



The IPCC Special Report on Managing the Risks of Extreme Events and
Disasters to Advance Climate Change Adaptation

Impacts in South Asia

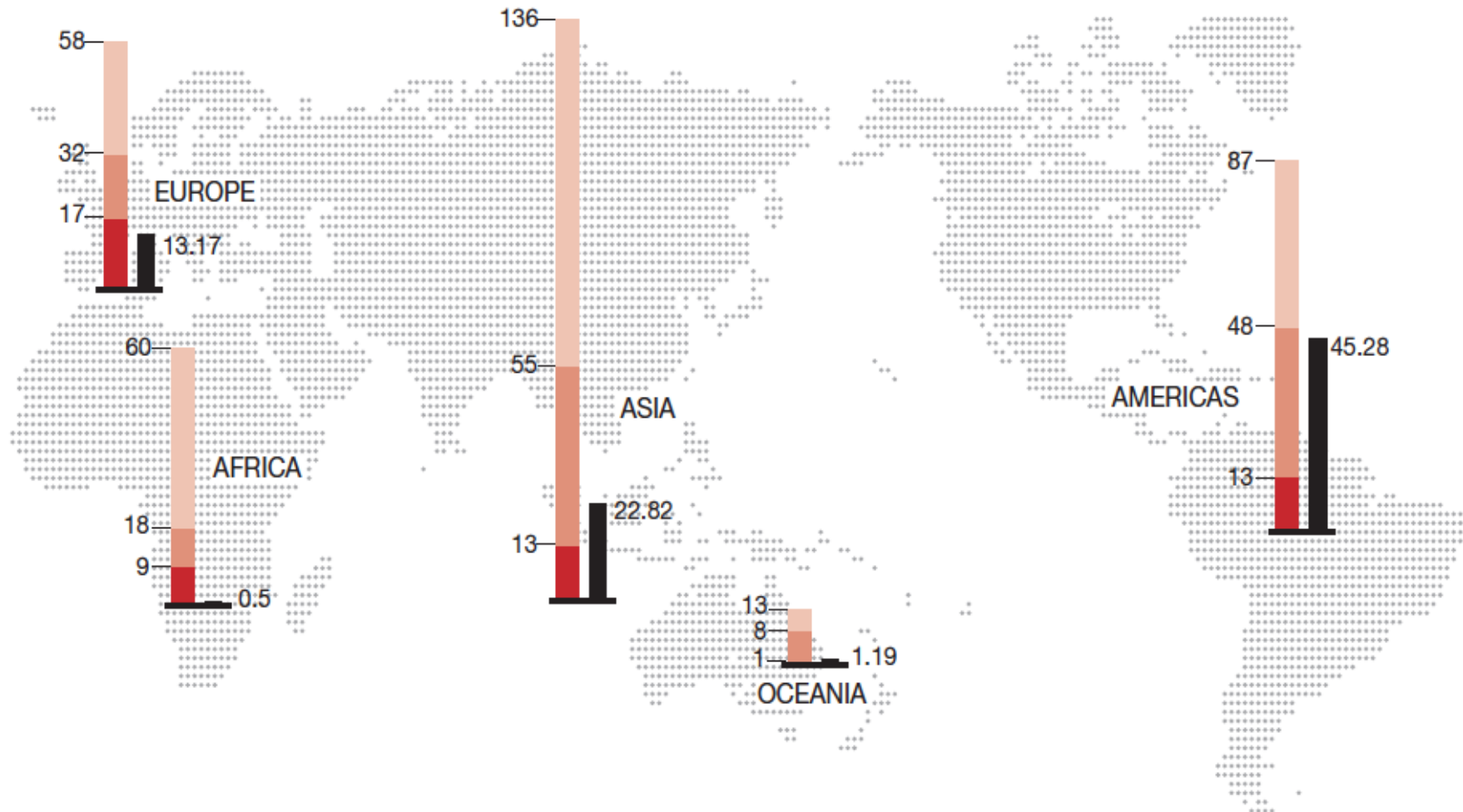
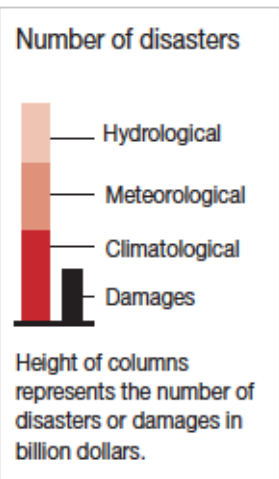
Apurva Sanghi, World Bank

ipcc

INTERGOVERNMENTAL PANEL ON climate change

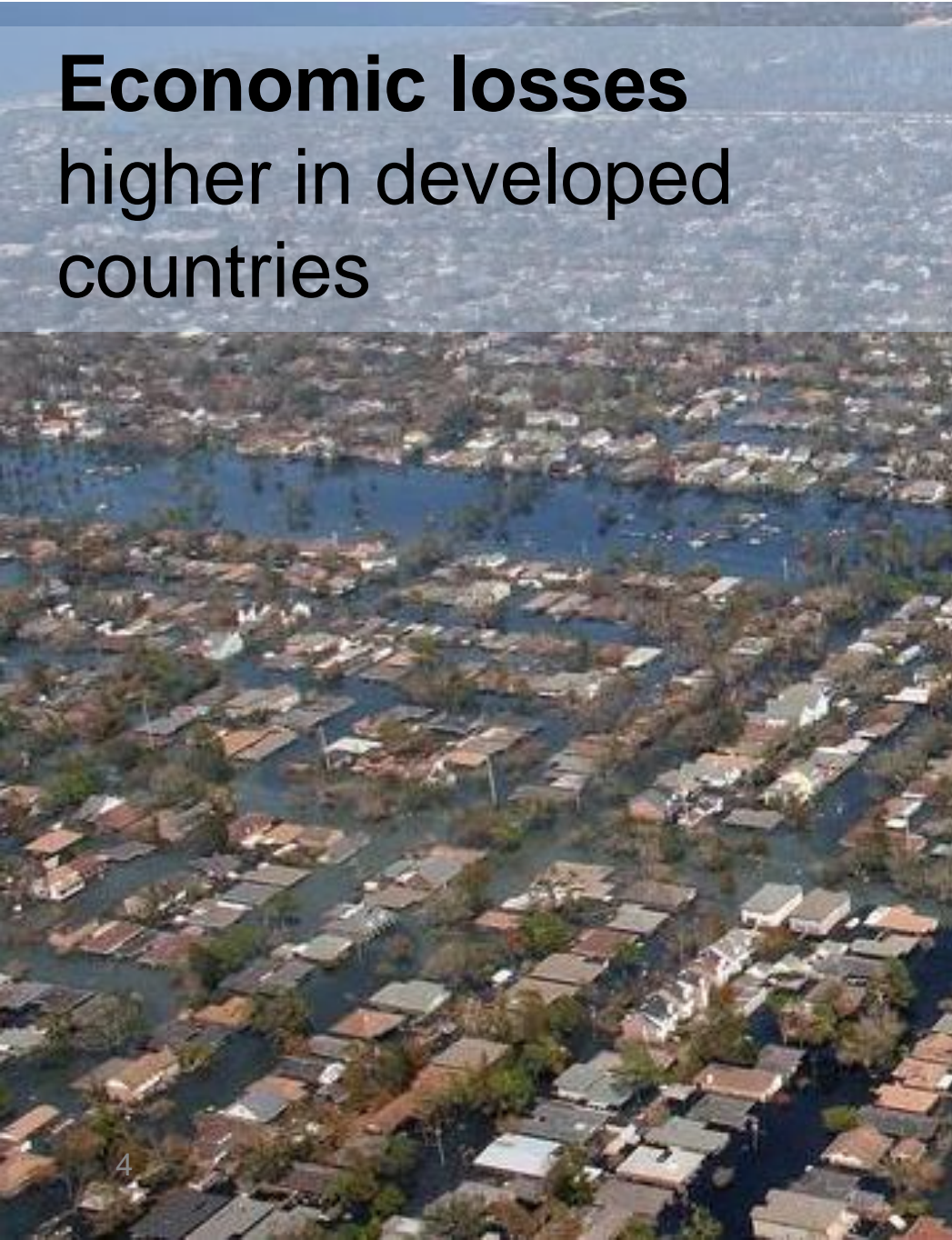
**1. Economic losses increased
with large differences among
regions and between years
(high confidence)**

2000-2008: Asia had the most weather- and climate- related hazards

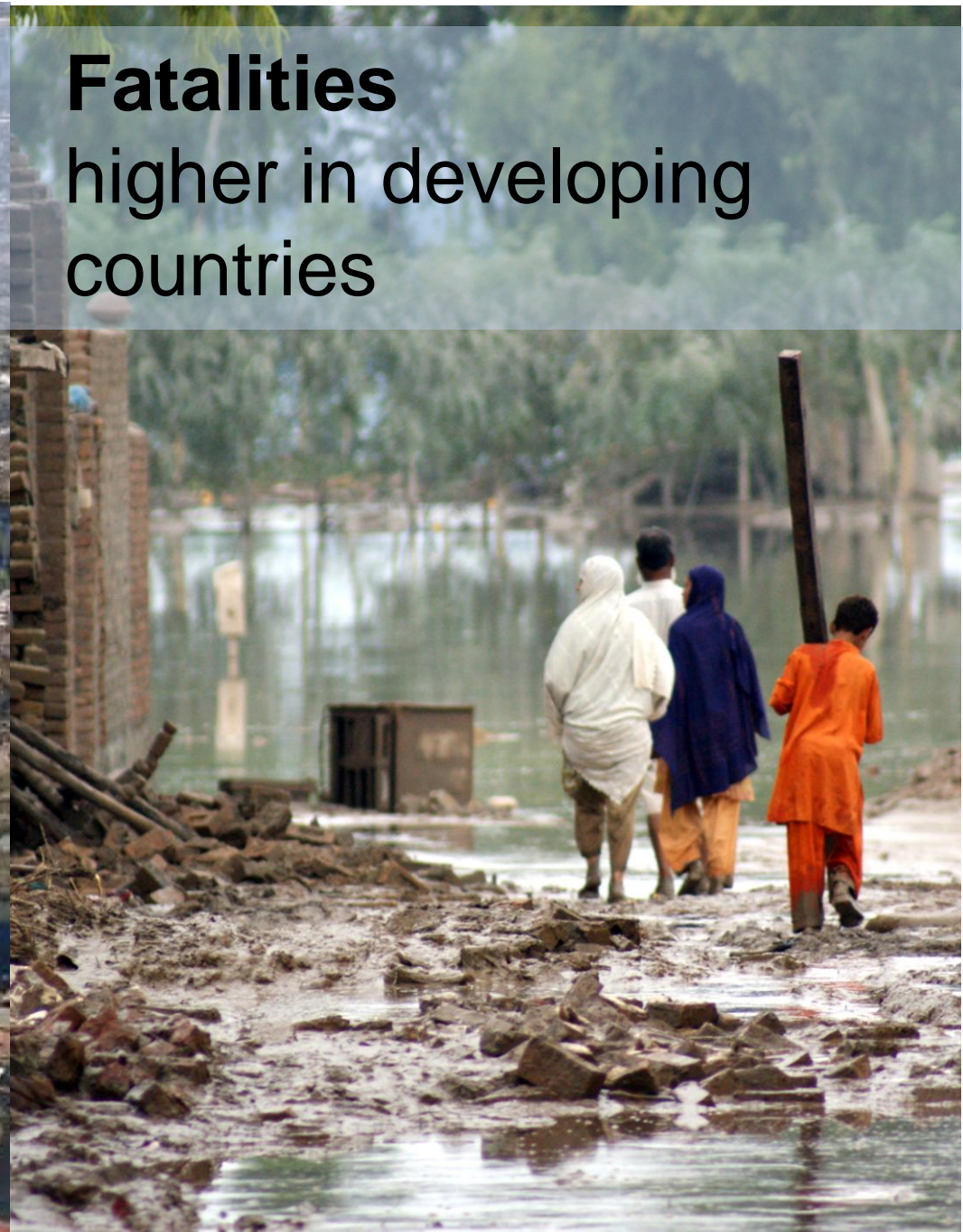


2. Most vulnerable have suffered

Economic losses
higher in developed
countries



Fatalities
higher in developing
countries





3. Increasing exposure of people and assets: major cause of increased losses (high confidence)

Long-term trends in losses adjusted for wealth and population increases, **not been attributed to CC (high confidence)**



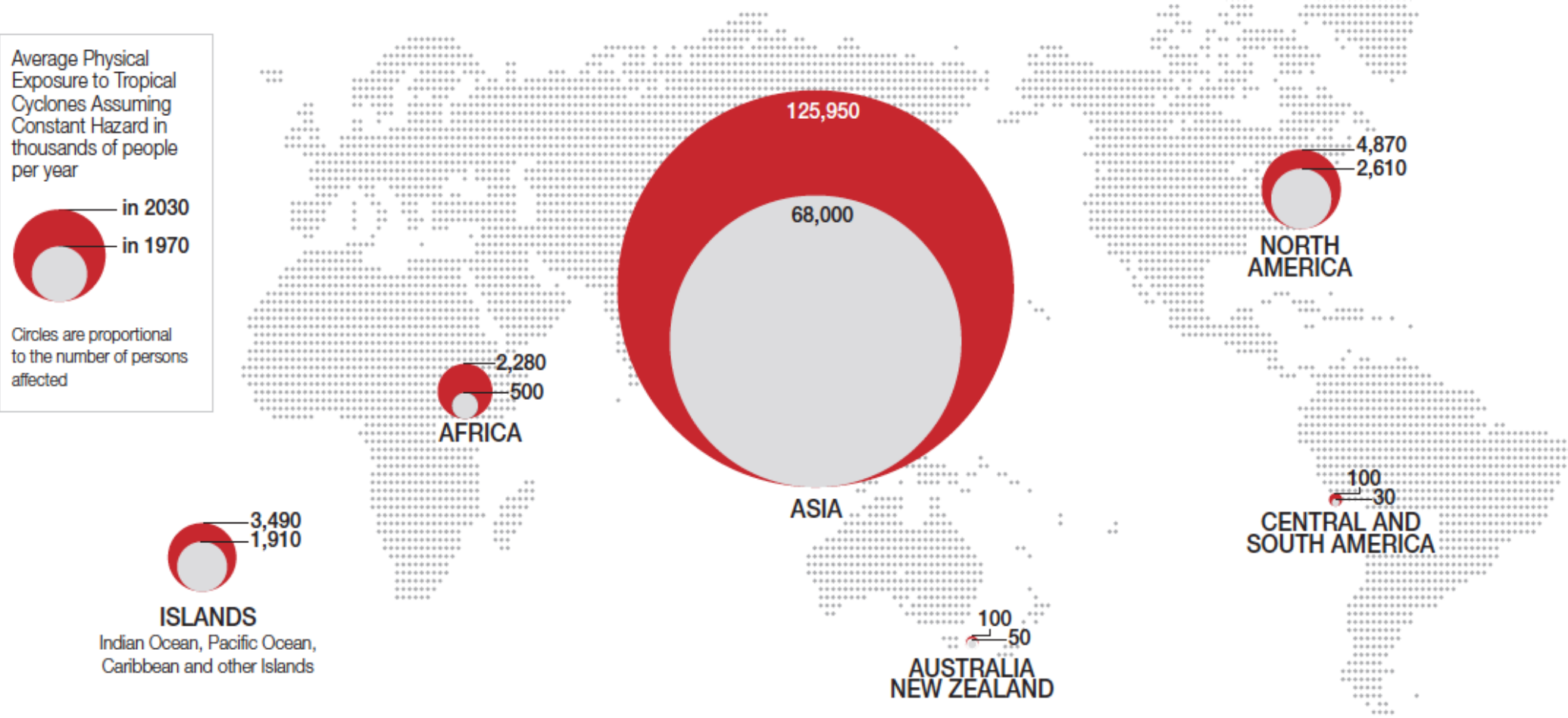
1. Disaster risk will continue to increase regardless of climate change

Increasing exposure to tropical cyclones in Asia

Average Physical Exposure to Tropical Cyclones Assuming Constant Hazard in thousands of people per year

in 2030
in 1970

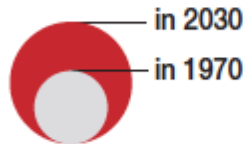
Circles are proportional to the number of persons affected



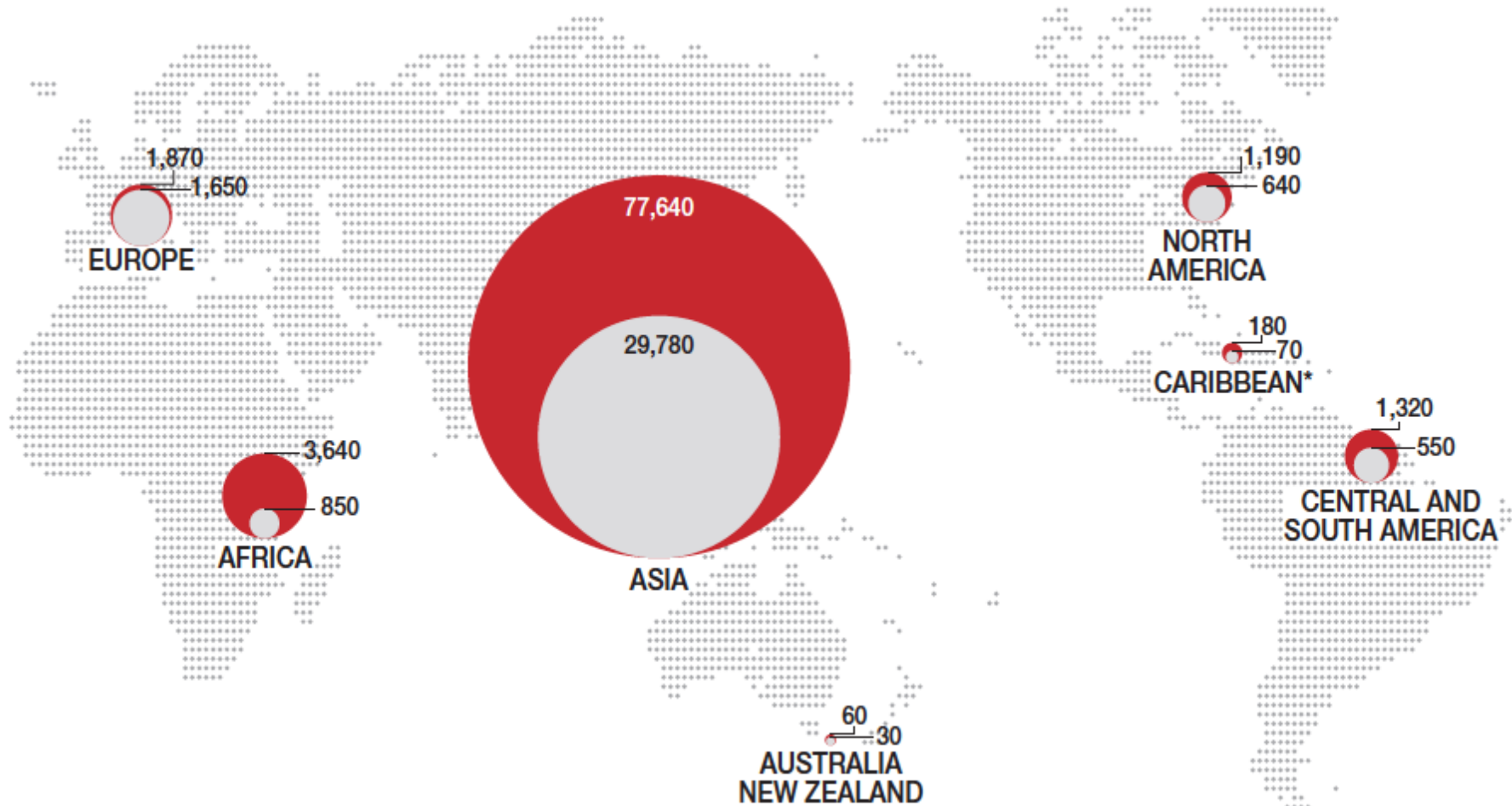
{ 90% of population exposed to tropical cyclones is in Asia }

Increasing exposure to flooding in Asia

Average Physical Exposure to Floods Assuming Constant Hazard in thousands of people per year



Circles are proportional to the number of persons affected



**2. Frequency and intensity
of extreme events are
not the only factors
that affect future risks**

A satellite image of a tropical cyclone, showing a well-defined eye and spiral cloud bands, viewed from space. The image is positioned on the left side of the slide, partially overlapping the main text area.

Estimated economic losses from tropical cyclones

High confidence that **increased exposure** will result in higher losses from tropical cyclones

But losses also depend on future **changes in frequency and intensity** of tropical cyclones

Medium confidence that increases in losses due to **extratropical** cyclones will occur with CC, with possible **decreases or no changes** in some areas

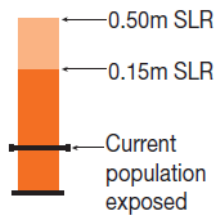


Estimated economic losses from floods

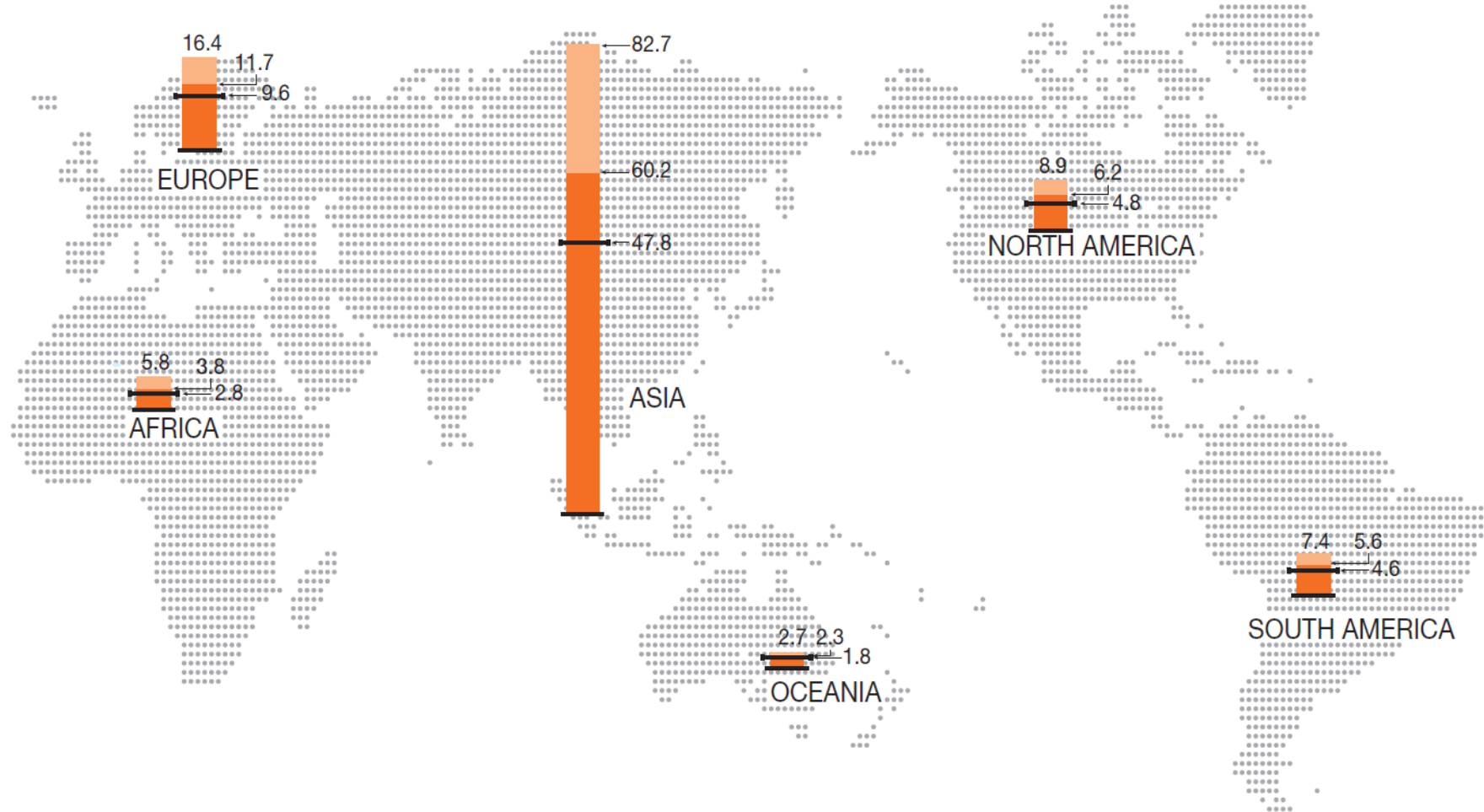
High confidence
climate change has potential to
substantially affect flood losses
in some places

Increasing exposure to sea level rise in Asia

Population exposed in 2050 in millions



Height of columns represents the number of exposed persons.



A woman in a blue and orange sari is harvesting rice in a lush green field. She is holding a curved sickle and a bundle of harvested rice. The background shows a vast green field under a clear sky.

3. Impacts most severe on climate dependent sectors and infrastructure

Changes in climate have potential to seriously affect water management systems (high confidence)

Different vulnerability and exposure = different impacts



4,200
fatalities

Cyclone Sidr
Bangladesh

138,000
fatalities

Cyclone Nargis
Myanmar