pattern of these transfers. Benefits pile up in one part of the world at the expense of another. Transfers of ecological benefits from one part of the world to another underpin geopolitical tensions.

There are, however, limits to crisis displacement using spatial and ecological fixes such as Harvey identifies. The first major round of carbon trading, centered in the European Union but with a few outlying North American regional markets, hit a ceiling at around $140 billion per annum by 2008, and by 2010 the Chicago exchange attempting to link US voluntary carbon markets had failed conclusively and shut down. If a new spatial fix was needed, Harvey's earlier work on *The New Imperialism* already identified how the emerging markets might provide it:

> The opening up of global markets in both commodities and capital created openings for other states to insert themselves into the global economy, first as absorbers but then as producers of surplus capitals. They then became competitors on the world stage. What might be called 'subimperialisms' arose… Each developing center of capital accumulation sought out systematic spatio-temporal fixes for its own surplus capital by defining territorial spheres of influence.

The BRICS have facilitated a great many global fixes while still ensuring domination in their own hinterlands. Where there have been conflicts (e.g. in Russia's annexation of Crimea which led to sanctions), the overall world financial system has not been threatened. China continues to buy T-Bills, and the BRICS' new financial institutions have mainly been welcomed as back-up support to Washington's (Bond and Garcia 2015). The BRICS also amplify global finance's contradictions. The rise of non-bank lenders' 'shadow banking,' for example, was by 2013 estimated to account for a quarter of assets in the world financial system, $71 trillion, a rise of three times from a decade earlier, with China's shadow assets increasing by 42 percent in 2012 alone. *The Economist* (2014) acknowledged that 'potentially explosive' emerging-market shadow banking 'certainly has the credentials to be a global bogeyman. It is huge, fast-growing in certain forms and little understood.' In this milieu, the United Nations Department of Social and Economic Affairs (2013, page 32) reported, world economic managers have faced – and failed to conquer – a profound challenge:

> to accelerate regulatory reforms of the financial sector. This will be essential in order to avoid the systemic risks and excessive risk-taking that have led to the low-growth trap and financial fragility in developed countries and high capital flow volatility for developing countries. Steps have been proposed in some national jurisdictions, but implementation is lagging behind. Moreover, insufficient coordination between national bodies appears to result in a regulatory patchwork. Global financial stability is unlikely to be achieved in the absence of a comprehensive, binding and internationally coordinated framework. This is needed to limit regulatory arbitrage, which includes shifting high-risk activities from more to less strictly regulated environments.

Global financial regulation appears impossible, witnessed in failures at the 2002 Monterrey Financing for Development initiative and various G20 summits after 2008 (Bond 2014a). As a result, the BRICS are especially important sites to track ebbs and flows of capital in relation to climate-related investments, because in both world financial markets and global climate policy, the BRICS are not anti-imperialist but instead subimperialist (Bond and Garcia 2015). The first-round (2005-12) flow of climate finance especially into China, India and Brazil via CDMs was remarkably vibrant, though fraught with contradictions (Böhm, Misoczky and Moog 2012). An even greater speculative bubble can be anticipated in the next few years, as a revival in global emissions speculation is most likely to emanate from a Chinese national carbon market in 2020 as well as the introduction of South African and Brazilian offset markets. But it is just as likely that *underaccumulation* will characterize these efforts, in a context in which *overaccumulation* has made a mockery of the typical economist's claim that financial capital allocates resources rapidly and appropriately.

It is in this context that an alternative socio-economic model for addressing the North's *and the BRICS'* climate debt to victims of the Global South is required. The alternative model, in turn, depends upon a radical Climate Justice movement which emerged in large part to fight carbon trading. It then waned at global scale, along with more general climate activism, though it was revived in part through an innovative strategy in the Yasuni park in the Ecuadoran Amazon and although that strategy failed, the idea has been revived – and must be generalized – as a result of myriad community-based struggles against fossil fuels. Like many other struggles against the excesses of finance, the risk is that

2. Financialization failures cause an uneven retreat of globalization

The world's largest investment banks and commercial banks have become 'too big to fail' on account of the inability of regulators to properly manage the temporal and spatial fixes in the form of expansion into distant territories. These are often offshore financial centers where regulation is non-existent. The lack of global oversight capacity is illustrated by how few of the derivatives in world financial markets are regulated or even understood: only $650 trillion or so, which is probably only a third of the outstanding obligations. Multilateral institutions appear impotent to halt contagion, even with the International Monetary Fund's $750 billion Special Drawing Rights issuance in 2009 which played a mildly stimulatory role, or the US budget stimulation of roughly the same amount. In contrast, the more successful Quantitative Easing strategy kept funds pumping into the world economy in 2009-13, but at the same time degraded the US dollar and British pound. Extremely low real interest rates – often in negative territory and in Japan's case, lasting nearly a quarter century – did not re-establish the conditions for renewed fixed investment. The main result in the credit markets was renewed bubbling, with $57 trillion in debt added to global aggregates from 2007-14, of which $25 trillion was state debt. By mid-2014 the total world debt of $200 trillion was equivalent to 286 percent of GDP (Sedghi 2015).

In other words, instead of going through the needed devalorization process to return financial assets to historic norms, there were simply too many financial and monetary bandaid fixes in the North and West, at the same time global uneven development pushed value creation towards the South and East. Yet the rules of the global financial game were so skewed to the North that when the crisis hit hardest in late 2008, emanating from US real estate markets and bankrupted US financial institutions, the safe haven for nervous investors across the world remained the dollar. That in turn compelled dramatic rises in the interest rates that smaller countries had to pay so as to retain fast-flowing financial capital within their own markets, a problem that hit four of the BRICS hard by 2013.

As a result, global-scale reformers have little reason for hope that 'rising powers' – especially the BRICS – will enhance democratic instincts in multilateral institutions or offer their own distinct alternative to rebalance global power relations (e.g. Desai 2013, Martin 2013, Shubin 2013, Third World Network 2013). Notwithstanding rhetoric about increasing use of BRICS currencies or barter trade, not much more is being done to end the destructive system in which the US dollar has world 'seignorage': i.e., it is the world's reserve currency, no matter how badly Washington officials abuse that power.

In another reflection of dysfunctional global governance, in order to assist in the elusive search for global regulatory coherence, the BRICS' 2012 contribution of $75 billion to the IMF's recapitalization should have at least permitted voting power adjustments and additional seats on the board, regardless of whether or not the BRICS leaders might generate any meaningful change in IMF ideology and practice. Yet there is every reason to doubt such change; before turning over his Treasury's scarce funds, South African finance minister Pravin Gordhan publicly called for the IMF to become more 'nasty' to Europe, for example (*Moneyweb* 2011). But the Republican Party controlling the US House of Representatives consistently refused to authorize IMF voting shifts, confirming dismal prospects for reducing US voting influence or – given Republican paranoia – increasing China's. The deadlock continued into 2015, when a frustrated Brazilian representative at the IMF publicly suggested that Washington's voting power should be cut in half since it wasn't willing to increase capital. Beijing's vast IMF capital contributions – and a GDP amended for Purchasing Power Parity that had made China the world's largest economy by 2014 – meant its voting power did rise a small amount (in turn forcing Africa's to decrease). But when a new managing director was chosen in 2011, it was a European, Christine Lagarde. As for the World Bank, its presidency was grabbed by Obama for his nominee Jim Yong Kim in 2012, without a united response from the BRICS or even a chance for a public debate and questioning of Kim (Fry 2012). For China, the reward for not putting up a fight was getting leadership of the Bank's International Finance Corporation for Jin-Yong Cai. An Indian, Kaushik Basu, was made World Bank chief economist.

The unsatisfying character of this intra-elite rivalry for the commanding heights of the Bretton Woods Institutions meant that new multilateral financial institutions inexorably began to emerge. Notably, the BRICS declined to support the main alternative multilateral institution already in place: the Bank of the South. Founded by the late Venezuelan president Hugo Chavez in 2007 and supported by Argentina, Bolivia, Ecuador, Paraguay and Uruguay, Banco del Sur already had $7 billion in capital by 2013. It offered a more profound development finance challenge to the Washington Consensus, especially after Ecuadoran radical economists led by Pedro Paez improved the design. In contrast, the new BRICS-supported institutions favor stabilization of the world financial *status quo*, rather than radically changing the most unfair and intrinsically destabilizing components. For example, the $250 billion 'Chiang Mai Initiative Multilateralization' currency-swap strategy for supporting East Asian countries in financial distress was established after the 1998 financial crises, but became a project directly linked to the application of IMF conditionalities. Then in 2012-13 there were BRICS announcements of a future $50 billion New Development Bank (NDB) and $100 billion Contingent Reserve Arrangement (CRA), one of whose objectives, according to South African officials, is to 'complement existing international arrangements' (Republic of South Africa Department of National Treasury 2012). These reached fruition at the 2014 Fortaleza heads-of-state summit, when BRICS finance ministers announced the NDB and CRA would operate in a manner that will strengthen the Bretton Woods Institutions. For example, if a BRICS member desperately needs a major bail-out to repay foreign creditors, it can apply for a loan facility only up to 30 percent of its quota (for South Africa, for example, just $3 billion – at a time sovereign debt was over $140 billion). At that point it must go to the IMF for a structural adjustment programme before returning to the CRA for more (Bond and Garcia 2015).

Such institutional innovation was occurring at a time all the BRICS faced excessive financialization tendencies internally, with debt loads at all-time highs and with each facing worsening vulnerability to global markets. This was especially true for Russia which from 2014 was excluded from the G8 on grounds of its role in Ukraine, as Western sanctions crashed its currency and stock market. Substantial crises were also witnessed in Brazil, India and South Africa, along with Turkey and Indonesia. These latter were soon nicknamed the 'fragile five'; as *The Economist* (2013a) put it, 'booming emerging economies will no longer make up for weakness in rich countries.' At that point, *The Economist* (2013b, pages 1-2) seemed to sense limits to financial and geographically-diverse investment fixes, with a cover story entitled 'The Gated Globe' frankly acknowledging that

> Globalization has clearly paused… Global capital flows, which in 2007 topped $11 trillion, amounted to barely a third of that figure last year. Cross-border direct investment is also well down on its 2007 peak… Capital controls, which were long viewed as a relic of a more regulated era, have regained respectability as a tool for stemming unwelcome inflows and outflows of hot money.

The pause button will no doubt be lifted. Yet in what was otherwise a celebration of global flows, the consulting firm McKinsey Global Institute (2014, page 5) also acknowledged that a peak had been reached in 2007 with $29.3 trillion worth of flows – 52 percent of world GDP – which then sunk substantially in relative terms over the subsequent five years, to just 36 percent:

> Financial flows remain almost 70 percent below their pre-crisis level, falling from 21 percent of global GDP to only 5 percent in 2012. This reflects the correction from the global credit bubble and deleveraging of the financial system. Financial flows have changed direction, too, with outflows from emerging markets rising from 7 percent of the global total in 1990 to 38 percent in 2012. The share of financial flows among developed regions fell from 89 percent in 2002 to 57 percent in 2012.

One reason was Washington's monetary policy fix to the 2008-09 crisis. Beginning in May 2013, investors roiled at least five major emerging markets when the US Federal Reserve's Quantitative Easing began to be phased out ('tapered'). With US interest rates slightly higher, outflows hit the fragile five. Even China's fabled property boom appeared ready to burst, as the China Real Estate Index System reported sales by volume in the country's 44 largest cities down 19 percent in the year between April 2013 and 2014 (*Wall Street Journal,* 2014). Because of the turmoil in BRICS, Indonesia, Turkey and similar sites, it is wise to recall the United Nations (2013, page 32) warning, that the world's financial markets welcome opportunities for 'shifting high-risk activities from more to less strictly regulated environments,' especially sites where massive state-subsidized and guaranteed infrastructure projects are envisaged. In these sites, including the BRICS, both borrower and lender are facing intense levels of desperation: to sink excess funds into new mega-projects on behalf of multinational capital. That process will in turn require more attention to the prospects for the BRICS New Development Bank and other public financing systems that aim to leverage other forms of capital, directed to risky investments.

3. High-risk activities in unregulated markets, including a financialized climate

Stern (2013) claims to have been co-instigator of the very idea of a BRICS Bank, but in telling the story to his peers in a jovial way, he emphasized the merits of a bank facilitating deals between states and multinational corporations:

> If you have a development bank that is part of a [major business] deal then it makes it more difficult for governments to be unreliable... What you had was the presence of the European Bank for Reconstruction and Development (EBRD) reducing the potential for government-induced policy risk, and the presence of the EBRD in the deal making the government of the host country more confident about accepting that investment. And that is why Meles Zenawi, Joe Stiglitz and myself, nearly three years ago now, started the idea – and are there any press here, by the way? Ok, so this bit's off the record. We started to move the idea of a BRICS-led development bank for those two reasons. Coupled with the idea that the rich countries would not let the balance sheets of the World Bank and some of the regional development banks expand very much, and they would not allow their share in those banks to be diluted.

At the same time the BRICS Bank was being worked out to enhance private risk reduction in a geopolitically more challenging context, the Chinese government also capitalized a new $50 billion Asian Infrastructure Investment Bank (AIIB) which, according to leading Chinese economist Xiang Songzuo, 'would replace some of the functions of the Asian Development Bank. The aim is partly to undermine an institution that is dominated by Japan and the United States' (Wilson, Rowley and Gilmore 2014). One reflection was Beijing's impressive capacity to recruit major founder-member countries including Germany, Britain, France, Italy, Korea and Australia in early 2015, as Washington's strategy of isolating the AIIB conclusively failed.

Simultaneously, the 'Program for Infrastructure Development in Africa' was established for continental mega-projects by the African Union Commission, the African Development Bank (which suffers from undue US influence given its share-ownership-centred governance structure) and the New Partnership for Africa's Development (a long-dormant suffering project of South Africa, once described by the US State Department as 'philosophically spot-on') (Bond 2005). The Program strategy includes $47 billion in short-term mega-hydro and related energy projects across

Africa, for which financing is desperately needed by impoverished African states. The biggest long-term construction works is on the Congo River: the $100 billion Inga Hydropower Project, which will have the capacity to export not only to corporations mining and smelting within the minerals-rich DRC but to buyers as far north as Italy and as far south as Cape Town, and which with 42,000 megaWatts of power, will be three times larger than China's Three Gorges. Another that is likely to receive funding is South Durban's $25 billion expansion of Africa's largest port and petrochemical-refinery complex, whose driver – the South African parastatal Transnet – received a $5 billion loan from China at the 2013 BRICS Summit in Durban. That loan is also funding a major increase in coal export capacity – rail lines, locomotives and port upgrading at the world's largest coal-export site, Richards Bay harbor – with the output mainly destined for China and India.

The merits of all these mega-projects are dubious, because they invariably come in far above initial costs and they cause enormous social dislocation and ecological damage (including climate change and facilitation of extraction on disadvantageous terms). Their end-user prices are typically beyond the affordability levels of the ordinary low-income consumer, especially for electricity, irrigation water and transport (e.g. tolled roads). Typically, it is mines, smelters and plantations that get access to the main infrastructure benefits, and in Africa, this has resulted in profit rates for multinational corporations far above the global average, simultaneous with a durable lack of access to services for the majority of Africans.

It is also revealing to consider the 'non-renewable resource depletion' associated with minerals extraction facilitated by such infrastructure. If deducted from standard GDP measurements, the increase in extractive activity in Africa leads not only to the rhetorical 'Africa Rising' GDP increase, but more importantly, to a *rapid decline in the continent's net wealth.* Very little beneficiation of minerals occurs in Africa, and the Western and BRICS multinational corporations have no problem in expatriating not only minerals but also profits – often through transfer pricing and other illicit means – to overseas headquarters. Even the World Bank's (2011) latest *Changing Wealth of Nations* calculations (conservatively) estimate the resulting decline in wealth ('adjusted net savings' in Bank-speak) at more than 6 percent per annum by 2008 when commodity prices had an initial peak, and most regained their price levels after the crash that year (although they fell again dramatically during 2014). In other words, it is easy to make the case that the drive of multinational corporate capital into Africa, now hastened by BRICS partners like Brazil's Vale, India's Mittal and Vedanta, Chinese state firms, Russian minerals and petroleum ventures and the traditional South African corporations, do far more economic harm than good.

As difficult as matters are for poor countries under conditions of BRICS corporate expansion, the next stages of the environmental commodification represent an even more acute threat. Land grabs across Africa are a major problem, with India, South Africa and China leading the acquisition process in search of mineral and agricultural takings (Ferrando 2013). Climate change is illustrative because in Africa it will mainly affect the most vulnerable people in the poorest countries, who are already subject to extreme stress as a result of war-torn socio-economic fabrics in West Africa, the Great Lakes and the Horn of Africa (University of Texas 2013). What appears important to the Pentagon-funded University of Texas's Strauss Center is the likelihood of social unrest emerging as a result. The growing role of the US military's Africa Command in dozens of African countries bears testimony to the overlapping needs for maintaining control amidst rising Islamic fundamentalism in countries from the Sahel to Kenya, which are also in the vicinity of large petroleum reserves (Turse 2014).

Moreover, notwithstanding multiple failures to date, the primary strategy for addressing this most systemic of risks, climate change, remains carbon markets and offsets. These have had a flawed record in delivering resources to ordinary people, especially in Africa (Bond 2012, Bond et al 2012). Moreover, severe damage has been done by emissions markets and voluntary offset systems to the climate itself, in the way that an indulgence system in the Catholic Church legitimated bad behavior by offering a mere confessional.

Revealing the geographical diffusion of financialized nature, those BRICS countries whose elites might have done more to leapfrog carbon-intensive accumulation strategies (or at least not repeat the most ecologically disastrous strategies of western industrialization) witnessed backsliding. Along with Japan, Australia and Canada, in 2012 Russia also dropped out of the Kyoto Protocol and, along with South Africa remained in the top-ten per capita GHG emitters. South Africa celebrated its hosting of the Durban COP17 climate summit in 2011 by committing to build three new coal-fired powerplants, including one – Medupi – that received the World Bank's largest-ever project loan in 2010 ($3.75 billion). Meanwhile, China became the world's leading GHG emitter in absolute terms. To address the prolific emissions, three BRICS then established or announced future promotion of carbon markets and offsets as strategies to deal with their prolific emissions: China's seven urban carbon markets, as South Africa and Brazil committed to doing so.

These three economies had already enjoyed – along with India – disproportionate access to the CDM until the rules changed in 2012 (CDM Pipeline 2013). By then the price of CDM credits had sunk so low there was little point in any case and nearly three quarters of subsequent CDMs 'may not represent real emissions reductions', according to Carbon Market Watch (2013, page 1), while 'The environmental integrity of the other Kyoto offsetting mechanism Joint Implementation is even more questionable with over 90 percent of offsets issued by Russia and Ukraine with very limited transparency and no international oversight.' In the meantime, as Naomi Klein (2014, page 189) pointed out, two of the BRICS had become notorious for gaming the CDM:

> The most embarrassing controversy for defenders of this model involves coolant factories in India and China that emit the highly potent greenhouse gas HFC-23 as a by-product. By installing relatively inexpensive equipment to destroy the gas (with a plasma torch, for example) rather than venting it into the air, these factories – most of which produce gases used for air-conditioning and refrigeration – have generated tens of millions of dollars in emission credits every year. The scheme is so lucrative, in fact, that it has triggered a series of perverse incentives: in some cases, companies can earn twice as much by destroying an unintentional by-product as they can from making their primary product, which is itself emissions intensive.

This is not surprising, according to Bryant, Dabhi and Böhm (2015, page 36), given that the CDM 'discourse is used to legitimise the inclusion of developing countries in the international climate regime; an essential component of a spatial fix which seeks to accommodate the demands of Northern capital for flexibility and promote new business opportunities for project developers and carbon traders.' Similar problems of system integrity plague the seven Chinese carbon markets, according to the Carbon Tax Center (2015): 'authorities face high hurdles in program design, information provision and political acceptability if the eventual national program is to put an effective 'price on carbon' and actually constrain and reduce emissions.' Within China, there is growing unease with carbon markets. At the Chinese Academy of Marxism, for example, Yu Bin

(2014) argues that along with Intellectual Property, emissions commodification is vital to understanding the way capital has emerged under conditions of global crisis.

As Böhm, Maria Ceci Misoczky and Sandra Moog (2012 , page 1629) argue, the BRICS move to carbon markets has a consistent logic:

> The subimperialist drive has remained the same: while domestic capital continues to invest heavily in extractive and monocultural industries at home, it is increasingly searching for investment opportunities in other peripheral markets as well, precipitating processes of accumulation by dispossession within their broader spheres of influence. This mode of development can be observed in many semi-peripheral nations, particularly in the BRICS… China's extensive investment in African arable land and extractive industries in recent years has been well documented. What is perhaps less well recognized in the development literature, however, is the extent to which financing from carbon markets like the CDM is now being leveraged by elites from these BRICS countries, to help underwrite these forms of subimperialist expansion.

In South Africa, confirming the climate-crisis capitalism strategy, the government's 2004 *National Climate Change Response Strategy* had endorsed carbon trading, declaring 'up-front that the CDM primarily presents a range of commercial opportunities, both big and small' (Republic of South Africa, 2004). But multiple failures and fraud, not to mention environmental racism, emerged in the main pilot project in Durban, a $15 million CDM aimed at converting landfill methane to electricity (Bond 2012). As the emissions markets collapsed after 2008, Pretoria backed away and neither the 2011 *National Climate Change Response White Paper* nor a 2013 Treasury carbon tax proposal endorsed carbon trading, in part because of the monopsony anticipated from two vast emitters far ahead of the others: the state electricity company Eskom and the former parastatal Sasol which squeezes coal and natural gas to make liquid petroleum at the world's single largest emissions point source, near Johannesburg. But by 2014 carbon trading was back on the official policy agenda (Republic of South Africa Department of National Treasury, 2014). Meanwhile, with vast carbon-intensive infrastructure under construction,[1] the official Copenhagen voluntary promise made by President Jacob Zuma – cutting GHG emissions to a 'trajectory that peaks at 34 percent below a Business as Usual trajectory in 2020' – appeared impossible to uphold just four years after it was made. The state signaled its reluctance to impose limits on pollution in early 2015, when the environment minister gave Eskom, Sasol and other major polluters official permission to continue their current trajectories for another five years, ignoring Clean Air Act regulations on emissions of co-pollutants such as SO2 and NO2.

The dubious climate projects promoted by the BRICS, including carbon markets, meant that these important economies were locked into systems of global environmental governance which in reality translated into geopolitical competition in emissions laxity. Other BRICS countries have similar power

[1] Pretoria's largest single infrastructure project was to expand the world's largest coal export terminal (at Richards Bay) to benefit a projected *40* new coal mines, in spite of the extreme eco-health dangers these pose to local communities and nature. The second biggest project – with a full price tag of an estimated $25 billion – was the South Durban port and petrochemical expansion, including a $2 billion doubling of the oil pipeline from Durban to Johannesburg, redirected from white upper class areas through low-income black areas. Other major state infrastructure investments included a new stable of airplanes for the national carrier (which regularly loses $500 million per annum), and ten new or refurbished Fifa World Cup 2010 sports stadia (nearly all achieving 'white elephant' loss-making status immediately after the soccer ended). Aside from very slow implementation of renewable energy, Pretoria's allocation for public transit investment was overwhelmingly geared to elite customers, in a fast subway to select Johannesburg and Pretoria locations, starting at the expensively-refurbished international airport (Bond 2014b).

configurations, and in Russia's case it meant withdrawal from the Kyoto Protocol in spite of huge 'hot air' benefits the country would have earned in carbon markets (for *not* emitting at 1990 levels) as a result of the industrial economy's deindustrialization due to its exposure to world capitalism during the early 1990s. That economic crash cut Russian emissions far below 1990 Soviet Union levels during the first (2005-2012) Kyoto commitment period. But given the 2008-13 crash of carbon markets – where the hot air benefits would have earlier been realised as €33/tonne 'Joint Implementation' benefits (but by early 2013 fell to below €4/tonne) – Moscow's calculation shifted away from Kyoto so as to promote its own oil and gas industries without limitation. Binding emissions cuts were not in Russia's interests, no matter that 2010-11 climate-related droughts and wildfires raised the price of wheat to extreme levels and did tens of billions of dollars of damage.

The same kinds of self-interested albeit short-termist calculations are being made in the other BRICS, although their leaders regularly demanded (justifiably) larger northern industrial country cuts thanks to the historical legacy of carbon emissions. However, the crucial processes in which UN climate regulatory language was hammered out climaxed at the COP17 in Durban in December 2011 in a revealing manner. 'The Durban Platform was promising because of what it did not say,' US State Department adviser Trevor Houser told the *New York Times.* 'There is no mention of historic responsibility or per capita emissions. There is no mention of economic development as the priority for developing countries. There is no mention of a difference between developed and developing country action' (Broder 2012). The BRICS had become subimperialists within climate-crisis capitalism.

4. Climate-crisis capitalism displacement strategies and their limits

The attraction of carbon trading in the new markets, no matter its failure in the old, is logical when seen within a triple context: a longer-term capitalist crisis which has raised financial sector power within an ever-more frenetic and geographically ambitious system; the financial markets' sophistication in establishing new routes for capital across space, through time, and into non-market spheres; and the mainstream ideological orientation to solving every market-related problem with a market solution, which even advocates of a Post-Washington Consensus and Keynesian economic policies share (Krugman 2009). Interestingly, even Paul Krugman (2013) had second thoughts, for after reading formerly pro-trading environmental economist William Nordhaus' (2013) *Climate Casino,* he remarked, 'the message I took from this book was that direct action to regulate emissions from electricity generation would be a surprisingly good substitute for carbon pricing.' Krugman observed that Environmental Protection Agency regulation 'will probably prevent the construction of any new coal-fired plants.'

While not yet eco-socialism, Krugman's U-turn is the sort of hard-nosed realism that will be needed to disprove Klein's (2014) thesis that capitalist crisis and climate crisis are conjoined. Instead, however, climate-crisis capitalism has so distorted the playing field, that the 'Green Economy' and similar ecological-modernization narratives are bound to continue generating new, futile attempts at an ecological fix, especially in the BRICS and their hinterlands where the metabolism of exploitation and resistance is increasingly intense. 'The current financial and climate crises are consciousness-raising opportunities all round, but green new deals designed to revive the faltering international system will delay fundamental change,' according to Ariel Salleh (2010, page 215). In the same spirit, Samir Amin (2010), Africa's leading political economist, offers this argument about economic theory applied to ecology:

> Capture of ecology by vulgar ideology operates on two levels: on the one hand by reducing measurement of use value to an 'improved' measurement of exchange value, and on the other by integrating the ecological challenge with the ideology of 'consensus.' Both these manoeuvres undermine the clear realization that ecology and capitalism are, by their nature, in opposition.

But the complications implicit in correlating crisis-ridden capitalism to commodifying climate crisis are profound. As Harvey (2006, page 96) warns:

> [T]he spatio-temporality required to represent energy flows through ecological systems accurately, for example, may not be compatible with that of financial flows through global markets. Understanding the spatio-temporal rhythms of capital accumulation requires a quite different framework to that required to understand global climate change.

The increased commodification of nature runs under such constraints of uncertainty into various limits, Harvey (2010) is quick to point out, in part because spatio-temporal rhythms of crazed financial markets now drive global-scale public policy, even when it comes to addressing the crucial problem of global climate change. Hence there arose the notion in vulgar economic ideology that financial solutions really do exist for the purpose of mitigating greenhouse gas pollution. World Bank chief economist Larry Summers (1991) signed a memo to that effect, arguing that 'the economic logic behind dumping a load of toxic waste on the lowest-wage country is impeccable and we should face up to that.' In other words, the US and other Northern polluters should:

- first, *shift* problems associated with environmental market externalities to the South;
- second, *stall* a genuine solution to the problems by instead opening up the field of pollution-trading for a future market solution, using financialization techniques, derivatives and imaginary 'offsets' ostensibly aimed at building tomorrow's sinks so as to mop up today's dangerous forms of Northern pollution; and
- third, *steal* more of the world's environmental carrying capacity – especially for greenhouse gas emissions – and perhaps pay a bit back through commodification of the air (resorting to mythical carbon markets and offsets) while denying climate debt responsibilities.

Yet while emissions markets as tools for management of economic and ecological crises are attractive (to capital) in principle, they appear *impossible to implement in practice*, largely because of ongoing disputes about how the deeper capitalist crisis is displaced. Capitalist 'crisis' is, Harvey (2010, page 45) tells us,

> a condition in which surplus production and reinvestment are blocked. Growth then stops and there appears to be an excess overaccumulation of capital relative to the opportunities to use capital profitably. If growth does not resume, then the overaccumulated capital is devalued or destroyed. The historical geography of capitalism is littered with examples of such overaccumulation crises.

How does the capitalist system ultimately address this underlying tendency to overaccumulate? 'In a general crisis, a lot of capital gets devalued,' Harvey (2010, page 46) argues. 'Devalued capital can exist in many forms: deserted and abandoned factories; empty office and retail spaces; surplus commodities that cannot be sold; money that sits idle earning no rate of return; declining asset values in stocks and shares, land, properties, art objects, etc.' (As Johnson, 2015, notes, climate change may well visit such destruction on vulnerable sites; after all, Hurricane Sandy did $60 billion worth of devalorization in a few hours in October 2012, requiring New York mayor Michael Bloomberg to develop a $20 billion climate proofing strategy for the city.) But in lieu of sufficient devaluation of overaccumulated capital, those responsible for crisis management attempt various other crisis displacement tactics. One of these, the rise of carbon trading, can be compellingly understood using a theory of capitalist crisis developed in the tradition of Marxian political economy. Here, accumulation by dispossession allows capital to interact with society and nature on non-capitalist terrain, in search of scarce profits, in the way Rosa Luxemburg (1968, page 347) argued was central to capitalist crisis management a century ago:

> Accumulation of capital periodically bursts out in crises and spurs capital on to a continual extension of the market. Capital cannot accumulate without the aid of non-capitalist organizations, nor . . . can it tolerate their continued existence side by side with itself. Only the continuous and progressive disintegration of non-capitalist organizations makes accumulation of capital possible.

These concepts help us to better locate the carbon markets and other emissions trading and offset strategies as vehicles for displacing overaccumulated capital, during a period of extended crisis. But even if the new markets get off the ground, the contradictions become extreme: frequent estimates of a $3 trillion carbon market by 2020 – and even one (from the lead Merrill Lynch trader) of $30 trillion (Kanter 2007) – were overblown, as the peak year so far was 2008 at $140 billion. With China's seven pilot projects launched in 2014 ostensibly covering 700 million tons of CO_2 emissions (and $135 million in 2014 deals), renewed estimates are being made of a $3.5 trillion market there by 2020 (Responding to Climate Change 2013). But in China like everywhere else, financial markets over-extended themselves geographically as investment portfolios diversified into distant, risky areas and sectors. Global and national financial governance proved inadequate, leading to bloated and then busted asset values ranging from subprime housing mortgages to illegitimate emissions credits. And another round lies ahead.

What the period after 2008 showed, once again, is that geopolitical tensions emerge over which sites would be most vulnerable to suffer devalorization of overaccumulated capital, i.e., which regions or countries would bear the brunt of the deep financial sector and real economic downturns. The geopolitical context during the 2000s featured a sole military superpower, one oriented to neoconservative imperialism (especially in relation to US energy needs and hence in-built climate-change denialism) but mitigated somewhat by a global class politics of neoliberalism. This arrangement evolved since 2010, what with BRICS becoming the most coherent emerging-market network. But as Lula da Silva, Jacob Zuma, Manmohan Singh and Wen Jiabao showed in 2009, they were perfectly willing to agree to a Copenhagen Accord that served Northern – and elite Southern – interests: GHG emissions without constraint. That deal's non-binding, voluntary approach would raise world temperatures by 4 degrees C by 2100, even conservative scientists conceded (Bond 2012), and the US-China deal in October 2014 continued the fiction that both countries could ratchet down emissions in time to avoid runaway climate change. Competition in emissions laxity is the only way to describe the COPs under present circumstances, in which delegates arrive at summits in carbon-intensive countries – Mexico in 2010, South Africa in 2011, Qatar in 2012, Poland in 2013 and Peru in 2014 – and where the UNFCCC secretariat is led by a carbon trader (Christiana Figueres).

At the Rio+20 counter-summit, Joan Martinez-Alier and Joachim Spangenberg (2012) attempted to reverse the dominant market logic, arguing: 'Unsustainable development is not a *market failure* to be fixed but a *market system failure*: expecting results from the market that it cannot deliver, like long-term thinking, environmental consciousness and social responsibility.' Financiers epitomize this problem, hence even the optimistic appeal by Castree and Christopher (2015, page 7) acknowledges 'the daunting difficulties of achieving a global capital-switch-cum-ecological-fix,' whether on its own terms or in potentially reformist ways.

No better example can be found of the irrationality of capitalism's spatio-temporal-ecological fix to climate crisis – and the limits of shifting-stalling-stealing strategies – than a remark by Tory climate minister Greg Barker in 2010: 'We want the City of London, with its unique expertise in innovative financial products, to lead the world and become the global hub for green growth finance. We need to put the sub-prime disaster behind us.'

As shown above, though, new disasters await, certain to destabilize both climate-crisis capitalism in general and the spatial fix for financial capital in overaccumulated BRICS economies in particular, through what will be, for the next few years at least, *under*-accumulating carbon markets. This makes the post-2015 period an era with great potential for those Climate Justice Now! movement activists who are critics of carbon trading to revive that basic distinction with the 'Climate Action Now' tradition (Bond 2012). The latter's critique of fossil fuel corporations stops far short of the necessary questioning of capitalist imperatives, including financializing nature as a spatio-temporal fix – but a fix whose limits are again abundantly evident. What, then, is the state of this movement?

5. The Climate Justice movement's rise, fall and subsequent recovery

A special 2015 issue of the journal *Mobilizing Ideas* – "Expansion, Evolution, and Impact of the Global Climate Change Movement"[2] – included at least two vital insights. According to Jackie Smith,

> in the field of climate justice especially there has been a tremendous growth in organized anti-systemic resistance by low-income people of color and people from the global South. From its origins in the early 1990s, the "environmental justice" movement has failed to gain the attention it deserves from social movement scholars…

One reason is the failure of global advocacy as a result of the extremely atomistic nature of Climate Justice activism. However, reasons Jen Allen,

> fragmentation may be a good thing. In the absence of a global agreement, climate action depends on national and local responses. These newcomers to climate advocacy have mobilized new groups that can push for national and local climate action commensurate with science. Entering the arena of climate change governance, or "bandwagoning" to climate change governance, can be a difficult task. Bandwagoning requires linking the activists' traditional issue, be it justice or gender, to climate change in a way that will persuade those already working on climate change. The NGOs or social movements need to invest in information gathering and dissemination, relationship building, travel, and staff training. Moving between areas of global governance is costly, yet many have engaged in bandwagoning, and taken on climate change... For those who are bandwagoning, the goal is to advance their traditional issues as well as achieve climate action.

Bandwaggoning – linking issues in a dialectical manner – is to the benefit of all concerned. In Naomi Klein's new book and her husband Avi Lewis' forthcoming film, *This Changes Everything,* we find crystal-clear linkages between climate ("*This*") and practically all other areas of social struggle.

[2] https://mobilizingideas.wordpress.com/

For Klein, it is the profit motive that, universally, prevents a reasonable solution to our emissions of greenhouse gases: from energy, transport, agriculture, urbanisation, production, distribution, consumption, disposal and financing. Through all these aspects of the world's value chains, we are carbon addicted. In each sector, vested corporate interests prevent the necessary change for species survival. It is only by linking together our single issues and tackling climate as the kind of all-embracing problem it is, that we can soar out of our silos and generate the critical mass needed to make a difference. But in turn, that means that any sort of systemic analysis to save us from climate catastrophe not only permits but *requires* us to demand a restructured *economic system* in which instead of the profit motive as the driving incentive, large-scale ecologically-sound *planning* becomes the fundamental requirement for organising life.

Is it therefore overdue, in civil society, for "capitalism" to be spoken about openly, even if this occurs now for the first time in many generations, especially in those politically backward societies – e.g. North America and Europe – where since the 1950s it was practically forbidden to do so? In much of Africa, in contrast, grievances against colonialism were so fierce that when neo-colonialism replaced it over fifty years ago, many progressive activists found courage to talk about capitalism as the overarching, durable problem (worse even than the remaining white settlers). In South Africa, anti-capitalist rhetoric can regularly be heard in every township, blue-collar (and red-collar) workplace, and university. Here, Moscow-trained presidents and even communists who were once trade union leaders have quite comfortably populated the highest levels of the neoliberal state since 1994.

Talking about capitalism and climate is more vital than ever. To do so, though, requires a somewhat longer-term perspective than the average activist and NGO strategist has scope for, in sites like the AMI. If we do not make that leap out of the silos in which all of us have sunk, we will perish. We are so overly specialised and often so isolated in small ghettoes of researchers and advocacy networks, that I'm not surprised at the AMI's conceptual impotence. Even our finest extractives-sector activists and strategists are not being given sufficient scope to think about the full implications of, for example, where our electricity supply comes from, and why mining-smelting corporates get the lion's share; how climate change threatens us all; and how the capitalist economy makes these crises inevitable. The solution? A critical part of it will be to think in ways that *intersect,* with as much commitment as we can muster to linking our class, race, gender, generational, environmental and other analyses of the oppressed. Action then follows logically.

Looming ahead in Paris at the end of 2015 is another Conference of Polluters, or COP (technically, the Conference of the Parties to the United Nations Framework Convention on Climate Change). The last twenty did nothing to save us from climate catastrophe. Judging by early rough drafts of the Paris COP21 agreement recently leaked, another UN fiasco is inevitable. The 'Coalition Climat21' strategy meeting for Paris was held in Tunis on March 23-24 2015, just before the World Social Forum. I had a momentary sense this could be a breakthrough gathering, if indeed fusions were now ripe to move local versions of 'Blockadia' (as Klein calls it) – i.e. hundreds of courageous physical resistances to CO_2 and methane emissions sources – towards a genuine global political project. The diverse climate activists present seemed ready for progressive ideology, analysis, strategy, tactics and alliances. Between 150 and 400 people jammed a university auditorium over the course of the two days, mixing French, English and Arabic. It was far more promising than the last time people gathered for a European COP, in 2009 at Copenhagen, when the naivety of 'Seal the Deal' rhetoric from mainstream climate organisations proved debilitating. That was a narrative akin to drawing lemmings towards – and over – a cliff: first up the hill of raised expectations placed on UN negotiators, before crashing down into a despondency void lasting several years. Recall that leaders of the US, Brazil, South Africa, India and China did a backroom deal that sabotaged a binding emissions follow-up to the Kyoto Protocol. In 'Hopenhagen,' even phrases like 'System change not climate change' were co-opted, as green capital educated by NGO allies agreed that a definition of 'system' (e.g. from fossil fuels to nuclear) could be sufficiently malleable to meet their rhetorical needs. That precedent notwithstanding, the phrase "A climate movement across the movements" used here seemed to justify an urgent unity of diverse climate activists, along with heightened attempts to draw in those who should be using climate in their own specific sectoral work. The two beautiful words 'Climate Justice' are on many lips but I suspect the cause of unity may either erase them from the final phraseology or water them down to nebulousness.

Beginning at an August 2014 gathering in Paris, a great deal of coalition building occurred in France and indeed across Europe. The proximate goal is to use awareness of the Paris COP21 to generate events around the world in national capitals on both November 28-29th – just before the summit begins – and on December 12, as it climaxes. There was consensus that later events should be more robust than the first, and that momentum should carry this movement into 2016. (The December 2016 COP22 will be in Morocco, a site where civil society is in conflict with the rest of the progressive world regarding what is considered Morocco's repressive, colonial control of the Western Sahara, which local Social Forum activists often defend.) The initial signs at the Tunis preparatory meeting were upbeat. Christophe Aguiton, one of Attac's founders, opened the event: "In the room are Climate Justice Now! (CJN!), Climate Action Network (CAN), international unions, the faith community, and the newer actors in the global movement, especially 350.org and Avaaz. We have had a massive New York City march and some other inspiring recent experiences in the Basque country and with the Belgium Climate Express." But, he went on, there are some serious problems ahead that must be soberly faced:

- there is no CJ movement in most countries;
- grounded local CJ organisations are lacking;
- we need not just resistances but alternatives; and
- there are some important ideological divisions.

Still, he explained, "We won't talk content because in the same room, there are some who are moderate, some who are radical – so we will stress mobilisation, because we all agree, without mobilisation we won't save the climate." This unity-seeking-minus-politics was reminiscent of a process four years in South Africa known as 'C17', a collection of 17 civil society organisations that did local preparatory work before the UN's 2011 Durban climate summit, the 'COP17.' Actually, fewer than a half-dozen representatives really pitched in throughout, and the big moderate organisations expected to mobilise financial resources, media attention and bodies ultimately did none of these. South Africa's Big Green groups and trade unions failed to take C17 ownership, to commit resources and to add the institutional muscle needed.[3] Thousands came but the messaging was vapid and virtually no impact was made on the COP or on South Africa's own reactionary emissions policy. The final rally of 10,000 activists midway through the COP17 gave UN elites and local politicians a legitimating platform. Nor did we use the event to build a South African climate justice

[3] I watched that process fairly closely, and with growing despondency. The first choice for a university counter-summit venue close by the Durban International Convention Centre was found to be unavailable at the last moment, so my Centre at the University of KwaZulu-Natal became an instant host for the 'People's Space.'

movement worthy of the name. So my own assessment of the 'state failure, market failure and critic failure' in Durban strongly emphasised the problem of *excessive* unity, without ideological clarity, institutional responsibility or political accountability.

Maybe it will be different in France, because their movements are mobilising impressively, with projects like November 27-29 mass actions aimed at municipalities; a Brussels-Paris activist train; a 'run for life' with 1000 people running 4km each from northern Sweden to Paris; the 'Alternatiba' alternatives project with 200 participating villages from the Basque country up to Brussels which will culminate on September 26-27; and getting warmed up, on May 30-31, an anticipated 1000 local climate initiatives around the country. Yet the local context sounds as difficult in 2015 as it was in South Africa in 2011. As Malika Peyraut from Friends of the Earth-France pointed out, national climate policy is "inconsistent and unambitious" and the country's politics are increasingly chaotic, what with the rise of the far right to 25% support in municipal elections. Worse, French society will be distracted by regional elections from December 6-12, and with national elections in 2017, "there is a high risk of co-optation," she warned. No politicians should have their faces near these mobilisations, suggested Mariana Paoli of Christian Aid (reporting from a working group), as COP21 protesters needed to avoid the celebrity-chasing character of the big New York march. Al Gore's name came up as one whose own corporate messaging was out of tune. But Avaaz's Iain Keith asked, "Hypothetically, what if the president of Vanuatu came to the march – should we refuse him?" Vanuatu is probably the first nation that will sink beneath the waves, and the recent Cyclone Pam catastrophe made this a twister question. Without a real answer, Paoli replied: "What we are trying to avoid is politicians capturing the successes of movement mobilisation."

Behind that excellent principle lies a practical reality: there are *no* reliable state allies of climate justice at present and indeed there really are *no* high-profile progressives working within the COPs. It's a huge problem for UN reformers because it leaves them without a policy jam-maker inside to accompany activist tree-shaking outside. The UN head of the COP process is an oft-compromised carbon trader, Christiana Figueres. Although once there were heroic delegates badgering the COP process, they are all gone now:

- Lumumba Di-Aping led the G77 countries at the Copenhagen COP15 – where in a dramatic accusation aimed at the Global North, he named climate a coming holocaust requiring millions of coffins for Africa – and so was lauded outside and despised inside, but then was redeployed to constructing the new state of South Sudan;
- President Mohamed Nasheed from the Maldives – also a high-profile critic at Copenhagen – was first a victim of US State Department's cables (revealed by Wikileaks) which documented how his government agreed to a February 2010 $50 million bribe to support the Copenhagen Accord (just as Washington and the EU agreed that the "Alliance of Small Island States countries 'could be our best allies' given their need for financing") and was then couped by rightwingers in 2012 and, earlier this month, was illegitimately jailed for a dozen years;
- Bolivia's UN Ambassador Pablo Solon was booted from his country's delegation after the 2010 Cancun COP16, where, solo, he had bravely tried to block the awful deal there, and not even the Latin American governments most hated by Washington – Bolivia, Venezuela, Cuba and Nicaragua – supported him thanks to Northern bullying;
- in any case a jungle road-building controversy (TIPNIS) soon divided Evo Morales' supporters, and in 2013 the

COP's progressive leadership void grew wide after the death of Hugo Chavez and the battle by Rafael Correa against green-indigenous-feminist critics for his decision that year to drill for oil in the Yasuni Amazon (after having once proposed an innovative climate debt downpayment to avoid its extraction); and

- Filippino Climate Commissioner Yeb Saño had a dramatic 2013 role in Warsaw condemning COP19 inaction after his hometown was demolished by Super Typhoon Haiyan, but he was evicted by a more conservative environment ministry (apparently under Washington's thumb) just before the Lima COP in 2014.

If you are serious about climate justice, the message from these COP experiences is unmistakable: *going inside is suicide*. It is for this reason that the original protest narrative suggestions that CAN's Mark Raven proposed here were generally seen as too reformist. Acknowledging the obvious – "People losing faith in the broken system, corporations sabotaging change" and "We need a just transition" – his network then offered these as favoured headline memes: "Showdown in 2015 leads to a vision of just transition to fossil-free world" and "Paris is where the world decides to end fossil fuel age." Yet with *no real prospects of reform*, the more militant activists were dissatisfied. Nnimmo Bassey from Oilwatch International was adamant, "We need not merely a just transition, but an *immediate* transition: keep the oil in the soil, the coal in the hole, the tar sands in the land and the fracking shale gas under the grass." That, after all, is what grassroots activists are mobilising for. Added Nicola Bullard: "This narrative is too optimistic especially in terms of what will surely be seen as a failed COP21."

Bullard was a core Focus on the Global South activist in the 2007 Bali COP13 when Climate Justice Now! was formed based on five principles:

- reduced consumption;
- huge financial transfers from North to South based on historical responsibility and ecological debt for adaptation and mitigation costs paid for by redirecting military budgets, innovative taxes and debt cancellation;
- leaving fossil fuels in the ground and investing in appropriate energy-efficiency and safe, clean and community-led renewable energy;
- rights-based resource conservation that enforces indigenous land rights and promotes peoples' sovereignty over energy, forests, land and water; and
- sustainable family farming, fishing and peoples' food sovereignty.

Just as valid today, these principles were further fleshed out at the April 2010 World People's Conference on Climate Change and the Rights of Mother Earth in Bolivia, to include emissions cut targets – 45% below 1990 levels in the advanced capitalist economies by 2020 – plus a climate tribunal and the decommissioning of destructive carbon markets which have proven incapable of fair, rational and non-corrupt trading. Dating to well before the CJN! split from CAN in Bali, that latter fantasy – letting bankers determine the fate of the planet by privatising the air – remains one of the main dividing lines between the two ideologies: climate justice or climate action. A unity project is by no means impossible, and these are extremely talented organisers. The world was left with the impression of vibrant climate mobilisation in far more difficult conditions on September 21 2014, after all. Cindi Weisner from Grassroots Global Justice Alliance reflected on the New York march, reminding of how broad-front building entailed surprising trust emerging between groups – leftists at the base, big unions, Big Green – whose leaders in prior years would not have even greeted each other. From Avaaz, Keith reminded us of the impressive New York numbers: 400,000 people on the streets including 50,000 students; 1574 organisations involved including 80 unions; another 300,000 people at 2650 events around the world; three tweets/second and 8.8 million FB impressions with 700,000 likes/shares. The next day's Flood Wall Street action was surely the most dynamic moment, what with the financial core of fossil capitalism under the spotlight of several thousand protesters. But with corporate and UN summits following the big New York march and without escalation afterwards, the elites' spin was dominant and ridiculously misleading. Barack Obama told the heads of state who gathered two days later: "Our citizens keep marching. We have to answer the call." Needless to say the UN summit's answer was null and void from the standpoint of respecting a minimal scientific insistence on emissions cuts.

Since the same will occur in Paris, concrete actions against the emitters themselves were suggested, including more projects like the Dutch 'Climate Games' which saw a coal line and port supply chain disrupted in mid-2014. In 2015, protests are anticipated over coal in Germany's Rhineland and we will likely see direct actions at Paris events such as Solution 21, a corporate 'false solutions' event where geoengineering, Carbon Capture and Storage, and carbon trading will be promoted. Likewise, ActionAid's Teresa Anderson reported back from a Narrative Working Group on lessons from Copenhagen: "Don't tell a lie that Paris will fix the climate. People were arrested in Copenhagen for this lie. No unrealistic expectations – but we need to give people hope that there is a purpose to the mobilisation." Most important, she reminded, "There is Global North historical responsibility, and those who are most vulnerable have done the least to cause the problem." This is vital because in Durban, UN delegates began the process of ending the "common but differentiated responsibility" clause. As a result, finding ways to ensure climate "loss & damage" invoices are both issued and paid is more difficult. The UN's Green Climate Fund is a decisive write-off in that respect, with nowhere near the $100 billion annually promised for 2020 and beyond by then US Secretary of State Hillary Clinton. And, said Anderson, given the tendency of Third World nationalists to posture on this point, "Elites in both North and South are to blame, so it's not a matter of pure geographical injustice. It's the economic system that is driving climate change." Looking at more optimistic messaging, she concluded the report-back: "Powerful positive actions are in play. We are life – fossil fuels are death. Paris is a moment to build movements, to show we are powerful and will fight into 2016 and beyond to solve the climate crisis. It takes roots to weather the storm ahead." Responding, said former Bolivian negotiator Solon (now Bangkok-based director of Focus on the Global South), "I think we need a clearer narrative: let's stop an agreement that's going to burn the climate. We already know that agreement exists. If China peaks emissions only by 2030 or if we accept Obama's offer to China, we all burn. The Paris agreement will be worse than the draft we've seen. The point is not to put pressure for something better. It's to stop a bad deal. We are against carbon markets, geoengineering and the emissions targets." But the clearest message came from veteran strategist Pat Mooney of the research network called the etc group, describing to the mass meeting what he wanted to see in Paris: "It should start like New York and end like Seattle. Shut the thing down." Back in 2009, just weeks before he died, this was what Dennis Brutus – the mentor of so many South African and international progressives – also advised: "Seattle Copenhagen!" The Paris Conference of Polluters also needs that kind of shock doctrine, so that from an activist cyclone a much clearer path can emerge towards climate justice in the months and years ahead.

6. Climate justice scale jumping

Global pessimism and local optimism: that's how to quickly explain CJ 'scale politics.' Or, better: *paralysis above, movement below*. The combination was on display again in Lima, Peru, in December 2014, at the COP20. That event provided an opportune time to reassess global environmental governance as a site of struggle, one that has proven so frustrating over the past two decades. It was a moment is time again to ask, specifically, can hundreds of successful episodes in which communities and workers resist local greenhouse-gas generation or seed local post-carbon alternatives, now *accumulate into a power sufficient to shape climate negotiations*? Will they be ready for Paris? Judging by even the remarkable events of 2014, my answer is, unfortunately, *not yet.* We need to become much stronger and more coherent in rebuilding the CJ movement, once so full of hope, from 2007-09, but since then in the doldrums – even though individual, mostly disconnected activist initiatives have deserved enormous admiration, no more so than in the Americas.

Lima came on the heels of two world attention-grabbing policy events: a United Nations special summit in September just after a 400 000-strong Manhattan people's march and Wall Street blockade, and the Washington-Beijing deal on a new emissions-reduction timetable. The COP20 offered a chance to gauge the resulting balance of forces, especially in the critical Andean countries where melting mountain glaciers and shrinking Amazonian jungles meet. Here, combinations of the world's most radical conceptions of nature's integrity ('Rights of Mother Earth', *sumak kawsay* and *buen vivir*) combined with concrete struggles to transcend the destruction of nature or its commodification.

In my experience, the world's most visionary CJ, post-capitalist politics are fused when Ecuador's Accion Ecologica eco-feminists find indigenous movement allies and solidarity activists across the world. The Quito NGO had long argued the case for collecting the Global North's 'ecological debt' to the South and to the planet. But it was only when oil drilling was proposed in the Yasuni National Park – on the Peru border, deep in the Amazon – that the stakes were raised for both Action Ecologica and the Confederation of Indigenous Nationalities. They lost the first rounds of the battle: first, shaming Germany and Norway into making payments to leave the oil in the soil (an initial $3.5 billion was demanded, as a down-payment on the North's climate debt), and second, once the money was deemed insufficient, a national referendum to protect Yasuni (regardless of payments) was not treated fairly by Ecuador's extractivist ruling class. But international outreach continues. As Ivonne Yanez of Accion Ecologica explains, 'Now we are trying to join with the movements to reclaim the commons, in an effort to start a dialogue with people across the world. We want to see anti-capitalist movements fighting together in a new internationalism, beyond the solidarity with affected peoples in the way it is traditionally understood.' The Yasuni struggle and others like it – e.g. Bolivia's notorious proposed forest highway, TIPNIS – force onto the progressive agenda this uncomfortable dilemma: are the 'pink' governments of Rafael Correa in Ecuador, Evo Morales in Bolivia and Nicolas Maduro in nearby Venezuela capable of generating serious eco-socialist policies consistent with their leaders' rhetoric? Or instead, are the new elites irretrievably petro-Keynesian, petro-Indigenous and petro-Socialist, respectively, with radical climate politics foiled by their economies' carbon rentiers?

In more conservative Peru, the regime of Ollanta Humala swept into power in 2011 on a pinkish electoral platform. Yet the mining sector has since boomed, with disastrous impacts in the highlands and Amazon alike. Recall that in 2009, the Awajun and Wampis Peoples and the Interethnic Association for Development of the Peruvian Jungle (Aidesep) blockaded roads in Bagua, leading to a confrontation with the military that left 38 dead and 200 wounded. As Aidesep's leader Alberto Pizango put it, 'Thanks to the Amazonian mobilizations I can say that today the indigenous agenda is not only inserted in the national level and within the State, but on the international level.' Yet Pizango and 52 others are in the midst of being prosecuted for that protest. And profiteers continue to apply pressure. To his credit, Peruvian Environment Minister Manuel Pulgar-Vidal admits that thanks to the threat of the 'forestry market of carbon, people are losing trust and confidence around that mechanism. People are thinking that it can create conditions to lose their land.' Still, Pulgar-Vidal believes safeguards will be sufficient. At an Indonesian forest debate in May, he asked, 'What kind of incentives can we create to bring the business sectors to the forest?' He praised Unilever as 'a good example of how a private sector [firm] can play a more active role regarding the forest.' Expressing faith in the 'green economy', Pulgar-Vidal continued, 'What we need to do is to address the problem of the value of the carbon bond around the forest. The current prices are creating a lack of interest… disincentives to have the business sector and the investor more close to the forestry sector.'

This sort of vulgar-capitalist COP hosting is not a coincidence. The four preceding COPs, in Poland, Qatar, South Africa and Mexico, witnessed dominant local state actors co-presiding alongside UN Framework Convention on Climate Change (UNFCCC) secretary Christiana Figueres. Following the power logic within their national power blocs, they *remained universally addicted to hydro-carbon exploitation*, with one common, logical COP result: total failure to move world capitalism away from the cliff-edge. Likewise, the UNFCCC appears addicted to market mechanisms as alleged solutions to climate chaos, even after the breakdown of the two main carbon trading schemes: in the European Union, which has suffered an 80 percent price crash since 2008, and the US where the Chicago Climate Exchange (self-interestedly promoted by Al Gore) suffered a fatal heart attack in 2011. Nevertheless, the UNFCCC and World Bank express high hopes for a new generation of carbon trading and offsets in California, a few major Chinese cities and a layer of middle-sized economies including South Korea, Brazil and South Africa. In other words, ruling-class personalities still shape global climate politics far more than CJ activists, as witnessed in the futility with which the latter have attempted to influence the UN's Green Climate Fund. Between the coal, oil and mining barons who rule over recent COP hosts on the one hand, and a former carbon trader (Figueres) who rules the UNFCCC on the other, there has never been any possibility for getting the CJ perspective a seat at the global table.

The structural problem is simple: each national delegation comes to each COP with the agenda of maximizing the interests of its own corporations, which tend to prominently include those with industrial or fossil fuel assets. Hence their need to emit more and more gases, and prevent a CO_2 ceiling from being imposed. A Conference of Polluters it will remain until that flaw is solved, or until the world elects governments possessing even minimal awareness of the climate threat and the political will to address it (the way they did in 1987 when the ozone hole's expansion was halted by the UN Montreal Protocol that banned CFCs). The COPs are also stymied because the US State Department's main negotiator, Todd Stern, looms over the proceedings like a smug vulture during a deadly drought.[4] With men like Stern at the helm, the COP20 broke the 'Climate Action Network' (CAN) NGO reformers' hearts, as have all others since Kyoto in 1997.

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[4] Thanks to Edward Snowden's revelations about Washington's surveillance capacity, we learned how Stern and US President Barack Obama cheated their way through the Copenhagen climate summit in 2009 by listening in on the competition's cellphones, rendering hopeless a genuine deal that would enforce emission cuts. And thanks also to Chelsea Manning and WikiLeaks providing us those 250 000 confidential State Department cables, we know that the weeks after the Copenhagen fiasco were spent by Stern and his colleagues cajoling, bullying and bribing. They did so with such gusto that they even purchased (for a lousy $50 million in aid) the tough-sounding Maldives Island leadership whose famous scuba-gear-adorned underwater cabinet meeting stunt in late 2009 dramatised that sinking feeling.

The UNFCCC's irrelevance at the time of its greatest need and responsibility will be one of our descendants' most confounding puzzles. After Copenhagen, illusions promoted by stodgy CAN member groups were dashed. As McKibbon put it, the presidents of the US, Brazil, China, South Africa and India (the latter four termed BASIC) 'wrecked the UN' by meeting separately and agreeing to eventually make merely voluntary commitments. Now add (Kyoto-reneging) Russia to the BASICs and, as the BRICS, the economic agenda signaled at their Fortaleza, Brazil summit in July 2014 boils down to financing infrastructure to ensure more rapid extraction, climate be damned. Still, the insolence of the Obama Administration outshines the BRICS, when cutting another exclusive side deal so soon before Lima and Paris. The November 12 climate pact with China clarified to CJers how much more pressure is needed from below if we are to maintain warming below the 2 degrees danger threshold (not the 3+ degrees that Barack Obama and Xi Jinping settled on). Yet the bilateral deal actually reduces pressure to hammer out a genuinely binding global agreement with sharp punishments for emissions violations, plus the needed annual climate debt payments of several hundred billion dollars from polluters to climate victims.

As a result, rising activist militancy is ever more vital, as the window for making the North's (and BRICS') needed emissions cuts begins to close tight. I've been most surprised by the militancy emanating from what is probably the most difficult place to organise on climate outside China, the US. There, the Climate Justice Alliance, Global Climate Convergence and System Change Not Climate Change networks did an impressive job radicalizing the previously bland (Avaaz) discourses just before the People's Climate March in New York in September 2014. An estimated 400,000 people flooded the streets of midtown Manhattan, starting a lively parade at Central Park. Two days later, 120 of the world's political leaders – notably not including the Chinese and Indians – gathered 25 blocks away at the United Nations. The message they got from society was symbolised by the march route: instead of heading towards the UN building, the activists headed the other way, west. This directional choice reveals that hope for action on climate change comes not from the apparently paralysed heads of state and their corporate allies, who again consistently failed on the most powerful challenge society has ever faced: to make greenhouse gas emissions cuts necessary to halt certain chaos.

Instead, momentum has arisen largely from grassroots activists, even those fighting under the worst conditions possible, amidst denialism, apathy, corporate hegemony, widespread political corruption and pervasive consumer materialism. Nowhere is this better illustrated than in the place which according to Pew Research polling of major countries, suffers the second most poorly educated citizenry on climate (only 40 percent acknowledge it is a crisis): the United States itself. (Keep travelling west and the country with the least knowledge of climate – only 39 percent are informed – emerges on the horizon: China. In Brazil, awareness is 76 percent.) So the main encouragement offered by the New York march came from the harsh terrain crossed, especially at gaudy Times Square: amongst the most culturally insane, ecologically untenable and politically barren on earth. The US not suffers a congressional science committee led by Republican Party dinosaurs who deny climate change, but its civil society is populated by far too many single-issue campaigning NGOs unable to see outside their silos, defeatist environmentalists many of whom are coopted by big business, and mild-mannered trade unions scared to engage in class and environmental struggles.

Nevertheless, it is in the US that the most extraordinary victories have been won by climate activists against coal-fired power plants (300 have either been shut or prevented from being constructed). In addition to a huge battle against Canadian tar-sand oil imports, which included 1200 arrests at the White House in 2011, there are countless micro-struggles against fossil fuel extraction and refining sites, whose activists made up the most vibrant delegations at the march. Many of the battles involve black, Native American, Latino and low-income people, who because of an exceptionally wicked history of environmental racism have had to take leadership where the 'Big Green' NGOs comfortable in Washington DC have failed miserably: insisting on justice as a central component of social-ecological harmony. This movement named itself 'Environmental Justice' in 1982 when deadly toxins were dumped in a North Carolina landfill and African-American communities fought back. In earlier times, the cry was 'Not In My Back Yard!' (Nimby) – but as critical mass emerged and links became clear between oppressed people who saw that their plight was not just local racism but systemic ecocide, it became 'Not On Planet Earth!' (Nope!).

In New York, a renewed Climate Justice Alliance was the main network connecting dozens of these struggles by people of colour (especially Indigenous Peoples) across North America. They offer a vision that includes a fairer distribution of costs and benefits of climate policy, and a transformative view of a world economy that must go post-carbon and post-profit if our species and countless others are to survive. What the march did, better than any other event in history, was demonstrate the unity of activists demanding genuine emissions cuts and government funding of an alternative way of arranging society. Whether public transport, renewable energy, organic agriculture oriented to vegetarian diets, new production systems, a shift in our consumption norms, new ways of developing cities (so as not to resemble ghastly US suburban wastelands) and even 'zero-waste' disposal strategies, the huge crowd showed support for genuine post-carbon alternatives. Public health activists in the AIDS Coalition to Unleash Power warned of resurgent opportunistic infections thanks to climate change. Anti-war activists connected the dots between global warming and Middle East and African oil, as well as renewed water wars. Democracy activists noted the Koch brothers' and other fossil fuel corporations' malign influence in Washington and state capitals. Dozens more such groups related their particular concerns to our more general survival.

Not a single sign I witnessed over six hours traipsing back and forth from start to finish promoted establishment 'fixes'. Society has been bombarded with 'false solutions' by business and governments in climate policy debates: carbon trading, carbon capture and storage ('clean coal'), lacing the air with sulphur as a coolant, dropping iron filings in the ocean to create algae blooms (to suck up CO2), biofuels which cause landgrabbing, nuclear energy, genetically modified organisms and other geo-engineering frauds.[5] Many feared that for-profit 'Green Economy' gimmicks like carbon trading – resurgent now in California, China, South Africa, Brazil and Korea – would result from a big march lacking a central demand. As activist-writer Arun Gupta put it the day before the march, in Counterpunch ezine:

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[5] That was surprising because the social media campaigning group Avaaz.org had paid for signs plastering New York subways this week, hinting at corporate greenwashing. "What puts hipsters and bankers in the same boat?", one Avaaz advert asked, on a backdrop of ocean water, illustrating the commonality of our plight. This was also a reference to the October 2012 flooding of Wall Street by Superstorm Sandy, shutting off the subway as waters rose to the tune of $60 billion in damages – a profound wake-up call to the climate-sleepy, politically backward island of Manhattan. In my experience nothing but trouble comes from inviting bankers into coalition. After all, they cannot even sort out their own industry's messes, and evidence of their involvement in climate politics is appalling. Banker logic promotes carbon trading, in which the air itself is privatised and sold to the highest bidder. It has been a disastrous experiment in the European Union since 2005 where carbon credit prices fell nearly 90 percent amidst persistent scamming.

> This is one of those corporate-designed scams that in the past has rewarded the worst polluters with the most credits to sell and creates perverse incentives to pollute, because then they can earn money to cut those emissions. So we have a corporate-designed protest march to support a corporate-dominated world body to implement a corporate policy to counter climate change caused by the corporations of the world, which are located just a few miles away but which will never feel the wrath of the People's Climate March.

It was a valid fear, yet Gupta's critique proved excessively cynical. The prevalence of eco-socialist and anarchist marchers generated repeated anti-capitalist slogans. No one believes that the UN promise to 'put a price on carbon' can incrementally address the crisis, given how erratically the trading mechanisms have so far set that price, in a world continually battered by financial speculation. So the following day, several more thousand hard-core activists turned out at "Flood Wall Street," which the Occupy Wall Street movement helped prepare. The planning session I attended was beautifully illustrated by activists using the water metaphor as a way to show participants the ebb and flow of people, attempting to block roads and access to the stock market and nearby banks, amidst an anticipated police crack-down. Even though New York City had a progressive Democratic Party mayor, Bill de Blasio, there continued to be persistent police abuses, what with the return of the notorious chief Bill Bratton. But on the Monday after the march, from 9am-6pm, around 3000 activists took first Battery Park at the island's southern tip, then achieved a seven-hour long occupation of Broadway at the site of the Wall Street raging bull statue. Though police ultimately arrested 100, what with the world's media glare they were under pressure from de Blasio not to bust heads in the process. The crowd had been revved up by Canadian writer Naomi Klein whose new book, *This Changes Everything*, explicitly challenges capitalism as a mode of production. From Cape Town, so too did Archbishop Desmond Tutu again call for divestment from fossil-fuel corporations, and reinvestment in post-carbon technologies.

But it was the surprise gift from New York to the world's Climate Justice movement that will be remembered longest: the hundreds of thousands who turned out plus a hundred thousand more across the world who had solidarity marches, showing conclusively that while there remains paralysis above, there is movement below. Climate justice received a new lease on life. What it does with this into the Paris COP21 and beyond is up to the creativity of the base, as it connects the dots to other issues, links Blockadia experiences, and scale jumps from local to global. One of the most important opportunities to maintain this revival is raising the question of climate debt. How best might this be accomplished?

7. Climate debt done properly

The concept of ecological debt remains largely undeveloped in legal terms. It has been fundamentally opposed by the US and UK, whose fossil-fuel intensive political economies remain inherently intertwined with the primary causes. As the leading US climate negotiator, Todd Stern, stated at the Copenhagen COP15 in 2009, 'The sense of guilt or culpability or reparations – I just categorically reject that.' Even in 2012 when in Doha at the COP18, the idea of 'loss and damage' was introduced by South country negotiators, Stern and his allies ensured that no liability was attributed for climate costs imposed on poor countries.

As a result, the COPs are apparently useless for raising climate debt and many other aspects of the CJ agenda. Then what should eco-social justice movements do to best conceptualise and campaign for a creative Global North repayment of the climate debt? Given multiple global climate governance failures, with no change anticipated, the most interesting climate debt precedent was the proposal first by the Quito NGO Accion Ecologica and then by the Ecuadoran President to 'leave the oil in the soil' in the Amazonian park known as Yasuni, in exchange for a downpayment on the North's climate debt. Yasuni is a critical place to draw the line, for it is probably the world's most biodiverse site. Preventing a future liability (oil extraction) by establishing a current creditor (the Ecuadoran) is one of the most promising ways for the ruling classes of countries with large fossil fuel reserves to justify not exploiting these.

However, Yasuni was sabotaged in 2013-14 by a combination of Northern debtor denial, Chinese corporate oil thirst and Ecuadoran elite politics. Together they trumped global-solidaristic social advocacy. This occurred in several ways:

- the state's idea of carbon markets as Yasuni payment mechanism: 'privatising the air' could not gain Climate Justice movement support
- Rafael Correa mainly attempted elite deal-making with neoliberal regimes in Berlin, Oslo and Rome – which donated only a pittance to Yasuni fund
- likewise, UN's Green Climate Fund appears useless for Yasunization
- top-down efforts distracted attention from bottom-up mobilisations required to force Northern governments to make grants to Yasuni
- those grants could have been framed as 'Climate Debt Downpayments', aimed not just to leave oil in the soil but also to pay 'loss & damage': compensating oil and climate-related burdens from Andes to Amazon
- Latin American societies whose states have Amazonian oil – including shale-rich Venezuela – taught us the vital need to make red-green alliances
- but elites in such states (Venezuela, Ecuador and Bolivia) are still far too committed to petro-socialism, petro-Keynesianism and petro-indigenism
- to illustrate, Correa secretly negotiated with Chinese oil companies, and when faced with eco-resistance, became undemocratic and authoritarian
- the way forward is to take Yasuni's best lessons and avoid the sabotage.

To illustrate what should be avoided, Dirk Niebel, the German minister for cooperation, was amongst those most responsible for Yasuni's failure, for the reason, he insisted, that "Germany will not contribute to a fund that is based on the philosophy of 'payment for non-action'." Responding to intense pressure to assist in Yasuni, he did offer some euro (24 million), but instead of being part of a project to leave the oil under the soil, he insisted on promoting Yasuni a market-oriented project.[6]

In the wake of the failure to more firmly establish climate debt, there is, however, a potential follow-up eco-social movement to take forward the main 'Yasunization' principles: leaving fossil fuels un-extracted, protecting local indigenous people, transferring funds from the Global North to the Global South, and building a mass democratic movement to challenge conventional climate politics. The sabotage of Yasuni must be understood and the next case must avoid its drawbacks, so as to un-sabotage this model.

How might that be done? Here are some converse propositions:

- reject carbon markets as a payment mechanism: 'privatising the air' will be captured by banks and can't gain Climate Justice movement support
- before any elite deal-making commences, a mass support movement is needed in the Global North: people-people and people-nature solidarity

[6] Germany's climate debt is illustrated well in "The Bill": http://www.youtube.com/watch?v=kl7GI-Ku6d0

- until global balance of forces changes, expect UN to continue sabotaging
- bottom-up mobilisations can ultimately compel Northern people and then their governments (via corporate taxes) to pay Yasunization grants
- such grants should be framed as 'Climate Debt Downpayments', directed not just to leaving oil in the soil but also to compensating 'loss & damage': climate-related financial burdens of local people (e.g. Basic Income Grant)
- new red-green alliances are vital to ensure not just conservation but also that social goals are met – ideally with community-labour-ecology projects
- since all elites remain committed to business as usual, red-green alliances will avoid South-v-North ideology; instead, Global South-> <-Global North
- we're all in this together, hence avoid illusions about supposed merits of BRICS or non-Western corporate extraction; BRICS have Climate Debt too
- Yasuni's best lessons are bottom-up: sabotage comes top-down.

Correa's failure to promote climate debt properly raises a general question: what if recipient states have no intention of giving those adversely affected by climate their funds? There is a relatively grassroots-oriented way to ensure that the distribution of resources gained from climate debt is fair: simply passing along a monthly grant – universal in amount and access, with no means-testing or other qualifications – to each affected citizen via an individual Basic Income Program (BIG) payment. This has been piloted effectively in Namibia. According to *Der Spiegel* correspondent Dialika Krahe (2009), the village of Otjivero was an exceptionally successful case of this form of redistribution:

> It sounds like a communist utopia, but a basic income program pioneered by German aid workers has helped alleviate poverty in a Nambian village. Crime is down and children can finally attend school. Only the local white farmers are unhappy... 'This country is a time bomb,' says Dirk Haarmann, reaching for his black laptop. 'There is no time to lose. Haarmann and his wife Claudia, both of them economists and theologians western Germany, were the ones who calculated the basic income for Namibia. 'The basic income scheme,' says Haarmann, 'doesn't work like charity, but like a constitutional right.' Under the plan, every citizen, rich or poor, would be entitled to it starting at birth.

According to leading African investigative journalist John Grobler, within the BIG grant system – allocating R100 per month for those under 60 years old, a sum paid out for two years, between January 2007 and December 2008 – 'there is no space for corruption in the system.' The impact on social indicators, including food, education and health security, dramatically increased. Contrary to opposition within government, no new shebeens were opened – instead, shebeens were closed on BIG payout days. Meanwhile, domestic violence, begging and sex work (and with it, transfer of HIV and STDs) declined considerably.

If this strategy was to be generalized, the first priority would be to introduce a Basic Income Grant Programme to low-income people who live in areas most adversely affected by droughts, floods or other extreme weather events. Logistically, the use of Post Office Savings Banks or rapidly introduced Automated Teller Machines and specialized withdrawal accounts would be sensible, although currency distortions, security and other such challenges would differ from place to place. How has BIG or similar income transfer schemes worked elsewhere? Ironically, in oil-dependent, conservative Alaska, the BIG concept – in the form of a dividend from oil-sourced income that goes to every Alaskan citizen – has been welcomed across the ideological spectrum. Does such a grant to working-class people disincentivise them from seeking work? According to Guy Standing (2003) of the International Labour Organisation, the BIG can actually generate 'a greater incentive to search and to take jobs, particularly low-wage jobs or low-income, own-account activities.' The reason is that BIG is universal and does not get withdrawn once a job is taken.

Another case study site from the neighbouring country is the Fuleni region of KwaZulu-Natal, South Africa, which combines the oldest game park in Africa (Hluhluwe-iMfolozi, where white rhinos were saved from extinction), the adjacent communities of indigenous people who were victims of apartheid's dumping-ground 'Bantustan' policy, and the workers in the coal and smelting industries at Somkhele (next to the park) and in nearby Richards Bay (including those at the world's largest single coal export terminal). The tragedy of Somkhele is partly that the region's drought is an early manifestation of climate change, which will hit African peasant areas like Fuleni as hard as anywhere on earth. Coal is the main cause of climate change. Somkhele anthracite goes to the electricity parastatal Eskom to burn so that mining mega-corporations get extremely cheap power for their digging and smelting. BHP Billiton's electricity price is US$0.01 per kilowatt hour thanks to corrupt apartheid-era deal-making renewed after 2000, about a tenth the charge that poor people must pay. Somkhele coal travels on huge trucks 60km southeast to Richards Bay where along with 80 million tonnes of other coal, it is exported to major buyers in Europe, India, China and the Middle East.

In these places, is the burning of coal accompanied by awareness about the damage done upstream, back in the Fuleni area? Making these links will be easier thanks to *The Guardian*'s climate campaign, clicktivists at Avaaz, and the crowd-source funder Grrrowd who are all helping to put the Fuleni struggle in the spotlight. But if international climate activists also join in, that may be decisive. Coal prices are at very low levels – around $60/tonne, down from $140/tonne four years ago – and it won't take much to persuade investors to divest from coal companies linked to the threat against the people and animals of Fuleni. At the same time that the Climate Justice movement calls on the Global North to pay a 'climate debt' that is legitimately owed to African drought victims like those in Somkhele, the struggles of activists like these against coal will rebound to help the whole world combat climate change.

8. Conclusion

The present system of carbon trading and offsets – now gathering pace again in China, Korea and other emerging markets – as well as payments for greenhouse gas mitigation and adaptation via the Korea-based Green Climate Fund are failing on multiple levels. The 'loss and damage' liability accounting Third World countries have pushed for in the United Nations climate summit since 2012 is still being blocked by rich countries. Paris is not anticipated to deliver a breakthrough. Instead of relying on the elites to start this process, a people-to-people solidaristic strategy is needed, initially. More successors are needed to the heroic but unsuccessful 'leave the oil in the soil' campaign for Ecuador's Yasuni national park. Launching the strategy in 2007, environmental and indigenous-rights activists suggested Northern governments pay the Quito government $3.5 billion to avoid drilling the Amazonian paradise. Activists put the 'climate debt downpayment' on the civilised world's agenda.

Those of us living in places like suburban Durban – whose only immediate coal concerns are load-shedding worries – have not been aware of our neighbours' suffering. After all, coal from Somkhele contributes to our electricity supply. To compensate, we also need to campaign harder for a fossil free KZN: renewable energy is possible, especially wind, solar and maybe even tidal once we harness the powerful currents and tides of the Indian Ocean. But in this province and country, political will is nearly nill – something we must work to change. So communities in Fuleni, conservationists protecting white rhinos, environmental justice activists, and forward-thinking trade unionists like the National Union of Metalworkers of South Africa are all needed to develop this alternative socio-economic model. To illustrate, a 'Million Climate Jobs' campaign has already been launched to find a just transition for so many Eskom coal or BHP Billiton smelter workers who can contribute to our society's renewable energy instead of to climate change.

If the case study chosen is an accurate illustration of how to fuse all these forces, hope may now rise that the Fuleni campaign can inspire not just animal lovers and conservationists, but more climate activists and many more ordinary citizens who do not like seeing such extreme environmental injustice along the lines of race, gender and class. That will inexorably lead the citizenry to more nuanced understandings of climate justice. We are all in desperate need of an alternative socio-economic and ecological model. If, as Naomi Klein argues, *This changes everything,* and yet if there are still very persistent difficulties of moving from *Not In My Back Yard* (NIMBY) to *Not On Planet Earth* (NOPE) politics, then potential solutions encompassing big-picture advocacy strategies may emerge from climate debt advocacy. If so, Fuleni may serve as a useful methodological guide to a better model than now exists: in carbon trading, the Green Climate Fund and other orthodox socio-economic models for addressing climate policy. None is working – it is time for climate debt to be invoked, to shake up the system.

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