



पर्यावरण सूचना प्रणाली, हरियाणा

# ENVIRONMENTAL INFORMATION SYSTEM (ENVIS Hub) HARYANA NEWSLETTER -2021 (State at a Glance)



**ENVIRONMENT & CLIMATE CHANGE DEPARTMENT  
GOVERNMENT OF HARYANA**

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# FROM THE DIRECTOR GENERAL'S DESK



## Message

Today, Haryana state is experiencing rapid economic growth, which must take place without degradation of our Environment. Development that sustains and nourishes the Environment is our primary goal. In order to ensure dignified life style along with healthy environment for the people, the Haryana state is making continuous efforts to keep the state more cleaner with the latest technology and digitalisation, greener by planting maximum trees every year, smoke free by reducing stubble burning and waste management by door to door collection & segregation of waste.

I am glad that ENVIS Centre, Environment & Climate Change Department, Haryana has brought out a first edition of newsletter "ENVIS Hub Newsletter 2021". The Newsletter will be a valuable document for all of us, concerned with the environment and its development of the State.

I hope that the data presented in the newsletter will help all to reflect on the past actions and achievements of the state and trigger a thought process which will promote affirmative action in future to achieve sustainable development based on sound principles of the environment.

**Mr. Shekhar Vidyarthi, IAS**  
**Director General**  
**Directorate Environment & Climate Change**  
**Haryana**

# FROM THE COORDINATOR'S DESK



Dear All,

It is a moment of great proud to share, the first edition of ENVIS hub Haryana Newsletter 2021. Environment and Climate Change Department Haryana has taken a great initiative in the field of Environment by establishing ENVIS Hub. It is an amazing scheme sponsored by Ministry of Environment, Forest & Climate Change, through which the Department will contribute in much better way to save and explore our environmental parameters. Haryana state is committed to preservation and conserve of the Environment. Publication of the “ENVIS Hub Haryana Newsletter 2021” will be a milestone satisfaction to highlights the sustainable development of the state. The first edition of newsletter covers the general geographical scenario of the state included Historical Background, Demography, Physiography, Geology, Climate scenario, Water Resource, Forests etc..

We are extremely pleased to share this newsletter with all and look forward to your feedback and suggestions that are most valuable to us and have at all times guided us in building our successive newsletters. The efforts of all will made our newsletter more functional and educational to its users.

**Dr. R.K. Chauhan**  
**Joint Director-cum-Coordinator ENVIS Hub Haryana**  
**Directorate Environment & Climate Change**  
**Haryana**

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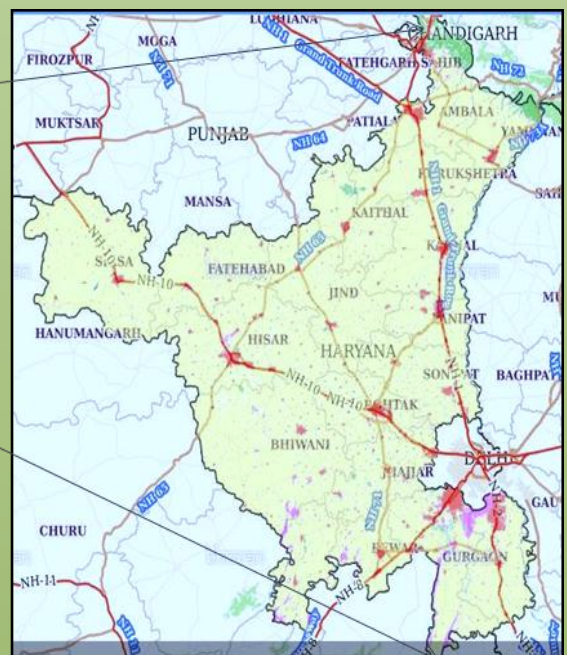
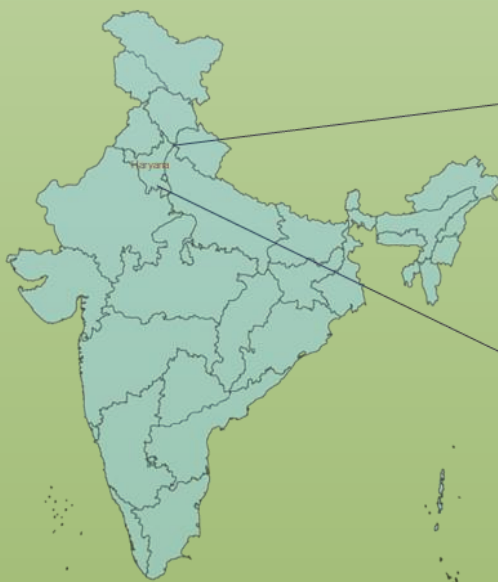
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# 1. Historical Background

The State of Haryana was founded on 1966 when the former state of Punjab was divided into Haryana and the modern Punjab. Delhi, Punjab, Rajasthan, Himachal Pradesh and Uttar Pradesh share the boundaries with the State. The state was a major contributor to the “Harit Kranti”, the green revolution and is a good blend of traditional and modern cultures but with the decadal change in land use, climate change effect on the environment, flora and fauna which may become the Probable threat to sustainable developed state in future. Today, Haryana stands tall with all its accomplishments in agriculture, industrialization and flourishing art and culture. The state is positioned among one of the wealthiest and most economically developed regions in India with the connectivity experiencing the excursion commendable.

## 2. Location

Haryana is located in the Northwest Part of India, Haryana is bounded by Uttar Pradesh in the East, Punjab in the West, Himachal Pradesh in the North and Rajasthan in the South. The National Capital Territory of Delhi is next to Haryana. Haryana is situated between the latitude 27° 39' to 30° 35' North and longitude 74° 28' to 77° 36' East. 14 districts of Haryana fall in National Capital Region. Most of the Haryana is in Plains with the Aravali mountain starting range from here.



### 3. Demography

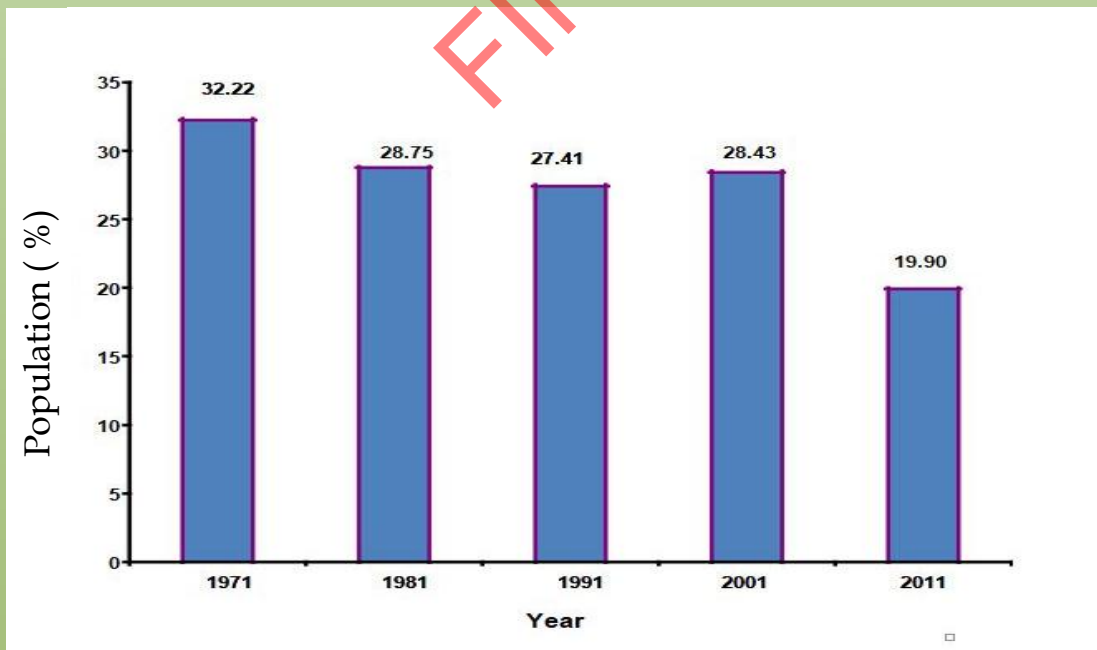
Area	44,212 Sq. Km
Actual Population	25,351,462
Population(Male)	13,494,734
Population(Female)	11,856,728
Total Child Population (0-6 Age)	3,380,721
Male Population (0-6 Age)	1,843,109
Female Population (0-6 Age)	1,537,612
Literacy Rate	75.55 %
Districts	22
Municipal Corporation	10
Blocks	140
Villages	7356



Sources - haryana.gov.in/demography/

#### Decadal Growth Rate of Population in Haryana

Growth rate of population decrease from 32.22 to 19.90% in years 1971 to 2011



The data depicted short fall in the decade growth rate of population decrease from 32.22 to 19.90% in years 1971 to 2011

Sources :-Statistical Abstract 2017-18

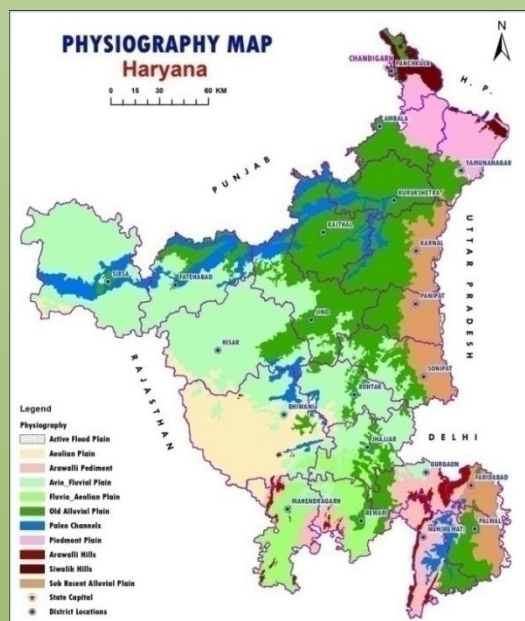
## 4. Physiography

The greater part of Haryana forms the part of Indo-Gangetic plains, with the exception of outer Shiwalik ranges in Amabla district and Aravali ranges in Mahendragarh and Gurugram districts. the entire Haryana is a broad level plain. The general slope of the terrain of Haryana is from to South-West and West with an exception of Bhiwani, Mahendragarh and Gurugram where the slope is towards North. In fact these slope tendencies and topo differences result in formation of a saucer-like depression in the Eastern part of the Rohtak District and Western part of Sonipat District.

The gradient varies from steep to moderately steep in extreme North-East i.e. Shiwalik hills and in the South i.e. outcrop of Aravali hills and it creates problem of soil erosion. In the rest of the area of the state, the gradient is very gentle which makes movement of the surface water sluggish resulting in water logging and flooding.

In major parts of the Haryana plain, the slope is towards South-West and West and the unevenness of the surface is due to the old banks and channels of the streams or due to sand dunes. In sum, the plain is a continuous vast stretch of level to nearly level land with sand billows and rocky surface in the South and South West and piedmont plain and Shiwalik hills in the North and South-East.

1. Shiwalik hills above 400 metres.
2. Sub-montaneous area i.e. piedmont plain between 300 metres to 400 metres.
3. Alluvial plain i.e. Ghaggar-Yamuna plain below 300 metres.
4. Undulating sandy plain.
5. Aravali outliers i.e., rocky hills lying between 300 metres to 600 metres.



Sources:- Haryana State Gazetteer, Volume -II





## 5.2 Geo Tectonic

The State of Haryana falls in three Seismic Zones viz. II, III and IV, creating low to moderate damage risk from earthquakes. Ambala, Sonipat, Rohtak, Karnal, Gurugram, Faridabad, Panipat, Rewari, Panchkula and Yamunanagar Districts lie in Zone IV. The Districts Namely Kurukshetra, Jind, Hisar, Bhiwani, Mahendragarh and Kaithal lie in Zone III, while only Sirsa District lies in Zone II.

The region remains susceptible to earthquakes due to the following faults (Puri and Jain, 2015):

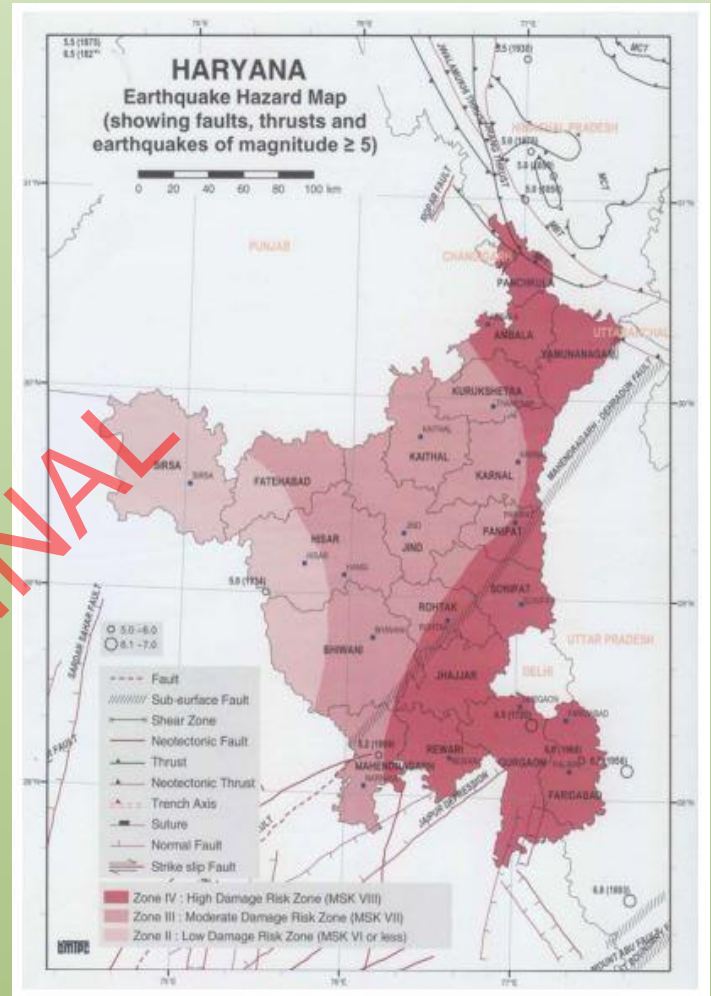
a) **Aravali-Delhi Fold Belt:** It includes Mahendragarh Dehradun Subsurface Fault, Mathura Fault and several major and minor lineaments.

b) **Himalayan Thrust System:** It includes mainly Main Boundary Thrust, Main Crustal Thrust and Jwala Mukhi Thrust along various other tectonic features.

c) **Moradabad Fault.**

d) **Sardar Shahar Fault.**

In the recent past, no major earthquake had hit Haryana but shocks are felt whenever an earthquake occurs in areas of Himalayan Thrust System.



Sources - BMTPC, 2007

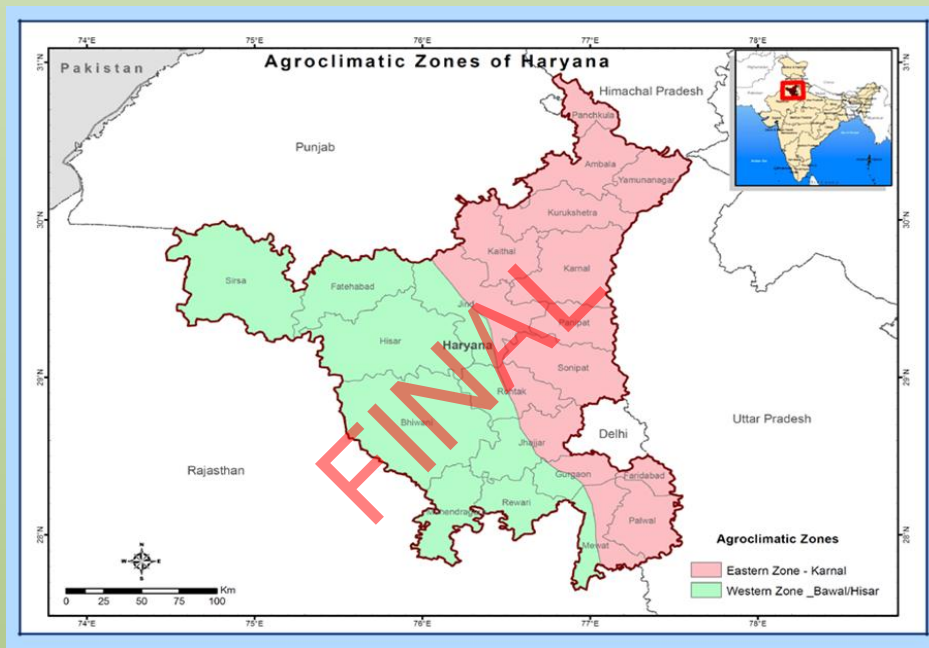
❖ (BIS, 2002)

❖ An earthquake hazard map for Haryana state prepared by Building Materials & Technology Promotion Council (BMTPC, 2007) and printed in Vulnerability Atlas of India

## 6. Climate Scenario of the State

The climate of Haryana is very hot in summer and cold in winters. The hottest months are May and June and the coldest being December and January. Rainfall is varied, with the Shivalik Hills region being the wettest and the Aravali Hills region being the driest.

The temperature falls to the lowest in January and reaches up to 50 °C during the months of May and June. Winter months have average temperatures in the range 3 °C to 9 °C and the summer months temperatures are higher in the range of 48 °C to 35 °C. About 80% of the rainfall occurs in the monsoon season during the months of July and September.



Sources - Haryana State Action Plan

The year is divided into four seasons. The winter season from November to March is followed by summer season from April to June. The period from July to middle of September constitutes the South-West monsoon season and the period from the latter half of September to October forms the post-monsoon period.

Winter prevails over the entire State during the period from November to March and is generally very unpleasant due to biting cold. In this season, a series of Western disturbances affect the climate of the State. In the summer months from April to June, weather is very dry and uncomfortable. The maximum rainfall is 216 cms and the minimum rainfall ranges from 25 to 38 cms.

## 7. Water Resources

### 7.1 Geo-hydrological

On the basis of Geohydrological condition as well as groundwater movement and surface drainage pattern, the entire state is divided into the following basins:-

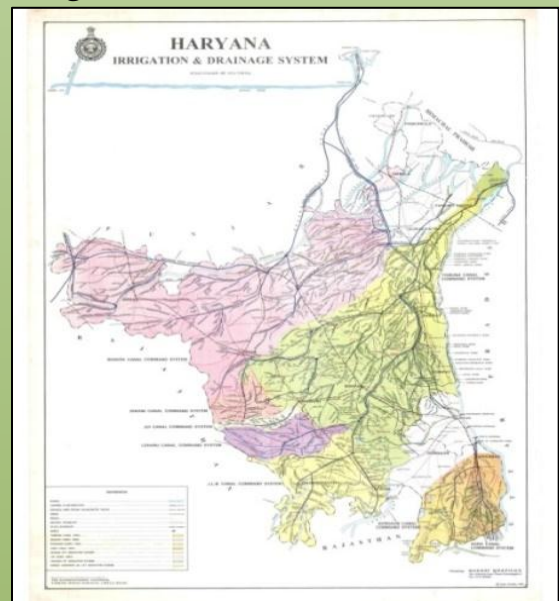
1. Yamuna basin; (a) Upper,(b) Lower
2. Ghaggar Basin; (a) Upper,(b) Lower
3. Inland Alluvial Basin (Chautang and others)
4. Krishnawati Basin
5. Sahibi Basin
6. Landoha Nala Basin
7. Kanti Sub Basin (Loharu Satnali area)

Ground water occurs both under confined and unconfined condition in the alluvial formation whereas it is mostly under un-confined conditions in Siwaliks and piedmont deposits and semi-confined conditions in hard rocks.

### 7.2 Rivers of State

Rivers in State fall mainly within Indus and Ganga basins. River Ghaggar-sub basin and its tributaries in the west of the state caters to the Indus basin, while river Yamuna and its tributaries in the east make up the portion of the Ganga basin. Basic details of Rivers flowing in/ through state:

- Indus Basin (Ghaggar Sub Basin)
- Markanda River
- Kaushalya River
- Tangri River
- Dohan and Krishnavati Rivers
- Sahibi River
- Saraswati/ Sarsuti



## 7.3 Major Canals

- Western Yamuna Canal is the oldest canal of the state. Its branches feed water, for irrigation purposes, to the land areas of Karnal, Panipat, Sonapat, Jind and Rohtak Districts.
- Gurgaon Canal has been drawn at the Okhla barrage at Delhi from the Yamuna River.
- Bhakra Canal has been drawn from Sutlej river near Nangal. The fields of Kurukshetra, Sirsa, Rohtak and Hissar districts are supplied water through this canal.
- Bhiwani Canal is a small canal, drawn out of Bhakra Canal & passes through district of Bhiwani.
- Jawahar Lal Nehru Canal has also been drawn from Bhakra Canal and passes through Mahendragarh.

## 7.4 Important Lakes

- Badkhal Lake
- Brahma Sarovar Lake
- Karna Lake
- Sannihit Sarovar,
- Surajkund Lake



**Badkhal Lake, Faridabad**

## 7.5 Ponds

Total No. of Ponds in the State :18255

- Rural :- 17470
- Urban :- 785

The main objective of constitution of “The Haryana Pond and Waste Water Management Authority” was to promote & monitor the development,



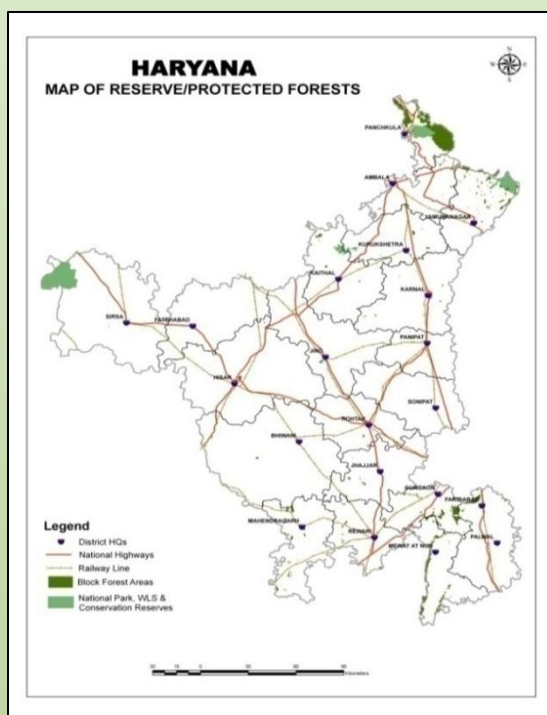
**Gautam Rishi Pond, Karnal**

protection, rejuvenation, conservation, construction and management of ponds & utilization of pond water after treatment thereof and for management and utilization of treated effluent of sewage effluent treatment plants for the purpose of irrigation, thereby reducing stress of over exploitation of ground water and for matters connected therewith or incidental thereto.

Sources:- <http://hpwwma.org.in/>

## 8. Forests

Geographical Area (Sq. km.)	44212
Forest Cover	
Very Dense (Sq. km.)	27
Moderately Dense (Sq. km.)	457
Open (Sq. km.)	1124
Total (Sq. km.)	1608
Of state geographical area(%)	3.64
Tree Cover (TOF) on CNFA (Sq. km.)	1395
Of state geographical area(%)	3.16
Total Forest and Tree Cover (Sq. km.)	3003
Of state geographical area(%)	6.80



As per the State of Forest Report (SFR-2011), Published by Forest Survey of India, the Forest Cover in Haryana is 1608 Sq. km. and Trees outside Forests (TOF) is 1395 Sq. km. Thus, the total Forest and Tree Cover in Haryana is 3003 Sq. km. which is 6.8% of the total geographic area of Haryana.



### 8.1 Flora and Fauna of State

State is rich in various kinds of flora. In the state there is a general type of flora but some pockets of the region give a special types of herbs and bushes. There are hardly any hilly tracts in Haryana except a few in Panchkula district its sub-mountain area and the range of Aravalli chain in Gurugram, Rewari, Faridabad and Mahendragarh districts

District	Geographical Area	Forest Cover				
		Very dense forest	Dense Forest	Open Forest	Total	%
Ambala	1574	0	16	29	45	2.86
Bhiwani	4778	0	14	138	152	3.18
Faridabad	2151	0	28	65	93	4.32
Fatehabad	2538	0	2	16	18	0.71
Gurgaon	2766	0	50	181	231	8.35
Hisar	3983	0	13	29	42	1.05
Jhajjar	2702	0	3	29	32	1.18
Jind	1834	0	5	15	20	1.09
Kaithal	2520	0	36	39	75	2.98
Karnal	2317	0	5	36	41	1.77
Kurukshetra	1530	0	10	17	27	1.76
Mahendragarh	1859	0	16	55	71	3.82
Panchkula	1268	6	151	243	400	31.55
Panipat	898	0	4	13	17	1.89
Rewari	1745	0	8	45	53	3.4
Rohtak	1582	0	3	18	21	1.33
Sirsa	4277	0	3	52	55	1.29
Sonipat	2122	0	4	17	21	0.99
Yamunanagar	1768	21	86	87	194	10.97
	<b>44212</b>	<b>27</b>	<b>457</b>	<b>1124</b>	<b>1608</b>	<b>3.64</b>

## 8.2 Wildlife Sanctuaries

Government of Haryana maintains the following Wildlife Sanctuaries:

- Bhindawas Wildlife Sanctuary, Jhajjar
- Khaparwas Wildlife Sanctuary, Jhajjar
- Nahar Wildlife Sanctuary, Rewari
- Chhilchhila Wildlife Sanctuary, Kurukshetra
- Kalesar Wildlife Sanctuary, Yamunanagar
- Abubshahar Wildlife Sanctuary, Sirsa
- Khol Hi-Raitan Wildlife Sanctuary, Panchkula
- Bir Shikargah Wildlife Sanctuary, Panchkula

## 8.3 Animal & Bird Breeding Centers

The Forests Department of Haryana runs the following breeding centres in the state:

- Chinkara Breeding Centre, Kairu, Bhiwani
- Crocodile Breeding Centre, Bhor Saidan, Kurukshetra
- Peacock & Chinkara Breeding Centre, Jhabua, Rewari
- Pheasant Breeding Centre, Morni, Panchkula
- Vulture Conservation and Breeding Centre, Pinjore

# Haryana State's Emblems

## State Tree



*Pipal, The Holy Big Tree Peepul, Sacred fig*  
Scientific Name: *Ficus religiosa*  
Sanskrit Name: *Ashwath*

## State Flower



*Indian lotus, sacred lotus, The Water Lily*  
Scientific Name: *Nelumbo nucifera*  
Sanskrit Name: *Padma*

## State Animal



*Black Buck, Kala Hiran*  
Scientific Name: *Antelope cervicapra*  
Sanskrit Name: *Krushna Mrug*

## State Bird




*Black Francolin, Kaala Teetar*  
Scientific Name: *Francolinus francolinus*

**Our Website: <https://envis.haryana.gov.in/>**

GOVERNMENT OF HARYANA

ENVIS HUB (Environmental Information System)  
Directorate, Environment & Climate Change Haryana

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LATEST NEWS 12.03.2021: Big Aravalli tracts may open for non-forest work

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