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2020 Edition

# Rajasthan

## Environment

Forest | Wildlife | Climate Change



Book by RajRAS

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# *Index*

Basic Concepts: .....	0
Environment Impact Assessment .....	1
Environment Governance.....	
Important Acts & Rules .....	
Rajasthan Environment Policy 2010.....	
Environment Conservation .....	
Eco-Tourism in Rajasthan .....	
Rajasthan Eco-Tourism Policy 2010 .....	
Forests in Rajasthan	
Forests: Introduction.....	
Administrative Classification .....	
Types of Forests .....	
State Forest Policy 2010 .....	
Sacred Groves in Rajasthan .....	
Wildlife of Rajasthan	
Wildlife: Introduction.....	
Endangered Species .....	

Great Indian Bustard .....	
Tigers in Rajasthan .....	
Leopard.....	
Sloth Bear .....	
District Mascots of Rajasthan .....	
Wildlife Protected Areas of Rajasthan .....	
National Parks in Rajasthan.....	
Wildlife Sanctuaries in Rajasthan .....	
Conservation Reserves in Rajasthan .....	
Wetlands in Rajasthan.....	
Environmental Concerns in Rajasthan	
Climate Change in Rajasthan .....	
Desertification & Land Degradation.....	
Air-Pollution in Rajasthan.....	
Uranium Contamination in Ground Water.....	
Famines and droughts .....	
Floods in Rajasthan .....	
Forest Fires in Rajasthan .....	
Human Wildlife Conflict in Rajasthan .....	

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## Basic Concepts:

*The Environment (Protection) Act, 1986 defines environment as “environment includes water, air and land and the interrelationship which exists among and between air, water and land and human beings, other living creatures, plants, micro-organism and property”.*

### Environment in Constitution of India

Our constitution, originally, did not contain any direct provision regarding the protection of natural environment. However, after the United Nations Conference on Human Environment, held in Stockholm in 1972. Indian constitution was amended to include protection of the environment as a constitutional mandate.

*In 1976, the 42nd amendment of Constitution, incorporated protection of wildlife and forests in the Directive Principles. It also included **forests and protection of wild animals** in the Concurrent List – Seventh Schedule (Article 256) of the Constitution.*

The chapter on **fundamental duties** of the Indian Constitution clearly imposes duty on every citizen to protect environment. **Article 51-A (g)**, says that “It shall be duty of every citizen of India to protect and improve the natural environment including forests, lakes, rivers and wild life and to have compassion for living creatures.”

The **Directive principles** under the Indian constitution directed towards ideals of building welfare state. Healthy environment is also one of the elements of welfare state. In particular, **Article 48 -A** of the constitution says that “the state shall endeavor to protect and improve the environment and to safeguard the forests and wild life of the country”.

The Constitution of India under part III guarantees **fundamental rights**, Articles 21, 14 and 19 of this part have been used for environmental protection. The right to live in a healthy environment, as part of

Article 21 of the Constitution was first recognized in the case of Rural Litigation and Entitlement Kendra vs. State, AIR 1988 SC 2187 (Popularly known as Dehradun Quarrying Case).

### Components of Environment

Environment can be defined as the sum total of living and non-living components, influences and events surrounding an organism. The living components are called the biotic **components** while the non-living are called **abiotic** or physical components.

- Biotic Components: Microbes, Plants, Animals (including human beings)
- Abiotic Components: Light (Energy, Radiation), Atmospheric gases and wind, Temperature and heat flow, Water, Gravity, Topography, Geological Substratum, Soil.

Alternatively, Environment can also be defined as consisting of four fundamental components:

- Lithosphere,
- Hydrosphere,
- Atmosphere,
- Biosphere.

### Ecology:

Ecology may be defined as the scientific study of the relationship of living organisms with each other and with their environment.

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## Rajasthan Environment Policy 2010

Rajasthan Environment Policy 2010 identifies the key environmental challenges and outlines strategies and actions to address them. The document is based on an analysis of the state-specific issues, the natural resource constraints from which these emerge, and their overall implications for the [environment](#).

Above all, it is intended to be a guide to action, and accordingly provides inputs for a [State Environment Mission](#), supported by Task Forces with specific agenda and action plan, and institutional arrangements for implementation of the proposed measures.

### Key Environmental Challenges in Rajasthan

Rajasthan faces several environmental challenges that it must address to ensure continued economic growth that is sustainable and equitable. These include:

- Increasing demand for water.
- Mineral reserves in forest areas which the forest policy has restricted from being exploited.
- Abatement of pollution in the face of industrialization and rapid urban growth.
- Population growth and the continual flow of migrants to the cities.
- Strike a balance between the exploitation of forests for products of economic value (such as food, medicines, timber), and conservation efforts which seek to maintain the natural processes that sustain biodiversity.
- Strategy for providing cooking and lighting energy for the rural population.
- Development of the tourism industry also poses a challenge, as it exerts considerable pressure on civic amenities (including water and sanitation and transport), land use, wildlife and forests, and the socio-economic fabric of the State.
- Climate change is of increasing concern not only at the national level but for the State governments as well.
- The nexus between poverty and environment.

- The environment policy must support research and development activities that promote innovation and provide technological alternatives, as well as insights for policy making and regulation.

### Objectives of Rajasthan Environment Policy 2010

The objectives and principles of the State Environment Policy are the same as those on which the National Environment Policy, 2006 is founded. Broadly, the SEP aims to:

1. **Conserve and Enhance Environmental Resources** by protecting critical ecosystems and natural and man-made heritage, ensuring equitable access to environmental resources for all sections of society, ensuring judicious use of these resources to assure inter-generational equity, and ensuring their efficient use to maximize productivity and minimize environmental degradation.
2. **Assure Environmental Sustainability of Key Economic Sectors** by integrating environmental concerns into policies, plans, programs, and projects for economic and social development, so that these do not erode the very resource base on which they are dependent
3. **Improve Environmental Governance and Build Capacity** by assuring transparency, rationality, accountability, time and cost effectiveness, participation, and regulatory independence in the process of environmental management and regulation. The policy should also ensure higher resource flow for environmental conservation and promote beneficial multi stakeholders partnership.



## Environment Conservation

The Central & State Government has created various organizations that function to conserve the environment and promote sustainable development. In addition to the wildlife protected area programs, there are various programs/ schemes being implemented by these agencies to conserve environment.

### State Symbols

The state government has identified certain state symbols to highlight the importance of these flora & fauna in the state.

#### State Animal of Rajasthan (Wildlife): Chinkara

- Chinkara was declared as State Animal in 1981

#### State Animal of Rajasthan (Livestock): Camel

- [Camel](#) was declared as State Animal is 19 September, 2014
- With this Rajasthan has two State Animals, [Camel](#) was declared as State Animal in Livestock Category.

#### State Bird of Rajasthan: Godawan

- Godawan is Great Indian Bustard (GIB)
- Godawan was declared as State bird in 1981.

#### State Flower of Rajasthan: Rohida

- Rohida (*Tecomella undulata*) is the official state Flower of Rajasthan.
- It was declared as State flower in 1983.
- It is found mainly in Thar Desert, it is also known as Marwar Teak.

### State Tree of Rajasthan

- Khejri (Prosopis Cineraria) is the official tree of Rajasthan State.
- Khejri was declared as State tree in 1981.
- It is also known as Kalp tree Shami, Janti (**शमी, जांटी**) in Rajasthan,
- Its flower is called minjhar (**मींझर**) and fruit is called Sangiri (**सांगरी**).

### Other State Symbols:

- Ghoomar is the official dance of Rajasthan State.
- In 1948, Basketball was declared as the official Game of Rajasthan State.

### National Lake Conservation Plan (NLCP)

Ministry of Environment and Forests has been implementing the National Lake Conservation Plan (NLCP) since 2001 for conservation and management of polluted and degraded lakes in urban and semi-urban areas. The major objectives of NLCP include encouraging and assisting state Governments for sustainable management and conservation of lakes.

### National Lake Conservation Plan (NLCP) in Rajasthan

Under the Centrally Sponsored Scheme of National Lake Conservation Programme, five [lakes of Rajasthan](#):

- Fateh Sagar, Udaipur
- Pichhola, Udaipur
- Ana Sagar, Ajmer
- Pushkar, Ajmer
- Nakki, Mount Abu, Sirohi

have been taken up.

**Updates:**

- Sharing pattern between Central Government and State Government is 60:40 w.e.f. 1st April 2016.
- Implementing agency of this plan is Local Self Government (LSG) Department.

**Celebration of Environmentally Important Days**

<b>February 2</b>	<b>World Wetlands Day</b>
<b>February 27</b>	<b>International Polar Bear Day</b>
<b>February 28</b>	<b>National Science Day</b>
<b>March 3</b>	<b>World Wildlife Day</b>
<b>March 14</b>	<b>International Day of Action for Rivers</b>
<b>March 20</b>	<b>World Sparrow Day</b>
<b>March 21</b>	<b>World Forestry Day, World Planting Day, World Wood Day</b>
<b>March 22</b>	<b>World Water &amp; Sanitation Day</b>
<b>March 23</b>	<b>World Meteorological Day, World Resources Day</b>
<b>April 7</b>	<b>World Health Day</b>
<b>April 10</b>	<b>World Atmosphere Day</b>
<b>April 18</b>	<b>World Heritage Day</b>
<b>April 22</b>	<b>World Earth Day</b>
<b>May 3</b>	<b>International Energy Day</b>
<b>May 8</b>	<b>World Migratory Bird Day</b>

<b>May 11</b>	National Technology Day
<b>May 14</b>	Endemic Bird Day
<b>May 22</b>	World Biodiversity Day
<b>May 23</b>	World Turtle Day

<b>June 5</b>	<b><u>World Environment Day</u></b>
<b>June 8</b>	World Ocean Day
<b>June 9</b>	Coral Triangle Day
<b>June 15</b>	Global Wind Day
<b>June 17</b>	World Day to Combat Desertification and Drought

<b>July 1 – July 7</b>	<b>Van Mahotsav Saptah</b>
<b>July 3</b>	World Seabird Day
<b>July 11</b>	World Population Day
<b>July 26</b>	International Mangrove Day
<b>July 29</b>	International Tiger Day

<b>August 10</b>	<b>World Lion Day</b>
<b>August 12</b>	World Elephant Day
<b>August 22</b>	Honey Bee Day

<b>September 8</b>	<b>World Cleanup Day</b>
<b>September 16</b>	World Ozone Day
<b>September 18</b>	World Water Monitoring Day
<b>September 21</b>	Zero Emissions Day

September 26	World Environmental Health Day
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October 1 – Oct 7	Wildlife Week
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October 3	World Nature Day, World Habitat Day
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October 4	World Animal Day
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October 6	World Wildlife Day
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October 24	International Day of Climate Action
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November 6	International Day for Preventing the Exploitation of the Environment in War and Armed Conflict
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November 12	World Birds Day
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November 14	World Energy Conservation Day
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December 5	World Soil Day
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December 11	International Mountain Day
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December 14	National Energy Conservation Day
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## Eco-Tourism in Rajasthan

Rajasthan has established itself as a significant tourist destination on the domestic as well as international tourist map. The state is known for its diversity in terms of natural resources, cultural heritage, historical as well as archaeological wonders and rare wild life. Consequently, there is tremendous potential for eco-tourism in Rajasthan.

### What is Eco-Tourism ?

Eco-Tourism has been broadly defined as tourism which is ecologically sustainable. As per international ecotourism society, *Ecotourism is now defined as “responsible travel to natural areas that conserves the environment, sustains the well-being of the local people, and involves interpretation and education”* (TIES, 2015)

### Government Support

Rajasthan Government's emphasis has been on community-based ecotourism, encouraging public-private sector participation, and infrastructural development.

The state government has also identified potential Eco-Tourism Sites in Rajasthan including Sunda Mata temple in Jalore district, Bassi in Chittorgarh district, Kumbhalgarh in Rajsamand district, Hamirgarh and Menal, both in Bhilwara district have been developed as per guidelines of eco-tourism.

### Eco-Tourism Policy

The Government of Rajasthan notified *Rajasthan's Eco-tourism policy* in 2010. This policy has been framed with a view to sensitize the public , government departments, NGOs and others about eco-tourism and for laying down the framework for its growth in the State in a sustainable manner.

*Covered in detail in next chapter*

### Eco-Tourism Circuit

In 2018, department of tourism has submitted the proposal to include

- [Sariska \(Alwar\)](#),
- [Kaila Devi wildlife sanctuary](#) (Karauli),
- [Kumbhalgarh wildlife sanctuary](#) &
- [Todgarh Raoli wildlife sanctuary](#) (Rajsamand),
- [Mount Abu wildlife sanctuary](#) (Sirohi) and
- Jhalana Safari Park (Jaipur)

for development under the centre's eco-circuit theme.

## State Forest Policy 2010

In February 2010, the State Government notified The Rajasthan State Forest Policy 2010 mainly with the objectives of protecting, conserving and developing natural forest. While committing to achieve the National Policy mandate of 33% forest cover, the state policy envisages a realistic target of **20% forest cover**. However, the grassland ecosystem of desert plains besides orans and gauchars together with the tree cover of agro ecosystem can make it closer to the national goal.

The 5% geographical area of existing forests of the state is required to be set apart for conservation of biodiversity including wildlife resources in the state as per this policy.

### Objectives:

The basic objectives of state forest policy of Rajasthan are as follows:

- Protecting, conserving and developing natural forest in Rajasthan with active participation of local community.
- Increasing the productivity of forests through appropriate management interventions and use of modern technology to meet the needs of present as well as future generations.
- Combating desertification and preventing all kinds of land degradation.
- Conserving floral and natural diversity and gene pool reserve through a network of protected areas.
- Empowering the village communities for sustainable management of forest under join forest management system.
- The principal aim of forest policy is environmental stability and ecological security through increasing vegetate cover, which will lead to reduction in stratospheric temperature, is likely to increase the possibility of rains.

### Principles of Forest Management

The objectives of state forest policy will be achieved by adoption following broad principles:

- Protecting existing forests
- Participation of local communities in forest management.
- Following people centric approach for declaration of wildlife protected areas.



- Drought proofing through afforestation & Pasture development.
- State forest department is custodian of forest resources that belong to people but at the same time has obligation to protect ecosystem.
- Co-ordination with different government departments and institutions.
- Transparent, responsive and accountable forest administration.

## Endangered Species

S.NO	Species Name	Districts
1	Tiger	Sawai Madhopur, Alwar
2	Leopard	All Rajasthan
3	Sloth Bear	Sawai Madhopur, Dholpur, Jalore
4	Common Giant Flying Squirrel	Sita Mata WLS, Pratapgarh   Fulwari ki Naal WLS, Udaipur
5	Three Striped Palm Squirrel	Fulwari ki Naal WLS, Udaipur
6	Smooth Indian Otter	Ghana (Bharatpur), Chambal River
7	Chousingha or Four Horned Antelope	Kumbhalgarh WLS
8	Mouse Deer	Fulwari ki Naal WLS, Udaipur
9	Gangetic Dolphin	Chambal River
10	Caracal	Sariska NP, Alwar   Ranthambore NP, Sawai madhopur
11	Ratel	Sariska NP, Alwar   Ranthambore NP, Sawai madhopur   Pratapgarh
12	Fishing Cat	Ghana (Bharatpur)
13	Rusty Spotted Cat	Sariska NP, Alwar   Sajjangarh WLS, Udaipur
14	Amur Falcon	Mount Abu
15	Brown Cheeked fulvetta	Mount Abu
16	Malabar Whistling Thrush	Mount Abu
17	Indian Yellow Tit	South Rajasthan
18	White Naped Tit	Mid & South Rajasthan

19	Orange Headed Thrush	South Rajasthan
20	Indian Blackbird	South Rajasthan
21	Indian Purple Rumped Sunbird	Udaipur, Banswara
22	Black headed Munia	Ghana(Bharatpur), Udaipur
23	Green Avadavat	Kumbhalgarh, Mount Abu
24	Grey Jungle Fowl	Kumbhalgarh, Todagrah-Raoli, Phulwari & Mount Abu WLS
25	Painted Spurfowl	Vindhyanchal hills & Sariska
26	Aravalli Red Spurfowl	South Rajasthan
27	Siberian Crane	Ghana (Bharatpur)
28	Red Whiskered Bulbul	Mount Abu
29	Great Indian Bustard	National Desert Park, Jaisalmer
30	White Rumped Vulture	All Rajasthan
31	Indian Vulture	South Rajasthan
32	Red-headed Vulture	South-East Rajasthan
33	Slender Racer Snake	Udaipur
34	Dumeril's Black-headed Snake	Khumbhalgarh   Udaipur
35	Green Keelback Snake	South Rajasthan
36	Isaballine	South Rajasthan
37	Ghariyal	Chambal River WLS
38	Common Tree Frog	Bansi, Sita Mata WLS Pratapgarh
39	Giant Wood Spider	Sita Mata WLS, Pratapgarh   Fulwari ki Naal WLS, Udaipur

## Forest Fires in Rajasthan

Forest is one of the most important renewable natural resources and plays a significant role in the human life and environment. In 2017, the maximum number of forest fires were reported in Madhya Pradesh (4,781) followed by Odisha (4,416) and Chhattisgarh (4,373). In the same year, there were 260 recorded incidents of forest fires in Rajasthan. The fire season in the state is from January to June. Peak fire season in the month of May.

### Types of Forest Fires:

Forest fires can be sub grouped into four types depending upon their nature and size:

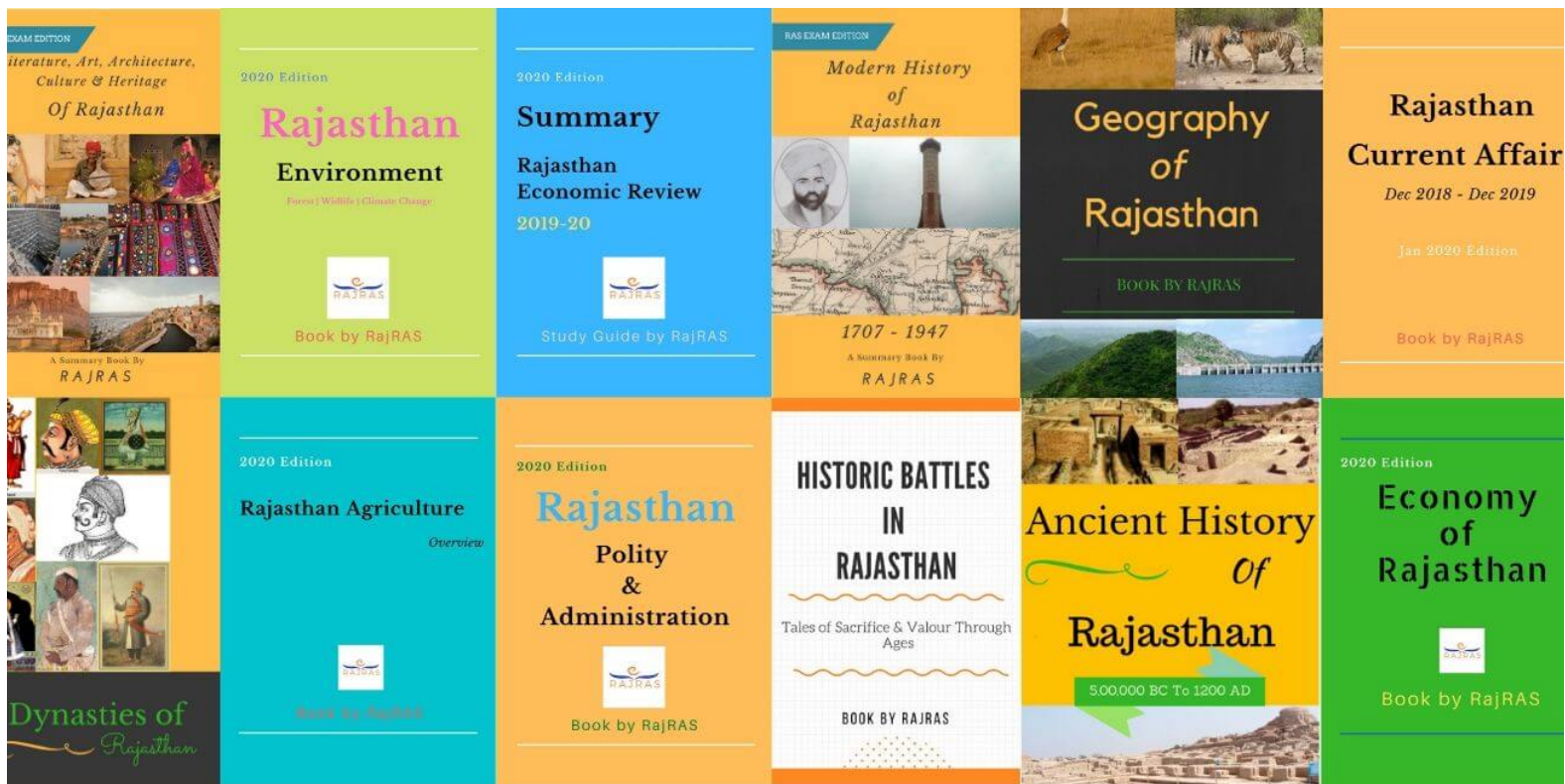
- **Surface Fires:**
  - Surface fire is the most common forest fires that burn undergrowth and dead material along the floor of the forest.
- **Underground Fire**
  - Fires of low intensity, consuming the organic matter beneath and the surface litter of forest floors
- **Ground Fires**
  - Fires in the sub surface organic fuels and organic soils of swamps or bogs.
- **Crown Fires:**
  - Crown fire is the most unpredictable fires that burn the top of trees and spread rapidly by wind.

### Causes of Forest Fires in Rajasthan

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Thank You