# HUMAN ENVIRONMENT INTERACTION (TROPICAL & SUB-TROPICAL REGION)

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### > INTRODUCTION

- 1. The tropical region lies very close to the equator; between 10°N and 10°S. So, it is referred to as the equatorial region. The river Amazon flows through this region from the mountains to the west and reaches the Atlantic Ocean to the east.
- 2. When Spanish explorers discovered Amazon river, they were attacked by a group of local tribes wearing headgears and grass skirts. These people reminded them of the fierce tribes of women warriors known in ancient Roman Empire as the Amazons. Hence the name Amazon.
- **3.** The place where a river flows into another body of water is called the river's **mouth**. Numerous tributaries join the Amazon River to form the Amazon basin. The river basin drains portions of Brazil, parts of Peru, Bolivia, Ecuador, Columbia and a small part of Venezuela.

## > AMAZON BASIN

### (A) CLIMATE:

- 1. The Amazon Basin stretches directly on the equator and is characterized by hot and wet climate throughout the year.
- 2. Both day and nights are almost equally hot and humid.
- 3. The skin feels sticky. It rains almost everyday, that too without much warning.
- **4.** The day temperatures are high with very high humidity.
- **5.** At night the temperature goes down but the humidity remains high.

## (B) RAINFORESTS:

- 1. As it rains heavily in this region, thick forests grow. The forests are in fact so thick that the dense "roof" created by leaves and branches does not allow the sunlight to reach the ground.
- 2. The ground remains dark and damp. Only shade tolerant vegetation may grow here.
- **3.** Orchids, bromeliads grow as plant parasites.

- **4.** The rainforest is rich in fauna. Birds such as toucans, humming birds, bird of paradise with their brilliantly coloured plumage, oversized bills for eating make them different from birds we commonly see in India. These birds also make loud sounds in the forests.
- 5. Animals like monkeys, sloth and ant-eating tapirs are found here.
- **6.** Various species of reptiles and snakes also thrive in these jungles. Crocodiles, snakes, pythons abound.
- 7. Anaconda and boa constrictor are some of the species.
- **8.** Besides, the basin is home to thousands of species of insects.
- **9.** Several species of fishes including the flesheating Piranha fish is also found in the river.

#### (C) PEOPLE OF THE RAINFORESTS:

- 1. People grow most of their food in small areas after clearing some trees in the forest.
- 2. While men hunt and fish along the rivers, women take care of the crops.
- **3.** They mainly grow tapioca, pineapple and sweet potato.
- 4. They practice "slash and burn agriculture".
- **5.** The staple food is manioc, also known as cassava that grows under the ground like the potato.
- **6.** They also eat queen ants and egg sacs.
- 7. Cash crops like coffee, maize and cocoa are also grown.
- **8.** The rainforests provide a lot of wood for the houses. Some families live in thatched houses shaped like beehives. There are other large apartment-like houses called "Maloca" with a steeply slanting roof.
- **9.** Life of the people of the Amazon basin is slowly changing. In the older days the heart of the forest, could be reached only by navigating the river. In 1970 the Trans Amazon highway made all parts of the rainforest accessible. Aircrafts and helicopters are also used for reaching various places.
- 10. The developmental activities are leading to the gradual destruction of the biologically diverse rainforests. It is estimated that a large area of the rainforest has been disappearing annually in the Amazon basin. You can see that this destruction of forests has a much wider implication. The topsoil is washed away as the rains fall and the lush forest turns into a barren landscape.

#### **♦ LIFE IN THE GANGA-BRAHMAPUTRA BASIN:**

- **1.** The tributaries of rivers Ganga and Brahmaputra together form the Ganga-Brahmaputra basin in the Indian subcontinent.
- 2. The basin lies in the sub-tropical region that is situated between 10°N to 30°N latitudes.
- **3.** The tributaries of the River Ganga like the Ghaghra, the Son, the Chambal, the Gandak, the Kosi and the tributaries of Brahmaputra drain it.
- **4.** The plains of the Ganga and the Brahmaputra, the mountains and the foothills of the Himalayas and the Sundarbans delta are the main features of this basin.
- **5.** Ox-bow lakes dot the plain area.
- **6.** The area is dominated by monsoon climate. The monsoon brings rains from mid-June to mid-September. The summers are hot and the winters cool.

- **7.** The basin area has varied topography. The environment plays a dominant role in the distribution of the population.
- **8.** The mountain areas with steep slopes have inhospitable terrain. Therefore less number of people live in the mountain area of the Ganga- Brahmaputra basin.
- **9.** The plain area provides the most suitable land for human habitation.
- **10.** The density of population of the plains is very high.

#### **♦ AGRICULTURE:**

- **1.** The soil is fertile.
- 2. Agriculture is the main occupation of the people where flat land is available to grow crops.
- **3.** The main crop is paddy. Since cultivation of paddy requires sufficient water, it is grown in the areas where the amount of rainfall is high.
- **4.** Wheat, maize, sorghum, gram and millets are the other crops that are grown.
- 5. Cash crops like sugarcane and jute are also grown.
- **6.** Banana plantations are seen in some areas of the plain.
- 7. In West Bengal and Assam tea is grown in plantations.
- **8.** Silk is produced through the cultivation of silk worms in parts of Bihar and Assam.
- **9.** In the mountains and hills, where the slopes are gentle, crops are grown on terraces.

### **VEGETATION:**

- 1. The vegetation cover of the area varies according to the type of landforms.
- 2. In the Ganga and Brahmaputra plain tropical deciduous trees grow, along with teak, sal and peepal.
- 3. Thick bamboo groves are common in the Brahmaputra plain.
- **4.** The delta area is covered with the mangrove forests.
- **5.** In parts of Uttaranchal, Sikkim and Arunachal Pradesh, coniferous trees like pine, deodar and fir can be seen because the climate is cool and the slopes are steep.

## **♦ WILD LIFE:**

- 1. There is a variety of wildlife in the basin.
- 2. Elephants, tigers, deer and monkeys are common.
- **3.** The one-horned rhinoceros is found in the Brahmaputra plain.
- 4. In the delta area, Bengal tiger, crocodiles and alligators are found.
- 5. Aquatic life abounds in the fresh river waters, the lakes and the Bay of Bengal Sea.
- **6.** The most popular varieties of the fish are the rohu, catla and hilsa.

#### **♦ TOWNS**

1. The Ganga-Brahmaputra plain has several big towns and cities.

- **2.** The cities of Allahabad, Kanpur, Varanasi, Lucknow, Patna and Kolkata all with the population of more than ten lakhs are located along the River Ganga.
- **3.** The wastewater from these towns and industries is discharged into the rivers. This leads to the pollution of the rivers.

### **TRANSPORATION:**

- 1. All the four ways of transport are well developed in the Ganga-Brahmaputra basin.
- 2. In the plain areas the roadways and railways transport the people from one place to another.
- **3.** The waterways, is an effective means of transport particularly along the rivers.
- **4.** Kolkata is an important port on the River Hooghly.
- **5.** The plain area also has a large number of airports.

## **♦** TOURISM:

- **1.** Tourism is another important activity of the basin.
- 2. Taj Mahal on the banks of River Yamuna in Agra, Allahabad on the confluence of the Rivers Ganga and Yamuna, Buddhists stupas in Uttar Pradesh and Bihar, Lucknow with its Imambara, Assam with Kaziranga and Manas with wild life sanctuaries and Arunachal Pradesh with a distinct tribal culture are some of the places worth a visit