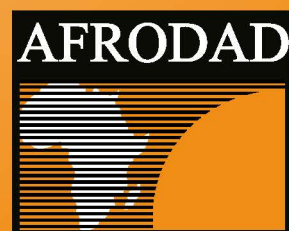




Climate Finance Power Mapping

AFRODAD BRIEFING PAPER



Professor Sarah Bracking
Sarah.bracking@kcl.ac.uk

Professor Patrick Bond
pbond@mail.ngo.za

African Forum and Network on Debt and Development (AFRODAD)
Contact: Jason Braganza
Executive Director
31 Atkinson Dr, Hillside
Harare, Zimbabwe
Phone: +263 242 778 531/536
Email: jason@afrodad.co.zw



INDEX

Introduction	4
Design of Study	6
Climate Finance Institutions	7
Climate Finance Flows, Actors and Frameworks	9
Adaptation	11
Loss and damage	12
Foregone industrial development	13
Carbon markets	14
Accounting for the Social cost of carbon	15
Climate finance's New Washington Consensus	16
Blended and private sector climate finance	16
Considering a way forward for climate justice	19
Corporate responsibility and the carbon accounting hoax	20
Conclusion: Beyond prevailing climate finance stories	23
Recommendations	27
References	28

FIGURES AND TABLES

Figure 1.	(annex): Landscape of climate finance, 2017-18	9
Figure 2:	Investment needed to keep warming within 1.5°C limit	10
Figure 3:	Mitigation and Adaptation Finance	10
Figure 4:	Climate Finance by LDC and SIDC	11
Figure 5:	Adaptation commitments by multilateral funds, 2003-20 (\$ million)	12
Figure 6:	Planetary boundaries	17
Table 1.	Overview of climate finance institutions (annex)	32
Table 2:	Voluntary carbon offsetting projects, 2017-19	17
Table 3.	Mechanisms and instruments in the OECD DAC measure or private finance mobilised	12





INTRODUCTION

Anthropogenic climate change became the subject of global policy concerns once the Intergovernmental Panel on Climate Change (IPCC) formed in 1988. That year, as well, the U.S. Congress was alerted to the inclement crisis by leading climatologist James Hansen. The year before, in 1987, a Montreal Protocol was signed by the United Nations and national leaders to halt ozone-depleting emissions that emanated from refrigeration and bottled propulsion (example underarm deodorants). A ban on Chlorofluorocarbons took effect nine years later and not only did the ozone hole stop growing, but a model for future global environmental policy was established. The same year, Gro Harlem Brundtland – assisted by Zimbabwean Finance Minister Bernard Chidzero – led the UN Commission on Sustainable Development whose report *Our Common Future* included this argument:

Sustainable development is development that meets the needs of the present without compromising the ability of future generations to meet their own needs. It contains within it two key concepts:

- the concept of ‘needs’, in particular the essential needs of the world’s poor, to which overriding priority should be given; and
- the idea of limitations imposed by the state of technology and social organization on the environment’s ability to meet present and future needs (Brundtland, 1987).

But very quickly, multilateral policy shifted away from these precedents and reverted to a different political economic logic (Bond 2002, 2012). The new era of the Washington Consensus and neoliberal economic philosophy combined market-oriented strategies to pass the costs of pollution to others, with rich-country denialism about their “polluter-pays” responsibilities. In 1991, the future U.S. Treasury Secretary Larry Summers wrote – as World Bank Senior Vice President and Chief Economist – that he would prefer

market mechanisms to deal with rich countries’ emissions: “The economic logic of dumping a load of toxic waste on the lowest-wage country is impeccable and we should face up to that... Africa is vastly under polluted.” A few months later, the 1992 Rio Earth Summit set the stage for future power relations when U.S. President George H.W. Bush announced “The American way of life is not up for negotiations.” The stage was set for climate injustice as the basis for multilateral environmentalism, especially in addressing the world’s worst crisis (Bond 2012).

In 1997, as a result, the United Nations Framework Convention on Climate Change (UNFCCC) Kyoto Protocol contained global commitments to reduce global greenhouse gas (GHG) emissions, but mostly using market-based mechanisms such as carbon trading and offsets. By paying those in other jurisdictions to do the work of GHG reduction, wealthier countries and companies could continue emitting at untenably high levels, by simply paying a fee, in a manner sometimes termed “the privatisation of the air.” The system didn’t work, however, in part because the largest polluter – the U.S. – refused to join (notwithstanding wringing that provision out of the negotiations), and later, Canada and then Russia dropped out. China and India never had responsibilities for slowing their own rapid growth in GHGs.

GHG emissions have continued to rise. In 2009, the UNFCCC’s controversial Copenhagen Accord revisited Kyoto by ending binding emissions cuts and giving more responsibilities to poor countries to voluntarily issue plans to lower GHGs, albeit in the manner and at the speed they desired, with no penalties. Five countries’ leaders drew up the plan by establishing private negotiations away from the broader UN process: Barack Obama (U.S.), Lula da Silva (Brazil), Jacob Zuma (South Africa), Manmohan Singh (India) and Wen Jiabao (China) with the latter four becoming firm “BASIC” allies usually aligning with the West against poorer countries. As U.S. environmentalist Bill McKibben (2009) complained, in foisting the Copenhagen Accord on the world, Obama blew up the United Nations... He formed a league of super-polluters, and would-be super-polluters. China, the U.S., and India do not want anyone controlling their use of coal in any meaningful way. It is a coalition of foxes who will together govern the henhouse. It is no accident that the targets are weak to non-existent.



By 2011 when the UNFCCC summit was in Durban, South Africa, there remained grand hopes that carbon markets would provide climate financing incentives, although the price for emitting a ton of CO2 in Europe – the most far-reaching carbon market – had fallen from 33 euros in 2008 to less than 10 by then, and as low as 3 euros/ton by 2014. In 2015, the Paris Agreement committed to trying to prevent global temperature rise (above pre-industrial levels) of “well below 2°C, preferably to 1.5°C” (United Nations, 2015). The IPCC estimated that 2.4 trillion USD needs to be invested into the energy system annually to limit warming to 1.5C (IPCC, 2018), which is not occurring. In September 2021, former Bank of England governor Mark Carney suggested a 100 trillion USD decarbonisation cost for a transformed economy (Howell 2021). The latest report from the IPCC (2021) warns that the Earth will have warmed by 1.5C by 2040 on the current trajectory and will far exceed 2C by 2100.

The next COP26 in Glasgow 2021 will see governments and the private sector claiming that mitigating actions to reduce emissions and reach ‘net-zero’ are scaling up, but the financing gap between how much investment is needed to change to a low-carbon infrastructure is large, while finance for those affected by the unfolding crisis is criminally low. It is within this context that this briefing aims to map the various sites and institutions in the international climate finance coalition, identify the main pledging countries and influencers

of climate finance. We conclude by reviewing how far climate finance is, or indeed can, respond to this challenge of climate crisis in Africa and more widely.

Design of Study

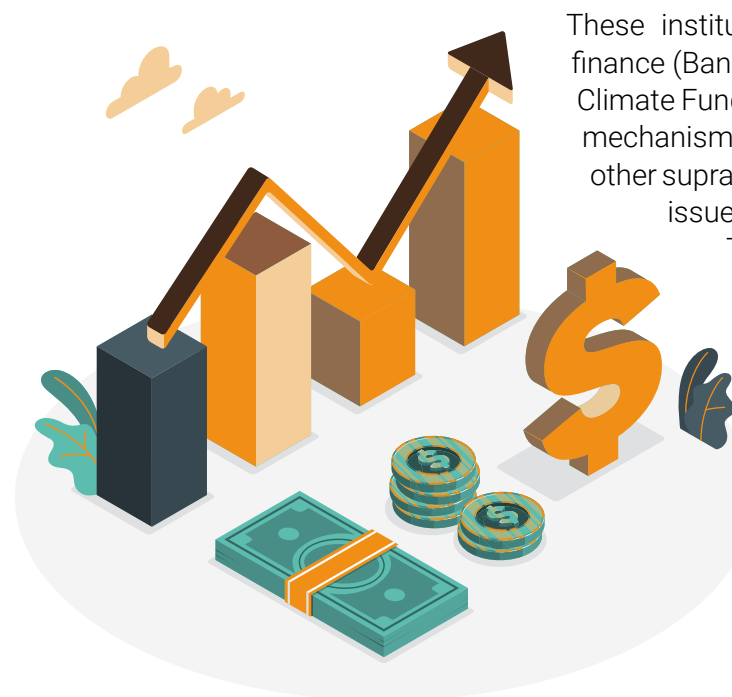
This study was designed to map the current configuration of power in the global climate finance architecture. This was undertaken using two synergistic inquiries: 1) what is the institutional map of climate finance providers? 2) what are the modalities of the climate finance provided by them – a ‘follow the money’ approach. In this design power is seen as both discursive and agenda-forming (non-material) and instrumental and embodied in finance (institutional and material). Within the resources of the study, it has not been possible to map the actual individuals at the head of climate finance providing institutions. However, this is not critical to the results and recommendations, since in this architecture the institutional rules of dispersal are culturally codified norms of behaviour and not substantially affected by the changing persons in office.

Instead, an overarching paradigm structures their behaviour. This paradigm is inherited from the development finance architecture, a “super ego blackmail of gigantic proportions, [wherein] the developed countries are constantly “helping” the undeveloped (with aid, credits, and so on), thereby avoiding the key issue, namely, their complicity in and coresponsibility for the miserable situation of the undeveloped” (Žižek, 2004: 504). While Žižek is describing the international development paradigm here it applies to climate finance governance too. However, given the negligible historical role of the developing countries in causing the climate crisis, ‘coresponsibility’ in this summative quote could be replaced with ‘responsibility’. This study was a desk-based exploration using a dataset of current and recently published data and analysis from scholars, development managers and INGOs.



CLIMATE FINANCE INSTITUTIONS

The UNFCCC refers to climate finance as “local, national or transnational financing – drawn from public, private and alternative sources of financing – that seeks to support mitigation and adaptation actions that will address climate change” (UNFCCC, 2019, np). Table 1 in the annex is a summary of the main institutions of the climate finance architecture, with examples (reproduced from Bracking and Leffel, 2021), which includes providers of grant- and loan-based financial flows to projects and borrowers in various jurisdictions defined by their legal status as banks within defined national and extra-territorial jurisdictions. Development finance institutions (DFIs) constitute the main providers at multilateral, bilateral, national and subnational levels (Griffith-Jones et al., 2020). Multilateral DFIs are established by multiple countries and allocate finance or lend regionally or globally. National DFIs are government-owned development banks or specialized Export-Import Banks, which are also licensed to join partnerships with private entities to provide equity investments and debt-based finance. Xu et al. (2019) mapped DFIs globally and listed a global total of 539 DFIs, among them, 40 multilateral, 441 bilateral and national DFIs and 56 subnational DFIs.



These institutions provide mostly loan or debt-based climate finance (Banga, 2019). The most important dedicated Multilateral Climate Fund is the Global Environmental Facility (GEF), a funding mechanism facilitating grants and loans from the World Bank and other supranationals for climate change and other environmental issues, including through a Small Grants Programme. The GEF serves as a “financial mechanism” to five conventions, including the United Nations Framework Convention on Climate Change (UNFCCC). The GEF, the World Bank sponsored Climate Investment Funds (CIF) and the Green Climate Fund (GCF) together provide the main global pillars of multilateral public finance. At a national scale, National Climate Funds (NCFs) are nationally-driven and nationally-owned



funds that help countries to collect climate finance from a variety of sources, coordinate them, blend them together and account for them (Amerasinghe et al., 2017). There also exist several, philanthropic sources of climate finance, principally from large foundations.

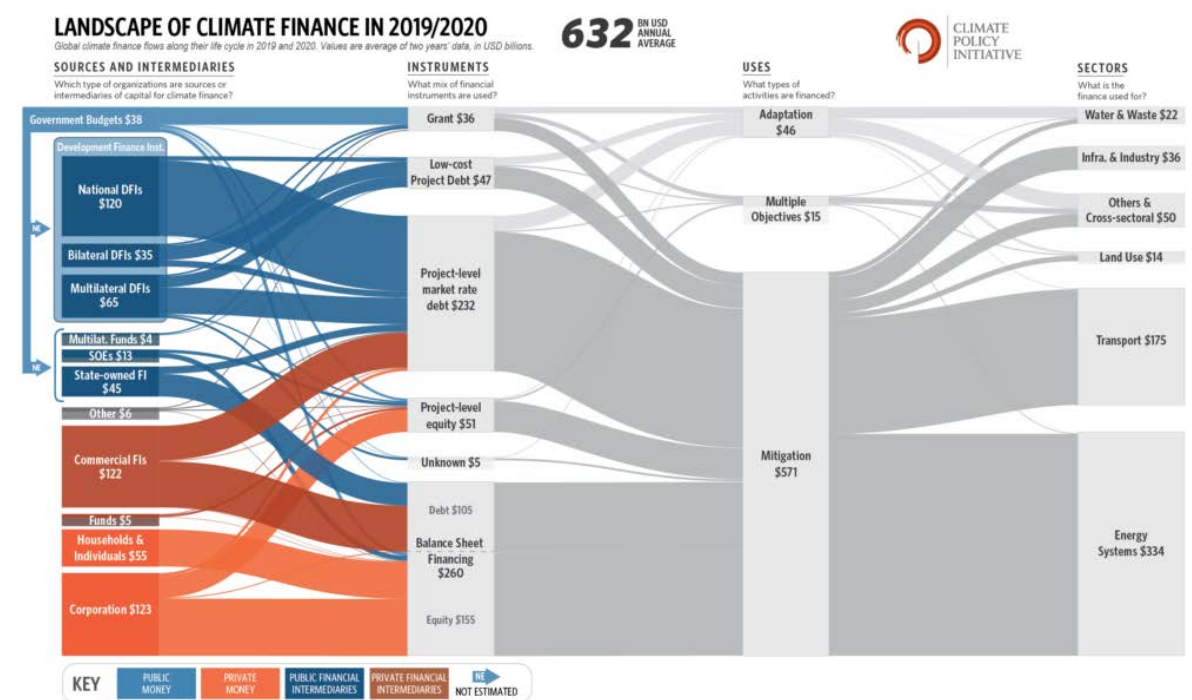
Green bonds are an increasingly common debt-based climate finance instrument offered within Official Development Assistance (ODA) flows, particularly by large DFIs such as development banks. For example, green bonds are a subset of the International Finance Corporation's loan portfolio, funded by its Green Bond program. As shown in Table 1 (annex), there are also many private green bond issuers including asset-based security issuers, financial corporate issuers, government-backed entities, sovereign issuers, non-financial corporate issuers and local governments (CBI 2020a, 2020b). There are also carbon trading schemes and carbon offset providers which aim to provide finance to decarbonise, although they are not generally included within the category of 'climate finance' providers. There are 21 GHG emissions trading schemes operating at supranational, national and subnational levels, covering 9% of GHG emissions worldwide (ICAP, 2020). These act as market-mechanisms to price emissions causing climate change, to incentivise reductions. They are joined by carbon offset providers such as those organised under the Clean Development Mechanism.



CLIMATE FINANCE FLOWS, ACTORS AND FRAMEWORKS

The Climate Policy Initiative produced a diagram of the different types and volumes of climate finance available globally in 2019-20, which is reproduced as Figure 1 below. It shows that there was USD\$632 in aggregate, of which only USD\$36 billion is in grant form, and of which only USD\$46 was for adaptation. This aggregate figure indicates that there is a huge financing gap relative to the pricing of the transition to a low carbon future (mitigation) and in respect of protecting the victims of climate change (adaptation, loss and damage and compensation for unused carbon space). This is illustrated in the Climate Policy Institute diagram reproduced here as Figure 2 below, which shows the current shortfall in climate finance necessary to keep within a 1.5% of warming pathway.

Fig. 1 Landscape of climate finance, 2019-20



Source: Climate Policy Initiative (2021)

Figure 2: Investment needed to keep warming within 1.5°C limit



Figure 1: Investment required to keep warming within a 1.5° C scenario.

Source: Climate Policy Initiative (2020). Updated View on the Global Landscape of Climate Finance

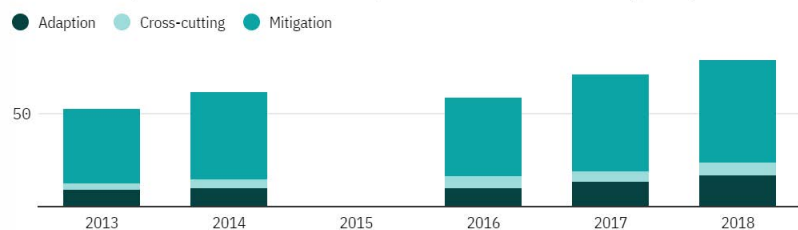
Source: Climate Policy Initiative (2020, 9)

In most accounts of climate finance there are two types: mitigation and adaptation. The first far outweighs the second. For example, for exclusively multilateral climate funds in 2020, US\$1.6bn was approved for mitigation while US\$894m was for cross-cutting projects – which benefit both adaptation and mitigation, while only US\$586m went towards adaptation (Climate Funds Update, 2020). In 2017–18, 25% of all reported public finance was allocated to adaptation, while 66% went to mitigation (Energy Monitor, 2021; see Figure 3).

Figure 3: Mitigation and Adaptation Finance

Mitigation continues to represent more than two-thirds of total climate finance provided

Thematic split of climate finance provided and mobilised, \$bn, 2013–18



There is a data gap for 2015.

Source: Biennial Reports to the UNFCCC, OECD Development Assistance Committee statistics, as well as complementary reporting to the OECD

Source: Energy Monitor, 2021.

The funding is also distributed unequally. Energy Monitor, using OECD data, found that Asia is the main beneficiary of climate finance, at US\$30.6bn a year between 2016 and 2019, in comparison with Africa at US\$18.5bn, and the Americas at US\$12.4bn, Europe US\$3.2bn and Oceania US\$0.5bn

(Energy Monitor, 2021). Meanwhile, Oxfam observes that finance is not going proportionately to those who face the most climate risk. In 2019, only 20.5% of climate finance went to the LDCs (up 27% on 2018), while 3% went to Small Island Developing States (SIDS) (falling from US\$2.1bn to US\$1.5bn) (cited in Energy Monitor, 2021), and illustrated in Figure 4.

Figure 4: Climate Finance by LDC and SIDC



Source: Energy Monitor, 2021

Adaptation

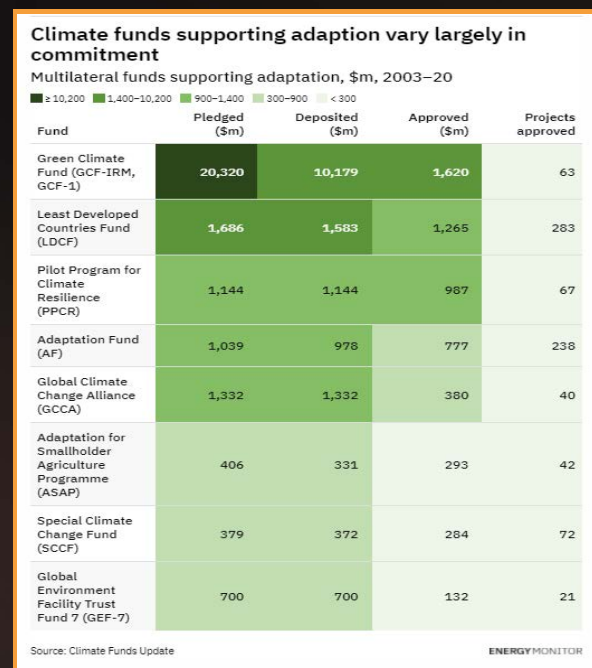
The largest sources of funding for adaptation projects are the Green Climate Fund, the least-developed countries (LDC) Fund, and the US\$1.2bn Pilot Program for Climate Resilience. Overall, the UK and Germany are the largest providers of climate finance to multilateral funds. According to CFU data¹, the Green Climate Fund is the largest provider of climate adaptation funding globally. In its Initial Resource Mobilisation (IRM) phase it approved 1.5 billion USD of capital for adaptation projects, which represents about 25% of all available funding for adaptation globally available from multilateral sources (as tracked by CFU), although this is still less than 20% of the GCF's total resources. The Least Developed Countries Fund makes up a further 20% of the total available adaptation funding from Multilateral sources, and the Adaptation Fund another 13%.

These figures reflect a lack of ambition that contrasts with the Copenhagen Accord sales pitch invoked by the U.S. State Department, promising US\$100 billion annually to poor countries if they would sign the agreement (Bond 2012). For example, the Global Commission on Adaptation estimated that 180 billion USD is required annually from 2020 to 2030 to meet the Paris Agreements 1.5oC pathway (GCA, 2019). That figure will increase if the target is missed, as more damage is done. Thus a significant funding gap exists between what is required for climate action and what is currently available.

Figure 5 (below) reproduces a representation of adaptation commitments, by major fund, by the Energy Monitor (2021). Th GCF is the most significant provider. However, the GCF was originally intended to be responsive to national and local 'accredited entities', but only 62 developing country institutions have successfully been accredited as eligible for direct access, and only 20 of them have actually received funding (World Resources Institute 2021). In practice most GCF funding flows to international organisations such as the European Investment Bank, UNDP or UNEP, which skim highly-overpriced operating costs, even when it is designated as LDC funding.

¹ The CFU website and data base is maintained by Heinrich-Böll-Stiftung Washington, DC and the Overseas Development Institute and tracks 2,796 adaptation, mitigation REDD+ and multi-foci projects and programmes across 24 MCFs (Climate Funds Update, 2021a).

Figure 5: Adaptation commitments by multilateral funds, 2003-20 (\$ million)



Source: EnergyMonitor, 2021

impacts associated with climate change [...] that negatively affect human and natural systems' [UNFCCC Secretariat, p. 3]. But in Northern scholarship, a further distinction is often made between avoidable (through mitigation and adaptation efforts) and unavoidable loss and damage [cf Huq et al, 2013]. Here loss and damage is defined as where the 'costs of adaptation cannot be recuperated, or when adaptation efforts are ineffective, maladaptive, or impossible' [Robinson et al, 2021, 138, citing van der Geest and Warner, 2019]. Certainly, the loss of life and property in hurricanes such as Cyclone Idai (Mozambique, March 2019) have gone uncompensated.

This distinction – avoidable or unavoidable - may be pernicious when lives lost in the Global South are deemed 'unavoidable'. Many loss and damage events are deaths from slow onset climate hazards such as famine, which historically have killed more people than fast onset events (Wisner et al, 2004), but which are often neglected and disassociated from climate change as a central cause. Similarly,

Loss and Damage

There is also a third category for which the term 'climate finance' should apply, which is loss and damage, caused by both slow and fast onset disasters and hazards exacerbated by climate change. In the politics of the UNFCCC, developed country representatives mostly fold in loss and damage into the adaptation category. This allows them to resist demands for climate liability – polluter-pays principle, which the Paris Climate Agreement prohibits its signatories from invoking – and for further funding. Developing countries insist that it is a separate category in order to maintain the demand for climate reparations.

The downplaying of loss and damage is a result of the withdrawal of responsibility of the historic polluters over time. Loss and damage is defined as 'the actual and/or potential manifestation of

some aspects of loss do not lend themselves to economic calculation or 'adaptation', such as aspects of biodiversity, cultural heritage and family life. For example, as farmlands in southern Zimbabwe have grown ever drier, working age adults have migrated south to earn remittances, but the loss has been born in split families.

The ongoing Washington Consensus paradigm promotes insurance schemes, both index and indemnity-based, as the most prolific form of finance for loss and damage, as both a form of risk management and compensation, governed partly by the Warsaw International Mechanism (see Nordlander et al. 2019, 1). Parametric insurance schemes differ from traditional indemnity insurance, since 'payouts are not based on an assessment of the actual post-event losses, but are instead triggered by certain pre-defined parameters being met' (Broberg, 2019, 3). Robinson et al (2021) show that insurance-based schemes increase donor dependence because they are relatively expensive in the context of the financial limitations of developing countries. They are also subject to calculative error, and poor performance such as within the Africa Risk Facility (Bracking, 2019). Catastrophe and climate themed bonds are also applied to mitigation of extreme weather, but near exclusively in the Global North.

While the principle of common but differentiated responsibilities and respective capabilities, upon which the UNFCCC is built, is similar to the mutualism which underlies the principle of insurance, when the event is not uncertain, and is the result of an uninsured history of pollution, the perpetrators are proving unwilling to pay (cf. Mathew and Akter, 2017; Wewerinke-Singh and Salili, 2020; Wolfrom and Yokoi-Arai, 2016). As Christian Aid (2020, citing The Lancet) show, only 4 percent of poor countries' climate damage in 2019 was commercially insured, compared to 60 percent of rich countries' losses.

In sum, the COP21 in Paris neglected a commitment to historical responsibility for the lives that climate adaptation efforts do not reach. The African Group and the Least Developed Countries Group have historically campaigned hard for recognition of loss and damage, and with only 4 percent of property in poor areas of the Global South insured, let alone peoples' lives being lost, a category beyond adaptation, such as climate reparations finance should be fought for.

Foregone industrial development

Rural people losing their livelihoods are also not able to take the historic route to urban industrial employment, because another cost aspect of the climate crisis that must be increasingly incorporated is the foregone industrialisation that the globally-necessary reduction in GHGs now requires. For



most poor countries, there will no longer be an opportunity to advance up a modernisation ladder in which a rural agricultural- or minerals-based economy increasingly identifies areas of productive manufacturing and high-carbon beneficiation of local raw materials. The need to cut GHG emissions across the board precludes poor countries from using fossil fuels the way rich countries did, and they are owed a climate debt for that loss as well. This is particularly important when it comes to making climate-debt “down payments” for the urgent task of halting fossil fuel exploration and exploitation in even the poorest countries. An example explored in another Briefing Paper is Mozambique, where local and regional African activists demand from the Global North (including South Africa) reparations for climate damage that could not only be used to compensate the victims of Cyclones Idai and Kenneth (potentially through a geographically-specific Basic Income Grant mechanism that was piloted in Namibia a decade ago), but also to incentivise the Mozambican government to leave fossil fuels underground, similar to the South African case of “non-fossil-fuel development”, or Ecuador’s 2006-13 Yasuni oil non-exploitation demands made to European governments.

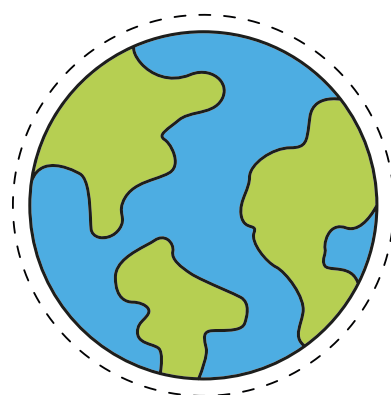
Carbon Markets

While not technically ‘climate finance’, carbon trading is another financial means of trying to mitigate climate change. Purchasing carbon credits is a way for a company to compensate for tones of GHG they have not been able to eliminate, with one credit being equivalent to one tone of CO2. This creates markets for carbon credits (also termed emissions trading), where the resulting funding is used to finance a carbon offset (through reduction, sequestration or avoidance) project elsewhere in the world. The Kyoto Protocol was instrumental in the development of global carbon finance mechanisms, which have evolved into two types: compliance and voluntary. Ecosystem Marketplace (2021) shows that demand in voluntary markets has grown substantially since 2017, with more than US\$1 billion added in a single year to hit USD\$6.7 billion in 2021, the highest market value historically recorded.

Offsetting project type	2017			2018			2019		
	Volume MtCO2e	Average price	Value	Volume MtCO2e	Average price	Value	Volume MtCO2e	Average price	Value
Forestry and Land use	16.6	\$3.4	\$63.4M	50.7	\$3.2	\$171.9M	36.7	\$4.3	\$159.1M
Renewable Energy	16.8	\$1.9	\$31.5M	23.8	\$1.7	\$40.9M	42.4	\$1.4	\$60.1M
Waste Disposal	3.7	\$2.0	\$7.4M	4.5	\$2.2	\$10.0M	7.3	\$2.5	\$18.0M
Household Devices	2.3	\$5.0	\$11.8M	6.1	\$4.8	\$29.5M	6.4	\$3.8	\$24.8M

Source: Ecosystem marketplace, 2020

Source: Ecosystem Marketplace (2020)



“ The Kyoto Protocol was instrumental in the development of global carbon finance mechanisms, which have evolved into two types: compliance and voluntary.

Ecosystem Marketplace estimates the volume of credits transacted with an estimated average price per credit for Africa (Ecosystem Marketplace, 2020, 17) providing \$60 million in both 2019 and 2020, but suggests the figure could more than double in 2021. But of course, how much that figure translates to ‘worth to Africa’ is a different question. For the CDM, the 2020 World Bank carbon pricing report (2020, 52) breaks down total credit issuances by registry and region, which reveals that proportionally few credits have been issued from projects in Africa. But it doesn’t give a total figure and it also does not say how many of the issued credits were sold and at what prices³. Already in the early 2010s, one report from the University of KwaZulu-Natal and Dartmouth College suggested CDM meant “Cannot Deliver the Money” to Africa (Bond et al 2012).

Accounting for the Social Cost of Carbon

Carbon markets, somewhat confusingly, do not trade in carbon units of harm that should be removed – only in a permit to pollute the atmosphere. Another form of social carbon accounting, not used in carbon trading, is the ‘social cost of carbon’, which refers to the expenses associated with the climate catastrophe. In 2021, this was re-estimated at \$3000+/ton given latest climate science (Kikstra et al 2021), which is several orders of magnitude higher than the \$51/ton costed by the Biden Administration (the Trump administration chose \$1/ton as a reflection of climate denialism). At \$3000/ton, many countries are generating their own climate debt faster than they are generating Gross Domestic Product. If the social cost of carbon were translated into a climate finance reparations payment, Global South countries would enjoy billions in grants to pay for loss and damage.

³ Otherwise, this report could give enough regional data to produce an estimate of the value of the CDM https://epub.wupperinst.org/frontdoor/deliver/index/docId/5375/file/5375_Burian.pdf





CLIMATE FINANCE'S NEW WASHINGTON CONSENSUS

The UNFCCC definition of climate finance (above) is far removed from traditional ideas of climate finance as concessional loans and grants, designed similarly to public development aid. By the 2000s, a polycentric mix of public and private providers emerged, acting in various combinations (Pattberg and Widerberg, 2015: 685). Or put more critically, a New Washington Consensus which subsidises investors in order to leverage private capital (Mitchell and Sparke, 2016). Most commentators on climate finance are assuming a business as mostly usual model of capitalist political economy (see Aji, 2021), without systemic changes to social relations. But even with this assumption, climate finance is ambiguous and contested (Bracking and Leffel, 2020; Roberts et al 2021; Weikmans et al, 2020), including how the category or designation is made and measured, and over what is left out and what is counted in. Dishonesty prevails, because although there is insufficient space to pursue the accounting dilemmas in depth here, new and additional funds to low income and African countries are over counted relative to the flows which actually arrive and are not necessarily spent on the primary 'climate change' purposes specified (Bracking, 2021).

Blended and private sector climate finance

Many Global North commentators and government spokespeople will be claiming that climate finance is increasing largely due to the efforts of the private sector. However, there is much accounting sleights of hand here. Climate finance mobilised from the private sector includes syndicated loans, guarantees, credit lines, direct investment in companies or special purpose vehicles (SPVs), shares in collective investment vehicles (CIVs) and simple co-financing arrangements. Table 3 (below) is reproduced from the OECD (2020) and illustrates these different types of public subsidy to the private sector. To most critical observers these look entirely commensurate with normal market flows, and for confidentiality reasons, neither the mechanism nor the terms are made public (OECD, 2020, 19).

Table 3. Mechanisms and instruments in the OECD DAC measure or private finance mobilised

Table A B.3. Mechanisms and instruments in the OECD DAC measure or private finance mobilised

Mechanism	Typical financial instruments used by official finance providers	Typical financial instruments used by private financiers
Syndicated loans	Standard loans, subordinated loans	Standard loans, subordinated loans
Guarantees	Guarantees and other unfunded contingent liabilities	Common equity, shares in CIVs, mezzanine finance, standards loans, bonds and other debt instruments
Credit lines	Standard loans, subordinated loans	Standard loans, subordinated loans to the local finance institution; equity of the end-borrowers
Shares in CIVs	Shares in CIVs, debt instruments and mezzanine finance (rarely)	Shares in CIVs, debt instrument and mezzanine finance (rarely)
Direct investment in companies	Common equity, mezzanine finance, standard loans, bonds and other debt instruments	Common equity, mezzanine finance, standard loans, bonds and other debt instruments
Simple co-financing arrangements	Standard grants, standard loans	Standard grants, standard loans
Project finance	Common equity, mezzanine finance, standard loans and other debt instruments, guarantees	Common equity, mezzanine finance, standard loans and other debt instruments

Source: OECD Development Assistance Committee statistics as well as complementary reporting to the OECD.

The private finance counted is given a "like to like" basis, notwithstanding that it might not have any concessionary element:

"The extent to which private finance mobilised contributes to climate change mitigation and/or adaptation is determined by the climate relevance or percentage of the official finance intervention mobilising private finance. For example, if an MDB loan with a mitigation component of 75% mobilises private finance, this same percentage is applied to the private amount mobilised. Amounts of private finance mobilised tagged for climate based on Rio markers are accounted for at their face value" (OECD, 2020, 48)

A further cause of overcounting of climate finance, again detailed in the methodological section of an OECD report, is that

"a majority (72%) of bilateral loans provided during 2016-18 were concessional according to ODA-related criteria. Multilateral providers do not extend concessional finance based on ODA-related considerations but rather on the income group status of the recipient. On that basis, 54% of loans committed by multilateral climate funds were reported as concessional. In contrast, the majority (76%) of MDB loans were labelled as nonconcessional since they are for a large share provided to recipients outside the low-income countries (LICs) category" (OECD, 2020, 17)

This means that for low-income countries, the single reason for a loan to be marked concessional is that it is provided to them. And for many countries, the way ODA works in practice is highly politicised, such that lower-income countries out of favour with the West for ideological reasons – example. Cuba – would not receive standard ODA. In Cuba's case, debilitating sanctions are pursued in spite of regular Caribbean hurricanes.

There are also many other ways in which reported amounts of climate finance become falsely inflated. These include errors associated with currency conversion (especially when it comes to loan repayment from countries with declining currencies), double counting of commitment and disbursement, or the specific amounts of a loan which are marked as climate-related as currently regulated by either the Rio Markers System or Multilateral Development Banks' (MDBs') own methodologies (OECD, 2020, 40-41). As the OECD remark, "The MDB method for tracking mitigation finance is based on a 'positive' list of activities in sectors that reduce greenhouse gas emissions and are compatible with low-emission development" (OECD, 2020, 41). In practice this can be broad. The OECD conclude that "further transparency on MDB climate finance data would benefit the international community", and particularly highlight that the MDBs do not publish their activity-level datasets (OECD, 2020, 41).

We can add to these problems, that export credits and insurance, which may only be book liabilities, are counted on a gross, commitment basis as climate finance, and that loans are accounted for at face value, as equivalent to grants, even though they will be returned with interest, typically repaid in hard currency so that as African countries' own currencies decline, the borrowers will be paying not only the market rate but the cost of that decline by virtue of needing to raise hard currency as a result.



CONSIDERING A WAY FORWARD FOR CLIMATE JUSTICE

It is a mainstream idea in established scholarship that climate insurance schemes are unable to address loss and damage from slow onset events (Linnerooth-Bayer et al, 2019). Also, ideas of compensation or liability are widely seen as barriers to agreement in COP events (see Calliari et al 2020; Burkett, 2016 on COP21). Nations are extremely reluctant to accept liability or provide payments based on compensation principles (Wolfram and Yokoi-Arai 2016; Robinson and Carlson, 2021) while the polluter pays principles also seems to be declining in significance over time. However, power asserts itself in agenda-setting behaviour, and what is accepted as off limits in advance of negotiations is a sign that the discourse is being managed by the rich countries. Put another way, historical liability is the concept that the US and European negotiators are at most pains to reject, for obvious reasons. This does not mean the matter is closed however, since tail risk is an established legal category of compensation open in law to proximate and affected communities of Northern companies' industrial installations and assets.

For example, in early 2020 a group of nearly 2000 Zambian villagers from the Chingola District won the right to sue British Mining Company Vedanta Resources Plc. in the United Kingdom (UK) for environmental damage caused by its Zambian subsidiary, Konkola Copper Mines (KCM), in the case Lungowe and others v. Vedanta Resources Plc. and Konkola Copper Mines (UK Supreme Court, 2019). This case opened the possibility of African communities being able to file cases in London

for environmental liability, once only believed possible in civil action suit in the USA (Varvastian, 2020; Van Ho, 2020). In the Lungowe v. Vedanta case the UK Supreme Court established that a foreign corporation carried a duty of care through its subsidiaries in respect of affected persons (Leigh Day, 2019).

Although Vedanta's response was to delist from the London Stock



Exchange and retreat to India, the case set a precedent for future cases, and also for some that were already in process, such as *Okpabi V Shell*. In this case, in February 2021, the UK Supreme Court allowed Nigerian citizens to sue oil giant Royal Dutch Shell for environmental damage (White and Case, 2021). Claimants established that the company had breached its duty of care over the impact of its local subsidiary, Shell Petroleum Development Company of Nigeria Ltd (White and Case, 2021). In both cases of *Okpabi V Shell* and *Lungowe V Vedanta*, the Supreme Court suggested numerous circumstances in which parent companies owe a duty of care (Palombo, 2021).

Likewise, in the ex-Bank of England Governor, Carney's historical speech – Breaking the Tragedy of the Horizon - to the insurance industry in London in 2015, he was motivated to urge them to consider insurance tail risks as a much bigger threat to their assets than they had first thought. He reminded them that asbestos had cost insurers US\$85bn on a net ultimate claims basis in the United States (Carney, 2015, 10). In short, the fact that liability and compensation are words framed out of COPs does not mean that legal action is impossible: far from it. It is perhaps fear of such action that makes Northern negotiators so determined. While the cases above concern pollution, GHGs are also a form of air pollution, and liability-based cases are increasing rapidly, particularly in the USA. Vanuatu, for example, has filed a climate specific case against polluting countries in the Global North and fossil fuel companies to make a case for compensation (Robinson and Carlson, 2021).

Corporate responsibility and the carbon accounting hoax

Many would now argue that a large amount of responsibility lies with companies to rapidly reduce their emissions and become carbon neutral in line with the Paris Agreement (Doda et al., 2016). Global businesses count for a significant proportion of global GHGs emissions, with just the top 20 highest emitting companies contributing 35% of all global carbon dioxide (CO₂) and methane emissions since 1965 (Taylor and Watts, 2019). One company, Saudi Aramco (an oil and gas company), has singularly contributed 4.38% of total global emissions (Taylor and Watts, 2019). Many argue that responsibility lies with these companies to reduce their emissions (Doda et al., 2016).

They also have a historic responsibility for past emissions which materialises through the reinsurance industry as a tail risk. It might not be possible to prove in a court that Ma Sibanda in Gutu is suffering from a lack of rainfall that leads her family into malnutrition with a direct attribution to GHGs or climate change. However, it is possible at a regional level to show changing patterns of weather and prove beyond scientific doubt – see the last IPCC report – that these have been caused by polluting companies: the climate change crisis is 'unequivocally' influenced by human activity (IPCC, 2021). Also, moving forward we know how many tonnes of CO₂ and GHG emissions each large infrastructure project in Africa, which exports minerals, oil and gas to Europe and China, is costing Africans: an accurate African Union export tax could be counted on the basis of this. If the EU can introduce a carbon border tax, currently planned for 2026, then Africa can equally apply a carbon export tax.

Under current plans, the European Commission will introduce an import levy, called the Carbon Border Adjustment Mechanism (CBAM), on certain goods produced in third world countries with lower environmental standards. It is likely that the United Kingdom and United States will also adopt and prepare for 2023 implementation of the same strategy, and if the 2024 U.S. election returns the presidency to a conservative Republican, there is little question that the protectionist aspects of a CBAM will prove attractive to even the type of climate-denialist like Donald Trump who had already imposed numerous irrational, unjust tariffs on imported base metals and other products.

The EU claims it will accelerate global climate action by preventing businesses from transferring production to non-EU countries with less strict climate rules - dubbed 'carbon leakage', initially applied to five sectors considered at high-risk of carbon leakage: iron and steel, cement, fertiliser, aluminium, and electricity generation (EUobserver, 2021). However, this does nothing to mitigate the hypocrisy of the current carbon accounting standards of scope 1,2 and 3 emissions⁴, which essentially shift the carbon footprint of the wealthy onto the country accounts of the producers, rather than the consumers of goods and services. The hypocrisy of these countries is also witnessed in climate-debt denialism, because reparations by historic polluters would be a logical way to spend revenues raised by CBAM, if such liabilities were recognised.

Many Northern companies are committing to 'net-zero' or 'carbon neutral' in their carbon emissions to bring them in line with the Paris Agreement. For example, 'The Climate Pledge' movement, supported by Amazon, or other affiliated schemes like Business Ambition for 1.5°C, are committing to reach the Paris Agreement target of net-zero carbon emissions ten years earlier (by 2040) (Holbrook, 2020). To do this requires carbon emissions reductions but other forms of accounting are also allowed in the net zero equations, such as offsets, sequestration or carbon capture/geoengineering.⁵ It is here that the resources and people of the Global South are again put at risk, if the corporate carbon economy makes claim on their assets, perhaps even leveraging climate mitigation finance.

For example, the highly contentious \$3.5 billion East African Crude Oil Pipeline, consists of a projected 1,443 km of pipeline that will generate 216 Kbd export flow rate barrels per day at plateau production (EACOP, 2021). Total has promised Ugandans and Tanzanians jobs and wealth, but 263 regional and international organizations opposed EACOP. One reason is that it threatens the water basins serving



⁴ Scope 1 are direct emissions resulting from sources that are owned or controlled by the organisation, such as heating buildings or fuel in vehicles. Scope 2 are indirect emissions caused by the organisation's activities, but not from its own assets, such as from the purchase of heat, steam, electricity, or cooling. Scope 3 are emissions that are caused by assets that are neither owned nor controlled by the organisation, but the organisation indirectly impacts, such as through business travel or employee commuting (see Rogelj et al., 2021; EPA, 2021). Critically, no measure counts the emissions from the consumption of the goods that the company sells, leaving the absurdity that an oil production company can be net zero.

⁵ Net zero is a controversial phrase mainly used by governments and large corporations, and subject to critique of "accounting gimmicks," as Greta Thunberg terms them. Offsets allow pollution in a wealthy country to continue so long as the firm buys another country's or people's carbon budget, paying them for in essence privatising the air and preventing them from taking their fair share of emissions space. Then there are dubious strategies to 'sequester' CO₂ (i.e., draw it back from the atmosphere in order to sink it into the earth or ocean). This is proposed, often, through 'nature-based' approaches which run the risk of encouraging monocultural planting, especially of geoengineered crops or timber plantations which in turn are subject to drought (or excessive water abstraction), fires or commercial forestry at which point the CO₂ would be released. Another approach is Carbon Capture and Storage from fossil fuel sources such as power plants. No artificial sequestration has proven to be capable of scaling up.

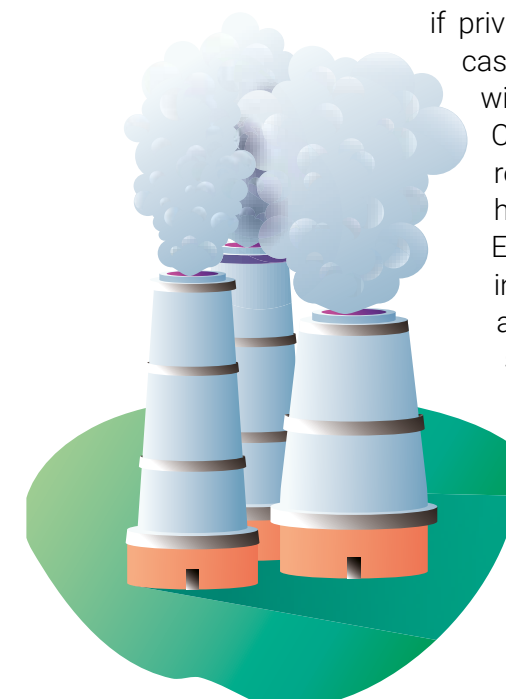
250 million Africans in 11 countries (Nile Basin Water Resources Atlas. 2017), protected species and areas of biodiversity. These reasons compelled the withdrawal of the African Development Bank. Now moving into operation, the fossil fuel infrastructure would be undermined by a new tax on the exports that result, especially if the social cost of carbon is set at the level it should be, the \$3000/ton noted earlier (Kikstra et al 2021). But already, before such taxes are imposed – effectively lowering the benefits of Africa’s fossil-related infrastructure – the costs of mega-projects are high. In East Africa, the Kenya-led LAPSET (Lamu Port-South Sudan-Ethiopia Transport Corridor) will cost US\$ 24.7 billion, and the Tanzania-led MWAPORC [Mwambani(Tanga) Port Railway Corridor] will cost US\$ 32 billion, much of it borrowed. These projects are hotly contested by East African citizens already suffering fiscal austerity, the pandemic’s economic and social devastation, and the very limited debt relief and IMF Special Drawing Rights associated with stingy global economic management.

And in South Africa, the African economy that is most subject to CBAM penalties, there are vast new carbon-related mega-projects, example is the \$50 billion Presidential Infrastructure Coordinating Commission Strategic Integrated Project #1, to rail and ship 18 billion tons of coal from the Botswana border (where another 220 billion tons awaits further coal shipments). This project is already being undermined by climate-related calculations, because although the international coal price was rising to \$228/ton in mid-2021 (from \$50/ton in April 2020), the main agency responsible (Transnet) announced it would cut the project because it anticipated a collapse in coal prices from 2037 and hence a long-term “stranded asset” problem. These costs are multiple times more than any climate finance provided, although the South African government is currently negotiating with Western country delegations for \$10 billion of “concessional finance” to allow Eskom to retire coal-fired power plants early and to pursue “non-fossil-fuel development” in the main coal-mining region of the country (Bond 2021).



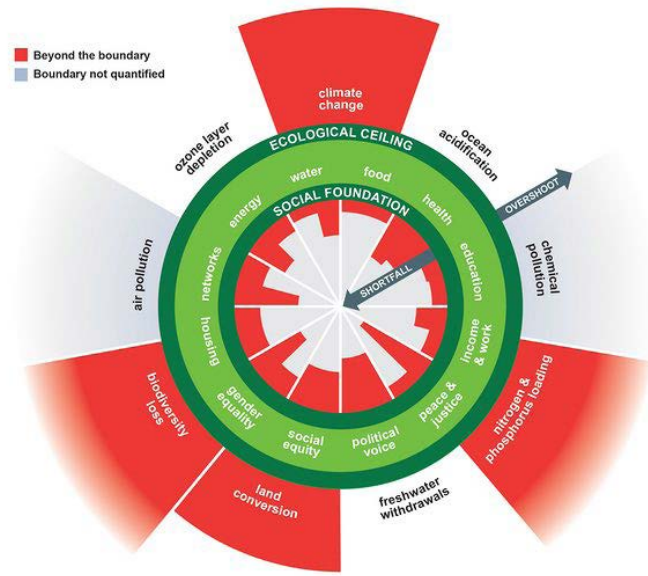
CONCLUSION: BEYOND PREVAILING CLIMATE FINANCE STORIES

There is no doubt that climate change forms part of a crisis moment for humankind and combines with breaches of planetary sustainability limits in biodiversity, land conversion and nitrate loading, which also undermine the lives of other species and whole habitats. Figure 6 (below) illustrates this crisis of planetary limits. Given these planetary limits, many commentators, including the main delegations representing Africa and developing countries more broadly within the UNFCCC process, argue that applying capitalist investment to solve a problem of what is essentially capitalist ‘over-accumulation’ (excess capacity) is not logical - a priori. Moreover, climate finance as currently constituted is over 90% debt, and suggests that workers’ earnings worldwide should be used to pay off large transfers of finance to the private sector for ‘mitigation’, so as to invest out of both the climate and biodiversity crises. At best, this represents a huge use of planetary resources as a ‘once-off’ to move the economy to a new low-carbon pathway, one that will radically increase indebtedness in the Global South.



At worst, the reliance on debt and related instruments will fail dramatically, if private financial markets continue to be as chaotic as has been the case since major international crashes began during the early 1980s with Third World debt crises. Subsequent crashes were the 1987 Chicago and New York commodity and equity markets, early 1990s real estate, mid-late 1990s emerging markets, early 2000s dot.com high-tech stocks, the 2008 global financial meltdown, the early 2010s Euro crisis, and the April 2020 Covid-19 collapse. Funding for climate investments through carbon markets and taxation will exacerbate and delay the material transition we need to a different form of society, as laid out in the 2010 People’s Agreement of Cochabamba, which remains one of the most important blueprints for species and more-than-human survival.

Figure 6: Planetary boundaries



Source: Rockström (2009) and Raworth (2012). *The Doughnut of social and planetary boundaries*

At present, with adverse power relationships for Africa prevailing not only in climate negotiations but even in setting the research and media agendas, three common narratives exist about climate finance:

- First, we can accurately count a category called ‘climate finance’.
- Second, the Global North is stepping up, with the private sector, to provide hundreds of billions of dollars more of this in the 2020s, on top of generous current levels.
- Third, when spent through the current structures, this uptick in finance will make a real difference for Africa.

These narratives are dangerous fictions, given current realities of power in global climate finance management. They all begin with the foundational idea that what we are counting is real, new money, whereas, as we have seen above, we are talking about small amounts of largely reclassified development finance or generic private investments.

If for a moment, we assume that the current figures are a true-enough account of current climate finance, then many argue that there is still not enough being made available by the historic and contemporary polluters to meet the financing gap necessary to keep below 2°C of warming. But this is also misleading because it relates a notion of investing or spending money to a notional pricing of what it would cost to rebuild, retrofit or decommission aspects of our current built environment, infrastructure, energy systems, housing stock and agriculture and so forth. There are few social or political considerations in these cost calculations, and many are made by firms who are positioning themselves to profit from climate catastrophe.

In fact, given prevailing notions of “development” or even “Building Back Better,” the ultimate problem that requires a transformation is power relations. Only foundational changes to the way humans, more-than-human species, and nature relate to each other will avert the worst consequences of climate change. This means a consideration of the complex opportunities, losses and damages of transition beyond merely economic considerations. The prevailing view of climate finance locks in ideas of change as a function of ideas of investing money. But real change would come with societal change, catalysed by regulatory and mandatory law:

between the premiums offered on different types of assets, so if some are no longer legal possibilities – such as if the offset or emissions trading strategies were closed down (as effectively they were during the 2010s when markets had collapsed) – then major capital shifts would have to occur. The banning of CFCs in the 1987 Montreal Protocol is one example, as Dow and General Electric had to immediately cease existing emissions and rapidly develop substitutes over a nine-year period of transition, which they did because there was a full ban in effect from 1996 and no opportunity for shifting at the margins using emissions-trading markets.

Beneath the headline narratives about climate finance are four sub-themes identified above:

- much too little of even this (already inadequate) amount goes to adaptation rather than mitigation;
- an increasing amount of climate finance is in the form of loans rather than grants, so the philosophical issue of even counting these is questionable;
- the regional spread leaves out some of the most vulnerable countries including some in Africa; and
- in the spirit of ‘net zero’, there is a mathematical approach which suggests that when carbon emissions are reduced by the application of climate mitigation finance, this can be considered comparatively to emissions which are increasing.

Of course, the sum of climate finance available is a fiction, when the emissions reduction is merely a designated carbon sequestration unit, brought into the accounts for the purposes of a fake-math accounting gimmick. After all, in many cases, the sequestration unit was there before the emissions that it was called to cancel out. It was just called a forest before, and due to the impossibility of assessing genuine “additionality,” the “net zero” claim typically hides substantial increases in emissions. But even with these caveats, considered comparatively, we can also see that climate finance in Africa is minuscule in scale, compared to the guzzling carbon



intensive investments supported by the same so-called donors, and the fossil fuel investments of the Multinational Corporations (whether from the West, the BRICS economies or elsewhere), whose activities are not regulated at this stage, due to the adverse balance of forces that prevail.

In sum, a profound shift in mindset is required to generate a different mapping of power when it comes to climate finance. And in turn, this will require the kinds of solidarity that Africans have witnessed on other occasions when struggling against injustices, such as Western slavery, colonialism, apartheid and neoliberal economic oppressions, or more recently, BRICS-country abuses (such as the Vedanta case noted above). The most obvious way to call on this is to fuse the histories of solidarities that advance African-driven emancipation struggles from below, on the one hand, with an insistence that the West, BRICS and other high-polluting economies play by fair rules, which at minimum would include “polluter pays” responsibilities to make good on climate finance obligations to the countries victimised by the climate catastrophe, instead of the accounting gimmicks that now prevail.

RECOMMENDATIONS

African governments

- Loss and damage mechanisms, costs of adaptation and resilience, compensation for unutilised emissions (as well as fossil fuel exploitation foregone), ecological debt and reparations for unequal ecological exchange are the only means to ensure a just transition and an end to primary product-export dependency, and demands to the North should revitalise this long-standing global policy agenda.
- Credit-based financing of climate adaptation and mitigation – especially involving hard currency liabilities (where most expenses such as labour and construction materials are in local currencies) – should be generally rejected as it will lead to further indebtedness and pressure to increase export earnings to repay the loans.
- South-south trade, delinking from exploitative trade relations, and mainstreaming of climate change considerations in national budgets are a much better way to adapt to and mitigate climate change than international climate debt, although Northern grant finance will be vital for resourcing the transition.
- Consider a climate finance reparations tax or carbon export tax to pay for adaptation
- African governments should adopt Basic Income Grant mechanisms, local cashless labour banks, community mutual-aid financial institutions and horizontal philanthropy to fund climate change emergency aid and climate adaptation, in the absence of any other material funding.

Global North governments

- Sustainable climate financing for climate resilience provided to the Global South should take the form of debt write-offs, grants and allocations from historic SDRs at the multilateral banks provided as non-interest-bearing grant payments
- These could be accounted for based on a current social cost of carbon assigned to the historic polluters – either firms or states – or, if preferred, to the ecosystem services costs born in the global South by historic Northern pollution paid off as an ecological debt
- Loans and debt-based financing for climate mitigation, which largely already goes to global MNCs domiciled in the Global North or secrecy jurisdictions in any case, should be accounted as the sovereign liability of Global North states, not added to liabilities in the Global South: the climate debt is a Northern one, so the liability naturally lies there.

Development finance institutions

- Multilateral Banks, the Bretton Woods institutions and regional banks whose shareholders are Global North states should tax the wealth historically generated by their activities and assign grants to Global South countries from reserves, special drawing rights and from newly generated investment, and also compensate climate victims for the long-standing financing arrangements that worsened the climate crisis, such as loans and investments that facilitated fossil fuels, large-scale construction, deforestation and mega-hydropower facilities.
- The EU and G20, US, and emerging large polluters (e.g. the BRICS countries), which have the most influence in the UNFCCC have one historic change to respond with compensation and reparations to those countries whose exploitation has historically generated their income superiority.

REFERENCES

Ajl, M., 2021. A People's Green New Deal. Pluto Press, London.

Amerasinghe, N. M., Thwaites, J., Larsen, G., & Ballesteros, A. (2017). Future of the funds: Exploring the architecture of multilateral climate finance. World Resources Institute Retrieved from <https://www.wri.org/publication/future-of-the-funds?>

Banga, J. (2019). The green bond market: A potential source of climate finance for developing countries. *Journal of Sustainable Finance & Investment*, 9(1), 17–32

Banktrack. 2021. East African Crude Oil Pipeline (EACOP). March 5th https://www.banktrack.org/project/east_african_crude_oil_pipeline#updates.

Bond, P. 2002. *Unsustainable South Africa*. London: Merlin Press.

Bond, P. 2012. *Politics of Climate Justice*. Pietermaritzburg: University of KwaZulu-Natal Press.

Bond, P. 2021. Climate justice advocacy: Strategic choices for Glasgow and beyond. In S. Böhm and S. Sullivan (Eds), *Negotiating Climate Change in Crisis*. Cambridge, UK: Open Book Publishers, pp.335-352.

Bond, P., K. Sharife and R. Castel-Branco. 2012. The CDM Cannot Deliver the Money to Africa. Barcelona: Environmental Justice Organisations, Liability and Trade. http://www.ejolt.org/wordpress/wp-content/uploads/2013/01/121221_EJOLT_2_Low.pdf

Bracking, S. 2019. Financialisation, climate finance, and the calculative challenges of managing environmental change, *Antipode* 51 (3), 709-729.

Bracking, S. 2021. Climate finance and the promise of fake solutions to climate change. In S. Böhm and S. Sullivan (Eds), *Negotiating Climate Change in Crisis*. Cambridge, UK: Open Book Publishers, pp.255-276.

Bracking, S. and Leffel, B. 2020. Climate finance governance. Fit for purpose? *WIREs Climate Change*, 12, 4, e709.

Broberg, M. 2020. Interpreting the UNFCCC's provisions on 'mitigation' and 'adaptation' in light of the Paris Agreement's provision on 'loss and damage', *Climate Policy*, 20:5, 527-533

Brundtland, G. 1987. *Our Common Future*. Report of the World Commission on Sustainable Development. New York, United Nations.

Burkett, M. 2016. Reading Between the Red Lines: Loss and Damage and the Paris Outcome, *Climate Law*, 6(1-2), 118-129.

Calliari, E., O. Serdeczny, L. Vanhala 2020. Making sense of the politics in the climate change loss & damage debate. *Global Environmental Change*, 64.

Carney, M., 2015. *Breaking the Tragedy of the Horizon – climate change and financial stability* Speech given by Mark Carney Governor of the Bank of England, Chairman of the Financial Stability Board,

Lloyd's of London 29th September. Available from Speech by Mark Carney at Lloyd's of London, Tuesday 29 September 2015 (bankofengland.co.uk)

Christian Aid 2020. *Count the cost of 2020: a year of climate breakdown*. Kat Kramer and Joe Ware. Available from Christian Aid Template

Climate Bonds Initiative (CBI). (2020a). *Green bond market summary Q3 2020*. Retrieved from <https://www.climatebonds.net/resources/reports/green-bonds-market-summary-q3-2020>

Climate Bonds Initiative (CBI). (2020b). *Sustainable debt global state of the market H1 2020*. Retrieved from <https://www.climatebonds.net/resources/reports/sustainable-debt-global-state-market-h1-2020>

Climate Funds Update, 2021 *Climate Finance Thematic Briefing: Adaptation Finance*. Charlene Watson, ODI and Liane Schalatek, HBS. Available from [CFF3-ENG-2020-Digital.pdf \(climatefundsupdate.org\)](https://www.climatefundsupdate.org)

Climate Policy Initiative, 2020. *Updated View of the Global Landscape of Climate Finance 2019* [Rob Macquarie, Baysa Naran, Paul Rosane, Matthew Solomon, Cooper Wetherbee]. Climate Policy Initiative, London.

Climate Policy Initiative 2021. *Global Landscape of Climate Finance 2021*. Baysa Naran, Pedro Fernandes, Rajashree Padmanabhi, Paul Rosane, Matthew Solomon, Sean Stout, Costanza Strinati, Rowena Tolentino, Githungo Wakaba, Yaxin Zhu and Barbara Buchner. October 18, Available from [Global Landscape of Climate Finance 2021 - CPI \(climatepolicyinitiative.org\)](https://www.climatepolicyinitiative.org)

Doda, B. C Gennaioli, A Gouldson, D Grover, R Sullivan 2016. Are corporate carbon management practices reducing corporate carbon emissions? *Corporate Social Responsibility and Environmental Management* 23 (5), 257-270

Ecosystem Marketplace, 2020. *State of the Voluntary Carbon Markets 2020: Voluntary Carbon and the Post-Pandemic Recovery*. Stephen Donofrio, Patrick Maguire, Steve Zwick, and William Merry

Ecosystem Marketplace, 2021. *EM Visionary Partners, Ecosystem Marketplace Insights Report: Market in Motion State of the Voluntary Carbon Markets 2021 Instalment 1*. Stephen Donofrio, Patrick Maguire, Kim Myers, Christopher Daley, Katherine Lin.

Energy Monitor. 2021. *Spending the climate finance kitty*. Hannah Wright, 5th October. Available from [COP26: Getting climate finance right for adaptation as well as mitigation \(energymonitor.ai\)](https://www.energymonitor.ai)

EUObserver 2021. *EU carbon border tax to target imports from 2026*. Available from [EU carbon border tax to target imports from 2026 \(euobserver.com\)](https://www.euobserver.com). Accessed 5th October 2021

Fonta, W. M., Ayuk, E. T., & van Huysen, T. 2018. *Africa and the Green Climate Fund: current challenges and future opportunities*. *Climate policy*, 18(9), 1210-1225

Global Commission on Adaptation (GCA), 2019. *Adapt Now: A Global Call for Leadership on Climate Resilience*. Global Commission on Adaptation. Available at: https://cdn.gca.org/assets/2019-09/GlobalCommission_Report_FINAL.pdf

Griffith-Jones, S., Attridge, S., & Gouett, M. (2020). *Securing climate finance through national development banks*. ODI Report, Overseas Development Institute



Howell, J. 2021. Mark Carney: \$100 trillion needed to build 'net zero' economy. Climate and Capital Media, 28 September. <https://www.climateandcapitalmedia.com/mark-carney-showcases-net-zero-in-climate-week>

Huq, S., Roberts, E. & Fenton, A. 2013. Loss and damage. *Nature Climate Change* 3, 947–949
 Kehinde, B. 2014. Applicability of risk transfer tools to manage loss and damage from slow-onset climatic risks. *Procedia Econ Finance*, 18, pp. 710-717

ICAP. 2020. Emissions trading worldwide: Status report 2020. Retrieved from <https://icapcarbonaction.com/en/icap-status-report-2020>

IPCC, 2018: Summary for Policymakers. In: *Global Warming of 1.5°C. An IPCC Special Report on the impacts of global warming of 1.5°C above pre-industrial levels and related global greenhouse gas emission pathways, in the context of strengthening the global response to the threat of climate change, sustainable development, and efforts to eradicate poverty* [Masson-Delmotte, V., P. Zhai, H.-O. Pörtner, D. Roberts, J. Skea, P.R. Shukla, A. Pirani, W. Moufouma-Okia, C. Péan, R. Pidcock, S. Connors, J.B.R. Matthews, Y. Chen, X. Zhou, M.I. Gomis, E. Lonnoy, T. Maycock, M. Tignor, and T. Waterfield (eds.)].

IPCC 2021. Synthesis Report of the Sixth Assessment Report: A Report of the Intergovernmental Panel on Climate Change. Available from Synthesis Report – IPCC
 Kikstra, J., P. Waidelich, J. Rising, D. Yumashev, C. Hope and C. Brierley 2021. The social cost of carbon dioxide under climate-economy feedbacks and temperature variability, *Environmental Research Letters*, Volume 16, Number 9. 6 September, <https://iopscience.iop.org/article/10.1088/1748-9326/ac1d0b>

Lashley, J. G and K. Warner. 2015. Evidence of demand for microinsurance for coping and adaptation to weather extremes in the Caribbean. *Climate Change*, 133, pp. 101-112

Leigh Day, 2019. Legal Briefing. Available from <https://www.leighday.co.uk/media/w5rjukxp/legal-briefing-zambia-april2019.pdf>

Linnerooth-Bayer J., Surminski S., Bouwer L.M., Noy I., Mechler R. 2019. Insurance as a Response to Loss and Damage?. In: Mechler R., Bouwer L., Schinko T., Surminski S., Linnerooth-

McKibben, B., 2009. With climate agreement, Obama guts progressive values. *Grist*, 19 December. <https://grist.org/article/2009-12-18-with-climate-agreement-obama-guts-progressive-values/>

Mathew L.M., Akter S. 2017. Loss and Damage Associated with Climate Change Impacts. In: Chen WY., Suzuki T., Lackner M. (eds) *Handbook of Climate Change Mitigation and Adaptation*. Springer, Cham.

Mitchell, K., & Sparke, M. (2016). The new Washington consensus: Millennial philanthropy and the making of global market subjects. *Antipode*, 48(3), 724–749.

Nile Basin Water Resources Atlas. 2017. Estimated and Projected Total Population in Nile Basin Countries – Nile Basin Water Resources Atlas." <http://atlas.nilebasin.org/treatise/estimatedand-projected-total-population-in-nile-basin-countries/>.

Nordlander, L., Melanie Pill & Beatriz Martinez Romera 2020. Insurance schemes for loss and damage: fools' gold?, *Climate Policy*, 20:6, 704-714

OECD, (2020), *Climate Finance Provided and Mobilised by Developed Countries in 2013-18 2*.

Geographical breakdown | Climate Finance Provided and Mobilised by Developed Countries in 2013-18 | OECD iLibrary (oecd-ilibrary.org), November

Palombo, D. 2021. Okpabi v Shell and Lungowe v Vedanta Dispel Three Myths - CORE. CORE. [online] Available at: <https://corporate-responsibility.org/okpabi-v-shell-lungowe-v-vedanta-dispel-three-myths/> [Accessed 5th October 2021].

Pattberg, P., & Widerberg, O. (2015). Theorising global environmental governance: Key findings and future questions. *Millennium*, 43(2), 684–705.

Raworth, K., 2012. *A Safe and Just Space for Humanity: Can we Live within the Doughnut?* Oxfam Discussion Papers.

Roberts, J. T., R. Weikmans, S.-a. Robinson, D. Ciplet, M. Khan and D. Falzon 2021. Rebooting a failed promise of climate finance. *Nat Clim Change*, 11

Robinson, S-A., and D.A. Carlson. 2021. A just alternative to litigation: applying restorative justice to climate-related loss and damage. *Third World Quarterly*. pp. 1-12

Robinson, S-A., Khan, M., Roberts, J T., Weikmans, R., Ciplet, D., 2021. Financing loss and damage from slow onset events in developing countries. *Current Opinion in Environmental Sustainability*, 50, 138-148.

Rockström, J., W. Steffen, K. Noone, Å. Persson, F. S. Chapin, III, E. Lambin, T. M. Lenton, M. Scheffer, C. Folke, H. Schellnhuber, B. Nykvist, C. A. De Wit, T. Hughes, S. van der Leeuw, H. Rodhe, S. Sörlin, P. K. Snyder, R. Costanza, U. Svedin, M. Falkenmark, L. Karlberg, R. W. Corell, V. J. Fabry, J. Hansen, B. Walker, D. Liverman, K. Richardson, P. Crutzen, and J. Foley. 2009. Planetary boundaries: exploring the safe operating space for humanity. *Ecology and Society* 14(2): 32. [online] URL: <http://www.ecologyandsociety.org/vol14/iss2/art32/>

Taylor, M. and Watts, J. 2019. Revealed: the 20 firms behind a third of all carbon emissions. *The Guardian*

UK Supreme Court. 2019. *Vedanta Resources Plc. And Another v. Lungowe and others*. UKSC 20. Judgment, 10 April. [online] Available at: <https://www.supremecourt.uk/cases/docs/uksc-2017-0185-judgment.pdf> [Accessed 27 March 2021].

United Nations, 2015. The Paris Agreement. Available from https://unfccc.int/sites/default/files/english_paris_agreement.pdf

UNFCCC. (2019). What is climate finance?. Retrieved from <https://unfccc.int/topics/climate-finance/the-big-picture/introduction-to-climatefinance>

van der Geest, K. Warner. 2019. Loss and damage in the IPCC fifth assessment report (Working Group II): a text-mining analysis. *Climate Policy*, pp. 1-14

Van Ho, T. 2020. *Vedanta Resources Plc and Another v. Lungowe and Others*. *American Journal of International Law*, 114(1), pp.110-116.

Varvastian, S. 2020. Transnational Corporate Liability for Environmental Damage and Climate Change: Reassessing Access to Justice after Vedanta v. Lungowe. *Transnational Environmental Law*, 9(2), pp.323-345.

Weikmans, R., J.T. Roberts and S. Robinson 2020. What counts as climate finance? Define urgently. *Nature*, 588, p.220

Wewerinke-Singh, M. and Hinge Salili, D., 2020. Between negotiations and litigation: Vanuatu's perspective on loss and damage from climate change, *Climate Policy*, 20:6, 681-692

White & Case. 2021. Okpabi v Royal Dutch Shell Plc: UK Supreme Court allows Nigerian citizens' environmental damage claim to proceed against UK parent company. White & Case, 19 February. [online] Available at : <https://www.whitecase.com/publications/alert/okpabi-v-royal-dutch-shell-plc-uk-supreme-court-allows-nigerian-citizens> [Accessed 5/10/2021].

Wisner, B., P. Blaikie, T. Cannon and I. Davis. 2004. *At Risk: Natural Hazards, People's Vulnerability and Disasters* (edn 2), Routledge, London and New York.

Wolfrom, L. and M. Yokoi-Arai 2016. Financial instruments for managing disaster risks related to climate change. *OECD Journal of Financial Market Trends*, 2015 (2016), pp. 25-47

World Bank 2020. *State and Trends of Carbon Pricing 2020* Washington DC, May 2020

World Resources Institute 2021. *Improving Access to the Green Climate Fund: How the Fund Can Better Support Developing Country Institutions*. Molly Caldwell and Gaia Larsen. Available from [improving-access-green-climate-fund_0.pdf](https://www.wri.org/publications/2021/04/improving-access-green-climate-fund/) (wri.org)

Xu, J., Ren, X., & Wu, X. (2019). Mapping development finance institutions worldwide: Definitions, rationales, and varieties. *NSE Development Financing Research Report No. 1*. Retrieved from https://www.idfc.org/wp-content/uploads/2019/07/nse_development_financing_research_report_no-1-2.pdf

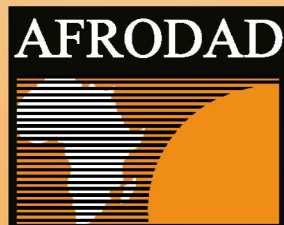
Žižek, S. 2004. The Structure of Domination Today: A Lacanian View. *Studies in East European Thought*, 56(4), 383–403.

ANNEX

Table 1. Overview of climate finance institutions

Type	Examples
Development Finance Institutions (DFIs)	
Multilateral DFIs	World Bank, Asian Development Bank, European Bank for Reconstruction and Development, International Finance Corporation
Bilateral DFIs	CDC Group (United Kingdom), Swedfund (Sweden), International Development Finance Corporation (United States)
National DFIs	China Development Bank, KfW Banking Group (Germany), Export-Import Bank of India

Subnational DFIs	Buenos Aires Guarantee Fund, Lower Austria Guarantees and Investments, Rio de Janeiro Development Agency
Climate-specific funding mechanisms	
Dedicated Multilateral Climate Funds (UNFCCC)	UNFCCC's Adaptation Fund, the Global Climate Fund, Least-Developed Countries Fund and Global Environmental Facility (GEF)
Non-UNFCCC Climate Funds	UNDP Low Emission Capacity Building Programme, UNEP En.lighten Energy Efficiency Initiative
National Climate Funds (NCFs)	Indonesia Climate Change Trust Fund, UK International Climate Fund and the German IKI Initiative
Philanthropy	Rockefeller Foundation, Bloomberg Philanthropies, Energy Foundation, Ford Foundation
Green Bond issuers	
Development Banks	European Bank for Reconstruction and Development, World Bank, African Development Bank, European Investment Bank
Asset-based security issuers	Fannie Mae, Credit Agricole CIB, Toyota
Financial corporate issuers	BNP Paribas, Bank of America, Bank of China, Morgan Stanley
Government-backed entities	Japan Railway Construction, Transport and Technology Agency, Indian Renewable Energy Development Agency
Sovereign issuers	Republic of Fiji, Federal Government of Nigeria
Non-financial corporate issuers	Canadian Solar, Tesla Energy, Beijing Enterprises Water Group
Local governments	Tokyo Metropolitan Government (Japan), City of Gothenburg (Sweden), New York MTA (USA), State of Connecticut (USA)



African Forum and Network on Debt and Development
31 Atkinson Drive, Hillside
PO Box CY1517, Causeway
Harare, Zimbabwe
Tel: +263 242 778531/6
Fax: +263 242 747878
Website: www.afrodad.org