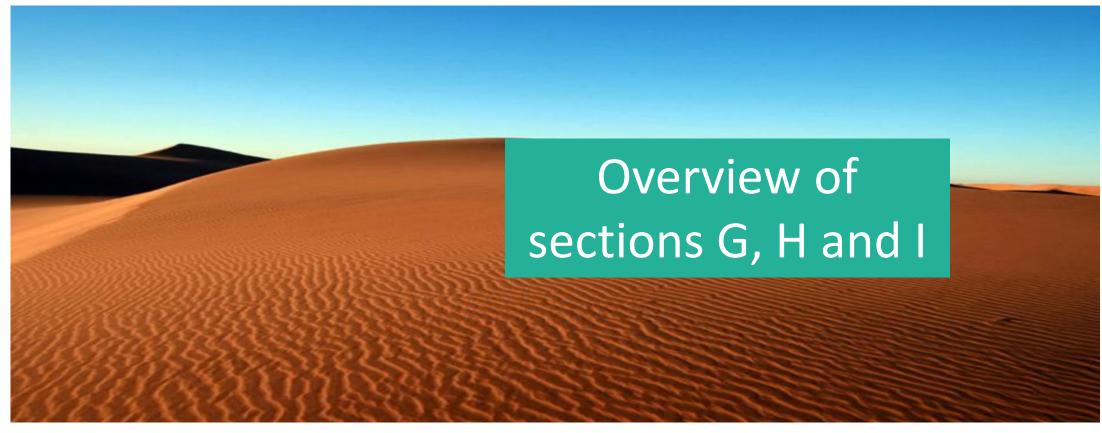
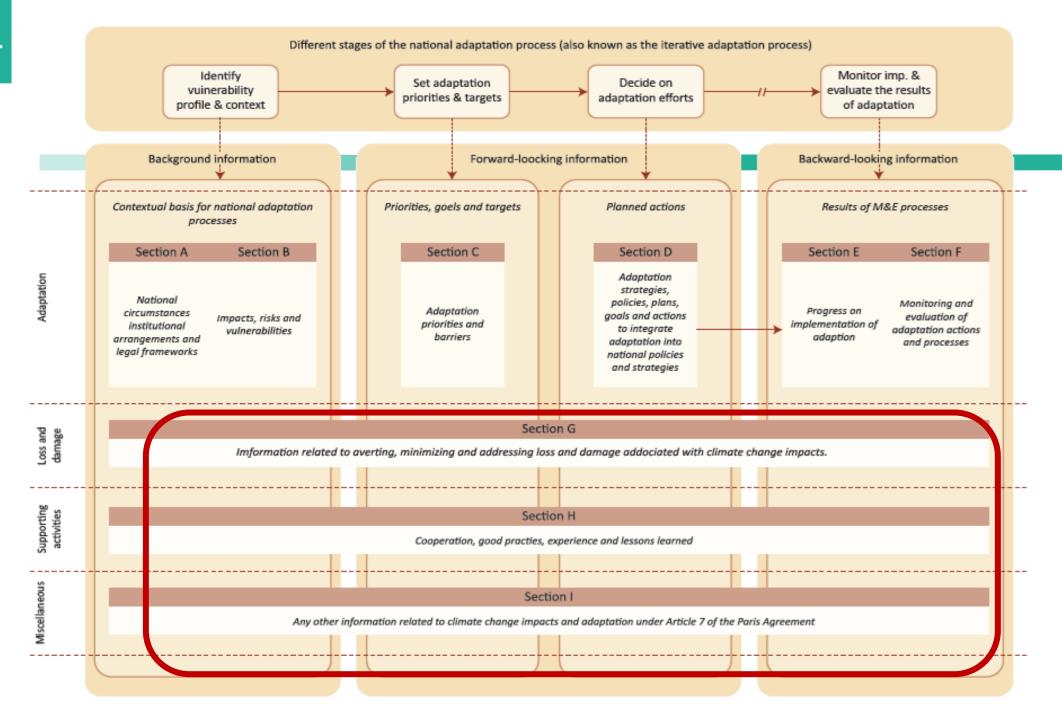


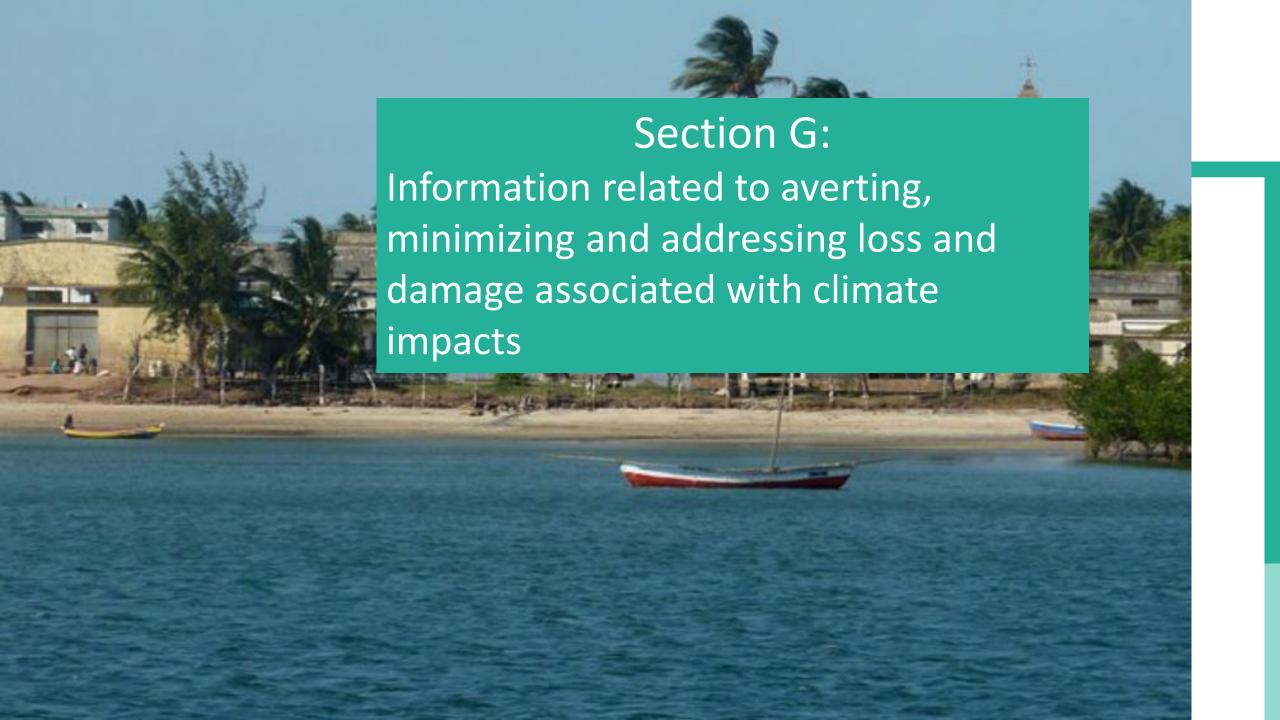


copenhagen climate centre











While it is important to stress that there is **no widely agreed definition of "loss and damage"** in the context of climate change...

For the purposes of this presentation, we adopt the definition proposed by Doktycz and Abkowitz (2019), who understand the term to refer to:

"the actual and/or potential manifestation of impacts associated with climate change that negatively affect human and natural systems"



Losses and damages related to climate change are caused by two types of climate hazard:

• Extreme weather events (e.g. storm surges, droughts, heatwaves, and floods), definable as:

"are single, discrete events with a clearly identifiable beginning and/or end and that occur or reoccur in a matter of days or even hours at a local, national, or region scale"

• Slow onset events (e.g. sea-level rise, salinization, ocean acidification, desertification, loss of biodiversity, and glacial retreat), definable as:

"long-term phenomena caused or intensified by anthropogenic climate change that take place over prolonged periods of time — typically years, decades, or even centuries — without a clear start or end point"



The term "loss and damage" is often used as a single term, however within the term itself:

Damages generally refers to negative impacts **that are not necessarily permanent** (i.e. are repairable, recoverable, or replaceable)

They are otherwise known as the **economic costs associated with climate impacts**, and can generally be given a monetary value. As such, they can be quantified through structured assessments (e.g. post-disaster needs assessments, surveys, and modelling).



Damages caused by extreme weather events can be further divided into three categories:

- **Direct costs** the costs that occur as a direct result of the event in question (e.g. loss of property in a tourist resort due to a storm)
- Indirect costs the costs that occur due to the knock-on effect of the original event (e.g. the loss of tourism as a result of the damage caused by the storm)
- Risk management costs the cost of measures implemented in order to reduce the extent of loss and damage incurred when extreme weather events do occur.
 - Risk mitigation measures *could* include, the cost of operating an early warning system for climate-hazards, or...
 - The cost of responding to a hazard (e.g. evacuating at risk citizens)



Losses meanwhile, generally refers to **impacts that are permanent** (i.e. are not repairable, recoverable, or replaceable)

Loss is otherwise known as **Non-Economic Loss and Damage**, which are intangible in nature and often hard to define or measure. Critically, **loss cannot easily be quantified in monetary terms**, as things lost under the term "losses" are not typically marketed.

As such, Non-Economic Loss and Damage (i.e. losses) related to climate change are very difficult to assess.



To better understand **what loss entails**, McNamara et al. (2020) divides the various manifestations of losses into five broad and **interconnected** categories:

- **Human mobility and territory** e.g. a loss of territory due to sea-level rise, decreased habitability of an area due to prolonged climate pressures, or (in)voluntary migration due to reduced habitability or loss of territory.
- **Life and health** e.g. loss of life or reduced life quality (e.g. injury or sickness) due to the direct impacts of climate change, and reduced life quality due to the indirect impacts (e.g. mental health issues caused by loss of lifestyle due to climate change)
- **Biodiversity and ecosystem services** e.g. loss of biodiversity and ecosystem services due to climate pressures
- Cultural heritage and indigenous knowledge e.g. loss of cultural sites, or loss of indigenous knowledge (and associated cultural identity) due to climate-induced changes in lifestyle
- Sense of place and social cohesion e.g. loss of a sense of belonging and identity that accompanies loss of land (particularly culturally significant land), or the decrease in social cohesion amongst certain communities due to climate-induced migration



Information related to averting, minimizing and addressing loss and damage associated with climate change impacts

- 115. Each interested Party may provide, as appropriate, information related to enhancing understanding, action and support, on a cooperative and facilitative basis, to avert, minimize and address loss and damage associated with climate change impacts, taking into account projected changes in climate-related risks, vulnerabilities, adaptive capacities and exposure, including, as appropriate, on:
 - (a) Observed and potential climate change impacts, including those related to extreme weather events and slow onset events, drawing upon the best available science;
 - (b) Activities related to averting, minimizing and addressing loss and damage associated with the adverse effects of climate change;
 - (c) Institutional arrangements to facilitate the implementation of the activities referred to in paragraph 115(b) above.



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Past and future loss and damage

Actions to manage loss and damage

Institutional arrangements to facilitate loss and damage



The request for information about losses and damages sustained and/or expected is made by bullet point (a):

"Observed and potential climate change impacts, including those related to extreme weather events and slow onset events, drawing upon the best available science"

The request is essentially asking for countries to provide:

- Descriptions and/or estimations of loss and damage that has already been incurred (i.e. observed), and/or...
- Descriptions and/or estimations of losses and damages that are expected in the future

In both cases, losses and damages relevant to being reported on here can be related to either **extreme** weather events and slow onset events.



The reference in this bullet point to:

"drawing upon the **best available science**"

Suggests that information provided here should be as **robust as possible** given the reporting countries national circumstances... In other words, **countries should aim to**, *if possible*, **draw upon assessments that are able to robustly attribute losses and damages to climate change**.

Conducting such assessments requires a certain quality of data and resources that not all countries possess...

Therefore, countries could revert to much less resource intensive approaches towards attributing causality such as "simple reasoning" or another alternative proxy for the fact that loss and damage has been exacerbated by climate change.



Countries choosing to report on past and expected losses and damages would **ideally** be able to present information about:

- The direct and indirect economic costs (potentially including the costs of risk mitigation), and...
- The non-economic costs

However, it is likely that (at least in the short term) the majority of information provided by countries will be predominantly focussed on the direct economic impacts (i.e. direct damages) of extreme weather events.

This is due to:

- The present lack of assessment methodologies and frameworks for assessing the full non-economic costs of extreme weather events, and...
- The inherent uncertainties associated with assessing loss and damage related to slow-onset events (economic and non-economic)



The **absence of accessible assessment methodologies** however, should not necessarily prevent countries interested in reporting on both: **non-economic loss and damages**, and **loss and damages related to slow-onset events** from doing so...

In the absence of more robust assessment methodologies, countries could instead include information on losses and damages that have been captured by more qualitative means, such as case studies...

While providing information in this form is neither perfect or particularly robust, is arguably better than not documenting or communicating this information at all.



In cases where reporting on losses and damages is being hampered by data gaps, countries could instead use narratives and case studies to report on areas where more robust data is absent.

While unable to provide robust and quantitative information about the losses and damages occurring at the national level, narratives and case studies can be used by countries as an effective means of conveying how certain types of losses and damages are being experienced within their territory.

Resources such as <u>IIED (2021)</u> and <u>Climate Refugees (2021)</u> provide a **series of good examples** of what any case studies to be integrated into a BTR or NatCom could look like. The case studies provided in these resources offer powerful insights into the real-world impacts of climate change on vulnerable communities.



When reporting on losses and damages, countries should try to report on both **observed** losses and damages and losses and damages that are **anticipated** to be incurred in the future.

To do this, countries will need to collate information about observed and anticipated future losses and damages. Such information is typically generated by a range of different processes, including post-disaster impact assessments, scientific studies and assessments

Dimension of losses and damages	Potential information source	
Past losses and damages due to extreme weather events	 Post-disaster impact assessments Case studies from afflicted communities 	
Future losses and damages due to extreme weather events	 Scientific assessments that integrate climate impact modelling, attribution science, observational data, and historical records 	
Past losses and damages due to slow onset events	 Scientific studies and technical reports such as IPCC, CLIMIG Database (2015–2020) Case studies from afflicted communities 	
Future losses and damages due to slow onset events	 Scientific assessments that integrate some or – ideally – all of the following: climate impact modelling, observational data and historical records, socioeconomic analyses, local knowledge, policy analysis, and financial considerations. 	





The second aspect of section G asks countries to describe actions, planned or being implemented, that relate to managing loss and damage

"(b) Activities related to averting, minimizing and addressing loss and damage associated with the adverse effects of climate change"

This request essentially mirrors the request made by the guidelines for information on adaptation actions planned/implemented (albeit for actions that relate to management of loss and damage). As such, one would expect countries to approach reporting on these actions in a similar way...



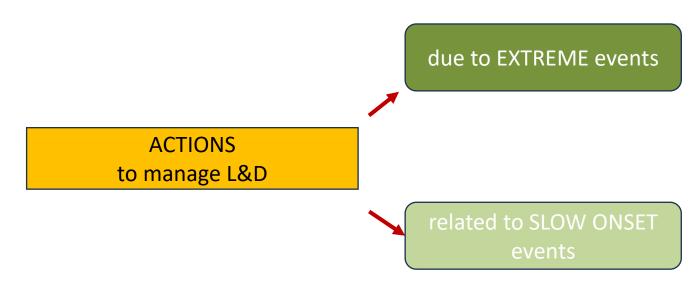
While the question of how to present this information is notionally straightforward... **Identifying what** activities constitute managing loss and damage could be more tricky, as they are often not framed as such.

Further, due to their conceptual closeness, it is often difficult to identify which actions should be framed as **managing loss and damage**, and which actions should be framed as **adaptation** or **disaster risk reduction**...



Actions that manage loss and damage are generally understood to be actions that reduce the scale of losses and damages when loss and damage cannot be avoided (i.e. in relation to impacts that cannot be prevented or adapted to... either due to technical, financial or physical constraints).

Actions used to manage loss and damage will differ, depending on whether they are managing losses and damages due to **extreme** weather events, or losses and damages related to **slow onset** events.





Measures to manage loss and damage from extreme weather events include:

Risk retention – "self-insurance" measures which can build up the resilience of the populations or the state
to unexpected damages incurred due to climate events...

Risk retention measures can include:

- Establishing or strengthening social protection schemes
- Establishing catastrophe funds
- Risk transfer measures that enable countries to shift the economic risks of extreme weather events to third parties, e.g. insurance, catastrophe bonds and similar financial instruments.



Actions that qualify as **risk reduction** – e.g. construction of sea walls, or establishment of early warning systems – **should not (theoretically) count as managing loss and damage** as they would qualify as adaptation or DRR...

Regardless, countries may still want to report on these actions in relation to how they are managing loss and damage anyway, as they still represent important part of the conversation surrounding loss and damage.



Measures to manage loss and damage from slow onset events include:

- Establishing or strengthening institutional arrangements aimed at facilitating cooperation amongst agencies and other stakeholders in performing tasks necessary for managing the impacts of slow onset events as the develop (e.g. assessing current and emerging climate stressors, or formulating policy and enacting legislation)
- Establishing governance schemes to manage the gradual changes in resources (e.g. land, water, food) anticipated, and/or to deal with the socio-economic consequences of these changes (e.g. voluntary and involuntary migration).



	Implemented ahead of a climate event	Implemented during or post a climate event
Actions for addressing economic losses and damages		
Extreme weather events	 Social protection actions, including pre-disaster financial support Risk layering, risk retention, risk transfer (e.g. climate insurance) Early warning and impact-based forecasting Loss and damage databases to support decision-making and risk assessments 	 Humanitarian assistance Short- and long-term recovery and rehabilitation Support for rebuilding livelihood Rebuilding damaged infrastructure Compensation
Slow-onset events	 Livelihood diversification with reskilling and support for alternative livelihoods Planned relocation/Assisted migration 	 Support for rebuilding livelihood Rebuilding damaged infrastructure Compensation
Actions for addre	essing non-economic losses and damages	
Extreme weather events	 Early warning and impact-based forecasting (e.g. to enable timely evacuation) Through assisted migration, support to people in areas at high risk of extreme events to relocate to safer areas and avoid disaster displacement 	 Reparations to help ensure future well-being following loss Recognition of loss and repair of damage; Support for communities to preserve their unique culture and social ties outside their traditional/former place of residence Enabling access/safe visits to abandoned sites Conservation and restoration of ecosystems and biodiversity
Slow-onset events	 Investment to safeguard cultural heritage (e.g. restoring or rehousing artefacts); support for intangible cultural heritage (e.g. documentation) Developing culturally sensitive and people-centred planned relocation guidelines and processes 	 Reparations to help ensure future well-being following loss Recognition of loss and repair of damage; Support for communities to preserve their unique culture and social ties outside their traditional/former place of residence Enabling access/safe visits to abandoned sites Conservation and restoration of ecosystems and biodiversity



Institutional arrangements to facilitate loss and damage



Institutional arrangements to facilitate loss and damage

Finally, section G asks authors to provide information about any existing:

"Institutional arrangements to facilitate the implementation of the activities [to manage loss and damage]
referred to in paragraph 115(b) above"

This request **essentially mirrors earlier guidelines provided in section A**, which request information about institutional arrangements for facilitating adaptation.

While not explicitly requested by the guidelines provided in MPGs – when reporting on these institutional arrangements, countries could report on any legal instruments (e.g. laws, acts) that mandate the government to act to address loss and damage.

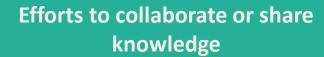




Cooperation, good practices, experience and lessons learned

116. Each Party should provide the following information, as appropriate, related to cooperation, good practices, experience and lessons learned:

- (a) Efforts to share information, good practices, experience and lessons learned, including as they relate to:
 - (i) Science, planning and policies relevant to adaptation;
 - (ii) Policy innovation and pilot and demonstration projects;
 - (iii) Integration of adaptation actions into planning at different levels;
 - (iv) Cooperation to share information and to strengthen science, institutions and adaptation;
 - (v) Area, scale and types of cooperation and good practices;
 - (vi) Improving durability and effectiveness of adaptation actions;
 - (vii) Helping developing countries to identify effective adaptation practices, needs, priorities, and challenges and gaps in a way that is consistent with encouraging good practices;
- (b) Strengthening scientific research and knowledge related to:
 - (i) Climate, including research and systematic observation and early warning systems, to inform climate services and decision-making;
 - (ii) Vulnerability and adaptation;
 - (iii) Monitoring and evaluation.



Efforts to strengthen scientific research and knowledge systems





Bullet point (a) is asking countries to report on:

"efforts [it has made] to share information, good practices, experience and lessons learned"



As part of this request, it provides a non-exhaustive seven-part list that essentially suggests that it is relevant to report on any collaborations, or knowledge-sharing activities that a country is a part of or participating in, as long as they are related to adaptation.

Cooperation, good practices, experience and lessons learned

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 - (iv) Cooperation to share information and to strengthen science, institutions and adaptation;
 - (v) Area, scale and types of cooperation and good practices;
 - (vi) Improving durability and effectiveness of adaptation actions;
 - (vii) Helping developing countries to identify effective adaptation practices, needs, priorities, and challenges and gaps in a way that is consistent with encouraging good practices;



(b) Strengthening [...]

As such, countries should consider reporting on all forms of cooperation/knowledge-sharing activities that are deem relevant to report on and have meaningful relevance to adaptation (or loss and damage).

These could include, for example:

- Participation in regional adaptation programmes and research projects, or cross-border initiatives
- Participation in regional adaptation forums, programmes or initiatives specifically aimed at sharing experiences, lessons learned and good practices related to adaptation



In addition to reporting on the act of participating in knowledge sharing events or forums...

Countries could also choose to provide descriptions of any of the good practices established, interesting experiences had, and/or lessons learned that they have been sharing through the events and initiatives being reported on.

Although this is not explicitly asked for by the guidelines in section H, providing material to this effect will enable countries to:

- Sharing potentially useful information with an international audience that could contribute to the "global pool of knowledge"
- Help developing countries gain recognition for certain aspects of their national adaptation process that have been particularly successful.



Efforts to strengthen scientific research and knowledge



Efforts to strengthen scientific research and knowledge

Bullet point (b) meanwhile, is asking countries to report on activities that:

"Strengthen scientific research and knowledge"

Specifically in relation to:

- Climate (including research, systematic observation and early warning systems)
- Vulnerability and adaptation
- Monitoring and evaluation



Efforts to strengthen scientific research and knowledge

As such, countries should report on actions it is undertaking that:

- Increase the country's knowledge and understanding of a range of fields directly related to adaptation e.g. vulnerability, adaptive capacity, or methodologies to monitor and evaluate adaptation.
- Increasing the country's capacity to generate relevant data that may in turn, lead to increases in the quality of scientific research, knowledge generation, and/or early warning.
 - e.g. upgrading systemic observation systems or expanding the capacities of monitoring and evaluation systems





Any other information related to climate change impacts and adaptation under Article 7 of the Paris Agreement

117. Each Party may provide, as appropriate, any other information related to climate change impacts and adaptation under Article 7.

Anything else related to climate change impacts and adaption that your country would like to report on



Some important messages...

- Adaptation reporting within the BTR is voluntary- countries can decide to report adaptation in previous framework (in NCs every four years) or to prepare A-BTR chapter every 2 years,
- A-BTR is entirely country-driven exercise: countries can decide how and to what extent to report (based on their interests and/or capacities),
- When reporting adaptation in BTR countries should consider using existing information from recent reports (NCs, NAPs, ACs, NDC...), and also to add any new information in specific sections they have from recent developments, research, reports...
- Look how to align your BTR timeline with other reporting requirements to reduce burden when possible,
- Countries can submit a combined report that constitutes their:
 - National Communication and BTR
 - National Communication and Adaptation Communication
 - BTR and Adaptation Communication
 - National Communication, BTR, and Adaptation Communication



