

Key report findings Chapter 7: Risk management and decision-making in relation to sustainable development		Confidence scale/ level of agreement
1.	Increases in global mean surface temperature are projected to result in:	
	Continued permafrost degradation and coastal degradation.	High confidence
	Increased wildfire, decreased crop yields in low latitudes, decreased food stability, decreased water availability, vegetation loss.	Medium confidence
	Decreased access to food and increased soil erosion.	Low confidence
2.	There is high agreement and high evidence that increases in global mean temperature will result in the continued increase in global vegetation loss, coastal degradation, as well as decreased crop yields in low latitudes, decreased food stability, decreased access to food and nutrition, and the continued permafrost degradation and water scarcity in drylands.	Medium confidence
3.	These changes result in compound risks to food systems, human and ecosystem health, livelihoods, the viability of infrastructure, and the value of land.	High confidence
4.	There is significant regional heterogeneity in risks: tropical regions, including Sub-Saharan Africa, Southeast Asia, and Central and South America are particularly vulnerable to decreases in crop yield.	High confidence
5.	Risks related to land degradation, desertification, and food security increase with temperature and can reverse development gains in some socio-economic development pathways.	High confidence
6.	SSP1 reduces the vulnerability and exposure of human and natural systems and thus limits risks resulting from desertification, land degradation, and food insecurity compared to SSP3.	High confidence
7.	Land-based adaptation and mitigation responses pose risks associated with the effectiveness and potential adverse side effects of measures chosen.	Medium confidence
8.	There is high confidence that policies addressing vicious cycles of poverty, land degradation and greenhouse gas (GHG) emissions implemented holistically can achieve climate-resilient sustainable development. Choice and implementation of policy instruments determine future climate and land pathways.	Medium confidence
9.	Delaying deep mitigation in other sectors and shifting the burden to the land sector, increases the risk associated with adverse effects on food security and ecosystem services.	High confidence
10.	Trade-offs can occur between using land for climate mitigation or Sustainable Development Goal (SDG) 7 (affordable clean energy) with biodiversity, food, groundwater, and riverine ecosystem services.	Medium confidence
11.	The full mitigation potential assessed in this report will only be realized if agricultural emissions are included in mainstream climate policy.	High agreement, high evidence
12.	A suite of coherent climate and land policies advances the goal of the Paris Agreement and the land-related SDG targets on poverty, hunger, health, sustainable cities and communities, responsible consumption and production, and life on land. Acting early will avert or minimize risks, reduce losses, and generate returns on investment.	High confidence
13.	Coordination of policy instruments across scales, levels, and sectors advances co-benefits, manages land and climate risks, advances food security, and addresses equity concerns.	Medium confidence
14.	Technology transfer in land-use sectors offers new opportunities for adaptation, mitigation, international cooperation, R&D collaboration, and local engagement.	Medium confidence
15.	Measuring progress towards goals is important in decision making and adaptive governance to create a common understanding and advance policy effectiveness.	High agreement, medium evidence
16.	The complex spatial, cultural, and temporal dynamics of risk and uncertainty concerning land and climate interactions and food security, require a flexible, adaptive, iterative approach to assessing risks, revising decisions, and policy instruments.	High confidence
17.	Indigenous and local knowledge (ILK) can play a key role in understanding climate processes and impacts, adaptation to climate change, sustainable land management (SLM) across different ecosystems, and enhancement of food security.	High confidence
18.	Participation of people inland and climate decision making and policy formation allows for transparent effective solutions and the implementation of response options that advance synergies, reduce trade-offs in SLM (MC), and overcomes barriers to adaptation and mitigation (HC).	Medium confidence/ high confidence
19.	Empowering women can bolster synergies among household food security and SLM.	High confidence
20.	The significant social and political changes required for sustainable land use, reductions in demand, and land-based mitigation efforts associated with climate stabilization require a wide range of governance mechanisms.	Medium confidence
21.	Land tenure systems have implications for both adaptation and mitigation, which need to be understood within specific socio-economic and legal contexts, and may themselves be impacted by climate change and climate action.	Limited evidence, high agreement