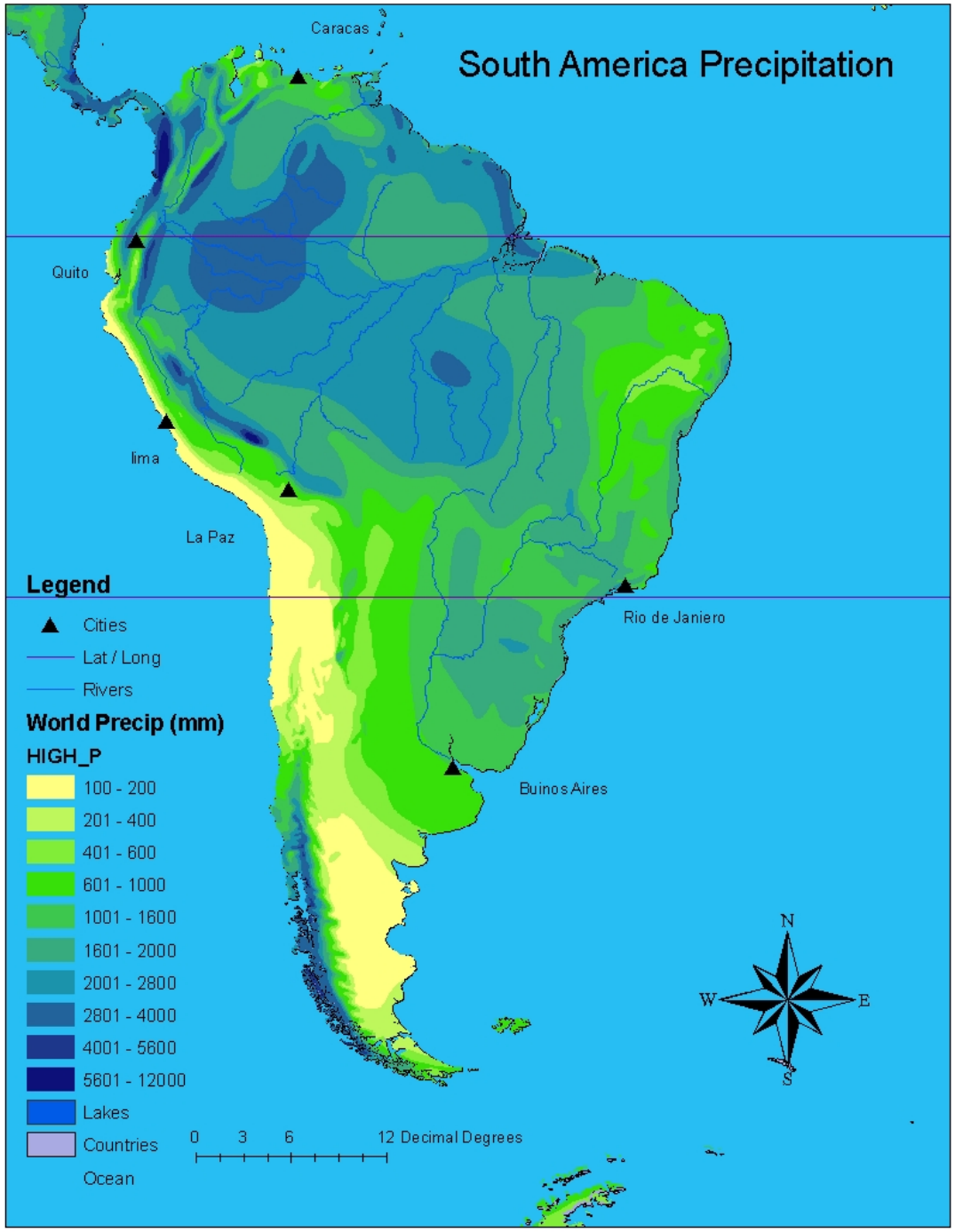
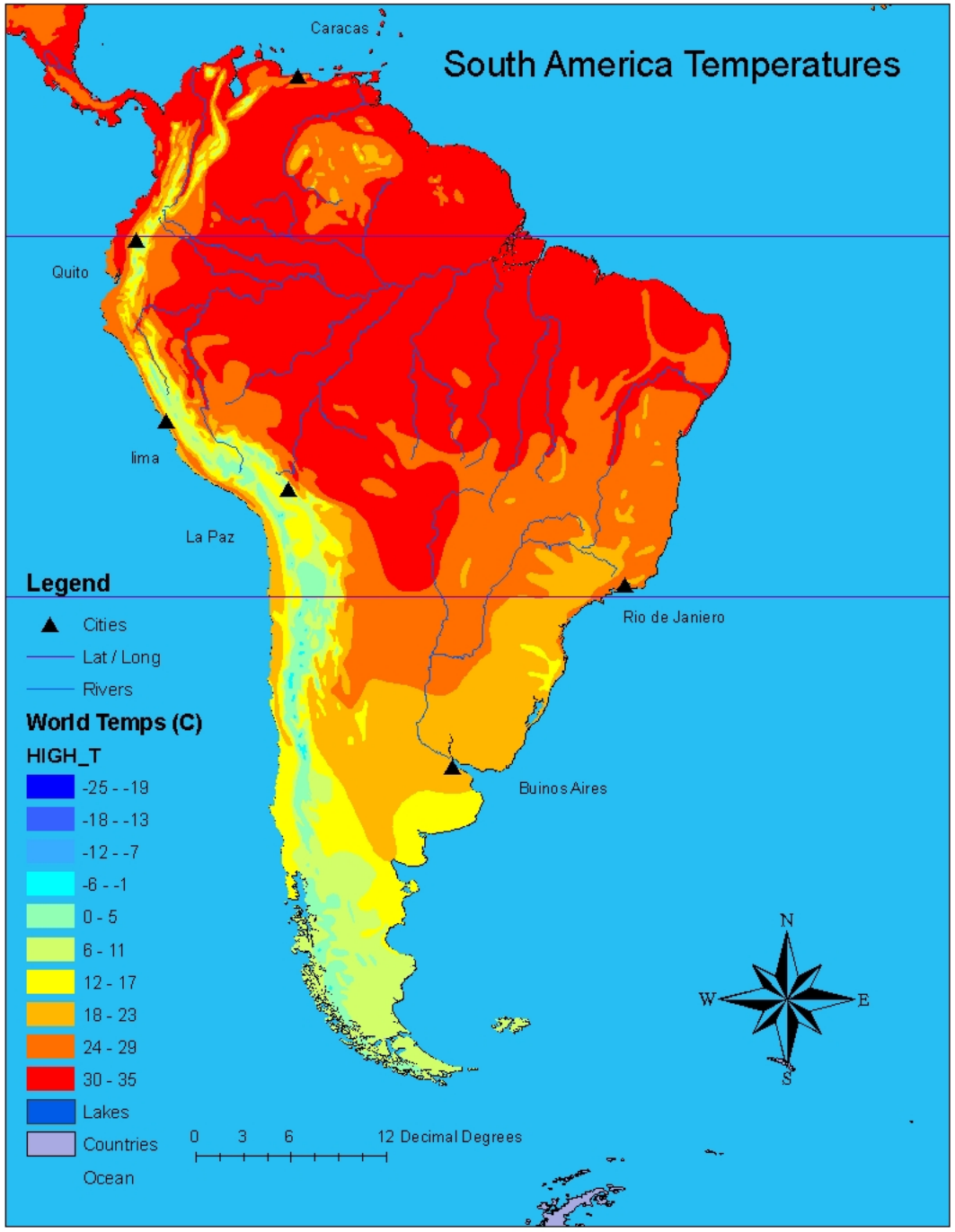
Climate-Related Pathogen Challenge

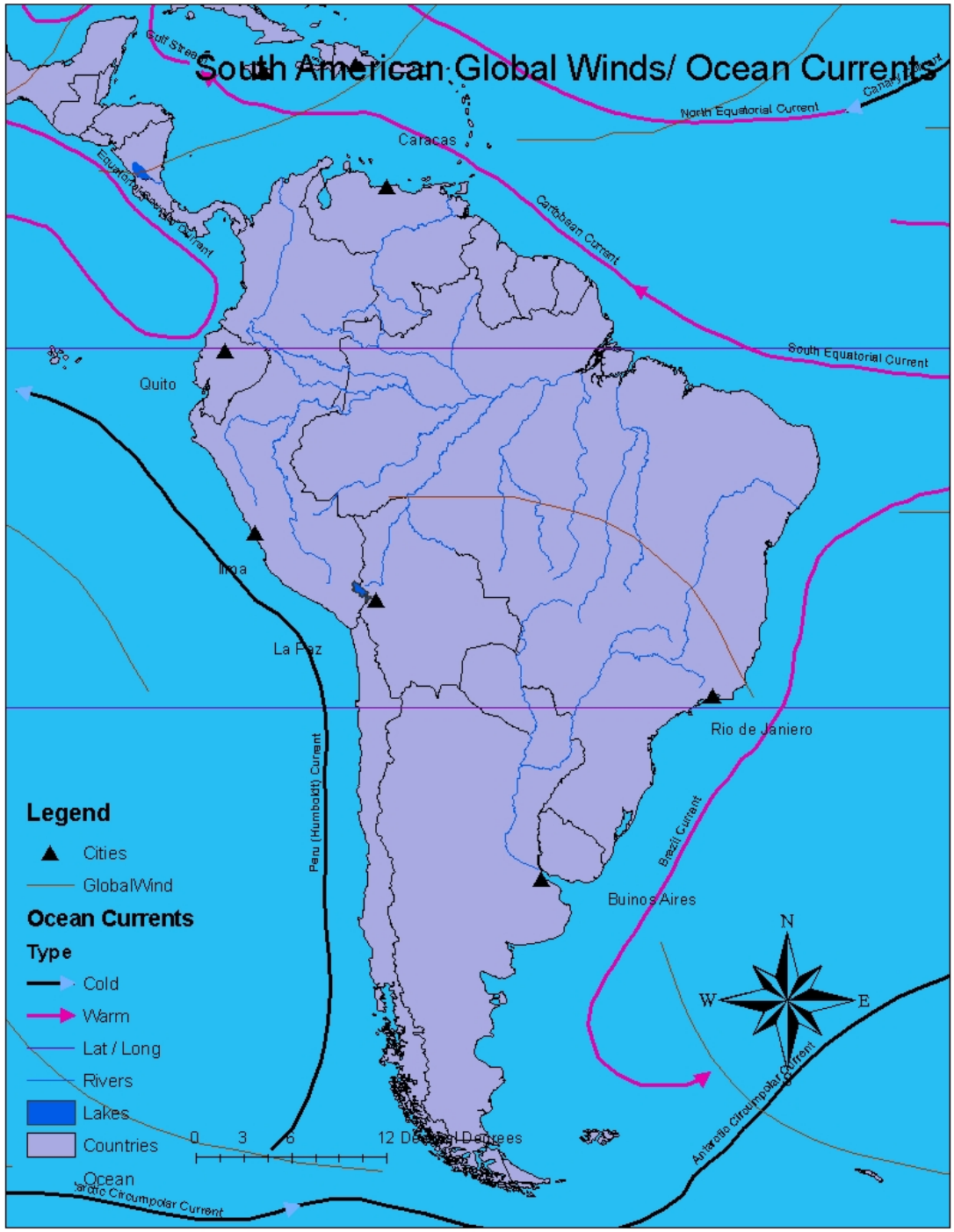
- During normal times this region experiences strong coastal upwelling off South America due to coastal winds.
- Sea surface elevation is lower off of South America



- During Normal times this region experiences dry clear weather
- The atmospheric pressure is high over South America

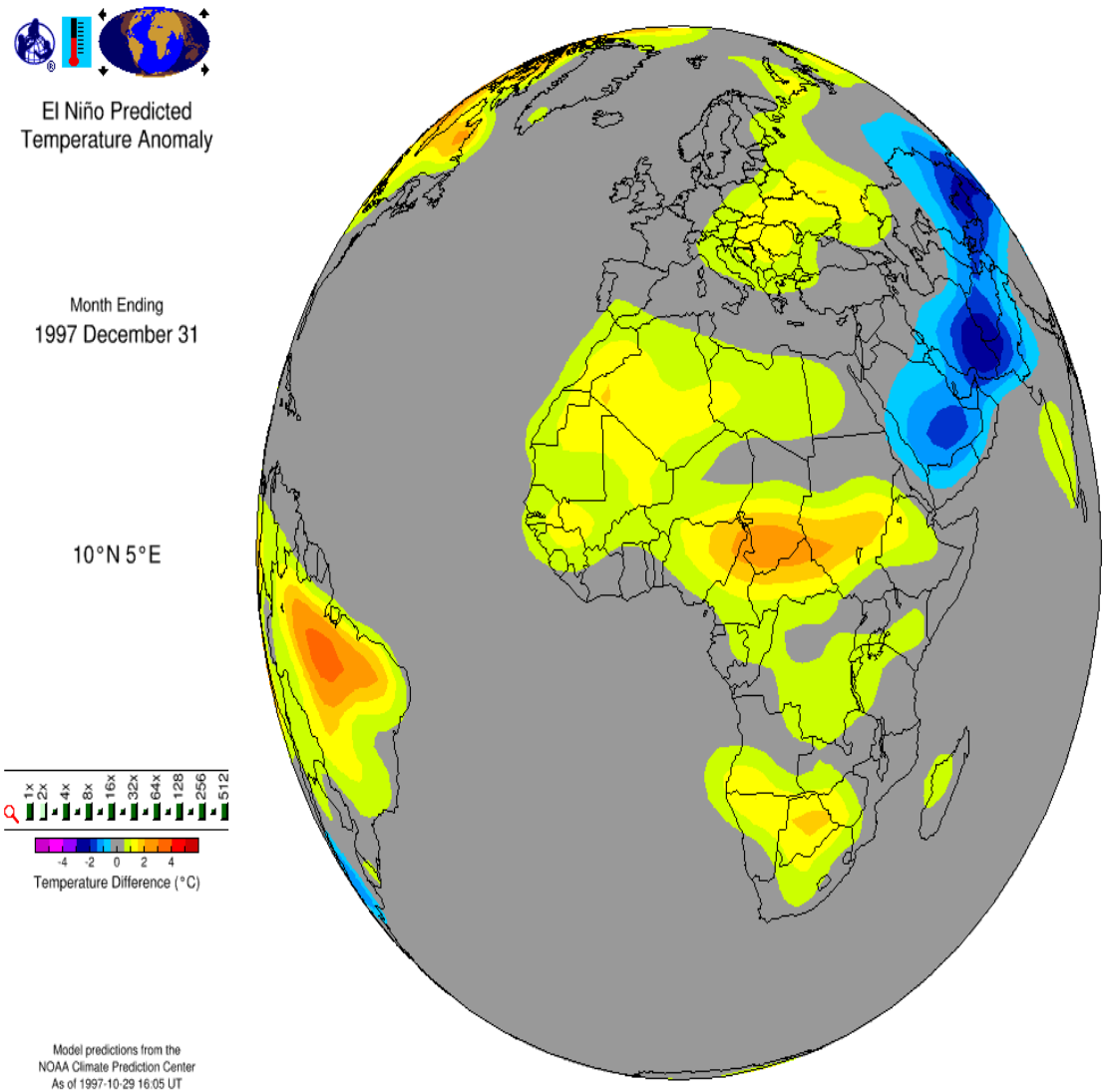


- During normal times this region experiences sea surface temperatures that are cold off of South America due to upwelling.



- The global winds and ocean currents effect the weather of South America because of the pressure,

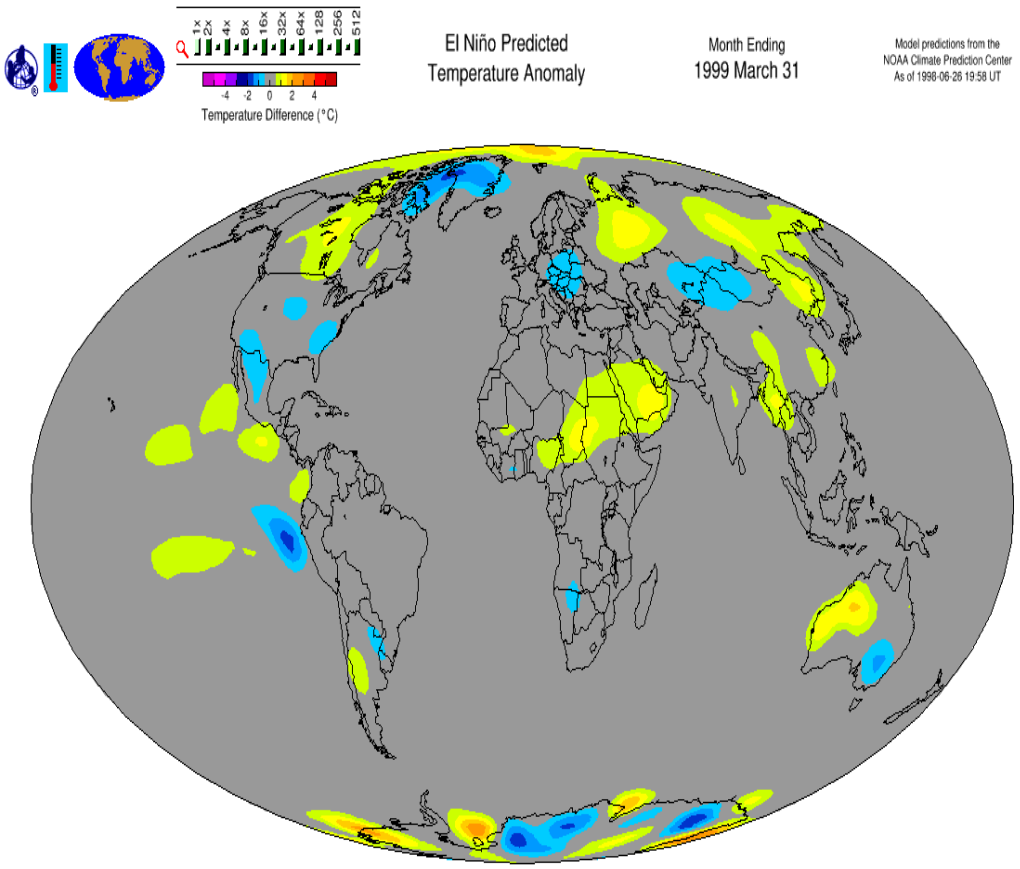
El Nino



EFFECTS ON SOUTH AMERICA

- Atmospheric pressure is lower
- Flooding conditions
- Coastal upwelling ceases
- Pacific warm pool moves to the east, brings warm water
- Thermocline conditions lower (deepen) off of South America

La Nina



EFFECTS ON SOUTH AMERICA

- Atmospheric pressure is more powerful
- Weather conditions can cause drought
- Stronger than normal coastal winds, intensified coastal upwelling.
- Increased upwelling of sea surface temperature.
- Sea surface elevation is even lower.
- Thermocline conditions are raised closer to the surface off South America.

Possibly Pathogens

- Yellow Fever
- Transmitted from the bite of a female mosquito
- Found in tropical and subtropical regions, like South America
- Flooding seasons, and seasons of high moisture can allow and abundant amount of mosquitoes.

Possible Pathogens

- Malaria- Widespread in tropical and subtropical regions, transmitted by mosquitoes.
- Dengue fever- febrile disease which occurs in the tropics like Bolivia and Brazil. Unlike malaria, dengue is present in urban and rural districts.
- Cholera- is an infection caused by bacterium Vibrio cholerea, the bacteria can exist in contaminated drinking water or food. Weather could play a part in allowing this contamination to take place.