ACHANAKMAR AMARKANTAK BIOSPHERE RESERVE: A MAJOR SOURCE OF PLANT HABITATS

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ABSTRACT: The Achanakmar-Amarkantak Biosphere Reserve is located at the junction of hill ranges, with topography ranging from big mountains, deep valleys and grasslands. In this paper we represent very useful information on Achanakmar Amarkantak Biosphere reserve with its geographical area including its climate. Studied shows floristic diversity in AABR. We have explored major habitats with its different medicinal, traditional plants and economical plants. This paper will be helpful for the science researchers who are in research area of Achanakmar Amarkantak Biosphere reserve location.

Keyword: Biosphere reserve, Flora, Habitats, Bio diversity, Medicinal Plants.

INTRODUCTION

Biosphere Reserves (BR) are living examples of social cohesion and nature. The Achanakmar-Amarkantak Biosphere Reserve was declared the 14th National Biosphere Reserve of India by the Government of India on March 30, 2005. It extends from the Maikal groups to the Vindhyan and Satpura mountain ranges in Chhattisgarh and Madhya Pradesh Indian states. It lies between latitude similarities 220 15 'to 200 58' North and longitude 810 25'N to 820 5 'East. It falls in the Malayan, Tropical Dry or Deciduou Forest Biome and Deccan Peninsular bio-geographic zone of the country. Its total area is 383551.0 ha. The main area, which falls into the Bilaspur region of Chhattisgarh province (CG), is dense forest with hills and valleys and is spread over an area of 55155 ha. It is protected from conserving its wildlife resources due to its former Wildlife Sanctuary status. The buffer and transformation areas, consisting of 205898 ha, fall into the Bilaspur region of Chhattisgarh province and 122494 ha in Dindori and Anuppur districts of Madhya Pradesh (MP). The landscape varies from the rice fields on the plains of Bilaspur and Anuppur and to the cattle herds in the Dindori region to the Maikal range in Satpura. About 60 kms from its capital Bilaspur. It is well connected by the road from Bilaspur and Raipur of Chhattisgarh and Anuppur and Shahdol of Madhya Pradesh. Plant or forest species and subtypes encountered in BR are: Northern Indian Tropical Moist Deciduous Forests, Northern Indian Forest Wetlands contain Moist Peninsular sal forestmoist high sal forest, low sal forest wetland, saline forest and Northern Indian Wetlands Forests Subspecies of Mixed Wetlands; Tropical Dry Deciduous Forests Dry Peninsular sal Forests and Northern Forests Forests. The current BR includes biodiversity such as sal forest, mixed forest, degraded forest and agro-forestry ecosystems. The emergence of a wide variety of flora and fauna as a result of local barriers, various small and large ecosystems have evolved or evolved, hydrological and mineral cycling, climate change, etc., are special features of the area, with regional significance and global significance. There are many important factors, in which intensive research efforts can reveal the global significance of human interest. The BR water supply system consists of three major rivers from the buffer area, viz. the Narmada River, which flows westward; the Johilla and Sone rivers flow north of the BR. This is a water test. The Khemba Dam on the

Maniari River faces southwest of the BR. Many annual streams and rivers meet the needs of residents and wildlife. The area is home to numerous tributaries that help to rehabilitate the diverse flora and fauna of the area.

MATERIAL AND METHOD

Site Study: We have visited the required study site for our research work where we have studied about location and geography

Location: The Achanakmar-Amarkantak Biosphere Reserve is an Indian reserve extending to the Madhya Pradesh and Chhattisgarh regions, covering an area of 383,551 hectares (3835.51 km2). The park is located in the northern part of Bio-Geographic zone 6 and the province of Bio-Geographic 6 A (Deccan peninsula and Central highlands). About 68.1% of the park is located in the Bilaspur district of Chhattisgarh. Other major parts of the park are in Anuppur (16.20%) and Dindori (15.70%) districts of Madhya Pradesh. The protected area of Achanakmar Wildlife Sanctuary is located in the Bilaspur region within the Biosphere Reserve.

Geography: The bag of achanakmar amarkantak biosphere is divided into basic and changing areas The 551.55 sqkm base site in chhattishgarh and the amarkantak Wildlife sanctuary is located in a large area. The buffer area and transition area are 3284.36 sqkm. The bathhouse is still distributed in two districts; 1224.98 km2 is located in Madhya Pradesh and the remaining 2059.38 km2 is in Chhattisgarh. The geographical location determined by the biosphere reserve varies in the lowland rice fields of Bilaspur and Anuppur and in the cattle herds in Dindori to the Maikal hills of Satpuras. The topography of the Amarkantak mountains is bauxite. Many streams and Nallas flow into the park, many of which never stop. The Achanakmar-Amarkantak Biosphere Reserve is considered to be one of India's largest freshwater lakes. It separates rivers along the Arabian Sea and the Bay of Bengal. The park is also the source of three major river systems: the Narmada, the Johilla and the Son River. The Maikal Mountains and Vindhya and Satpura are located within the Achanakmar-Amarkantak Biosphere Reserve.

Climate: The normal rainy weather in the park has three different seasons: Summer (March-June), Rain (July-October), and winter (November-February). The months of May and June are usually the hottest in the park, with the coolest months being December and January. The southwest rain brings rain to the area during the months of June to September.

OBJECTIVES OF AABR

1. Conserve the diversity and integrity of flora and fauna within nature.

2. Protecting the genetic diversity of species on the basis of their continued evolution.

3. Ensuring the sustainable use of natural resources through the most appropriate technology to improve the economic well-being of local people.

4. Provide human support, including scientists and academics, to conduct research and share information on conservation and information exchange at national and international levels.

5. To educate and provide training to local residents so that they can be tolerant economic growth

FLORISTIC DIVERSITY

Algae: Batrachospermum sp, Coleochaete sp.Chara sp.Ulothrix sp.Volvox sp.Voucheria sp.Zygnema sp

Fungi (16 family, 36 genera 43 species) Absidia butleri Lendner, Absidia butleri Lichth, Absidia ramosa (Lindl.) Lendner, Absidia spinosa Lendner, Acaulospora delicata C. Walker, CMPfeiff. & Bloss, Acaulospora scrobiculata, Trappe, Agaricus sp., Macrolepiota dolichaula Singer,

Lichen (22 family, 42 genera 120 species) Arthothelium abrorme (Ach.) Mull. Arg. A. pycnocarpoides Mull. Arg Cryptothecia sp. Bacidia millegrana (Taylor) Mull. Arg. Collema ryssoleum (Tuck.) A. Schneider

Bryophyte (12 family, 21 genera 28 species) Porella sp.Marchantia nepalensis, Cyathodium sp., Targionia sp., Riccia billardieri

Pteridophyta (17 family, 25 genera 35 species) Adiantum capillus-veneris L., Dryopteris sparsa, Tectaria polymorpha, Azolla pinnata R. Br, Alsophila balakrishanii, Sphenomeris chinensis (L.)

Gymnosperms (2 family, 2 genera 2 species) Araucaria bidwillii Hook, Pinus elliotti Engelm., Taxodium sp., Thuja orientalis L.

Angiosperms (134 family, 571 genera 1011 species) Adhatoda zeylanica, Barleria cristata L., Barleria prionitis L., Dipteracanthus prostratus, Eranthemum purpurascens

RESULT AND DISCUSSION:

Major Habitats

Name	Geography	Location	Example
TropicalMixed Deciduous forest	hills with gentle slopes and valleys	Laxmandhara, Gumaghati, Kabir, Karanjia, Chaparwa and Lamni	*Ailanthus excelsa*, *Anogeissus latifolia*, *Azadirachta indica*, *Bauhinia purpurea*, *Bombax ceiba*, *Bridelia retusa*, *Buchanania lanzan*, *Butea monosperma*, *Careya arborea*, *Cassia fistula*, *Cassine glauca*, *Cordia dichotoma*
Tropical moist deciduous forest	Mixed forests	Amarkantak, Jaleshwar, Kapildhara, Rajendragram and Antaria	*Aegle marmelos*, *Anogeissus latifolia*, *Bambusa arundinacea*, *Bauhinia purpurea*, *B. vahlii*, *Bridelia retusa*, *Butea monosperma*, *Careya arborea*, *Dillenia pentagyna*,
Shrub and thorn forests	hill with deep slopes and ridges	Achanakmar, Jalda, Chaparwa, Kuba, Kota, Bokrakachar	*Balanites aegyptiaca*, *Butea monosperma*, *Calotropis gigantea*, *Calotropis procera*, *Carissa opaca*, *Euphorbia neriifolia*, *Mimosa himalayana*
Ravinous vegetation	bank of river	Amarkantak, Johilla at Jaleshwar, Son at Sonemuda	*Carissa opaca*, *Euphorbia neriifolia*, *Flacourtia indica*, *Mallotus philippensis*,

			Mimosa himalayana, Prosopis juliflora, Vitex negundo
Grasslands	plain grounds	Gadasarai, Pendra, Karanjia, Jagatpur, Gorakhpur and Kota	*Alloteropsis cimicina, Apluda mutica, Bothriochloa pertusa, Brachiaria ramosa, Cenchrus ciliaris, Chloris dolichostachya, Cynodon dactylon, Dichanthium annulatum, Rottboellia exaltata, Saccharum spontaneum, Setaria glauca, Sorghum halepense*
Aquatic vegetation	artificial areas	Amarkantak, Johilla at Jaleshwar, Son at Sonemuda	*Echinochloa colona, Eleocharis dulcis, E. geniculata, Eriocaulon cinereum, Fimbristylis tetragona, Hoppea dichotoma, Hygrophila auriculata, Ischaemum rugosum, Ludwigia octovalvis,*

ECONOMIC PLANTS

The Achanakmar-Amarkantak Biosphere Reserve (AABR) is rich in economically viable plants such as plants, timber, medicinal, ornamental and ethnobotany (Bondya et al. 2006; Shukla et al. 2007). Sustainable use of these species can lead to the social and economic growth of rural people living in the area. Many wild plants that occur in the area are useful for various aspects of the lives of ordinary people. The diversity of plant species found in the Biosphere Reserve is used for other purposes

Agricultural Implement : *Albizia procera*, Dye *Acacia catechu Agave cantula*, Fibre *Albizia odoratissima*, Fodder *Albizia odoratissima*, Fuel *Albizia lebbeck*, Gum *Aegle marmelo, Acacia nilotica* subsp. *indica*, Timber *Acacia catechu*, Medicinal *Abrus precatorius, Abutilon indicum,*
Wild edible *Abelmoschus manihot*

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CONCLISUION

In the present scenario, it is found that achanakmar tiger reserve is rich in plant diversity. It is a well-known place for it floral wealth including medicinal plant. Biosphere has many important plants which require preservation. Baiga and Vaidya also called traditional healers are aware about the medicinal properties uses the plants for healing. We have accessed that some of the medicinal plants are to be preserved. Present study shows that the disforestation is also a challenge for the preservation of medicinal plants. In achanakmar tiger reserve so many species are yet to be explored. Studied shows the various types of forest like Tropical mixed and moist deciduous forest, Shrub and thorn forests, Ravinous vegetation, grasslands. Achanakmar is great source of flora and fauna.

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