



Towards a Just Global Climate Finance



Climate change has created a huge financial burden, especially for the global South. Policymakers are aiming to limit global temperature rise to 1.5°C by the end of the century to reduce the risks and impacts of climate change. To this end, developing countries will need around USD 3.5 to 4 trillion to implement their climate commitments. Given their historical responsibility, accumulated climate debt, and the principle of common but differentiated responsibility, developed countries will have to shoulder most of the cost.

At the 2015 Paris Agreement, rich countries reaffirmed their commitment to mobilize USD 100 billion a year in climate finance by 2020. They also agreed to continue mobilizing finance at the level of USD 100 billion a year until 2025. But while important pledges are on the table, the climate financial architecture faces enormous stumbling blocks. Governments are inflating their actual commitments and payments and some of the investments are actually promoting the false solutions. Big greenhouse gas emitters such as the United States and Australia are backsliding from their commitments and obligations.

World leaders will meet anew for the UN Climate Change Conference or COP 25. The COP 25 will be taking place amid the intransigence of big polluting countries in taking responsibility and the risks faced by peoples and countries that have least caused climate change and yet are suffering its worst impacts.

OBSERVATIONS OF RECENT IMPACTS OF CLIMATE CHANGE

According to the US National Oceanic and Atmospheric Administration (2019), July 2019 was the hottest month on record. Record warm temperatures were felt across North America, southern Asia, southern Africa, the northern Indian Ocean, and the Atlantic Ocean, as well as across the western and northern parts of the Pacific Ocean (See figure 1).

The same agency says that the period from January through July produced a global temperature that was 1.71°F above the 20th-century average of 56.9°F, tying with 2017 as the second-hottest year to date on record.

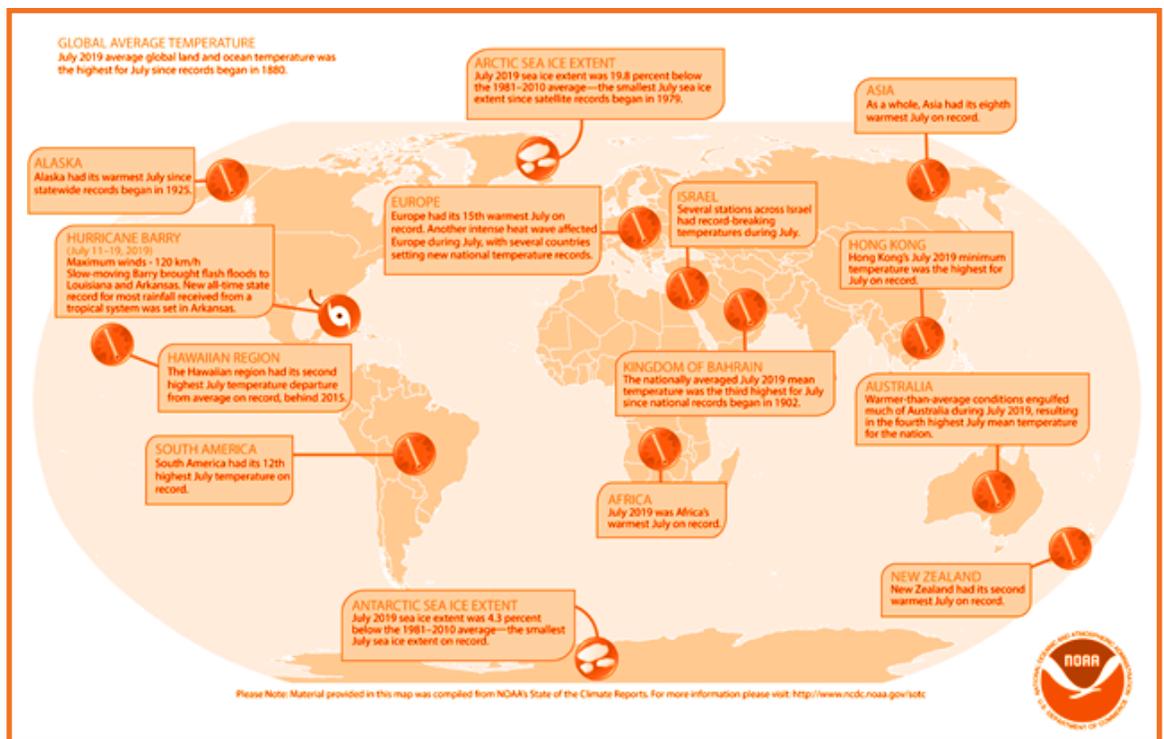
Nine of the 10 hottest Julys have occurred

since 2005, with the last five years ranking as the five hottest. July 2019 was also the 43rd consecutive July and 415th consecutive month with above-average global temperatures.

And yet, these vital signs remain unheeded. Carbon is being added to the atmosphere 100 times faster than at any point in human history before the start of industrialization (Wallace-Wells, 2019).

The IPCC forecasts a temperature rise of 2.5 to 10°F over the next century. With continued greenhouse gas emissions (GHGs) and the resulting impact on global temperatures, records are expected to be broken in the future.

Figure 2. Selected Significant Climate Anomalies and Events July 2019



Source: US National Oceanic and Atmospheric Administration (2019)

Global climate change has already had observable effects on the environment. The American Meteorological Society (2019) revealed that the extreme weather events in the last two years would have been “virtually impossible” had it not been for human-induced climate change.

Most recently, the IPCC Special Report on Climate Change and Land warned that land degradation and land misuse are increasing our vulnerability to climate change while compromising food security and biodiversity (IPCC, 2019).

While climate change concerns all, the damage it causes and the challenges it brings are not experienced equally. Scientists have long predicted that developing and least developed countries (LDCs) that contributed the least to global warming would disproportionately bear its adverse human, social and economic consequences.

Data reveal that the human cost of disasters increases in cases where national income levels decline (Centre for Research on the Epidemiology; United Nations Office for Disaster Risk Reduction, 2017). People exposed to natural hazards in the poorest nations are more than seven times more likely to die than the equivalent populations in the richest nations. A similar pattern of deep inequality is shown by the ratios of people affected by disasters in which people in the poorest countries are on average six times more likely than people in rich nations to be injured, to lose their homes, be displaced or evacuated, or require emergency assistance.

A study found that in most poor countries, higher temperatures are more than 90% likely to have resulted in decreased economic output, compared to a world without global warming (Diffenbaugh & Burke, 2019). Meanwhile, the effect has been less dramatic in wealthier nations—with some even potentially benefiting from higher temperatures. The study is consistent with previous scientific findings projecting that the average income in the poorest countries will decline to almost 75% by 2100 compared to a world without warming, while some of the richest countries could experience gains in income.

Indeed, the negative economic repercussions of global warming are already apparent in many developing countries and are expected to exacerbate pre-existing inequalities.

According to a report from the UN Food and Agriculture Organization (FAO) (2017), between 2005 and 2015 natural disasters cost the agricultural sectors of developing countries a staggering USD 96 billion

in damaged or lost crop and livestock production. Half of that damage (around USD 48 billion worth) occurred in Asia, with drought as one of the leading causes.

South Asia faces serious flooding damages infrastructure and capital goods such as roads, houses, bridges, and communications. Recurrent flooding is caused by heavy monsoon rains, rising sea levels, and melting glaciers. By 2030, losses and damages from flooding could potentially cost as much as USD 215 billion per year (South China Morning Post, 2017).

Climate change also increases the cost of debt for developing countries a study commissioned by the United Nations reveals (Buhr, et al., 2018). Over the last decade, climate vulnerability has cost developing countries over USD 62 billion in higher external interest payments, out of which, USD 40 billion was spent in additional interest payments on government debt alone. This incremental debt cost was almost USD 9 billion in 2016 alone. Over the next decade, they have to pay USD 168 billion more in interest.

Extreme weather events triggered by climate change amplify risks and put pressure on countries' credit ratings. Bangladesh's credit rating may come under pressure due to sustained reduced agriculture output owing to salinization and increased freshwater flooding, while Guatemala's exposure to frequent and severe drought may lead to increased government borrowings to deal with impacts.

In all these, grassroots communities already grappling with poverty, lack of access to productive resources and social services and protection, and other instances of economic and social vulnerabilities, are the most affected.

The International Labour Organization anticipates that temperature increases resulting from climate change will lead to the loss of the equivalent of 72 million

full-time jobs by 2030 due to heat stress (2018). Workers, especially those who work outdoors or in hot indoor environments, are at increased risk of heat stress and other heat-related disorders, occupational injuries, and reduced productivity at work. In developing countries, the majority of workers suffering from heat stress are not covered by employment insurance.

The same ILO report also claims that agricultural workers will be the worst affected as they will account for 66% of global hours lost due to heat stress in 2030. They are most vulnerable because of the physical nature of their work and because a large number of workers are engaged in agriculture in areas most affected by future heat stress.

Decreased crop yields and livestock because of heat stress, droughts, and floods compound the already devastated livelihoods of millions of farmers in the global South. But it is also evident that climate change hazards have greatly increased existing gender inequalities in rural areas, contributing to the greater climate change vulnerability of rural women. In developing countries, climate change affects the availability of water, and as a result rural women, who are usually given the task of fetching water, have to cover greater distances to collect the water, increasing their already substantial workload. There are also strong links between climate-related disasters and female mortality, with women, boys and girls more than 14 times more likely than men to die during a disaster (Peterson, 2011).

Rural women compared to men also rely more on biomass such as agricultural crops, wastes, and wood and other forest resources

for their energy needs and livelihood. Compared to men, they also often depend more on ecosystem services for their sources of food as they are often involved in agricultural production and the management of natural resources. For example, a recent study conducted in Malawi (Asfaw & Maggio, 2018) found that when extreme weather events significantly reduce consumption and nutrition, the effects are more striking in areas where the share of land area owned by women is higher. This suggests that women involved in agriculture are much more vulnerable than men and less able to cope with the impacts of climate change.

The close relationship of indigenous peoples and minorities with the environment makes them particularly sensitive to the effects of global warming. In many instances, their way of life and very existence are threatened since most of them live in places that are worst hit by climate change. Traditional livelihoods such as rotational agriculture, hunting and gathering, pastoralism, fishing, agro-forestry are undermined, which in turn contributes to the loss of traditional knowledge, innovations, and practices of indigenous peoples. Because of displacement and increasing social, cultural, and economic pressures, many indigenous peoples are seeking opportunities elsewhere. It is probable, that for some Central American migrants, the decision to head north towards the US may be driven not only by a desire for a better life and the need to escape violence in their home countries, but also because of the negative impacts of climate change on agriculture and other traditional income source (Minority Rights Group International, 2019).

ESTIMATES OF FINANCING REQUIREMENTS FOR CLIMATE ACTION

A global climate action to ensure the climate as a common good for all needs to secure international financial support for

countries in the global South in accordance with their priorities. Staying far below 1.5°C global warming compared to preindustrial

levels in concrete would mean a no-carbon development path in the North and low-carbon development in the South.

The urgency of reducing GHG emissions means that, for larger developing countries, fossil-fuelled development is no longer a feasible option. To ensure their development is sustainable, they need to embark on a

Mitigation

Mitigating climate change means reducing anthropogenic emissions of GHGs that are warming the planet. Examples of mitigation include increasing energy efficiency, switching to low-carbon energy sources such as hydroelectricity, wind power, solar power, or nuclear power. Enhancing natural carbon sequestration such as through reforestation is also considered a mitigation strategy.

Controversially, techno-fixes such as geo-engineering are being pushed by certain interests such as the fossil fuel industry. Geo-engineering is the intentional, large-scale technological manipulation of the Earth's systems for combating climate change such as through solar radiation management (SRM) and carbon capture storage (CCS). Much

Adaptation

While efforts to mitigate climate change are important, it is also crucial to assist developing countries to adapt to the impacts of climate change caused by past and current GHG emissions. Adaptation is defined as adjustments in ecological, social, or economic systems in response to actual or expected climate changes and their impacts (UNFCCC). Examples of climate adaptation strategies are improving weather and climate information systems; promoting diversified agricultural production to reduce climate risk; soil and water management to increase water availability in areas experiencing water stress; securing local and indigenous people's rights and systems for a sustainable and long-term utilization of the forest in order to increase resilience to climate change; design and construction of measures to protect critical

low-carbon development path. But unlike their developed country counterparts who grew their economies generating energy at low cost and without consideration of their environmental impacts, the low-carbon path asked of developing countries will involve significantly greater investment and potentially higher energy cost.

of geo-engineering technology remains unproven. Activists criticize techno-fixes as an escape hatch for reluctant countries not to cut emissions.

Estimates of the cost of climate change mitigation vary. Based on the need to keep the temperature rise below 2°C, the IPCC estimated that annual mitigation costs could be between USD 78 and USD 1,141 billion (2007). Most recently, the same agency says that additional annual average energy-related investments for the period of 2016 to 2050 in pathways limiting warming to 1.5°C compared to pathways without new climate policies beyond those in place today are estimated to be around USD 830 billion (Rogelj, et al., 2019).

energy infrastructure from the impacts of floods and storms, to name a few.

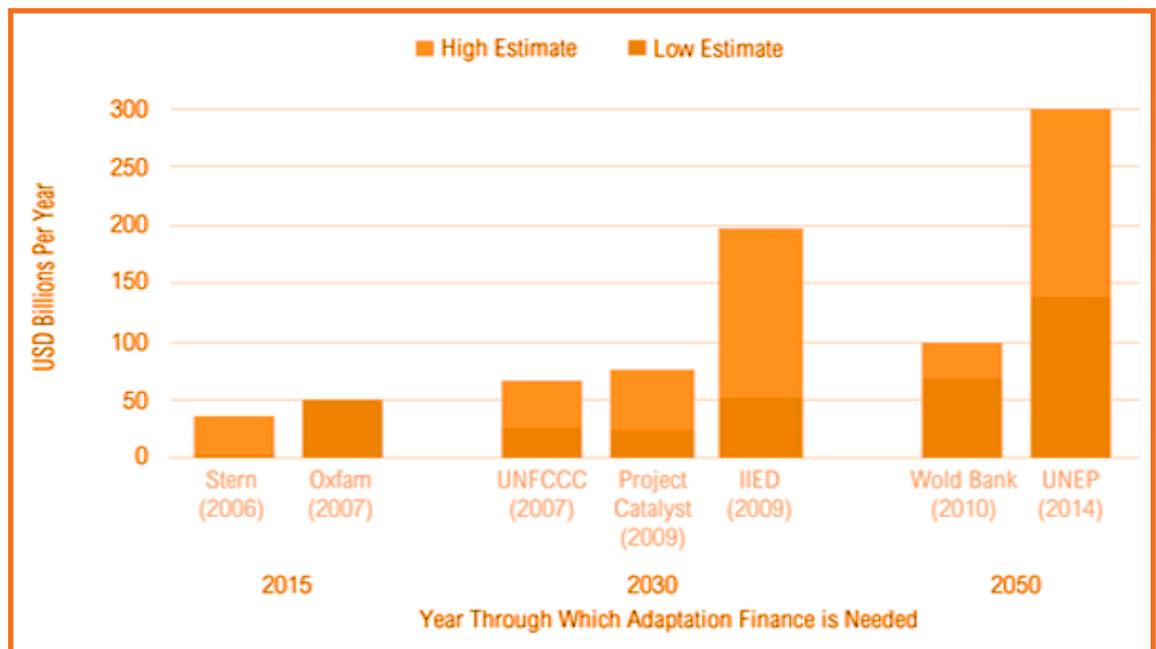
Over the last ten years, many reports have come up with varying estimates of adaptation costs based on current climate change knowledge (Figure 2). At the lower end, according to UNFCCC (2007), projected adaptation finance for developing countries would start at USD 28 billion annually by 2030. At the higher end, the United Nations Environment Programme (UNEP, 2018) estimated a maximum cost for developing countries of around USD 300 billion annually by 2050.

While the cost of climate change adaptation is very large, this is dwarfed by, for example, the USD 1.8 trillion-worth military spending

of developed countries in 2018 (SIPRI, 2019). More importantly, adaptation costs do not

compare with the economic, social, and human costs of failing to act.

Figure 2. Estimated Annual Adaptation Finance Needs for Developing Countries through the Years



Source: World Resources Institute (2019)

Loss and Damage

Reducing emissions and enhancing resilience against climate change can only take us so far. Some negative impacts and damages are now inevitable and have collectively come to be known as “loss and damage”. Loss and damage impacts derive from extreme events, for example, weather-related natural hazards, to slow-onset events, including sea-level rise, increasing temperatures, ocean acidification, glacial retreat and related impacts, salinization, land and forest degradation, loss of biodiversity, and desertification (UNFCCC, 2012).

Communities are already experiencing significant loss and damage to quality of life, livelihoods, food and security as well as secondary loss and damage in the form of stress on social fabric essential to adaptive capacity and resilience (Least Developed Countries Group on Loss and Damage, 2012).

Loss and damage emerged as a focal point in the Paris Agreement in 2015. Article 8 of the Paris Agreement states that ‘Parties should enhance understanding, action and support, including through the Warsaw International Mechanism, as appropriate, on a cooperative and facilitative basis with respect to loss and damage associated with the adverse effects of climate change’ (UNFCCC, 2015). It also specifies that ‘areas of cooperation and facilitation to enhance understanding, action, and support’, include early warning systems, emergency preparedness, slow onset events, events that may involve irreversible and permanent loss and damage, comprehensive risk assessment and management, risk insurance facilities, climate risk pooling and other insurance solutions, non-economic losses, resilience of communities, livelihoods, and ecosystems.

Despite the increasingly widespread consensus among Parties of “averting,

minimizing, and addressing loss and damage,” the Paris Agreement failed to indicate loss and damage as an area needing financing separate from that allocated to adaptation. That some recent weather-

related disasters that have caused great human suffering remain underfunded (Figure 3) further underscores the need to close the gap in existing finance streams to pay for loss and damage:

Figure 3. Recent weather-related events cost and available funding

COUNTRY AND TYPE OF RESPONSE	FUNDING REQUIRED (IN USD)	FUNDING AVAILABLE
Madagascar drought	32.4 million	20.7%
Mozambique cyclone response	440.9 million	32.5%
Somalia drought response	1.08 billion	21.7%

Source: ECO-NGO Newsletter (SB 50 – Summer 2019)

CLIMATE FINANCE IN GLOBAL CLIMATE ACCORDS

There is a degree of moral obligation for developed countries to provide new and additional finances to support climate action in developing countries. Developing countries simply do not have the capacity to address poverty and human development while simultaneously adapting to and mitigating climate change.

The 1992 United Nations Framework Convention on Climate Change (UNFCCC or the Convention), the Kyoto Protocol, and the Paris Agreement call for financial assistance from developed country Parties to assist developing country Parties in implementing the objectives of the Convention.

The UNFCCC is an international environmental treaty adopted in May 1992 at the Earth Summit (known as the 1992 United Nations Conference on Environment and Development) in Rio de Janeiro and entered into force in 1994. The ultimate objective of the treaty was to stabilize greenhouse gas concentrations “at a level that would prevent dangerous anthropogenic (human-induced) interference with the climate system”. Following the principles of Common but Differentiated Responsibilities (CBDR) and “polluter pays”, such responsibility primarily rests on developed countries as they are the source of most past and current carbon emissions.

This commitment was further elaborated at the 13th Conference of the Parties (COP13) in Bali, Indonesia in 2007. The outcome document Bali Action Plan established a framework for subsequent negotiations focusing on mitigation; adaptation; technology development and transfer; and financing. On financing, the Bali Action Plan states that the Convention should include:

“Enhanced action on the provision of financial resources and investment [including] improved access to adequate, predictable and sustainable financial resources and financial and technical support, and the provision of new and additional resources, including official and concessional funding for developing country Parties.” (cited in Overseas Development Institute, 2009)

In 2009 in Copenhagen, industrialized countries committed on a voluntary basis to mobilize USD 30 billion between 2010 and 2012 (fast-track finance) and USD 100 billion annually by 2020 for climate mitigation and adaptation in developing countries. Since then, many climate funds and initiatives have sprung up.

The Paris Agreement in 2015 reaffirmed the obligations of developed countries and for the first time also encouraged voluntary contributions by other Parties.

Box 1. Climate Finance and COP 25: What's at stake for People and Climate?

The upcoming UN Climate Change Conference will be held on 2 to 13 December. Originally to be held in Santiago, Chile, the venue has since been moved to Madrid, Spain after local protests and increasing social tensions in Chile forced the government of Sebastian Piñera to pull out of organizing COP25 and Asia-Pacific Economic Cooperation (APEC) summit.

With the theme Time to Act, the COP 25 seeks to go beyond the Paris Agreement targets and will center on keeping the global temperatures from rising more than 1.5 degrees Celsius and achieving global net-zero CO₂ emissions by mid-21st century. It will be attended by more than 200 governments. The political and technical agenda of the conference will be structured around four main work areas, all of which are strongly linked to climate financing.

1. Implementation of the Article 6 of the Paris Agreement: While at the COP24 in Katowice, Poland in 2018, Parties reached an agreement on the implementation of the Paris Agreement – the so-called Paris Rulebook – but could not reach an agreement to a text on Article 6 pertaining to market-based emissions trading system which could help lead to a global price on carbon. Under this system, countries with low emissions would be allowed to sell their excess allowance to larger emitters. A number of reasons hindered the progress on reaching an agreement on Article 6. It has been thought that the provision allows cheating by accounting for emissions reductions twice: both where carbon credits are created in originating countries and in the country that buys the credits. Some countries have also objected to what they see as fraudulent credits in the old Clean Development Mechanism from the Kyoto Protocol and do not want to continue the mechanism post-2020, citing lack of integrity.

2. Tying the loose ends on political commitments made by the countries such as on transparency, governance, and climate financing: The next round of new or updated nationally determined contributions (NDCs) is due on 2020. While the Paris Rulebook contains the core of the political actions each country will perform with regard to climate action, parameters of the objectives and a number of details to guide the design and updating of these commitments have yet to be crafted.

3. Review of the Warsaw International Mechanism (WIM) for Loss and Damage: Discussions will also include those on actions designed to deal with the losses and immediate damage because of climate change. It is important that the review of the WIM at the COP 25 results in the full operationalization of the WIM, including through the establishment of a finance arm, with modalities for channeling and accessing loss and damage finance. Developing and underdeveloped countries cannot lose more time in delaying meaningful discussions with the rapidly increasing and worsening climate change impacts that are being felt across the globe.

Sources: Iberdrola, *COP25 in Chile will study how to restrict the rise of global temperatures to below 1.5 °C* (2019)
Global Forest Coalition, *Derail negotiations on market mechanisms: false solutions will not bring equity and climate justice* (2019)

THE GLOBAL CLIMATE FINANCE ARCHITECTURE

The global climate finance architecture is complex and always evolving (Watson & Schalatek, 2019). Generally, funds flow both within and outside of the Convention and the Paris Agreement financial mechanisms. Funds are also increasingly flowing through

bilateral as well as regional and national climate change financial mechanisms. Many developing countries have also set up regional and national channels to receive climate finance.

Multilateral channels for climate finance

To facilitate the provision of climate finance, the Convention established a financial mechanism to provide financial resources to developing country Parties. The financial mechanism also serves the Kyoto Protocol and the Paris Agreement.

The operation of the financial mechanism can be entrusted to one or more existing international entities (UNFCCC). The Global Environment Facility (GEF) has served as an operating entity of the financial mechanism since the Convention's entry into force in

1994. At COP 16, in 2010, Parties established the Green Climate Fund (GCF) and in 2011 also designated it as an operating entity of the financial mechanism. The financial

mechanism is accountable to the COP, which decides on its policies, priorities and eligibility criteria for funding.

The GCF

The Green Climate Fund (GCF) is one of the newest and biggest multilateral climate funds. The GCF was proposed at the 2009 COP15 in Copenhagen, Denmark where developed countries agreed to jointly mobilize USD 100 billion a year by 2020 to address the needs of developing countries for climate adaptation and mitigation. This amount was to come from a “wide variety of sources, public and private, bilateral and multilateral, including alternative sources of finance.” A significant portion of new multilateral funding for adaptation was supposed to be delivered through the GCF.

to utilize at least 50% of its funding on Least Developed Countries (LDCs), Small Island Developing States (SIDS) and African countries.

The GCF design was agreed on by all parties during the 2011 COP in Durban, South Africa, and became operational in 2014. While the GCF is an operating entity of the UNFCCC and under the Paris Agreement, it remains largely an independent institution hosted by South Korea, having its own secretariat and the World Bank as its trustee (Shalatek & Watson, 2018).

Developing countries as recipient of climate finance can access GCF in two ways through two modalities: international and direct access (Lottje, Affana, Eckstein, & Weischer, 2019). International access, which has become the standard procedure for most climate funds, allows recipient countries to submit funding proposals via international accredited entities (IAEs) such as large multilateral organizations like the UN or multilateral development banks, developed country bilateral institutions, and private sector institutions like commercial banks. Direct access meanwhile enables national institutions to apply directly for project funding after becoming accredited entities (DAEs).

As stated in paragraph 2 of the Governing Instrument, the GCF’s overall objective is to promote a “paradigm shift towards low-emission and climate-resilient development pathways by providing support to developing countries to limit or reduce their greenhouse gas emissions and to adapt to the impacts of climate change” (2019). It funds climate action through shifts of policies, procedures and proposals with the ambition beyond what is already funded by existing climate funding mechanisms.

Parties called for immediate capitalization of between USD 10 and 15 billion. By the close of 2014, total pledges reached USD 10 billion with contributions from Japan, United Kingdom, Germany, France, Sweden, Canada, Norway, United States, and Australia, among others. As of 2019, the total amount of signed contributions is at USD 10.2 billion but so far only USD 7.1 billion of all the agreed funding has been transferred to the GCF (Green Climate Fund, 2019).

Additionally, the GCF aims to address the needs of developing countries that are particularly vulnerable to climate change effects; hence, the fund’s target is to split its funding equally between mitigation and adaptation (The Green Climate Fund). Within the adaptation framework, it intends

Since 2015, the GCF has allocated USD 5.2 billion to 102 projects and programs. Fifty-six of the approved projects and programs are under implementation worth USD 2.4 billion and 48 of these received a total of USD 565 million. With more than half of the funds already granted or reserved for approved projects there wouldn’t be much left in the fund unless new pledges come in.

The GEF

The Global Environment Facility (GEF) is the primary fund administrator for the four Rio Conventions (1992 Earth Summit) including the UNFCCC (The Global Environment Facility). It works with member governments and international institutions, NGOs, and the private sector for projects such as biodiversity, climate change, chemicals, land degradation, international waters, and forest management in developing countries. The GEF is designed to provide grants to cover “incremental” costs associated with transforming a development project with national benefits into one with global environmental benefits.

The GEF also manages two special funds under the UNFCCC: the Least Developed

Countries Fund and the Special Climate Change Fund (SCCF).

Since 1992, the GEF has provided over USD 17 billion in grants and mobilized an additional USD 88 billion in financing for more than 4000 projects in 170 countries (Global Environment Facility, 2019).

The original GEF pilot program of USD 1 billion has been replenished seven times with USD 2.01 billion in 1994, USD 2.67 billion in 1998, USD 2.93 billion in 2002, USD 3.13 billion in 2006, USD 4.34 billion in 2010, USD 4.43 billion in 2014, and USD 4.10 billion in 2018 (Global Environment Facility, 2019).

Box 2. The Green Climate Fund and the Private Sector: Fast Facts

Partly as a result of ideological bias and the lack of public money that developed countries provide to finance climate action in developing countries, the private sector has increasingly featured prominently at the GCF.

- The GCF may accept contributions from the private sector but current contributors are all governments
- The GCF channels its funds through accredited entities (AEs), which may be from public or private sectors; developed or developing countries. AEs develop funding proposals and manage and monitor projects and programs. Seventeen out of 88 AEs are from the private sector among them large commercial banks such as Deutsche Bank, HSBC, Credit Agricole, investment houses, and international NGOs. Deutsche Bank and HSBC are two of the largest private financiers of coal, have poor human rights record, and have been mired in financial scandals
- AEs can also act as intermediaries for funding that is passed on to other companies or “executing entities” that do the actual implementation on the ground
- There are no restrictions on the private sector activities that GCF can support in developing countries. Technically, the GCF could also fund fossil fuel projects. There are no limits to the total GCF funds that could go to private projects
- Grants and concessional loans can be provided directly to private companies or passed on by intermediaries as grants, loans, or financial instruments such as “green bonds”
- GCF can provide risk guarantees or set aside money to repay creditors if a supported company defaults on its loans
- GCF can also take an ownership stake in private companies through equity funds
- Twenty-five of the GCF approved projects are being implemented with the private sector
- Private Sector Facility (PSF) was set up to mobilize investors and leverage GCFs funds to encourage corporates to co-invest with the Fund. The facility is currently engaging pension funds, insurance, corporations, and financial intermediaries.

Sources: GCF “Raising Ambition, Empowering Action” (2019) and Heinrich Boell Stiftung “Green Climate Fund and Private Sector” (2016)

Adaptation Fund

Linked to the UNFCCC and now mandated to serve the Paris Agreement, the Adaptation Fund is financed through a 2% tax on the sale of emission credits from the Clean Development Mechanism (CDM) of the Kyoto Protocol (Shalatek & Watson, 2019).

In times of low carbon prices, the fund is increasingly reliant on developed country contributions. Operational since 2009, total financial inputs amount to USD 756 million, with total cash transfers to projects of USD 306 million (Shalatek & Watson, 2019).

Other multilateral channels

A considerable amount of climate funds also course through institutions outside the purview of the UNFCCC. They include the World Bank's Climate Investment Funds (CIF) that operates in partnership with regional development banks including the African Development Bank (AfDB), the Asian Development Bank (ADB), the European Bank for Reconstruction and Development

(EBRD), and the Inter-American Development Bank (IDB). The CIF has the USD 2.63 billion Strategic Climate Fund which is composed of four programs, namely the Clean Technology Fund, the Scaling Up Renewable Energy Program for Low Income Countries (SREP), the Foreign Investment Program (FIP), and the Pilot Program for Climate Resilience (PPCR).

Bilateral channels

Climate finance spent bilaterally through development agencies and special bilateral climate funds (Shalatek & Watson, 2018). Monitoring bilateral climate finance can be a challenge as there is no standard definition yet of climate finance or agreed reporting and accounting standards. According

to the latest Organisation for Economic Cooperation and Development report's Climate Finance Provided and Mobilised by Developed Countries in 2013-17 (2019), developed countries mobilized an average of USD 25.3 billion.

Regional and national funds

A number of national and regional channels and funds were also established by developing countries (Shalatek & Watson, 2019). National fund initiatives include Indonesia's Climate Change Trust Fund and Brazil's Amazon Fund, the latter being the largest national climate fund with a commitment of more than USD 1 billion from Norway. The Amazon Fund is also the largest Reducing Emissions from Deforestation and Forest Degradation - Plus (REDD+) dedicated fund with 102 projects in Brazil and the Amazon biome worth USD 717

million (Shalatek & Watson, 2019). REDD+ is an enhanced version of REDD that seeks to create financial value for the carbon stored in forests, offering incentives for developing countries to reduce emissions from forested lands and invest in low-carbon paths to development.

Regional fund initiatives are the Caribbean Catastrophic Risk Insurance Facility and the African Risk Capacity.

PROBLEMS WITH EXISTING CLIMATE FUNDS

Funds are not compensatory

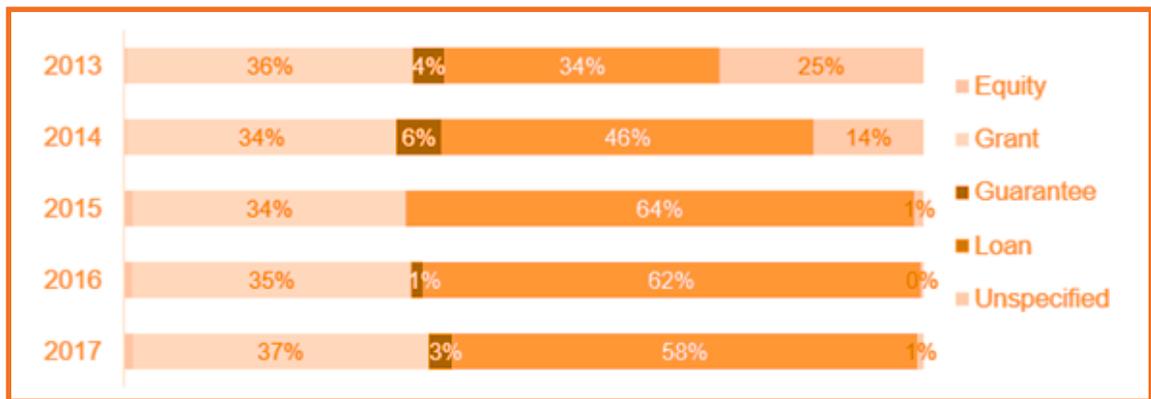
Although developed countries have accepted, at least formally, their financial obligations as parties to the UNFCCC, their provision of funding is not based on responsibility. Rather, they channel climate funding for developing countries as voluntary contributions.

This was clearly illustrated during GCF’s Initial Resource Mobilization period (Waslander & Amerasinghe, 2019). Pledges were based on discussions between potential contributors, representatives of the GCF Board and GCF management. Country pledges were not based on a rigorous methodology but were set, more or less arbitrarily, by each individual contributor based on the politics of the time.

As such, the USD 10.3 billion that resulted in the end was more accidental than a conscious effort to apply the CBDR and “polluter pays” principles by matching contributions on the size of countries’ economies and their current and historical GHG emissions.

Channeled through new and existing bilateral and multilateral channels, climate finance is increasingly taking the form of loans. The OECD’s latest climate finance report boasts of an upward trend in the climate funds mobilized by developed countries for developing countries reaching USD 71.2 billion in 2017, up from USD 58.6 billion in 2016.

Figure 4. Developed countries’ bilateral public climate finance per instrument

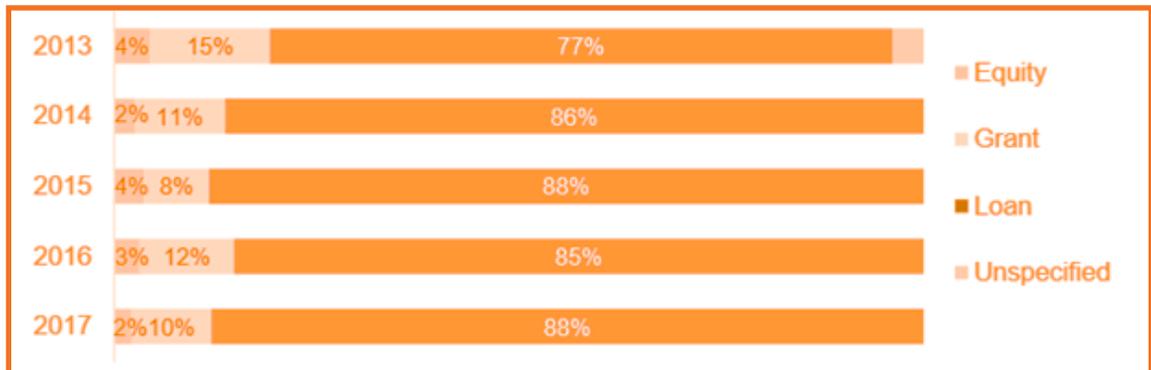


Source: OECD (2019)

However, from the period of 2013 to 2017, loans accounted for about 60% of bilateral and close to 90% of multilateral climate finance compared to only over 30% of bilateral and less than 10% of multilateral finance for grants. While grants financing increased by 25% between the same period, loans doubled

their reach from USD 19.8 billion in 2013 to USD 39.9 billion in 2017(See figures 4 and 5) (OECD, 2019). This means that funds are owed to donors, turning the obligatory relationship around. Worse, funds that are supposed to lift developing and least developed countries drive them further in crisis.

Figure 5. Multilateral public climate finance (attributed to developed countries) per instrument



Source: OECD (2019)

The discretionary nature of climate funds results in financial inadequacy and unpredictability. There is little sign that the USD 100 billion pledge will be achieved, yet alone more ambitious targets. This insufficiency and unreliability in climate funding is delaying urgent adaptation and mitigation actions in the poor countries, and hampers their compensation by the North.

The United States, the all-time biggest greenhouse emitter on the planet, has threatened to leave the Paris Agreement. Out of the USD 3 billion that the US under Obama pledged to contribute to the GCF, it has only managed to deliver USD 1 billion (Congressional Research Service, 2019). Pres. Donald Trump has since bailed on the GCF and deleted all references to climate finance from the State Department website. Most recently, Australia has followed the US in stopping contributions to the GCF. This is concerning given that GCF will need to be replenished by 2020 and must progress beyond previous efforts.

Funds also do not represent new and additional funding as some developed countries continue to count their climate funds as part of their Official Development Assistance (ODA). Between 2014 and 2017, the share of climate-related ODA reported to OECD DAC was around 20-21%, the vast majority of which was counted towards donor commitments to increase aid to 0.7% of GNI (OECD, 2019).

Donors control the funds.

The inequitable and unaccountable control of resources by the North and corporations is one root of the current climate crisis. The existing global climate finance governance structures preserve this unfair arrangement.

In February 2019, GCF reported that 86% of its total funding for climate project had been channeled through international players rather than directly to countries where the projects are being built. The European Bank for Reconstruction and Development (EBRD) accounts for the largest value of GCF-approved funding (18% of the total, 6 projects), followed by the United Nations Development Programme (UNDP) (13%,

These recent findings follow the same observations made by CSOs of ODA trends from the period 2014 to 2016. According to Reality of Aid (2018), if bilateral climate finance were recognized as distinct flows, provider ODA would have been 14% less in 2016, going from USD 132.3 billion to USD 113.8 billion when climate finance commitments are taken into account. When climate finance commitments are removed from ODA, real ODA commitments have actually declined since 2014.

Part of the problem stems from the fact that there has yet to be an agreed definition of what “new and additional” means. Australia, for instance, claims that its finance is new and additional because it is newly committed or disbursed during the same reporting period, but not because it is in addition to the 0.7% target or in line with rising aid trajectory (Ryan, 2019).

Increased climate finance within ODA will thus most likely occur in the absence of real and substantial overall growth of ODA, reducing developing countries’ access to ODA for other equally important development purposes – a scenario that many developing countries and CSOs at the COP sessions in Bali and Copenhagen already feared would happen (Reality of Aid, 2018).

19 projects), World Bank (13%, 9 projects), and Asian Development Bank (ADB) (8%, 9 projects) (See figure 6) (Green Climate Fund, 2019).

From 2015 to 2018, the amount of GCF funding approved per year for IAEs increased by seventeen-fold from USD 107 million in 2015 to USD 1.8 billion in 2018. In contrast, GCF for DAEs during the same period increased only by seven percent.

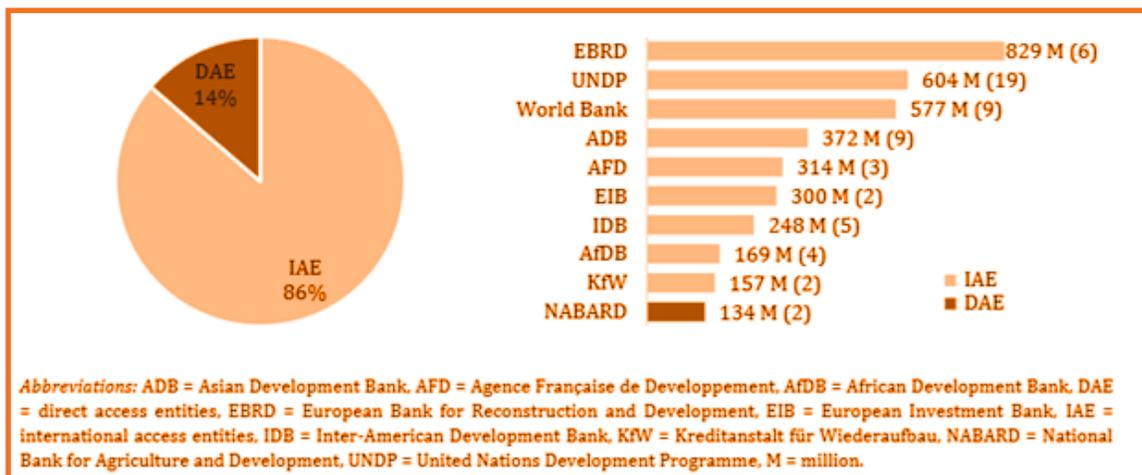
Developing countries rarely receive direct funding from the GCF to undertake the financing and development of the projects by their own government agencies or national companies (Nijkraak, 2019). Instead

of facilitating access to the funds, developing countries face impediments and complex bureaucratic procedures.

As a form of financial insurance, the GCF funding requires countries to raise significant co-financing which can be sourced through their own tax base or the private sector

(Mattar, Kansuk, & Jafry, 2019). For poor countries, this is a significant barrier. This also raises the question whether GCF is indeed benefiting developing countries that are most vulnerable to the climate crisis, or instead those countries with the most lucrative investment opportunities.

Figure 6. : GCF funding amounts by access modality and accredited entity in USD (number of projects)



Source: GCF (2019)

The Corporatization of the Climate Funds

Efforts to scale public finance have stalled and developed countries, such as the US and Australia, are renegeing on their climate finance commitments. Meanwhile, the cost of what is needed only increases with each passing year.

Thus, there is a push to mobilize private finance to meet the USD 100 billion commitment. According to the latest statistics, around USD 14.5 billion in private climate finance were mobilized in 2017 by developed countries' public climate finance (through both bilateral and multilateral channels) (OECD, 2019).

However, over-reliance on private finance poses risks that may potentially undermine the climate and development goals of poor countries (Oxfam, 2013).

For one, private finance may not be the most appropriate to address the needs of the poorest. Climate change will create, and indeed in some instances have already created, increased needs for basic services

and goods such as water, infrastructure, and disaster preparedness. As part of building peoples' climate resilience these services and goods must be adequate, affordable, and accessible, especially for the most vulnerable. However, these services may not necessarily be attractive to private investments because of their low rates of return and associated risks and so public finance will be essential.

The appetite for greater returns may unlikely attract private investments for small-scale, but nevertheless critical, community adaptation initiatives that address the needs of those disproportionately affected by climate change. Emphasizing private finance mobilization – which has historically flowed almost exclusively to mitigation – risks aggravating the continuing neglect of adaptation, an area critical in lifting the most vulnerable but poor in attracting for-profit-ventures.

While more money can be made in mitigation, poor countries are far less likely to have high mitigation needs (LDCs are among

the world's lowest per capita GHG emitters) and economies of scale big enough to attract much private finance. Thus, a private finance-focused climate finance architecture would largely bypass the energy needs of low income countries.

Indeed, in 2017, around USD 52.4 billion out of USD 71.2 billion (73%) of climate finance provided by the developed countries to developing countries were spent for mitigation and only USD 13.3 billion (19%) for adaptation (the remaining USD 5.5 billion or 8% for cross-cutting activities) (OECD, 2019). Predictably, least developed countries are the ones repeatedly left behind. In 2015, they received only 30% of international public climate finance (Steele, 2015), while in a recent review, just 18% of funds went to projects in the poorest countries while 65% went to middle-income countries (Mattar, Kansuk, & Jafry, 2019). The latter is preferred because they are able to generate income and attract private investments.

For instance, a state-owned geothermal developer in Indonesia was given a USD 160 million grant, the largest grant given to a single country by the GCF, to mitigate financial risk from developing geothermal projects. This project, co-financed by the World Bank with a USD 325 million loan, was made possible by Indonesia's ability to generate income and attract co-financers as a middle-income country. This is despite

False solutions

Existing climate finance mechanisms and channels are increasingly being utilized not to deliver long-term emission cuts, or help achieve environmental and climate justice but to perpetuate business as usual.

For instance, funding for climate mitigation in developing countries are being channeled towards payments for ecosystem services (PES) projects, primarily REDD and REDD+. The idea behind PES is to pay landowners to protect their land in the interest of ensuring the provision of "service" rendered by nature such as clean water, habitat for wildlife, or carbon storage in forests. Many existing PES projects are funded through the UN's REDD+ program, which was enshrined in the Paris

protests from national and regional civil society organizations of the geothermal project's potential negative social and environmental impacts (Indonesian Civil Society Organizations, 2018).

In contrast, in 2017, USD 100 million GCF funding proposal of Ethiopia designed to make farmers and pastoralists more resilient with improved water supplies and farming techniques was put in limbo because of its supposed "little scope for innovation" (Darby, 2017) and lack of co-financing (Mattar, Kansuk, & Jafry, 2019). The proposal was eventually approved after the Ethiopian government put forward USD 5 million in co-financing and reduced the grant request by more than half.

It is also notable that as the GCF has gained greater attention and importance, the Least Developed Countries Fund (LDCF) under GEF, meanwhile, has gradually been neglected. The LDCF is the only climate fund set up specifically for the 48 countries classified by the UN as most economically vulnerable.

Currently, LDCF has around USD 1.3 billion of voluntary contributions from donors (Global Environment Facility). This is insufficient. In Bangladesh alone, around USD 50 billion annually will be needed to maintain climate adaptation.

Climate Agreement as a stand-alone article. Approvals for REDD+ over the last five years averaged at USD 220 million, while the cumulative approval for REDD+ since 2008 amounted to USD 2.4 billion (Watson & Schalatek, 2019). In October 2017, at its 18th meeting, the GCF Board decided to pilot results-based payments for REDD. Over a five-year period, the GCF will pay up to USD 500 million for REDD (REDD-monitor.org, 2018).

PES has been criticized as ineffective both in terms of their environmental and socio-economic outcomes (Gaworecki, 2017). PES schemes have dubious additionality since it is impossible to show that emissions

reductions through offsetting projects such as REDD or REDD+ would not have taken place anyway. Without this guarantee, GHG emissions actually increase since offset credits give industrial countries the license to continue to pollute. PES schemes then allow industrialized countries to use up the little remaining atmospheric space available for the benefit of their corporations, denying developing and poor countries the right to use this to develop and lift their populations out of poverty.

Cuts in GHGs must take place in all major-emitting countries to successfully confront climate change. Offsetting delays the urgent domestic changes that need to take place in rich industrial countries in the Global North, who are largely responsible for climate change. PES thus can lock-in high carbon infrastructure, making the later transition far more difficult and expensive.

Yet another false solution being promoted by developed countries and international

TOWARDS A JUST GLOBAL CLIMATE FINANCE

The current donor-controlled, corporate-driven global climate finance architecture replicates the injustices that are inherent in the monopoly and abuse of the planet's commons. It is symbolic not only of the Northern elites and their transnational corporations' continued command over global resources, but also their power to set policies and agenda according to their needs.

The global climate finance architecture needs a bold reframing around the principles of social equity, climate justice, ecological balance, and human rights. These principles must guide the planning, implementation and funding of all climate actions to help countries transition from the underlying conditions of profit-driven, unrestrained, and unsustainable models of growth.

The CBDR principle maintains that countries' respective climate finance payment responsibilities for taking urgent and long-term climate action depend on their capacity to fulfill this obligation. Countries

financial institutions in place of the delivery of dedicated loss and damage finance is climate risk insurance, where, in most cases, developing countries pay the insurance premiums. An example of such a mechanism is the InsuResilience Global Partnership for Climate and Disaster Risk Finance and Insurance Solutions which was officially launched at COP 23 in 2017.

Insurance as a means of response to loss and damage is unfair since it places the cost of climate change on those suffering its consequences, but not on those who have caused it. Additionally, in terms of effectiveness, climate risk insurance's impact is only marginal. In the experience of Dominica, insurance covered just 1.5% of the total loss and damage costs suffered in 2017 (Stamp Out Poverty, 2017). Moreover, the increasing severity of range and impacts from extreme weather events due to global warming makes risks harder to forecast and insurance more difficult (Covero & Yap-eo, 2018).

must ensure that any financial contribution does not lead to further impoverishment or marginalization of their most vulnerable and does not jeopardize people's right to a secure livelihood.

Related to CBDR, the polluter pays principle implies that the level of both historical and current gas emissions must be commensurate with the amount that countries should pay for climate action. In this light, climate finance should be distinguished from development finance. Both should have development dimensions, but climate finance is specific to financing for climate mitigation and adaptation and constitutes restitution for climate responsibility by the North. This is distinguished from ODA which is voluntary financial support through grants or loans for poverty eradication and supporting the capacity of developing countries to address the human rights of their populations towards sustainable development of their societies.

In this light, climate finance, as promised in Rio Climate Convention in 1992 and Bali

Action Plan in 2007, should be additional to existing ODA commitments to avoid funding for development needs being siphoned to climate action. The concept of additionality should also look into who benefits from climate finance. For instance, funding for mitigation activities such as wind or solar farms replacing a fossil fuel project is additional and beneficial to the community if it is able to provide greater quality and quantity of energy. Otherwise, funding is simply diverted from the existing ODA budget (Ryan, 2019).

To prevent or minimize the causes of climate change and mitigate its adverse effects, climate finance needs to be adequate to keep a global temperature rise as low as possible. Cumulative national estimates of need, based on countries' Nationally Determined Contributions (NDCs), provide an important bottom-up reference of adequacy, especially as increasing ambition in many of the NDCs – whose cumulative action still sets a trajectory for global temperature to rise significantly above 2°C – will require higher levels of investment (Schalatek & Bird, 2018).

A sustained and predictable flow of climate finance is important for meaningful investment planning in developing countries for them to maintain or improve efforts or to jumpstart national adaptation and mitigation projects. Long-term and reliable flow of finances must be assured rather than rely on "voluntary contributions" from industrialized countries since these will be subject to changing administration priorities and preferences, short-term budgetary or revenue fluctuations and horse-trading.

Focus on the most vulnerable should not only refer to countries but also local communities including indigenous peoples, farming communities, coastal communities, urban slums, fisher folk, rural women, children, and other marginalized groups in society. Public finance, not private finance, is the most dependable to meet the adaptation needs of these sectors.

This is not to say that private sector has no role to play in contributing to achieving national and global priorities on climate change. However, the term private sector

needs to be unpacked and their participation qualified.

For instance, the private sector's role in climate finance should not translate into governments rewarding the global fossil fuel industry with tax breaks and subsidies that according to the International Monetary Fund reached USD 5.2 trillion in 2017 (2019). Such a trend should be countered, insisting on the principle of polluters pay, not polluters incentivized. Currently, there are strong calls from civil society for a climate damage tax (CDT): a levy on the extraction of coal, oil, and gas, charged on the fossil fuel industry to be allocated to an international facility to pay loss and damage costs of affected communities, and to pay for the transition to renewable energy, green transport, and jobs (Stamp Out Poverty, 2017). The review of the Warsaw International Mechanism at the COP 25 is a timely opportunity to finally seriously discuss and implement means for financing loss and damage, including through CDT. Other new and innovative sources that could be explored include carbon pricing for aviation and a financial transaction tax (Reality of Aid, 2018).

Meanwhile, climate finance channels and funds like the GCF, for example, should prioritize support for developing country micro, small and medium enterprises with special efforts to reach the informal economy. It should promote the use of local goods and services to increase climate finance's positive impact on the local economy and employment to help communities become more resilient to climate change.

Management and control of climate funds should operate based on transparency, accountability, and equitable representation. Transparency in the governance of climate funds means that information is accurate, comprehensive, and timely. Accountability demands the existence of an accessible redress mechanism to enable a country or affected citizens to challenge climate funding decisions or climate finance project implementation. Equitable representation goes beyond a focus on proportion but should demonstrate a definitive break with existing donor-recipient relationships. Southern governments and peoples should have sovereign control over funds, and

access to funding should not be tied with policy conditions. Funding decisions must be devolved to local levels where programs and strategies can be deliberated on with the democratic participation of communities. This should help ensure that local needs are identified and prioritized, and existing local knowledge and initiatives are recognized and utilized.

Applying the principles of effective development cooperation such as the Paris Declaration on Aid Effectiveness and Accra Agenda for Action, Rio Declaration (Principle 10), the Busan Partnership for Effective Development Cooperation, and the Nairobi Outcome Document, the global climate finance architecture must foster national and democratic ownership and alignment.

Developing countries must have the space to define and achieve their own objectives and must exercise effective leadership over their respective development strategies, policies and programs to attain climate resiliency. While climate action must adhere to globally coherent framework, each country must democratically define its own needs, strategies, policies, programs and budgets for climate adaptation, and on that basis decide what climate finance to employ and how.

Closely linked to country ownership is alignment. External support must be in line with each country's climate policies, systems and processes, instead of ignoring, replacing or negating them.

There is a need to harmonize the approaches and priorities of all funding channels and procedures, ensuring coordination and

policy coherence across global, regional, country, and sectoral levels to enhance the effectiveness of climate finance. There must be no place for incoherent policies and actions such as ODA, World Bank loans, or even the GCF being used to finance fossil fuel economy in developing countries. Climate actions and finance must also be coherent with other broad policy instruments such as human rights, sustainable development, and right to development.

Finally, global climate channels must strive to further enhance peoples' meaningful participation. Communities through their organizations must have a principal role in the identification, definition, implementation and evaluation of programs, projects and activities for mitigation and adaptation. In this light, the new global climate finance architecture must uphold the principle of free, prior, and informed consent of indigenous peoples and rural communities that are oftentimes negatively affected not only by the consequences of climate change but also by the very policies purported to address them.

Currently, indigenous peoples, the rural poor, women, and other marginalized grassroots sectors are not recognized as constituencies meriting their own representations at the GCF. Instead, they are represented by two "active observers" speaking on behalf of all civil society at the GCF Board meetings. A genuinely transformative and just climate accord, built on a foundation of respect for peoples' rights and wellbeing, must enhance the contributions of grassroots sectors to climate change solutions and encourage and support existing alternative mitigation and adaptation practices on the ground.

Box 3. Cultivating grassroots climate adaptation and mitigation initiatives: Bungalan in the Philippines

In the special report on Climate Change and Land Systems in August 2019, the Intergovernmental Panel on Climate Change pointed out that the Paris climate goals could not be achieved without a change of course towards sustainable food systems. Along this line, agroecology, or agricultural production that uses bio-diverse systems and integrated and diversified farming approaches combined with local knowledge systems, stands as a concrete alternative to chemical-based, corporate agriculture.

In the Philippines, climate change has aggravated the strong typhoons that regularly hit the country, affecting farmers who compromise the majority of the workforce. These negative impacts occur on top

of the land grabbing, land conversion, agricultural liberalization, rising prices of food and basic commodities, and militarization of the countryside that keep Filipino farmers poor and vulnerable.

Amid government inaction, thousands of farmers under Kilusang Magbubukid ng Pilipinas (Philippine Peasant Movement or KMP), launched bungkalan or occupying lands to collectively plant food crops. In Negros region, more than 5,000 agricultural workers have cultivated 3,000 hectares of land since 2009. The collective farms have staved off hunger of at least 5,000 farm workers especially during tiempo muerto (dead season) in sugar plantations. Farmers in other regions have also launched their own bungkalan campaigns:

- Southern Tagalog: nearly 1,000 hectares of land cultivated by 3,000 families
- Central Luzon: farmers from Nueva Ecija, Tarlac and Pampanga cultivated more than 600 hectares of land
- Panay: farm workers cultivated more than 400 hectares of land
- Caraga: nearly 2,000 hectares of land are reclaimed and cultivated by more than 600 agrarian reform beneficiaries

According to Angie Ipong of Unyon ng mga Manggagawa sa Agrikultura (Union of Agricultural Workers or UMA), bungkalan addresses two basic issues farmers face: control of the land they till and food security. In this sense, bungkalan is both mitigation and adaptation as conceived and developed by farmers on the ground based on their own knowledge, practices and priorities.

Bungkalan, according to Ipong, reiterates a call away from monoculture farming, harmful chemical fertilizers, commercialized seed sources – practices that came from World Bank's Green Revolution which valued singular, high-yielding, and chemical-dependent crop varieties which resulted to farmers being trapped in debt, land poisoning, and depletion.

In 2017, UMA published a book titled "Bungkalan: Manwal sa Organikong Pagsasaka" (Bungkalan: Manual on Organic Farming). The book is highly regarded as an essential manual for anyone interested in the "critical intersection between organic farming and healthy eating on one hand, and issues like land ownership and food sovereignty, on the other".

"We call for a paradigm shift. From highly chemical seeds and fertilizers, we want to foster organic farming system. It's also scientific because it adapts to nature, it is an adaptation in natural ways," she said.

Most importantly, bungkalan is being carried out in the context of Filipino peasants' collective struggle for genuine land reform and climate justice and for an end to feudal land relations that are deeply tied to foreign corporate interests for natural resources and wealth.

Sources: Bueno, Anna (2019). *In Bungkalan, organic and sustainable farming is a mass movement*. Retrieved October 30, 2019 at CNN Web site: cnnphilippines.com/life/culture/2019/4/2/bungkalan.html.
 Olea, Ronalyn (2018). *Fighting off hunger, thousands launch collective farming*. Retrieved October 30, 2019 at Bulatlat Web site: <https://www.bulatlat.com/2018/10/20/fighting-off-hunger-thousands-launch-collective-farming/>.

BIBLIOGRAPHY

- Alston, P. (2019). *Climate Change and Poverty*. New York: United Nations.
- American Meteorological Society. (2019). *Explaining Extreme Events of 2017 from a Climate Perspective*. Boston and Washington DC: American Meteorological Society.
- Asfaw, S., & Maggio, G. (2018). Gender, weather shocks and welfare: evidence from Malawi. *Journal of Development Studies*, 271 - 291.
- Bueno, Anna. (2019, April 2). In bungkalan, organic and sustainable farming is a mass movement. Retrieved October 30, 2019, from CNN Philippines Web site: <https://www.cnnphilippines.com/life/culture/2019/4/2/bungkalan.html>.
- Buhr, B., Donovan, C., Kling, G., Lo, Y., Murinde, V., Pullin, N., et al. (2018). *Climate Change and the Cost of Capital in Developing Countries: Assessing the impact of climate risks on sovereign borrowing costs*. London: United Nations Environment; Imperial College Business School; University of London.
- Centre for Research on the Epidemiology; United Nations Office for Disaster Risk Reduction. (2017). *Economic Losses, Poverty and Disasters 1987 - 2017*. Brussels: Centre for Research on the Epidemiology.
- Congressional Research Service. (2019, October 2). *The Green Climate Fund*. Retrieved October 21, 2019, from Congressional Research Service Web site: <https://crsreports.congress.gov/product/pdf/IF/IF10382>.
- Covero, Lorelei & Yap-eo, Jane. (2017). *Angkas and Tiklos: Cooperation and Volunteerism Towards Community Resiliency*. Retrieved October 30, 2019, from Rosa Luxemburg Stiftung Web site: https://www.rosalux.de/fileadmin/images/Dossiers/Klimagerechtigkeit/rls_climate_risk_A5_for_web.pdf.
- Darby, M. (2017, June 4). *Green Climate Fund 'a laughing stock', say poor countries*. Retrieved October 21, 2019, from Climate Home News: <https://www.climatechangenews.com/2017/04/06/green-climate-fund-laughing-stock-ethiopia-bid-left-limbo/>
- Diffenbaugh, N. S., & Burke, M. (2019). *Global warming has increased global economic inequality*.
- Edwards, G., & Roberts, J. (2015). *A fragmented continent: Latin America and the global politics of climate change*. Cambridge MA: MIT Press.
- Food and Agriculture Organization of the United Nations. (2017). *The Impact of Disasters and Crises on Agriculture and Food Security*. Rome: Food and Agriculture Organization of the United Nations.
- Global Environment Facility. (2019). *GEF: Funding*. Retrieved October 16, 2019, from The Global Environment Facility Web site: <https://www.thegef.org/about/funding>
- Global Environment Facility. (n.d.). *Least Developed Countries Fund - LDCF*. Retrieved October 21, 2019, from Global Environment Facility Web site: <http://www.thegef.org/topics/least-developed-countries-fund-ldcf>
- Green Climate Fund. (2019, April 30). *Status of Pledges and Contributions made to the Green Climate Fund*. Retrieved October 18, 2019, from Green Climate Fund Web site: https://www.greenclimate.fund/documents/20182/24868/Status_of_Pledges.pdf/eef538d3-2987-4659-8c7c-5566ed6afd19
- Green Climate Fund. (2019, February 26-28). *Status of the GCF portfolio: approved projects and fulfilment of conditions*. Retrieved October 21, 2019, from Green Climate Fund Web site: https://www.greenclimate.fund/documents/20182/1424894/GCF_B.22_Inf.07_-_Status_of_the_GCF_portfolio__approved_projects_and_fulfilment_of_conditions.pdf/8e18bb34-02b8-6f23-a261-c1f7bcb46499
- IBON International. (2012). *IBON Primer on Climate Change*. Quezon City: IBON International
- Indonesian Civil Society Organizations. (2018, October 18). *Letter from Indonesian Civil Society Organisations to Green Climate Fund Board Members on World Bank-proposed Geothermal Project*. Retrieved October 21, 2019, from Asia Pacific Forum on Women, Law, and Development Web site: <https://apwld.org/letter-from-indonesian-civil->

society-organisations-to-green-climate-fund-board-members-on-world-bank-proposed-geothermal-project/

International Institute for Environment and Development. (2019, September). Time to redress the globally unjust cost of climate change. London, United Kingdom.

International Labour Organization. (2018). World Employment and Social Outlook 2018: Greening with jobs. Geneva: International Labour Organization.

International Monetary Fund. (2019, May 2). Global Fossil Fuel Subsidies Remain Large: An Update Based on Country-Level Estimates. Retrieved October 30, 2019, from International Monetary Fund Web site: <https://www.imf.org/en/Publications/WP/Issues/2019/05/02/Global-Fossil-Fuel-Subsidies-Remain-Large-An-Update-Based-on-Country-Level-Estimates-46509>.

IPCC. (2019, August 7). Climate Change and Land: an IPCC special report on climate change, desertification, land degradation, sustainable land management, food security, and greenhouse gas fluxes in terrestrial ecosystems. Retrieved October 4, 2019, from IPCC Web site: https://www.ipcc.ch/site/assets/uploads/2019/08/Edited-SPM_Approved_Microsite_FINAL.pdf

Least Developed Countries Group on Loss and Damage. (2012). Submission by the Gambia on behalf of the Least Developed Countries Group on Loss and Damage. LDC Climate Change.

Lottje, C., Affana, J. P., Eckstein, D., & Weischer, L. (2019). Engaging with the Green Climate Fund: A Civil Society Toolkit. Bonn: Germanwatch.

Mattar, S., Kansuk, S., & Jafry, T. (2019, May 10). Global climate finance is still not reaching those who need it most. Retrieved 21 2019, October, from The Conversation: theconversation.com/global-climate-finance-is-still-not-reaching-those-who-need-it-most-115268

Minority Rights Group International. (2019). Minority and Indigenous Trends 2019: Focus on Climate Justice. London: Minority Rights Group International.

Nijkraak, L. (2019, May 16). Should poor countries control their own climate projects? Retrieved October 21, 2019, from News-Decoder:

<https://news-decoder.com/2019/05/16/green-climate-fund-environment-development-aid/> NOAA National Centers for Environmental Information. (2019, July). Global Climate Report 2019. Retrieved September 16, 2019, from NOAA National Center for Environmental Information: <https://www.ncdc.noaa.gov/sotc/global/20190>

OECD. (2019, September 13). Climate Finance Provided and Mobilised by Developed Countries in 2013-17. Retrieved October 18, 2019, from OECD Web site: https://www.oecd-ilibrary.org/environment/climate-finance-provided-and-mobilised-by-developed-countries-in-2013-17_39faf4a7-en

Overseas Development Institute. (2009). The Little Climate Finance Book: a guide to financing options for forests and climate change. Oxford: Global Canopy Foundation.

Oxfam. (2013, November). Adaptation and the \$100 Billion Commitment. Retrieved October 22, 2019, from Oxfam Web site: https://www.oxfam.org/sites/www.oxfam.org/files/ib-adaptation-public-finance-climate-adaptation-181113-en_0.pdf

Oxfam. (2018). Climate Finance Shadow Report 2018. Retrieved October 21, 2019, from Oxfam Web site: https://www-cdn.oxfam.org/s3fs-public/file_attachments/bp-climate-finance-shadow-report-030518-en.pdf

Peterson, K. (2011, March 28). Reaching Out to Women When Disaster Strikes. Retrieved September 23, 2019, from Women's UN Report Network: <https://wunrn.com/2011/03/soroptimist-reaching-out-to-women-when-disaster-strikes/>

Reality of Aid. (2018). Reality of Aid 2018 Report: The changing faces of aid and cooperation: encouraging global justice or buttressing inequalities. Quezon City: IBON International.

Richards, J.-A., & Schalatek, L. (2018, August). Not a silver bullet: Why the focus on insurance to address loss and damage is a distraction from real solutions. Retrieved October 22, 2019, from Heinrich Boell Stiftung: https://us.boell.org/sites/default/files/not_a_silver_bullet_1.pdf

Rogelj, J., Shindell, D., Jiang, K., Fifita, S., Forster, P., Ginzburg, V., et al. (2019). Mitigation Pathways Compatible with 1.5°C in the Context of Sustainable Development. In I. P. Change, Global Warming of 1.5°C (pp. 93-174). In Press.

- Ryan, F. (2019, April 24). Separating climate finance and ODA. Retrieved October 21, 2019, from Reliefweb: <https://reliefweb.int/report/world/separating-climate-finance-and-oda>
- Schalatek, L., & Bird, N. (2018, November). The Principles and Criteria of Public Climate Finance. Retrieved October 22, 2019, from Climate Funds Update: <https://climatefundsupdate.org/wp-content/uploads/2018/11/CFF1-2018-ENG-DIGITAL.pdf>
- Shalatek, L., & Watson, C. (2019, February). The Global Climate Finance Architecture. Retrieved October 18, 2019, from Climate Funds Update: <https://climatefundsupdate.org/publications/the-global-climate-finance-architecture-2018/>
- Shalatek, L., & Watson, C. (2018, November). The Green Climate Fund 2018. Retrieved October 18, 2019, from Climate Funds Update: <https://climatefundsupdate.org/publications/the-green-climate-fund/>
- SIPRI. (2019, April 29). World military expenditure grows to \$1.8 trillion in 2018. Retrieved October 1, 2019, from Stockholm International Peace Research Institute (SIPRI) Web site: <https://www.sipri.org/media/press-release/2019/world-military-expenditure-grows-18-trillion-2018>
- Stamp Out Poverty (2017). Climate damages declaration. Retrieved October 30, 2019, from Stamp Out Poverty: <https://www.stampoutpoverty.org/climate-damages-tax-declaration/>
- South China Morning Post. (2017, September 17). By 2030, flooding and extreme weather could cost South Asian countries US\$215 billion every year. Retrieved September 19, 2019, from South China Morning Post: <https://www.scmp.com/news/asia/south-asia/article/2111042/2030-flooding-and-extreme-weather-could-cost-south-asian>
- Steele, P. (2015). Development finance and climate finance: Achieving zero poverty and zero emissions. London: International Institute for Environment and Development.
- The Global Environment Facility. (n.d.). GEF: Our Work. Retrieved October 16, 2019, from Global Environment Facility: <https://www.thegef.org/our-work>
- The Green Climate Fund. (n.d.). GCF: Who we are. Retrieved October 18, 2019, from GCF Web site: <https://www.greenclimate.fund/who-we-are/about-the-fund>
- The Green Climate Fund. (2019). Raising Ambition, Empowering Action: Report on the progress of the Green Climate Fund during its initial resource mobilization period (January 2015 to July 2019). Incheon: Green Climate Fund.
- Trujillo, N. C., & Nakhooda, S. (2013, March). The effectiveness of climate finance: a review of the Adaptation Fund. Retrieved October 18, 2019, from The effectiveness of climate finance: a review of the Adaptation Fund: <https://www.odi.org/publications/7381-multilateral-climate-finance-effectiveness-adaptation-fund-unfccc>
- UNFCCC. (n.d.). Introduction to Climate Finance. Retrieved October 16, 2019, from UNFCCC Web site: <https://unfccc.int/topics/climate-finance/the-big-picture/introduction-to-climate-finance>
- UNFCCC. (2012). Slow onset events. Geneva: United Nations.
- UNFCCC. (2015, December 12). The Paris Agreement. Retrieved October 1, 2019, from United Nations Climate Change: <https://unfccc.int/process-and-meetings/the-paris-agreement/the-paris-agreement>
- UNFCCC. (n.d.). What do adaptation to climate change and climate resilience mean? Retrieved October 1, 2019, from United Nations Climate Change: <https://unfccc.int/topics/adaptation-and-resilience/the-big-picture/what-do-adaptation-to-climate-change-and-climate-resilience-mean>
- Wallace-Wells, D. (2019). The Uninhabitable Earth. New York: Tim Duggan Books.
- Waslander, J., & Amerasinghe, N. M. (2019, April 3). How Much Should Countries Contribute to the Green Climate Fund's Replenishment? Retrieved October 19, 2019, from World Resources Institute: <https://www.wri.org/blog/2019/04/how-much-should-countries-contribute-green-climate-funds-replenishment>
- Watson, C., & Schalatek, L. (2019). The Global Climate Finance Architecture. Washington DC: Heinrich Boell Stiftung North America.

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