THE RARE AND EXOTIC ANIMALS DOCUMENTRY

The documentary is about **2 sister Lions**, **Matimba** and **Kanya** and their **4 cubs**. Matimba is a pale colored lion and has **2 White Cubs**. The Male lion of this family has gone missing. This means other male Lions from different territories pose a threat to these cubs. Both of Matimba's cubs are born White sisters, due to a rare genetic twist.

Other enemy predators like **Hyenas** and **Leopards** are also a threat to these cubs and will kill them if they are left unattended by their mothers, because they don't want any competing predators in their territory.

So, the two mothers decide to leave the old territory and wander around in search for a better territory, where the threat to their cubs will be the least. The White cubs are 8 months old and their cousin cubs are 10 months old. On their way to find an ideal territory, they encounter a wounded buffalo, which is an ideal prey for them. But an elephant drives them away and makes sure that the buffalo lives a little bit longer. But, as soon as they get a chance, they teach the cubs how to get things done!

Now, the White cubs are **10 months old** and finds fun in everything they see. Kanya is always ready to play with the cubs while Matimba guards them from possible predators. Kanya always tries to lighten Matimba's spirit.

The cubs learn from their mothers when to take a fight, when to let it go, how to scare away other predators like Hyenas. After knocking down a baby Giraffe, the mother drags it inside the bushes to prevent vultures from noticing it and buries everything which can give out a strong odor that can invite other predators.

Even after tremendous efforts, one of the Lion from other territory tracks them down there. The mothers risk their lives and engages in a fight with the furious male, buying some time for their cubs to escape. Another male comes in and finds the Giraffe kill and then both the male focuses on the giraffe and lets the mothers slip

away. The mothers rush out to find their cubs, giving soft calls to signal their cubs that it is safe for them to come out and re-unite.

Now the White cubs are now 18 months old and the male cousins are now 20. They are real lions now. They again go for a giraffe kill, but they have a constant eye on them now from Hyenas, who are waiting for the Pride to hunt down a prey. After a month, they stop following. Something seems wrong. They are attacked by another Lion. They escape in the dark. One of Kanya's cub has a deep puncture wound and he sits silently all day, struggling. His brother and his mother try a lot to encourage him to stand up, but he can't. After moments, a painful seizure hits him and he's gone. The Pride lost one of their own. One of the white sisters says him goodbye, followed by his brother, his finest companion. He was 20 months old, and losing him was a profound blow to Kanya.

Both the sister white cubs and their cousin brother have developed skills for climbing trees. This would serve them well, as if they fail to find a prey, they can steal leopard's meal by climbing trees.

One of the white cubs finds a group of 13 Hyenas trying to steal their hunt. She walks up to them, fearlessly as her mother and sits right in front of the Hyenas to show that she has no fear. Still the Hyenas try to rush on her from all sides, but her quick move with a roar scared them away.

A male Lion approaches the Pride. Matimba steps up and head towards him to guard her family but the male does not want to fight. One of the white cubs joins to support her, followed by the whole family, but the male does not want a fight, and Matimba seems to know that. The male checks their hunt and lets himself in with the family. After a month, the male gained his trust in the family and finally the Pride has an adult male to guard them.

The two white cubs are now 2 years old fully grown adults. For the first time in 2 decades, there roams two adult white lions in the Jungle. Their cousin, Kanya's son is now on his own. Kanya's and Matimba's new cubs will be arriving soon. The white Pride has a whole new chapter ahead of them.

GIRAFFES - AFRICA'S GENTLE GIANTS

Some species of Giraffes are endangered, with only around 400 giraffes alive all around the globe. To help them and save them, Julian and his wife Steph stepped up as their saviors. Giraffes have gone extinct in nearly 7 countries of Africa.

Giraffes can weigh up to 2 Tons and are very funky-looking. The massive bumps on the giraffes' head aren't really horns or antlers, they are actually called ossicones. Male's ossicones grows considerably Larger in size.

Angolan Giraffes are found in Namibia and are one of the 9 Sub-Species found throughout the African Continent. Julian has been studying Giraffes for 20 years. He found a giraffe that was seen by them at the beginning of their studies. Back then, the giraffe was already an adult. In fact, that giraffe is the longest – living wild Giraffe recorded yet. He has seen some giraffe travel more than 11,000 sq. km.

Julian understands giraffes more than anyone else. During all these years of studying Giraffes, he also discovered many of their secrets of survival, that they get enough water just from browsing, Tress have developed giant spikes, poisonous leaves, and have recruited ants to fight the giraffe off, but in response, giraffes have developed thick skins, giant black sun-proof tongue and ability to sniff out poisonous leaves and pluck the moister ones. He also discovered that Giraffes are vital pollinators and seed spreaders. Without giraffe's landscape gardening, Africa could change for the worse.

Julian noticed that giraffes are surprisingly active at night, and also, one of them is settled down and has turned his neck around and rested it on his bump, and when another one sat beside him, this one woke and pulled his neck up and the other one went to sleep. To him, it seems like the giraffes are communicating and taking turns to sleep. Giraffes were believed to be silent until 2018, when they recorded their sound during night at a zoo.

Julian also noticed that the population of Giraffes is falling rapidly and has already declined by 40% in past years.

Julian has collected DNA samples from almost every species of giraffe there in Africa. He is now going to **Ethiopia**, which is far from Namibia, where **Nubian Giraffes** are found. There were almost **650** of them inhabiting the area of **South Sudan**. When Julian had the DNA analyzed, he found that Nubian Giraffes are not only one single species, but are **4 to 5 different species**, most of which are near extinction. During their search for giraffes in the vast land on South Sudan, their chopper was fired at by poachers. Even though he already knew it could have happened, he did go out there to take giraffe's DNA.

He along with Kenya government plans to catch the Giraffes and transport them across the Nile in order to help them stay safe out of the wildlife. This is their first step in saving Giraffes from extinction. It is a dangerous job to catch a giraffe. They have **2 weeks** to catch 20 giraffes and transfer them. They are hoping to make a new breeding herd, including **16-17** healthy and young females and **3 to 4** males.

After tremendous efforts they catch **20 giraffes**, and put **GPS** trackers on some of them. Then they transfer them across the Nile, where they can find a new home and hopefully increase their population in the coming years. After months, they were found to be travelling miles around the field, exactly as expected by Julian.

I would have never known that giraffes were endangered if it was not for Julian. He did serve his cause by taking an initiative upon himself to save their species. He is a truly inspiring spirit we all should learn from him, how to Love our surrounding animals and appreciate them, and if needed, put efforts to help them in every way possible. Thank You Julian for all your tremendous efforts to save giraffes, you prove that Humanity still exists.

Thank You

A BRIEF NOTE ON

ECOLOGICAL CONDITIONS

ECOLOGICAL CONDITIONS

By Argish Abhangi

20MIM10110

INDEX

Introduction

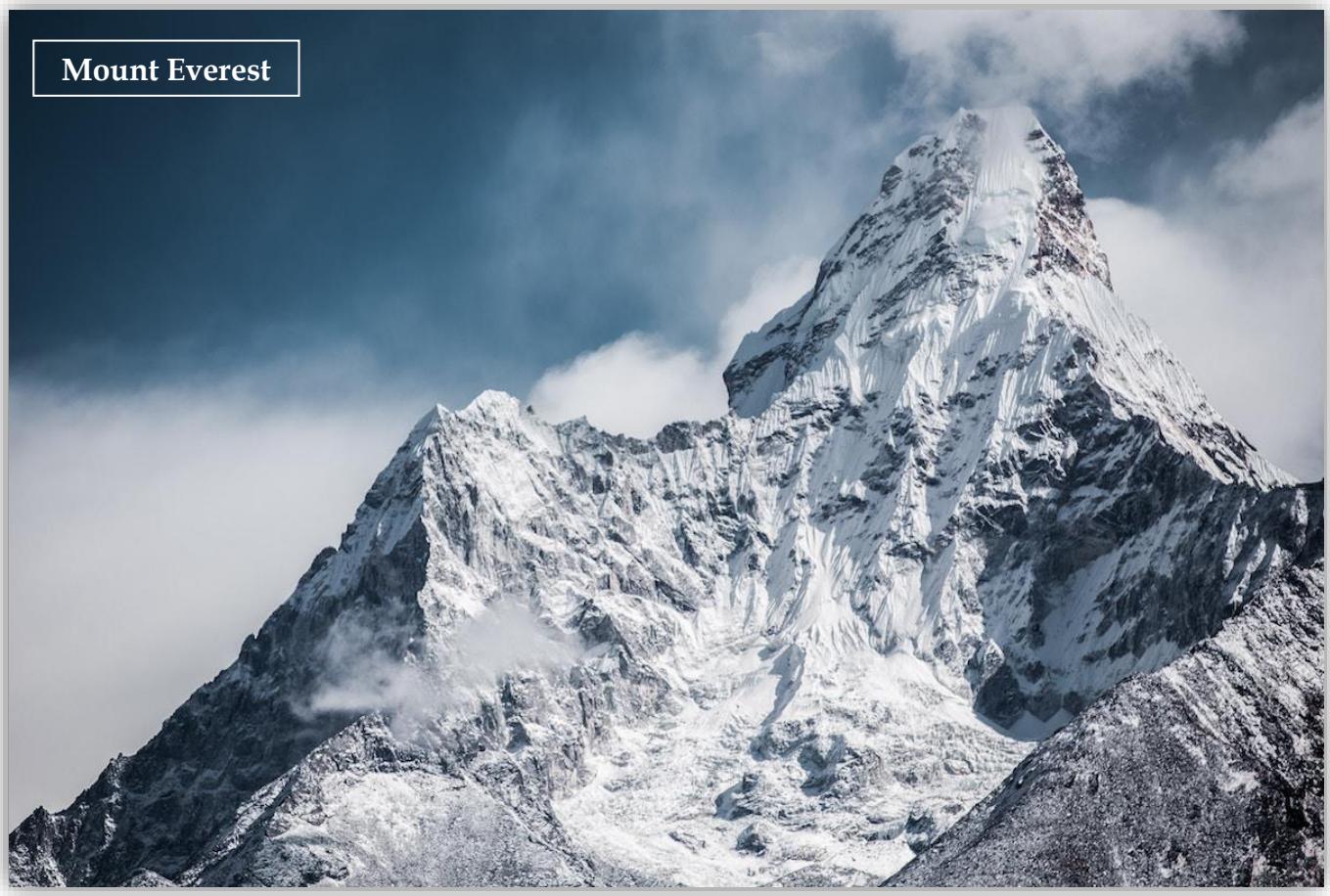
India is the most populated democracy in the world and is the seventh largest country by land area. It is surrounded by the Indian Ocean on the south, the Arabian Sea on the southwest and the Bay of Bengal on the southeast. It also accounts for the bulk of the Indian subcontinent, lying atop the Indian tectonic plate, a part of the Indo-Australian plate. India's coastline measures 7,517 kilometers in length, including Indian Islands. Indian population is highly diverse, consisting of thousands of ethnic groups and hundreds of languages, with roughly one-sixth of the world's total population!

This is a brief note on ecological conditions in India by emphasizing the ecology of the following regions:

1) The Himalayan Region
2) The Desert Region
3) The Northern Plains
4) The Peninsular Plateau
5) The Coastal Areas
6) The Indian Islands

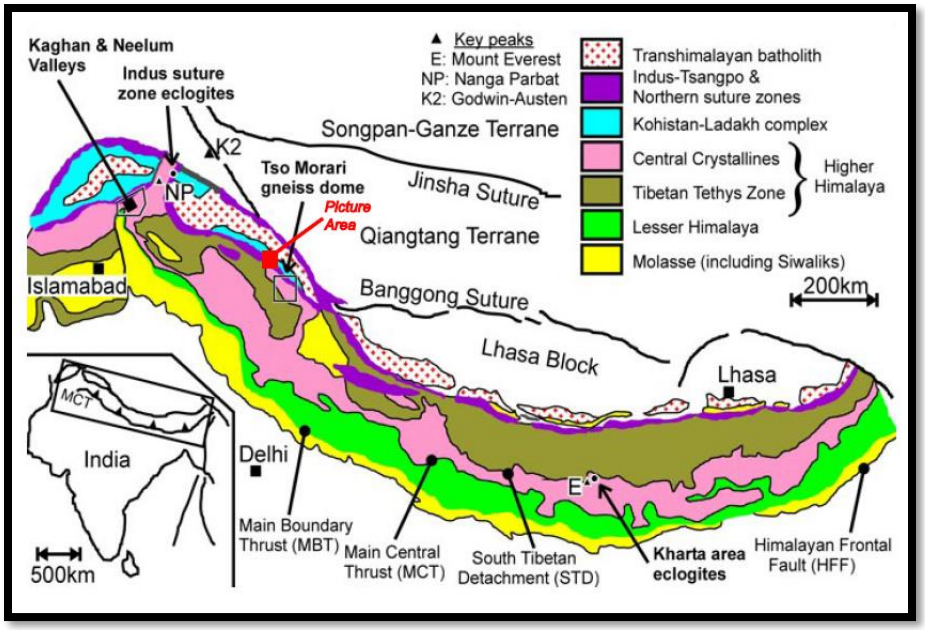
The Himalayan Region

The Himalaya is a mountain range in India, which separates the plains of the Indian subcontinent from the Tibetan Plateau. The range consists of the world's highest peak, Mount Everest, which is 8,848 m, along with over fifty other mountains exceeding 7,200 m in elevation, including ten out of the fourteen 8,000 m high peaks. This region is inhabited by 53 Million people, which are spread across five different countries, namely India, Bhutan, Nepal, paksitan and china.



Mount Everest is the world's highest mountain with height of 29,038 feet. Interestingly, at a time there are more than 300 high altitude workers who constantly help mountaineers from all around the world to climb the mountain without facing any difficulties.

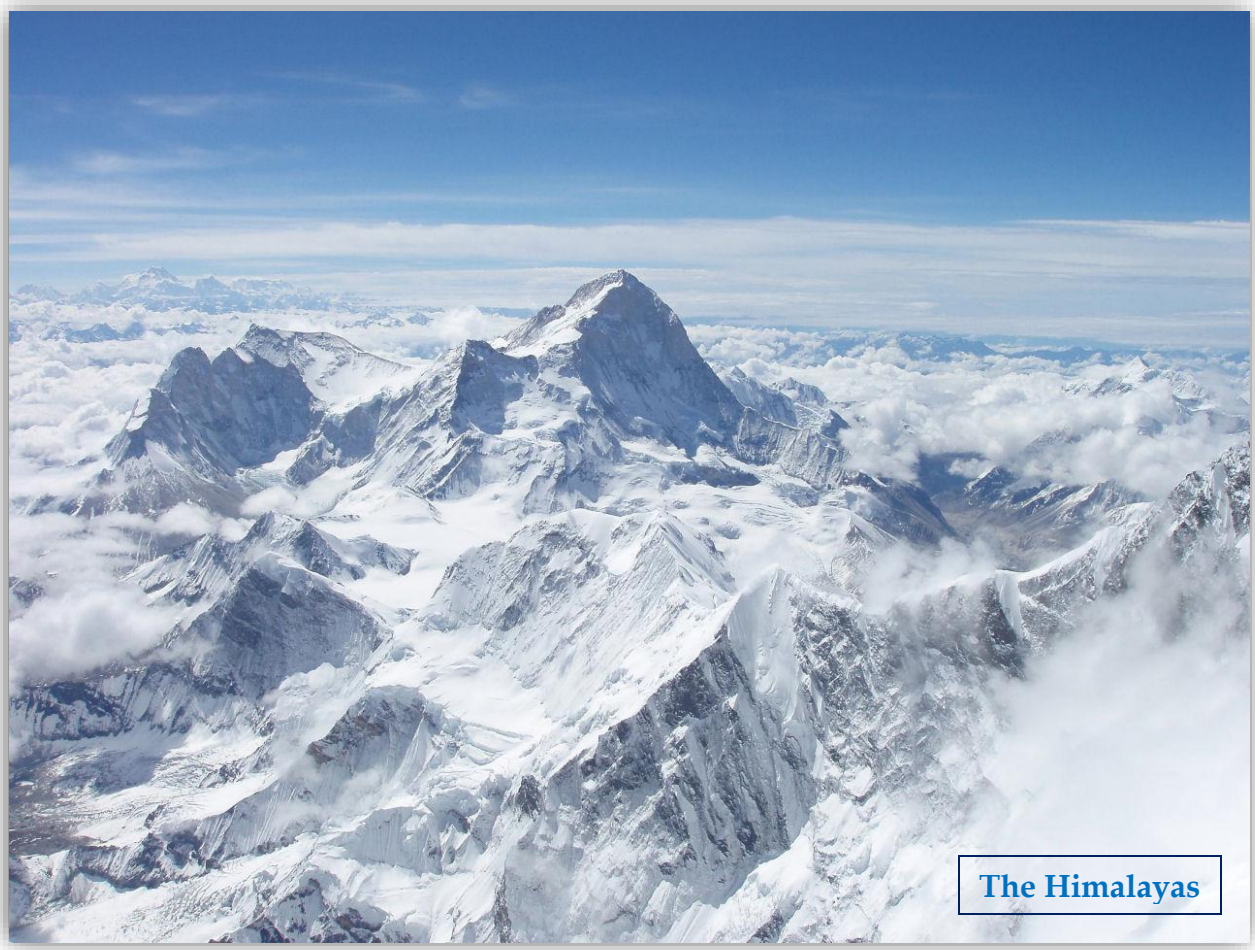
The Himalayan mountain range is located along the Northeastern part of India. It consists of parallel mountain ranges, namely, The Shivalik Hills on the south, The Lower Himalayan Range, The Great Himalayas and The Tibetan Himalayas on the north.



The climate on Himalayas is diverse, differing greatly depending on the region and elevation. Eco-regions found in Himalayas include mixed forests and temperature broadleaf forests, shrublands, subtropical and tropical broadleaf forests and montane grasslands.

The flora and fauna of the Himalayas vary with climate, rainfall, altitude, and soils. At high altitudes, the elusive and previously endangered snow leopard is the main predator. Other endemic or near endemic herbivores include the Himalayan tahr, the takin, the Himalayan serow, and the Himalayan goral. The critically endangered Himalayan subspecies of the brown bear is found sporadically across the range as is the Asian black bear. In the mountainous mixed deciduous and conifer forests of the eastern Himalayas, Red panda feed in the dense understories of bamboo. The highest known tree species in the Himalayas is called the Juniperus tibetica located at 4,900 m in Southeastern Tibet.

The Himalayas are home to a diversity of medicinal resources. Plants from the forests have been used for millennia to treat conditions ranging from simple coughs to snake bites. They are also a source of many minerals and precious stones. Amongst the tertiary rocks, are vast potentials of mineral oil. There is coal located in Kashmir, and precious stones located in the Himalayas. There is also gold, silver, copper, zinc, and many other such minerals and metals located in at least 100 different places in these mountains.



The Himalayas

Himalayas, as a region, have always been susceptible to disaster, due to the neo-tectonic mountain-building process, like earthquakes, landslides, etc. Avalanches constitute a major hazard in the higher elevations of Himalayas. Parts of the Himalayas receive snowfall around the year and adventure sports are in abundance in such locations. Severe snow avalanches occur in Jammu & Kashmir, Himachal Pradesh and the Hills of Western Uttar Pradesh.

The Desert Region

The Great Indian desert, commonly known as Thar Desert, is a large arid region in the northwestern part of India, that covers an area of 170,000 sq km. More than 60% of it lies in Rajasthan, which further extends into the states of Gujarat, Punjab and Haryana. Most of the desert area is covered by huge shifting sand dunes that receive sediments from the alluvial plains and the coast. Also, there are Salt water lakes within the Thar Desert.

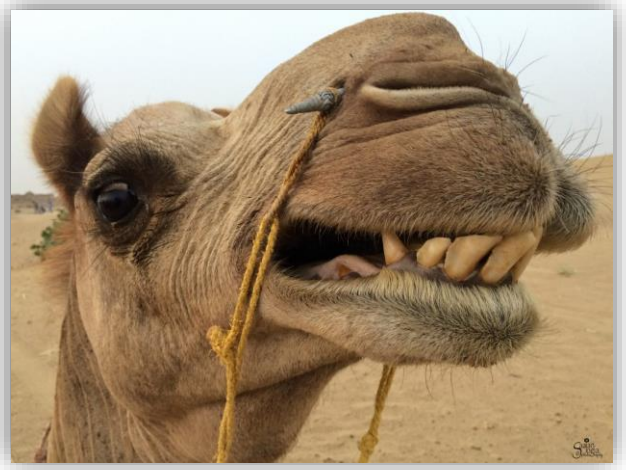
The Thar desert has a fairly high population density of 83 people per sq km. Overall, it has a total population of 16,600,000.

Stretches of sand in the desert are interspersed by hillocks and sandy and gravel plains. Due to the diversified habitat and ecosystem, the vegetation, human culture and animal life in this arid region is very rich in contrast to the other deserts of the world. About 23 species of lizard and 25 species of snakes are found here and several of them are endemic to the region. Some wildlife species, which are fast vanishing in other parts of India, are found in the desert

in large numbers such as the blackbuck, chinkara and Indian wild ass in the Rann of Kutch. Other mammals of the Thar Desert include a subspecies of red fox and the caracal.


Sunset in Desert

Agriculture is not a dependable proposition in this area because after the rainy season, at least one third of crops fail, because the region faces frequent droughts. Overgrazing due to high animal populations, wind and water erosion, mining and other industries have resulted in serious land degradation.



Desert safaris on camels have become increasingly popular in Thar Desert. Domestic and international tourists frequent the desert seeking adventure on camels for anything from a day to several days. This ecotourism industry ranges from cheaper backpacker treks to plush Arabian night style campsites replete with banquets and cultural performances.

Thar region of Rajasthan is the biggest wool-producing area in India. Out of the total wool production in India, **40-50%** comes from Rajasthan. The sheep-wool from Rajasthan is considered to be the best in the world for the carpet

making industry. It is also an ideal place for generation of electricity from wind power. According to an estimate Rajasthan state has got a potential of 5500-megawatt wind power generation.

Thar Desert, Rajasthan has an average rainfall of 280 mm annually, but during the monsoon of 2006 it received about 600 mm of rain within 2–3 days. Several hamlets and small villages have been wiped out after the 19–21 August rains. The region experienced one of the worst floods in a hundred years.

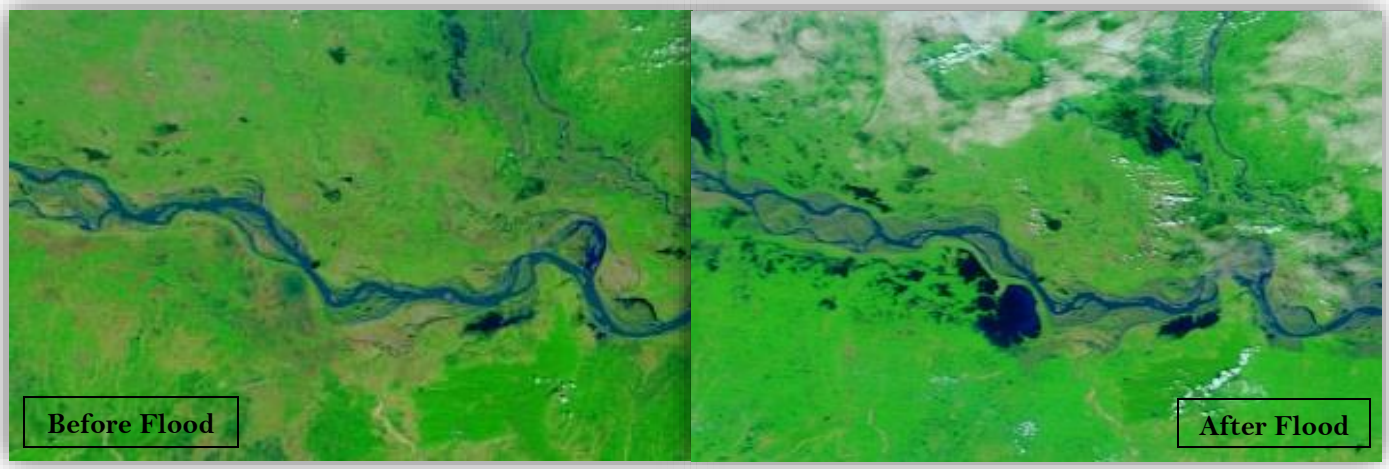
The Northern Plains

From the south of the Himalayas till the north of the Peninsula lies the Great Plain of North India, commonly referred to as the Northern Plains of India, which is spread in a 2.5-million sq km area. It is an aggregational plain formed by the deposition work of the three major river systems, the Ganga, the Indus and the Brahmaputra. It is also known as Indo-Gangetic-Brahmaputra Plain. This is the largest alluvial tract of the world extending for a length of 3,200 km from the mouth of the Indus to the mouth of Ganga, of which the Indian sector alone accounts for 2,400 km in length.

The Indo-Gangetic Plain is divided into two, the western part that drains to the Indus, and the eastern part that consists of the Ganga–Brahmaputra drainage systems, by the Delhi Ridge.

Until recent history, the open grasslands of the Indus-Ganga Plain were inhabited by several large species of animal. The open plains were home to large numbers of herbivores which included all three of the Asian rhinoceros (Indian rhinoceros, Javan rhinoceros, Sumatran rhinoceros). Large herds of Indian elephants, gazelles, antelopes and horses lived alongside several species of wild cattle including the now-extinct aurochs. In the forested areas there were several species of wild pig, deer and muntjac. Most of these animals are no longer present.

Farming on the Indus-Ganga Plain primarily consists of rice and wheat grown in rotation. Other crops include maize, sugarcane, and cotton. The main source of rainfall is the southwest monsoon which is normally sufficient for general agriculture. The many rivers flowing out of the Himalayas provide water for major irrigation works. Due to a rapidly growing population and couple other factors, this area is considered at high risk for water shortages in the future.

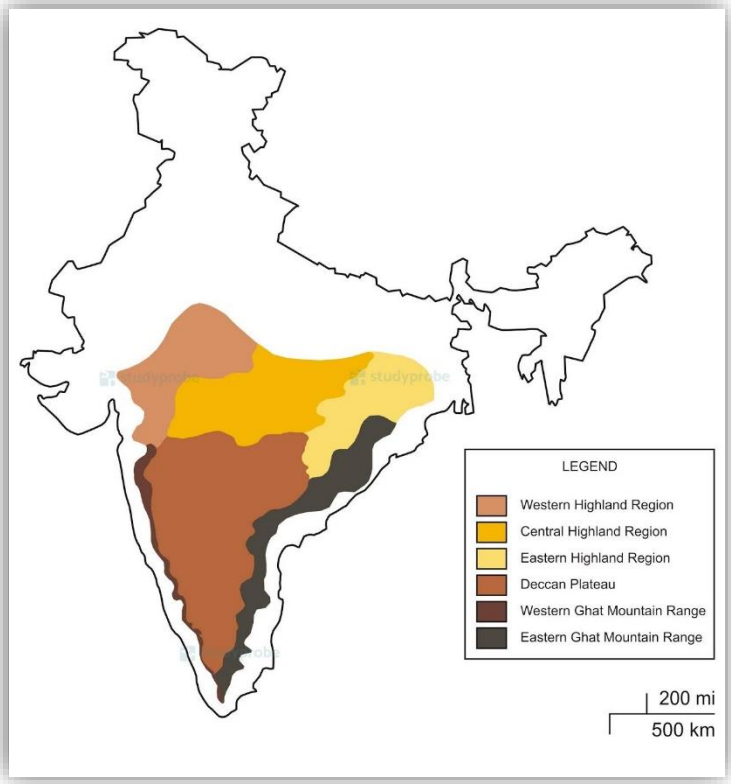


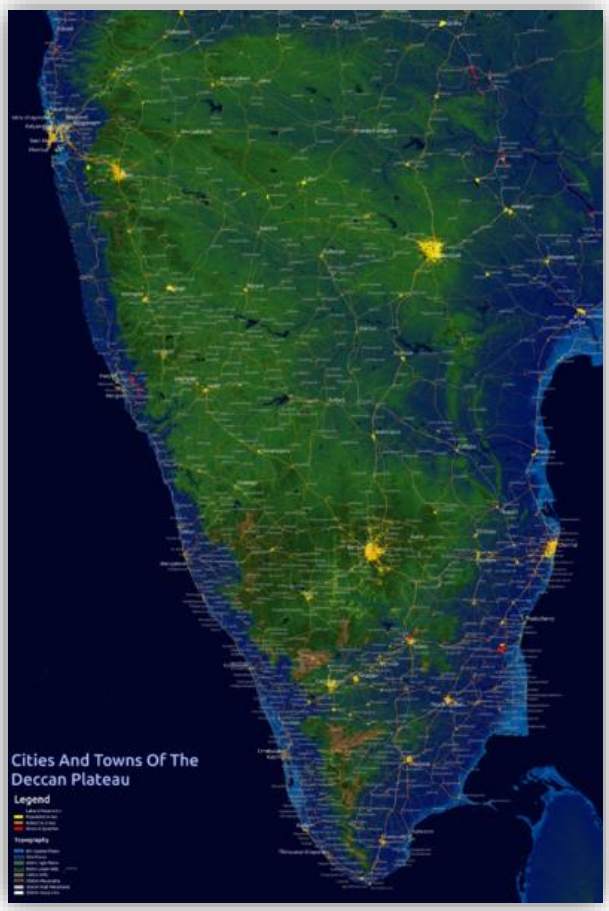
Multiple River Flooded in Bihar on October 2011, leading to more than 100 deaths, followed by heavy rainfall throughout the region.

(The Moderate Resolution Imaging Spectroradiometer (MODIS) on NASA's Terra satellite captured these images of River Ganga.)

The Peninsular Plateau

The Peninsular Plateau is a large plateau in western and southern India. It is a tableland composed of the old crystalline, igneous and metamorphic rocks. It rises to 100 m in the north, and to more than 1,000 m in the south, forming a raised triangle within the south-pointing triangle of the Indian coastline. It extends over eight Indian states with over 300 million people living in the greater area of the Deccan Plateau.





The Deccan plateau is a topographically variegated region located south of the Gangetic plains-the portion lying between the Arabian Sea and the Bay of Bengal-and includes a substantial area to the north of the Satpura Range, which has popularly been regarded as the divide between northern India and

the Deccan. The plateau is bounded on the east and west by the Ghats, while its northern extremity is the Vindhya Range. The Deccan's average elevation is about 600 m, sloping generally eastward. Its principal rivers are the Godavari, Krishna, and Kaveri, which flows eastward from the Western Ghats to the Bay of Bengal.

Hill ranges in the plateau are:

- The Aravalli Range
- The Vindhyan Range
- The Satpura Range
- The Sahyadris
- The Eastern Ghats

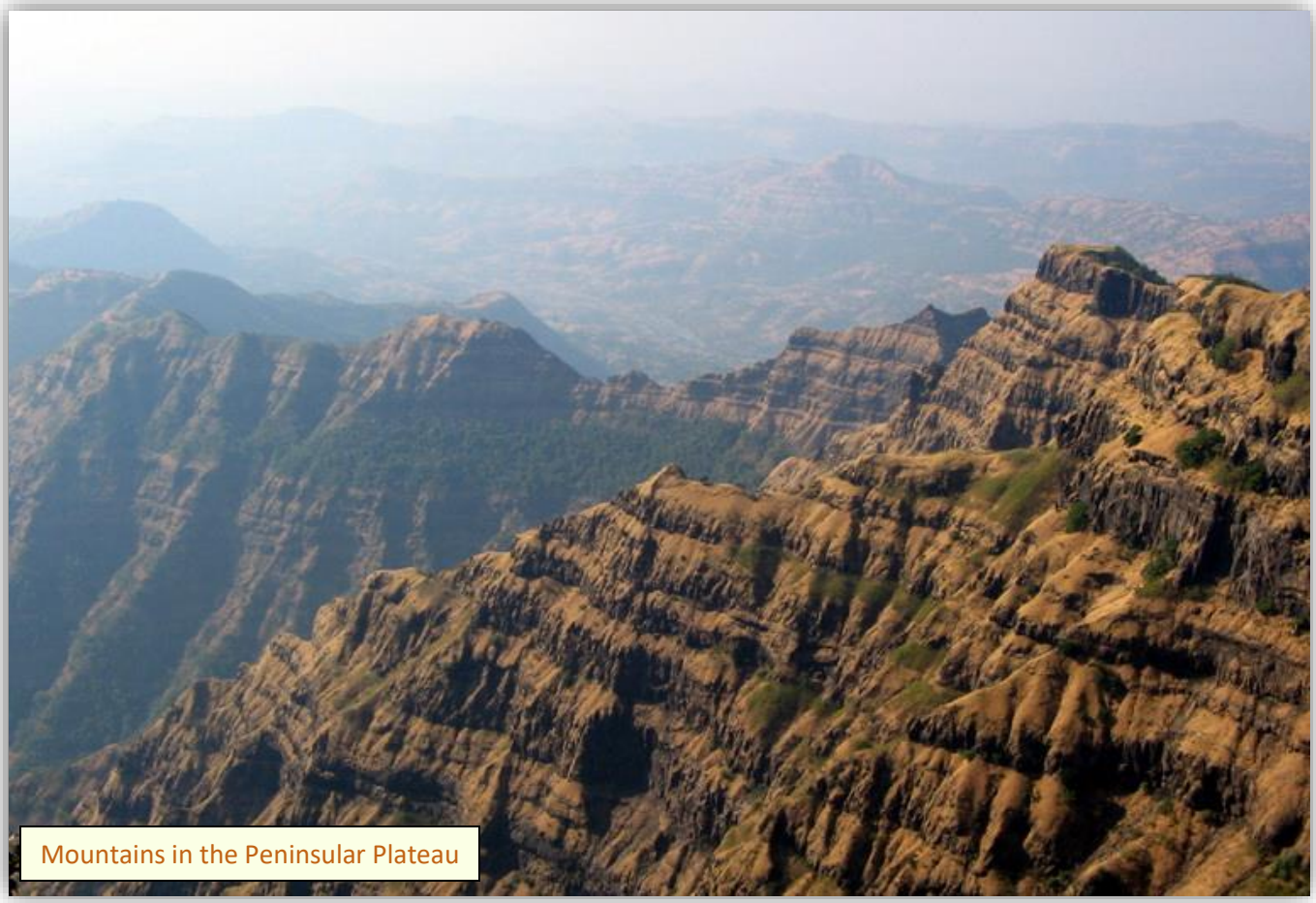
The climate of the region varies from semi-arid in the north to tropical in most of the region with distinct wet and dry seasons. The plateau's climate is drier than that on the coasts and is arid in places.

The northwestern part of the Peninsular plateau is made up of lava flows or igneous rocks known as the Deccan Traps. The rocks are spread over the whole of Maharashtra and parts of Gujarat and Madhya Pradesh, thereby making it one of the largest volcanic provinces in the world. It consists of more than 2000 m, of flat-lying basalt lava flows and covers an area of nearly 500,000 sq km in west-central India. The thick dark soil (called silt) found here is suitable for cotton cultivation.

The large areas of remaining forest on the plateau are still home to a variety of grazing animals from the four-horned antelope and blackbuck to the large gaur and wild water buffalo.

The Deccan plateau is very rich in minerals and precious stones. The plateau's mineral wealth led many lowland rulers, including those of the Mauryan (4th–2nd century BCE) and Gupta (4th–6th century CE) dynasties, to fight over it. Major minerals found here include coal, iron ore, asbestos, chromite, mica, and kyanite. Since March 2011, large deposits of uranium have been discovered in Karnataka. The Tummalapalle belt uranium reserve promises to be one of the top 20 uranium reserve discoveries of the world.

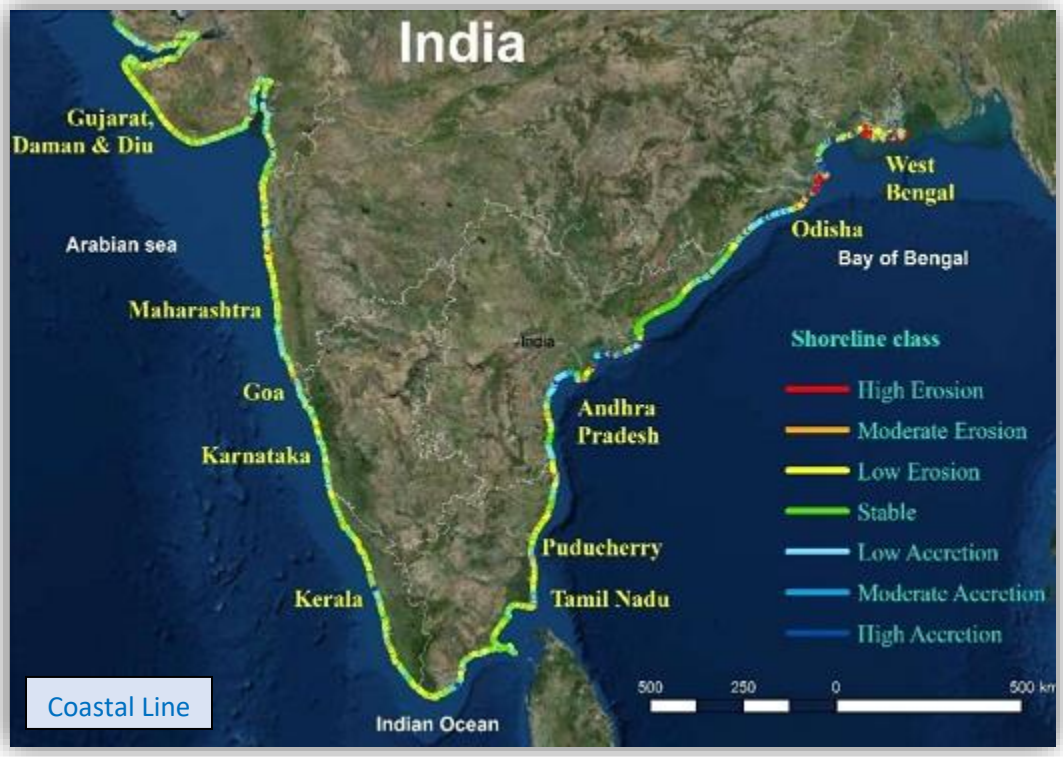
Large parts of the peninsula that receive two monsoons a year face a severe water scarcity for the second consecutive cropping season. In fact, for the first time in 140 years, all the five states have received large deficit rains (40-77 per cent) during the winter monsoon, which contributes 30-80 per cent of the total rainfall the region receives in a year.



Mountains in the Peninsular Plateau

The Coastal Region

India is surrounded from 3 sides by water bodies, forming a coastline of length 6100 km. Length of coastline of India including the coastline of Andaman and Nicobar Islands in the Bay of Bengal and Lakshadweep Islands in the Arabian Sea is 7517 km. Coastline of Indian mainland is surrounded by Arabian Sea in the west, Bay of Bengal in the east, and Indian Ocean in the south.



The Western Coastal Plain is a narrow strip of land sandwiched between the Western Ghats and the Arabian Sea, ranging from 50 to 100 km in width. It extends from Gujarat in the north and extends through Maharashtra, Goa, Karnataka, and Kerala. Numerous rivers and backwaters inundate the region. Major rivers flowing into the sea are the Tapti, Narmada, Mandovi and Zuari.

The Eastern Coastal Plain is a wide stretch of land lying between the Eastern Ghats and the oceanic boundary of India. It stretches from Tamil Nadu

in the south to West Bengal in the east. The Mahanadi, Godavari, Kaveri, and Krishna rivers drain these plains, exiting into the Bay of Bengal. The width of the plains varies between 100 and 130 km.

Large parts of the coastal plains of India are covered by fertile soils on which different crops are grown. Rice is the main crop of these areas. Coconut trees grow all along the coast. The entire length of the coast is surrounded with big and small ports, which helps in carrying out trade. About 98% of international trade is carried out through these ports. The sedimentary rocks of these area are considered to contain large deposits of mineral oil. Low lying areas of Gujarat are famous for producing salt.

The Indian Islands

In India, there are a total of 1,208 islands, including uninhabited ones. Apart from the large number of islands in the near proximity of Indian coast, there are two main groups of Islands in the Indian Ocean far away from the coast. One of these is the Andaman and Nicobar archipelago in the Bay of Bengal and the other is a group of tiny islands known as Lakshadweep Islands in the Arabian seas.

The Andaman and Nicobar group of islands, extending from 6° 45' N to13° 45'N and from 92° 10'E to 94° 15'E, covers a distance of about 6,408 sq km. This archipelago is composed of 572 big and small islands. Though normally referred to as Andaman-Nicobar Islands, it consists of two distinct groups separated by a deep channel called Ten Degree Channel. As of now, the Andaman Island haves a total of 434,000 inhabitants.

Most of these islands are made of tertiary sandstone, limestone and shale resisting on basic and ultrabasic volcanoes. The Barren and Narcondam islands, north of Port Blair, are volcanic islands. Some of the islands are fringed with coral reefs. Many of them are covered with thick forests and some are highly dissected.

The Lakshadweep Island is a group of 36 islands, inlets and reefs located in the Arabian Sea. They are widely scattered over an area of 109 sq km extending from 8°N to 12°20'N and 71°45'E to 74°E. The largest one of them is the Minicoy island with an area of 4.5 sq km. Most of the islands have low elevation and do not rise more than 5 m above sea level. These islands are of the coral origin and have no hills or streams.

Some of the most famous Islands are:

- Namesake of Colonel John Munroe, Munroe Island, Kerala
- The Largest River Island in The World, Majuli Island
- The Heart-Shaped Island, Netrani Island
- A Creation of Madagascar's Sub-Volcanic Activity, St Mary's Island
- The Andaman's Largest Island, Havelock Island, Andaman
- Host of Asia's Longest Beach Festival, Diu Island
- The Place of The Gods, Divar Island
- India's Most Famous Island Cluster, Lakshadweep Islands
- The Smallest Island in India, Umananda Island
- The Floating Island, Sendra Island
- Home to A UNESCO World Heritage Site, Elephanta Island
- Home to South Asia's Only Active Volcano, Barren Island, Andaman

As a matter of fact, Munroe Island is sinking due to rising water levels owing to global warming, forcing many of its village (Munroe Thuruthu) residents to leave.

The Andaman and Nicobar Islands are home to some of the richest varieties of flora and fauna, with 86% of the islands covered in primary tropical rain-forests. At least two species of wild boars, feral elephants, four species of sea turtles, and wild saltwater crocodiles make the islands a wildlife hotspot.

Andaman and Nicobar tropical rain forests have a rich biodiversity with numerous endemic species. The forests present here produces timber, herbs and plants with medicinal value, mineral nodules (Manganese, chromite, etc.) and is a habitat to aboriginal tribes like Jarawas, Ongos, coral reefs and bounty fishing zones.

Lakshadweep Islands - Basically, it is of coral origin and have less or no mineral resources. But it is famous for coconut plantations, fisheries, wide varieties of flora and fauna.

Ross Island