

North and Central Europe	
Temperatures	Temperature observed: Increase of 0.8-1.25°C with the most warming in the Northeastern portion. Projection: mid-term 2-3°C (2046-2065), long term (2081-2100) 4-7°C with the most warming in the northeastern portion. Number of frost days projected to decrease from 20 to 100 days.
Precipitations	Long term 10-40% increase in december-february, and 10% increase to 20% decrease from june to august, the decrease being located in the southern portion and the increase in the northern portion. Decrease in cloudiness and humidity over most of the region.
Water Resources	Decrease in annual precipitation amount but with increased intensity of daily precipitation events. Decreases precipitation and increase in droughts will affect rain-fed agriculture and water supply for domestic and industrial purposes. Increase in the frequency of flood in northern and northeastern Europe and increase frequencies of drought in the southern and southeastern Europe.
Food Security	Decreased food security due to climatic variability. Increases in precipitation extremes are very likely in the major agricultural production areas of northern Europe.
Human Health	Increased heated related deaths. Decreased cold related-deaths. Increased risk of mortality from wind storms, flash floods and coastal floodings with more impacts on vulnerable populations.
Sea Level Rise	Saltwater intrusion to aquifers and increased flooding and storm insurance claims. Approximately 20% of existing coastland wetlands may disappear by 2080 due to sea level rise.
Biodiversity	Increased forest growth of 20-40% by 2020 in western Europe but decreased growth and production in eastern Europe. More than half 1,350 plant species could become vulnerable, endangered, critically endangered or committed to extinction by 2080.

North Africa & Mediterranean	
Temperatures	Observed: 0.4-2.5°C with most of the warming in North Africa. Projected mid-terms temperature (2046-2065) + 2-3°C, fairly uniform through the region. Long term (2081-2100) + 3-6°C. Number of tropical nights (that is number of 24hours day above 20 degrees) is projected to increase from 60 to 90 days.
Precipitations	Long term 20-50% decrease in december-february; 10 to 50% increase in june-august. Overall annual precipitation is expected to decrease in southern european countries. Decrease in cloudiness and humidity in the Mediterranean & north portion of Africa.
Water Resources	Increased drought and water stress due to precipitation decline in the already dry season. Population at risk of water stress is projected to be 75-220 million people by 2020.
Food Security	Decrease of 15-20% for all crops across the region with high levels of warming. Increased heat stress will likely have negative impacts on animal health & food production. Increased conflicts associated with food insecurity.
Human Health	Increased of 25 to 90% of proportion population undernourished with 1.2°-1.9°C warming. Increased transmission and associated costs of water-borne diseases. Synergistic effects between HIV-AIDS, increased conflict and climate change.
Sea Level Rise	Increased salinization et reduced freshwater availability along coasts resulting in increased socio-economic costs. Losses of 5-10% gross domestic product (GDP) due to sea level rise with adaptation and losses up to 14% GDP without adaptation.
Biodiversity	Between 60 to 80% of the current species are projected not to persist in the southern european region with global mean temperature increase of 1.8°C. Greater fire frequencies are expected in the Mediterrean region wich will favor fire tolerant shrub dominance.

West and East Africa	
Temperatures	Observed : 0.8-1°C over most of East Africa. More variable, but 0.2 to 2.5°C for West Africa with the warmest temperature in the northern portion (Mali, Niger). Projected long term temperatures: 3-4°C slightly cooler along the coasts. the number of tropical nights is expected to increase from 90 to 100 days
Precipitations	Long term 30-50% increase in East Africa and a 10% decrease to a 30% increase for West Africa. Overall annual precipitation is projected to increase across both East and West Africa by the end of century with larger increases in East Africa. Increase in cloudiness and humidity in East Africa, decrease in West Africa.
Water Resources	Increased drought and water stress due to precipitation decline during the already dry season. Increased precipitation during wet season with more intense rainfall events likely leading to flooding in some areas.
Food Security	Decreased food security and exacerbated malnutrition due to climatic variability. Decreased agricultural yields due to prolonged droughts and flooding events. Adversely affected fisheries especially in East African lakes. Increased conflicts associated with food insecurity.
Human Health	Increased of 25 to 90% of proportion population undernourished with 1.2°-1.9°C warming. Increased transmission and associated costs of water-borne diseases. Synergistic effects between HIV-AIDS, increased conflict and climate change.
Sea Level Rise	Increased flooding with negative implications for human health particularly on the coast of eastern Africa. Increased salt water intrusion into lagoons affecting inland fisheries and aquaculture. Impacts to mangrove and coral reefs will lead to coastal degradation and loss of ecosystem services such as storm protection and tourism.
Biodiversity	Increased risk of fire, which threatens tropical forest and woodlands especially in eastern Africa. Increase of 5-8% of proportion of arid and semi-arid land in Africa is projected by the 2080s.

Southern Africa & West Indian Ocean	
Temperatures	Observed : 0.6-1°C over most of the region. Projected: Long term (2081-2100) 2-5°C slightly warmer inland. The number of tropical nights is projected to increase from between 90 and 100 days.
Precipitations	Long term 20-50% decrease in June-August mostly on the western coast of the region. Overall annual precipitation is projected to decline across the region by the end of the century. Decline in cloudiness and humidity across the land masses of the region.
Water Resources	Increased drought and water stress due to precipitation decline during the already dry season. Present population trends and use of water use indicate that more African countries will exceed the limits of their economically usable land based water resource before 2025.
Food Security	Climate-induced changes in already vulnerable estuaries, coral reefs and upwellings will affect fisheries especially in South Africa. Decrease of 15-20% for all crops across the region with high levels of warming. Decreased food security and exacerbated malnutrition due to greater climatic variability.
Human Health	Expansion of climatically suitable areas for malaria. Increased transmission and associated costs of water-borne diseases. Synergistic effects between HIV-AIDS, increased conflict and climate change. Increased of 25 to 90% of proportion population undernourished with 1.2°-1.9°C warming.
Sea Level Rise	Large numbers of people are currently at risk of flood particularly in coastal area where coastal erosion is already destroying infrastructure, housing and tourism facilities. Increased salinization and reduced freshwater availability along coasts resulting in increased socio-economic costs. Losses of 5-10% gross domestic product (GDP) due to sea level rise with adaptation and losses up to 14% GDP without adaptation.
Biodiversity	Changes in estuaries are expected due to reduction in river runoff and the inundation of salt marshes following sea level rise. Substantial decrease in the extent of savanna grasslands with a 3°C warming.

Australia & New Zealand	
Temperatures	Observed: 0.4-1.25°C with the most warming in the center of Australia. Long term projection: +3-4°C, slightly cooler along the coast. The number of tropical nights is projected to increase up to 100.
Precipitations	Long term : 10 to 20% increase from december to february, and up to 30% decrease from june to august, most of which is focus on the western coast Australia. Overall annual precipitation is projected to decrease over most of Australia with the exception of the north central portion and generally increase across much of New Zealand. Decrease in cloudiness and humidity over most of the region.
Water Resources	Increases in precipitation extremes are very likely in major agricultural production regions of Australia. Increased seasonality of rainfall in many regions of New Zealand with a doubling occurring of flood and drought occurring during the 21st century. Longer dry periods are projected in southwestern Australia.
Food Security	A longer growing season may benefit in parts of New Zealand, particularly in western and southern areas. Warmer temperatures, changes in precipitation and increased invasions of pest will likely negatively impact many temperate crops, such as fruits and nuts.
Human Health	Increase in the intensity of heatwaves leading to heat-related deaths. Increase in fire frequency and intensity will lead to more smoke pollution, asthma and destruction of human structure.
Sea Level Rise	Rising sea levels and increases in the severity of storms and coastal flooding will have negative impacts on coastal development and increase costs.
Biodiversity	7-14% of reptiles, 8-18% of frogs, 7-10% of birds and 10-15% of mammals committed to extinction as 47% of appropriate habitat is lost in Queensland, Australia.

Pacific Islands	
Temperatures	Observed + 0.6-1°C fairly distributed. Projected: long term increase of 2-3°C.
Precipitations	Overall annual precipitation is projected to increase across the northern portion of the region with the largest increases projected along the Equator. Slight decreases are projected further south. Humidity is projected to increase over the region.
Water Resources	Water resources are already extremely sensitive to changes in precipitation in small islands and they are therefore highly vulnerable to climatic changes. A reduction in the size of the island resulting from land loss accompanying the sea level rise is likely to reduce the thickness of the freshwater lens on atolls by as much as 29%.
Food Security	Increased frequencies of ENSO episodes (El Niño, La Niña) will have serious impacts on islands' water supplies and economies. Increased sea levels, storm surges and extreme weather events will negatively impact economic livelihood such as tourism. Climate impact to fisheries will also be significant but difficult to predict.
Human Health	Increased transmission of disease such as malaria, dengue, filariasis, schistosomiasis and food and water borne diseases.
Sea Level Rise	Accelerated coastal erosion, saline intrusion into freshwater lens and increased flooding from the sea cause large effects on human settlements. Increases in sea level may shift water table close to or above the surface resulting in increased evapotranspiration, thus diminishing the resource.
Biodiversity	Climate impacts to mangrove and coral reefs will increase the susceptibility of small islands to sea level rise, storm surge and extreme weather events. Coral reefs and other coastal ecosystems which may be severely affected by climate change will have an impact on fisheries.

	Antarctica
Temperatures	Observed + 2,5°C off the coast of West Antarctica. No data for the rest of the region. Projected: long term 3-4°C. Warmer near West Antarctica and in the center.
Precipitations	Long term precipitation is projected to increase up to 50% across the entire region for all seasons. Cloudiness is projected to increase, however humidity is projected to decrease.
Water Resources	Continued thinning of ice shelves, especially in Amundsen Sea region of West Antarctica and the Antarctica Peninsula. Decrease in the sea ice extent and volume.
Food Security	
Human Health	
Sea Level Rise	
Biodiversity	Substantial reduction in the biomass of Antarctic krill and an increase in the abundance of salp, a pelagic tunicate. Declining abundance of Adelie and Emperor penguins and Weddell seals and increasing abundance of shallow water sponges and their predators