

LOSS AND DAMAGE:
CLIMATE REALITY IN THE
21ST CENTURY

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LOSS AND DAMAGE IN THE NEW CLIMATE DEAL

WORLD LEADERS NEED TO GET SERIOUS
ABOUT LOSS AND DAMAGE CAUSED BY
CLIMATE CHANGE

Addressing loss
and damage
=
Supporting those
affected by
devastating impacts of
climate change.

WHAT WE NEED FROM GOVERNMENTS AT COP21:



EMISSIONS REDUCTIONS

Limit global warming to below 1.5°C. Phase out the use of fossil fuels. Increase the use of renewable energy.



SCALING-UP ADAPTATION

Massively increase financial and other support to catalyse adaptation action at a scale needed to substantially reduce future losses and damages.



ADDRESS LOSS AND DAMAGE:

Anchor Loss and Damage, its mechanism and financial and technical support in the Paris agreement, and promote immediate action.



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EXECUTIVE SUMMARY

With the current global average temperature now at around 1°C above pre-industrial levels, poor people in developing countries are already suffering devastation from climate change impacts. It is therefore critical and urgent for vulnerable countries and communities to adapt to climate change impacts. Being prepared for changes in climate and severe weather events can reduce the impacts on people's lives, their livelihoods and food security. For too long, however, action in cutting emissions and scaling-up adaptation has been utterly inadequate. As a result, more and more of these impacts are exceeding people's ability to adapt.

Loss and damage is therefore now part of the reality of climate change, and must be tackled. Loss is often understood as irreversible (e.g. loss of lives, species or habitats), while damages can be repaired (such as roads, embankments etc.). If the planet undergoes 2°-3°C of warming, which is a possibility with current national climate pledges – known as Intended Nationally Determined Contributions (INDCs) - on the table, the scale of loss and damage will be catastrophic.

As past greenhouse gas emissions are the main driver of climate change and associated loss and damage, historic responsibilities for these emissions must be taken into account when it comes to providing financial and technical means to those countries and communities most affected, and least responsible for global warming. This is a matter of justice and human rights.

In the UN climate regime, governments have taken their first steps to address loss and damage, resulting in the establishment of the so-called Warsaw International Mechanism on Loss and Damage (WIM) which has started to work on a range of issues. These include understanding non-economic losses to the impacts of slow-onset events such as sea-level rise, to addressing climate-induced human mobility, and developing financial instruments for dealing with loss and damage. The knowledge and experience gathered through the WIM can form the basis of action to address loss and damage in the new global climate agreement.

World leaders, as well as businesses and communities, must rapidly increase their efforts to cut emissions and help people deal with their changing climate. The negotiations for a long-term durable and dynamic treaty, the Paris Agreement, must ensure that the international community's response to climate change in the 21st century can adequately address loss and damage.

Therefore, the Paris Agreement must:

1. Reduce the incidence of loss and damage by:

- **Enshrining the goal of limiting global warming to 1.5°C and establishing key underpinning mechanisms such as a emissions phase-out goal by 2050 at the latest, and 5 year successive commitment cycles;**
- **Scaling-up adaptation actions including through massively increasing financial and other support; and**

2. Address loss and damage in the long-term by:

- **Anchoring loss and damage associated with climate change impacts in the Paris Agreement as a stand-**

alone issue in a separate article, including establishing a link to mitigation and adaptation efforts, which impact on the level of loss and damage;

- **Reflecting the need for additional financial and technical support to be provided primarily by the countries most responsible for causing the problem, but taking into account evolving responsibilities over time;**
- **Ensuring that institutional arrangements under the Paris Agreement have a mandate to further strengthen work on addressing loss and damage as the problem evolves (building on, but not limited to, the Warsaw International Mechanism (WIM)).**

3. Strengthen the Warsaw International Mechanism by:

- **Deciding that its work will continue beyond the planned 2016 review.**
- **Exploring and establishing financial instruments. (The first step must be to establish a financial panel with a mandate to make recommendations to ensure finance flows to support vulnerable communities facing the worst impacts).**
- **Promoting additional concrete actions to assist the poorest and most vulnerable in facing loss and damage (e.g. the development of redress schemes, adequate regional insurance approaches, building resilience of social safety nets, generation of finance from highly responsible companies, etc.)**
- **Coordinating and developing legal and policy frameworks for particular types of loss and damage, for example climate displacement and migration. Exploring the role of a coordination facility, as well as addressing non-economic losses, could contribute towards this.**
- **Providing for full and effective public participation in the work of the mechanism, particularly by the communities most affected by loss and damage and their representatives.**

Overall, governments must adopt a bold way forward on loss and damage in the Paris Agreement, to ensure that the issue has permanence and durability under the new framework.

1. CLIMATE CHANGE INDUCED LOSS AND DAMAGE: WHY IT MATTERS



Bineta Fall was one of the last farmers on the island of Baout in Senegal, until rising sea levels made soils too salty for growing rice

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Bineta Fall used to grow rice on the island of Baout, in Senegal. But rising sea levels have flooded her island's rice fields so much that Bineta and every other farmer on the island have been forced to abandon farming altogether.

"There is no more agriculture here. It is too salty," Bineta says regretfully. A determined and dedicated farmer, she was the last person on the island to give up growing rice.

Now the community is entirely dependent on the sea for their food and livelihoods. Bineta sells fish. But without agriculture to provide for part of their needs, they admit they have little choice but to overfish their local marine ecosystems, and catches are getting smaller. Almost all the men on the island now fish for a living. But they need to stay longer and go further out to sea to find the catches necessary for their livelihoods. As a result, more lives are being lost at sea.

With water levels flooding the village and rising faster every year, the islanders are not even sure what will become of their homes or island in years to come.

On a neighbouring island, Diamniadio, village elder Seny Sarr shares the same worries. *"Each year the sea water comes higher. This year it will probably come into the village itself. Where will we be in 50 years if these sea levels continue to rise? Only God knows."*

loss of lives, species or habitats), while damages can be repaired (such as roads, embankments etc.). There will be both economic and non-economic losses¹, and these losses will require both economic and non-economic measures to address them.

The year 2015 has seen severe humanitarian consequences as a result of increasingly erratic weather patterns. The extreme heat waves in India and Pakistan in May and June led to the deaths of approximately 3,600 people.² The Amazon ecosystem suffered its worst drought in 80 years. And more than 1 million people were affected by flooding in Myanmar, with over 1 million acres of farmland inundated and more than 15,000 houses destroyed³. While not all of these events can be blamed on climate change alone, there is increasing certainty that man-made climate change is worsening the frequency and severity of these events, and that the damage is already being done. A recent study investigating 29 extreme weather events occurring in 2014 confirmed that many were significantly influenced by climate change. Researchers concluded that "as the science of event attribution continues to advance, so too will our ability to detect and distinguish the effects of long-term climate change and natural variability on individual extreme events."⁴

Bineta Fall's fate is only one illustration of what thousands of vulnerable communities in developing countries already face. Loss and damage associated with the impacts of climate change is a reality today. Loss is often understood as irreversible (e.g.



VANUATU: PROTECTING LIVES AMIDST UNPRECEDENTED DAMAGES

Cyclone Pam, a Category Five cyclone, was one of the worst storms ever to hit the Pacific region when it struck in March 2015. It destroyed or damaged an estimated 80 – 90 % of structures and buildings and resulted in direct costs of around US\$350 million throughout the Pacific islands.⁵ The disaster also wiped out crops, leading to on-going food shortages.⁶ However, due to effective early warning systems, Cyclone Pam caused relatively few deaths.

"We told everyone that a cyclone was coming, and that everyone should prepare. People tied down their roofing, cut the top off their manioc and banana plants to protect them, and prepared food and water for their families. [...] Even though Cyclone Pam was much stronger than previous cyclones, this time there were no deaths and no serious injuries [in this community]. Personally I think that if we hadn't had the training from CARE, we would have lost several families." (Philip Thomas, Community Disaster Committee coordinator)⁷

"When the wind finally went down, the Community Disaster Committee went and checked on all the safehouses. Some had been badly damaged. The church was broken, one strong home had lost its iron sheet roof, and the school building had been torn apart. Those who had been taking shelter in the school building had had to move to a nearby teacher's house during the night, but no one was hurt. In the whole community there were no serious injuries or deaths." (Mini Natango, community member)⁸

ADAPTATION CAN REDUCE LOSSES FROM CLIMATE CHANGE IMPACTS

Adapting to climate change is critical for countries and communities. Being prepared for changes in climate and severe weather events can reduce the impacts on people's lives, their livelihoods and food security (see also Box 1).

However, the Intergovernmental Panel on Climate Change (IPCC) has recognised that there are physical and economic limits to adaptation, especially where climate change impacts are

significant.⁹ Sometimes the impact will be so severe that countries and communities will simply be unable to adapt, either because the world has failed to sufficiently reduce emissions, or because they have not had the support needed to adequately prepare.¹⁰

In 2013, the Philippines was already investing significant resources into disaster risk reduction (DRR). However, when Super Typhoon Haiyan (known locally as Typhoon Yolanda) struck, its impacts were so extreme that it caused massive destruction and loss of life. (See case study). An increased number of cases where climate change impacts exceed the ability of a community to adapt can be expected in the future.



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TYPHOON HAIYAN

Super Typhoon Haiyan slammed into the Philippines on the 8th November 2013. Winds of up to 380 kph made Haiyan the strongest typhoon ever to make landfall. Coupled with heavy rains and storm surges, Haiyan razed entire villages to the ground,¹¹ destroyed buildings, roads, infrastructure and crops, and killed thousands of people. Over 6,200 people were confirmed dead; 28,600 people were injured in the event, and more than 4.1 million displaced. Over 1.1 million homes were damaged, and at least 550,000 totally destroyed. Some 5.9 million workers in nine different regions were affected, with sources of livelihood and income destroyed, lost or disrupted.

Now, after two years of relief, rebuilding and reconstruction, communities are starting to see hope for the future again. Many have regained access to basic services and markets. Children are back in school, industries have resumed operations, and plantations are rehabilitated.

The typhoon also shook UNFCCC climate negotiations in Warsaw when the chief negotiator for the Philippines made the following poignant remarks to the conference:

“What my country is going through as a result of this extreme climate event is madness. The climate crisis is madness. We can stop this madness. [...] We cannot sit and stay helpless staring at this international climate stalemate. It is now time to take action. We need an emergency climate pathway.” (Yeb Sano, Philippines, 11 Nov 2013)¹²

WHEN LIMITS TO ADAPTATION ARE EXCEEDED, LOSS AND DAMAGE AFFECTS THE POOR

There is no internationally agreed definition of loss and damage from climate change, but there is an emerging understanding that it relates to those impacts that cannot be avoided through mitigation and adaptation efforts.¹³

Limits to adaptation can be breached when catastrophic extreme events resulting from climate change become increasingly severe or frequent, such as severe cyclones, storms or droughts. It can also prove impossible to adapt to slow-onset impacts that continue to develop, and which leave territories uninhabitable and unproductive. Rising sea levels, increasing temperatures, ocean acidification, glacial retreat and related impacts, salinisation, land and forest degradation, loss of biodiversity, and desertification are all major challenges to adaptation efforts.

Adaptation will become impossible on low-lying islands, in settlements close to sea level, and in the most arid regions, as communities will suffer permanent loss of lands, livelihoods and cultural resources if global warming is not sufficiently contained. Permanent loss and damage from slow-onset disasters goes far beyond economic loss. In addition to losing their livelihoods and homes, communities suffer important non-economic losses if they must lose their culture, community and social structures.^{14 15}

Some examples illustrating the difference between adaptation and loss and damage include:

- When mountain glaciers melt, the community may adapt by building or strengthening dykes to contain the glacial lake, and by increasing the ability of surrounding

landscapes to hold the water recharge, such as through reforestation. However when glacial lakes burst (for example through a sudden breaking-up of large glacial pieces), even with an effective early warning system the resulting floods can cause loss and damage by destroying homes, harvests, or loss of life.

- When sea-levels rise, dykes can, in some cases, protect the land and help communities to adapt. However, in many cases, land will be permanently lost underwater, or inundated with salt, leaving soils too salty for agriculture, and salinating freshwater reservoirs.
- When a heavy storm strikes, stronger houses, community shelters, and storage for water and food may be able to withstand the impacts. However, these may still be overwhelmed by extreme storm events resulting in loss of life, livelihoods, harvests, etc. Climate change may also cause storms in areas which have not experienced them before, and which are therefore unprepared to cope.
- Rising temperatures, drought and erratic rainfall will lead to major crop losses, proving disastrous for developing countries and communities whose economies are largely dependent on agriculture. Some farmers and farming systems may find innovative ways to adapt, for example through improving their soils' water carrying capacity, increasing their locally-adapted crop diversity, using early warning systems to time planting and harvests, or through building dykes to protect from floods and rising sea levels. However, above certain temperatures, crops will fail to pollinate or set seed, rain will fail to arrive, and lands may even turn to desert, resulting in permanent loss of livelihoods.



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GLACIER MELTING IN NEPAL

The Himalayan Glaciers form an important source of fresh water for millions of people living downstream, providing water for hydropower, agriculture, irrigation and domestic purposes. The glaciers are the main source of water for the river systems in the region. But in the last 30-year period from 1963-1993, the glaciers in Nepal have retreated in volume by nearly 8%¹⁶. The IPCC 5th Assessment Report has also confirmed a further decline in the first decade of the 21st century for high mountain areas in Asia.¹⁷ Glacial retreat is a key indicator of climate change. Accelerating glacial retreat signals that rapid climate change is taking place, leading to the formation of new glacial lakes and supra-glacial lakes. Over time, and due to the rapid melting of glaciers, these glacial lakes increase in size and retain higher volumes of water around natural moraine dams. These dams can suddenly and catastrophically release with massive volumes of water forming glacial lake outburst flood (GLOF). Such events threaten people living downstream, causing economic and social losses and damages. They may wipe out entire settlements from the map, forcing people to migrate from the place they call home.

Nepal has experienced 24 GLOF events since 1964,¹⁸ which has resulted in both economic losses and casualties. The International Centre for Integrated Mountain Development (ICIMOD) has identified 20 potentially vulnerable glacial lakes in the Himalayan region of Nepal. The only means to reduce the threat to communities from GLOFs is to manage the volumes of water in these glacial lakes. However, there are major challenges in implementing these measures, such as limited accessibility (sites are only accessible in certain seasons), inhabitability for people to stay there due to high elevation (4500 metres or more above sea level), lack of resources to survive, and the high costs of long-term risk reduction measures.

Nepal is, according to UN definitions, a Least Developed Country (LDC), and has barely contributed to global warming. Nor does it have the massive financial resources needed to cope with the impacts of climate change. The country must rely on the support of the international community; but this often only arrives in the wake of a disaster. (The April 2015 earthquake, which devastated many regions of Nepal, illustrates the complexity in ensuring resilience and development in a country that is vulnerable to both climate and non-climate hazards.)

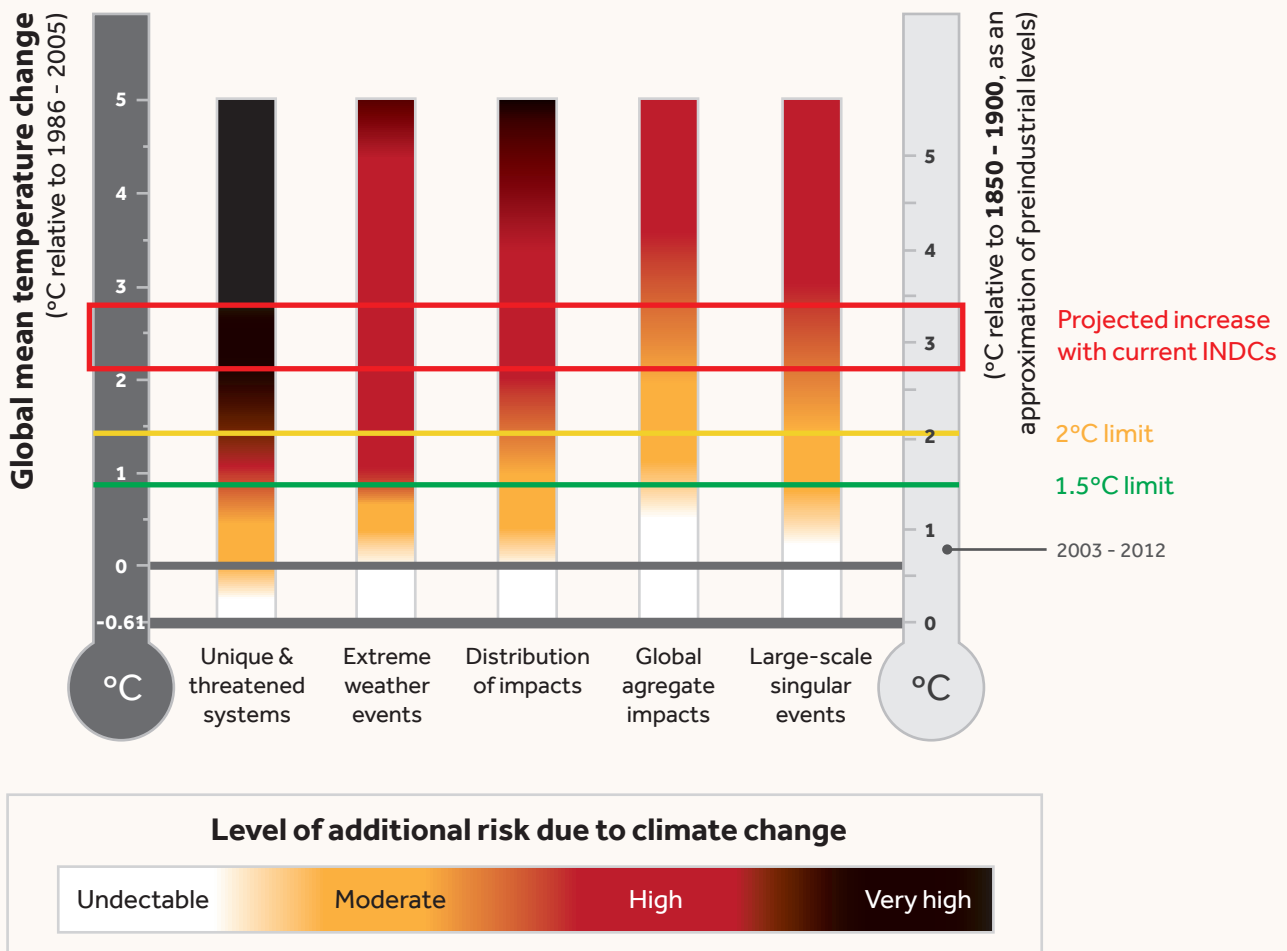
Loss and damage, which goes beyond adaptation, is therefore a critical issue for the Himalayas. The fragile Himalayan ecosystem of Nepal has more than 30 million people living downstream of glaciers. There have already been significant investments in the country's economy, and more will be made in the future. Major climate hazards such as GLOFs pose a serious risk to these substantial investments, to the country's social capital, and to those communities who live near the glaciers.

2. LOSS AND DAMAGE: WHAT SCIENCE TELLS US ABOUT THE FUTURE

At an average global temperature rise over 1.5 °C above pre-industrial levels, the aggregate risks associated with climate change increase significantly (figure 1). More than 100

governments and many in civil society are therefore calling for global action to ensure that warming is limited to no more than 1.5°C.¹⁹

FIGURE 1: ADDITIONAL AGGREGATE RISKS FROM DIFFERENT WARMING LEVELS



Source: adapted from IPCC, 2014²⁰

It is therefore extremely worrying that the world is currently on a path towards a much warmer world. A global average temperature rise of well over 4°C from pre-industrial levels by the end of this century is a real risk if business-as-usual emission trends continue.²¹ The possibility of 5°C or even 6°C of warming by 2100 cannot be ruled out.²² Average global temperature increases can disguise far higher extremes in reality, as some large land masses will heat more than others. An increase of 4°C or 5°C in average global warming would in fact mean much higher temperature increases over land masses such as Africa.²³

INDCs still leave the world on a pathway for approximately 2.7 – 3.4°C. Far greater mitigation efforts are required in the next few years to avoid locking in a level of low ambition that is likely to produce significant amounts of loss and damage.²⁴

The IPCC has identified a number of severe risks from climate change that will harm human and ecological well-being, including:

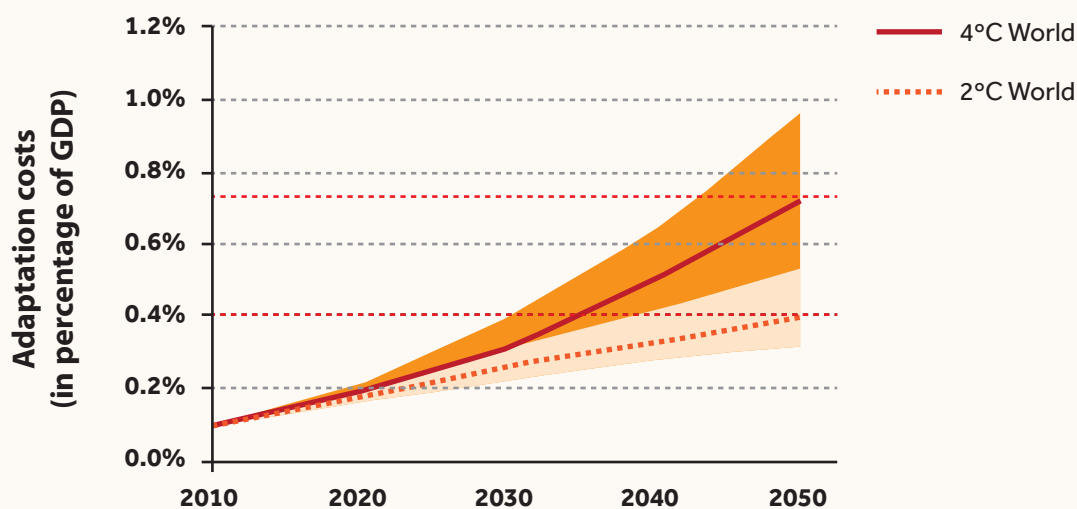
- For low-lying coastal zones and SIDS storm surges, coastal flooding and sea level rise greatly increase the risk of death, injury, ill-health, disrupted livelihoods, and loss of territory and ecosystems.

Recent government pledges for national climate action, known as Intended Nationally Determined Contributions (INDCs), have started to narrow the gap between business as usual and the level of action needed to avoid dangerous global warming. But current

- High risks for rural livelihoods, food security and agricultural productivity linked to drought, flooding and extreme heat.
- Systemic risks due to extreme weather events leading to breakdown of infrastructure networks and critical services such as electricity, water supply, and health and emergency services.²⁵
- Extensive biodiversity loss with associated loss of ecosystem goods and services.
- The above risks grow disproportionately as the average temperature rise increases from 1°C to 2°C. These events become "high risk" at above 3°C warming, due to the potential for a large and irreversible sea level rise from ice sheet loss.

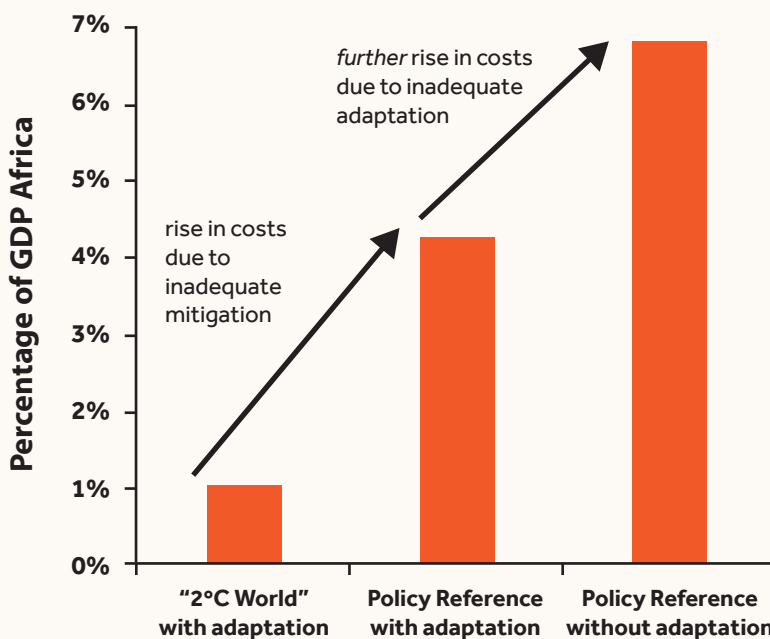
This risk increase also translates into higher economic costs for adaptation and loss and damage (also known as "residual damage"), according to projections covering a range of impacts. For a temperature increase scenario of 4°C by the end of the century, the adaptation costs in developing countries in the next decades are expected to be significantly higher than at a scenario of 2°C (see figure 2). Loss and damage costs increase as a consequence of inadequate adaptation. The UNEP Adaptation Gap Report suggests costs for the Least Developed Countries alone might be in the range of USD 50 billion per year by 2025/2030.²⁶

FIGURE 2: HOW THE LEVEL OF WARMING IMPACTS COSTS FOR ADAPTATION AND LOSS AND DAMAGE.



Note: this graph shows the cost estimate ranges (for developing countries) in % of GDP at different global average temperature increase scenarios (2100 increase).

Total of Adaptation and Residual Damage cost for Africa (2100) excluding from sea-level rise



Note: this graph shows the cost estimates in % of GDP in Africa, based on a 2 degrees increase scenario with adaptation, and a 3.5 degrees increase scenario (Policy reference) with and without adaptation.

Source: Based on UNEP, 2014²⁷

These risks emerge in a world where there is already a huge gap in adaptation action and economic capacity to take such action, particularly in developing countries, due to widespread poverty, social and economic inequalities including gender inequality, lack of institutional capacity, and insufficient support from developed countries to help poor countries adapt to climate impacts.²⁸

However, there is no lack of proposals for adaptation action. Two climate funds under the UNFCCC – the Least Developed Countries Fund and the Adaptation Fund – have a long list of

projects, collectively worth around US\$300 million, which could be implemented immediately, but which are on hold as no money is available. At the same time, evidence shows that adaptation projects can have significant development benefits, as they often seek to bring climate resilience to key areas of development such as food and nutrition security or water supplies. Thus climate change brings a triple burden: higher adaptation costs with higher temperatures, higher losses, and foregone development benefits due to inadequate and delayed adaptation.

3. LOSS AND DAMAGE UNDER THE UNFCCC: FIRST STEPS IN A LONG JOURNEY



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In principle, the responses required to reduce loss and damage are clear:

1. **Cut global greenhouse gas emissions urgently and sufficiently to limit global warming to 1.5°C, in order to reduce the long-term risks; and**
2. **Scale-up adaptation, disaster risk reduction and climate-resilient sustainable development to better prepare vulnerable communities and countries for climate change impacts and thereby reduce loss and damage.**²⁹

However, for too long action in both of these areas has been utterly inadequate. As a result, loss and damage is now part of the reality of climate change, and must be tackled. As climate change impacts felt today are a result of cumulative greenhouse gas

emissions released over the last century or more, responsibility to address the problem – or to support vulnerable countries to address loss and damage, including for rehabilitation – should be informed by historic emissions. Up until now the driving forces of climate change, and the resulting loss and damage, have been overwhelmingly caused by a minority of wealthier countries on this planet which means they have a particular responsibility to provide financial and technical means to poorer countries. As this picture of historical responsibility will further evolve in the future as different countries industrialise, this formula must adjust dynamically.³⁰ This need is reflected in various developing country proposals to address loss and damage. Highly vulnerable developing countries have increasingly called for approaches to help them deal with present and future loss and damage. They point out that the issue goes beyond issues of mitigation and adaptation (see box).

A BRIEF HISTORY OF LOSS AND DAMAGE UNDER THE UNFCCC ³¹

From the AOSIS proposal to the establishment of the Warsaw International Mechanism

1991. Vanuatu tables a proposal that asks for insurance of island states to compensate for sea-level rise. A further rationale for this proposal was the hope that assigning costs to climate impacts would increase mitigation ambition.

2007. The Bali Action plan agreed at COP13 mandates Parties to explore “means to address loss and damage associated with climate change impacts in developing countries that are particularly vulnerable”, which was the first explicit reference to L&D.

2008. The Alliance of Small Island States (AOSIS) tables a proposal for a multi-window mechanism for international loss and damage at the climate summit in Poznan (COP14), the first proposal for an international mechanism on loss and damage.

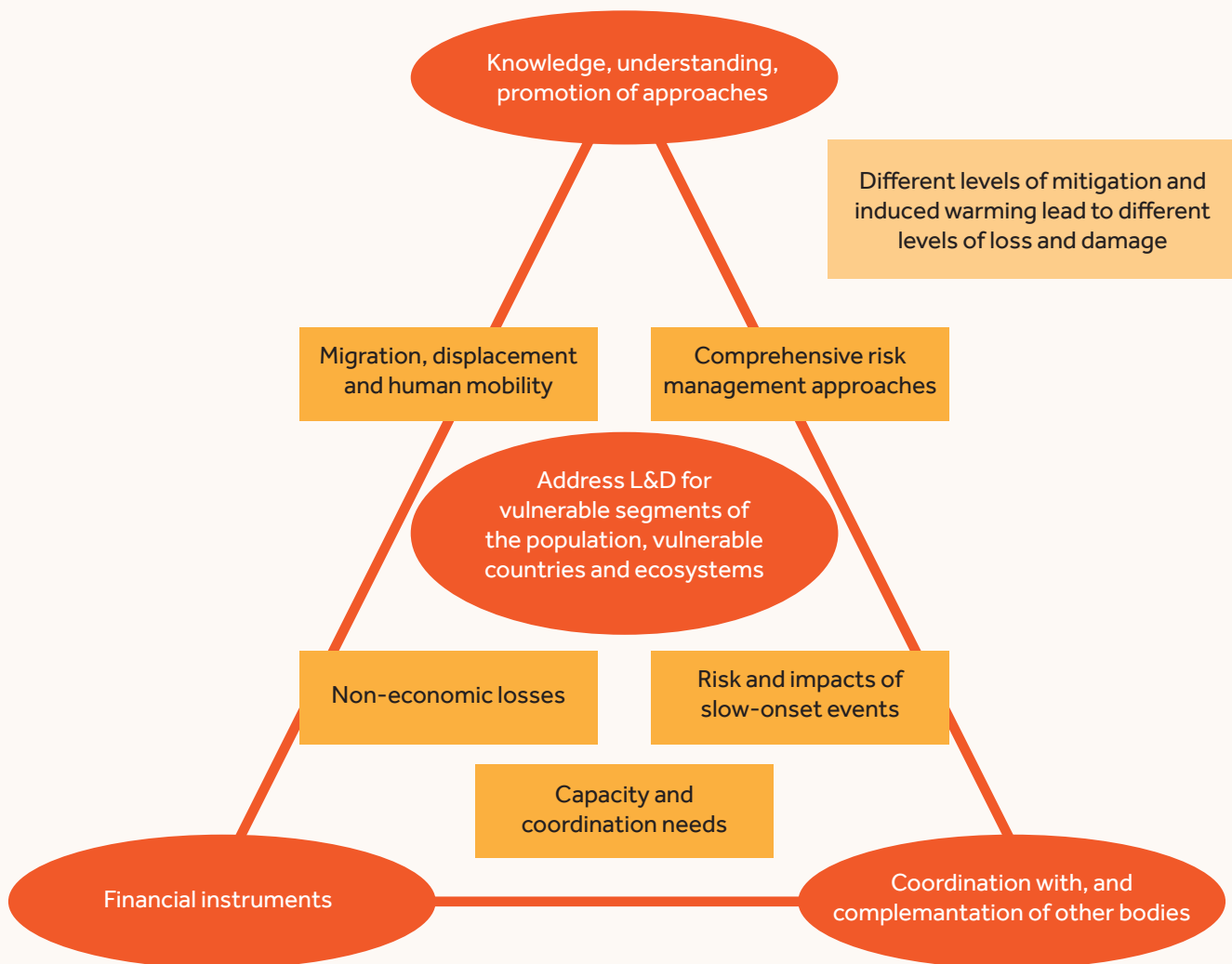
2010. The Cancun climate negotiations (COP16) establish a “work programme in order to consider approaches to address loss and damage associated with climate change impacts in developing countries”, which through intense technical work resulted in a better understanding of the matter of loss and damage.

2012. The first distinct loss and damage decision agreed at COP18 in Doha defines the role of the Convention in addressing loss and damage and decides to establish institutional arrangements at COP19.

2013. COP19 establishes the Warsaw International Mechanism on Loss and Damage.

2014/15. At COP20 in Lima governments agree a two-year work plan for the Warsaw Mechanism (WIM), and a review of its arrangements in 2016; the WIM starts its work in September 2015. This marks the start of the work of the loss and damage mechanism.

FIGURE 3: MAIN ELEMENTS OF THE WORK PLAN OF THE LOSS AND DAMAGE MECHANISM.



Source: based on CARE 2014³²; the outer circles at the three corners of the triangle show the approaches which cut across themes.

FIRST STEPS UNDER THE WARSAW INTERNATIONAL MECHANISM ON LOSS AND DAMAGE

At the 2013 UN climate conference in Warsaw (COP 19), the Warsaw International Mechanism on Loss and Damage (WIM) was established to address some of the issues raised by developing countries. At the 2014 climate conference in Lima, its initial work plan was agreed, showing that addressing loss and damage requires a broad approach. Initial work will range from generating knowledge and understanding, to providing technical support for poor countries in using various financial instruments (see figure 3).

After some delay, the first meeting of the WIM finally took place in September 2015. Its initial priority will be to implement the 2-year work plan, and this should also lay the basis for a 5-year rolling work plan (2017-2021) to be agreed at COP22 in 2016.

A central element in the initial work plan of the WIM will be to draw on expertise and support from various organisations and stakeholders. For example, according to the work plan, the WIM will call on relevant organisations to generate knowledge on projected climate change-related displacement and migration. It will further engage with humanitarian and other organisations to develop country-specific analyses of climate change impacts and associated loss and damage. It will assess the capacity of humanitarian and disaster risk management systems, and engage in methodological work on scenario analysis and stress testing in the face of climate change. The WIM will also seek to enhance and promote comprehensive risk management approaches, including social protection instruments. Understanding the role of various national ministries and actors will be important for strengthening collaboration. All of this will be key to reducing loss and damage, and to developing and strengthening approaches for assessing and adequately responding, in accordance with projected climate risks.

LOSS AND DAMAGE IN THE PARIS AGREEMENT

Whether the Warsaw International Mechanism will be enough to meet the needs of vulnerable countries in managing the challenge of loss and damage will be judged over time. The WIM is not (yet) meant to be an instrument for delivering much-needed additional finance to poor countries and communities. However, it can lay the basis for a meaningful response from the international community. It is clear that the issue of loss and damage will be a substantial part of the climate reality of the 21st century. The international community must continuously address the associated problem by deepening their understanding, determining and implementing actions, and agreeing means of support. This would resemble the way that discussions continue on adaptation and mitigation, as awareness grows, and solutions are enacted.

Including loss and damage in the Paris Agreement is key to ensuring that the issue is addressed in the long-term and does not drop off the agenda. Inclusion in the Paris Agreement would also send a strong message of political commitment to the issue, and ensure a legal obligation to seek solutions for loss and damage.

Developing countries have jointly made strong calls to include loss and damage in the Paris Agreement, separately from adaptation.³³ Their most recent proposals have already backed away from some of the most politically contentious issues. These proposals do not focus solely on the historical responsibility of developed countries. As such, they constitute a moderate way of ensuring that work on loss and damage can evolve over time under the new agreement, and reflect immediate political needs such as approaches to help coordinate climate change displacement. In spite of these proactive efforts to compromise, their demands have not yet been met with similar constructive proposals on the side of developed countries. Some developed countries including the USA and Switzerland still argue that loss and damage should be only addressed through COP decisions on the WIM, rather than in the Paris Agreement. Others, such as the EU, have not yet positioned themselves clearly. But a Paris Agreement with no reference to loss and damage will be opposed by many developing countries, and would risk de-stabilizing the Paris negotiations. More importantly, ignoring loss and damage would also ignore today's climate reality for many poor countries and communities around the world.

4. CONCLUSIONS AND COP21 RECOMMENDATIONS



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Loss and damage from climate change is now a reality. Addressing this effectively is a matter of climate justice and rights, and will require a range of tools that go beyond funding. At COP21 in Paris, the international community must send a strong signal that it is serious about loss and damage. **This will require the following:**

- 1. Reduce the incidence of loss and damage by:**
 - **Emissions reductions:** enshrine the goal of limiting global warming to 1.5°C and establish underpinning mechanisms such as a 2050 decarbonisation, emissions phase-out goal and 5 year successive commitment cycles;
 - **Scaling-up adaptation:** massively increase financial and other support to catalyse adaptation action at a scale needed to substantially reduce future losses and damages.
- 2. The core Paris Agreement must:**
 - **Anchor loss and damage associated with climate change impacts in the Paris Agreement as a stand-alone issue in a separate article,** including establishing a link to mitigation and adaptation efforts, which impact on the level of loss and damage;
 - **Reflect the need for additional financial and technical support to be provided primarily by the countries most responsible for causing the problem, but taking into account evolving responsibilities over time;**
 - **Ensure that institutional arrangements under the Paris Agreement have a mandate to further strengthen work on addressing loss and damage as the problem evolves (building on, but not limited to, the Warsaw International Mechanism (WIM)).**

2. Furthermore, Parties should ensure that the WIM is strengthened and:

- **Decide its work will continue beyond the planned 2016 review.**
- **Explore and establish financial instruments.** (The first step must be to establish a financial panel with a mandate to make recommendations to ensure finance flows to support vulnerable communities facing the worst impacts).
- **Promote additional concrete actions to assist the poorest and most vulnerable in facing loss and damage** (e.g. the development of redress schemes, adequate regional insurance approaches, building resilience of social safety nets, generation of finance from highly responsible companies, etc.)
- **Coordinate and develop legal and policy frameworks for particular types of loss and damage, for example climate displacement and migration.** Exploring the role of a coordination facility, as well as addressing non-economic losses, could contribute towards this.
- **Provide for full and effective public participation in the work of the mechanism, particularly by the communities most affected by loss and damage and their representatives.**

Overall, governments must adopt a bold way forward on loss and damage in the Paris Agreement, to ensure that the issue has permanence and durability under the new framework.

ENDNOTES

- ¹ See also www.climate-neld.com
- ² MunichRe, 2015: Natural catastrophes in the first half year of 2015. http://www.munichre.com/site/corporate/get/documents_E2079473851/mr/assetpool.shared/Documents/0_Corporate%20Website/6_Media%20Relations/Press%20Releases/2015/NatCat-first-half-year-overview-2015-EUR.pdf
- ³ https://en.wikipedia.org/wiki/2015_Myanmar_floods
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- ⁷ "Case study: Ipota's preparedness for and response to Cyclone Pam" prepared by CARE, based on a project funded by DIPECHO and Australian Aid. May 2015.
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- ²⁶ UNEP, 2014: Adaptation Gap Report. A Preliminary Assessment Report. <http://www.unep.org/climatechange/adaptation/gapreport2014/>
- ²⁷ UNEP, 2014: Adaptation Gap Report. A Preliminary Assessment Report. <http://www.unep.org/climatechange/adaptation/gapreport2014/>
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- ²⁹ For example, the G7 countries caused roughly half of the cumulative emissions between 1850 and 1995, while the entire group of non-Annex I countries (developed countries) caused almost 60% of the emissions between 1850 and 2015. In the same period, the G20 which includes today's biggest economies has been responsible for 79%, with however significantly varying per capita emissions. Based on <http://www.climate-energy-college.net/32-days-go>; a recent study on individual emissions concluded that the "top 10% emitters contribute to about 45% of global emissions, while bottom 50% emitters contribute to 13% of global emissions", for the period between 1998 and 2013. For assessments of individual based carbon emissions see e.g.: Chancel, L. and T. Piketty, 2015: Carbon and inequality: from Kyoto to Paris. <http://piketty.pse.ens.fr/files/ChancelPiketty2015.pdf>
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ActionAid International is a global movement of people working together to achieve greater human rights for all and defeat poverty. We believe people in poverty have the power within them to create change for themselves, their families and communities. ActionAid is a catalyst for that change.

www.actionaid.org

CARE International is a leading humanitarian organisation fighting global poverty and delivering lifesaving assistance in emergencies. In 90 countries around the world, CARE places special focus on working alongside poor girls and women to equip them with the proper resources to lift their families and communities out of poverty.

www.careclimatechange.org

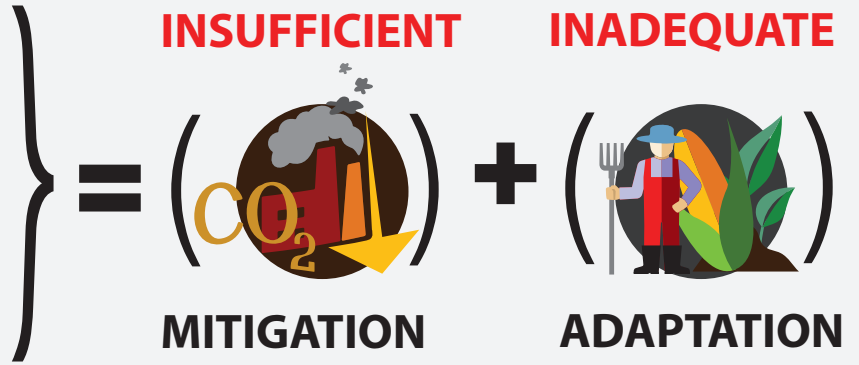
WWF is one of the world's largest and most experienced independent conservation organisations, with over 5 million supporters and a global network active in more than 100 countries. WWF's mission is stopping the degradation of the planet's natural environment and to build a future in which humans live in harmony with nature. The Global Climate & Energy Initiative (GCEI) is WWF's global programme addressing climate change and a move to 100% renewable energy through engagement with business, promoting renewable and sustainable energy, scaling green finance and working nationally and internationally on low carbon frameworks.

www.panda.org/climateandenergy

LOSS
[irreversible]

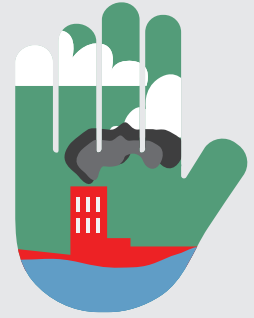
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[repairable]



HOW CAN WE PROTECT VULNERABLE PEOPLE AND PLACES?

Cut emissions massively. Support people and ecosystems to adapt to a changing climate. Address loss and damage as part of the global response to climate change.



WHAT DOES LOSS AND DAMAGE LOOK LIKE?



Deteriorating livelihoods and loss of territory lead to forced migration and displacement



More extreme floods lead to increased loss of lives and property



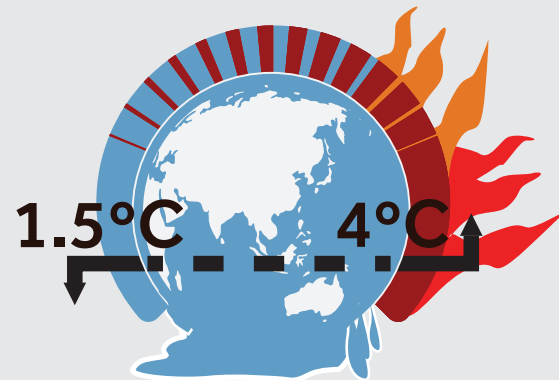
Heat waves and water scarcity lead to crop failure, less food and water and loss of ecosystems



Sea level rise and coastal flooding lead to loss of territory, salination of soils and loss of croplands

WE NEED CLIMATE ACTION

The planet is getting too hot. We must put a stop to greenhouse gas emissions (that's called mitigation) and prepare for climate shocks (that's called adaptation). But the shocks are getting worse, and more and more people can't handle the impacts. Communities need help when they are hit by permanent and unavoidable devastation (that's called addressing loss and damage.)



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