

Headline Statements from the Summary for Policymakers

28 February 2022 (subject to final copy-editing)

B. Observed and Projected Impacts and Risks

- B.1** Human-induced climate change, including more frequent and intense extreme events, has caused widespread adverse impacts and related losses and damages to nature and people, beyond natural climate variability. Some development and adaptation efforts have reduced vulnerability. Across sectors and regions the most vulnerable people and systems are observed to be disproportionately affected. The rise in weather and climate extremes has led to some irreversible impacts as natural and human systems are pushed beyond their ability to adapt (*high confidence*).
- B.2** Vulnerability of ecosystems and people to climate change differs substantially among and within regions (*very high confidence*), driven by patterns of intersecting socio-economic development, unsustainable ocean and land use, inequity, marginalization, historical and ongoing patterns of inequity such as colonialism, and governance (*high confidence*). Approximately 3.3 to 3.6 billion people live in contexts that are highly vulnerable to climate change (*high confidence*). A high proportion of species is vulnerable to climate change (*high confidence*). Human and ecosystem vulnerability are interdependent (*high confidence*). Current unsustainable development patterns are increasing exposure of ecosystems and people to climate hazards (*high confidence*).
- B.3** Global warming, reaching 1.5°C in the near-term, would cause unavoidable increases in multiple climate hazards and present multiple risks to ecosystems and humans (*very high confidence*). The level of risk will depend on concurrent near-term trends in vulnerability, exposure, level of socioeconomic development and adaptation (*high confidence*). Near-term actions that limit global warming to close to 1.5°C would substantially reduce projected losses and damages related to climate change in human systems and ecosystems, compared to higher warming levels, but cannot eliminate them all (*very high confidence*).
- B.4** Beyond 2040 and depending on the level of global warming, climate change will lead to numerous risks to natural and human systems (*high confidence*). For 127 identified key risks, assessed mid- and long- term impacts are up to multiple times higher than currently observed (*high confidence*). The magnitude and rate of climate change and associated risks depend strongly on near-term mitigation and adaptation actions, and projected adverse impacts and related losses and damages escalate with every increment of global warming (*very high confidence*).
- B.5** Climate change impacts and risks are becoming increasingly complex and more difficult to manage. Multiple climate hazards will occur simultaneously, and multiple climatic and non-climatic risks will interact, resulting in compounding overall risk and risks cascading across sectors and regions. Some responses to climate change result in new impacts and risks (*high confidence*).
- B.6** If global warming transiently exceeds 1.5°C in the coming decades or later (overshoot), then many human and natural systems will face additional severe risks, compared to remaining below 1.5°C (*high confidence*). Depending on the magnitude and duration of overshoot, some impacts will cause release of additional greenhouse gases (*medium confidence*) and some will be irreversible, even if global warming is reduced (*high confidence*).