Table 3.6 | Emergence and intensity of climate change hotspots under different degrees of global warming.

Region and/or Phenomenon	Warming of 1.5°C or less	Warming of 1.5°C–2°C	Warming of 2°C–3°C
Arctic sea ice	Arctic summer sea ice is *likely* to be maintained	The risk of an ice-free Arctic in summer is about 50% or higher	The Arctic is *very likely* to be ice free in summer
	Habitat losses for organisms such as polar bears, whales, seals and sea birds	Habitat losses for organisms such as polar bears, whales,seals and sea birds may be critical if summers are ice free	Critical habitat losses for organisms such as polar bears, whales, seals and sea birds
	Benefits for Arctic fisheries	Benefits for Arctic fisheries	Benefits for Arctic fisheries
Arctic land regions	Cold extremes warm by a factor of 2–3, reaching up to 4.5°C (*high confidence*)	Cold extremes warm by as much as 8°C (*high confidence*)	Drastic regional warming is *very likely*
	Biome shifts in the tundra and permafrost deterioration are *likely*	Larger intrusions of trees and shrubs in the tundra than under 1.5°C of warming are *likely*; larger but constrained losses in permafrost are *likely*	A collapse in permafrost may occur (*low confidence*); a drastic biome shift from tundra to boreal forest is possible (*low confidence*)
Alpine regions	Severe shifts in biomes are *likely*	Even more severe shifts are *likely*	Critical losses in alpine habitats are *likely*
Southeast Asia	Risks for increased flooding related to sea level rise	Higher risks of increased flooding related to sea level rise (*medium confidence*)	Substantial increases in risks related to flooding from sea level rise
	Increases in heavy precipitation events	Stronger increases in heavy precipitation events (*medium confidence*)	Substantial increase in heavy precipitation and high-flow events
	Significant risks of crop yield reductions are avoided	One-third decline in per capita crop production (*medium confidence*)	Substantial reductions in crop yield
Mediterranean	Increase in probability of extreme drought (*medium confidence*)	Robust increase in probability of extreme drought (*medium confidence*)	Robust and large increases in extreme drought. Substantial reductions in precipitation and in runoff (*medium confidence*)
	Medium confidence in reduction in runoff of about 9% (*likely* range 4.5–15.5%)	*Medium confidence* in further reductions (about 17%) in runoff (*likely* range 8–28%)	
	Risk of water deficit (*medium confidence*)	Higher risks of water deficit (*medium confidence*)	Very high risks of water deficit (*medium confidence*)
West Africa and the Sahel	Increases in the number of hot nights and longer and more frequent heatwaves are *likely*	Further increases in number of hot nights and longer and more frequent heatwaves are *likely*	Substantial increases in the number of hot nights and heatwave duration and frequency (*very likely*)
	Reduced maize and sorghum production is *likely*, with area suitable for maize production reduced by as much as 40%	Negative impacts on maize and sorghum production *likely* larger than at 1.5°C; *medium confidence* that vulnerabilities to food security in the African Sahel will be higher at 2°C compared to 1.5°C	Negative impacts on crop yield may result in major regional food insecurities (*medium confidence*)
	Increased risks of undernutrition	Higher risks of undernutrition	High risks of undernutrition
Southern Africa	Reductions in water availability (*medium confidence*)	Larger reductions in rainfall and water availability (*medium confidence*)	Large reductions in rainfall and water availability (*medium confidence)*
	Increases in number of hot nights and longer and more frequent heatwaves (*high confidence*), increased	Further increases in number of hot nights and longer and more frequent heatwaves (*high confidence*), associated increases in risks of increased mortality from heatwaves compared to 1.5°C warming (*high confidence*)	Drastic increases in the number of hot nights, hot days and heatwave duration and frequency to impact substantially on agriculture, livestock and human health and mortality (*high confidence*)
	High risks of increased mortality from heatwaves		
	High risk of undernutrition in communities dependent on dryland agriculture and livestock	Higher risks of undernutrition in communities dependent on dryland agriculture and livestock	Very high risks of undernutrition in communities dependent on dryland agriculture and livestock
Tropics	Increases in the number of hot days and hot nights as well as longer and more frequent heatwaves (*high confidence*)	The largest increase in hot days under 2°C compared to 1.5°C is projected for the tropics.	Oppressive temperatures and accumulated heatwave duration *very likely* to directly impact human health, mortality and productivity
	Risks to tropical crop yields in West Africa, Southeast Asia and Central and South America are significantly less than under 2°C of warming	Risks to tropical crop yields in West Africa, Southeast Asia and Central and South America could be extensive	Substantial reductions in crop yield *very likely*
Small islands	Land of 60,000 less people exposed by 2150 on SIDS compared to impacts under 2°C of global warming	Tens of thousands of people displaced owing to inundation of SIDS	Substantial and widespread impacts through inundation of SIDS, coastal flooding, freshwater stress, persistent heat stress and loss of most coral reefs (*very likely*)
	Risks for coastal flooding reduced by 20–80% for SIDS compared to 2°C of global warming	High risks for coastal flooding	
	Freshwater stress reduced by 25%	Freshwater stress reduced by 25% compared to 2°C of global warming	
		Freshwater stress from projected aridity	
	Increase in the number of warm days for SIDS in the tropics	Further increase of about 70 warm days per year	
	Persistent heat stress in cattle avoided	Persistent heat stress in cattle in SIDS	
	Loss of 70–90% of coral reefs	Loss of most coral reefs and weaker remaining structures owing to ocean acidification	
Fynbos biome	About 30% of suitable climate area lost (*medium confidence*)	Increased losses (about 45%) of suitable climate area (*medium confidence*)	Up to 80% of suitable climate area lost (*medium confidence*)