

## **THREE DEGREES**

### **Ecuador Simulation Summit™ Scenario**

The average global temperature has increased by 1.5 degrees Celsius. We are now experiencing the cumulative impacts of this dramatic change in temperature. We are located in the Ecuadorian capital city of Quito. The Antisana and Cotopaxi glaciers have completely melted, dramatically reducing the city of Quito's water supply. Disease rates have increased significantly, as mosquitoes have inhabited higher elevations, which were previously intolerable to these pests. The municipal government in Quito has instituted a weekly fumigation policy and sales of unregulated pesticides for personal use have doubled. Once thought to be confined to underdeveloped regions – and consequently, having received little attention and research – mosquito transmitted illnesses like dengue fever are rampant. The demand for food rises while food production and crop yields in peas and potatoes have declined by 20% as the region's population has exploded.

Welcome to the year 2040.

With the loss of snowmelt, access to drinking water has been significantly reduced. More intense and sporadic rains have led to sudden spikes in rural to urban migration, as Ecuador's banana industry has collapsed, forcing 12% of Ecuador's population out of work. Fewer and fewer people are able to provide for themselves through traditional farming practices – made increasingly difficult due to rising temperatures, dry soils from increased evaporation, and the spread of pests. Ecuador's export economy has sharply declined since 2010, leading to a long-term recession and the abandonment of the US dollar as legal tender. The poverty rate (those living on less than \$1 USD/day) now exceeds 60%.

The increased demand for water, particularly in urban areas has led the national and municipal governments to privatize water supply. To raise the \$15 billion for pumping water to Quito from the Amazon basin, Ecuador has contracted with several large oil and gas companies to drill in Yasuni National Park. This has led to massive deforestation, a rise in illegal logging and corrupt forest practices, civil unrest, and increasing incidence of violent protest and disruption, particularly by the nation's indigenous communities. The rule of law has largely disintegrated.

The United Nations has greatly diminished in membership, power, and stature over time, with Ecuador being one of the first countries to withdraw its membership. As a result, all UN administered climate adaptation and aid funding to the country has been suspended since 2025.

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