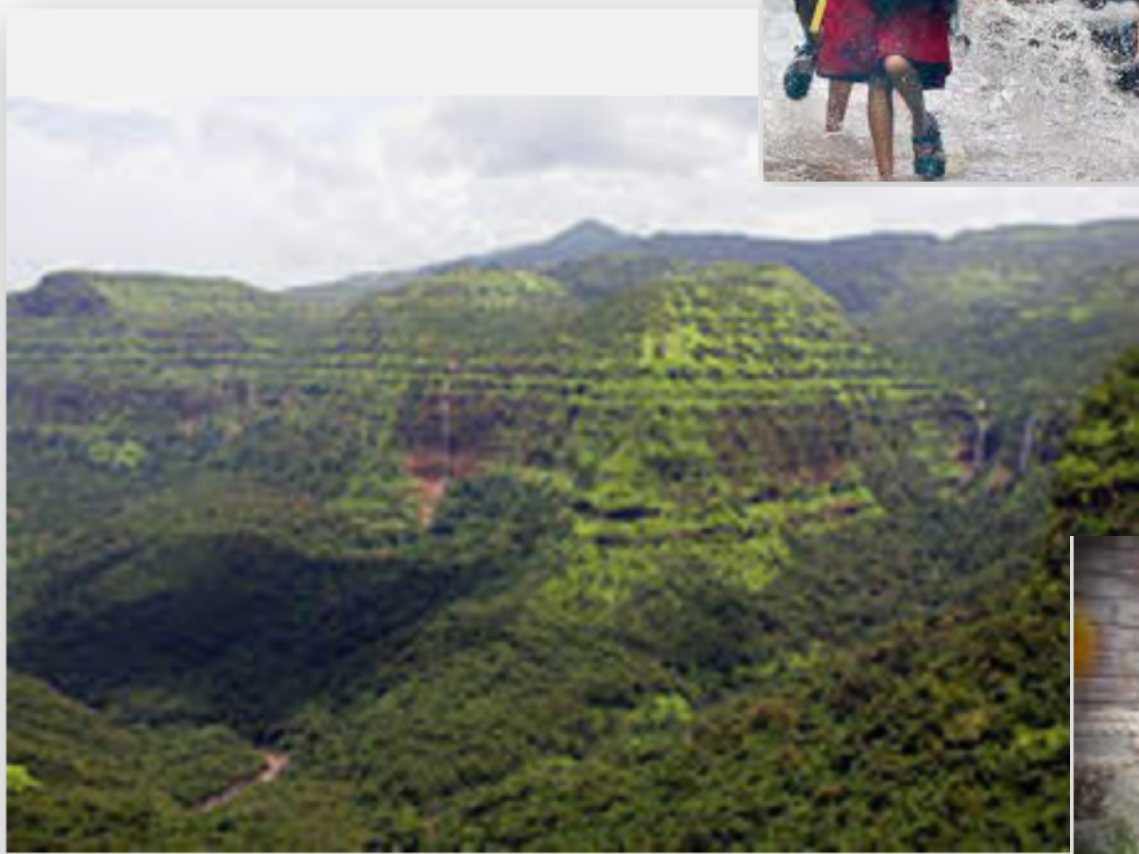


The background of the slide is a light gray gradient with several realistic water droplets of various sizes scattered across it. The droplets have highlights and shadows, giving them a three-dimensional appearance. They are located in the top-left, top-center, bottom-left, and bottom-right areas of the slide.

# CLIMATE

FOCUS ON THE INDIAN SUB-CONTINENT

MODULE 3



# THE RETREATING MONSOON

- **4. RETREAT OF THE MONSOON AND POST MONSOON SEASON (THE TRANSITION SEASON)**

DURING THE MONTHS OF OCTOBER AND NOVEMBER, THE SUN STARTS SHIFTING TOWARDS THE SOUTH. DURING THIS TIME, THE LOW-PRESSURE TROUGH OVER THE NORTHERN PLAINS WEAKENS AND IS REPLACED GRADUALLY BY A HIGH-PRESSURE SYSTEM. THIS IS FOLLOWED BY THE SOUTH-WEST MONSOON WINDS.

BY THE BEGINNING OF OCTOBER, THE MONSOON WITHDRAWS FROM THE NORTHERN PLAINS. THE MONTHS OF OCTOBER AND NOVEMBER FORM A TRANSITION PERIOD FROM HOT AND RAINY TO DRY AND WINTERY CONDITIONS.

- **FEATURES OF THE RETREATING MONSOON:**

THE PERIOD IS MARKED BY CLEAR SKIES AND A RISE IN TEMPERATURE. THE DAY TEMPERATURES ARE HIGH BUT THE NIGHTS ARE COOL AND PLEASANT. HOWEVER, THE HUMIDITY REMAINS HIGH AND COMBINED WITH HIGH TEMPERATURES, THE HEAT BECOMES OPPRESSIVE. THIS PHENOMENON IS ALSO CALLED **OCTOBER HEAT**.



# CYCLONES AND RAINFALL

- **CYCLONIC DEPRESSION AND TROPICAL CYCLONE**

BY EARLY NOVEMBER, CYCLONIC DEPRESSIONS ORIGINATE OVER THE ANDAMAN SEA. THESE CAUSE TROPICAL CYCLONES ON THE COASTLINE FROM BANGLADESH TO TAMIL NADU, AS LOW-PRESSURE CONDITIONS GET TRANSFERRED TO THE BAY OF BENGAL.

- THESE CYCLONES GENERALLY CROSS THE EASTERN COAST OF INDIA CAUSING HEAVY AND WIDESPREAD RAIN. THEY OFTEN CAUSE A LOT OF DESTRUCTION. SOMETIMES, THESE CYCLONES ARRIVE AT THE COASTS OF ODISHA, WEST BENGAL AND BANGLADESH.
- THESE CYCLONES FREQUENTLY STRIKE THE POPULATED DELTAS OF THE GODAVARI, KRISHNA AND KAVERI RIVERS. THE COROMANDEL COAST GETS ITS MONSOON RAINFALL MOSTLY DURING OCTOBER AND NOVEMBER DUE TO THE RETREATING MONSOON PICKING UP MOISTURE OVER THE BAY OF BENGAL, AND FROM THE CYCLONES.

- **DISTRIBUTION OF RAINFALL**

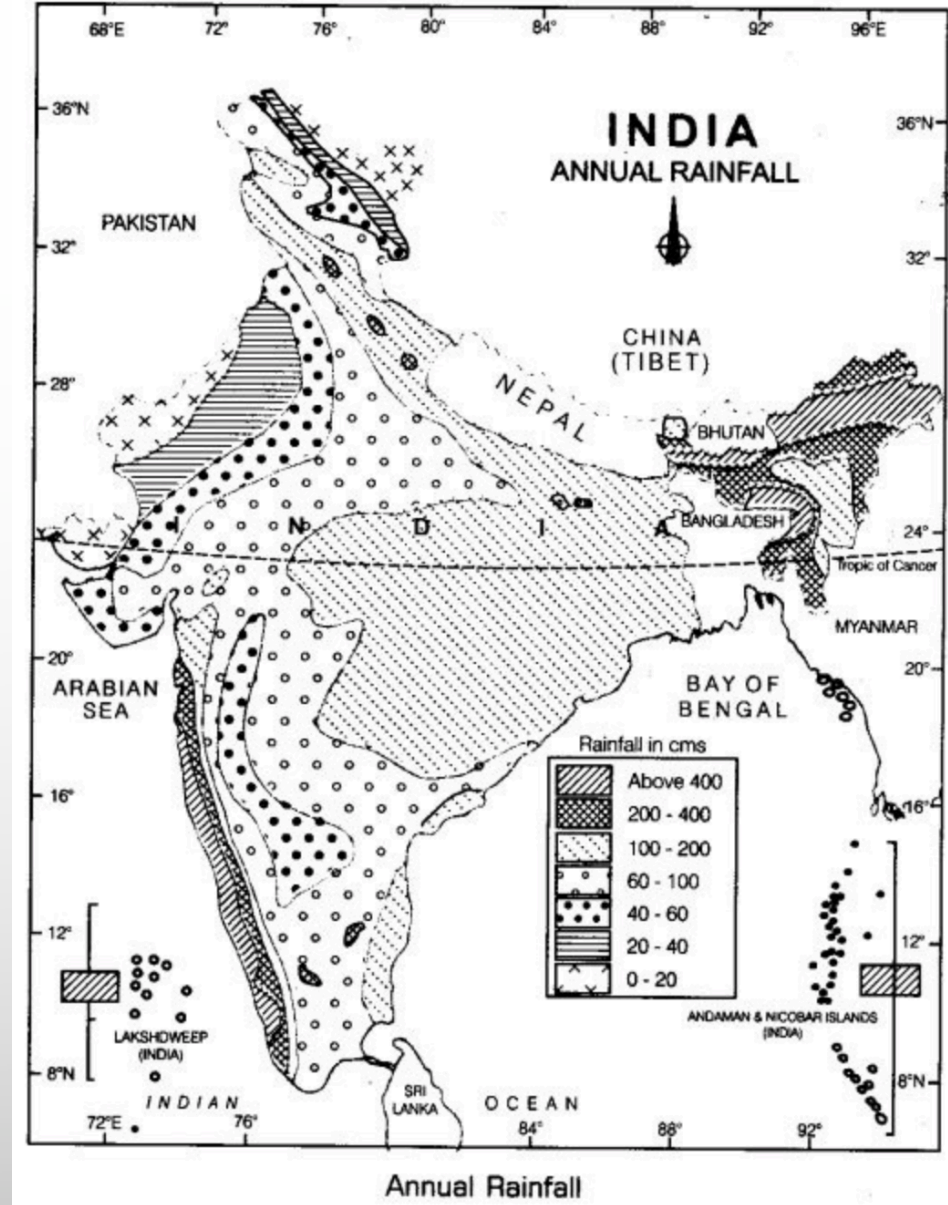
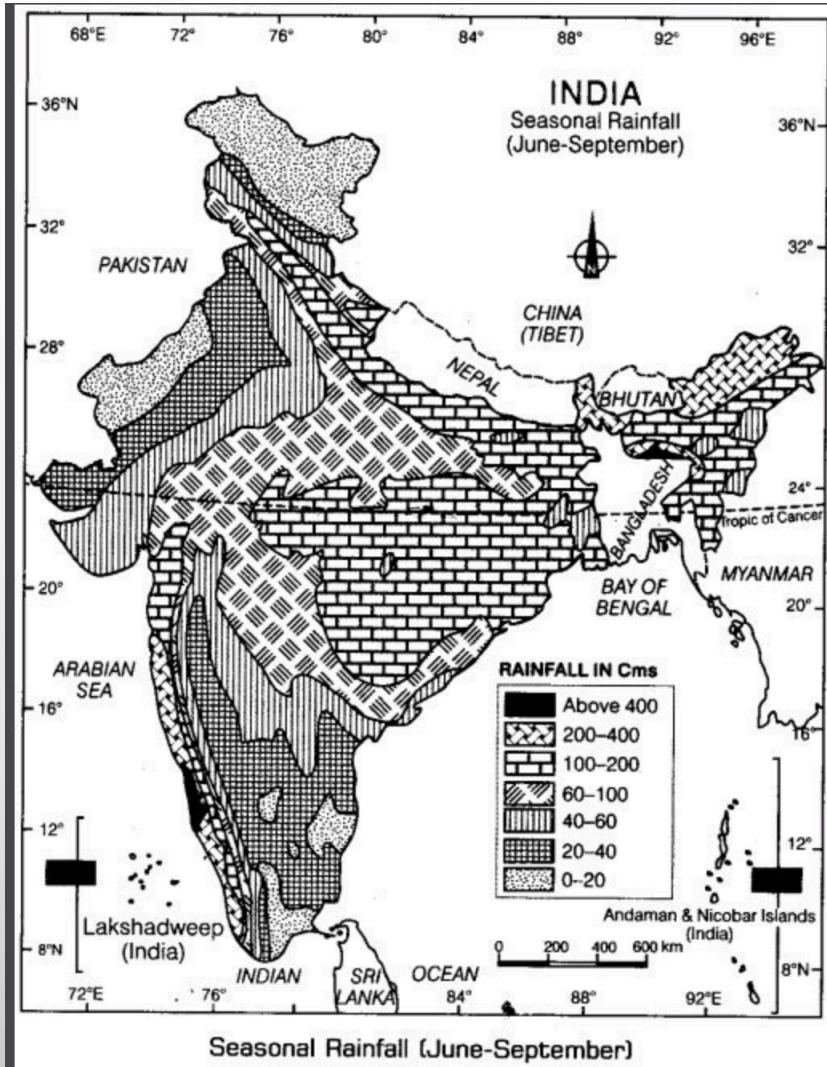
ANNUALLY, PARTS OF WESTERN COAST AND NORTH-EASTERN INDIA RECEIVE OVER ABOUT 400 CM OF RAINFALL. HOWEVER, IT IS LESS THAN 60 CM IN WESTERN RAJASTHAN AND ADJOINING PARTS OF GUJARAT, HARYANA AND PUNJAB. RAINFALL IS EQUALLY LOW IN THE INTERIOR OF THE DECCAN PLATEAU AND EAST OF THE SAHYADRIS. A THIRD AREA OF LOW PRECIPITATION IS AROUND LEH, IN JAMMU AND KASHMIR.

- THE REST OF THE COUNTRY RECEIVES MODERATE RAINFALL. SNOWFALL, IS RESTRICTED TO THE HIMALAYAN REGION. OWING TO THE NATURE OF MONSOONS, THE ANNUAL RAINFALL IS HIGHLY VARIABLE FROM YEAR TO YEAR. VARIABILITY IS HIGH IN THE REGIONS OF LOW RAINFALL SUCH AS PARTS OF RAJASTHAN, GUJARAT, AND THE LEEWARD SIDE OF THE WESTERN GHATS. DUE TO THIS, THE AREAS OF HIGH RAINFALL ARE LIABLE TO BE AFFECTED BY FLOODS, WHEREAS, AREAS OF LOW RAINFALL ARE DROUGHT-PRONE.

## MONSOON AS A UNIFYING BOND

- NORTHERN INDIA, AS COMPARED TO OTHER AREAS OF THE WORLD AT A SIMILAR LATITUDE, HAS RELATIVELY HIGHER TEMPERATURES. THIS IS DUE TO THE HIMALAYAS PROTECTING IT FROM THE COLD CENTRAL ASIAN WINDS.
- THE PENINSULAR PLATEAU HAS MODERATE TEMPERATURES DUE TO THE INFLUENCE OF THE SEA ON THREE SIDES.
- THE MONSOON PROVIDES A GREAT VARIATION DESPITE SUCH MODERATING INFLUENCES
- HOWEVER THE MONSOON ALSO UNITES THE LAND LIKE NO OTHER FORCE, BECAUSE IT PROVIDES A ***RHYTHMIC CYCLE OF SEASONS.***
- INDIA, BEING PRIMARILY AN AGRICULTURAL NATION, EAGERLY AWAITS THE MONSOON SEASON AS IT PROVIDES MUCH NEEDED WATER FOR FARMERS, AND ALL FORMS OF LIFE, ANIMAL AND VEGETAL. PEOPLE THROUGHOUT INDIA CELEBRATE VARIOUS FESTIVALS ACCORDING TO THE ARRIVAL OF THE MONSOON RAINS. THE RIVER VALLEYS WHICH CARRY THIS WATER ALSO UNITE AS A SINGLE RIVER VALLEY UNIT. AS SUCH, THE MONSOON DOES INDEED UNIFY THE SUB-CONTINENT.

# ANNUAL RAINFALL IN INDIA



## HANDOUT FOR CLIMATE MODULE 3

- THE WORLD'S HIGHEST AVERAGE RAINFALL OCCURS IN **MAWSYNRAM**, THE WETTEST PLACE ON EARTH, WHICH IS LOCATED IN THE SOUTHERN RANGE OF KHASI HILLS IN MEGHALAYA.
- THE HOT AND HUMID CONDITION WHICH MAKES THE WEATHER OPPRESSIVE IS CALLED **OCTOBER HEAT**. IT OCCURS TOWARDS THE END OF RETREATING MONSOON IN THE MONTH OF OCTOBER.
- **CYCLONIC DEPRESSIONS** ORIGINATE OVER THE ANDAMAN SEA IN EARLY NOVEMBER. THESE TROPICAL CYCLONES CAUSE HEAVY WIDESPREAD RAIN ACROSS THE COROMANDEL COAST, THE EASTERN COAST FROM BANGLADESH TO TAMIL NADU, AFFECTING POPULATED RIVER DELTAS LIKE THE GODAVARI, KAVERI, KRISHNA, OFTEN CAUSING DESTRUCTION AND FLOODING.
- **VARIABILITY IN RAINFALL IS HIGH** REGIONALLY, AS WELL AS FROM YEAR TO YEAR, DUE TO THE NATURE OF THE MONSOON. SNOWFALL IS RESTRICTED TO THE HIMALAYAN REGION.
- THE **MONSOON IS A UNIFYING BOND**; IT UNITES THE INDIAN SUB-CONTINENT IN A RHYTHMIC CYCLE OF SEASONS ACCORDING TO WHICH AGRICULTURAL ACTIVITIES AND CULTURAL CELEBRATIONS REVOLVE.

CLIMATE MODULE 3  
WORKSHEET 3

1. WHAT ARE 'BREAKS' IN THE MONSOON?
2. WHICH PLACE RECEIVES THE HIGHEST AVERAGE RAINFALL IN THE WORLD?
3. WHY ARE DEPRESSIONS FORMED AT THE HEAD OF THE BAY OF BENGAL?
4. WHAT LEADS TO 'OCTOBER HEAT'?
5. WHICH STATES ARE FREQUENTLY STRUCK BY CYCLONES AND WHY?
6. HOW DOES THE MONSOON AFFECT THE LIVES OF PEOPLE IN INDIA?
7. MENTION ANY TWO PLACES IN INDIA OF:
  - a. HEAVY RAINFALL (ABOVE 400CMS)
  - b. MODERATE RAINFALL (BETWEEN 100-200CMS)
  - c. VERY SCANTY RAINFALL (BELOW 20CMS)