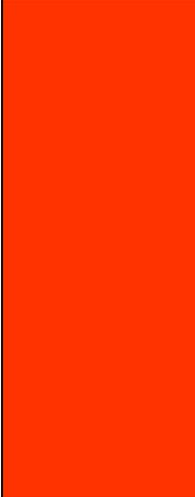


Shades of climate risk

Categorizing climate risk for investors

Physical risks in Central and South-America

Top risks ^{1,2}		Key message	Observed Impacts	Projected Impacts towards 2050 (for a range of scenarios between 2°C and Business-as-Usual) ³	Examples of Impacted Sectors	Shade of Risk
Extreme weather events 	Flooding ⁴ associated with extreme events and landslides	Risk could be complicated by uncertainty of El Niño–Southern Oscillation (ENSO)	Increases in many areas, decreases in a few (mostly medium confidence)	Across all scenarios: Inconsistent trends in many areas (low confidence), but increases in Tropics (medium confidence)	Infrastructure	
Drought 		Risk of water supply shortages will increase due to less precipitation and increased evapotranspiration in semi-arid regions (high confidence), affecting water supply.	Varying and inconsistent trends (low confidence)	Across all scenarios: Inconsistent signals in many regions (low confidence), but increasing dryness in Central America, Northeastern Brazil, and southwest South America (medium confidence)	Agriculture (in Central America, northeast of Brazil, parts of Andean region, heat stress and decreases in rainfall will result in productivity by 2030), energy	(some regions red e.g. Northeast Brazil)
Sea level rise 		Cities, especially those in coastal areas, small islands and deltas at risk	Current global observed change 3.2 mm/year	+22 cm (16 to 32 cm) sea level rise globally in 2050 compared to 1986-2005 almost regardless of emission scenario (medium confidence)	Fisheries, tourism (beach erosion), coastal infrastructure (airports)	Small islands, deltas, low-lying cities

Heat stress ⁵ 	In Central America, northeast of Brazil, parts of Andean region, heat stress leads to less agriculture productivity by 2030 (medium confidence).	Insufficient evidence or spatially varying trends (low confidence). Increases in number of hot days in many regions, but also spatially varying trends (low to medium confidence)	Across all scenarios: Likely more frequent, longer, and more intense heat waves (medium to high confidence). Hot days likely to increase (high confidence)	Agriculture, health effects for workers ⁶	
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Legend:

-  *Immediate attention required: impacts are already observed with a significant probability to increase*
-  *Some attention is required: impacts are expected in the next few years*
-  *Caution: impacts could manifest towards mid-century*

¹ Magrin, G. O., et al. (2014). Central and South America. In V. R. Barros, et al. (Eds.), *Climate Change 2014: Impacts, Adaptation, and Vulnerability. Part B: Regional Aspects. Contribution of Working Group II to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change* (pp. 1499-1566). Cambridge, United Kingdom and New York, NY, USA: Cambridge University Press.

² Hewitson, B. C., et al. (2014). Regional context. In V. R. Barros, et al. (Eds.), *Climate Change 2014: Impacts, Adaptation, and Vulnerability. Part B: Regional Aspects. Contribution of Working Group II to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change* (pp. 1133-1197). Cambridge, United Kingdom and New York, NY, USA: Cambridge University Press.

³ Based primarily on RCP2.6 and RCP8.5. If 2050 impacts were not available (based on 2046-2065), based on interpretation of 2071-2100 model results

⁴ Extreme precipitation definition used is frequency of 'very wet days,' defined here as the 90th percentile of daily precipitation on wet days

⁵ Extreme heat events definition used is frequency of 'warm days,' defined here as the 90th percentile daily maximum temperature

⁶ Climate change and labour: impacts of heat in the workplace. UNDP (2016)