

Unit - III

Wildlife & Conservation

- All plants & animals that are not cultivated or domesticated are called wildlife.
- Wildlife can be defined as living things that can either be non-domesticated except birds, fishes hunted by man.
- The term wildlife involve animals as well as plant which grow from any habitat in nature including trees, shrubs, algae & fungi where naturally.
- Wild animal may any non-domesticated animal found wild in nature.
- Fish, amphibians, reptiles & mammals are vertebrates & bees, butterflies, moths, crustaceans are invertebrates.
- Acc. to late prime minister Jawaharlal Nehru wildlife refers to the magnificent animals of the jungle & beautiful birds that brighten our life.
- Life would become colourless if we would not have these magnificent animals & birds to look & to play with.
- We must try to preserve whatever is left of our forests, & the wildlife that inhabits them.
- Some wild animals are so characteristic that become symbols of their countries.
- Tiger is associated with India,
- White Bear with Russia.

- Giant Panda with china
- Kangaroo with Australia
- Kiwi with New Zealand
- Springbok with South Africa

Biodiversity

- It is the vast area of plants, insect & organism, inhabiting the earth, either terrestrial or aquatic.
- Mishori Botanical Garden, St. Louis has billions of them have been spread for the moon.
- We know more about the moon, rainforests
- In the forest, most complex interacting system offers the key offer for survival, & above which we know nothing.
- **Species diversity** refers to the various species under the same genus & the variety of species under a region.
- For eg - Panthera tigris - Tiger
Panthera leo - lion
Panthera uncia - leopard snow
all belong to same genus Panthera but differ by each other at species level.
- **Genetic diversity** refers to the types of genes which exist in any 1 ind. species.
- Diversity of wings, about the changes in an ind. species & rise to various variety in plants & animals.
- For eg, there are many variety of mang - Mangifera indica & there are several races of human beings.

Socio-economic benefits of Biodiversity

- A large no. of our daily needs are fulfilled by wild species, wheat & Rice production have been increased considerably in last few years by incorporating dwarf genes from wild genes.
- Genes from wild variety may save from epidemic to extinct diseases.
- A large no. of medicines are prepared from wild product.
- Some of the wild species can restore the gliding species.

Level of Diversity

1.) Ecosystem Diversity

2.) Generic Diversity

3.) Species Diversity

4.) Genetic diversity

1.) It refers to the various type of ecosystem, aquatic - freshwater or marine, wetlands - mangroves, ecosystem.

2.) It refers to the diverse plant groups from algae to angiosperm, the diverse animal groups from fish to amphibians, reptiles, birds & other form of life.

• In the earth summit, 1992, at Rio-De-Janeiro, an agreement of Biological life.

• Next earth summit in Geneva to review the progress made in this direction.

Decline of Wildlife

- Man is himself responsible for the decline of wildlife.
- Inc. population of food, & other necessities of life lead to the clearing of forests, which in turn force the wildlife to move away from their home ground & those knew unfamiliar environment.
- Some switched over to new varieties of food shelter & climatic condition, some other found the new situation much too hard to take.
- Change in the env. upset the balance b/w producers & consumers.
New food relationship develop competitor
- change in terms of variety of degree.
- In change, situation every form of life can not be gainer some are bouncers to be losers.
- Deforestation in sub himalayan regions & M.P. expansion of cultivable land has been one of the major cause of upset of wildlife.
- Felling tree were profit to cattle were need to urbanization have also been cause of ecological imbalance directly affecting wildlife.
- Trapping & killings of animals for island region. The latter in the form of valuable fur, hide, ivory & medicants has contributed to decline of wildlife.
- Tiger, leopard, fur varying animals, crocodile, snake, turtle, deer, elephant have been the favoured target of man for shell etc.
- The way & means of extra mination of wildlife by a man fall into 2 broad categories direct & indirect.

- 1.) Direct destruction - By hunting, capturing, & indiscriminate killing for abovets, etc. In north America, 60 million heads of vision were brutally hunted to feed the workers of the Trans American & really only the animals tongue got consumed & rest of the body left to rot.
- Predators like Asiatic lion, tiger, leopard, white bear, hunting down, shed of poison, eating live stock.
 - Blue whale or the other whales are killed everywhere, 6,00,000 to 7,00,000 were killed.
 - Man is responsible for recent exertion of migrating dove or passenger pigeon.
 - The other direct cause leading to the production of many animals, way leading animals hippomatus etc for trophies or stuffed animals.

2.) Indirect destruction - For wildlife are also newers. The chief causes for deforestation for habitats, spread of deserts, insecticides etc.

Wildlife Diseases

- **Kibera**, 1980 pointed out the prevalence of epizotic diseases among wildlife has also been a major factor decline in no. of wild species population.
- Some imp. diseases are rinder pest, foot & mouth disease, anthrax. Africans, horse sickness, leptosperosis, influenza parasitic, infection, tuberculosis etc.

Importance of Wildlife

- The conservation of wildlife become necessary & great imp. due to many values to mankind.
- Ecological values - All life on earth are & all living things are interlinked i.e., food chain and food web, forming ecosystems.
- Destruction of wildlife may cause upset in ecological balance & equilibrium resulting in severe consequences.
- Thus protection of every animal sp. is of great importance is to quality of life & survival of man himself.
- Commercial Value - Wildlife forms an imp. renewable resources. The commercial value of wildlife is best seen in marine fishes with an annual output of about 10 millions ton of seafood worth billions of rupees.
- As entire industries, fur trades is supported for bearing animals.
- Ivory of elephants, horns of rhino, glance of musk, deer, antlers of deer, may large amt. in war markets.
- Game value : Wildlife has its birth as game also. European & American countries millions of people hunt of fish for recreation is spending billions of dollars on this sport.
- Scientific value : Armadillo contributed to the dev. of vaccines for leprosy.
- 21. • Antlers for their determining the degree of radioactive contamination of natural environment.
- Hissus monkey has contributed to present knowledge human blood group..
- Desert toad had helped in pregnancy.
- Sea urchin to understand human embryology.

Aesthetic value : There is great world wide aesthetic value of wildlife because of their sheer beauty and appeal to human spirit.

- A food without graceful beast, reptiles forest would be forever, place for human life in
- People will feel pleasure, satisfaction & happiness in presence of wildlife.

Wildlife Organization

IUCN - International Union for Conservation of Nature and Natural Resources.

- This organisation formed in 1948, headquarters at Morges in Switzerland.

WWE - World Wildlife Fund - International organisation founded in 1961, visits in Morges in Switzerland.

- Its principal goal to collect and distribute fund for Wildlife Conservation Complex throughout world.
- The WWF, India launched in 1969, headquarters at Bombay.
- The same year, 1969, WWF has launched Project Tiger.
- It is the biggest & ever single largest conservation comparison of its kind in the world.

IBWI - Indian Board for Wildlife, In 1952, the

- Government of India constituted & advisory board on country wildlife called Central Board for Wildlife later named as IBWI.
- Several Indian states foll. by forming their own wildlife advisory board.

BNHS - Bombay Natural History Society is a non government hospital dedicated to the wildlife

conservation in the country.

- It was founded by 7 residents of Bombay in 1881.
- The society conduct research & educational activities & field work & bring out journal on the wildlife of India.

WPSI - Wildlife Preservation Society of India

also non govt body founded in 1958 at Dehradun.

- Society conduct posse of students & members to run by park, chess of research on vanishing flora & fauna & organize are diff. competitions for school & bring for general for school.

Red Data Book - These are directories & scheme

compiled by IUCN. They provide update info. about animal species which are rare or endangered of extinction.

- Food & agricultural organization & International Organization sponsor program such as crocodile breathing and animal.
- The world present association is helping a programme for captive feeding to cheetah to pheasant in India.
- To control exploitation of animals & plants of economic value by traders, there is an international organisation called conservation of international trade in endangered species of wild for flora & fauna.

Some Important Projects

- The government of India show wildlife control body has been launching special project & to protect & presence endangered species animals & birds.

1.) Project Tiger - was initiated as a Central sector scheme in 1973, under the instruction of late PM Mrs. Indira Gandhi.

Initially its opening its operation opening in 9 tiger reserves located in diff. states, more tiger reserves were added a few years after.

The guiding principle of project management are

1. Preservation of suitable env. & elimination of all form of human exploitation & disturbance
2. To repair the damage done to the environment build up natural env. for animal.
3. To maintain a balance ecosystem including the forms of flora & fauna.
4. To monitor the continently that factor influence of fauna & flora through research & investigation.
5. The various tiger reserves was created in county based on core buffer strategy.

Core Area - are free of human activities; It has legal status for a national park for wildlife.

It is kept free for biotic disturbance for true operation like collection of minor forest produce, grazing & other human disturbances are not allowed there.

Buffer Area - are subjected to conservation oriented land use. They comprises forest & non forest land.

It is multipurpose use area with spring object providing habitat substance to skin population of wild animal for core conservation unit & to provide site specific con developmental inputs to surrounding village for relieving impact on core area.

The main tiger reserves are -

- | | | |
|-----|---------------------------|----------------|
| 1.) | Manas National Park | Assam |
| 2.) | Kalamau National Park | Bihar |
| 3.) | Kala National Park | Madhya Pradesh |
| 4.) | Jim Corbett National Park | Uttarakhand. |
| 5.) | Bandipur National Park | Karnataka |
| 6.) | Ranthambore National Park | Rajasthan |
| 7.) | Varusin National Park | Rajasthan |
| 8.) | Sartista National Park | Rajasthan |

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Project Tiger is of special imp. to Uttarakhand which have famous homes of Tiger.

- 1.) Corbett National Park
- 2.) Dudhwa National Park

- Corbett National Park is named after British Nationalist Jim Corbett & it is situated in Mainital District & Garhwal district.
- It has an area of 515 B sq. km & encloses partly down valley in Ramnagar river & foothills of Shivalik formation.
- It include mainly Tiger, crocodile, deer, elephant, panther, sloth bear, mongoose & innumerable birds.
- Dudhwa & century established in North Kery forest in 1968.
- The status of Dudhwa, that was raise that of National Park area 500 sq. kilometer.
- Imp. wildlife include Tiger, panther, swamp bear, spotted bear, barking deer, Nilgiri, black bear etc and many species of bird.
- Sarika century established in 1979 under Project Tiger in Rajasthan.

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- It is located in district Alwar, surrounded by Aravali Hills. It became a tourist destination and area 800 sq. km. Sariska is a classical example of a rare Amalgam of Natural History and archeologist.
 - The 9th Century Shiva temple, Pushapati & fort of Medieval Time add to the grandeur to this Tiger Reserve.
 - Simlipal National Park in Orisa, the park has only 17 Tiger & project was launched in October, 1973, but a no inc. more than 100

Gir Lion Centuary Project

- The Gir Lion Project in Gujrat Sharashtra is one of biggest biological interact of forest land reserve primarily for the conservation of nature of wild fauna of India.
- It is the conservative area of Asiatic lion, *Panthera leo*, etc.
- This forest is rich in spotted deer, Indian Godzilla, Nilgiri, wild bear, fox horn antelope
- The Gir Lion Project started in 1972 was the faced with the problems created with overgrazing by cattle brought into the forest.
- In shortage of natural prey lion attacked the domesticated cattle encouraging the people to poison the lion, trap them & kill them

Crocodile Rehabilitation Project

The crocodile breathing & management project was initiated in 1975 to save the 3 Indian crocodile -

1.) Crocodylus porosus - Salt water crocodile or estuarine crocodile length 7 metre. In 1974, the species was completely vanished from states of Kerala, Andhra Pradesh, Tamil Nadu. Small population exists in the Brahmani, deltaic region of Orissa k/n as Bihlar Kanika & some are found in Sunderban of Bengal.

2.) Crocodylus Pelustris - Magar, found in fresh water & swamp crocodile length, 3.5 metre. It inhabits river, pools, lakes, swamp reservoirs. By 1974, it has considerably decline. It was hunted by man & also trapped & killed for valuable skin.

3.) Gravilis gangeticus - Gharial, reaches upto length of 6-7 metre, It is recognised by long snout, armed with sharp teeth. In 1975, only four gharial left in Ganga & 44 were counted in Arandi & Ram Ganga Uttar Pradesh in India.

- The most suitable crocodile was to protect, was rehabilitate them in suitable reservoir where they could breathe.
- One such project lead to established & development in crocodile rehabilitation centre at Kukrail in Lucknow, Katarniya Ghat in Bahraich of UP.
- At these centres, they are provided & hot links are transfer to suitable tank where they grow in young ones.
- Here it is taken that their population is not distributed by man.

- Under the **Wildlife Protection Act** in 1972, the Government of India imposes a total ban on killing or hunting of these reptiles.
- These centres are spread all over the country in 8 states -
- **Mandakarn Sanctuary** in Orissa, some other states - T.N., M.P etc.
- **Krishna Sanctuary** in Andhra Pradesh.
- **Chambal Sanctuary** in state countries - U.P, M.P, Rajasthan.
- The central crocodile breeding & management institute in Hyderabad provide a career in handling crocodile & connected world.
- **Hangul - cervus elphus** - This project is specifically meant to save the Kashmir deer Hangul, it is limited to Dachigam Sanctuary in 1951 in Jammu & Kashmir.
- Hangul has become rare due to discrimination sheep grazing, poaching & habitat destruction.
- Hangul project is started in 1970, since the Hangul population is increased.
- Dachigam sanctuary is spreading about 141 sq. km area which include maintain of Central Himalya.
- The main stream crossing area & having its perigin marsh lake & continue Harwan reservoir & dull lake, it fed along its case by network of mountain rain.