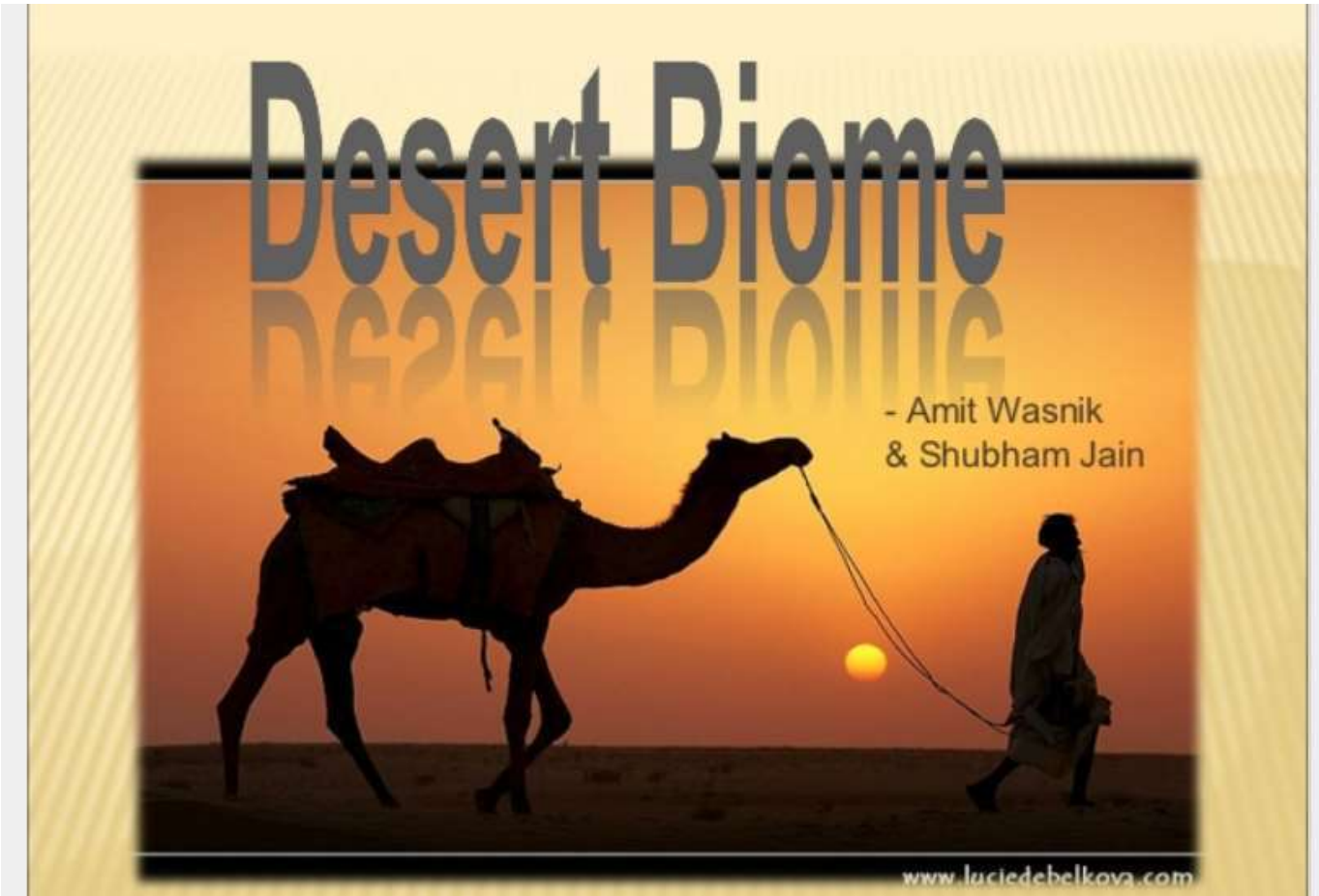


FOR SEMESTER 4 (CBCS) GEOGRAPHY

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What is a Biome?

A biome is a geographic area characterized by specific kinds of plants and animals. Deserts, tropical rainforests, and tundra are all types of biomes. In the desert biome many organisms have learned to adapt to the hot climate and lack of supplements.

WHAT IS A DESERT?

- Deserts are formed by mountains blocking the path of precipitation
- Deserts can be hot or cold but they are always dry.
- They receive less than 25 cm of precipitation annually.
- They cover 22 million km² or 1/5 of the earth's surface.

TYPES OF DESERT

- Hot Desert
eg. Thar, in Rajasthan, India
Rub-ab-khali, Saudi Arab
- Cold Desert
eg. Gobi desert, Mangolia
Ica desert, Peru



A Desert's Characteristics

↳ Climate

↳ Seasons

↳ Animals

↳ Adaptations

↳ Plants

↳ Significance to
humans

Climate

- ✦ The desert is the hottest biome on Earth. It also has its extremes.
- ✦ It can be over 50 degrees during the day and below 32 degrees at night.
- ✦ Less than 25 cm or rainfall every year.
- ✦ The amount of rainfall varies, but when it rains...it POURS!!!!
- ✦ After a storm, the desert may not see any rain for weeks or months.

ANIMALS



The animals include snakes, owls, mice, armadillo lizards, fennec foxes, gila monsters, bats, and vultures.

Endangered Animals

Black Rhino

Grevy's

Zebra

King Cheetah

The major causes of endangered animals in the desert are mainly poachers and unexpected drought.

Plant Life of Deserts

- ▶ There are several plants that are able to survive in the desert.
- ▶ Most plants survive by their long roots to reach underground water sources.

- ▶ A Variety of cactuses
- ▶ Prickly Pear
- ▶ Dragon Tree
- ▶ Octillo Plant
- ▶ Desert Spoon
- ▶ Boojum



SEASONS

- i. The seasons are generally warm throughout the year and very hot in the summer.
- ii. The winters usually bring little rainfall.
- iii. Temperatures exhibit daily extremes because the atmosphere contains little humidity to block the Sun's rays.

ADAPTATIONS

Many of the animals in the desert have become nocturnal.

Both plants and animals have learned to store water.

Tolerate Hyperthermia



HUMAN EFFECTS

- Poachers are a main cause of dying animals. Poachers catch animals of all kinds to make money for usually just one part, like the elephant tusk.
- With the growing popularity of transportation, many roads are being built in not only the desert, but all the other biomes.
- The main problem with these roads are the fact that they destroy habitats and endanger animals. Road kill is also a main factor in these dying animals.
- These problems can be easily taken care of if other means of transportation were encouraged.

STRUCTURE AND FUNCTIONS

- It includes the flora and fauna.
- Deserts typically have a plant cover that is sparse but enormously diverse.
- Almost all of the animals living in the desert have adapted to be able to better survive in the desert.

FLORA



Some desert flora include shrubs

eg. Prickly Pearls, Desert Holly and the Brittlebush.

Most desert plants are drought- or salt-tolerant

eg. Xerophytes

Other desert plants have long Taproots

eg. Turnip

FAUNA



- Includes animals that remain hidden during daylight hours.
- As to control body temperature or to limit moisture needs.
- These animals adapted to live in deserts are called Xerocoles

eg. Jack Rabbit, Kangaroo Rat, Coyote, etc.

ENVIRONMENTAL THREATS TO DESERTS

- Global warming and human development are threatening desert survival.



GLOBAL WARMING: DROUGHT

- Droughts directly affect the growth of vegetation.
- Global warming is raising Earth's temperature, increasing the chances of severe drought

GLOBAL WARMING: WILD FIRES

- Wild Fires will burn away the slow-growing fauna.
- Thereby drastically changing the landscape

DEVELOPMENT: IRRIGATION

- The long-term ramifications are the problem:
- deserts experience very little rainfall.
- Trees and plants will not be able to live on the remaining water.
- the salt levels in the soil make the soil unable to support life.

DEVELOPMENT: URBANIZATION

- The simple act of gathering firewood is destroying this fragile ecosystem.
- For example, in the Sahel countries of Africa, firewood is being used up 30 percent faster than it is being replaced.

CONSERVATION PROGRAMS:

- Threatened species like the Bald eagle, the Desert Pupfish, and the Desert Tortoise.
- The Desert Tortoise was listed as a threatened species, April 2, 1990.
- The “US fish and Wildlife Service” has its own a threatened conservation programs.
- The WWF (World Wildlife Fund) has many conservation projects.



← ENDANGERED DESERT
TORTOISE

CONSERVATION PROGRAM
IN THAR →



WEIRD FACTS

- The Gobi Desert is cold almost all year round.
- Deserts spread through desertification. This happens when grasslands surrounding deserts become dry.
- Some deserts have gotten nicknames such as Death Valley because of the lack of water.

OASIS

- Oases are parts of the desert where plants grow and water is almost always available.
- An oasis is formed by a pool of water trapped between layers of rock and the desert floor.
- The water can allow people to settle and even grow crops in the desert.

DESERTS AROUND THE WORLD:

- Some of the major deserts are:
 - Sahara (Africa)
 - Great Basin (North America)
 - Atacama (South America)
 - Mojave (North America)
 - Great Victoria (Australia)



Locations around the World

The ten largest deserts

Rank	Desert	Area (km ²)	Area (mi ²)
1	<u>Antarctic Desert (Antarctica)</u>	13,829,430	5,339,573
2	<u>Arctic Desert (Arctic)</u>	13,726,937	1,003,600+
3	<u>Sahara Desert (Africa)</u>	9,100,000+	3,320,000+
4	<u>Arabian Desert (Middle East)</u>	2,330,000	900,000
5	<u>Gobi Desert (Asia)</u>	1,300,000	500,000
6	<u>Kalahari Desert (Africa)</u>	900,000	360,000
7	<u>Patagonian Desert (South America)</u>	670,000	260,000
8	<u>Great Victoria Desert (Australia)</u>	647,000	250,000
9	<u>Syrian Desert (Middle East)</u>	520,000	200,000
10	<u>Great Basin Desert (North America)</u>	492,000	190,000

CONCLUSION

- Preservation of Environmental habitat.
- Conservation of Endangered Species.
- Strict laws for Poachers.
- Human Interruption should be controlled.

THANK YOU