

PASSED THE POINT OF NO RETURN

A Non-Economic Loss and Damage Policy Brief

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WHAT IS NON-ECONOMIC LOSS AND DAMAGE?

WHAT: The impacts of climate change that cannot, or will not, be adapted to have been termed loss and damage¹ (L&D). This L&D can be economic or non-economic². The economic dimension is understood as L&D to resources. goods and services that are commonly traded in markets (e.g. cars and buildings.) Non-economic **L&D** (NELD) refers to L&D to things of valueintangible or tangible-that are not commonly traded in markets. Non-economic losses are associated with irreversible impacts such as fatalities or permanent destruction of nature, whereas non-economic damages are associated with impacts that can be alleviated or repaired, such as decreased social cohesion or soil quality³. It is important to underline that NELD occurs in almost all cases of L&D and impacts individuals, society, and the environment.

Figure 1: UNFCCC Non-Economic Loss categories

ENVIRONMENT

INDIVIDUALS











SOCIETY









Figure 1 outlines the UNFCCC's categories of non-economic losses. While these 9 categories are instructive, there are far more ways to experience L&D⁴. Examples range from NELD to traditions, mental health, sense of place, social fabric, identity, and dignity. Given the many different ways people assign value to things, capturing all types of NELD is immensely challenging. Despite this, it is imperative that assessments of L&D consider the non-economic dimensions. Failing to do so can distort our understanding of climate change impacts, discount and exclude the experiences of some, and skew future decision-making⁵.

EXAMPLE 1: Following the 2019/2020 'Black Summer' bushfires in Queensland, Australia that burnt more than eight million hectares of vegetation, the **emotional, mental, and psychological burdens** were very prominent⁶. One study participant summarised the collective sadness and grief: "It's grief, and anger, and fear of how much grief is still to come" (participant #9, 2021).

EXAMPLE 2: NELD to **Indigenous and local knowledge** in the Pacific Islands region is increasingly concerning⁷. As study participants explained: "The changing climate conditions will affect the reliability of some of the local knowledge which can lead to their disappearance as locals will find them to be useless (participant #36, 2020)". "Entire ways of life collapse when the material manifestations of deeply grounded Indigenous knowledge, science, and philosophy are deleted by the effects of climate change" (participant #1, 2020).

WHY AND HOW DOES NELD OCCUR?

WHY: Capitalism emerged in 18th-century Britain and spread throughout Europe and across the world through colonialism and imperialism⁸. Capitalism fundamentally changed the social relations of production and drove industrialisation, linked inextricably to, among other things, the burning of fossil fuels and deforestation, which have significantly raised atmospheric CO₂. CO₂ emissions have been disproportionately produced by the wealthiest countries⁹. These emissions mean that the earth has entered a dangerous era of climate impacts now that global warming has reached 1.1°C above pre-industrial levels.

Alongside increasing cumulative emissions, vulnerability to climate change is worsening in many places. Processes such as uneven development, unequal exchange (imperial core countries expropriating wealth from peripheral countries), increasing inequality within and between countries, poor land use planning, and the degradation of ecosystems are increasing people's vulnerability to NELD. Vulnerability is much higher in the Least Developed Countries, but it can be high for those particularly marginalised in any context, including affluent countries¹⁰.

While adaptation can reduce the burden of climate impacts on societies, vulnerable nations are increasingly reaching **adaptation limits**. This means that they are in no position to prepare for escalating climate impacts. Poverty, debt, overburdened bureaucracies, and lack of technical skills are all examples of factors that make effective and sustainable adaptation impossible.

It is important to note that NELD could have largely been avoided if concerted action was taken when climate change risks were first identified.

30 years of inaction on climate mitigation¹¹, inadequate adaptation finance¹², insufficient adaptation, and evidence of maladaptation¹³

(which increases vulnerability to climate change) have resulted in worsening NELD.

HOW: Climate change is supercharging climatic extremes making them more intense and frequent¹⁴. This includes sudden-onset events such as cyclones, wildfires, and floods, and slow onset extremes such as droughts, and processes such as sea level rise, desertification, and glacial melt. When these kinds of climate exacerbated events and processes interact with exposed and vulnerable societies, NELD occurs—as is currently happening across the world². For example, when the loss of territory due to sea-level rise leads to L&D to cultural heritage (e.g. burial sites or important artefacts) which impacts sense of place and/ or identity. Other examples include the loss of life during a cyclone, loss of ecosystem services from a major wildfire, or damage to housing and possessions with significant mental health impacts after a flood 15 .

NELD can be divided into **direct and indirect impacts**. It may be directly linked to an adverse climate impact, for example, when a cultural site is lost to wildfire. They can also occur indirectly, for example, when drought causes crop loss and subsequent malnutrition¹⁵. NELD may be experienced retrospectively, when a loss has actually occurred. But, increasingly, studies have been identifying anticipatory loss and grief from climate change impacts¹⁶. For example, young people who are mourning their future and experiencing climate- or eco-anxiety is a type of NELD.

WHERE IS NELD HAPPENING AND WHO IS AFFECTED?

WHERE: NELD is occurring all over the world and has been for decades. Yet, NELD is being disproportionately experienced by those in the Global South due to historical, geographic, structural, and socio-political factors. The NELD experienced by different people in different places is highly context-specific and influenced by intersectional identities, values, and lived experiences. This section provides two examples, one each from Global South and Global North.

Global South: India and Pakistan experienced an early spring heatwave between March and April 2022. World Weather Attribution suggest this heatwave was made 30 times more likely due to climate change¹⁷. The true cost to **human health, ecosystems, and biodiversity** cannot be known without reliable data. However, 280 direct deaths¹⁸, massive crop losses, increased food insecurity, and

the growing recognition that these temperatures are likely to be yearly occurrences are causing a range of NELD. The prolonged heat also impacted glaciers in the north of India with the government saying that climate change is an "**existential crisis**" and many people feeling anticipatory loss in regard to their childrens' futures¹⁹.



Temperatures hit a record 49.2C (120.5F) in parts of the capital, New Delhi.

Global North: Major flooding occurred in Germany, Belgium, the Netherlands and Luxembourg in July 2021²⁰, with climate change having increased its likelihood and intensity²¹. No studies have yet calculated the full range of NELD. However, 200 people died²² and many people lost their homes and belongings, bringing a range of intangible and emotional losses^{23,24}. The ground floor residents of a German care home were trapped and drowned²⁵, demonstrating that people experience NELD differently based on intersectional marginalisation. There was media coverage of the flooding's emotional toll, particularly for those who experienced the floods, who were evacuated, who lost loved ones, or whose missing loved ones' bodies were never recovered²⁶.



German Chancellor Angela Merkel and Rhineland-Palatinate State Premier Malu Dreyer (C) visit the flood-ravaged village of Schuld near Bad Neuenahr-Ahrweiler, Rhineland-Palatinate state, Germany July 18, 2021.

WHO: Those who experience NELD are not a singular homogeneous group of people. Understanding who is disproportionately affected by NELD requires **interdisciplinary research** that is sensitive to the multiplicity of worldviews and values people hold⁴. It requires an understanding of the intersectional (e.g. race, class, gender) factors and structural determinants that create **uneven vulnerability** to climate change in different contexts^{27,28}. These structural determinants relate to unequal power relations between groups which create privilege and security for some and create vulnerability and marginalization for others²⁹.

Some social groups are recognised as being disproportionately affected by NELD. These include Indigenous People, women, children and future generations, and economically, socially, and politically marginalised groups. For more information on how each of these groups are differentially affected by NELD, read our longer briefing here.

HOW CAN WE RESPOND TO NELD?

The most critical question around NELD is how we can appropriately respond. Some important actions that can be taken to address NELD are outlined below.

- 1) **Documenting**: There is an urgent need to better document NELD, both **scientifically** (as a historical record) and **politically** (for affected people to pursue legal remedies). Empirical case studies exist but ones that explicitly focus on NELD are still rare³⁰. Documenting NELD requires a thorough understanding of local culture and practices, and bottom-up, community-based, and participatory approaches⁴ as they are highly context-specific³¹ and subjective.
- (2) Measuring: NELD is inherently challenging to measure and quantify³² because they cannot easily be expressed in monetary terms and there is no common unit to measure them on the same scale³¹. The value of NELD is also highly subjective and incommensurable, as what is perceived as valuable will differ between cultures or individuals. Attributing loss to climate change is an additional challenge, as loss can have multiple drivers³³. Currently, the literature is at an impasse in regards to how to best measure NELD. The UNFCCC34 proposed four different ways to measure NELD: economic valuation, multi-criteria decision analysis, risk indices, and qualitative and semi-quantitative assessments. Most NELD-related case studies use the latter4.

(3) Addressing: A range of approaches can be used to address NELD. In the Pacific Islands, preferred approaches include education and training to create understanding, documenting Indigenous and local knowledge, and engaging with the natural environment⁷. In Bangladesh, efforts include replanting mangrove forests, homeschooling, and migration are observed³⁵. Other responses to NELD include recognition and repair of damage; financial compensation; enabling access/safe visits to abandoned sites; active remembrance (e.g. through public ceremonies, museums, schools); counselling; and official apologies. The acknowledgement of loss is key to attain recognition for those affected³¹, but this requires associated action to hold significance³⁶.



A woman takes part in a ceremony to mark the 'death' of the Pizol glacier (Pizolgletscher) on September 22, 2019 above Mels, eastern Switzerland.

- (4) **NELD in the UNFCCC**: The first NELD milestone was a 2012 technical paper on non-economic loss³⁷. The establishment of the Warsaw International Mechanism on Loss and Damage (WIM) also included NELD, with an action area in the WIM Workplan and a dedicated WIM Expert group³⁷. However, **no substantial progress** has been made to address NELD under the UNFCCC.
- (5) **Moral obligation**: NELD is already occurring, all over the world⁴. The challenges that come with responding to NELD must not discourage research and policy to address it. Action is needed to bridge the gap between lived experiences and policies, such as undertaking NELD- focussed research or advocating for a **L&D financial facility** (LDFF) that takes NELD into account. Any LDFF requires substantial climate funds from Global North countries, based on their **historical responsibility** for emissions and their vital role in colonial-capitalism, imperialism, and neocolonialism.

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IMAGE CREDITS

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- 2. People sleep in the shade of a tree on a hot summer afternoon in Lucknow in the central Indian state of Uttar Pradesh. Severe heat wave conditions are sweeping north and western parts of India with maximum temperature soaring to 45 degree Celsius) in some areas. Rajesh Kumar Singh/AP/Shutterstock ©
- 3. German Chancellor Angela Merkel and Rhineland-Palatinate State Premier Malu Dreyer (C) talk as they visit the flood-ravaged village of Schuld near Bad Neuenahr-Ahrweiler, Rhineland-Palatinate state, Germany July 18, 2021. Christof Stache/Pool via REUTERS ©
- 4. A woman takes part in a ceremony to mark the 'death' of the Pizol glacier (Pizolgletscher) on September 22, 2019 above Mels, eastern Switzerland. In a study earlier this year, researchers of ETH technical university in Zurich determined that more than 90 percent of Alpine glaciers will disappear by 2100 if greenhouse gas emissions are left unchecked. ABRICE COFFRINI/AFP via Getty Images ©