

- Number of plant & animal species found in India and in the World:-

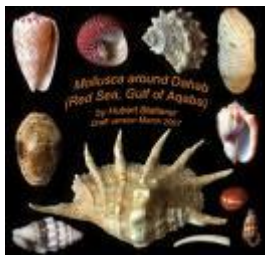
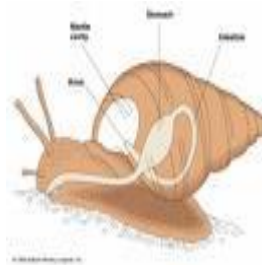
Sr.No.	Type	No.of Species in India	No.of Species in the World	% in India
01	Flowering Plants	17,000	2,50,000	6.80
02	Non-Flowering Plants	28,000	67,50,000	4.15
03	Total Animal Species	77,452	12,11,584	6.39

cal levels:-

Diversity Richness in India(Animal Sps.)

Sr.No.	Taxa(Classification)	Number	World %
01	Mollusca	5,043	6.30
02	Annelida	1,093	8.66
03	Arthropoda	57,525	6.04
04	Insecta	50,717	6.04
05	Pisces	2,546	11.72
06	Amphibia	204	3.97
07	Reptiles	428	3.97
08	Aves	1,228	13.61
09	Mammals	372	8.79

Mollusks



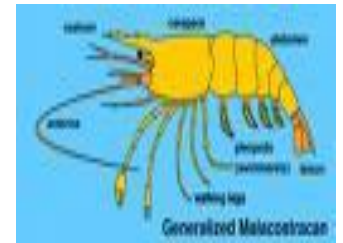
Mollusks

Annelida



Annelida

Arthropoda



Arthropoda

Insecta



Pisces



Pisces

Amphibia



Amphibia

Reptiles



Reptiles

Aves



Aves

MAMMALS

EGG-LAYING MAMMALS



PLACENTAL MAMMALS



Mammals

India as a Megha diversity nation:-

- 1) Overall 6 % of world species are found in India.
- 2) India is 10th among plant rich country in world
- 3) India is 11th in terms of endemic species of higher vertebrates
- 4) India is 6th among the centre of diversity.
- 5) Total no. of living species identified in india is about 1,50,000.
- 6) India has 2 Hotspots namely
 - i) Western Ghats
 - ii) Himalaya

Endangered and Endemic Species of India

- The UNEP (1995) published “RED DATA BOOK” which listed list of
- 1) Extinct species
- 2) Endangered species
- 3) Vulnerable species
- 4) Rare species
- 5) Endemic species

Endangered and Endemic Species of India

- 1) Extinct species :- Those species do not seen from since last 50 years.
- 2) Endangered species :- Those species number has been reduced at a critical level.
- 3) Vulnerable species :- Those species population facing continuous decline due to overexploitation & habitat destruction.
- 4)) Rare species :- Those species are not Endangered or Vulnerable but they are in risk.
- 5)) Endemic species :- Those species are found in a particular region, not else where.

Extinct and endangered species



African Elephant



Asian Elephant

Extinct species in India



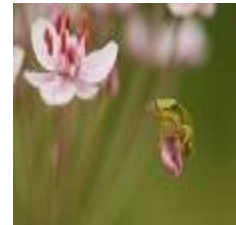
Feeding of Mountain Quail (*Turnix sibiricus*) in the Himalayas. Game birds of India. Barmah and Clayton. 1900.



Endangered species in India



Vulnerable species in India



Rare species in India



Rare and threatened plant species in India

Sr.No.	Catagory	Appro.Number	% in India
01	Rare	237	40
02	Vulnerable	117	20
03	Endangered	170	29
04	Possible Extinct	38	07
05	Extinct	21	04

Rare and threatened Animal species in India.

Sr.No.	Catagory	Appro.Number	% in India
01	Rare	32	20
02	Vulnerable	58	37
03	Endangered	62	39
04	Possible Extinct	03	02
05	Extinct	03	02

Threats to Biodiversity

- 1) Habitat loss –

Deforestation ,Shifting cultivation, Overgrazing, Industrialization ,Urbanization ,Environmental Pollution, Mining Activities , Road Construction , Hydal energy project, Dam Construction , Habitat fragmentation.



2) Poaching of wildlife – (Hunting)

illegal trade of wildlife product like ...

Fur of animal, Hides of animals ,Horns of animals , Live specimen , Herbal product and Medicinal plants.

International ban on such type of animal product.



Man –wild life Conflicts –



- 1) habitat loss...
- 2) Weak ,injured ,ill animals attack on human being...
- 3) Female tigress attack on human being...
- 4) If human flesh is tasted ...
- 5) If Bamboo trees are cut down...
- 6)Villagers put electric wire around ripen crop.
- 7) Lack of sufficient compension to farmers by Government.









THE ENVIRONMENT



Conservation of Biodiversity.



Conservation of Biodiversity:-

- **1) In- Situ Conservation-** e.g.- Biosphere Reserve, National Parks , Wild life sanctuaries
- **2) Ex-Situ Conservation-** e.g.- Labs like Seed bank, Gene bank etc

Conservation of Biodiversity:-

- **1) In- situ conservation** : - The conservation of flora and fauna in their own natural habitat.
- E.g. 1) Biosphere Reserve.

Sr.No.	Name of Biosphere Reserve	Name of State
01	Nanda Devi	UP
02	Nokrek	Meghalaya
03	Manas	Assam
04	Sunderbans	WB
05	Nilgiri	Karnataka, Kerala, TN
06	Great Nicobars & Similipal	Orissa
07	Gulf of manner	TN

PROPOSED BIOSPHERE RESERVES IN INDIA



- | | | |
|---------------|------------------------|---------------------------------------|
| 1. UTTARKHAND | 5. MANAS | 9. THAR DESERT |
| 2. NANDA DEVI | 6. NOKREK (TURA RANGE) | 10. RANN OF KUTCH |
| 3. NAMDAPHA | 7. SUNDERBANS | 11. NILGIRI, 12. GULF OF MANNAR |
| 4. KAZIRANGA | 8. KANHA | 13. NORTH ANDAMAN & 14. GREAT-NICOBAR |

Important National Parks in India :-

Sr.No.	Name of National Parks	Name of State	Important wildlife
01	Kaziranga	Assam	One horned Rhino
02	Gir	Gujrat	Indian lion
03	Dachigum	J & K	Hangul
04	Bandipur	Karnataka	Elephant

Important National Parks in India :-

Sr.No.	Name of National Parks	Name of State	Important wildlife
05	Periyar	Kerala	Elephant Tiger
06	Kanha	M.P.	Tiger
07	Corbett	Uttarakhand	Tiger
08	Dudwa	U.P.	Tiger
09	Ranthambore	Rajasthan	Tiger
10	Sariska	Rajasthan	Tiger



Nanda Devi-Biosphere Reserve



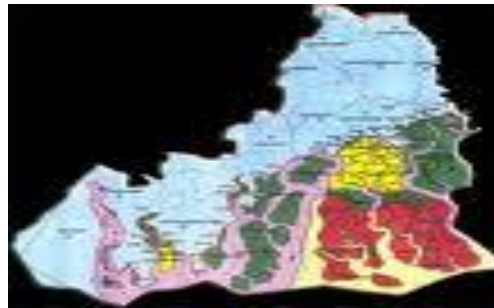
Nokrek



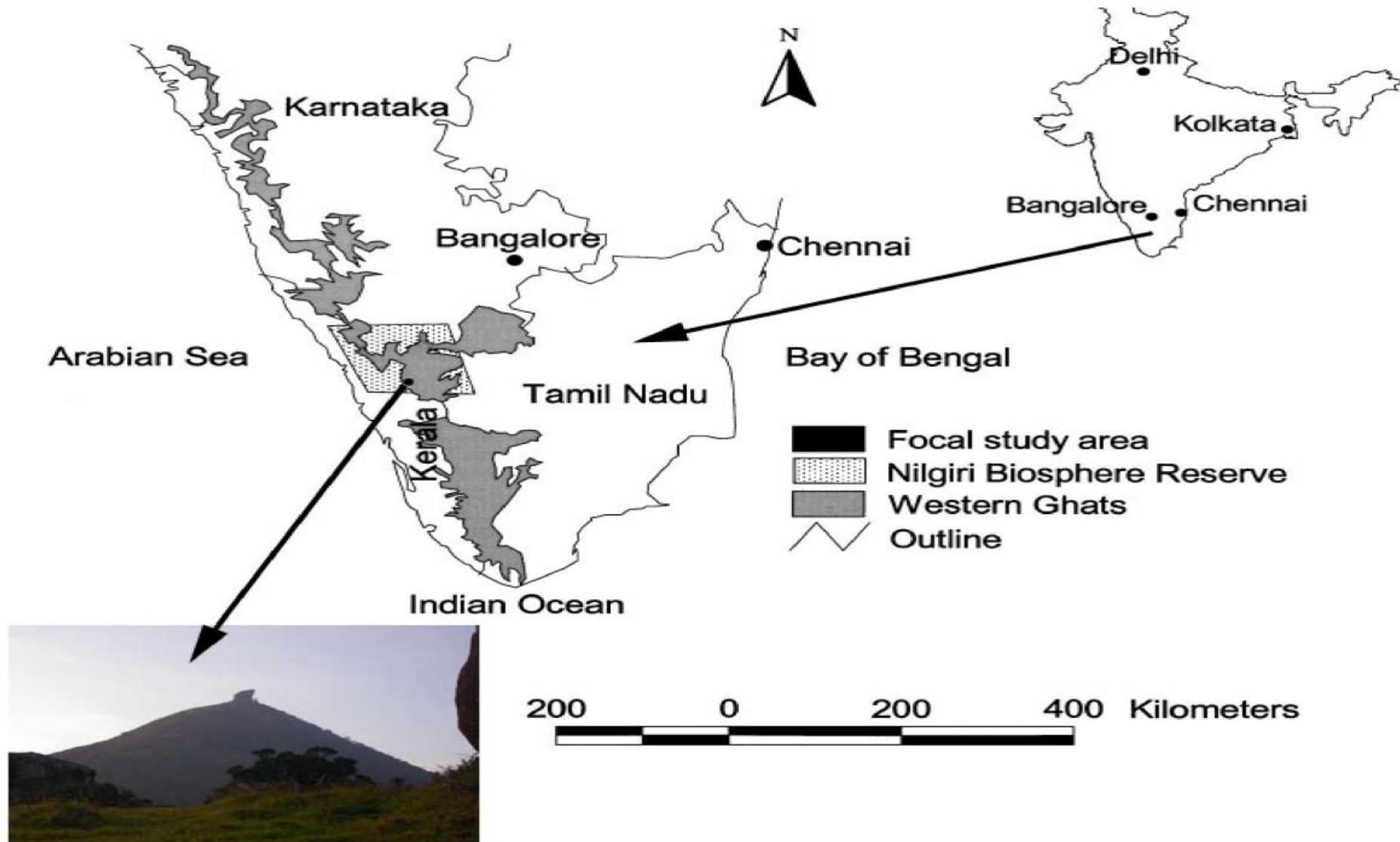
Manas



Sunderban



Nilgiri



Nilgiri



Great Nicobars & Similipal



Great Nicobars & Similipal



Kaziranga-



KARNATAKA





Bandipur

Important Animal sp. in National Parks in India :-



Gim Corbett national park



One horned Rhino



Hangul



Elephant



Indian lion



Tiger



Tiger

Wild life sanctuaries in India

Sr.No.	Name of Wild life sanctuaries	Name of State	Important wildlife
01	Ghana Bird	Rajasthan	Bird species
02	Hazaribagh	Bihar	Tiger, Leopard
03	Sultanpur Bird	Haryana	Migratory Birds
04	Nal Sarovar Bird	Gujarat	Waters Birds
05	Abohar	Punjab	Black Buck

Wild life sanctuaries in India

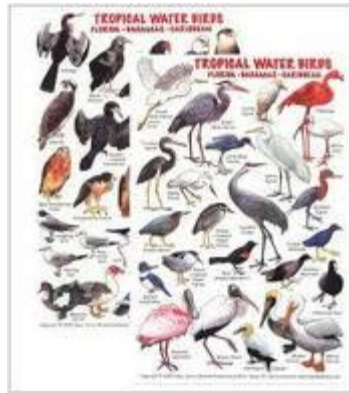
Sr.No.	Name of Wild life sanctuaries	Name of State	Important wildlife
06	Mudamalai	T.N.	Elephant Tiger Leopard
07	Jaldapara	W.B.	Elephant Tiger ,Rhinoceros
08	Wild ass	Gujarat	Wild ass , wolf, nilgai, chinkara



Important wildlife in Wild life sanctuaries



Bird species



Water Bird



Wild ass



Nilgai



Chinkara



Wolf



Black Buck

2) Ex- situ conservation

- 2) Ex- situ conservation :- The conservation of flora and fauna away from their natural habitat.
- E.g.- .Labs like Seed bank, Gene bank etc.



- Bureaus found in India:-
- **1) National Bureau of Plant Genetic Resources(NBPGR) – New Delhi**
- Agriculture & Horticulture crops and their relatives are preserved .
e.g.- The seeds and pollen of
Rice, Millet , radish ,, Onion ,Tomato, Carrot , Chilli , Tobacco etc



National Bureau of Plant Genetic Resources(NBPGR) – New Delhi



- 2) National Bureau of Animal Genetic Resources(NBAGR) – Karnal (Haryana)
- Conservation of varieties animals genes



3) National facility For Plant Tissue Culture Repository . – New Delhi

Conservation of varieties of crop plant and trees by tissue culture

- Plant category Plants
- Fruits -Banana, grapes, pineapple, strawberry
- Cash crops -Sugarcane, potato
- Spices -Turmeric, ginger, vanilla, large cardamom, small cardamom
- Medicinal plants -Aloevera, geranium, stevia, patchouli, neem
- Ornamentals- Gerbera, carnation, anthurium, lily
- Trees -Teak, white teak, bamboo, eucalyptus,

Thank You

Save the Earth,

Save the Environment.