
CAN CLIMATE CHANGE FUELLED LOSS AND DAMAGE EVER BE FAIR?

NOVEMBER 2019



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- FIAN Nepal
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- Indian Network on Ethics and Climate Change
- Indian Social Action Forum
- KRuHA, Indonesia
- Malaysian Nature Society
- Mom Loves Taiwan Association
- National Hawker Federation, India
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- Climate Action Now, Canada
- Climate Justice Project, United States
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- Earth Ethics, Inc., United States
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- Friends of the Earth U.S.
- Green 13, Canada
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- Indigenous Environmental Network, United States
- Institute for Agriculture and Trade Policy, United States
- Institute for Policy Studies Climate Justice Program, United States
- Interfaith Power & Light, United States
- Society of Catholic Medical Missionaries, International
- Stop Line 9 Toronto, Canada
- Sustainability and Education Policy Network, Canada
- Texas Interfaith Center for Public Policy/Texas Impact, United States
- UC Santa Barbara Environmental and Climate Justice Hub, United States
- Unitarian Universalist Service Committee (UUSC), United States
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- Windfall Ecology Centre, Canada
- World Federalist Movement – Canada

OCEANIA

- Aotearoa New Zealand Human Rights Foundation
- Blacktown & District Environment Group, Australia
- Climate Action Monaro, Australia
- Climate Change Balmain-Rozelle, Australia
- Hawai'i Institute for Human Rights, Hawaii
- Human Rights Foundation Aotearoa New Zealand
- New Zealand Climate Action Network
- New Zealand College of Public Health Medicine
- Ora Taiao: New Zealand Climate & Health Council

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IPCC 1.5 °C REPORT *SUMMARY FOR POLICY MAKERS*:

“ **There are limits to adaptation and adaptive capacity for some human and natural systems at global warming of 1.5 °C, with associated losses (medium confidence).** ”

“ Even with major adaptation efforts, residual risks and associated losses are projected to occur (medium confidence), but context-specific limits to adaptation and residual risks remain difficult to assess. ”



SUMMARY AND KEY POINTS

It is far too late to pretend that any mitigation-only climate transition could suffice, or that there is a viable future in which the wealthy do not contribute in fundamental ways to alleviating the now unavoidable impacts of climate damage.

Many profound changes are now necessary, including changes to basic global systems. We must establish effective responses to climate disasters, recreate agriculture so as to be resilient in the face of destabilised ecosystems, respond to increasingly frequent migration crises in ways that honour human dignity and protect human rights. These are major societal undertakings that will unfold over time, but even in the immediate term the wealthy countries must begin providing public climate finance at the scale necessary to support not only adaptation but address loss and damage as well, and they must do so in accordance with their responsibility and capacity to act.

They can do so, and they can do so equitably (including in ways that are fair to the poor people within the wealthy world), in part through the use of new and innovative funding sources. In practice, this means wealthy countries would make the vast majority of contributions towards addressing current and anticipated climate impacts, while most of the poorer countries would have very negligible contributions.

It is important to stress that poorer countries are bearing the overwhelming majority of the human and environmental costs of climate change. Consider only one tragic incident – the Cyclones Idai and Kenneth – which caused more than \$3 billion in economic damages in Mozambique alone, roughly 20 % of its GDP, with lasting implications, not to mention the loss of lives and livelihoods. Given ongoing and deepening climate impacts, to ensure justice and fairness, COP25 must as an urgent matter operationalise loss and damage financing via a facility designed to receive and disburse resources at scale to developing countries.

Scaling down greenhouse gas (GHG) emissions through equitably distributed mitigation efforts will reduce the likelihood of runaway climate change for both present and future generations. The Paris Agreement's central aim is to strengthen the global response to the climate threat, with the specific goal of keeping the global temperature rise well below 2 °C (below pre-industrial levels) while pursuing efforts to limit it to 1.5 °C. The IPCC's October 2018 special report *Global warming of 1.5 °C* recognises that the weaker end of the Paris temperature target – a well below 2 °C global average surface temperature rise – would be catastrophic. Its findings have galvanised movements calling for enhanced action to aim for 1.5 °C warming.

Therefore, we must respond to, adapt to, and where possible repair the climate damages that have already occurred, and the climate damages that can no longer be prevented.

Such targets will obviously be incredibly challenging to achieve. If we are to have any chance at all, the attempt must be widely seen as fair. It must be recognised that responsibility for, and capacity to act on, mitigation, adaptation and addressing loss and damage varies tremendously across nations and among

classes. It must also be recognised that, so far, the Nationally Determined Contributions (climate action plans) that have thus far been proposed by the world's nations are not even close to being sufficient, putting us on track for approximately 4 °C of warming.ⁱ They are also altogether out of proportion to national capacity and responsibility, with the developing countries generally proposing to do their fair shares, and developed countries proposed far too little.

Unfortunately, as Kevin Anderson (Professor of Energy and Climate Change at the University of Manchester and a former Director of the Tyndall Centre for Climate Change Research) has said:

“ A 4 °C future is incompatible with an organized global community, is likely to be beyond ‘adaptation’, is devastating to the majority of ecosystems, and has a high probability of not being stable. ”

Which is to say that today's **mitigation** commitments are insufficient to prevent unmanageable climate change, and that – coming on top of historic emissions – they are setting in motion devastating changes to our climate and natural environment. These impacts are already prevalent, even with our current global average surface temperature rise of about 1 °C. Impacts include droughts, firestorms, shifting seasons, sea-level rise, salt-water intrusion, glacial retreat, the spread of vector borne diseases, and devastation from cyclones and other extreme weather events.

Some of these impacts can be minimised through **adaptation** measures designed to increase resilience to inevitable impacts. These measures include, for example, renewing mangroves to prevent erosion and reduce flooding caused by storms, regulating new construction so that buildings can withstand tomorrow's severe weather, using scarce water resources efficiently, building flood defences, and setting aside land corridors to help species migrate. It is also crucial with such solutions that forest dwelling and indigenous peoples be given enforceable land rights, for not only are such rights matters of basic justice, they are also pragmatic recognitions of the fact that indigenous peoples have successfully protected key ecosystems. Tackling underlying social injustices and inequalities – including through technological and financial transfers, as well as through capacity building – would also contribute to increasing resilience.ⁱⁱ

Other climate impacts, however, are unavoidable, unmanageable or unpredictable, leading to a huge degree of **loss and damage**. Experts estimate the financial damage also will reach at least USD\$300-700 billion by 2030, but the loss of locally sustained livelihoods, relationships and connections to ancestral lands are incalculable.ⁱⁱⁱ

Authoritative estimates indicate that by 2030 the global loss and damage associated with climate change impacts will require

financing for developing countries of at least USD\$300 billion annually, and that this need will reach approximately USD\$1.2 trillion per year by 2060.^{iv} Some estimates put prospective annual financial loss and damage from 2030 onwards at a far higher amount, with losses growing to USD\$400-430 billion per year for developing countries alone and total anticipated financial losses reaching USD\$600-700 billion.^v The Climate Vulnerable Forum and DARA (a Spanish NGO), estimate that developing countries could face financial losses of US\$4 trillion per year by 2030, with Least Developed Countries facing the largest damages proportionate to the size of their economies.^{vi} Notwithstanding an awareness of the difficulties in estimating financial loss and damage and the limited data we currently have, **we recommend a minimal annual goal of providing at least USD\$50 billion by 2022, and ratcheting up to USD\$150 billion by 2025 and USD\$300 billion by 2030 of financing for loss and damage through the UNFCCC's Warsaw International Mechanism for Loss and Damage (WIM).** And, given that this corresponds to a conservative estimate of damage costs, we further recommend the formalization of a global obligation to revise this figure upward as observed and forecast damages increase.

Numbers, of course, do not begin to fully encapsulate the “non-economic” costs of loss and damage.” These costs, difficult to measure or quantify, include human sickness and death, the destruction of valuable sites and artefacts, both individual and collective, the loss of biodiversity and many other harmful changes to ecosystems, sites of industry and creativity, values, identity and agency. In the face of such widespread harm, all sorts of reparation are in order, including not only financial restitution but also rehabilitation and guarantees of non-repetition. A variety of mechanisms will need to be put in place to accomplish these goals.

In all this, it is essential to recognise that impacts are disproportionately borne by those that have traditionally been socially, economically and politically excluded from the benefits of modern society, and are largely felt in developing countries where economic and social inequities within communities exacerbate ever worsening climate change impacts.^{vii} Scientists are revising their estimates of climate change impacts, warning that even current levels of warming will lead to far higher population exposure to sea-level rise and associated coastal flooding than had previously been anticipated.^{viii} The countries that contributed least to increasing the risk of such impacts – and whose adaptive capacity has been reduced as a result of slavery, colonialism and neo-liberal economic policies – must not be left to bear the greatest costs.

Developed countries have the bulk of the responsibility and capacity to deliver mitigation action and finance to support communities most exposed to current climate change impacts.

National pledges on action on mitigation, adaptation and addressing loss and damage must account for the fact that wealthy countries have disproportionately contributed to the global emissions burden and have greater economic and institutional capacity to act. For example, we estimate the EU's fair share of the global mitigation effort is to reduce GHG emissions by about 160 % below 1990 levels by 2030. It cannot do this solely within its own borders. Therefore, the EU and

other countries with similar or even higher levels of capacity and ecological debt must:

- radically and substantially increase their domestic action to reduce GHG emissions by designing and implementing policies that enable a swift and just and sustainable transition, in line with planetary boundaries, and away from resource and emission intensive economics;
- provide developing countries with finance, technology and capacity building to support mitigation, adaptation (including absorptive and coping capacities) and efforts to address loss and damage associated with climate change (including disaster response, policy space to enable social protection, and reparation).
- support the development of a global solidarity plan to enable rapid decarbonisation, climate-compatible, sustainable development for all, including especially the world's poorest people, who live in developing countries.

Enhanced mitigation efforts today would ensure that we respond to calls from environmental justice movements everywhere for a mobilization that takes account of poverty everywhere, and to the demands of young people for intergenerational equity. But we must also respond to the needs of the people who are already facing climate injustices as a result of impacts set in motion by historic emissions. Public climate financing with new and innovative sources is absolutely necessary for just this reason, and it must come at meaningful levels. Currently, the Paris Rulebook allows countries to count non-grant instruments as climate finance, including commercial loans, equity, guarantees and insurance. Under these rules, the United States could give a USD\$50 million commercial loan to Malawi for a climate mitigation project. This loan would have to be repaid at market interest rates – a net profit for the US – so its grant-equivalence is \$0. But under the Paris Rulebook, the US could report the loan's face value (\$50 million) as climate finance.^{ix} This is not acceptable.

COP25 must ensure that the WIM has robust outcomes and sufficient authority to deliver a fair and ambitious outcome for the poorest and most vulnerable in relation to loss & damage, including:

- 1) establishing a loss and damage financing facility,
- 2) a COP mandated Task Force on Action and Support to elaborate the parameters of that facility and approaches to generate new and additional public finance, including through new and innovative sources; and
- 3) a commitment to producing an annual loss and damage public climate financing gap report.



WHERE ARE WE? THE WORLD AT 1°C

Climate change threatens the safety of billions of people on this planet. People are losing their homes to increasingly severe wildfires, floods, and storms. Heat and water stress are increasing heat related health impacts, causing women to travel ever further for water, and reducing crop yields leading to hunger and poverty. Displacement, infrastructure damage, and diseases are spreading after extreme weather events. Seas are rising, causing coastal erosion, crop failures and displacement.

Michelle Bachelet, UN High Commissioner for Human Rights, recently warned that the climate crisis is the greatest ever threat to human rights.^x It threatens the rights to life, health, housing and a clean and safe environment. The UN Human Rights Council has recognised that climate change “poses an immediate and

far reaching threat to people and communities around the world and has implications for the full enjoyment of human rights.” In the Paris Agreement, parties to the UN Framework Convention on Climate Change (UNFCCC) acknowledged that they should – when taking action to address climate change – respect, promote and consider their respective obligations with regard to human rights. This includes the right to health, the rights of indigenous peoples, local communities, migrants, children, persons with disabilities and people in vulnerable situations and the right to development, as well as gender equality, the empowerment of women and intergenerational equity. **Tackling loss and damage will require a human-rights centred approach that promotes justice and equity.**

MORE FREQUENT AND EXTREME HEAT AND COLD

As we write this, though we have not yet reached the end of 2019, it seems that the period from 2015-2019 will be the hottest five-year period on record. The scale of heat cannot be explained without human caused climate change^{xi}. More frequent and extreme heat has already contributed to:

- extended and terrifying **wildfires** including in the Arctic circle, as well as Greece, Australia and California;
- deadly **heatwaves** from France to Pakistan, which disproportionately impact elderly people and those with pre-existing heart and lung conditions most;
- the proliferation of **vector-borne diseases** (such as dengue, yellow fever, Zika virus, and malaria); and

- more severe **droughts** leading to desertification, land degradation and food and nutritional insecurity due to a confluence of rising temperatures, erratic rainfall, and rising sea level.^{xii}

A warmer atmosphere also causes heavier snowstorms as hotter air holds more moisture, which is then released in heavier precipitation in the form of more intense rain or snow. The rapid melting of the Arctic is slowing the jet stream, bringing extreme cold spells and snowstorms. Extremes in heat and cold affect habitats, pushing species to extinction and farmers to untold hardship. These factors interact with and worsen pre-existing political instability, conflict, displacement, migration, and economic exclusion.

MORE FREQUENT AND EXTREME STORMS AND FLOODING

As a result of human caused climate change, cyclones, hurricanes and typhoons are bringing noticeably heavier rainfall, causing more flooding, stronger winds, and bigger storm surges. Especially warm ocean waters have contributed to the severity of these storms.

In November 2013, Typhoon Yolanda (Haiyan) devastated the Tacloban region of the Philippines, leading to 7,354 deaths, the damage or destruction of a million homes, and the displacement of four million people. Of the approximately USD\$10 billion of damages, only a small fraction was covered by insurance (between USD\$300 – 700 million). Also, insurance is not available for slow-onset events, nor in areas where extreme weather events are becoming increasingly common. Insurance also requires that vulnerable people and countries pay premiums, which is unfair in principle and in any case doomed to insufficiency, relative to the funds that will be necessary to minimise and repair harms. Vulnerable countries require additional support to address losses and damages.

CYCLONES IDAI AND KENNETH (2019) IN MOZAMBIQUE^{xiii}

In March 2019, Cyclone Idai struck Mozambique as well as Malawi and Zimbabwe. It was one of the strongest storms on record. Within weeks, Cyclone Kenneth, identified as the strongest cyclone in Mozambique’s history, surprisingly hit the north of the country. Never, since records began, has Mozambique been hit by two such strong storms in one year.^{xiv}

The cyclones left over two million people in need^{xv} of humanitarian services, over one million children in need of humanitarian services, 648 people dead, and infrastructure destruction, displacement, cholera, and crop damage everywhere. Cyclone Idai alone destroyed more than 1,720,000 acres of crops including corn, cassava, beans, rice and groundnuts such as peanuts. Women and girls are now often at a greater distance from water collection

points, sanitation facilities and health centres, which may be in unsafe locations, exposing them to worsened threats such as sexual and gender-based violence. With the destruction of health facilities, pregnant women have limited access to support for delivering their babies safely. Girls are more likely to miss out on education following the damage wrought to schools and learning materials following the cyclones.^{xvi} Mozambique said it needed USD\$3.2 billion^{xvii} to recover. To illustrate the scale of the local economic impact, this is about 20!% of Mozambique's GDP – and this does not even begin to capture the human and environmental costs of the disaster. In practice, the IMF granted it an emergency loan of USD\$118.2 million following Cyclone Idai.^{xviii}

Arriving after a strong El Nino linked drought, hunger and poverty have multiplied. The latest Southern Africa Development Community's Food and Nutrition Security Report, shows that 41 million people are now hungry in Southern Africa, compared to 29.4 million people in 2018. Years of unpredictable weather, inconsistent harvests, storms are eroding gains made toward poverty eradication and improved health. Chronic malnutrition,

impedes the functional and cognitive development, educational performance, and productivity of children.^{xix}

The June–July 2016 flooding in China^{xx} that killed more than 833 people, destroyed upwards of 400,000 houses and displaced

more than six million people was made significantly worse by human-caused climate change.

Eight weeks after Hurricane Dorian – the most intense tropical cyclone to ever strike the Bahamas – Prime Minister of Barbados, Mia Amor Mottley, Q.C., spoke at the United Nations Secretary-General's Climate Action Summit. She said:

“ For us, our best practice traditionally was to share the risk before disaster strikes, and just over a decade ago we established the Caribbean Catastrophic Risk Insurance Facility. But, the devastation of Hurricane Dorian marks a new chapter for us. Because, as the international community will find out, the CCRIF will not meet the needs of climate refugees or, indeed, will it be sufficient to meet the needs of rebuilding. No longer can we, therefore, consider this as an appropriate mechanism... There will be a growing crisis of affordability of insurance.^{xxi} ”

An April 2019 report from ActionAid revealed the insurance and other market based mechanisms fail to meet human rights criteria for responding to loss and damage associated with climate change.^{xxii} The impact of extreme natural disasters is equivalent to an annual global USD\$520 billion loss,^{xxiii} and forces approximately 26 million people into poverty each year.

MELTING ICE, OCEAN WARMING, RISING SEAS AND WATER STRESS

The amount of ice on Earth is declining. This is happening in glacier areas everywhere (the Himalayas, Andes, New Zealand, Rockies, Southern Alps and elsewhere) and in both the Arctic and Antarctic. This ice loss is driving sea level rise, reducing the earth's ability to reflect heat energy back out to space, and endangering unique ecosystems, as well as causing food and water stress.

GLACIER MELT IN PERU

Glacier outburst floods pose risk to downstream communities and infrastructure. Studies suggest 800-2100 people could be exposed to life threatening floods causing significant damage to infrastructure in the Bolivian Andes as result of a glacial lake outburst flood from Pelechuco lake, Laguna Arkhata and Laguna Glaciar^{xxiv}

Glacial retreat is also impacting food sustainability where agricultural irrigation systems are fed by glaciers and snowmelt.

The IPCC's September 2019 special report on *The Ocean and Cryosphere in a Changing Climate* concluded that warming oceans, melting ice, and rising sea levels are already affecting everything from coral reefs to the nearly 10% of the global population living in low-lying coastal areas, and that negative impacts will greatly worsen in the future.

Since 1955, more than 90 percent of the energy trapped by the atmosphere as a result of increased GHGs has been absorbed into the oceans. The resulting ocean acidification is bleaching coral reefs, which are some of the most biodiverse ecosystems in the world. Reefs also provide critical food resources for tens of millions of people. As water heats up, it expands. Along with melting ice, this is driving rapid sea level rise, which is in turn causing displacement (in places like Tuvalu, Marshall Islands, Fiji, the Maldives and the Carteret Islands of Papua New Guinea) and crop failure as salt water intrusions invade ground water supplies (as in Bangladesh where, every day, an estimated 1300 people^{xxv} from southern delta areas are forced to move due to cyclones and flooding, as well as the slow creep of river erosion and soil salination).

SEA-LEVEL RISE IN PAPUA NEW GUINEA

Rising sea levels and saltwater inundation will soon force 6,000 inhabitants from their homes in Papua New Guinea's Carteret Islands in the Southwestern Pacific. Fifty percent of the Islanders will be relocating to Bougainville (a neighbouring island) by 2020. Many communities are seeking to migrate together. Loss of connections to ancestral lands, where families are buried and traditional ways of life are pursued, where a common language is expressed, and a particular way of participating in democratic life is enacted

will be unrepairable. An NGO, Tulele Peisa has secured 0.81 square kilometres, a gift of four abandoned plantations from the Catholic Church of Bougainville, but it still needs another 14 square kilometres. As of 2018, Tulele Peisa has built eight houses on Bougainville Island, and rehabilitated 14 family parcels with cocoa and coconut trees.xxvi

IPCC OCEANS REPORT *SUMMARY FOR POLICY MAKERS*:

“ Risks of severe impacts on biodiversity, structure and function of coastal ecosystems are projected to be higher for elevated temperatures under high compared to low emissions scenarios in the 21st century and beyond. Projected ecosystem responses include losses of species habitat and diversity, and degradation of ecosystem functions. ”



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HOW DID WE GET HERE?

Across and within countries, the highest per capita carbon emissions are attributable to the wealthiest people, this because individual emissions generally parallel disparities of income and wealth. While the world's richest 10 % cause 50 % of emissions, they also claim 52 % of the world's wealth. The world's poorest 50 % contribute approximately 10 % of global emissions and receive about 8 % of global income. Wealth increases adaptive capacity. All this means that those most responsible for climate change are relatively insulated from its impacts.

Between 1850 and 2002, countries in the Global North emitted three times^{xxvii} as many GHG emissions as did the countries in the Global South, where approximately 85 % of the global population resides. The average CO₂ emissions (metric tons per capita) of citizens in countries

most vulnerable to climate change impacts, for example, Mozambique (0.3), Malawi, (0.1), and Zimbabwe (0.9), pale in comparison to the average emissions of a person in the U.S. (15.5), Canada (15.3), Australia (15.8), or UK (6). In sum, the global poor – many of whom survive on less than USD\$2 per day – generate almost no greenhouse gas emissions but are disproportionately impacted by climate change impacts. This is grotesquely unfair and requires a global response that is both reparative and proportional.

The legacies and impacts of slavery, colonialism^{xxviii}, discrimination^{xxix} and neo-liberal policies^{xxx} contribute to a deepening of climate change impacts. Colonial practices (such as producing sugar, coffee, rice, and cotton cultivation on large slave plantations) continue to be good predictors of poverty levels today^{xxxi}, while neoliberal trade policies have continued to perpetuate inequities.^{xxxii} All this is important, because climate change magnifies^{xxxiii} existing patterns of social and material inequality, in addition to inequities in economic and political agency.

Colonialism and the fossil fuel era reconfigured the world economy. The Indian subcontinent's share of the global economy shrank^{xxxiv} from 27 to 3 per cent between 1700 and 1950 and it is estimated that the UK extracted approximately USD\$45 trillion from its colonial rule of the Indian subcontinent alone. China's share shrank from 35 to 7 per cent. At the same time, Europe's share of the global economy exploded from 20 to 60 per cent.

In addition to its natural and human impacts, colonialism helped fund European industrialisation, fuelled GHG emissions and enabled Europe to build the infrastructure it benefits from today.

Of course, climate change multiplies the horrors of poverty. Poverty also lowers a country's adaptive capacity as available funds are directed towards ameliorating poor access to food, water and hunger, education, health and housing. In short, minimum standards for living. Colonialism helped fund industrialisation and created the economic context for climate change to have disproportionate impacts on those least responsible. In addition, subsequent neo-liberal trade policies have encouraged governments in affected countries to prioritise export-led development paths. For example, Mozambique is the sixth poorest country in the world, and highly indebted. Foreign loans have supported coal and titanium mines and the agro-industry which has enriched investors far more than Mozambique^{xxxv} or its people, who have in fact suffered from reduced social security spending as the government seeks to repay debts in a climate of reduced income from its export commodities.^{xxxvi} In this neoliberal policy space, poverty alleviation efforts are deprioritised over (foreign) investor friendly schemes that have concentrated wealth in the hands of a few.

CORPORATE RESPONSIBILITY FOR LOSS AND DAMAGE

It is difficult to discuss climate change impacts and inequity without also discussing the role that large and transnational corporations play in both exacerbating inequality and pursuing business practices that deepen loss and damage associated with climate change impacts.

In the 1980s, oil companies like Exxon and Shell carried out internal assessments of the carbon dioxide released by fossil fuels, and forecast the planetary consequences of these emissions,

including the inundation of entire low-lying countries, the disappearance of specific ecosystems or habitat destruction, destructive floods, the inundation of low-lying farmland, and widespread water stress.

Nevertheless, the same companies funded misinformation campaigns to designed to block change. Companies and countries have pursued high reliance on GHG emissions, often at the expense of communities where fossil fuels are found (where oil spills, pollution, land grabs, and displacement is widespread) and certainly at the expense of public understanding, even as climate change harms and risks increased. Chevron, Exxon, BP and Shell together are behind more than 10 % of the world's carbon emissions since 1966. They originated in the Global North and its governments continue to provide them with financial subsidies and tax breaks. Ongoing state subsidies for fossil fuels are almost double the USD\$140 billion spent on subsidies to renewable energy.^{xxxvii} Total global fossil subsidy increases to an amazing USD\$4.7 trillion when indirect subsidies are included. These are not attributable to the Global North alone; currently China is the world's largest fossil subsidiser.^{xxxviii}

Subsidies for other carbon intensive industries – such as the agricultural industry – also continue to climb. Agricultural policies across 53 countries provided an average USD\$528 billion per-year of direct support to – predominantly intensive – agricultural businesses during the 2016–18 period.^{xxxix} Intensive agriculture has a considerably negative impact on biodiversity.^{xl} Failure to change tracks towards more sustainable economic practices, despite known risks, set current impacts in motion.

Rather than subsidise fossil fuels, countries should take action to hold polluting corporations liable for the climate impacts they have caused and continue to exacerbate. These funds should be directed to a loss and damage financial facility, overseen by the WIM. Countries should also redirect state finances away from things like corporate subsidies and toward mitigation, adaptation and addressing loss and damage through public climate financing and new and innovative sources of financing.

THE RISE OF SOCIAL AND ENVIRONMENTAL JUSTICE MOVEMENTS

Our twin crises of wealth concentration and climate change impacts have rocked countries. Young people and their families are actively claiming social, economic and political agency and demanding economies run with well-being, justice and sustainability and their heart.

The IPCC's October 2018 special report on *Global Warming of 1.5°C* indicated that two billion fewer people would experience food stress, water stress, heat stress, severe drought, and sea level rise displacement or loss and damage at 1.5°C compared to 2°C. An appropriate humanitarian response, therefore, demands actions consistent with 1.5°C warming. The report also underscores the importance of equity:

D6.1 Social justice and equity are core aspects of climate-resilient development pathways that aim to limit global warming to 1.5°C as they address the challenges and inevitable trade-offs, widen opportunities, and ensure that options, visions, and values are deliberated, between and within countries and communities, without making the poor and disadvantaged worse off.

Never have the connections between social justice and responses to the climate change crisis been so clear. Globally, people are demanding social, political and economic policies that work for the majority. On 7 October 2019, responding to a proposed 3.75 per cent increase in public transit fares, school children began protesting in Santiago, Chile. In under three weeks, one million people had joined a wider struggle, against rising living costs and inequality.

“ This is a sort of legitimacy crisis, ”

said Cristóbal Rovira Kaltwasser to the New York Times^{xli}. She is a political scientist at Diego Portales University in Santiago.

“ People start to say, ‘O.K., why is it we have to pay that, and the very rich are not paying their fair share?’ ”

Subsequent promises of higher pensions, better health coverage, progressive taxation, and cuts to politician's wages have not been sufficient to quell protests. Since 2018, from France and Sudan to Ecuador and Lebanon, people have been actively resisting policy proposals that place disproportionate burdens on those least able to pay, and demanding political, economic

and social change. It's important to stress that these problems are not confined to the developing world. The inequality crisis is reaching crisis proportions everywhere, and it is often most acute in wealthy areas. For example, California, one of the world's richest areas, is extremely stratified, and vulnerability to the now recurrent firestorms is disproportionately high among the poor, indigenous communities, immigrants and people of colour.^{xlii} Within the US campaigns demanding fair access to housing, healthcare, education, clean water, and decent work abound, while nonviolent direct actions to prevent further oil rigs and pipelines continue.

Many people know that the wealthiest are also responsible for a huge fraction of total emissions, and thus are both responsibility for and capacity of preventing, avoiding and repairing current economic, social, health, political and climate injustices. The 2018–2019 Sudanese uprising was triggered by the rise of the price of bread, partly caused by scarcity as the country suffer prolonged drought.^{xliii} Simultaneously, the global youth movement has inspired more than seven million people around the world to rise up for climate action, and to express solidarity with each other's justice movements. Calls to “change everything” and for “system change not climate change” allude to the awareness among protesters that we need to change the way we generate energy, produce food, move and live, and that economic inequality is intimately tied to unjust climate impacts.

Calls for fair access to housing, education, food, water, healthcare, and a clean and safe environment are increasing, and climate change protesters are increasingly recognizing that addressing the root cause of the crisis also means addressing unequal access to necessary resources. Only an equitable transition can succeed. Protestors are demanding action that is commensurate to the scale of the challenges faced, centring well-being over growth, and calling for a redistribution of resources to sustainably empower the global majority to respond to our changed – and changing – climate.



EQUITY ANALYSIS

We have assessed countries' NDCs against the demands of a 1.5°C pathway using two 'fair share' benchmarks, as in the previous reports of the *Civil Society Equity Review* coalition.^{xliv} These 'fair share' benchmarks are grounded in the principle-based claims that countries should act in accordance with their

responsibility for causing the climate problem and their *capacity* to help solve it. These principles are both well-established within the climate negotiations and built into both the UNFCCC and the Paris Agreement.

Selected national pledges, against three benchmarks

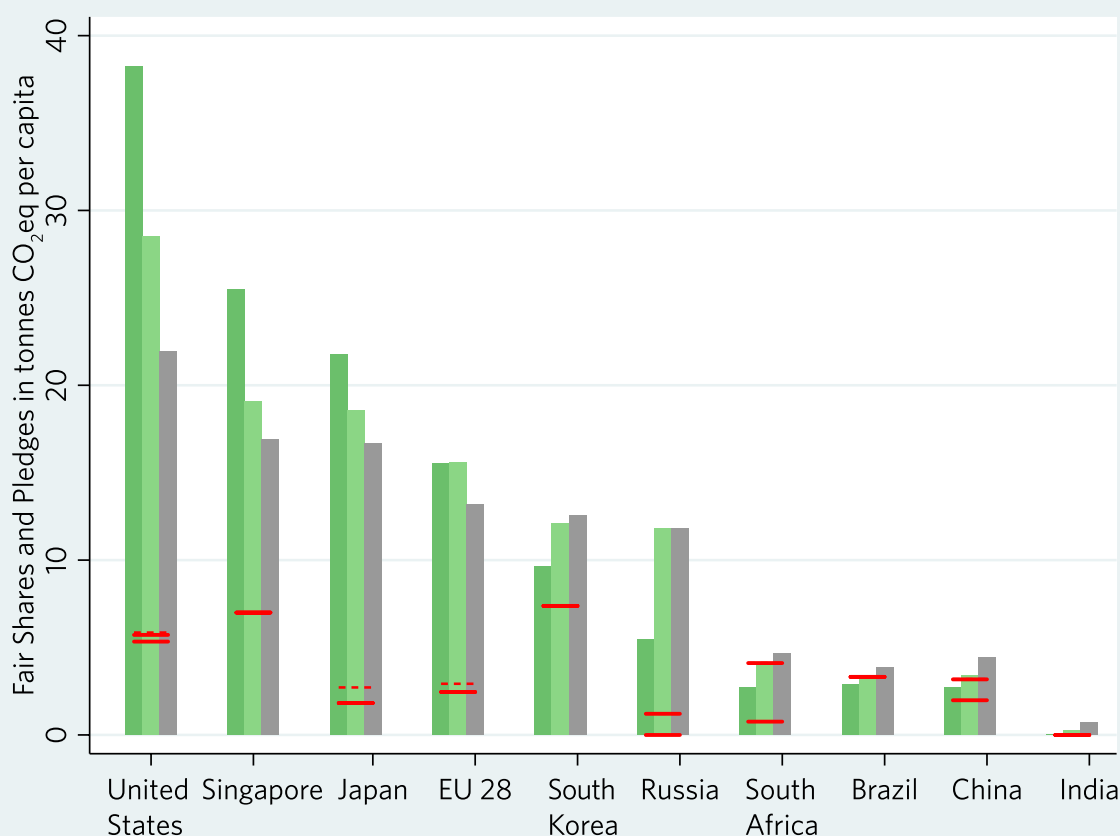


Figure 1: Comparison of mitigation fair shares and pledges (in tonnes of CO₂eq per capita per year of mitigation below baseline in 2030). For each country or region, the dark and light green bars show the fair share of the global mitigation effort according to the two CSER equity benchmarks, and the grey bar shows the 'political' benchmark. The horizontal red lines show the amount of effort actually pledged in the NDCs, and the dotted red line shows an estimate of the additional mitigation which could potentially be achieved through international financial support. The table below the chart shows the same results in numerical form.

* Wealthier countries have not made specific 2030 mitigation finance pledges, even though this information is crucially needed so that poorer countries can plan for implementing the mitigation activities that such finance could enable. Nonetheless, given the commitment by developed countries to a yet-unspecified collective goal above their current \$100bn goal, it is reasonable to assume that some climate finance will be provided. In our 2016 report, "Setting the Path Towards 1.5°C" (<http://civilsocietyreview.org/report2016>) we conducted a detailed analysis of wealthier countries' 2020 finance pledges including the estimated mitigation impact of these pledges. The mitigation impact of climate finance estimated in this report, is based on this analysis and assumes that wealthier countries' ambition regarding climate finance increases in proportion to the increase in their emissions reductions ambition.

The **figure 1** above highlights the considerable distance between the red horizontal lines (which show the levels of current mitigation pledges) against responsibility and capacity

to act (as highlighted by the dark green, light green and grey vertical columns). Note well that it is drawn in terms of a per-capita mitigation below a baseline projection.

The takeaways here are that – to be consistent with the UNFCCC's equity principles – the wealthier countries must:

- urgently and dramatically deepen their own emissions reduction efforts,
- contribute to mitigation, adaptation and addressing loss and damage initiatives in developing countries; and support additional sustainable actions outside their own borders that enable climate-compatible sustainable development in developing countries.

For example, consider the EU, whose fair share of the global emission reduction effort in 2030 is roughly about 24 % of the global total, or about 8 GtCO₂eq. Since its total emissions are less than 5 GtCO₂eq, the EU would have to reduce its emissions by approximately 160 % per cent below 1990 levels by 2030 if it were to meet its fair share entirely through domestic reductions. It is not physically possible to reduce emissions by more than 100 % domestically. So, the only way in which the EU can meet its fair share is by funding mitigation, adaptation and loss and damage repair efforts in developing countries.

From our analysis, many developing country pledges do meet or exceed their fair share of responsibility. However, in order to achieve the 1.5°C warming objective, developing countries must more than their fair share. This is not going to be easy, and

will require the capacity, financial and technological support of wealthier countries.

Failure to reduce GHG emissions now – through energy efficiency, waste reduction, renewable energy generation, reduced consumption, sustainable agriculture and transport – will only deepen impacts in the future. Avoidable impacts require urgent adaptation measures. At the same time, unavoidable and unmanageable change impacts – such as loss of homes, livelihoods, crops, heat and water stress, displacement, and infrastructure damage – need adequate responses through well-resourced disaster response plans and social protection policies.

For loss and damage financing, developed countries have a considerable responsibility and capacity to pay for harms that are already occurring. Of course, many harms will be irreparable in financial terms. However, where monetary contributions can help restore the livelihoods or homes of individuals exposed to climate change impacts, they must be paid. Just as the EU's fair share of the global mitigation effort is approximately 24 % in 2030, it could be held accountable for that same share of the financial support for such incidents of loss and damage in that year.

The table below provides an illustrative quantification of this simple application of fair shares to loss and damage estimates.

Table 1: Countries' Share of Global Responsibility and Capacity in 2019, the time of Cyclones Idai and Kenneth, as illustrative application of a fair share approach to Loss and Damage funding requirements.

Country / Group of countries	Fair share (%) (1950 Medium Progressivity Benchmark)	Fair share (%) (1850 High Progressivity Benchmark)
USA	30.4 %	40.7 %
European Union	23.9 %	23.2 %
Japan	6.8 %	7.8 %
Rest of OECD-90	7.4 %	8.8 %
China	10.4 %	7.2 %
India	0.5 %	0.04 %
Rest of World	20.6 %	12.3 %
Total	100 %	100 %

The advantages of setting out responsibility and capacity to act in such numerical terms is to drive equitable and robust action today. Responsible and capable countries must – of course – ensure that those most able to pay towards loss and damage repairs are called upon to do so through domestic legislation that ensures correlated progressive responsibility. However, it should also motivate mitigation action to ensure that harms are not deepened in the future.

Note that there are limitations to this simplistic assessment. Importantly, there are good reasons to believe that wealthy countries should actually provide much larger amounts of support that is suggested by the above analysis. First, the above estimates of climate related loss and damage are probably vastly underestimated. Second, the huge climate impacts we are already witnessing, and the greater impacts that are already locked in, are due to the fact that countries have failed to reduce

their GHG emissions with sufficient speed and earnestness, and it is overwhelmingly the wealthier countries that are responsible for this failure. Third, the poor and the vulnerable are already bearing the bulk of the loss and damage burden in the most direct possible way, by enduring the destruction in their own bodies and communities.

None of this is to deny that there will also be a painful loss and damage burden within even very wealthy countries, particularly in their own poorer and marginalised communities. It is out of the scope of this brief report to examine the issues here in any detail, but perhaps it will for the moment suffice to merely mention the vulnerable and marginalised African American communities who were decimated by Hurricane Katrina in Louisiana, and who never fully recovered. It speaks to a profound failure by the governments of these countries to dedicate a just fraction of their considerable wealth and institutional capacities

to meeting the fundamental needs of their own vulnerable and marginalised populations.

These limitations suggest that much more thought and deliberation must be put into developing an approach to fairly sharing the costs of responding to loss and damage.

Nonetheless, it is clear that the wealthier countries have an ethical duty to provide major amounts of support to poorer countries who are already paying the price for climate change, as it is clear that this duty will only grow if mitigation and adaptation actions are further delayed.

BOX 1: NOTES ON THE EQUITY ANALYSIS USED HERE

Capacity – a nation’s financial ability to contribute to solving the climate problem – can be captured by a quantitative benchmark defined in a more or less progressive way, making the definition of national capacity dependent on national income distribution. This means a country’s capacity is calculated in a manner that can explicitly account for the income of the wealthy more strongly than that of the poor, and can exclude the incomes of the poorest altogether.

Similarly, responsibility – a nation’s contribution to the planetary GHG burden – can be based on cumulative GHG emissions since a range of historical start years, and can consider the emissions arising from luxury consumption more strongly than emissions from the fulfilment of basic needs, and can altogether exclude the survival emissions of the poorest. Of course, the ‘right’ level of progressivity, like the ‘right’ start year, are matters for deliberation and debate.

The two CSER equity benchmarks are illustrated in the figure as green bars. The dark green benchmark uses a responsibility start date of 1850 and calculates national capacity in a progressive manner, based on a \$7,500 development threshold and a \$50,000 luxury threshold. The light green benchmark uses a responsibility start date of 1950 and calculates national capacity in a less progressive manner, relying only on the \$7,500 development threshold. The third (grey) benchmark, which uses a much later responsibility start date of 1990 and a much lower development threshold of \$2,500, is included because of its political salience, even though we do not consider it to be defensibly equitable.

Footnote: For more details, including how progressivity is calculated and a description of the standard data sets upon which our calculations are based, see *About the Climate Equity Reference Project Effort-sharing Approach*.^{xiv} For an interactive experience and a finer set of controls, see the *Climate Equity Reference Calculator* (calculator.climateequityreference.org).



RECOMMENDATIONS

Rhetoric of progress and assistance without tangible action is no longer sufficient. As the world's most vulnerable and marginalised people lose lives and livelihoods and face damage to their property and ways of life, we cannot afford to delay action to repair and support any longer.

In recent years regional insurance mechanisms and disaster risk reduction strategies have been widely promoted as mechanisms for tackling loss and damage.^{xlvi} However, an April 2019 report from Action Aid revealed the insurance and other market based mechanisms fail to meet human rights criteria for responding to loss and damage associated with climate change.^{xlvii} Meanwhile, disaster risk reduction strategies are strong examples of adaptation measures that absolutely must be taken as soon as possible.

The urgency appropriate to the loss and damage challenge is nowhere to be seen. We acknowledge the relationship between loss and damage and the other two pillars of the climate change regime (adaptation and mitigation). As we have consistently stated, failure to mitigate GHG emissions, and to support adaptation measures, will deepen loss and damage. Nonetheless, the recommendations here focus on what the UNFCCC can do to tackle loss and damage with the urgency required. Readers may like to review previous reports to review the systemic recommendations that the CSER group has previously made in relation to mitigation and adaptation.^{xlviii}

COP25 must ensure that the WIM has robust outcomes and sufficient authority to deliver the best possible outcomes for the countries and peoples now being most heavily damaged by climate change impacts, by agreeing:

- 1) **A financing facility under the WIM:** COP25 must decide to establish a financing facility to deliver public climate financing and new and innovative sources of financing to address loss and damage. Countries in the Global North, who often cook the books when they calculate their contributions for addressing climate change, must not be permitted to count their loans and contributions to humanitarian assistance or adaptation efforts as loss and damage financing.^{xlix} Namely, the vast majority of contributions to this finance facility must be made by wealthier countries (see Table 1 for details). As such, the new finance facility must provide:
 - o **Public climate financing in form of budget contributions from rich countries and through new and innovative sources, that can truly and equitably generate additional resources** (such as air and maritime levies, Climate Damages Tax on oil, gas and coal extraction, a Financial Transaction Tax) at a progressive scale to reach at least USD\$50 billion by 2022, and ratcheting up to USD\$150 billion by 2025 and USD\$300 billion by 2030. Ambition targets should be revised based on the level of quantified and quantifiable harms experienced.

- o **Immediate debt relief - in the form of an interest-free moratorium on debt payments - due to be paid by developing countries who face the current climate emergency.** It would open up resources currently earmarked for debt repayments to immediate emergency relief and reconstruction; and

- o **A financial architecture that ensures funding reaches the vulnerable and marginalised communities** in developing countries, and that such communities have decision making say over reconstruction plans. Funds should reach communities in an efficient and effective manner, taking into account existing institutions as appropriate.

- 2) **At COP25 to establish a Task Force on Action and Support:** To create substantive room for loss and damage public climate finance discussions, alongside technology and capacity building, the WIM's Executive Committee (ExCom) must set up a Task Force on Action and Support, and in 2020 its work should have utmost priority as part of the ExCom's work plan. This should be based on a clear mandate by COP25 with regard to operationalising the financing facility and to deliver clear recommendations for action by COP26.

- o **The Task Force should include qualified representatives from across state, civil society, and other experts,** who should be selected through a coordinated and transparent process co-hosted by civil society.

- o **The Task Force must report directly to the mid-year meetings of the subsidiary bodies under UNFCCC,** as part of the ExCom's report.

- o **Loss and Damage must be listed as a permanent agenda item.** This would create meaningful room for political (and not solely technical) discussions on a human-rights centred response to tackling loss and damage and enabling substantive reporting to the COPs. Parties would be invited to discuss their challenges and needs in addressing loss and damage and how to mainstream the topic into other processes, particularly financial support, capacity building and technology transfer.

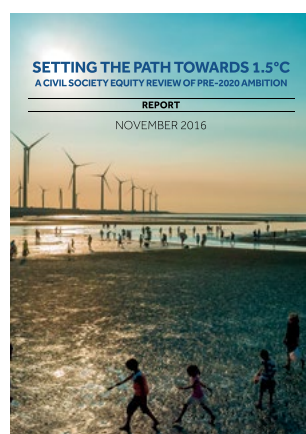
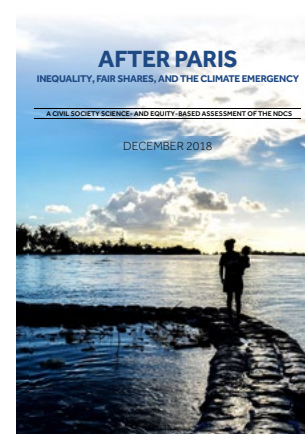
- 3) **Conduct a Loss and Damage Gap Report:** Similar to Adaptation and Emissions Gap reports, this annual report should analyse the availability of loss and damage public finance against the needs of developing countries to address climate impacts.

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Suggested citation: CSO Equity Review (2019) *Can Climate Change Fuelled Loss and Damage Ever be Fair?*

Manila, London, Cape Town, Washington, et al.: CSO Equity Review Coalition.

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