

## Chapter 2

### The Sustainable Development Goals, the Paris Agreement and the Addis Agenda: Neo-liberalism, unequal development and the rise of a new imperialism

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HUMANITARIAN PROBLEMS AFFECTING THE PLANET are increasing, with the world's lower-income countries worst affected. This is often attributed to budgetary constraints and inadequate access to expertise and technology. More people are exposed to widespread poverty, disease (especially HIV/Aids and malaria), war, terrorism and climate change (see UNDP 2017). Climate change has the potential to add immeasurably to these problems – sparking further mass displacements, resource wars within and between nations, and challenging human viability on earth in the medium to long term.

Climate change and related global humanitarian and environmental problems have brought nations together under the auspices of the United Nations to promote climate-change adaptation and mitigation measures long touted as 'sustainable development'. In 2015 and 2016, through the United Nations, most of the world's governments sought to address some of the factors causing climate change and poverty by adopting the Paris Agreement and the 2030 Agenda for Sustainable Development, also known as the Sustainable Development Goals (SDGs). However, these measures remain anchored in neo-liberal economic policies that entrench the capitalist interests of the North, which are set to benefit from renewable energy businesses and technology transfer; and neo-liberalism, rather than being a panacea to global inequality and disintegration, has, in fact, always promoted both (Beck 1992; Cabello 2009).

It is important to note that the United Nations is arguably the key driver of global initiatives on sustainable development. To assess their position on sustainable development and climate-change governance, we analyse three key documents in this chapter – the Paris Agreement, the Addis Ababa Action Agenda (the financial policy on which the SDGs are based) and the

SDGs themselves. All developed under the auspices of the United Nations, the three documents detail how the signatories to these United Nations documents seek to achieve sustainable development, reduce carbon emissions and introduce measures that help communities both adapt to and mitigate the effects of climate change.

Our analysis revealed that three key themes or assumptions underpin and inform these documents; namely that humanity should adopt neo-liberal market policies, carbon trading, and technology transfer as primary strategies in addressing the challenges we face. In this chapter, we tackle each of these themes, and show that, essentially, the United Nations plans to advance neo-liberal capitalist interests through establishing carbon trading, devolving state power to the private sector when it comes to climate mitigation and poverty reduction, and facilitating the transfer of renewable energy and other technologies from North to South. The three documents are likely to be central to the ways in which future discourse on climate change and sustainable development emerges. All three place economic growth and development above all else, thus subjecting both poverty reduction and climate change mitigation to the principles of profit-making, market forces and market growth. As a response to this, we then focus on the role that higher education institutions could play in defining and encouraging understandings of climate change responses and that focus less on the interests of global elites and more on sustainability.

### **Debates about the environment and the neo-liberal approach**

The twenty-first century has been inundated with buzzwords and catchphrases such as ‘sustainable development’, ‘the information society’ and ‘globalisation’. Debates about sustainable development are often linked to discourses around the need for education information and knowledge-sharing. Global problems related to poverty and climate change have brought certain countries together – around various ‘sustainable development initiatives’ – to attempt to address these challenges. However, the sustainability discourse remains entrenched within neo-liberal economic principles that favour global capitalism by attempting to expand business initiatives to the South and promote the maximisation of profits in anticipation of the famous ‘trickle-down effect’ (Beck 1992; Kumi et al. 2014). As Cabello (2009) argues, climate change is the result of the capitalist system that continues to rely on the use of fossil fuels, and embodies the unequal distribution of impact, historical responsibility as well as economic, political and social injustice. We contend that the sustainable development discourse, as it is currently unfolding, is embedded within a capitalist agenda that reinforces and recycles the theoretically bankrupt but

still often used modernist theory of linear development (Garnham 1993).

Newell and Paterson (2010: 1) supported neo-liberal environmental policies, arguing that these would take the world into a new political and economic paradigm shaped by what they called 'climate capitalism'. They saw this as having the potential to decarbonise the earth's atmosphere *and* maintain capitalist economic growth. Böhm et al. (2012) questioned the discourse around sustainable development and the green economy, asking if it was indeed the best way to transform capitalism, address climate change or reduce emissions. As Böhm et al. pointed out, the discourse on sustainable development gained traction after 1987, with the publication of the Brundtland Commission's Report (titled *Our Common Future*). This was before the 1992 Earth Summit in Rio de Janeiro, at which environmentalists expected capitalist countries to endorse a radical transformation towards a truly environmental sustainability that would also correct the global imbalances between the West and the rest. Instead, the Rio summit further institutionalised neo-liberal approaches to development (Böhm et al. 2012).

Since then, the United Nations has continued to embrace neo-liberal responses to climate change. The 1997 Kyoto Protocol introduced carbon trading as a means of reducing carbon emissions and dealing with global warming. At the 2012 Rio+20 summit, the 2014 Conference of Parties (COP20) in Lima, and the Paris Summit (COP21) in 2015, the United Nations Conference on Environment and Development (UNCED) and its Framework Convention on Climate Change (UNFCCC) have continued to advance carbon market strategies. As Bachman (2004, cited in Böhm et al. 2012) asserted, these market-led strategies reveal the neo-colonial dimensions of the United Nations' climate-change framework. Similarly, Heartfield (2008) and Sullivan (2010) have shown how carbon markets are part of a broader set of 'green economy' discourses and practices, which facilitate profit accumulation through the capture and monetisation of ecosystems and environmental 'resources'.

The promotion of neo-liberal policies, such as the Kyoto Protocol's Clean Development Mechanism for carbon trading, has enabled many of the higher-income countries to shift climate-change solutions into the hands of private industrial capital, thus 'devolving power to global market forces and non-state actors – establishing the emissions trading scheme "carbon markets" as the most efficient way of dealing with environmental and climate change problems' (Cabello 2009: 192). In this way, free-market environmentalism has been touted as the cure for massive environmental devastation. Kumi et al. (2014: 540, citing Benhin and Barbier 2004) supported this argument, noting that 'socio-economic development and environmental problems in

the developing countries have been left to free-market mechanisms such as marketisation, deregulation, privatisation and the commodification of common property resources such as land, forest resources, etc’.

Félix Guattari has described these responses to climate change as exploitative. Arguing that capitalism is never symbiotic and always parasitic in nature, he concluded that a ‘capitalism that does not exploit resources – be they natural or human – is yet unthinkable’ (Guattari 2000: 15). Guattari posited that little immediate action to address climate change would be taken, noting that ‘political action is unlikely when the worst polluting nations continue to insist that ‘emissions trading’ occurs under free-market principles’ (2000: 15).

Similarly, Rodrigues (2003, cited in Kumi et al. 2014: 540) criticised neo-liberal systems, such as limited state regulation and privatisation, because of the negative impacts they have on the environment and social development. Meanwhile, Kumi et al. went on to define neo-liberalism as an economic and political ideology that aims to subject social and ecological affairs to capitalist market dynamics (2014).

Neo-liberal economics emphasise the supremacy of market forces, that is market self-regulation and rampant commodification, subordinating of all forms of activity to the economic logic of profit and loss. As Chang (2002 cited in Kumi et al. 2014) noted, neo-liberalism renders governments incapable of providing price stability and more prone to manipulation, forcing them to give markets the autonomy to self-regulate and reducing the role of the state in economic affairs. Within the discourses around climate change and environmental sustainability, proponents of neo-liberalism seek a limitation on state interventions and the deregulation of environmental governance, arguing that carbon trading and the sale of renewable energy technologies will be enough to stabilise the atmosphere. As Harvey (2005) observed, however, far from promoting economic efficiency or environmental accountability, the neo-liberal agenda has become a vehicle for the expansion of monopolies, and the privatisation of environmental goods by global capital.

### The Clean Development Mechanism

The Clean Development Mechanism (CDM) outlined in the Kyoto Protocol suggests that the developed countries offset their ongoing carbon emissions within a carbon market that allows the buying and selling of carbon credits. This allows such countries to exceed their emission targets but offset the excess by buying carbon credits from poorer countries. The scheme allows companies in the industrialised countries to buy carbon credits from so-called ‘clean development’ projects located in less industrialised countries (Böhm et

al. 2012). Initially suggested by the Brazilian delegation to the Kyoto meeting, which proposed the principle the polluter pays, the CDM was endorsed by the 7 (G77+China), and even the United States delegation to Kyoto backed the idea (Böhm et al. 2012).

In fact, what countries like Brazil wanted was the establishment of a Clean Development Fund, which would ensure that the industrialised countries paid penalties for exceeding their targets, and that income collected would be used to finance clean energy projects as well as mitigation and adaptation measures in less industrialised countries (Böhm et al. 2012).

As Cabello (2009) observed, the idea of the fund was transformed into the CDM. Lohmann (2009a: 15) concurred, noting that ‘fines were transformed into prices; a judicial system was transformed into a market’. Cabello (2009: 195) went on to explain that

ongoing marketization and privatization of climate governance has turned the negotiations into structures for legitimized accumulation – with corporate powers at the heart of it – that sustain and increase old relations and imbalances and relations of power between rich and poor, North and South, as well as the idea of maintaining continuous business-as-usual growth on a finite planet.

Through the CDM, emission-reduction projects in lower-income countries can earn certified credits, each of which is equivalent to a ton of carbon dioxide (UNFCCC 2010). These certificates can be traded, and if bought by industrialised countries, they can be used to offset part of their emissions targets under the Kyoto Protocol. This enables industrialised countries to offset rather than reduce their emissions at source (Dale 2008).

As Böhm et al. (2012) argued, the concept of carbon markets is ideally meant to decarbonise and green the economy while creating minimal disruption to the global economic status quo. Carbon trading was designed to help industrialised countries decrease their carbon emissions, by capping permissible emissions levels, and creating incentives for companies and entire industries to meet their caps in the cleanest possible ways. Effectively, this allows big companies to buy their way out of some of the pollution problems they create. In addition, if they reduce their carbon emissions they can also sell carbon credits on the open market and generate profits (UNFCCC 2010).

Lohmann (2009b: 510) contended that, rather than reducing emissions, the carbon market is creating additional profit opportunities for a range of existing investment and infrastructure projects. Böhm et al. (2012) and Cabello (2009: 191) observed that through emissions trading, ‘industrialised countries distributed their initial allocation of credits or “rights to pollute” to

their dirtiest industries...as [if pollution were] a market commodity'. Cabello then went on to criticise the CDM and the carbon market as key vehicles in the expansion of capitalism, arguing that this expansion is twofold. First, the schemes allow for the creation of new financial markets, securing the conditions for accumulation and capital reproduction while allowing polluters to avoid paying the real costs associated with structural change. Second, the schemes legitimise and reinforce the commoditisation of nature and green capitalism.

Instead of working towards reducing emissions, the CDM actually subsidises polluting industries in lower-income countries. As Smith (2008) explained, 'CDM financing has entrenched dirty development [in the South] by acting as a financial subsidy for big power stations and pulp and paper mills' (Smith 2008: 2). The commoditisation of the environment through carbon trading and technology transfers thus enables the extension and expansion of capitalist businesses, furthers the subordination of less industrialised countries to the highly industrialised ones, and sustains global inequalities. As Cabello (2009: 196) concluded:

Planting trees, fertilizing oceans, burning methane from landfills to generate electricity, or setting up wind farms cannot be verified to be climatically equivalent to reducing fossil fuel consumption. Moreover, since these offset projects...allow emissions somewhere else, then there is no reduction happening at the global scale. On the contrary, they are creating new credits for Emissions Trading schemes, underestimating the already inadequate caps established in the [Kyoto] Protocol. Northern polluters can continue to pollute, and even increase pollution legitimately, with the help of the carbon market without being concerned about abatement actions.

In addition, large-scale renewable-energy projects (wind farms, solar stations, dams, biofuel plantations etc.) require vast tracts of land that have the potential to trigger land-grabbing, migration to cities, human- and indigenous-rights violations, the repression of social movements etc. (Cabello 2009). A key priority for many countries is to attract foreign investment. To do so, they are often willing to approve CDM-related projects even though these might undermine strict sustainability requirements. In this way, 'the CDM is legitimizing a type of sustainability whose definition is not contested at the governance decision-making tables and whose legitimization is more important than even its attempt to accomplish it' (Cabello 2009: 197). Cabello went on to argue that sustainable development is a 'false notion' that assigns 'primacy to capital, depending on capital, and substituting nature as capital' (2009: 198).

The principles behind the CDM and Certified Emission Reduction Certificates ensure that industrialised countries are allowed to emit and 'pay for' increased emissions, not by paying any penalties but by extending their businesses into the less industrialised countries. While the industrialised countries that agreed to the Kyoto Protocol were expected to reduce their emissions by 5.2 per cent below the 1990 levels, emissions continue to increase. Carbon trading has thus proven ineffective.

While the less industrialised countries seek funding for renewable energy plants, multinational corporations and Northern governments continue to develop using fossil fuels, secure in the knowledge that they will be able to buy carbon credits on the international carbon market, thus sacrificing nature on the altar of capitalism.

### **An analysis of the United Nations documents**

The three documents analysed adopt a neo-liberal approach to sustainable development, which they define as balancing the economic developmental needs of societies with their social and environmental capacity. All three documents define sustainable development as resting on three main pillars: economic, social and environmental. Our analysis is that the economic aspect is given priority while the other two components feature only so far as they serve the interests of the former; that is, environmental and social concerns are subordinated to the logic of capital accumulation. In our view, truly sustainable development has three components, social justice, economic development and environmental protection, but, as shown in this section, the dominant discourse on sustainable development, as reflected in these three documents, has always worked to maintain the global economic status quo. The language of free trade, market supremacy and liberalisation underpins the capitalist system, seeking to reinforce the hegemony of Northern governments and corporations while maintaining relations of dominance and dependency with the South.

### **The Paris Agreement**

The Paris Agreement has been praised as a historic achievement in terms of global climate-change responses. The agreement has three key objectives: limiting greenhouse gas emissions to prevent further rise in the earth's surface temperature; escalating climate-change adaptation and resilience measures; and increasing financial flows towards renewable energy technologies for the achievement of sustainable development.

However, under the agreement, the reduction in greenhouse gas emissions depends on individual countries developing their own nationally determined

contributions. Article 4 states that countries are to ‘communicate their successive nationally determined contributions they intend to achieve’ every five years and pursue ‘domestic mitigation measures’. This means that although climate change is widely understood to be a global problem, the future of environmental and climate issues has been left in the hands of individual countries. The agreement makes no provision for an international mechanism that could force countries to cap their carbon emissions. With no internationally binding mechanism to regulate emissions and police what countries actually do, as opposed to what they *say* they *hope* to do, the Paris Agreement can be seen as a ‘toothless bulldog’ that has little chance of success, a loud-sounding nothing, and a compromise with zero potential to save the planet.

Previous approaches to limiting greenhouse gas emissions have focused on market-related mechanisms such as carbon trading, but these have been strongly criticised, especially by countries in the South. Negotiations towards the Paris Agreement were closely linked to this debate, and countries from the South sought to avoid leaving the issue of climate change in the hands of private capital from the North. Their arguments tended to be strongly ideological, citing the problems of neo-liberalism and imperialism. Consequently, the Paris Agreement makes no mention of carbon markets or emissions trading. As Andrei Marcu, an advisor to the Centre for European Policy Studies and a negotiator on behalf of Panama observed (2016), the omission of these words was not accidental, and they do not appear in the Kyoto Protocol either.

Marcu (2016: 4) points out that a reference to carbon markets in Article 6 would have been contentious because of the ‘ideological opposition of some Parties to include any provision that referred to markets or could be seen as facilitating markets’. Language is important in discourse, as negotiators from the South no doubt argued. However, in this instance, language was used to pacify and placate, while the spirit and substance of the Paris Agreement remains focused on market mechanisms albeit without using the words.

Whereas under the Kyoto Protocol the CDM made provision for *regulated* carbon trading schemes, Article 6 of the Paris Agreement gives countries permission to trade in carbon units and simply report on this rather than also requiring certification from the United Nations Framework Convention on Climate Change (UNFCCC). That is, signatories to the Paris Agreement may choose to co-operate in the implementation of their nationally determined contributions on a voluntary basis. The first paragraph of Article 6 recognises that ‘Parties choose to pursue voluntary cooperation in the implementation of their nationally determined contributions’. The second paragraph states that, ‘Parties shall, where



engaging on a voluntary basis in cooperative approaches that involve the use of internationally transferred mitigation outcomes towards nationally determined contributions, promote sustainable development and ensure environmental integrity and transparency'. No definitions are provided for the terms 'sustainable development', 'environmental integrity' or 'transparency'.

As Marcu noted, the term 'cooperative approaches' can be taken to mean that 'all types of cooperation are allowed' and 'the implication is that the formation of the so-called "clubs", including carbon market clubs, is possible under this paragraph' (Marcu 2016: 4). Marcu goes on to say that 'the genesis of the discussion reinforces the understanding that the concept of "clubs" is in no way discouraged by the Paris Agreement, but on the contrary, is very much part of its intellectual heritage' (2016: 4). Thus, the absence of references to markets in the agreement is textual only, and the ideology of the market system is enshrined in the agreement. It seems that negotiators from the South over-focused on semantic issues, rather than on the spirit of the agreement. The removal of text about markets was strategically useful for the finalisation of the agreement. As Marcu (2016: 5) observed, 'no direct reference to markets or mechanisms was seen as possible', and the phrase 'cooperative approaches' became a 'safety hook in case everything else failed'.

To replace references to markets, the phrase 'internationally transferred mitigation outcomes' (ITMOs) is used instead. According to Marcu, the phrase is a product of informal UNFCCC discussions dating back to 2014, and was formally accepted into the Paris Agreement because 'there was resistance from the developing countries to the use of the word "markets"... The term ITMO was introduced and became an undefined, but accepted term' (2016: 7).

In essence, Article 6 provides for the establishment of a mechanism to enhance climate change mitigation. In our view, the mechanism will simply develop and reinforce the principles of the CDM. Addressing the CDM's executive, Christiana Figueres, head of the UNFCCC, suggested the same thing, observing that establishing the new mitigation mechanism would not be difficult as people could be expected to build on the strengths of the CDM rather than starting from nowhere (UNFCCC 2016). In addition, Article 6 'provides the ability to create an international market if Parties agree' and this may well 'lead to the convergence of domestic carbon prices over time' (Marcu 2016: 6).

The Paris Agreement thus gives supremacy to market forces in achieving emissions reductions and climate change adaptation. The document is written in the capitalist language of carbon pricing which supports the primacy of the carbon market system as set out in the Kyoto Protocol. As noted, the

carbon market system has done little to reduce greenhouse gas emissions but has rather enabled industrialised countries to offset their emissions targets through purchasing carbon credits and export their emissions to the South.

Although acknowledging that ideally governments (public funding) should be the main source of climate-change-related finance, the Paris Agreement still encourages governments to engage private capital in the financing of mitigation measures. For example, many countries have created incentives for the renewable energy sector ‘to promote universal access to sustainable energy in developing countries, in particular Africa, through the enhanced deployment of renewable energy’. The agreement recognises ‘the urgent need to enhance the provision of finance, technology and capacity-building support by developed country Parties, in a predictable manner, to enable enhanced pre-2020 action by developing country Parties’ (UNFCCC 2015: 2).

### Financing mechanisms: the Addis Agenda

The Addis Agenda bases its sustainability funding on private capital to ensure what it calls ‘equitable development’. Investments in energy and clean-energy infrastructure are seen as key drivers of economic growth, and the document highlights the need to increase investments in green technologies with a view to achieving this: ‘We will promote both public and private investment in energy infrastructure and clean energy technologies including carbon capture and storage technologies’ (UN 2015a: Para. 49).

The Addis Agenda also emphasises the need to adopt neo-liberal principles in response to poverty and climate change, and seeks to unlock the ‘transformative potential of people and the private sector, and incentivizing changes in financing as well as consumption and production patterns to support sustainable development’ (Para. 5). Similarly, it recognises the use of market activities in relation to mitigation commitments. The Addis Agenda also attaches key importance to foreign direct investment (FDI) and argues that this is crucial to achieving a sustainable future:

We recognize the important contribution that direct investment, including FDI, can make to sustainable development, particularly when projects are aligned with national and regional sustainable development strategies. Government policies can strengthen positive spill overs from FDI, such as know-how and technology, including through establishing linkages with domestic suppliers, as well as encouraging the integration of local enterprises...Internationally, we will support these efforts through financial and technical support and capacity-building, and closer

collaboration between home and host country agencies. We will consider the use of insurance, investment guarantees, including through MIGA [the World Bank's Multilateral Investment Guarantee Agency], and new financial instruments to incentivize FDI to developing countries. (Para. 45)

The Addis Agenda states that 'private investment' is key to infrastructure financing and proposes that international private capital should be combined with local public investment through 'tools and mechanisms such as public-private partnerships, blended finance, which combines concessional public finance with non-concessional private finance'. The document goes on to state its position on public-private partnerships, arguing that they 'serve to lower investment specific risks and incentivize additional private sector finance across key development sectors' (Para. 48).

In its support for private-sector-led development financing, the Addis Agenda argues that 'international trade is an engine for inclusive economic growth and poverty reduction, and contributes to the promotion of sustainable development' (Para.79). The document also states that signatories will seek to enable trade liberalisation and foster multilateral trading through the World Trade Organization.

### The Sustainable Development Goals

The 2030 Agenda, which contains the SDGs, also stresses the importance of the private sector and international private capital in facilitating economic development as follows:

We acknowledge the role of the diverse private sector, ranging from micro-enterprises to cooperatives to multinationals...the mobilization of financial resources as well as capacity-building and the transfer of environmentally sound technologies to developing countries on favourable terms, including on concessional and preferential terms, as mutually agreed. (UN 2015b: Para. 41)

The agenda further recognises multinational corporations and financial institutions as central to achieving poverty reduction and climate-change mitigation. The agenda advocates for stronger international trade as this is viewed 'as an engine for development, debt and debt sustainability, addressing systemic issues and science, technology, innovation and capacity-building, and data, monitoring and follow-up' (Para. 62). The document also states that:

Private business activity, investment and innovation are major drivers of productivity, inclusive economic growth and job creation...We call on all

businesses to apply their creativity and innovation to solving sustainable development challenges. (Para. 67)

In allocating such a central role to the private sector, not one of the documents analysed either questions or seeks to change the prevailing structural economic imbalances. In fact, while they might mark a strategic migration from coal-based capitalism to a form that promotes itself using the rhetoric of sustainable development, all three documents clearly perpetuate domination by the global elite. As noted, multinational companies stand to benefit from the sale of renewable-energy technologies. The dominance of private capital in green energy initiatives opens lower-income countries up to further manipulation and the extremes of structural adjustment policies. Meanwhile, so-called 'free-trade' agreements weaken their capacities to nurture their own economies, much less compete in the global economic sphere. Capitalism is exploitative and the movement towards a green form of capitalism will do little to help the already poor sections of the world. Instead it is likely to simply perpetuate their poverty through further exploitation, displacements and economic exclusion.

### **Technology transfer**

All three documents discuss technology transfer and (without explaining how, of course) argue that this will see to economic transformation and a reduction in global greenhouse emissions. The SDGs seek to facilitate development through 'infrastructure development...enhanced financial, technological and technical support to African countries' (UN 2015b: SDG 9a). Similarly, the Paris Agreement also reinforces the United Nations' position on technology transfer stating that:

Support, including financial support, shall be provided to developing country Parties for the implementation of this Article, including for strengthening cooperative action on technology development and transfer at different stages of the technology cycle, with a view to achieving a balance between support for mitigation and adaptation. (UNFCCC 2015: Article 10.6)

The Paris Agreement encourages countries to remove any barriers to the smooth transfer of technology and to accelerate technology development and transfer, again seeing the private sector as the vehicle through which maximum value from technological development and transfer can be achieved. The agreement envisages a 'technology framework' as providing 'overarching guidance for the work of the Technology Mechanism in promoting and

facilitating enhanced action on technology development and transfer in order to support the implementation of this Agreement' (Article 10.4).

Likewise, the Addis Agenda encourages the 'creation, development and diffusion of new innovations and technologies and associated know-how, including the transfer of technology on mutually agreed terms,' describing these transfers as 'powerful drivers of economic growth and sustainable development' (UN 2015a: Para 114). As a way of achieving sustainable development, the Addis Agenda argues that parties to it 'will encourage the development, dissemination and diffusion and transfer of environmentally sound technologies to developing countries on favourable terms, including on concessional and preferential terms, as mutually agreed' (UN 2015a: Para 120). The SDGs echo this call for private-sector technology development and transfer, with signatories undertaking to,

by 2030, enhance international cooperation to facilitate access to clean energy research and technology, including renewable energy, energy efficiency and advanced and cleaner fossil-fuel technology, and promote investment in energy infrastructure and clean energy technology. (Goal 7a)

The SDGs also seek to foster technologies that have the potential to widen access to information. Its signatories have agreed to 'significantly increase access to information and communications technology and strive to provide universal and affordable access to the Internet in least-developed countries by 2020' (Goal 9c) in order to 'enhance North-South, South-South and triangular regional and international cooperation on and access to science, technology and innovation' and 'enhance the use of enabling technology, in particular information and communications technology' (Goal 17.6).

### Neo-liberalism and its non-solutions

While poverty alleviation as well as adaptation to and mitigation of climate change are crucial, it must be remembered that the environmental problems affecting the planet today are a product of capitalism's risk culture (Beck 1992). The three-poverty alleviation and climate-change response frameworks discussed simply promote the ideologies and interests of those countries most responsible for creating these problems in the first place. Any responses to poverty and environmental problems that hinge on further entrenching and spreading neo-liberal capitalism will surely deepen rather than close the global inequality gaps, and yet, the rhetoric of sustainability and global development so loved by the United Nations and the North seems set to dictate its agenda to the South once more.

As Beck (1992) argues, it is not possible to cure the planet using the same principles that are destroying it now. What is needed instead is a change in our understanding of the relationship between the economy and nature. Views that dominate in the contemporary era are based on principles that hold nature captive to shareholder profits, so much so that most multinational conglomerates and even governments in the North seem to see climate change less as a problem and more as another opportunity for profit making.

Bauman (1992) noted that, so far, all attempts at dealing with the risks created by industrial societies have produced further problems. Fighting against the risks of unrestrained business activity has itself become a 'major business, offering a new lease of life to scientific/technological dreams of unlimited expansions'. In the contemporary Western-dominated view, risk-fighting literally means business; and the bigger the risks, the more politicians seem to see business-led solutions as impressive and reassuring. Thus, the politics of fear lubricates the wheels of consumerism, and helps to 'keep the economy going', apparently steering countries away from the 'bane of recession'. Apparently ever more resources have to be consumed to repair the gruesome effects of yesterday's resource consumption. Individual fears, beefed up by exposure to the hazards created by yesterday's risks, are deployed in the service of collectively producing even higher risks for tomorrow (Bauman 1992).

Beck (1992) noted that environmental risks and hazards affect some communities more than others. As a result, 'social risk positions spring up' that mirror the inequalities of class and other social divisions. According to Beck (1992: 23), these have the potential to reinforce structural international inequalities, 'firstly between the Third World and the industrial states, secondly among the industrial states themselves'. He argued that the 'diffusion and commercialisation' of risks is entirely in line with the logic of capitalism.

Essentially, Beck showed that the environmental crisis not only follows the tenets of capitalism but strengthens them, with wealth accumulating at the top and risks at the bottom (or wealth at the centre and risk at the periphery). Samir Amin (1997) concurred with this view, and noted that capitalism is strengthened by the relaxation of economic policies linked to privatisation and the deregulation of markets. Such relaxation, Amin argued, enables the spread of multinational corporations across the world and sees them assuming an almost institutionalised character.

In elaborating on the contradictions within climate-change responses, Amin (1997) noted that an 'awareness' of environmental interdependence has become part and parcel of global politics but the principles of capital have not been of any use. The ideologies that have legitimised the uneven

spread of control over the world's resources also spawned a linear model of economic development (Amin 1997). This same linearity is evident in the design of the UN's climate-change response mechanisms – only those approaches that favour the political and economic interests of the North are implemented.

Drawing on Amin's work, we suggest that the rhetoric around technology transfer should also be understood as emanating from the spirit and principles of neo-liberalism. We also agree with Boumashoul (2009: 73) who, grounding his stance in the Sartrean concept of 'bad faith', argued that 'technology is the pretext whereby capitalism extends its power over new territories'. With few exceptions, the flow of technologies has been linear (from North to South), primarily benefitting multinational companies whose profits flow steadily from South to North. Similarly, the global discourse on 'sustainable development' is not value-neutral but deeply embedded in the principles of neo-liberalism. The discourse is promoted, not to advance the livelihoods of the globally disadvantaged, but rather to create a new marketplace in which multinational corporations can sell their renewable energy and forecasting technologies to the South. The terms 'sustainable development' and 'technology transfer' are one-dimensional in that they both see 'development' from a Northern perspective.

Massive inequalities remain embedded in the production, distribution and consumption of these technologies. They are generally designed and produced in the North for consumption in the South. The technologies carry with them the ideologies and preferences of their producers. These include a preference for high-tech digital solutions that employ minimal amounts of local labour and require highly skilled (read Northern) experts to install and maintain. Built-in obsolescence means that new and costly installations need to be repurchased frequently thus ensuring an ongoing flow of profits to the manufacturers. Thus, the technologies transferred from the North are not value neutral but speak the same language of profit as their manufacturers. Amin (1997: 172) criticised their passive acceptance asking,

Transfer of what? Transfer to whom? If it is a question of modern technologies, we will have to bear in mind that these are capitalist technologies, and that they are, moreover, controlled by monopolies. Hence, we will be transferring, at the same time as the technology itself, the underlying capitalist relations of production. Moreover, by this transfer we will not be escaping the domination of imperialist capitalism; rather on the contrary we will be extending its scope by integrating the periphery more firmly into the imperialist system.

Alhassan (2004: 98) concurred with Amin, noting that ‘the new conjuncture of global digital capitalism has produced a new form of illusion that equates development with the connection of major postcolonial capitals to the global digital hub while their rural communities are left out.’ Boumashoul noted that what he called the ‘Internet Order’ has created ‘an urgent need’ for the North to

transfer more technology to the developing countries, for technology and information play a vital role in the new information order. The basic contributions of information are: first, the integration of the transnational corporate system, and second, the deepening of the ‘dependency’ of the peripheral world on hardware, software, training, management, administration, software, and maintenance which are mainly borrowed from the advanced post-industrial countries. (2009: 112)

In addition, Boumashoul (2009: 112) observed that the ‘developed’ countries ‘provide the consumption patterns, technology, skills, capital etc. for the ‘developing’ countries, which then establish production facilities to serve the markets of the North’. This, he suggested, explains why the United Nations is so keen on technology transfer.

### **Higher education institutions and sustainable development**

Debates pertaining to neo-liberal policies on climate change and poverty alleviation are often critical of the system, but fall short of providing answers about another way forward. We, too, do not offer a new alternative here. Rather, we attempt to highlight opportunities that are open to higher and tertiary education institutions to contribute to redefining sustainability that would benefit all, and help formulate effective climate-change mitigation and adaptation mechanisms that do not require subjecting nature to the logic of capitalist exploitation.

Our argument was shaped by relevant and critical discussions that occurred during the 2015 SANORD conference in Windhoek. Through several presentations, speakers noted the need to redefine knowledge and encourage the sharing of alternative knowledge practices. A call was made at the conference for a framework that views knowledge, not only from a ‘formal’ Northern perspective but shifts towards including the often undocumented but equally useful knowledge, including knowledge systems and practices, of the South. This line of thinking advances the notions of delinking and decoloniality advanced by Amin and Mignolo. As Amin said:

The response to the challenge of our age that we propose is called ‘delinking’. The concept is to some extent half of an equation: adjustment



or delinking!...In more precise terms, delinking is the refusal to submit to the demands of the worldview law of value, or the supposed 'rationality' of the system of world prices that embody the demands of reproduction of worldwide capital. It, therefore, presupposes the society's capacity to define for itself an alternative range of criteria of rationality of internal economic options, in short a 'law of value of national application'. (1990: 109–110)

Whereas Amin argued for delinking especially in terms of the economy, Mignolo was more interested in first delinking knowledge systems. He called for delinking 'that leads to decolonial epistemic shift and brings to the foreground other epistemologies, other principles of knowledge and understanding and, consequently, other economy, other politics, other ethics' (2007: 453). Mignolo also saw delinking as a 'move toward a geo- and body politics of knowledge that on the one hand denounces the pretended universality of a particular ethnicity (body politics), located in a specific part of the planet (geo-politics)...Delinking then shall be understood as a decolonial epistemic shift leading to other-universality, that is, to pluri-versality' (2007: 453).

We see institutions of higher learning as having a leading role in delinking in two ways. First, by transforming knowledge systems or 'decolonising the mind' as Ngũgĩ wa Thiong'o famously put it. Second, by developing and formalising indigenous forms of knowledge so as to be able to share what we call 'alternative knowledge'. This transformation should not be undertaken as an add-on or an 'adjustment' to the knowledge practices of the North, but rather as a process of developing indigenous knowledge as a sufficient and viable form of knowledge in itself.

Such transformations would allow universities to develop and embrace locally developed technologies that respond to indigenous circumstances and are relevant to communities. There is a clear need for *local* research and technology development to be prioritised (through increased funding) in ways that free that higher education funding in the South from its dependence on Northern donors.

At the same time, however, epistemic delinking cannot be blind to the glaring need for global collaboration. For this reason, we see SANORD, and projects like it, as a great step towards co-operation and partnership based on the equal participation of southern African and northern European universities. Such platforms are excellent conduits for the formalisation as well as enhanced knowledge-sharing and dissemination of alternative knowledge.

In line with this, we note that, thus far, the sustainability discourse has

largely expressed the economic language of neo-liberalism, subjecting developmental issues globally to the narrow issue of capital accumulation. The South, more generally, needs to consider delinking as a viable option, thereby subjecting not only the demands of global capital to local dynamics but also developing knowledge systems and technology infrastructures that have the potential to properly address poverty alleviation and climate change without further entrenching or deepening existing inequalities. Mignolo's (2007) concepts of other knowledge systems and pluriversality are useful here (see also Maistry and Eidsvik, this volume). To be effective, delinking must be pursued with a clear understanding of how capitalism exerts power via technology transfers as well as the flow of trade and information.

## **Conclusion**

The humanitarian problems affecting the planet will increase exponentially as the effects of climate change compound poverty, diseases (such as HIV/Aids and malaria), conflict and terrorism. While climate change and related global environmental problems brought nations together to promote climate change adaptation and mitigation through 'sustainable development', the United Nations has sought to mainstream sustainability using neo-liberal market principles. Sustainable development and climate governance have been placed in the hands of the private sector, thus subordinating the social and environmental aspects of sustainability to the interests of private capital. As shown in this chapter, the three United Nations documents analysed all prioritise economic considerations and favour the concentration of climate adaptation and mitigation measures in the hands of global private capital.

Despite wild promises being made about how new technologies will solve humanity's problems, the flow of these technologies has largely been unidirectional (from North to South), with the key beneficiaries being multinational companies headquartered in the industrialised countries. The global discourse on 'sustainable development' is not value neutral but deeply embedded in the principles of old capitalism. Accordingly, while sustainable development is promoted as a means to advance the livelihoods of the disadvantaged populations worldwide, it is, in fact, being used to create a new marketplace in which multinational corporations can market and sell their renewable energy products and weather forecasting technologies to the entire planet.

We ended the chapter by highlighting the theory of delinking, and stressing the need for higher education institutions to pursue alternative knowledge systems and practices as a starting point for developing technologies that are relevant and responsive to local needs. The need for collaboration between and

among universities remains key, and platforms like SANORD that have the potential to achieve international collaboration based on equal partnerships that exchange, share and disseminate all knowledge are crucial.

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