



Biodiversity of Chkclipuna on Aravali range of Southern Rajasthan, India.

¹Lalit Choudhary and ²Seema Bharadwaj*

Leo College, Banswara 327001, Rajasthan, India.

HDJ Govt Girls College, Banswara 327001, Rajasthan, India.

ABSTRACT: *This study is focused on the biodiversity of Chkclipuna on Aravali range of Southern Rajasthan, India. This case study will be carried out in many different locations, with a variety of environmental conditions. In each area, biodiversity is affected by globalization. Forests are primordial houses of biodiversity and storehouses of necessities of ethnic inhabitants. In some locations, socioeconomic factors—including social, economic, political, and cultural factors—are at the root of globalization activities that are destroying habitats and species. This case study will expand understanding of these root causes of biodiversity loss. Forest recovery is a common demand throughout the globe; the ways of this unfold need to be specified, supporting inhabited forest landscapes with agents of bionetwork.*

KEYWORDS: *Bio network, Biodiversity, Globalization, Habitats.*

I. INTRODUCTION

Globalization is a multidimensional and multidirectional process of this economic epoch. It is a process of integrating different flows such as capital, trade, information, labor, and technique, etc. [1]. Past globalization was a less economical process. This epoch of globalization is causing changes in society's nature, which can bring opportunities and risks. This economic globalization forced us to think about a healthy future environment and future generations [2]. The cultural, technological, traditional, and economic set-up of any society is co-evolve with environmental variables that affect the natural resource- dynamic of the future. Local ecosystems constitute a critical link of socio-ecological dynamics because the population of that area derives a large part of their daily needs (Crop, fuel, fodder, and food) and income from their local ecosystem [3]. Changes in a landscape due to globalization affect the ecological make-up of that area. Biodiversity is (a vital ecological aspect) which is also directly consequenced by changes in the landscape. Alternative pathways of stress transmission are always significant because they help minimize stress in reverse conditions. These alternative pathways depend on the biodiversity of that ecosystem. Landscape changes of any area negatively impact biodiversity; therefore, alternative ways can disturb by landscape changes. Biodiversity is the visual beauty of our planet, which plays a fundamental role in maintaining ecological balance and regional ecosystem; we can gain millennium development goals [4]. Its biotic and abiotic components strengthen an ecosystem's resilience, but new globalization is reducing the strength of the ecosystem; this is because strength depends on biodiversity. Generally, ecosystems are constantly changing and adapting to new conditions due to resilience [5] and [6]. Biodiversity is a kind of natural shock absorbers and a fundamental force of resilience ability. This key force of resilience faces a rapid decline because local traditional and cultural diversity face rapid erosion [7].

Aquatic bodies are an essential ecosystem because a significant team of biodiversity agents of bionetwork spends their entire life or a necessary part of their life-cycle in these water bodies. These habitats also provide a platform for nesting, nursery, and resting stations for many migration birds. These aquatic bodies can control food & suspended nutrients, and therefore, these bodies are helpful in the enrichment of underwater assets of biodiversity. Wetlands are well known for their flora and fauna. The diversity and abundance of plant and animal species. In different aquatic ecosystems by earlier workers [8], [9], [10] and [11]. Globally forested wetlands occupy more than 30000000 ha [12]. These wetlands are vital habitats that harbor high floral & faunal biodiversity [13]. Tropical peat swamp forests are a unique ecosystem is the most extensive in Southeast Asia, where logging, burning, urbanisation and land conversion are main threatening pressure for biodiversity conservation [14].

Banswara is the southernmost district of Rajasthan State. It is bounded by Udaipur and Chittorgarh district in the north and northeast respectively, by Dungarpur district in the west and by M.P. in east –southeast while by Gujrat state in the south-west. The hills are mainly scattered in the northeast and southern part of the district, which belongs to the Aravali range. Mahi, Anas, Eru, Haran, Chap. Banswara, Ghatol, Garhi,

Kushalgarh, Bagidora are five main forest ranges in Banswara district. This district is chiefly inhabited by an ethnic population (Bhil, Garasia, and Meena).

II. MATERIALS AND METHODS

The present study was carried out in the village Chkclipuna cluster of Bagidura Range of Banswara Forest Division. This comes under sub tehsil Anandpuri and panchayat Samiti Chikliteja. This study is based on fields, site observations, and views of some viewers, villagers. The information and data were collected through discussions with members of the Forest Department of the related area. Some data are also managed through secondary sources; these include literature reviews, reports, and associated department records.

III. OBSERVATIONS

Assets of provincial biodiversity in the form of flora bio-network and fauna bionetwork of the study area were observed, shown in Tables 1 to 3.

IV. RESULT AND DISCUSSION

The Forest of the study area shows richness in flora and fauna. Quite a lot of bird calls were also noticed in the study area. Local ponds provide an excellent gathering place to water birds and other vital food web links and food chains. The bamboo plantation of the study area provides breeding and feeding ground to many resident and migrant birds. The above results were corroborant with earlier workers of the same field. The history of human civilization and communities worldwide shows the close links between Forest, flora, fauna, water and other natural resources and people these resources have a great deal of socioeconomic interaction [15]. Globalization industrialization shows negative and positive impacts on biodiversity because some projects and planes of international and national environmental problems of globalization positively impact local networks, such as J.F.M., programs of samajic vaniki, watershed projects, and some other strategies of water harvesting (check dam, ponds, reservoir, etc.) and water conservation. Wildlife conservation through projects, planning, and legislation is the safety measure of bionetwork on our planet. Villagers of Narukheda are busy socioeconomic harmony with their forest area [16]. The biodiversity of Borapada was appraisable, and the Forest of this area shows the richness of medicinal plants [17].

V. CONCLUSION

In the study area potential of the network is very good. Still, there is a need for conservative strategies and establishment of scientific study units in this area in this epoch of globalization.

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TABLE- 1 FLORAL BIONETWORK

| S. No. | FAMILY | BOTANICAL NAME |
|--------|------------------|--------------------------------|
| 1. | Mimosaceae | <i>A. catechu</i> |
| 2. | Mimosaceae | <i>A. nilotica</i> |
| 3. | Mimosaceae | <i>A. pinnata</i> |
| 4. | Malvaceae | <i>Adansonia digitata</i> |
| 5. | Rutaceae | <i>Aegle marmelos</i> |
| 6. | Cornaceae | <i>Alangium salvifolium</i> |
| 7. | Malvaceae | <i>Bombax ceiba</i> |
| 8. | Palmaceae | <i>Borassus flabellifer</i> |
| 9. | Papilionaceae | <i>Butea monosperma</i> |
| 10. | Capparaceae | <i>Capparis decidua Forsk</i> |
| 11. | Samydaceae | <i>Casearia tomentosa</i> |
| 12. | Burseraceae | <i>Commiphora wightii</i> |
| 13. | Sapotaceae | <i>Diospyros montana</i> |
| 14. | Bambuseae | <i>Dendrocalamus strictus</i> |
| 15. | Myrtaceae | <i>Eugenia operculata</i> |
| 16. | Liliaceae | <i>Aloe vera</i> |
| 17. | Papaveraceae | <i>Argemone maxicana</i> |
| 18. | Scrophulariaceae | <i>Bacopa monnieri</i> |
| 19. | Acanthaceae | <i>Andrographis paniculata</i> |
| 20. | Euphorbiaceae | <i>Jatropha curcas</i> |
| 21. | Cactaceae | <i>Opuntia dilleanii</i> |
| 22. | Solanaceae | <i>Solanum nigrum</i> |
| 23. | Menispermaceae | <i>Tinospora cordifolia</i> |
| 24. | Zygophyllaceae | <i>Tribulus terrestris</i> |
| 25. | Rhamnaceae | <i>Zizyphus oenoplia</i> |
| 26. | Loranthaceae | <i>Viscum orientale</i> |
| 27. | Acanthaceae | <i>Barleria cristata</i> |
| 28. | Euphorbiaceae | <i>Securinega leucopyrus</i> |
| 29. | Plumbaginaceae | <i>Vogelia indica</i> |

TABLE-2 FAUNAL BIONETWORK

| S.No. | COMMON NAME | ZOOLOGICAL NAME |
|-------|-----------------------------|---------------------------------|
| 1. | Common Langur | <i>Presbytis entellus</i> |
| 2. | Baghera | <i>Panthera pardus</i> |
| 3. | Jungle Cat | <i>Felis chaus</i> |
| 4. | Common Mongoose | <i>Herpestes edwardsi</i> |
| 5. | Ruddy Mongoose | <i>Herpestes smithi</i> |
| 6. | Jackal | <i>Canis aureus</i> |
| 7. | Indian Fox | <i>Vulpes bengalensis</i> |
| 8. | Striped Hyaena | <i>Hyaena hyaena</i> |
| 9. | Blue bull | <i>Boselaphus tragocamelus</i> |
| 10. | Indian Porcupine | <i>Hystrix indica</i> |
| 11. | Indian Hare | <i>Lepus nigricollis</i> |
| 12. | Large brown Flying Squirrel | <i>Funambulus phillipensis</i> |
| 13. | Indian False Vampire | <i>Megaderma lyra</i> |
| 14. | Indian Python | <i>Python molurus</i> |
| 15. | John Earth Boa | <i>Eryx johnii</i> |
| 16. | Termite gecko | <i>Hemidactylus triedrus</i> |
| 17. | Indian Cobra | <i>Naja naja</i> |
| 18. | Common Garden Lizard | <i>Calotes versicolor</i> |
| 19. | Common Indian Toad | <i>Bufo melanostictus</i> |
| 20. | Marble Toad | <i>Bufo stomatcus</i> |
| 21. | Indian Cricket Frog | <i>Rana limroetaris</i> |
| 22. | Indian Bull Frog | <i>Rana tigrina</i> |
| 23. | Skittering Frog | <i>Euphlyctis cyanophlyctis</i> |
| 24. | Peacock | <i>Pavo cristatus</i> |
| 25. | White breasted King fisher | <i>Halcyon smyrnensis</i> |
| 26. | Magpie Robin | <i>Copsychus saularis</i> |
| 27. | Grey Heron | <i>Ardea cinerea</i> |
| 28. | Baya Weaver | <i>Ploceus philippinus</i> |

TABLE - 3 AQUATIC FAUNAL BIONETWORK

| S.No. | Phylum | Zoological Name |
|-------|-----------------|---|
| 1 | Protozoa | <i>Amoeba, Ceratium, Vorticella</i> |
| 2 | Platyhelminthes | <i>Planaria, Miracidium</i> |
| 3 | Arthropoda | <i>Daphnia, Cyclops, Dragonfly, Mosquito larva, Amphipod, Lacatrephes, Notonecta, Panatra</i> |
| 4 | Fish | <i>Catla catla, Labio rohita, P. nicto, M. singnata</i> |