**Questionnaire in relation to Human Rights Council resolution 53/6**

**on human rights and climate change**

1. **Please describe through concrete examples and stories the impacts of loss and damage from the adverse effects of climate change on the full enjoyment of human rights in your country. Please indicate whether the impact was exceptional or whether an example of many similarly situated cases. Please estimate the number of cases that may be similar in your country.**

Loss and damage from the adverse effects of climate change make profound impacts on the full enjoyment of human rights, particularly the right to adequate food which is realised when “every man, woman and child, alone or in community with others, has the physical and economic access at all times to adequate food or means for its procurement (general commitment 12, Committee on Economic, Social and Cultural Rights, 1999)”.

In 2022, up to 783 million people in the world suffered hunger, negatively affecting the right to adequate food. The triple burden of malnutrition includes underweight, hidden hunger from deficiency in micronutrients, and overweight.

The following examples illustrate the diverse and severe impacts of natural disasters, including climate-induced loss and damage on the right to adequate food, encompassing economic and non-economic losses. They highlight the exceptional nature of these events and emphasize the need for urgent action to address the growing threats posed by climate change on human rights, particularly in vulnerable and marginalized communities. The prevalence of similar cases across the globe underscores the urgency for concerted international efforts to mitigate and adapt to climate change[[1]](#footnote-2).

**Economic Losses**

* Tropical Cyclone Idai made landfall in **Malawi, Mozambique and Zimbabwe** in 2019. Labelled as the deadliest cyclone in southern Africa, the storm displaced 95,388 people, killed 598 people, and destroyed 715,000 ha of crops in Mozambique, worsening the food security situation in the country.
* Following heavier than average monsoon rains, **Pakistan** experienced one of the world’s deadliest floods in 2022. Affecting over 33 million people, the floods resulted in USD 30 billion in economic losses. Agriculture, one of the hardest-hit economic sectors, suffered substantial losses in cotton, date, sugarcane and rice crops, as well as the deaths of approximately 1.2 million livestock animals. As a result, an estimated additional 7.6 million people are facing food insecurity in the country.
* In April 2020, Fiji was hit by Category 4 Tropical Cyclone Harold, which impacted 20 percent of the population, followed by Category 5 Tropical Cyclone Yasa in December 2020. Climate and public-health emergencies associated with COVID-19 have resulted in Fiji’s GDP contracting by 15.7 percent in 2020.[[2]](#footnote-3) As soon as 2020, small-scale and subsistence farmers – core national food producers – were facing difficulties in accessing markets, buying seeds and other agricultural inputs, while also struggling with increased food prices.[[3]](#footnote-4) In 2021, prices of agricultural products in Fiji sharply increased, limiting access to affordable and nutritious food and putting at risk the food security and nutrition of its population, especially for the most vulnerable. Lack of access to safe and nutritious food is partly the case of malnutrition and a risk for the development of non-communicable diseases (NCDs) accounting for over 80 percent of annual deaths.[[4]](#footnote-5)

**Non-economic losses**

Slow-onset hazards trigger mass displacement every year, and slow-onset hazards also render entire areas unsuitable for agriculture and force communities to move. The latest data from the Internal Displacement Monitoring Centre[[5]](#footnote-6) shows that disasters triggered 376 million internal displacements between 2008 and 2022 and left 8.7 million people displaced as of the end of 2022. As rural communities are displaced, not only do they abandon their land and livelihoods, but their departure means that food production is reduced too, which has a cascading effect on the sustainability of food systems.

* **Pakistan**’s southern province of Sindh suffered severe drought in 2021 and early 2022. The situation prompted the government to issue alerts as water scarcity became a major threat to the production of crops such as cotton and wheat, undermining the livelihoods of millions of farmers. The monsoon floods of August 2022 left 18 percent of the province under water, triggering mass displacement and severely damaging crops. National losses to the agricultural sector amounted to USD 9.2 billion, 72 percent of which were recorded in Sindh.
* Similarly, displacement and agricultural losses have been significant in **Honduras** after back-to-back disasters. Hurricanes Eta and Iota triggered 918 000 internal displacements in two weeks in November 2020. Crops such as coffee and bananas, which account for a significant proportion of the country’s exports and GDP, were damaged.
* Climate change is expected to exacerbate losses and damages within **India**’s agriculture sector, which employs 70 percent of rural households[[6]](#footnote-7), with dire implications for crop yields and food security. In 2022, the country experienced significant monsoon flooding, killing over 2000 people[[7]](#footnote-8) and forcing over 2 million people[[8]](#footnote-9) from their homes. Flood-induced economic losses and damages amounted to USD 4.42 billion. Beyond economic L&D, agricultural workers are also disproportionately affected by non- economic forms of L&D, such as adverse health impacts and the loss of lives due to exposure to climate-related hazards and extreme weather. Climate-related L&D in agriculture influences the decision to migrate among rural folk. Indeed, flooding and drought have been shown to increase people’s propensity to migrate in India.

1. **Please describe any relevant quantitative and qualitative data as well as mechanisms and tools to measure, monitor, report on, and evaluate the impacts of loss and damage, including from extreme weather and slow-onset events, on the full enjoyment of human rights. Please take into account, inter alia, the disproportionate effects on women and girls, children, youth, older persons, persons with disabilities, Indigenous Peoples, migrants, persons living in poverty and others in vulnerable situations.**

FAO assists countries by providing a variety of mechanisms, tools, and methodologies to measure, monitor, report and evaluate the impacts of loss and damage, including those from extreme weather and slow-onset events, affecting the full enjoyment of human rights, with a focus on vulnerable populations.

With regard to quantification of climate induced loss and damage, the FAO’s “Damage and Loss assessment methodology” [[9]](#footnote-10) provides a universal framework for identifying, analyzing and evaluating the impact of disasters including from extreme weather events, on agriculture, including crops, livestock, aquaculture, fisheries and forestry. While it quantifies the impacts of disasters, including other types of disasters, and a careful climate change attribution assessment should be considered, it can be used as a standard tool for developing evidence-based policies for monitoring the damage and loss under the Sendai Framework for Disaster Risk Reduction (SFDRR) indicator C2 and Sustainable Development Goals (SDG) indicator 1.5.2.

The methodology has already been applied in different country/regional contexts to track and monitor progress and achievements of specific targets on reducing direct economic loss from disasters. FAO organized a series of webinars and launched e-learning courses on the FAO's Damage and Loss Assessment Methodology for Sendai Framework Indicator C2 to support countries for generation and systematization of precise and holistic data, assessments, and analysis of the impact of disasters and extreme events on agriculture. These e-training courses (i.e., Introduction to FAO’s damage and loss assessment methodology and Using FAO methodology to compute damage and loss) and hands-on trainings help countries to better understand FAO’s Damage and Loss methodology and develop damage and loss information systems in agriculture to support capacity development. A series of publications on loss and damage (L&D) in agriculture have been prepared.

The FAO’s biannual reports “The impact of disasters and crises on agriculture and food security”[[10]](#footnote-11) provide analysis of the latest trends in disaster impact, analyze specific vulnerabilities of the agricultural sectors (crops, livestock, aquaculture, fisheries, and forestry) and provide key policy recommendations. The analysis revealed that agriculture absorbs approximately 24 percent of the impact caused by medium to large scale climate-related disasters in least developed and low-to-middle-income countries.

FAO is also currently working with the Potsdam Institute for Climate Impact Research and the University of Kassel on a methodology for quantifying L&D associated with climate extreme events and slow onsets events in agriculture, building on the FAO’s Damage and Loss methodology. assessment

In addition, FAO launched a Climate Risk Toolbox (CRTB) in 2022, an online tool to support climate-sensitive project design to allow for better and more targeted decision-making. CRTB can be used to identify climate risk hotspots and analyze major climate hazards and interlinkages with socio-economic variables and agroecological systems. CRTB is based on climate risk indicators, which reveal interlinkages between climate hazards, geographical, and socio-economic indicators of exposure, vulnerability, and adaptive capacity. The indicators are based on the most up-to-date information available at national and sub-national levels. CRTB users can conduct climate risk screenings in a few steps and obtain a comprehensive report that includes climate-resilient measures and tailored recommendations to prevent, reduce and mitigate climate risk. This tool supports climate change policies and disaster risk reduction, a key feature of the FAO’s Framework for Environmental and Social Management.

FAO has conducted an empirical analysis to measure how extreme weather events and long run climate change differentially effect the incomes and adaptive actions of rural women, youths, and people living in poverty. This analysis merges together household survey data from 24 countries with geo-referenced weather and climate information. It provides clear evidence that rural women and people living in poverty experience substantially higher levels of income loss as a result of extreme weather events and are more limited in the adaptive actions they can take.

These tools and mechanisms contribute to a comprehensive understanding of the impacts of climate change on agriculture and food security, taking into account vulnerable populations. By combining quantitative assessments, training programs, and collaborative research, FAO aims to enhance the capacity of countries to monitor and respond to loss and damage, ultimately contributing to the protection and fulfillment of human rights, particularly for marginalized communities.

1. **Please describe any specific measures, including public policies, legislation, practices, strategies, or institutional arrangements that your Government has undertaken or plans to undertake at a national, sectoral or sub-national level, in compliance with applicable international human rights law, to avert, minimize and address loss and damage, including equity-based approaches and solutions. Please also identify any relevant mechanisms for ensuring accountability, including means of implementation.**

FAO collaborates with governments and provides support to implement measures and strategies to avert, minimize, and address loss and damage, particularly in the context of climate change and its impact on agrifood systems.

For instance, FAO has been supporting countries with implementation of the Right to Food Guidelines which provide policy recommendations for the progressive realization of the right to adequate food, which also recognizes the new and on-going threats driven by climate change.

The FAO’s Strategy on Climate Change (2022), and Science and Innovation Strategy (2022) also set actions for measuring damage and loss while aligning with the conservation, restoration and sustainable management of natural resources and ecosystems, catalyzing innovation and technologies.

As a custodian agency for 21 SDG indicators and the Sendai Framework for Disaster Risk Reduction (SFDRR) indicator C2, FAO has been supporting countries with public policies, legislation, practices, strategies and institutional arrangement that address the intertwist relationship between climate change and agrifood systems. Countries are receiving support on the development and revision of strategies for incorporating disaster risk reduction within the agriculture sector in support of the attainment of Sendai Framework Target E and synergistically with relevant plans for climate change adaptation. The FAO’s Loss and Damage methodology has been applied in more than 40 countries to report and monitor the Sendai Framework monitoring indicator C2.

FAO is also supporting countries with revision and implementation of Nationally Determined Contributions (NDCs) to address and achieve agriculture, forestry and other land use components of their NDCs. FAO’s recent publication “Loss and Damage in Agrifood Systems: Addressing Gaps and Challenges”[[11]](#footnote-12) reveals that approximately one-third of existing climate action plans explicitly acknowledge the concept of loss and damage. This underscores the increasing importance of the issue globally, with agriculture singled out as the most profoundly affected domain.

1. **Please identify and share examples of promising practices and critical challenges in the promotion, protection, and fulfilment of the full enjoyment of human rights in the context of loss and damage, including examples that highlight multilateral cooperation and approaches, at global and regional levels, including equity-based approaches and solutions.**

Climate change poses a significant threat to human rights, particularly impacting small-scale farmers who bear the brunt of unavoidable loss and damage.

A good example of promoting and protecting fulfillment of human rights is nature-based solutions (NbS). They can help to avert and minimize loss and damage in agriculture as well as simultaneously offer ecological co-benefits.

A [study](https://www.fao.org/3/ca4429en/ca4429en.pdf) conducted by FAO(2023)[[12]](#footnote-13) shows that these best practices make economic sense and add socio-economic and environmental benefits even in the absence of hazards. On average, these practices perform 2.2 times better than usual practices under hazard conditions (low intensity, high frequency hazards, including cold waves, strong winds, frost, snow, heavy rainfall, flooding, drought, high temperature and pests). In monetary terms, the benefit-cost ratio was 3.6 under hazardous conditions and increased to 4.3 under non-hazardous conditions. The examined disaster risk reduction good practices were livelihood diversification measures, irrigation and livestock shelter infrastructure, integrated livestock management and the use of drought- and flood-tolerant crop varieties.

One of the critical challenges in the promotion, protection, and fulfilment of the full enjoyment of human rights in the context of loss and damage in agrifood systems is striving to develop inclusive agrifood systems and advocating for increased financial and technical support for small scale farmers. Small-scale farmers, including women, youth, indigenous peoples, and ethnic minorities, often face disproportionate challenges. Despite their vital role in global food production, only 1.7 percent of total climate finance, approximately USD 10 billion[[13]](#footnote-14), is allocated to small-scale agriculture. Recognizing that 80 percent of the world's food is produced by family farmers[[14]](#footnote-15), urgent action is needed to increase financial support, adopting a family farming-centered approach. The insufficient support for small-scale farmers exacerbates their vulnerability, especially among marginalized groups. Advocating for increased funding and policies tailored to their unique challenges is crucial.

Addressing climate-induced loss and damage requires a holistic approach that prioritizes equity and cooperation. Promising practices, such as increased support for small-scale farmers and the promotion of inclusive agrifood systems, must be coupled with solutions to critical challenges. This includes advocating for increased climate finance, dismantling access barriers, and fostering inclusive financial and knowledge systems. Only through collaborative efforts can a resilient and equitable agrifood system be achieved, upholding the full enjoyment of human rights for all.

1. **Please provide specific recommendations, if possible, on how to address the critical challenges that have been identified, including actions to be taken at country, regional, and global levels, as well as by different groups of stakeholders, Governments, development agencies, financing institutions, and others.**

To ensure human rights-based approaches to loss and damage in agrifood systems, the following recommendations provide opportunities for transforming agrifood systems to make them more inclusive, resilient and sustainable:

* **Promote inclusive agrifood systems**: Inclusive agrifood systems can help creating an enabling environment for farmers and food actors to equitable access to land, input, finance, local and traditional practices, knowledge, capacities, services, and markets, which are crucial for managing multiple shocks and stresses driven by climate change. Supported by inclusive financial systems, equitable knowledge platforms, and affordable technological innovations, inclusive agrifood systems could show all major features of resilience, thus having the capacity to effectively avert losses and damages.
* **Address non-economic losses**: physical, mental, and emotional health of the agricultural workers should be considered given that they are the driving force in low-mechanised developing countries. As recent study showed that farmworkers face numerous heat stress-related risk factors under changing climate, namely gender-related, dehydration, heat strain, clothing, workload, payment method, job decision, and environmental conditions. Some factors are unique to migrant and child farmworkers. Climate-induced non-economic losses may also include mental and emotional health damage of the farmworkers, farmers, and fishers due to extreme climatic event-induced loss of land, crop, livestock, fisheries, and job opportunities. Supporting health of agricultural workers affected by climate change impacts is thus important.
* **Enhance agro-based communities’ local/traditional knowledge, practices, cultural heritage and ways of living** are crucial aspects of non-economic loss and damage. Many of FAO’s 78 Globally Important Agricultural Heritage Systems (GIAHS) are at risk of potential climate change impact, while the need for protecting fragile relationships between societies and their agro-based culture and heritage are clear.
* **Strengthen climate finance towards agrifood systems**: Given the limited available resources for climate action altogether, multiple co-benefits from single intervention should be promoted in Loss and Damage financing space as well. Increased support to farm- and landscape level DRR and adaptation good practices can avert and minimize Loss and Damage and  generate socio-economic and ecological co-benefits.
* **Improve assessments and related methodology** on assessing and tracking climate change-induced losses and damages as applied to agrifood systems. Increased investment in improving such tools and monitoring systems and facilitate their application and building the capacity of the local experts in the climate-vulnerable countries to use these instruments by contextualizing them, as needed.
* Clarifying **a common definition on loss and damage** for agrifood systems considering local context is needed as a first step to identify relevant domains and further measures and responses. Both in terms of the economic and non-economic losses, the impacts may differ from communities to communities. This will allow for countries to raise awareness among relevant actors, facilitating the inclusion of the concept in strategies and planning instruments, and identifying relevant responses, which also ensure full enjoyment of the right to food and other human rights.

1. **Please provide any additional information you believe would be useful to support climate action and justice that promotes the full enjoyment of human rights in the context of loss and damage.**

Agrifood systems are increasingly experiencing losses and damages from climate change, and agricultural losses are shouldering one quarter of the total impact of disasters across of all sectors (FAO, 2023[[15]](#footnote-16)).

Losses and damages in the agrifood systems include the observed and anticipated economic and non-economic losses and damages to all components of these systems and the people depending on them. While addressing loss and damage in the agrifood systems is crucial, raising awareness and increasing investment and support is paramount for the full enjoyment of human rights.

Finance will play a central role in moving forward. This will require specific ways to identify which loss and damage areas to support and how. Comprehensive risk assessment tools will be fundamental, in addition to the targeting of agrifood systems, one of the most vulnerable global sectors.

FAO has been providing support for countries to help define country-specific strategies and identify loss and damage at the local level, to implement ex ante and ex post measures, and to subsequently move forward with strategies and actions. Losses and damages can greatly differ from country to country, both in terms of the economic and non-economic losses. Tracing the “loss and damage” landscape across all four sectors (agriculture, livestock, fisheries and aquaculture and forestry) is the first step necessary for raising awareness among relevant actors, facilitating the inclusion of the concept in strategies and planning instruments, and identifying relevant responses. Enhancing climate risk assessment is indispensable for supporting losses and damages management in the agrifood sector.

Stronger partnerships will be required to move ahead with loss and damage in the agricultural sector, to ensure that sustainable strategies and solutions can be identified, and that robust strategies for aversion and minimization are addressed, identified and implemented.

Investing in data collection and research will be key to track the nature and extent of loss and damage caused by climate change impacts. Collecting information about the nature and extent of loss and damage is crucial to providing a baseline for future actions and helping assess the effectiveness of loss and damage responses.

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