



**SOUTH
AMERICA**

POLITICAL MAP



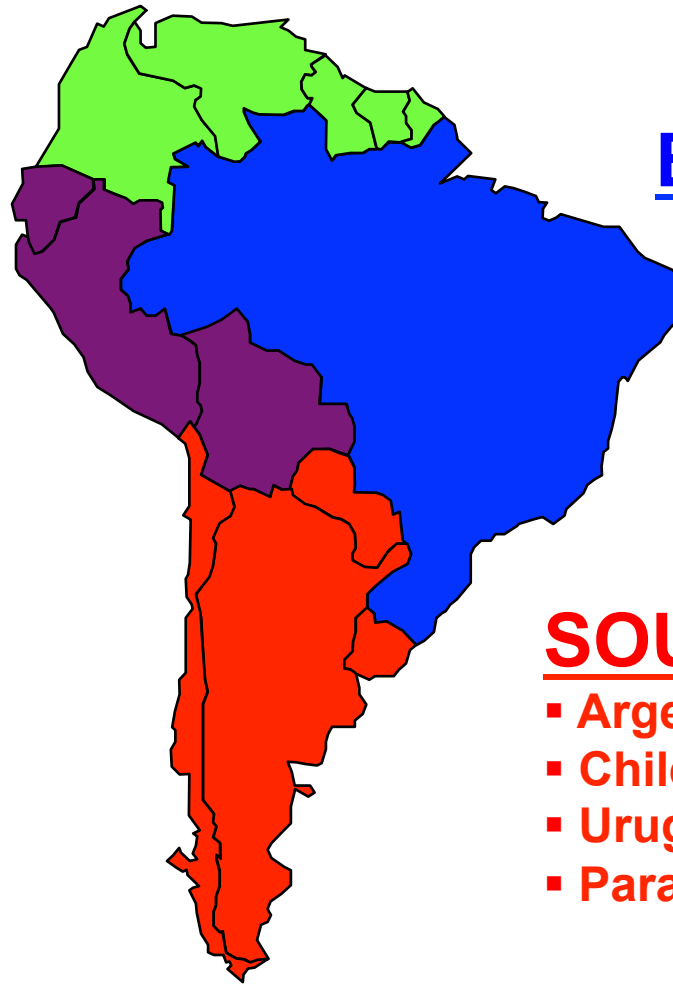
REGIONS OF THE REALM (AREA)

NORTH

- Colombia
- Venezuela
- Guyana
- Suriname
- French Guiana

WEST

- Peru
- Ecuador
- Bolivia



BRAZIL

SOUTH

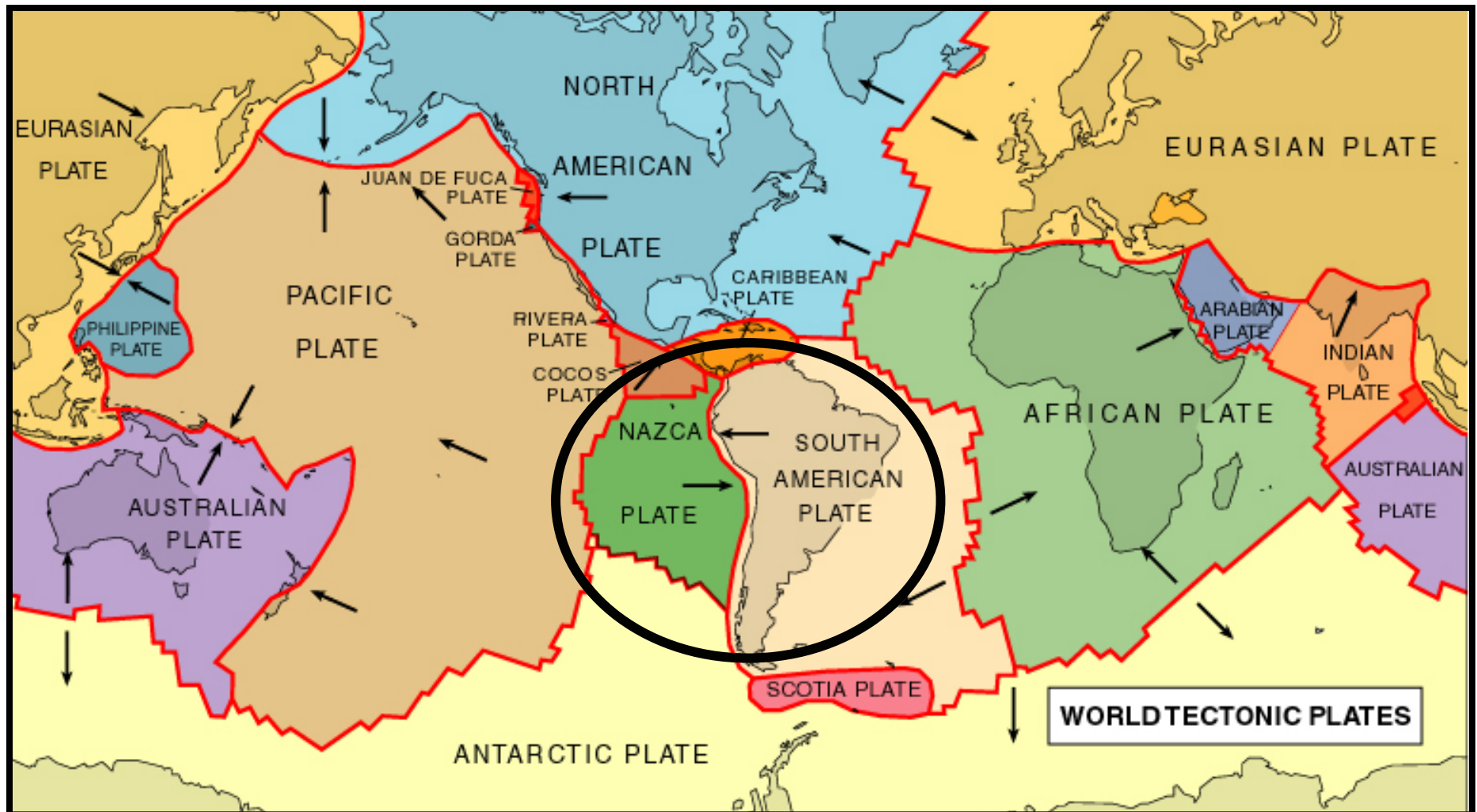
- Argentina
- Chile
- Uruguay
- Paraguay

PHYSICAL ENVIRONMENT



PLATE TECTONICS

Nazca Plate



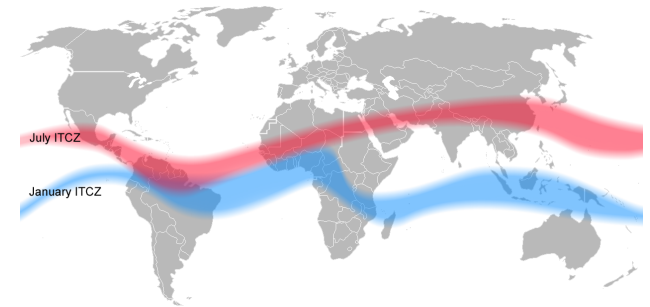
MAJOR GEOGRAPHIC QUALITIES

- Dominated by the Andes Mountains and the Amazon Basin.
- Population – concentrated near coast
- **Cultural Pluralism** exists in most countries and is expressed regionally.
 - when smaller groups within a larger society maintain their unique cultural identities, and their values and practices are accepted by the wider culture provided they are consistent with the laws and values of the wider society. *Ex. Amish*
- **Regional Economic Interaction** (regional agreement) has been minimal in the past.

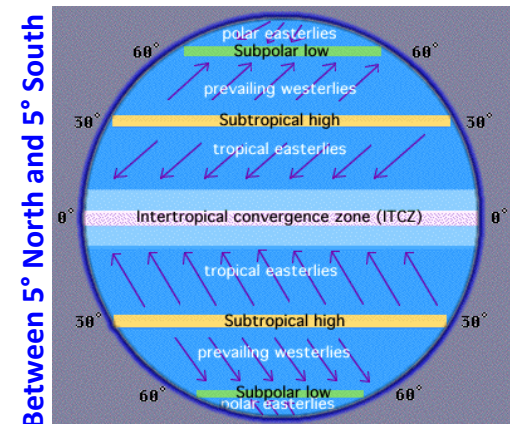
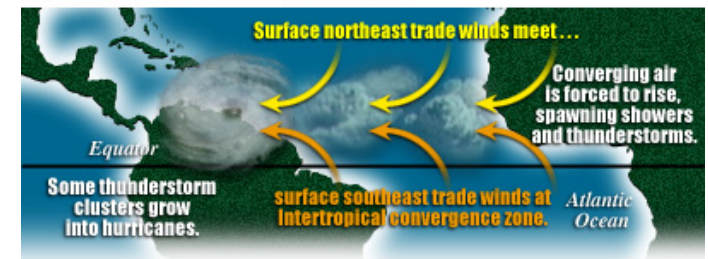
CLIMATE PATTERN

Intertropical Convergence Zone (ITCZ)

- Located near the equator, from about 5° north and 5° south, is the region that circles the Earth, near the equator, where the trade winds of the Northern and Southern Hemispheres come together.
- The intense sun and warm water of the equator heats the air in the ITCZ, raising its humidity and causing it to rise. As the air rises it cools, releasing the accumulated moisture in an almost perpetual series of thunderstorms (**heaviest rainfall on earth**).
- It has been called the **doldrums** by sailors due to the lack of horizontal air movement (the air simply rises with convection). The ITCZ is also known as the Equatorial Convergence Zone or Intertropical Front.



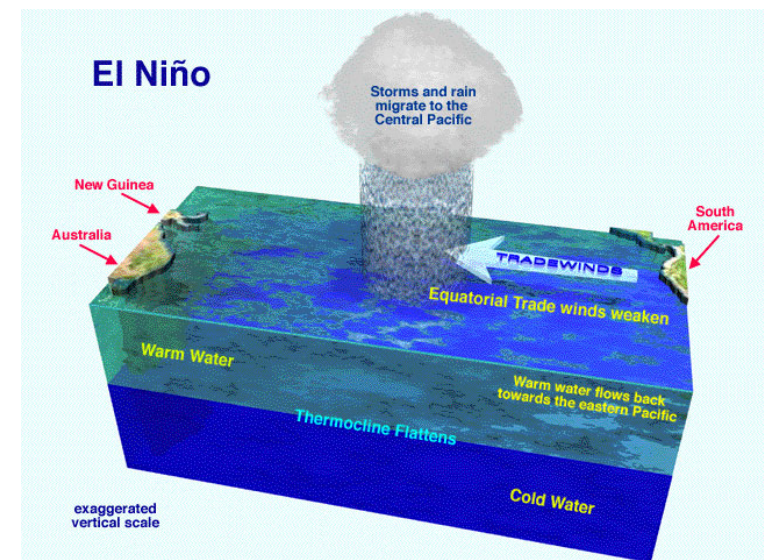
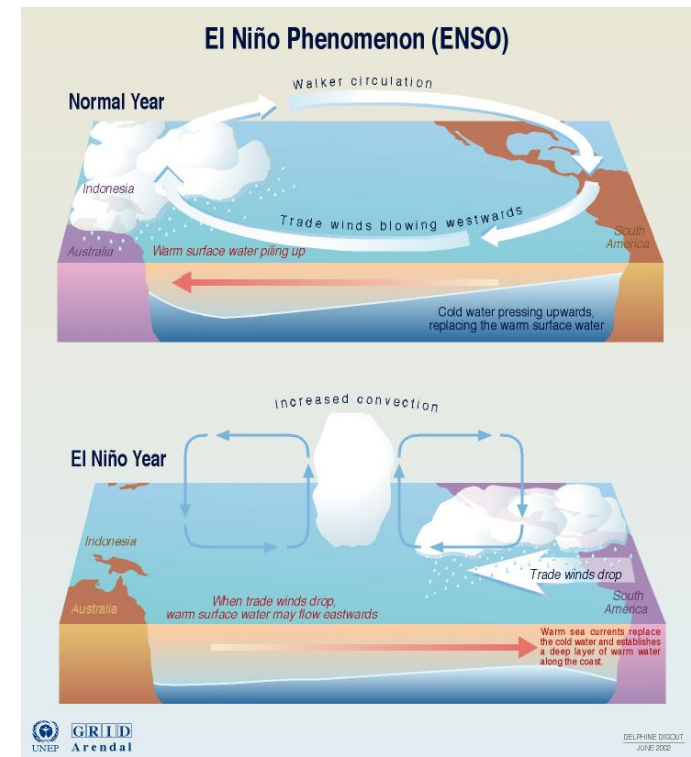
Intertropical convergence zone



CLIMATE PATTERN

El Niño – *Hot Air over Hot Water*

- A temporary change in the climate of the Pacific ocean, in the region around the equator
- You can see its effects in both the ocean and atmosphere, generally in Northern Hemisphere winter
- Typically, the ocean surface warms up by a few degrees Celsius.
- At the same time, the place where hefty thunderstorms occur on the equator moves eastward.
- Although those might seem like small differences, it nevertheless can have big effects on the world's climate.



CLIMATE PATTERN

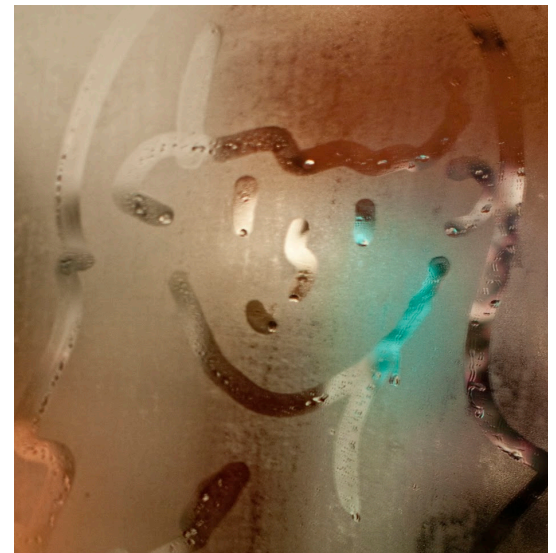
Fill one with cool water. Fill the other with hot water. Hold each of your hands over one cup and feel the difference in the air above the water. The hot water warms the air above it. The cool water doesn't.

Now, imagine you fill your bathtub with hot water. Think about how warm and steamy the air in the bathroom gets. Now, imagine millions and millions of bathtubs-full of hot water. All of that moist, hot air has to go somewhere. Scientists know that hot air rises and carries the moisture with it. Once the moisture gets into the air and starts to cool, rainclouds start to form.

Now, hold a small mirror over the cup of hot water for a few minutes. The moisture in the air should collect on the mirror, and, as it cools, form tiny droplets.

Imagine the bathroom mirror after you fill the bathtub with hot water. The "water" on the mirror is caused by the water vapor in the air gathering and cooling.

Now imagine the air over the hot water of the tropical Pacific Ocean. Huge rainclouds start to form and flooding results in South American countries along the coast.



The TAO Story

Developing an El Niño Observing System



www.pmel.noaa.gov/tao

The TAO array is a major component of the
El Niño Observing System.

THE LA NINA AND EL NINO WEATHER PATTERNS...



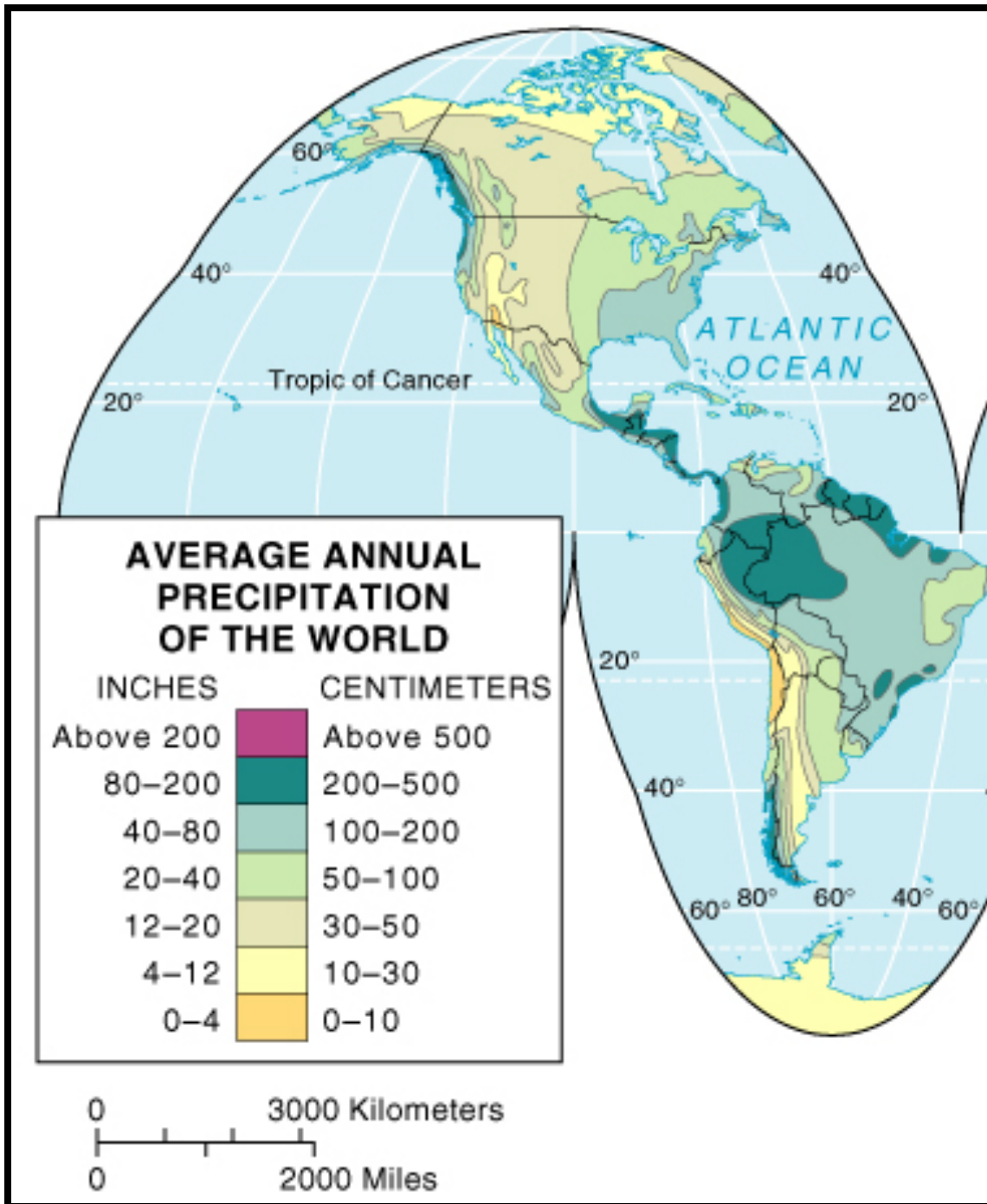
IN THE PAST



TODAY

INKCINCT

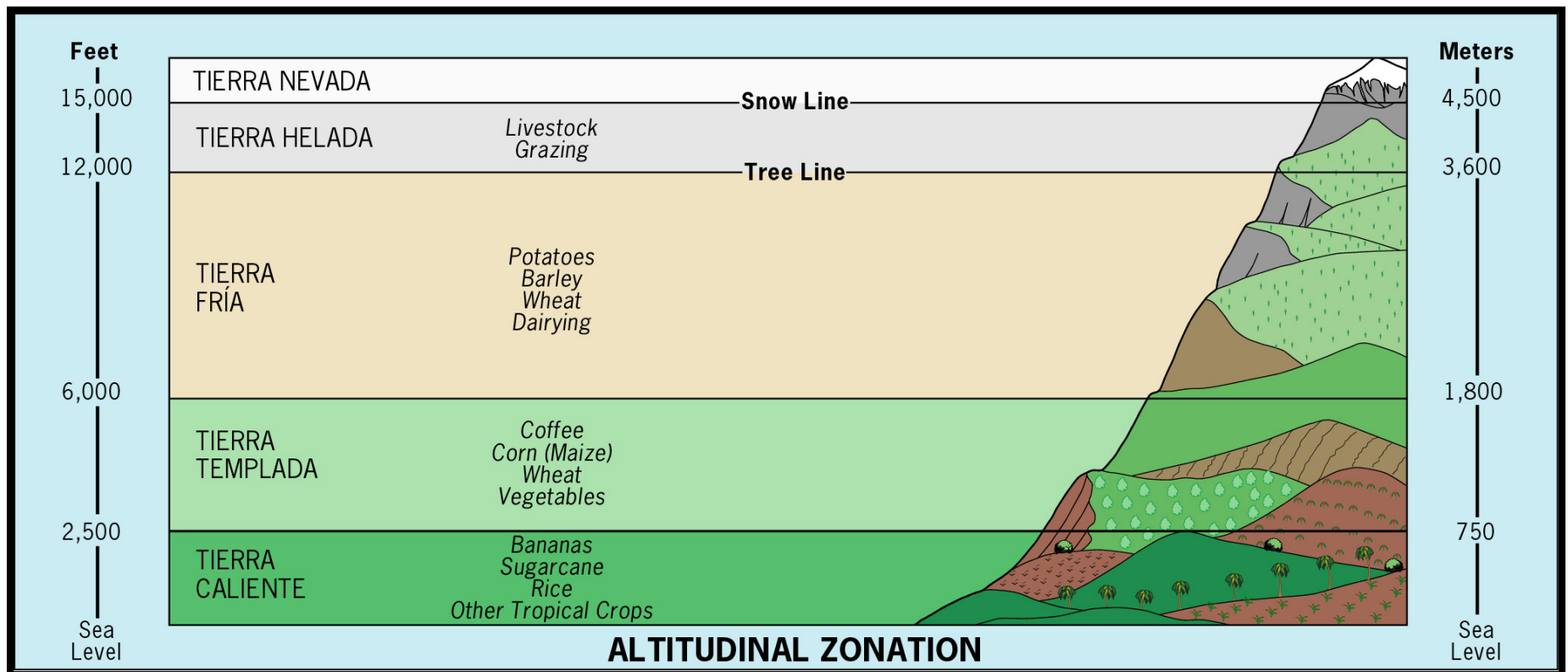
PRECIPITATION



Rainforest

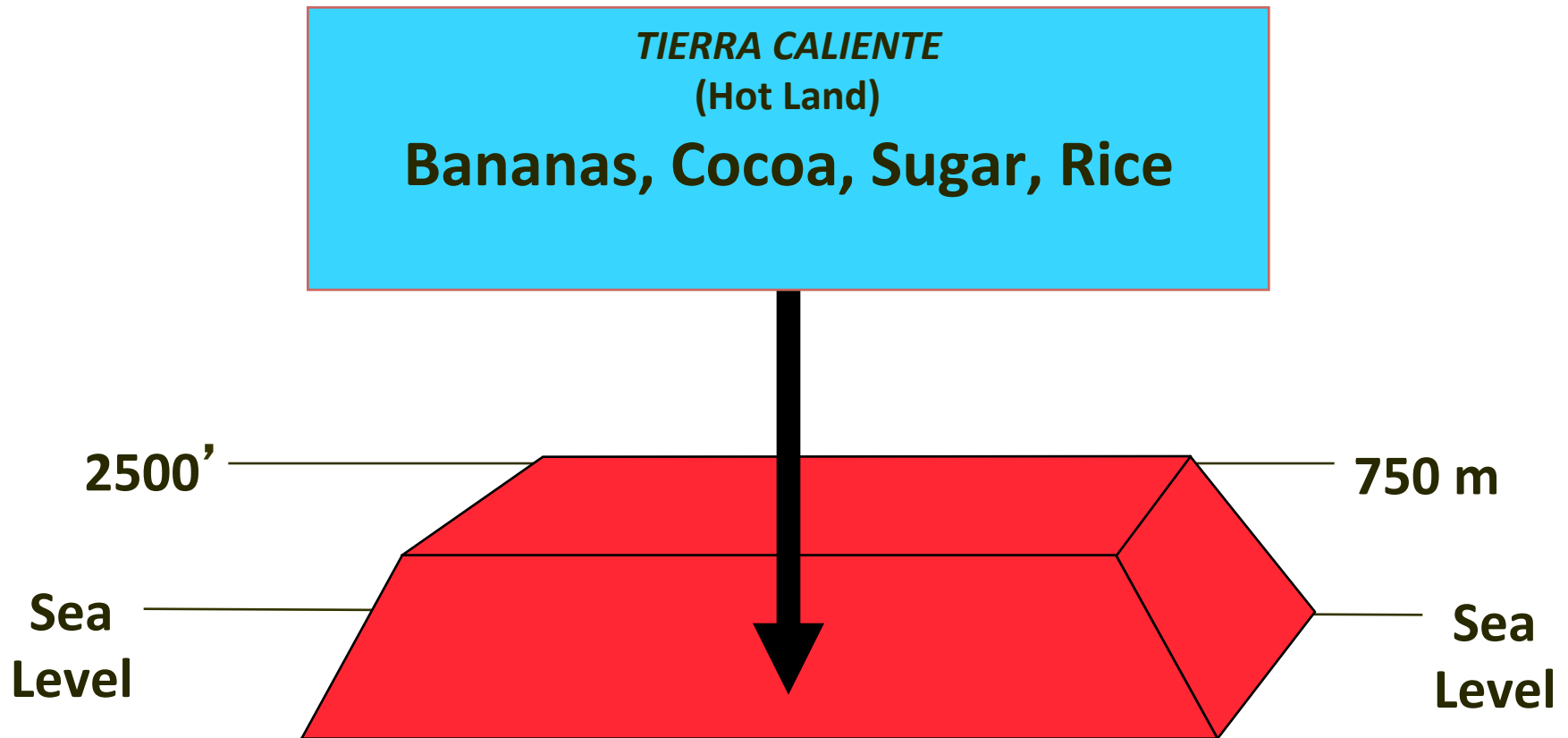
ALTITUDINAL ZONATION

Middle & South America's Vertical Climate Zones

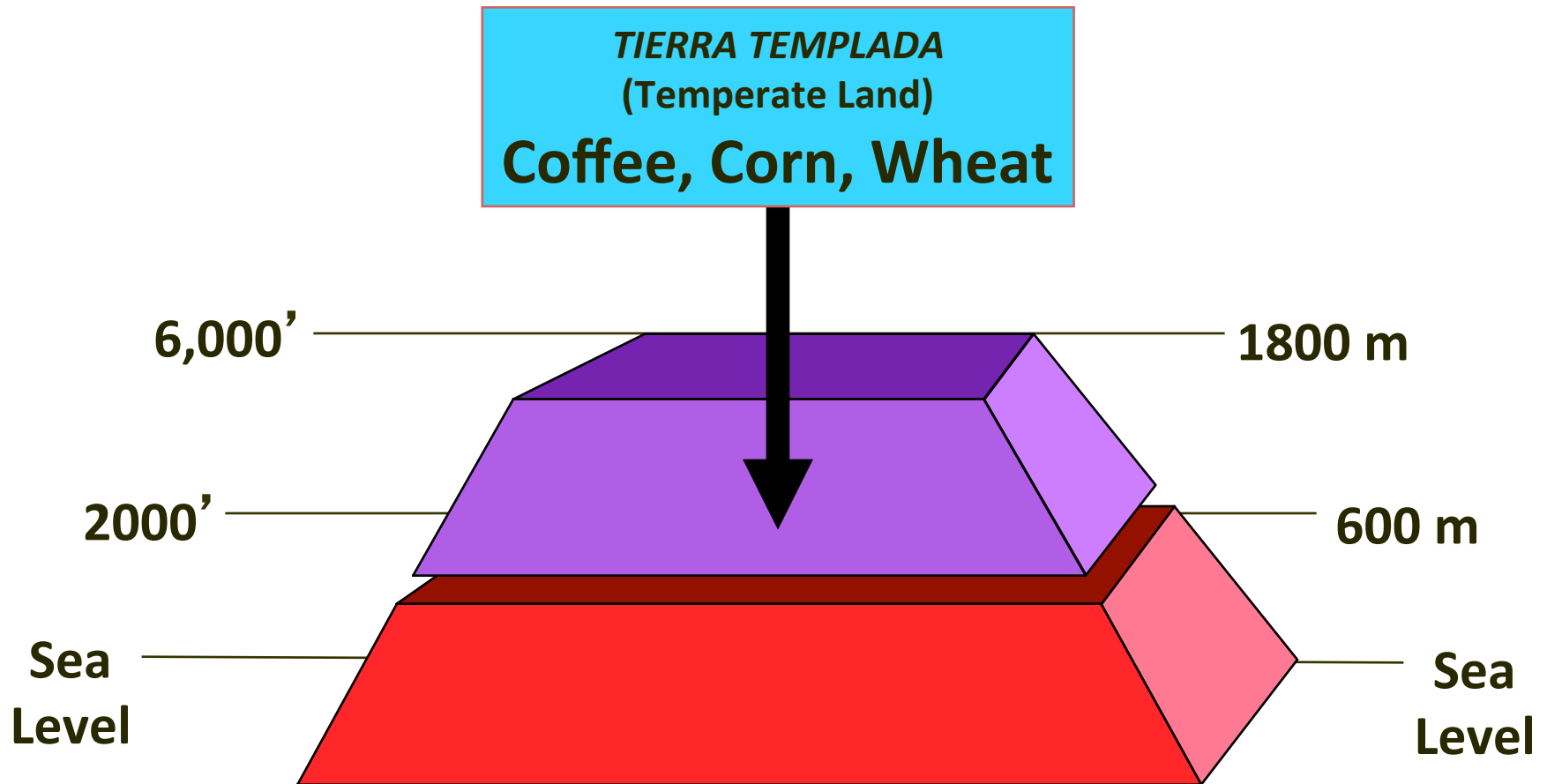


ALTITUDINAL ZONATION

Middle & South America's Vertical Climate Zones



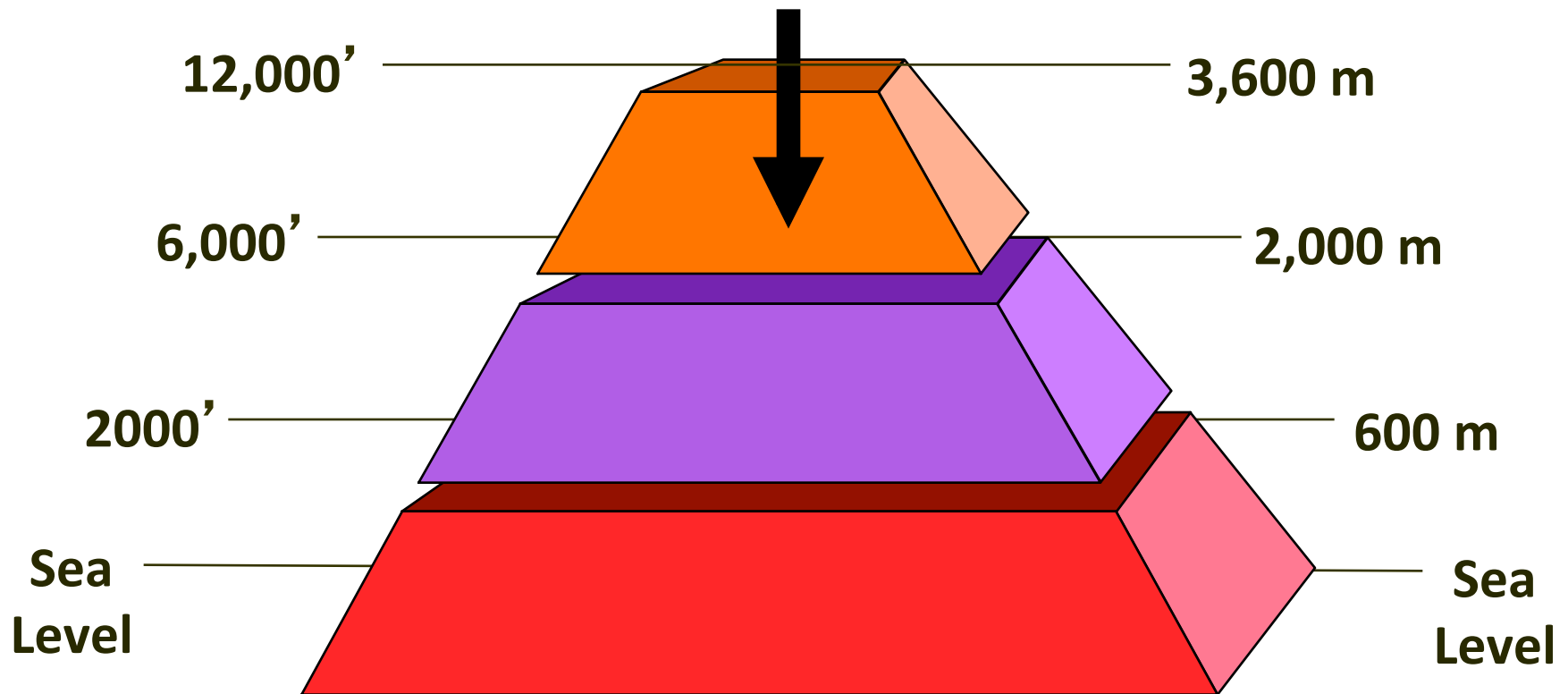
ALTITUDINAL ZONATION



ALTITUDINAL ZONATION

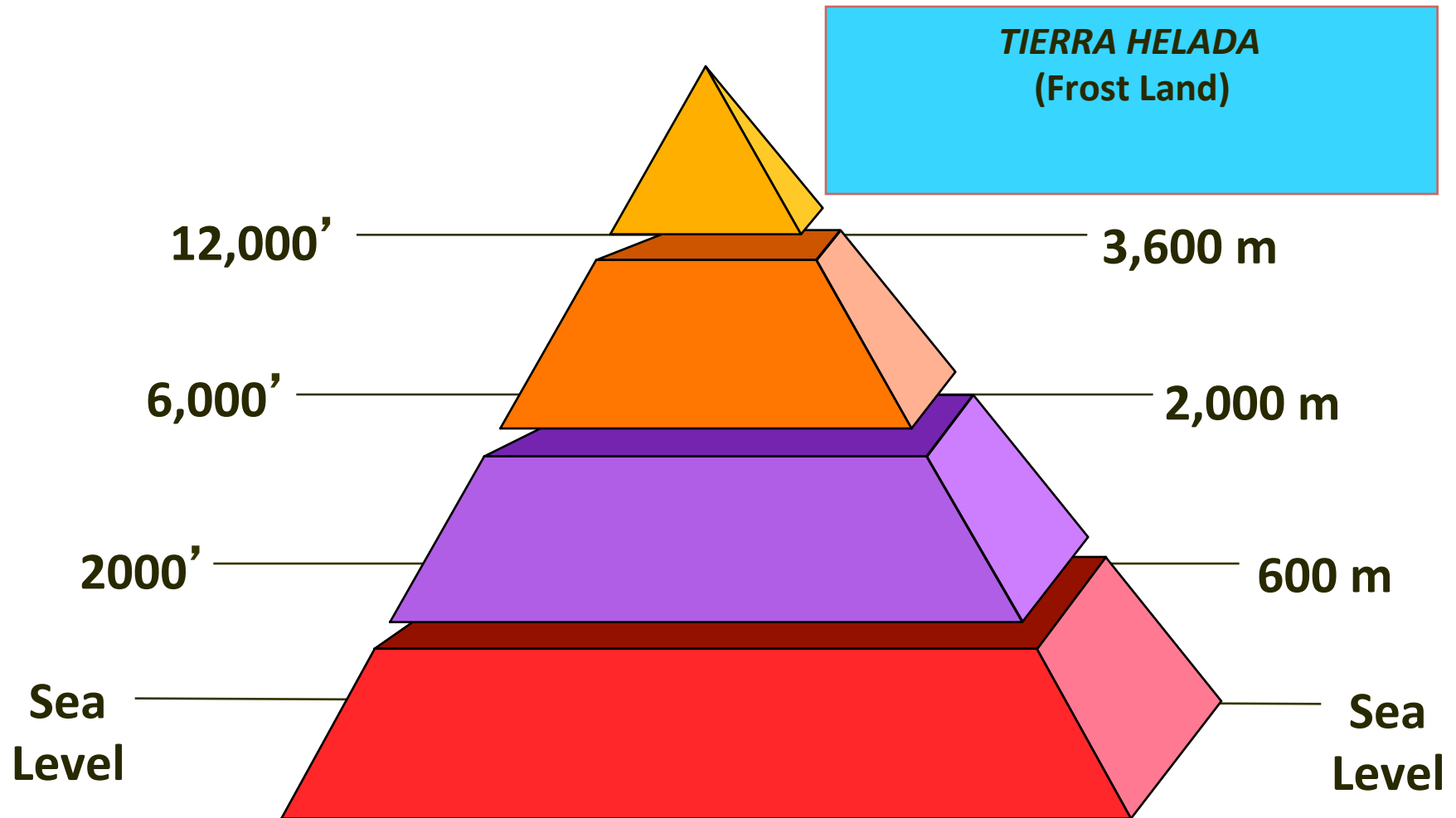
TIERRA FRÍA
(Cold Land)

Wheat, Potato, Barley



ALTITUDINAL ZONATION

Middle & South America's Vertical Climate Zones



URBANIZATION

- The movement to and clustering of people in towns and cities
- High percentage of a country's population living in cities
- South America's increase based on rate of **“Natural Increase”** AND **internal migration**
- The **“Latin American City”** Model
 - combines elements of Latin American Culture and globalization by combining radial sectors and concentric zones
 - includes a thriving CBD with a commercial spine
 - quality of houses decreases as one moves outward away from the CBD, and the areas of worse housing occurs in the disamenity (slum) sectors.

GENERALIZED MODEL OF THE LATIN AMERICAN CITY



Commercial/Industrial

The focus of employment, entertainment, and economic activity; Roads, trains, and buses are fairly reliable here.

Central Business District

CBD

Spine

**Commercial
Spine**

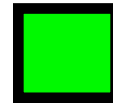
Mall



GENERALIZED MODEL OF THE LATIN AMERICAN CITY

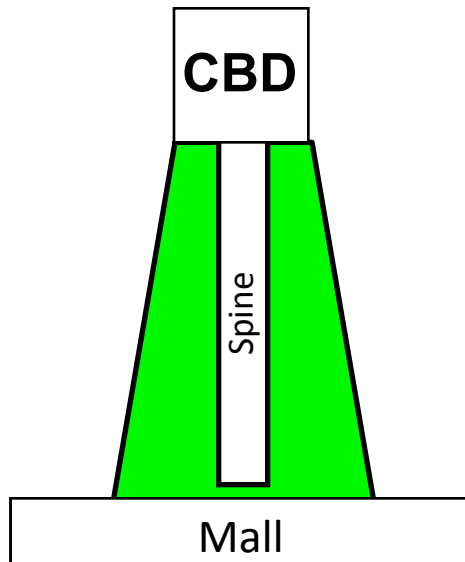


Commercial/Industrial



Elite Residential Sector

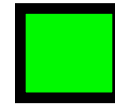
The elite sector forms on either side of a narrow spine that contains amenities attractive to the wealthy, such as water and electricity, as well as offices, shops, restaurants, etc.



GENERALIZED MODEL OF THE LATIN AMERICAN CITY



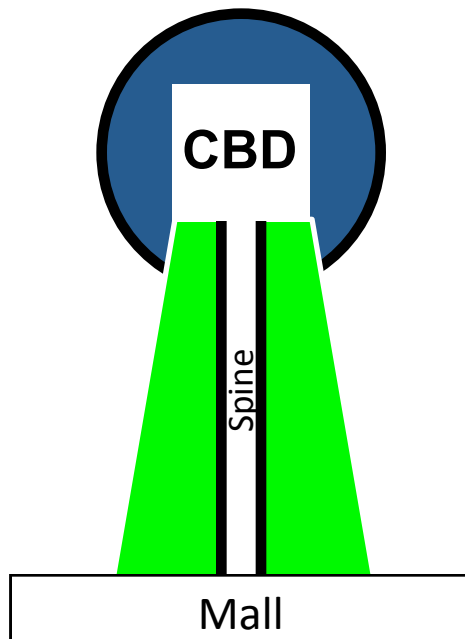
Commercial/Industrial



Elite Residential Sector

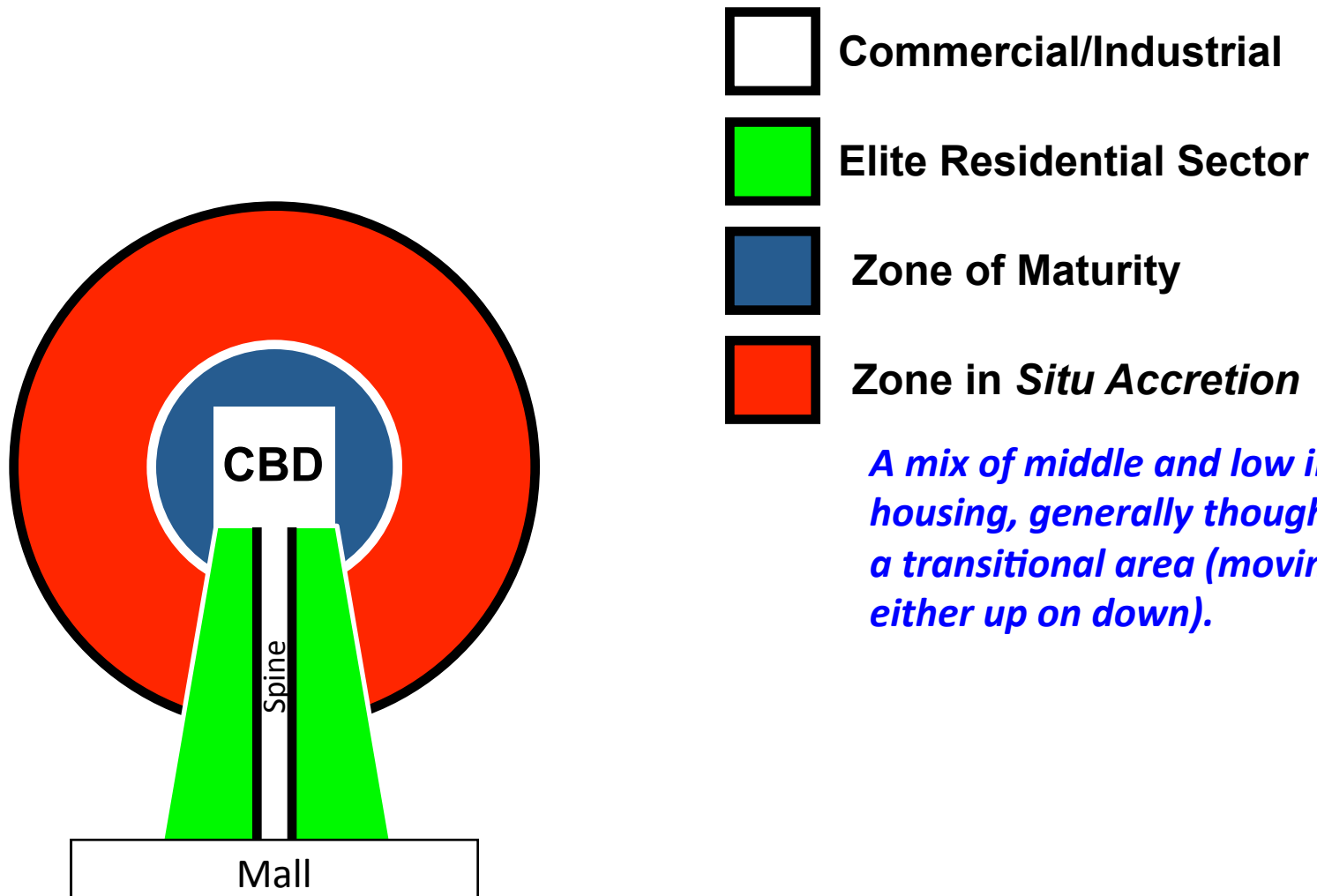


Zone of Maturity



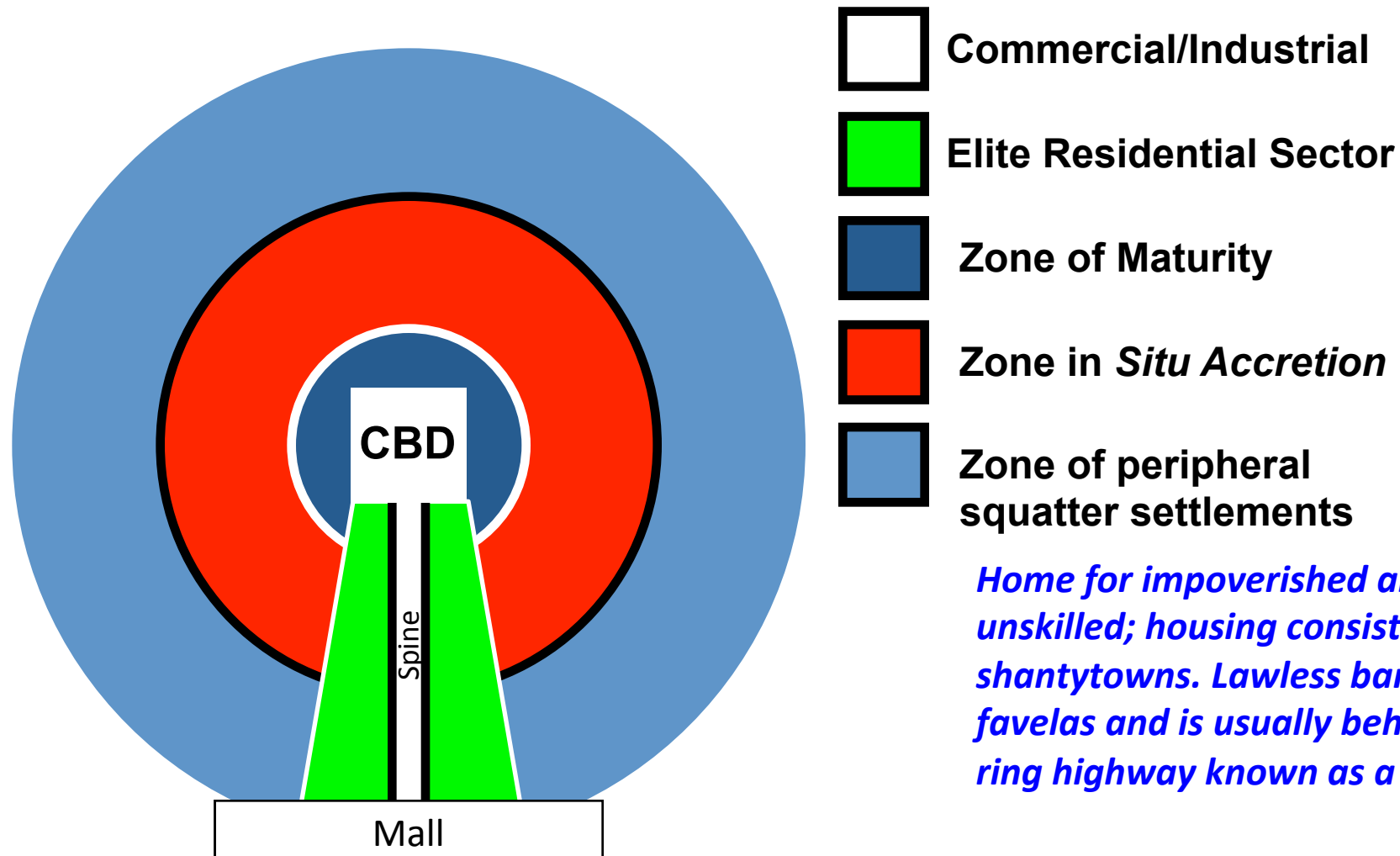
Residential area in which a stable population has gradually transformed the district into one that is fully serviced.

GENERALIZED MODEL OF THE LATIN AMERICAN CITY



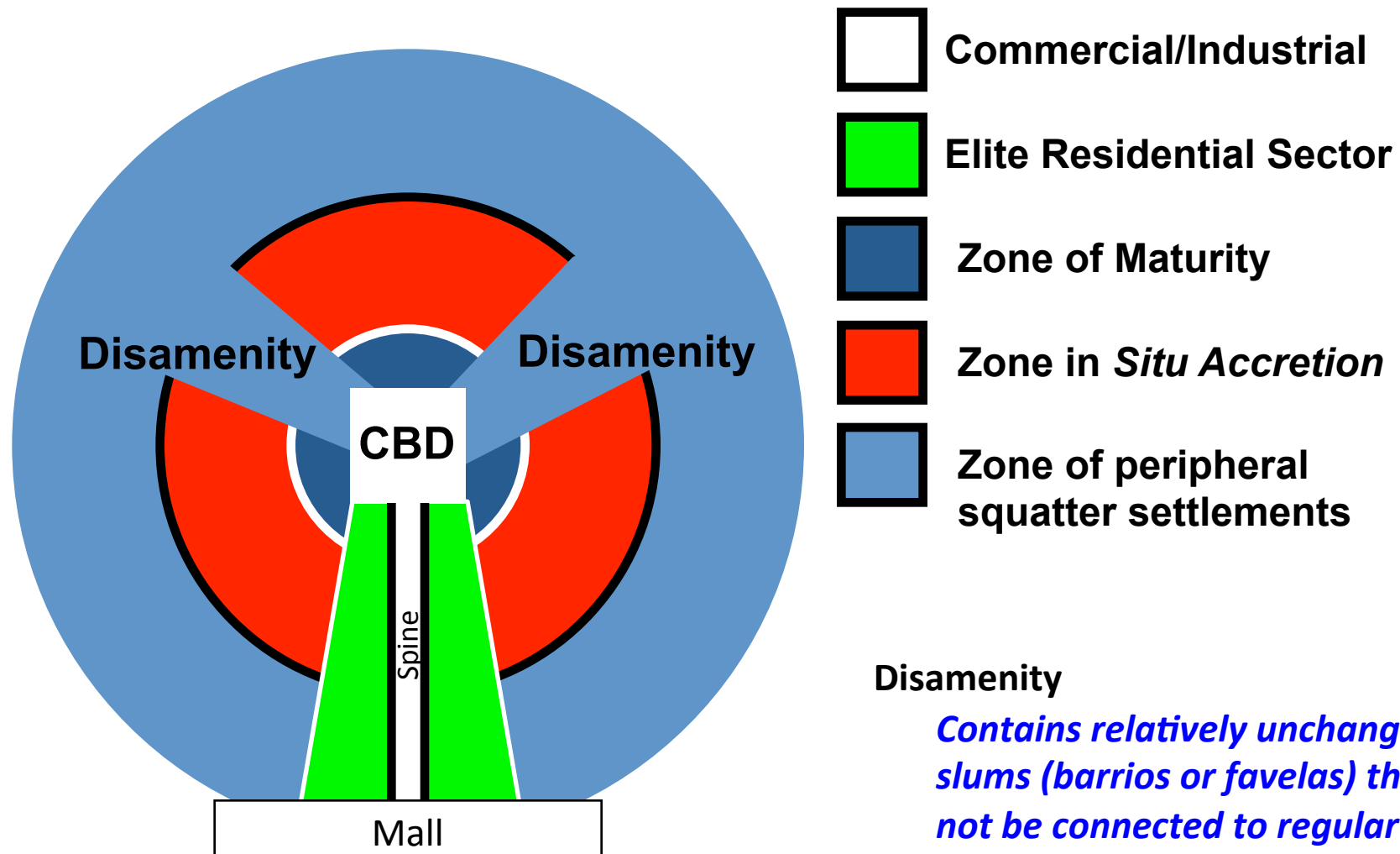
A mix of middle and low income housing, generally thought of as a transitional area (moving either up or down).

GENERALIZED MODEL OF THE LATIN AMERICAN CITY



Home for impoverished and unskilled; housing consists of mostly shantytowns. Lawless barrios / favelas and is usually behind a main ring highway known as a periférico.

GENERALIZED MODEL OF THE LATIN AMERICAN CITY



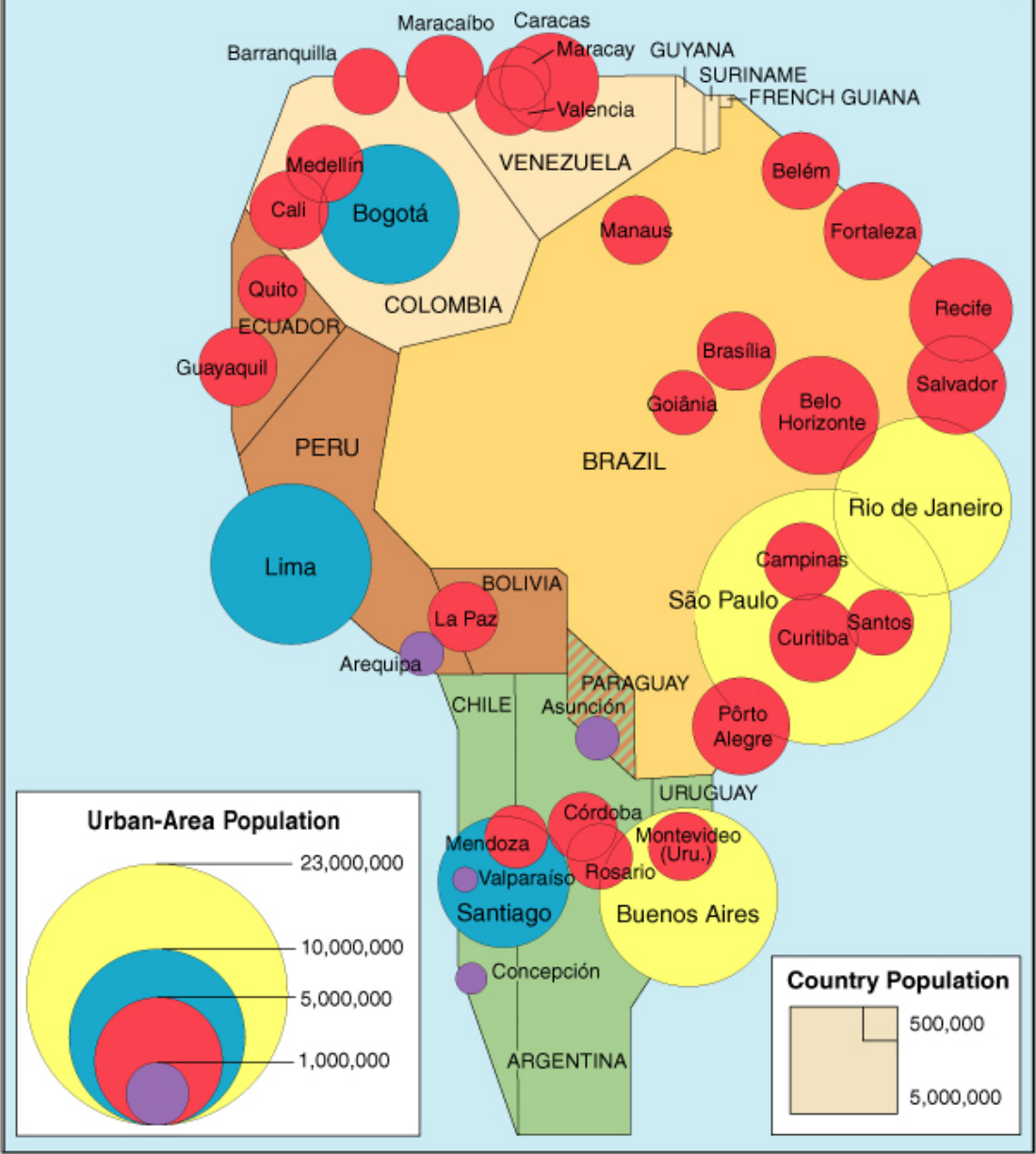
Disamenity

Contains relatively unchanging slums (barrios or favelas) that may not be connected to regular city services.



H. J. de Blij

POPULATION CARTOGRAM OF SOUTH AMERICA



POPULATION MAP

THE INCA EMPIRE

- Culture Hearth – Intermountain basin around Cuzco (1200 – 1525 A.D.)
- ALTIPLANOS were key to settlement patterns



Located at an altitude of over 11,000 feet in the heart of the Andes mountains, is the famed capital of the ancient Inca Empire, and it has served as a travelers' mecca for hundreds of years.

THE INCA EMPIRE

- **Culture Hearth** – Intermountain basin around Cuzco (1200 – 1525 A.D.)
- **ALTIPLANOS** were key to settlement patterns
- Transportation networks and integration efforts were most impressive.
- A highly centralized state
- Terrace farming



THE INCA EMPIRE – TERRACE FARMING

The Incas were great farmers.

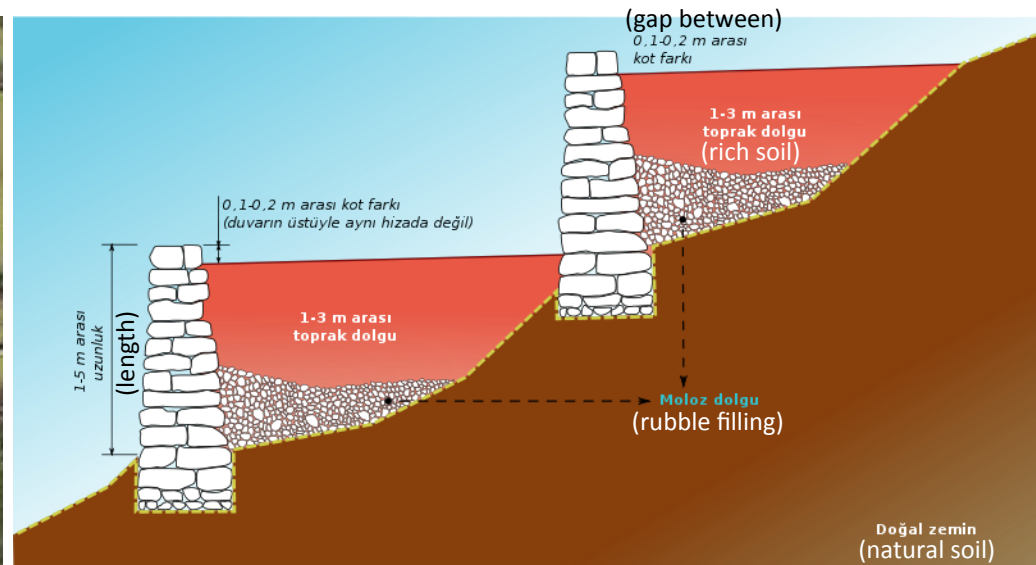
- The three staple (main) crops were corn, potatoes, and quinoa - quinoa seeds were used to make cereal, flour, and soups.
- Corn was special to the Incas. It was used in religious ceremonies. They also used it to make a drink called chicha.
- The Incas were the first civilization to plant and harvest potatoes.
- They also grew tomatoes, avocados, peppers, strawberries, peanuts, squash, sweet potatoes, beans, pineapple, bananas, peanuts, spices, and coco leaves to make chocolate.
- They kept honeybees.
- Occasionally, seasonal hunts were organized to catch meat for the nobility. Commoners ate very little meat, but they did not go hungry.



THE INCA EMPIRE – TERRACE FARMING

The Incas invented terrace gardening.

- They carved steps of flat land up the side of the mountain to create flat land for farming.
- The terraces also helped to keep rainwater from running off.
 - They reduced erosion.
 - The government built raised aqueducts to carry water to farmlands for irrigation.



SOUTH AMERICA COUNTRIES

- **COLOMBIA** – 45.2 million people (aside from Brazil, this country has the largest population)
 - Coffee, oil, & coal – Major exports
 - Cocaine – leading economic activity
 - Torn by internal violence
- **THE GUIANAS (FRENCH GUIANA, GUYANA, SURINAME)** – POPULATIONS < 1.5 million people
 - Ethnically diverse
 - Poverty stricken & face environmentally crisis
- **PERU** – 27.7 million people
 - Economic activities – fishing, irrigated agriculture, sugar, cotton, rice, fruit, oil, minerals (an emerging economy!)
- **URUGUAY** - 3.4 million people
 - Most European of South American countries
 - Exports: hides, meats, textiles (clothing)
- **CHILE** – 16 million people
 - An “elongated state”
 - Exports: copper and nitrates (chemical for fertilizer)

SOUTH AMERICA COUNTRIES

- **VENEZUELA** – 26.1 million people
 - Oil – major resource
 - President – Hugo Chavez
 - Petroleum of Venezuela (PDVSA) – the Venezuelan state-owned petroleum company
 - Chavez developed new projects:
 - Magna Reserve, Orinoco Project, Delta Caribbean Project, Refining Project, etc..
 - Chavez wanted ExxonMobil and ConocoPhillips to sign an agreements allowing PDVSA to have majority control over the oil (to control the economy and to make his projects successful). Those companies refused and PDVSA took over the oil companies.
 - Oil production reduced.





BRAZIL

- **Largest country in South America** (contains half the continent's land and people)

- **World Rankings**

- Population size – 5th
- Territory – 5th
- Economy – 8th
- Industrial base – 7th

- **Portuguese- speaking**

- **Roman Catholic**

- **Ethnic diversity** – mixture of European, African, and Amerindian peoples



A TWO CLASS SYSTEM?

- GNP per capita - \$7,300
- Largest income gap in the realm (area)
- Wealthiest – 10% of the population...
 - Own 2/3 of the land
 - Control over 50% of the country's wealth
- Poverty has increased by 50% since 1980



Barbara Weightman

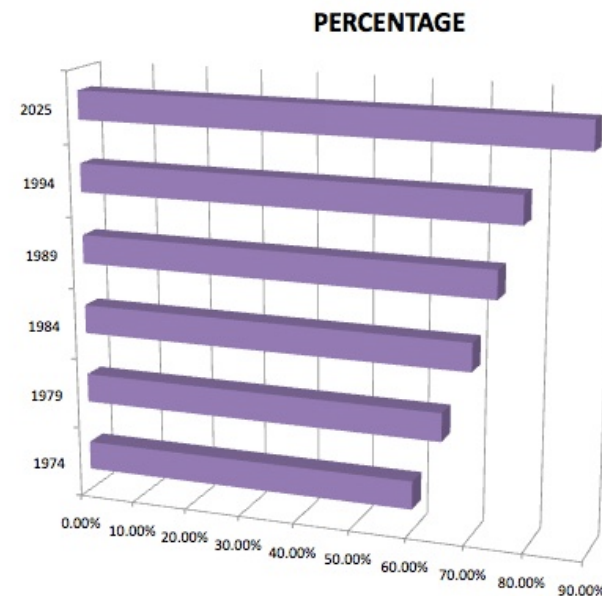
URBANIZATION OF BRAZIL

- **Favelas** – slum communities
- Every city in Brazil has it.
- Government tried to improve by torn them down and replace with affordable public housing.



How could the growth affect housing condition for new city residents?

- likely will cause housing condition to deteriorate (get worse)



WHY CITY?

- Only wealthy families own plantations.
 - Few rural workers
 - Few could afford farm equipment
- Industries in cities
 - Steel mill, oil refinery, hydroelectric dams (built on escarpments)
 - People began to move from rural to urban areas



BRAZIL'S QUEST FOR ECONOMIC GROWTH

- Huge country rich in natural resources
 - Also with much poverty
- Realized its potential
 - Tries to modernize the economy
 - Improve people's lives
- Growth of industry and manufacturing
 - Created a middle class
 - Doctors, teachers, government workers, etc
 - To meet the needs of growing urban population



CITIES

- **Great Cities**

- Rio de Janeiro – cultural focus
- Sao Paulo – Industrial hub (center)
- Brasilia – a “Forward Capital”

A symbolic relocation of a capital city to a geographically or demographically peripheral location may be for either economic or strategic reasons

- **Developing the Amazon**

- “Growth Pole” concept
- Environmental concerns

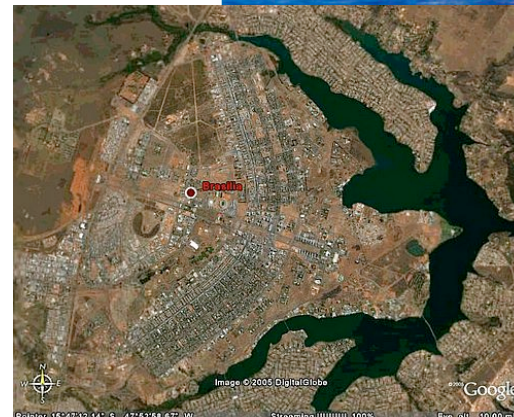
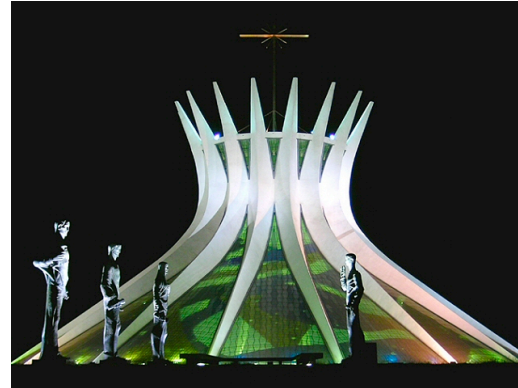
“A point of economic growth. Growth poles are usually urban locations, benefiting from agglomeration (group) economies, and should interact with surrounding areas, spreading prosperity (success) from the core to the periphery (border)”



UH-OH, TOO CROWDED NOW...



- Cities, especially Rio de Janeiro (capital), became overcrowded.
- New city was planted!
 - Brasilia, the new capital
 - A showplace of shiny glass and gleaming steel architecture
 - Shape of airplane
 - Gave away thousands of plots of lands in the Amazon region
 - More than a million people migrated to the Amazon region



GROWTH POLE THEORY

- To promote growth in the isolated area
- To spread economic activities and benefits
 - create jobs in poor areas
 - reduce uneven number of wealth
 - decentralize industry
- Sets off “ripples” of development



SAO PAULO

- Leading industrial producer (the major industrial and economic powerhouse of the Brazilian economy)
- Largest population, industrial complex, and economic production in the country
- Richest state
 - the “locomotive of Brazil”, the state alone is responsible for 1/3 of Brazil’s GDP (highest GDP in the country)
- Capital (Sao Paulo) – largest city in South America
- Relative location
 - ores from Minas Gerais
 - hydroelectric power
 - port of Santos
- Agricultural production
 - coffee
 - orange juice
 - soybeans



GASOHOL

- A mix of gasoline and ethanol (made from sugar)
 - Made from Brazil's own sugar cane
- Used to replace expensive imported oil



ENVIROMENTAL ISSUES

- Deforestation
 - Medicines
 - Food
 - Animals
 - Military seizing



- Ecotourism
 - Tourism that encourages environmental awareness and has little effect on the ecosystem
 - Hope to encourage economic growth



CULTURE...

- Festival in Rio de Janeiro
 - Huge carnival
 - A year of planning for 4 days event
 - 40 days before Easter
 - Dancing floats, music
 - Dance competition – Samba (Brazil's national dance)



- Christ the Redeemer



CULTURE

ethnocentric - judging another culture solely by the values and standards of one's own culture. characterized by or based on the attitude that one's own group is superior

cultural lens - viewing cultural characteristics through a specific ways

In Latin America, people see themselves as Colombians, Chileans, Cubans, Argentinians, etc.