	Eastern part of North America
Temperature	Observed Temperature Change: Increase of 0.2 – 1.5°C, with the most warming in the northeast portion (USA, Canada). Mid-term (2046–2065): increase of 2-3°C, with the most warming in the northern portion (USA, Canada). Long-term (2081–2100): increase of 4-5°C, with the most warming in the northern portion (USA, Canada).
Precipitation	Mid-term (2046–2065): 10 to 20% increase in December – February and 10% decrease to a 10% increasing during June - August. The decrease is concentrated mainly in the interior portion of the region (USA and Canada) and the increase is along the coasts and in the northern portion of the region. Long-term (2081–2100): 20% to 30% increase in December – February and a 10% decrease to a 20% increase during June – August. Overall, annual precipitation is projected to increase across most of the region (USA and Canada).
Water Resources	Streamflow in the eastern U.S. has increased 25% in the last 60 years. Lower water levels in the Great Lakes have and will continue to influence many sectors, with multi-dimensional, interacting socio-economic impacts. Existing restoration effort in the Great Lakes will be more vulnerable to declines in water levels, warmer water temperatures, and more intense precipitation.
Food Security	Increases to yields of 5 to 20% over the first decades of the century in North American rain-fed agriculture for corn, rice, sorghum, soybean, wheat, common forages, cotton and some fruits. Climate change is expected to improve the climate for fruit production in the Great Lakes region and eastern Canada but with risks of early season frost and damaging winter thaws.
Human Health	Severe heatwaves will intensify in magnitude and duration over the portions of the U.S. and Canada where they already occur. Increased water-borne disease outbreaks which are associated with extreme precipitation and warmer temperatures in Canada.
Sea Level Rise	Sea-level rise has accelerated in eastern North America since the late 19th century and further acceleration is expected. Disproportionate impacts due to socio-economic status are likely to be exacerbated by rising sea levels and storm severity. Higher sea levels will lead to accelerated coastal erosion.
Biodiversity	Potentially declining species richness, especially with vertebrate and tree species in most parts of the conterminous U.S. Changing species ranges with warming temperatures and precipitation changes.

Source : IPCC 2013, « Region by Region: The Science of AR5 WG1 and the Consequences »

	Western part of North America
Temperature	Observed Temperature Change: Increase of 0.2 – 1.75°C, with the most warming in the northwestern portion (Alaska, Canada) Mid-term (2046–2065): increase of 2-4°C, with the most warming in the northwestern portion (Alaska, Canada). Long-term (2081–2100): increase of 4-6°C.
Precipitation	Mid-term (2046–2065): 10 to 20% increase in December – February and 10% decrease to a 20%. Long-term (2081–2100): 10% decrease to 40% increase in December – February and a 20% decrease to a 20% increase during June – August, with similar geographic patterns as above but more widespread drying across the western USA. Overall, annual precipitation is projected to decrease across the southern portion of the region (USA and Mexico), and increase in the northern portion (USA, Canada).
Water Resources	Warming, and changes in the form, timing and amount of precipitation, will very likely lead to earlier melting and significant reductions in snowpack in the western mountains by the middle of the 21st century. More precipitation falling as rain instead of snow across western US mountains with decreased flows during the dry season.
Food Security	Increase yields of 5 to 20% over the first decades of the century in North American rain-fed agriculture for corn, rice, sorghum, soybean, wheat, common forages, cotton and some fruits. Crops that are currently near climate thresholds (e.g., wine grapes in California) are likely to suffer decreases in yields, quality, or both, with even modest warming. Increased vulnerability of the agricultural sector in some areas, with warmer temperatures, changes in precipitation, and more evapotranspiration, such as in the southwest where water access is important.
Human Health	Severe heatwaves will intensify in magnitude and duration over the portions of the U.S. and Canada where they already occur. Increased water-borne disease outbreaks which are associated with extreme precipitation and warmer temperatures in Canada.
Sea Level Rise	Damage costs from coastal storm events (storm surges, waves, wind, ice encroachment) and other factors (such as freeze-thaw) are expected to continue rising. Increased constraints on indigenous communities from less reliable sea and lake ice (for travelling, hunting, fishing and whaling) and more exposed coastal infrastructure from diminishing sea ice.
Biodiversity	Decreased carbon storage in some forests due to increased water limitations and disturbances, which can accelerate the loss of native species and the invasion of exotics. Changing species ranges with warming temperatures and precipitation changes.

Source : IPCC 2013, « Region by Region: The Science of AR5 WG1 and the Consequences »

	Central America and the Caribbeans
Temperature	Observed Temperature Change: Increase of 0.4-1°C, evenly spread across the region. Mid-term (2046–2065): increase of 1-2°C, slightly cooler along the coasts. Long-term (2081–2100): increase of 2-4°C, slightly cooler along the coasts.
Precipitation	Mid-term (2046–2065), 20% decrease to 20% increase in December – February. Long-term (2081–2100): 20% increase to 50% decrease in December – February, with similar patterns as above. 10 to 50% decrease in June – August, most pronounced over Nicaragua, Costa Rica and the Caribbean countries. Overall, annual precipitation is projected to decrease over most of the region.
Water Resources	Decreased precipitation, especially during June – August may result in regional drought. Net increase in the number of people experiencing water stress due to climate change is likely to be between 7 and 77 million by the 2020s. Reduced water availability and increasing demand from a growing regional population will increase these figures to between 60 and 150 million by the 2050s. Severe water stresses are expected and water supply and hydroelectric generation would be seriously affected in eastern Central America and the Pacific coast of Guatemala; eastern and western regions of El Salvador; the central valley and Pacific region of Costa Rica; the northern, central and western inter-montane regions of Honduras; and the peninsula of Azuero in Panama.
Food Security	Reductions in rice yields by the 2020s, as well as increases in soybean yields, are possible when CO2 effects are considered. Decreased food security and exacerbated malnutrition due to increased climatic variability. For example, El Nino or La Nina events can greatly affect wheat production in Mexico .
Human Health	Annual variations in dengue fever in Honduras and Nicaragua appear to be related to climate-driven fluctuations (e.g., temperature, humidity, solar radiation and rainfall). Potential expansion of climatically suitable areas for malaria, especially in areas that are projected to get wetter during parts of the year.
Sea Level Rise	The expected increases in sea-level rise, and in weather and climatic variability and extremes, are very likely to affect coastal areas, particularly in low-lying countries, many Caribbean countries, and parts of Mexico. Sea-level rise will also affect the availability of drinking water on the Pacific coast of Costa Rica and the region's important mesoamerican coral reefs. Mangrove forests located in low-lying coastal areas are particularly vulnerable to sea-level rise, increased mean temperatures, and hurricane frequency and intensity, especially those of Mexico.
Biodiversity	Increased risk of fire, which will threaten tropical forests and woodlands. Replacement of tropical forest by savannas is expected in the tropical forests of central and southern Mexico, along with replacement of semi-arid vegetation by arid vegetation in most of central and northern Mexico due to synergistic effects of both land-use and climate changes. Significant loss of the extent of cloud forest ecosystems and dependent species.

Source : IPCC 2013, « Region by Region: The Science of AR5 WG1 and the Consequences »

	Northern South America
Temperature	Observed Temperature Change: Increase of 1 – 2.5°C, with most warming on the western portion of the region (Brazil), however, is also a significant lack of data for the interior and eastern portion of the region (Brazil, Bolivia, Peru). Mid-term (2046–2065): increase of 2°C over most of the region. Long-term (2081–2100): increase of 3-5°C, slightly cooler along the coasts, warmer in the interior (Brazil, Bolivia).
Precipitation	Mid-term (2046–2065): 20% decrease to a 20% increase in December – February. The decrease is more pronounced o region (Brazil). Up to 30% decrease during September - November, concentrated in the the northeastern portion of the region (Venezuela, Guyana, Suriname), while the increase is more pronounced over the southern and western portion of the southeast portion (Brazil). Long-term (2081–2100): 20% increase to 30% decrease in December – February, with similar patterns as above. Up to 50% decrease in September - November, most pronounced over the southeast portion (Brazil).
Water Resources	El Niño-induced droughts will impact river flows of the Colombia Andean region basins (particularly in the Cauca river basin), and could cause a 30% reduction in the mean flow, with up to 80% loss in some tributaries. La Niña-induced extreme floods are also expected and could lead to widespread destruction and costs. Hydropower is the main electrical energy source for many countries in Latin America, and is vulnerable to large-scale and persistent rainfall anomalies due to El Niño and La Niña.
Food Security	Decreased food security and exacerbated malnutrition due to greater climatic variability, most notably from heatwaves and El Niño or La Niña events for cotton and mangos on the northern coast of Peru; wheat in Brazil; and maize, potato, wheat and beans in Peru. □ An increase in the frequency and intensity of extreme events, such as heatwaves, floods, droughts, will adversely impact agriculture throughout the region.
Human Health	Climate-induced droughts associated with El Niño may lead to increased risk of malaria epidemics in coastal regions of Colombia and Venezuela. Climate-induced flooding can increase malaria epidemics in the dry northern coastal region of Peru. Climatic variability can lead to increased outbreaks of hantavirus pulmonary syndrome in Bolivia, Panama and Brazil.
Sea Level Rise	Increased salinization and reduced freshwater availability along coasts. Sea level rise and storm surges will impact coastal areas including developed urban areas and infrastructure, particularly in low-lying areas.
Biodiversity	Tropical forests are at an increased risk of fire due to more frequent and intense El Nino-induced droughts, especially those forests in the Amazon. The combined effect of land-use and climate change will negatively impact many tropical forests and may lead to the replacement of semi-arid vegetation by arid vegetation. 48 to 57% of tree species in Brazil's savannas will be committed to extinction with a 1.6 to 3.2°C warming.

Source : IPCC 2013, « Region by Region: The Science of AR5 WG1 and the Consequences »

	Southern South America
Temperature	Observed Temperature Change: Increase of 0.4–1.75°C, with most warming in the northern portion of the region (Peru, Brazil). Mid-term (2046–2065): increase of 0.5-2°C, with more warming in the northern half of the region. Long-term (2081–2100): increase of 1-4°C, with more warming in the northern portion of the region (Peru, Bolivia, Brazil, Chile).
Precipitation	Mid-term (2046–2065): 20% decrease to 20% increase in March - May. The decrease is more pronounced across the southern portion of the region (Chile, Argentina) and Brazil, while the increase is more pronounced over the northern portion of the region (Peru, Ecuador, Bolivia, Uruguay). Long-term (2081–2100): 30% increase to 20% decrease in March - May, with similar patterns as above. Overall, precipitation is projected to increase across the western portion of the region (Brazil, Uruguay) by the end of the century, but decrease in the southwestern portion (Chile, southern Argentina).
Water Resources	El Niño-induced droughts will impact river flows of many of the region's major rivers with severe impacts to agriculture and individual users. Longer dry periods (droughts) are projected for a large portion of South America. La Niña-induced extreme floods are also expected and could lead to widespread destruction and costs. Increased demand for water for irrigation, bringing increased competition between agricultural users, domestic users, and industrial users.
Food Security	Decreased food security and exacerbated malnutrition due to greater climatic variability, most notably from heatwaves and El Niño or La Niña events, on cotton and mangos on the northern coast of Peru; citrus in Argentina; wheat in Brazil and Argentina; and maize, potato, wheat and beans in Peru; crops in the Pampas region of Argentina. Increase in pasture productivity between 1% and 9% in some temperate areas, such as the Argentinean and Uruguayan Pampas. Decrease in beef cattle weight (and production) of up to 20% in Bolivia with a warming of 4°C, depending on animal genotype and region.
Human Health	Climate-induced droughts and flooding can lead to increased epidemics of water-borne diseases throughout the region. Climate variability can lead to increased outbreaks of hantavirus pulmonary syndrome in Argentina, Chile, and Paraguay. Increased heat island effect in major urban areas resulting in thermal stress and potential morbidity. For example, about 10% of summer deaths may be associated with thermal stress caused by the 'heat island' effect in Buenos Aires.
Sea Level Rise	Changing sea levels and ocean currents will affect the location of fish stocks in the south-east Pacific (e.g., in Peru and Chile) and thus food security. Increased salinization and reduced freshwater availability along coasts. Sea level rise and storm surges will impact coastal areas including developed urban areas, and infrastructure particularly in low-lying areas.
Biodiversity	Increased risk of fire, which threatens tropical forests and woodlands. ☐ Restricted ranges for many high-elevation species. Reduced native vegetation cover from land-use change and climatic change with losses in biodiversity. Negative impacts on ecosystem services, such as water regulation, storm protection, and tourism.

Source : IPCC 2013, « Region by Region: The Science of AR5 WG1 and the Consequences »