

Environment and Forest Resources of Rajnandgaon

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Abstract:- Resources are a free gift given by nature. The existence of all living beings is linked to it. All those biotic and abiotic elements of the environment, whose use capability is present in humans, are called resources. In this way, humans have a close relationship with forest resources and environment, directly and indirectly. Rajnandgaon district in Chhattisgarh has forests that cover over 11.9% of the district's total area. The forests provide wood, fruit, and other resources to the local population, and also help to fight climate change. The forests in Rajnandgaon include the Rajnandgaon Forest Division, Khairagarh Forest Division and Panabaras Project Division. The forests provide wood, fruit, bushmeat, and medicines. The forests also provide environmental services, such as capturing carbon and protecting soils. The forests support the local tribal population, who collect leaves from trees like tamarind, amla, mahua, mango, and custard apple. The forests in Rajnandgaon support the local tribal population, who collect leaves from trees like tamarind, amla, mahua, mango, and custard apple. The tribal people use these leaves to make herbal products for small industries. The contraction of forest area in Rajnandgaon has affected the local climate and environment. Trees capture atmospheric carbon and protect soils, which are two essential services for fighting climate change.

Keywords:- Organisms, environmental protection, sex ratio, Agriculture dominated, village forest committee, high-tech plantation, excellent afforestation etc.

Introduction:- Forest is the foundation of climatology and it has a special contribution in making the environment balanced, beautiful and charming. Forest and environment conservation is the need of the hour. Forest resources make the air pollution-free and prevent soil erosion.

Aim and Hypothesis of the Study:-

- 01.** To study the components of environmental balance.
- 02.** To study the relationship between forest resources and environment in Rajnandgaon District.
- 03.** To find out the percentage of forest in the total geographical area.
- 04.** To assess the direct and indirect benefits of forest resources.
- 05.** To clarify the imbalance in forest resources and environment due to urban development and other infrastructure construction work being carried out in the district.

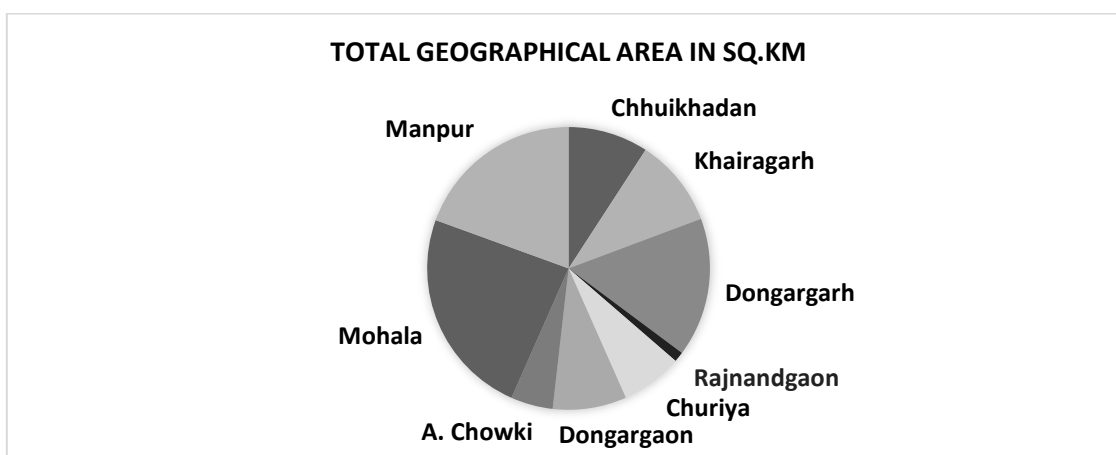
Source of data and methodology:- The presented research paper is descriptive and analytical. Secondary data has been used in this. Secondary data has been collected from the District Statistical Office and District Forest Office. The percentage value of the collected data has been found out and displayed through a shading diagram.

Study area:- The north-eastern part of Chhattisgarh, the 26th state of India. There are 9 tehsils, 8 towns and 1653 villages in the district. Rajnandgaon district is spread over an area of 8022.55 sq. km between 20°70' north to 22°29' north latitude and 82°23' east to 81°29' east longitude. According to 2011, the population here is 1537133. Sex ratio of Rajnandgaon district is 1015. Rajnandgaon is a country with a population of 1015. From administrative point of view, there are 09 tehsils, 08 towns and 1653 villages in Rajnandgaon district.

Distribution of forests:- The distribution of forests in Rajnandgaon district is uneven, the main reason for which is the topographic structure, soil type, rainfall etc. The distribution of forests in Rajnandgaon district is shown tehsil wise -

Table no. – 01

S.No	Tehsils	Total Geographical Area (Sq. Km.)	Forest area (sq.km.)	Percentage of forest area in total geographical area
1.	Chhuikhadan	742-89	202-81	27-30
2.	Khairagarh	805-32	242-74	30-14
3.	Dongargarh	765-53	362-18	47-31
4.	Rajnandgaon	742-65	25-47	3-43
5.	Chhuriya	800-19	167-26	20-90
6.	Dongargaon	412-49	103-54	25-10
7.	Ambagarh Chowki	547-47	78-55	14-34
8.	Mohla	701-63	499-79	71-23
9.	Manpur	896-19	518-92	57-90
Total		6414-36	2201-26	34-31
Reserved Forest		943-17		
Protected Forest		665-02		



1. High forest area (more than 40%): - It includes those tehsils of the district where the percentage of forests in the total geographical area is more than 40%. It includes Dongargarh (47.31%), Mohla (71.23%) and Manpur (57.90%) tehsils. More forests than the district average are found in these tehsils. These forests have abundance of trees like teak, saja, bija, mahua, karra, bamboo, landia etc. These forests have high economic importance. The environment is balanced.

2. Medium forest area (20%-40%): - A total of 3 tehsils of the district come under this. The distribution of forests in the total geographical area is between 20% to 40%. Chhuikhadan (27.30%), Khairagarh (30.14%) and Dongargaon (25.10%) tehsils are included. These tehsils have less forests than the district average. Due to

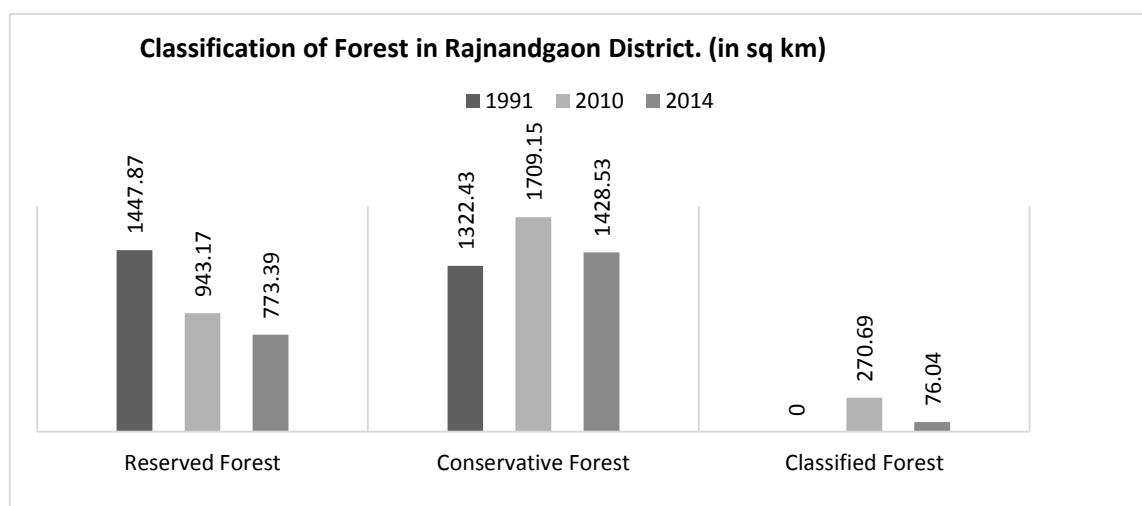
agriculture dominated area and urbanization the expansion of forests is less in these tehsils. There is a need for conservation of forests and tree plantation here, so that forests can expand and the environment can be balanced.

3. Tehsils of the district with less forest area (less than 20%): - Tehsils of the district where distribution of forests is less than 20% of the total geographical area. This includes Rajnandgaon (3.43%), Chhuriya (20.90%) and Ambagarh Chowki (14.34%). The main reason for this is industrial development and urbanization in Rajnandgaon, and more expansion of agricultural land in Ambagarh Chowki and Chhuriya. There is a need to protect forests in these tehsils under social forestry program and to conserve forest resources by spreading naturalistic education.

Classification of forests in Rajnandgaon district (in square km).

Table no. -2

S.No.	Classification	Forest area (in square km)		
		1991	2010	2014
1.	Reserved Forest	1444-87	943-17	773-39
2.	Protected Forest	1322-43	1709-15	1428-53
3.	Unclassified	&	270-69	76-04
Total		2770-3	2923-01	2277-96



Reserved forests are managed in a systematic manner, which is important from an economic point of view. They are placed in the category of protected forests from the point of view of soil erosion, flood prevention, climate medicine and wood supply. Many valuable forest products are obtained from this. Cutting wood and animal grazing are prohibited in these. In 1991, the reserved forest in the district was spread over an area of 1447.87 sq. km., but according to the data of 2010 and 2014, there has been a shrinkage in the reserved forest. The shrinkage of forest also affects the climate, soil erosion and the availability of forest produce. Efforts are required to ensure that the reserved forest is not damaged and to increase it.

In Rajnandgaon district, the protected forest area was 1322.43 sq. km in 1991. It was increased in 2010, but in 2014 its area has declined. This shows that there are no strict rules like reserved forests, due to which freedom of cutting wood and grazing has increased. Adequate supervision is required to ensure that the forests are not damaged.

Unclassified forests are basically free forests, but the district administration also charges fees for its use. And it is also given on contract. This forest has also declined in 2014 as compared to 2010.

From the management point of view, the district has been divided into 2 forest divisions, Rajnandgaon and Khairagarh. Trees like teak, sal, bass, karra, mahua, kauha, dhaura etc. are found in these forest divisions.

The natural balance has been disturbed due to the decrease in forest area in the modern era due to population, industry and agricultural expansion. Air, land and water are getting polluted due to industrialization and the existence of human civilization is in danger. Forest resources are not just natural wealth. But it is essential in building a relationship between man and environment. In many tehsils of Rajnandgaon district, the area of forest has gone down to less than 20%. Whereas scientists believe that there should be 33% forest for environmental balance. Although the average of the district is 34%, it is necessary to increase this area further while protecting the forest resources of the district.

Suggestion:-

01. Control of illegal logging.
02. Control of uncontrolled grazing in forests.
03. Rural women/men should together form a village forest committee/forest protection committee and protect forests from fire, illegal felling, uncontrolled grazing and encroachment through joint forest management.
04. Harness forest resources appropriately so that future generations can benefit from them.
05. Awareness campaign should be run for tree plantation on ponds, roads and private lands.
06. Villagers need to be made aware about their role in forest conservation, renewal and development.
07. The Forest Committee should publicise the Forest Festival with appropriate posters, songs and exhibitions and encourage rural youth.

Work is being done to increase forest resources by implementing schemes run by Chhattisgarh State Government like improvement of degraded forests, Rural development program, forest development program, high-tech plantation, excellent afforestation district level award scheme, Indira Saheli Hareli schemes, yet this situation cannot be considered satisfactory. Increase in forest resources is necessary for a balanced environment.

Reference Books:-

1. Nistar Magazine Year 2017 Rajnandgaon Forest Division, Rajnandgaon (Chhattisgarh).
2. District Statistics Handbook, Rajnandgaon (Chhattisgarh) [1991, 2010, 2014].
3. Ecological Development and Environmental Geography P.S. Negi, Rastogi Publication, Meerut.
4. Resource and Environmental Geography Gautam and Shivanand, Ramprasad and Sons, Agra 2008.
5. Resources and Environment Dr. Alka Gautam Sharda Book House, Allahabad.
6. Educational Wave National Research Journal, October December 2011.

7. Environmental Geography Harish Kumar Khatri, Kailash Pustaka Sadan Meepal.
8. पर्यावरण भूगोल – अरुण रघुवंशी एण्ड चंद्रलेखा – म.प्र. हिन्दी ग्रंथ अकादमी, भोपाल।