



An Analytical Study of Aquatic Species of Chambal Sanctuary : With Special Reference to the Downstream Part of Chambal – Yamuna Interfluvium In Etawah, Uttar Pradesh

Dr. Suchitra Varma

Associate Professor, Department of Geography, KKPG College Etawah

ABSTRACT

Article Info

Volume 2, Issue 3

Page Number : 205-210

Publication Issue :

May-June 2019

Article History

Accepted : 15 June 2021

Published : 30 June 2021

Bio-diversity refers to variety and variability among genes, species and ecosystem on the earth. There are three levels of biodiversity namely genetic diversity, species diversity and ecosystem diversity. India is world's eighth most bio diverse region with a 0.46 bio D score on diversity index. There were about 1, 02,718 species of fauna and 23.39% of nation's geographical area under forest and tree cover in 2020. Today we are losing species continuously due to several causes such as climate change, human interference like hunting, trading, deforestation and environmental pollution. Threatened biodiversity needs to be conserved on the national, state, and local level by every citizen.

In this paper an attempt has been made to analyze the responsible factors for decline in number of aquatic species and give some proposal for protection and conservation of the species in downstream part of Chambal sanctuary in Uttar Pradesh. The present study is based on area observation and secondary data.

The National Chambal Sanctuary in UP covers an area of 635 sq. km., spread over the Agra and Etawah district. In the sanctuary along Etawah, Gharial population has been lost about 60% from year 1998 to 2006. In present time there are 200 Crocodiles, 1600 Gharials (Reptiles), 100 Gangetic Dolphin (Mammals) etc. in Uttar Pradesh. Several measures are being taken to protect aquatic species. These are legally managed by the central as well as state government and local citizens living around this area. Conservation is a positive work of management and maintenance of our heritage. It should be done for the sake of preserving our own culture and for sake of nature.

Keywords : Species, Ravines, Downstream, Biodiversity.

INTRODUCTION

The term biodiversity refers to a variety and variability of all life present on earth. Biodiversity helps human population in several ways. A wide range of ecological, economic, social, cultural, educational, scientific and

aesthetic services are obtained through these living resources. Every country in the world has its own profile of biodiversity. [A. Balasubramanian's - "Biodiversity Profile of India"; Technical Report 2017].

India ranks among the top ten species – rich nations in the world. It consists of approximately 850 bacteria species, 2300 fungi, 2500 algae, 1600 lichens, 2664 bryophyte, 1022 pteridophytes, 64 gymnosperms, 1500 angiosperms, 59353 insects, 2546 fishes, 204 amphibians, 460 reptiles, 1232 aves, 372 mammal species of which 18.4% are endemic and 10.8% are threatened.

Today we are losing about 1500 species in every two months due to several factors such as climate change and human interference - hunting, trading, deforestation and entertainment, which are affecting the environment.

These threatened biodiversity needs to be conserved on the national, state and local level by every citizen.

In this paper an attempt has been made to analyze the causes of decline in number of some endangered aquatic species in Chambal Sanctuary in Uttar Pradesh especially in 'downstream part' in Etawah district and their conservation. These are critically endangered species like Gharial, Crocodile, Smooth Coated Otters and Dolphins etc.

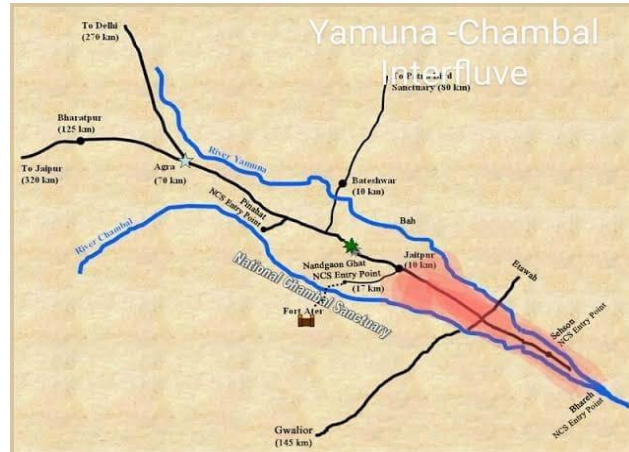
The Study Area:



The National Chambal Sanctuary in Uttar Pradesh covers an area of 635 sq. km. spread over Agra and Etawah districts. The whole area under National Chambal Sanctuary also called The National Chambal Gharial Wildlife Sanctuary is a 5400 sq. km. tri-state protected area in northern India for the protection of the critically endangered Gharial, the Red-Crowned Roof Turtle and the endangered Ganges River Dolphin located on Chambal river near the tri point of Rajasthan, Madhya Pradesh and Uttar Pradesh. It was first declared in Madhya Pradesh in 1978 and now constitutes a long narrow eco-reserve co-administered by the three states within the sanctuary, the pristine

'Chambal River' cuts through major ravines and hills with many sandy beaches. (<http://en.m.wikipedia.org/wiki>)

It was formed to protect pristine river ecosystem of Chambal River. The Chambal River originates from Kota, Rajasthan and finally merges into Yamuna River at 'Bareh'. The 180 km (Etawah District) stretch falls in Uttar Pradesh on one side in Downstream part. This area spreads over deep ravines which were infamously known as 'Dacoit Area', but now it is quite peaceful.



Methodology: The present study is based on area observation and secondary data and studies done in the past.

Total number of species at present in Chambal Sanctuary, UP:

There are 200 crocodiles, 1600 Gharials, 100 Dolphins, 6 species of Terrapins and Turtles, few species of freshwater mammals, dolphins - like Gange, Voto, Bhulenvai are found here in this time. This sanctuary (stretching for 400 kms to the transparent lake) in Uttar Pradesh also houses the smooth coated otters which are fresh water carnivorous with webbed and clawed feet and thick brown fur.

Decline of some endangered aquatic species in Chambal Sanctuary in Present Time:

- In the downstream part of the sanctuary in Etawah, Gharial population has been reduced to about 60% from 1998 to 2006. But recently some measures have been taken to increase their number.
- In April 2012, 16 feet long Gharial was found hacked into pieces at 'Lalpura Khar Village' in 'Bareh' area of Etawah.
- During November 2007 and March 2008 more than 112 Gharial died in Chambal due to poison by metal pollutant (investigation by IVRI)

Causes of decline of species in downstream part of Etawah

- The Chambal – Yamuna interfluvium, a deep ravine area of Uttar Pradesh suffers this problem very much because there are some social problems as well as law and order problems. The area facing dacoit problem for many years but it has become quite peaceful area these days. The major ‘dacoits’ and ‘gangs’ were eradicated by state police. Now the area is facing another problem, the general public along with villagers, visitors, hunters and woodcutters has become unfearful and they recklessly destroy the biodiversity of this area.
- Fishing is banned in the National Chambal Sanctuary but there is no enforcement. Fishermen chop the snouts or kill Gharials deliberately when they become helplessly entangled in their nets. Besides fishing they are killing the prey of Gharial which depresses the habitats ability to support larger number of animals.
- In the Chambal Sanctuary, Turtle population is continuously declining drastically. During the last few decades it is due to the direct and indirect human interactions, illegal and over exploitation caused the alarming state of population of turtles, freshwater turtles from river are illegally caught and exported to various markets in the other states.
- The greediness of human beings resulting unauthorized mining in the river basin is also responsible for the decline of aquatic species.

Protection and Conservation of aquatic species

- Several measures are being taken to protect and conserve aquatic species in Chambal Sanctuary. These are legally managed by the Central Government, State Government and the Local living around this area.
- To educate the school children regarding the importance of biodiversity for human life and conservation aspects of nature and to inculcate in them love for wildlife and natural habitat as a whole.
- It is necessary to create awareness among the general people regarding the maintenance of ecological balance in the neighbourhood.
- It is too necessary to understand the problems of rural areas adjacent to wildlife sanctuaries and prepare appropriate projects for integrated rural development and implement them effectively.
- To maintain the interstate network independent non-governmental organizations for their expertise in conservation of biodiversity and provide a forum for the exchange of views on wildlife and their conservation as a whole.
- The preservation and restoration of ecological balance through public participation must be motivated.
- To denounce and crack down the trade of wildlife through public awareness and legal procedures.
- To foster, scientific applied research in the field of biodiversity and environment.
- To provide new veneration for sustainable livelihood generation by applied conservation efforts.

- Every citizen must take his responsibility and do maximum efforts to give the protection of these species on his own level such as NGOs and other groups and organizations.



These conservation steps must be taken strictly and should be enforced by the government and every citizen must work for the protection of these precious and rare species, and then the environment can be balanced.

Actually the Chambal – Yamuna interfluvium is a peculiar type of area spread over deep ravines and gully beds. The villagers of this area are economically weakened having a very strong caste structure and social systems. Therefore, socially it has many imbalances with lack of road transport network. It can be concluded that it is a problematic area but in the recent years some development took place in this area, some educational institution opened, road transport network became better and dacoit problem has been almost solved. So, hopefully the people of this area can be motivated to conserve the biodiversity of this area.

With the aim of promoting eco-tourism to boost employment generation and economy, the state government has identified nine eco-tourism circuits for their development and promotion. The Agra- Etawah circuit is one of them and National Chambal Sanctuary is a part of it.

Conclusion:

The National Chambal Sanctuary along the downstream part in Etawah is situated in Yamuna – Chambal Interfluvium which is a peculiar type of physiography. It is very important to conserve its biodiversity which is everyone's duty. Conservation of biodiversity is every one's responsibility it needs to be dealt with at various levels.

Conservation is a positive work of management and maintenance of our heritage. It should be done for the sake of preserving our own culture and for the sake of nature.

There is an increased awareness among the conservation of ecologically sensitive area for the balanced ecosystem likewise protection and conservation of aquatic species like Gharials, turtles and dolphins mainly found in this area. It will be very essential for humans too.

Reference:

1. Forest Department, Etawah, Reports.
2. 'Wildlife Conservation in India: Issues and Challenges' article by Vikas Kumar Soni; Journal of Interdisciplinary Cycle – Research, February 2021
3. 'Biodiversity Profile of India' by A. Balasubramanian; Technical Report 2017
4. <https://www.upecotourism.in>
5. [https://en.m.wikipedia.org>wiki](https://en.m.wikipedia.org/wiki)