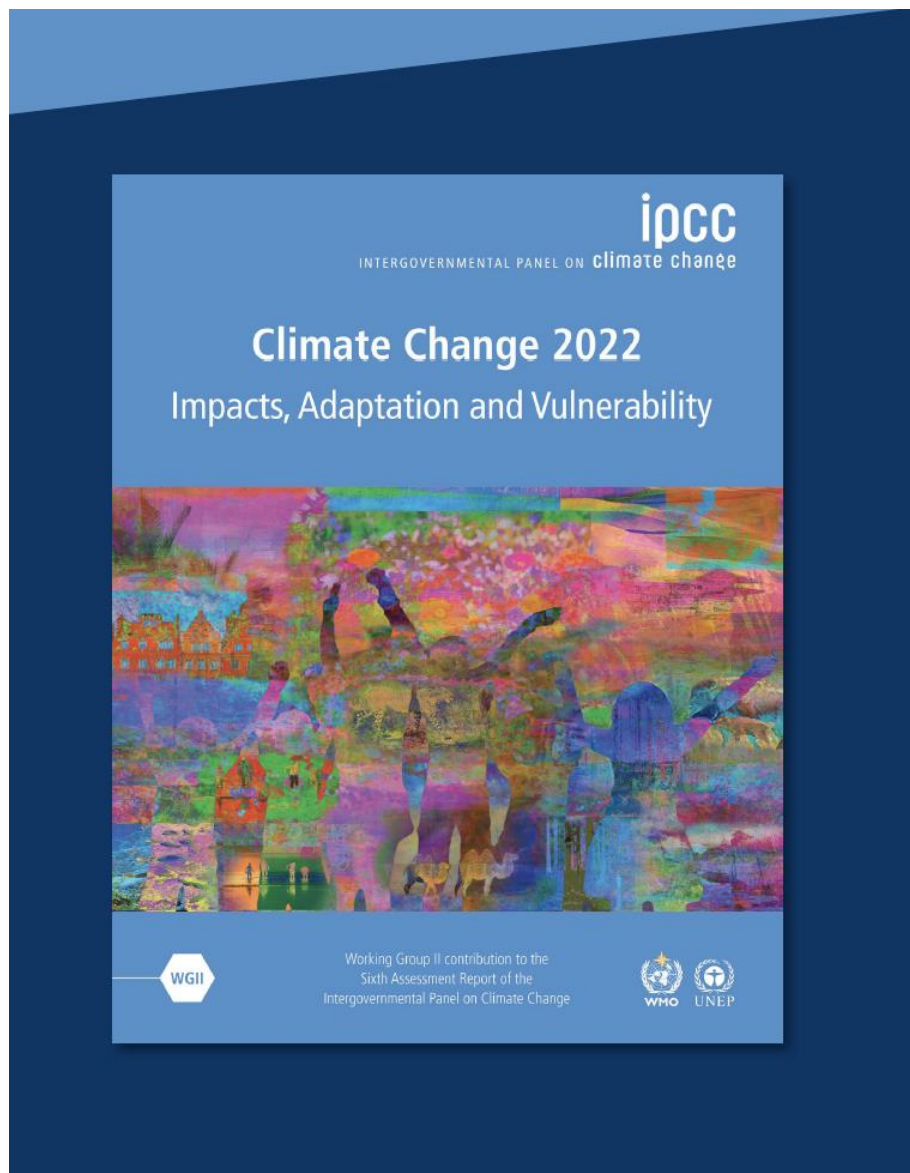


# Loss and Damage: IPCC scientific assessment

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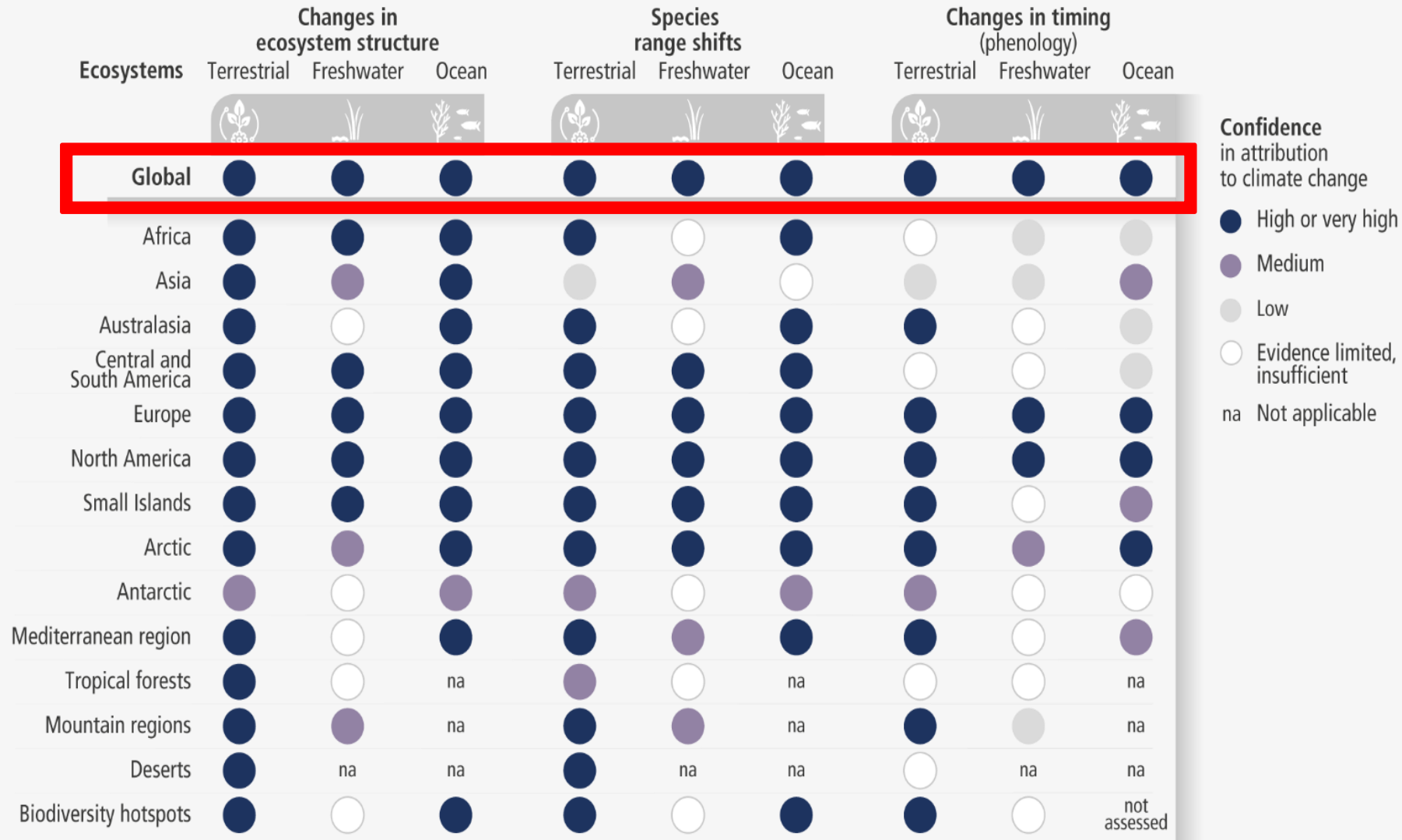
## losses and damages

- harm from observed **impacts** and projected **risks**
- can be **economic** or **non-economic**

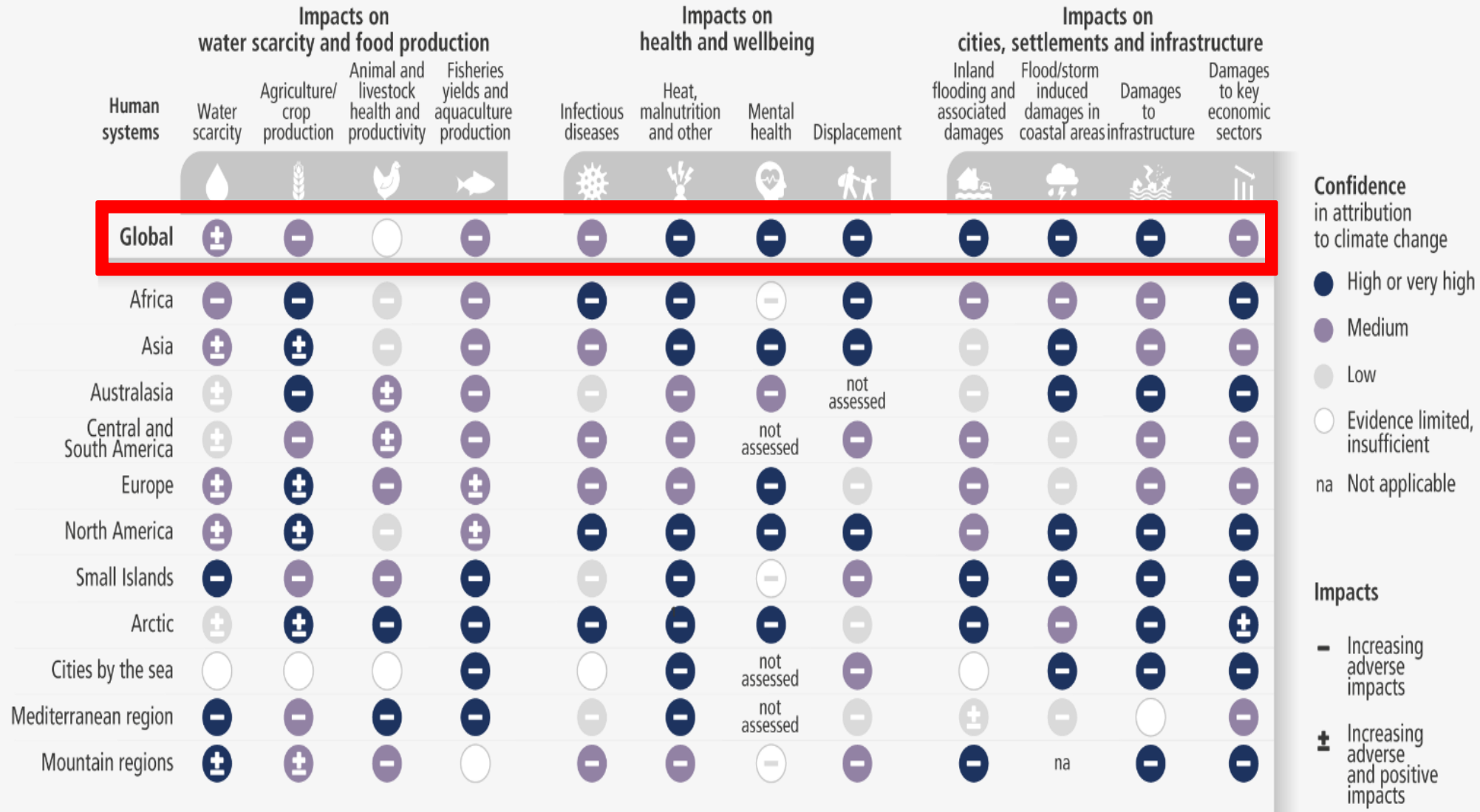




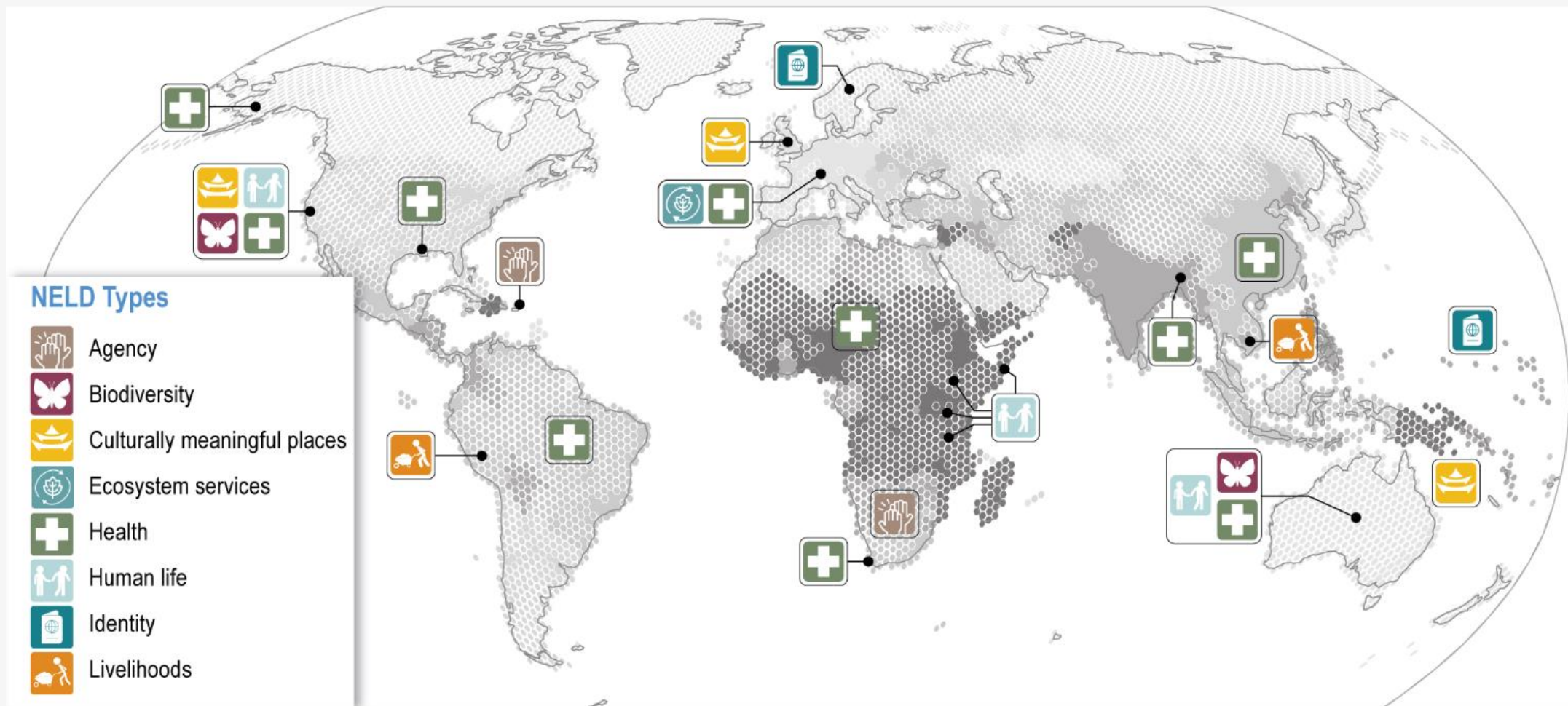
# Observed impacts of climate change on ecosystems



# Observed impacts of climate change on human systems



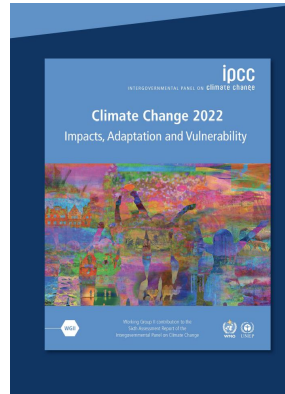
# Non-economic loss and damage (NELD) associated with climate hazards attributed to climate change with background on the global vulnerability



# 2. Future losses and damages will rise with increased global warming

**With increasing global warming, losses and damages increase and become increasingly difficult to avoid, while strongly concentrated among the poorest vulnerable populations**

- Risks are highest for nature and people in regions experiencing the highest temperatures, those living along coastlines, in the frozen parts of the world, along rivers and where other threats exist, but these can be moderated to some extent
- Sea level rise will put people living in coastal cities and settlements at greater flood risk and low-lying coastal ecosystems will be submerged and lost
- The number of people at risk from climate change and associated loss of biodiversity will progressively increase
- Reducing GHG emissions to limit global warming to 1.5°C would substantially reduce climate-related losses, but they cannot be eliminated completely

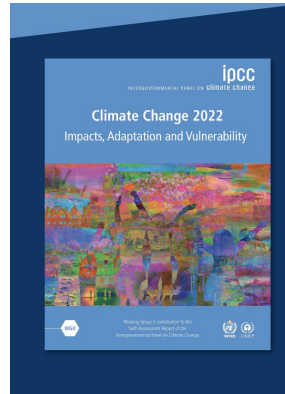




# 3. Losses and damages are unavoidable and are unequally distributed

## **Adaptation does not prevent all losses and damages, even with effective adaptation.**

- Losses and damages are
  - unequally distributed across systems, regions and sectors
  - not comprehensively addressed by current financial, governance and institutional arrangements, particularly in vulnerable developing countries
- In Small Islands:
  - 1.5°C is a critical threshold for losses and damages
  - Sea level rise poses an existential threat
  - Loss of terrestrial, marine and coastal biodiversity and ecosystem services
  - Loss of lives and assets, risk to food security and economic disruption due to destruction of settlements and infrastructure
  - Economic decline and livelihood failure of fisheries, agriculture, tourism and from biodiversity loss from traditional agroecosystems
  - Reduced habitability leading to increased displacement
  - Risk to water security in almost every small island





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