

SAFEABROAD



SafeAbroad Forecast Report

IMPACTS OF CLIMATE CHANGE ON INTERNATIONAL EDUCATION

SAFETY IMPLICATIONS FOR INTERNATIONAL EDUCATION PROGRAMS

Overview

The effects of climate change create significant challenges for travelers abroad. Extreme temperatures, frequent natural disasters, and shortages of resources, including food and water, threaten traveler safety worldwide. Travelers need to be prepared and informed on how climate change affects destinations abroad.

Climate change is a global issue that will affect landscapes around the world. SafeAbroad analysts assess that extreme temperatures, increased natural disasters, and shortages of resources, including food and water, threaten the safety of travelers worldwide.

In some destinations, heatwaves are projected to increase in duration and intensity, leading to further drought and famine. In other locations, severe storms, flooding, and landslides are expected to continue to negatively impact infrastructure. Additionally, wildfires and health effects from climate change pose significant risks to travelers.

Despite countries taking steps to mitigate travel risks caused by climate change, governments require time and funding to develop and implement these measures, which delays their benefit. This can potentially leave travelers in dangerous or uncomfortable situations due to incomplete relief projects, a lack of available resources, and slow government emergency response.

Climate change-related issues are projected to continue negatively impacting travelers in the foreseeable future. That said, travelers need to research possible severe weather events in destination regions before departure to better prepare for climate-related emergencies. Locating medical and emergency services before arrival is recommended. Although this report is a helpful resource for travelers to review and prepare for climate-related travel emergencies, it is essential to remember that this is not an exhaustive list of scenarios, and SafeAbroad reminds travelers that research, planning, and preparedness are invaluable mitigation strategies when faced with weather-related emergencies abroad.

Climate Change Impacts

Storm Systems | Climate change is expected to intensify storm systems—increasing the frequency and severity of disruptive weather events.

Severe storms, including tropical cyclones, typhoons, and extreme rainfall events, are being more strongly influenced by climate change worldwide. Research from the Intergovernmental Panel on Climate Change (IPCC) shows that rising sea surface temperatures and higher atmospheric moisture levels supply more energy to storms, making them both more intense and frequent.¹ This shift also increases the likelihood of extreme rainfall, which can result in catastrophic flooding.²

Tropical Cyclone Alfred, which impacted southeastern Queensland and northern New South Wales, Australia, in early March 2025, exemplifies how climate change can intensify storm

¹ https://www.ipcc.ch/report/ar6/wg1/downloads/report/IPCC_AR6_WGI_Chapter11.pdf

² <https://www.worldweatherattribution.org/climate-change-key-driver-of-catastrophic-impacts-of-hurricane-helene-that-devastated-both-coastal-and-inland-communities/>

systems. Although Alfred was classified as a relatively weak storm, its slow movement intensified damage as heavy rainfall and strong winds affected densely populated coastal areas for several days before making landfall.³ Alfred had a significant impact on travelers in Australia, causing widespread disruptions to flights and transport services. Airports in Brisbane, the Gold Coast, Ballina, and Hervey Bay faced closures or delays, leaving many passengers stranded.⁴ Additionally, road travel was hindered by flooding and fallen debris, making travel unsafe and unpredictable. In September 2024, Super Typhoon Yagi devastated countries in Southeast Asia. In Vietnam, the typhoon led to the closure of several airports, resulting in the cancellation of over 300 flights.⁵ Additionally, heavy flooding and landslides caused extensive damage to roads and bridges, rendering ground travel both dangerous and difficult. Yagi ultimately claimed over 600 lives, damaged or destroyed more than 300,000 homes, and caused an estimated economic loss of around \$16 billion.⁶

The direct implications of these storm systems for students and travelers are profound. Increased storm frequency and intensity can disrupt travel plans, potentially causing delays, cancellations, and dangerous conditions in affected regions. For students abroad, these storms may impact their ability to attend classes, especially when they force campus closures or disrupt transportation networks. The erratic behavior of these storm systems makes planning more challenging, underscoring the need for preparedness and flexibility in travel. Universities and students will both need to adapt to an environment where extreme weather events become more frequent and harder to predict.

Flooding | Flooding is intensifying worldwide, causing widespread displacement, infrastructure damage, and disruptions to education and travel.

In recent years, flooding has become more frequent and severe due to extreme weather connected to climate change, posing a heightened risk for travelers.⁷ Many flood-prone areas will face more frequent and severe inundation, disrupting both ground and air travel. This risk is particularly concerning for the 572 airports worldwide that are already below sea level and the 1,238 airports in low-lying coastal areas, all of which are increasingly vulnerable to climate-related flooding and extreme weather events.^{8,9}

In early 2025, catastrophic flooding struck Ecuador and Indonesia, with Ecuador's National Institute of Meteorology and Hydrology (INAMHI) issuing red alerts across multiple provinces, while in Jakarta, heavy rainfall overwhelmed the city's drainage system, displacing over 120,000 residents and submerging entire neighborhoods.^{10,11} Landslides and floods damaged homes, disrupted road networks, and forced evacuations in both regions. As global temperatures rise, warmer air holds more moisture, intensifying rainfall and making extreme flooding events more

³ <https://earthobservatory.nasa.gov/images/154029/alfreds-strange-and-destructive-journey>

⁴ <https://www.qantasnewsroom.com.au/qantas-responds/qantas-group-statement-on-tropical-cyclone-alfred/>

⁵ <https://thanhnien.vn/tam-dong-cua-4-san-bay-tranh-sieu-bao-yagi-hon-300-chuyen-bay-bi-anh-huong-185240905224423614.htm>

⁶ https://disasterphilanthropy.org/disasters/2024-super-typhoon-yagi/?gad_source=1

⁷ <https://www.carbonbrief.org/qa-how-china-is-adapting-to-increasingly-frequent-flooding/>

⁸ <https://www.preventionweb.net/news/rising-sea-levels-may-make-some-airports-unusable>

⁹ <https://www.preventionweb.net/news/rising-sea-levels-may-make-some-airports-unusable>

¹⁰ <https://reliefweb.int/report/ecuador/ecuador-floods-dref-operation-mdrec027>

¹¹ <https://www.scmp.com/week-asia/health-environment/article/3301976/jakartas-annual-floods-worsen-displacing-thousands-extreme-weather-poor-planning-collide>

frequent worldwide.¹²

For international education, flooding can disrupt academic schedules, displace students, and damage university infrastructure, making study-abroad programs in high-risk regions increasingly unpredictable. Campus closures and housing losses force institutions to relocate students or suspend programs, while travel disruptions at flood-prone airports complicate both arrivals and departures. Stranded travelers may struggle to access essential services, and damage to roads and transit can delay emergency response. To minimize risks, students should research climate vulnerabilities at their destination, prepare for evacuations, and secure access to emergency resources.

Health Effects | Climate change is exacerbating the spread of various diseases, including vector-borne illnesses like malaria and dengue fever, and waterborne diseases like cholera, while also increasing the risk of heat-related illnesses and respiratory problems.

As climate change brings warmer temperatures and prolonged rainy seasons in normally wet areas around the world, the number of disease carrying organisms is expected to increase, potentially leading to higher numbers of travelers contracting life-threatening diseases like Malaria, Dengue, Zika, and Chandipura Viral Encephalitis. In 2024, India experienced its most severe Chandipura virus (CHPV) outbreak in 20 years, with 245 cases of acute encephalitis syndrome (AES) reported, including 82 deaths, primarily affecting children in Gujarat and Rajasthan.¹³ CHPV, transmitted by sandflies, mosquitoes, and ticks, has a high case-fatality rate, with no specific treatment or vaccine available. With India's monsoon season running from June to September, the rainy and humid climate is likely to increase mosquito activity, leading to a surge in cases.¹⁴

Dengue fever, which spreads to humans through mosquito bites, has become increasingly widespread across South America and Southern Asia, where temperatures and rainfall have increased over recent years.¹⁵ The World Health Organization (WHO) attributes the spread to the climate crisis, as warming global temperatures increase the areas that disease-carrying mosquitoes can inhabit.¹⁶ WHO reports that annual infections have increased steadily over the past two decades, with reported cases increasing from 500,000 in 2000 to 5.2 million in 2019.

Cholera, caused by the bacterium *Vibrio cholerae*, is a severe diarrheal illness often spread through contaminated food or water.¹⁷ Climate change is exacerbating the conditions that lead to cholera outbreaks. Increased temperatures and more frequent and intense storms can disrupt water and sanitation systems, leading to the contamination of drinking water sources. For example, heavy rainfall and flooding can wash sewage into rivers and lakes, increasing the risk of cholera.¹⁸ As climate change intensifies, the frequency and severity of cholera outbreaks are expected to rise, particularly in regions with inadequate water infrastructure.

Heat-related illnesses, such as heat stroke, heat exhaustion, and heat cramps, are becoming more common. Additionally, high temperatures can exacerbate pre-existing health conditions, such as

¹² <https://www.c2es.org/content/extreme-precipitation-and-climate-change/>

¹³ <https://www.who.int/emergencies/disease-outbreak-news/item/2024-DON529>

¹⁴ <https://link.springer.com/article/10.1186/s12982-024-00379-4>

¹⁵ <https://e360.yale.edu/features/dengue-fever-climate-change>

¹⁶ <https://www.who.int/emergencies/disease-outbreak-news/item/2023-DON498>

¹⁷ <https://www.who.int/news-room/fact-sheets/detail/cholera>

¹⁸ <https://pmc.ncbi.nlm.nih.gov/articles/PMC5468171/>

cardiovascular and respiratory diseases.¹⁹ Climate change also contributes to respiratory problems through increased air pollution and the proliferation of allergens. Higher temperatures can lead to the formation of ground-level ozone, a harmful air pollutant that can aggravate asthma and other respiratory conditions.²⁰ Additionally, longer and more intense pollen seasons can increase the incidence of allergic reactions and respiratory issues.²¹ Wildfires release large amounts of smoke and particulate matter into the air, further exacerbating respiratory problems.²²

Heatwaves | Intensifying heatwaves will make travelers more susceptible to heat stroke and dehydration while adapting to new destinations.

As the Earth's temperature warms, hotter-than-usual days and nights are becoming more common. The frequency and intensity of heatwaves has increased significantly in recent years, as a result, heat-related risks for travelers are more prevalent.²³ Several travelers in Greece died from the health effects of extreme heat in June and July 2024.²⁴ Travelers are more at risk of heat-related health problems because they take longer to acclimate to hot weather and are usually less prepared to deal with undue weather than locals.²⁵ Health concerns due to heat are projected to worsen as temperatures rise and become more difficult to acclimate to.

Due to skyrocketing heat levels across Europe, droughts are plaguing the tourism industry. In early July, Sicily turned away travelers at Agrigento, a popular vacation hotspot, because the city is nearly running out of water due to the lack of rainfall. Hotels and bed & breakfasts have been struggling to operate showers and toilets, and have been referring travelers to other options that are facing less extensive restrictions.²⁶

Climate change-related heatwaves also negatively affect air and railroad transportation. In July 2022, a scorching heatwave caused runway damage at London's Luton airport, briefly suspending flights.²⁷ Without improvements to infrastructure, such as lengthening runways, this could mean 200 to 900 flights grounded by 2030 and 500 to 2,200 by 2050.²⁸ Railroad tracks are also negatively affected by heatwaves, causing the rail to swell until the underlying ties can no longer contain it. Then the rail gets visibly wavy, morphing into what's known as a sun kink.²⁹ These railroad track sun kinks can lead to hazardous train conditions like misalignment of railroad tracks, buckling, and train derailments.

Wildfires | Climate change is driving increased temperatures, leading to drier vegetation, disrupted rainfall, and more lightning strikes—all factors that contribute to wildfires.

While wildfires can occur naturally anywhere, rising global temperatures from climate change accelerate evaporation, which depletes moisture and dries vegetation, consequently creating ideal

¹⁹ <https://www.who.int/news-room/fact-sheets/detail/climate-change-heat-and-health>

²⁰ <https://pmc.ncbi.nlm.nih.gov/articles/PMC10561567/>

²¹ <https://pmc.ncbi.nlm.nih.gov/articles/PMC9606573/>

²² <https://www.sciencedirect.com/science/article/pii/S0021755724001499>

²³ <https://www.epa.gov/climate-indicators/climate-change-indicators-heat-waves>

²⁴ <https://www.bbc.com/news/articles/cl550xgnpl3o>

²⁵ <https://insideclimatenews.org/news/09072024/todays-climate-tourism-heat-health-risks/>

²⁶ <https://www.cnn.com/2024/07/06/climate/italy-sicily-water-shortage-drought-tourism-intl/index.html>

²⁷ <https://www.nbcnews.com/business/travel/extreme-heat-makes-flying-harder-airlines-airports-say-arent-sweating-rcna162690>

²⁸ <https://news.climate.columbia.edu/2023/07/11/climate-change-is-making-travel-that-much-harder/>

²⁹ <https://www.scientificamerican.com/article/heat-waves-can-buckle-train-tracks-delaying-commutes-and-commerce/>

conditions for wildfires. In 2024, Greece experienced its hottest and driest year on record, during which 10,630 forest fires consumed nearly 43,000 hectares of land.³⁰ While the Mediterranean regularly experiences wildfires, experts have identified climate change as a key factor driving Greece's drier conditions and subsequent rise in wildfire frequency.³¹

Rising temperatures have disrupted natural rainfall patterns, increasing the likelihood and severity of wildfires. Some parts of the world have experienced infrequent yet intense periods of rainfall, causing rapid vegetation growth that, when followed by prolonged droughts, turns highly combustible. Australia experienced one of its most devastating bushfire seasons between 2019 and 2020, known as "Black Summer," which directly claimed 33 lives and indirectly caused 450 deaths from smoke inhalation.³² The years leading up to the "Black Summer" bushfires were characterized by a significant shift in rainfall patterns, with every Australian capital city recording below-average rainfall and some regions receiving less than 30 mm throughout the year.³³

Climate change has contributed to more frequent lightning strikes, which can trigger the outbreak of wildfires. From 2010 to 2020, lightning strikes near the Arctic tripled due to rising temperatures linked to climate change, indicating that northern regions in Canada and Europe should brace for more frequent lightning-induced wildfires.³⁴ Canada's 2024 wildfire season was one of the most destructive in history, with western provinces experiencing a significant spike in lightning-induced fires.³⁵ Wildfires in areas frequented by travelers can significantly impact local transportation, creating significant logistical, security, and health-related complications.

Landslides | Changing rainfall patterns and more frequent extreme weather events are leading to an increase in landslides.

Increased rainfall and droughts cause the ground to become unstable, triggering landslides. Landslides leave debris deposits, dust clouds, and damage infrastructure, which cause road closures, airline delays, and delays in emergency services. Heavy rain adds weight to the soil and erodes the base layer of slopes, making the top layers prone to landslides. In July 2024, rain caused landslides in the Kerala region, India, killing over 350 people and leaving thousands displaced.³⁶

While not as common, droughts can also cause landslides because of loss of vegetation, weakened soil, and changes in soil structure.³⁷ This is extremely dangerous when heavy rain is introduced back into the environment, as the dry and cracked soil is not stable and can result in a severe landslide. In La Paz, Bolivia on November 23, 2024, droughts followed by heavy rains

³⁰<https://civil-protection-knowledge-network.europa.eu/news/lessons-learned-2024-fire-season-greece>

³¹<https://www.reuters.com/world/europe/greece-faced-9500-forest-fires-this-year-says-minister-2024-12-10/>

³²<https://www.abc.net.au/news/2020-05-26/bushfire-royal-commission-hearings-smoke-killed-445-people/12286094>

³³<https://media.bom.gov.au/social/blog/2304/hottest-driest-year-on-record-led-to-extreme-bushfire-season>

³⁴<https://news.agu.org/press-release/warming-temperatures-tripled-arctic-lightning-strikes-over-the-past-decade/>

³⁵<https://www.reuters.com/world/americas/canadas-wildfire-season-ranks-among-worst-less-severe-than-fanned-2024-09-12/>

³⁶<https://www.msn.com/en-in/news/world/wayanad-landslides-among-26-extreme-disasters-caused-by-climate-change-un-report/ar-AA1xlq8E?ocid=BingNewsVerp>

³⁷<https://doi.org/10.1038/s41598-018-38300-0>

caused severe landslides that killed one and left over 40 homes destroyed.³⁸

Landslides can cause road closures and delay emergency response, and cause severe damage in mountainous areas where rain is frequent. Landslides are most frequent in rainy seasons and after hurricanes and typhoons.³⁹

Droughts | Droughts are projected to become increasingly severe and frequent due to climate change, posing escalating threats to ecosystems, water resources, and vulnerable populations.

With climate change triggering shifts in climate patterns, droughts have increasingly become more frequent and severe, posing a serious environmental threat across the globe.⁴⁰ The effects of persistent dry conditions have led to diminished water resources, degraded ecosystems, and reduced agricultural yields, causing devastating effects on our ecological systems.

Africa is one of the most vulnerable continents to climate change, a challenge that intersects with complex social issues like chronic poverty and limited access to social and economic infrastructure. In 2024, Southern Africa faced one of its most severe droughts in over a century, exacerbated by the El Niño climatic phenomenon. This drought significantly impacted countries like Malawi, Mozambique, Namibia, Zambia, leading to extreme food insecurity and water shortages.⁴¹ Approximately 24.4 million people in the region required humanitarian assistance.⁴² The drought disrupted agricultural production, elevated food prices, and caused widespread water scarcity, affecting both human populations and livestock. The situation was particularly dire in areas where communities rely heavily on rain-fed agriculture for their livelihoods.

The consequences of droughts are far-reaching, impacting all aspects of the natural environment and public infrastructure. Immediate consequences are evident in dryer vegetation and lower water levels, while long-term effects such as land subsidence and biodiversity loss are much more costly and challenging to manage.⁴³ As water scarcity intensifies, competition for resources increases, and addressing these challenges requires proactive strategies, sustainable land management, and climate adaptation measures.

Migration and Displacement | Climate change is driving significant global migration and displacement, impacting millions of refugees and reshaping destinations common for international education.

Climate change continues to be a significant driver of migration and displacement. As the frequency and intensity of climate-related disasters such as floods, storms, and droughts increase, more people are forced to leave their homes in search of safety and stability.⁴⁴ This

³⁸<https://abcstlouis.com/news/nation-world/heavy-rains-in-bolivia-send-mud-crashing-into-the-capital-leaving-1-missing-and-destroying-homes-la-paz-evacuations-torrential-rain-dislodging-mud-dwellings-hillside-rocks-soil-ravine-president-lusi-arce>

³⁹ <https://housegrail.com/landslide-statistics/>

⁴⁰ <https://www.who.int/health-topics/drought>

⁴¹<https://www.unocha.org/publications/report/malawi/southern-africa-el-nino-forecast-and-impact-august-2024>

⁴²https://www.nyadire.org/uploads/4/7/6/4/4764398/update_on_southern_africa_regional_drought_dec_2024.pdf

⁴³ <https://www.geoaffairs.com/impact-drought-rivers/>

⁴⁴ <https://www.nature.com/articles/s44168-024-00133-1>

phenomenon, known as climate-induced displacement, affects millions of people worldwide.⁴⁵ According to the World Migration Report 2024, over 216 million people across six continents are projected to be displaced within their countries by 2050 due to climate change.⁴⁶ These movements are often within national borders, but cross-border migration is also becoming more common as people seek refuge from the adverse effects of climate change.⁴⁷

Several regions around the world have experienced significant climate-induced displacement. For instance, in 2024, rising sea levels and increased storm activity in the Pacific Islands have led to the displacement of entire communities to neighboring countries.⁴⁸ In 2024, severe droughts in East Africa, particularly in Kenya and Ethiopia, have forced thousands of people to leave their homes in search of water and arable land.⁴⁹ Additionally, in 2024, wildfires in Southern Europe, including Greece and Portugal, displaced numerous communities, highlighting the growing impact of climate change on mobility.⁵⁰

The implications of climate-induced migration and displacement for international education are multifaceted. As climate change reshapes global migration patterns, students studying abroad may encounter increased competition for resources and services in host countries experiencing high levels of displacement.⁵¹ Additionally, universities in these regions may face disruptions due to the influx of displaced populations, which can strain local infrastructure and resources, impacting academic experience and safety.⁵²

Rising Sea Levels | Rising sea levels are projected to increasingly threaten infrastructure, particularly in coastal cities, leading to higher repair costs, land subsidence, and long-term instability worldwide.

Rising sea levels are expected to severely impact global transportation infrastructure, with worsening tidal events and flooding causing long-term damage to roads, highways, and airports. Rising sea levels threaten to render hundreds of coastal airports unusable, with projections indicating that up to 572 airports could be at risk of flooding by 2100, leading to significant disruptions in global transportation infrastructure without appropriate adaptation.⁵³ As sea levels rise, repair costs for travel infrastructure will increase, especially in cities experiencing land subsidence. For example, Northern Jakarta has sunk over 8 feet in the past decade, making it one of the fastest-sinking cities in the world.⁵⁴ The situation has become so dire that Indonesia has initiated plans to relocate its capital to Nusantara, on Borneo Island.⁵⁵ Rising sea levels have led to worsening floods, saltwater intrusion into freshwater supplies, and the displacement of

⁴⁵<https://weblog.iom.int/who-are-climate-migrants-new-data-reveals-stark-socio-economic-differences-disaster-displaced-populations>

⁴⁶<https://www.worldbank.org/en/news/feature/2023/12/11/global-migration-in-the-21st-century-navigating-the-impact-of-climate-change-conflict-and-demographic-shifts>

⁴⁷ <https://www.unesco.org/gem-report/en/2024cce>

⁴⁸ <https://wmo.int/news/media-centre/climate-change-transforms-pacific-islands>

⁴⁹ <https://www.welthungerhilfe.org/hunger-due-to-drought-in-east-africa>

⁵⁰ <https://www.internal-displacement.org/global-report/grid2024/>

⁵¹ <https://www.nature.com/articles/s44168-024-00133-1>

⁵² <https://www.rescue.org/report/forced-displacement-urban-areas-what-needs-be-done>

⁵³ <https://www.preventionweb.net/news/rising-sea-levels-may-make-some-airports-unusable>

⁵⁴ <https://www.theguardian.com/world/2020/dec/31/land-subsidence-will-affect-almost-fifth-of-global-population>

⁵⁵ <https://www.nytimes.com/interactive/2023/05/16/headway/indonesia-nusantara-jakarta.html>

thousands of people.⁵⁶ Similar issues affect other low-lying coastal regions worldwide, putting millions at risk.⁵⁷

Researchers have calculated that Venice will be completely submerged by 2150.⁵⁸ The city faces annual Acqua Alta (“high water”) flooding, a cycle expected to worsen, as seen in November 2023, when an over 6-foot-high tide submerged 70% of Venice despite the activation of the MOSE flood barriers.⁵⁹ While these flood defense mechanisms helped mitigate damage, the increasing baseline sea level means that even moderate storm surges are becoming more destructive, causing millions of dollars in damage, disrupting tourism, and threatening the city's historic structures.^{60,61} Buildings in Venice are built with waterproof stone basements, but they are made of brick above the waterline. As the city floods, salt from the floodwaters gets into the bricks, slowly destroying the structure.⁶² This cycle creates health hazards and risks to the city's critical infrastructure.

Bangkok, like many other coastal cities worldwide, is put at risk due to rising sea levels. The capital of Thailand sits roughly 0.5 to 1.5 meters above sea level while data models predict sea levels will rise 1 meter by 2100.⁶³ This would put approximately one third of the city underwater and up to 11 million people could be displaced.⁶⁴ Rising sea levels create both immediate disruptions and long-term instability for international education programs in coastal cities. Institutions may face increased disaster risks, mounting relocation costs, and travel disruptions, forcing some to adapt or relocate entirely. Students should consider environmental sustainability when choosing study destinations and stay informed about evacuation procedures and climate adaptation efforts in flood-prone areas.

Ocean Warming | Ocean warming significantly accelerates rising sea levels, damage to marine ecosystems, and effects of climate change on land.

Ocean warming is a serious byproduct of the global climate crisis and has accelerated significantly in recent years, with 2024 witnessing a rapid increase in sea surface temperatures. Among other risks, this thermal expansion of seawater has contributed to an unprecedented rise in global sea levels.⁶⁵ Rising ocean temperatures also affect global ocean currents that are critical to maintaining a predictable climate. Currents such as the Gulf Stream help make Europe more temperate than Northeastern Canada and the United States, but the slowing of these currents can have significant impacts such as the regional cooling of Western Europe.^{66,67}

⁵⁶ <https://www.wired.com/story/jakarta-sinking/>

⁵⁷ <https://www.weforum.org/stories/2019/09/11-sinking-cities-that-could-soon-be-underwater/>

⁵⁸ <https://www.euronews.com/green/2024/06/19/new-study-by-italian-scientists-predicts-venice-will-be-underwater-by-2150>

⁵⁹ <https://phys.org/news/2021-10-venice-worsens-off-season-climate.html>

⁶⁰ <https://www.ipcc.ch/srocc/chapter/chapter-4-sea-level-rise-and-implications-for-low-lying-islands-coasts-and-communities/>

⁶¹ <https://www.geoengineer.org/news/venice-experiences-the-highest-floods-in-53-years>

⁶² <https://www.rmg.co.uk/stories/topics/venice-flooding-climate-change-coastal-cities>

⁶³ <https://www.abc.net.au/news/2023-08-11/bangkok-is-sinking-residents-warn-rising-seas-will-swallow-city/102559364>

⁶⁴ <https://earth.org/sea-level-rise-projections/>

⁶⁵ <https://sealevel.nasa.gov/news/282/nasa-analysis-shows-unexpected-amount-of-sea-level-rise-in-2024/>

⁶⁶ <https://science.nasa.gov/earth/earth-atmosphere/slowdown-of-the-motion-of-the-ocean/>

⁶⁷ <https://www.ncei.noaa.gov/news/decades-data-changing-atlantic-circulation>

A considerable impact of rising ocean temperatures is the effect it has on areas that are economically reliant on marine life. Fishing provides not just an income, but also food security; the International Union for the Conservation of Nature (IUCN) estimates that tens to hundreds of millions of dollars will be lost from changes in ocean temperatures.⁶⁸ Many Latin American countries are heavily reliant on their fishing industries and account for over 15% of global fish production;⁶⁹ as fish move towards the poles due to rising temperatures,⁷⁰ many of these already poor countries will be further devastated. Any shift in climate will have significant impacts as domestic industry responds and is reflected economically. Student travelers should be aware of the economic shifts of any particular country they are traveling to.

Conclusion

Climate change poses a multitude of risks to international education, affecting everything from infrastructure and travel to health and safety. Severe storm systems, flooding, and health effects are among the most immediate threats, potentially disrupting travel plans and endangering student well-being. Heatwaves, wildfires, and landslides further exacerbate these challenges, creating unpredictable and hazardous conditions for students studying abroad. Droughts, migration and displacement, rising sea levels, and ocean warming add additional layers of complexity, impacting long-term stability and infrastructure.

To mitigate these impacts, it is crucial for educational institutions and students to prioritize climate resilience and preparedness. By staying informed about climate vulnerabilities, developing robust emergency plans, and selecting study destinations that emphasize environmental responsibility and climate resilience, the international education community can better navigate the challenges posed by a changing climate.

⁶⁸ <https://iucn.org/resources/issues-brief/ocean-warming>

⁶⁹ <https://seafoodexpoeurasia.com/en/news/latin-america-the-fast-growing-seafood-market-offers-promising-perspectives-how-to-benefit-from-em/>

⁷⁰ <https://www.eea.europa.eu/publications/how-climate-change-impacts>

