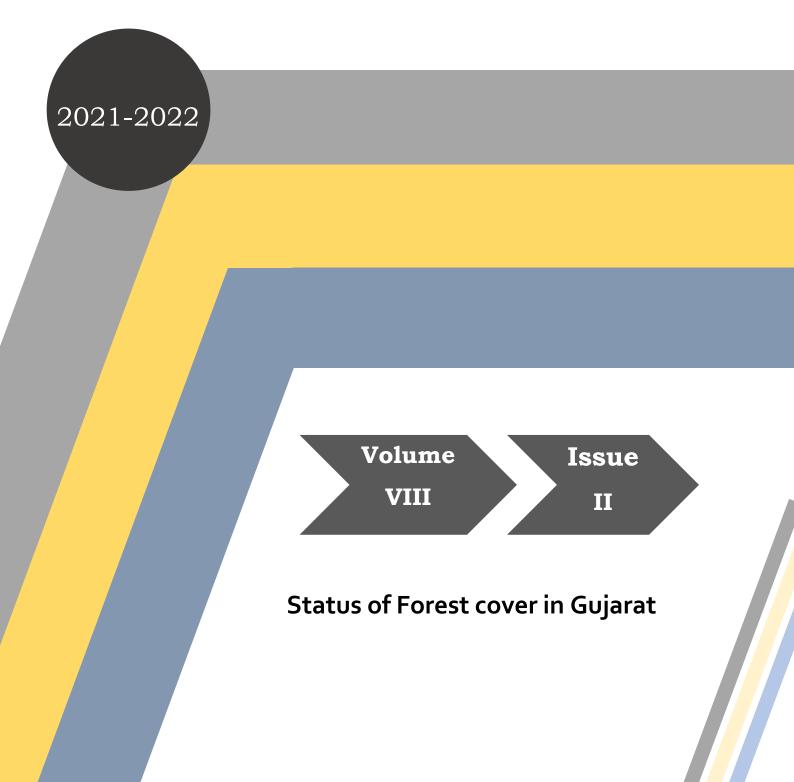








# **ENVIS NEWSLETTER**



### Introduction

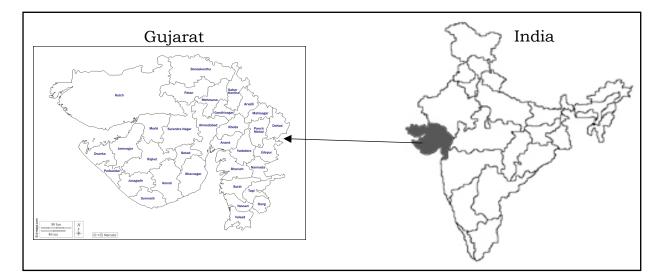
In the era of severe global warming and climate change having a significant amount of forest cover is not just a necessity but also a lifesaving commitment. To ensure the sustainability of environment large scale deforestation in every parts of the world should be immediately restricted and afforestation should be a practised continuously. Approximately 25% of the total land area in India is currently under forest and tree cover. According to the India State of Forest Report (ISFR) 2019 807,276 square kilometres which is 24.56% of the total geographical area of the country is under forest. The amount of forest includes forest cover, tree cover, mangrove cover etc.

This Newsletter is a detail discussion of decadal growth of forest cover in the State of Gujarat. There are four major types of Forest cover seen in Gujarat. They are as follows.

- Type 3B Tropical Moist Deciduous Forests
- Type 4B Littoral and Swamp Forests
- Type 5A Tropical Dry Deciduous Forests
- Type 6B Northern Tropical Thorn Forests

From the last decade there has been a drastic change in the management of forest cover and large scale afforestation has taken place in Gujarat. As a result approximately 35 crore trees have been planted in last decade after the introduction of Van Mahotsav. New forests at 18 places have been created and there is an overall 37% increase in the number of trees.

#### Study Area



Gujarat is the western most state having the longest coastline in India. The total geographical area of the State is 1,96,2,44 sq.km. The state is located between 20°07'N to 24°43'N and 68°10'E to 74°29'E longitude. According to the 2011 Census the total population of the state is 60.44 million.

During 1995 Gujarat had only 6% of forested land due to dry climatic condition and inhospitable soil condition. The forest cover was mostly concentrated in the south eastern part where there was an abundance of rainfall. Gradually due to intense anthropogenic pressure and for continuous supply of fuel wood and grazing purposes the forested land started degrading. Later, World Bank started financing various afforestation projects which is one of the causes of increased forest cover in Gujarat at present day.

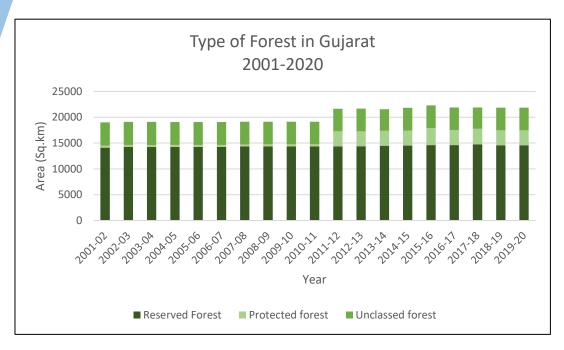
#### Status of forest

According to the Landuse classification of 2017-18 the total geographical area of Gujarat is 1,96,244 sq.km under which the forest cover is 21870.35 sq.km, which is around 11.14% of the total geographical area.

#### Landuse classification (2017-18)

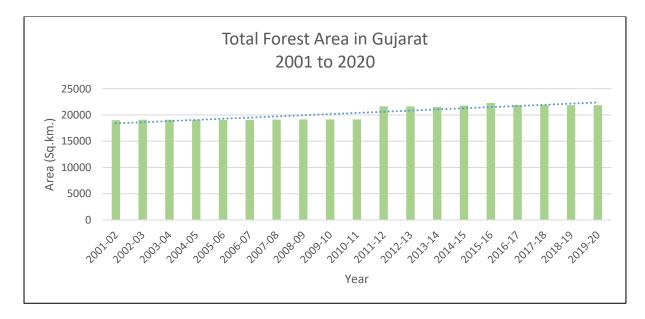
Land use types	Area (sq.km)
Total geographical area	196244
Reporting area for land utilization	188104
Total Forest area	21870.35
Not available for Land cultivation	347.11
Permanent pastures and other	80.44
grazing lands	
Culturable wasteland	19232
Current fallows	55.82
Net area sown	989.15

Source: Directorate of Agriculture



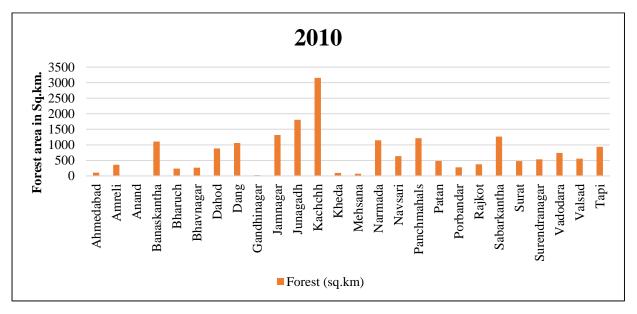
Source: Gujarat Forest Statistics, 2019-20

Forest cover includes all lands with a tree canopy of over 10 percent. Forest has been divided into **Reserved forest**, **Protected forest and unclassed forest**. After the year 2011 the protected forest has significantly increased and it is still showing the same trend. According to Gujarat Forest Statistics, 2019-20 the amount of total Reserved Forest in Gujarat is 14574.31 sq.km. Protected forest is 2898.25 sq.km and unclassed forest is 4397.8 sq.km.



Source: Gujarat Forest Statistics, 2019-20

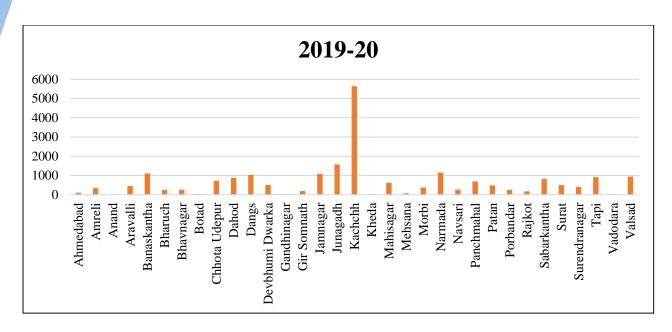
The total forest area in Gujarat overall shows a rising trend since the last two decades. After 2011 the forest cover has significantly increased compared to its last decade, this is due to the increase in the protected forest area. The total growth of forest cover from 2001-02 to 2019-20 is around 15%.



Decadal variation of forest cover from 2010-11 to 2019-20

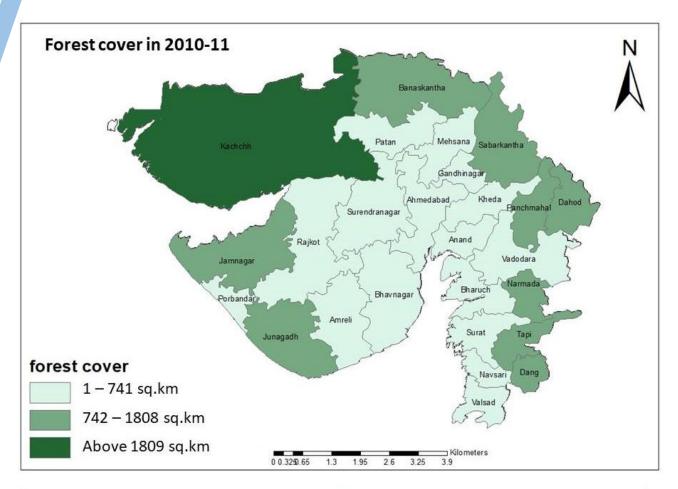
Source: Gujarat Forest Statistics, 2010-11

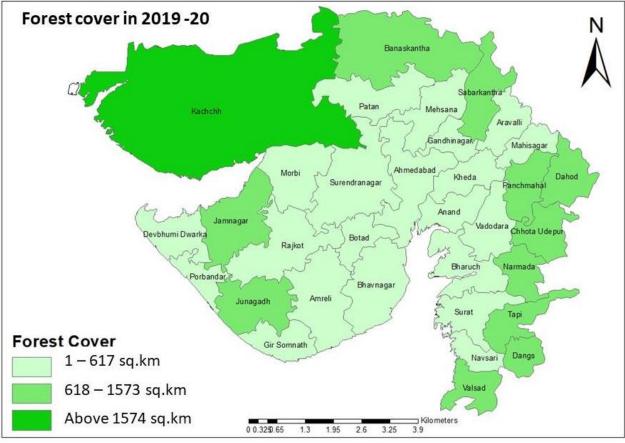
The forest cover is maximum (3157.35 sq.km) in Kachhch district, followed by Jungadh and Jamnagar. The forest area is minimum in Gandhinagar (24.67 sq.km), followed by Kheda (95.8 sq.km) and Mehsana (71.75 sq.km).



Source: Gujarat Forest Statistics, 2019-20

The total forest cover has grown from 9.77 to 11.14 from 2010-11 to 2019-20. Kachchh has again shown the highest amount (5645.14 sq.km) of forest cover, which is way above than other districts. Junagadh (1572), Narmada (1147 sq.km), Jamnagar, Dangs also show higher percentage of forest cover. On the other hand, Botad (35.67sq.km.), Gandhinagar (24.95 sq.km. Kheda, Vadodara show minimum forest cover.





Source: Gujarat Forest Statistics, 2010-11, 2019-20

#### Discussion

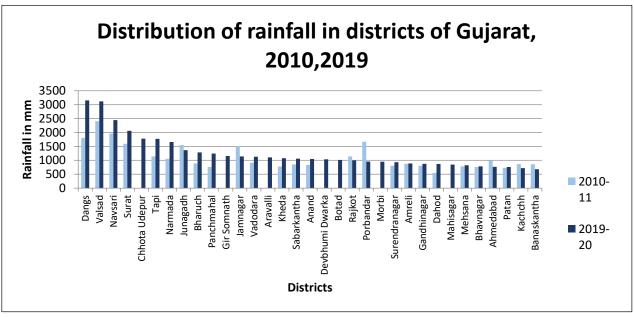
The forest cover in Gujarat is divided into three sub categories.

- Very Dense Forest
- Moderate Dense forest and
- Open forest

Most of the districts do not have very dense forest. In 2019-20 very dense forest was maximum in Dangs (210 sq.km), followed by Junagadh, Narmada, Navsari, Sabarkantha and Tapi. Every district has moderately dense forest and open forest. Moderate Dense forest is maximum in Junagadh followed by Dangs and tapi. Kachchh mostly has open forest.

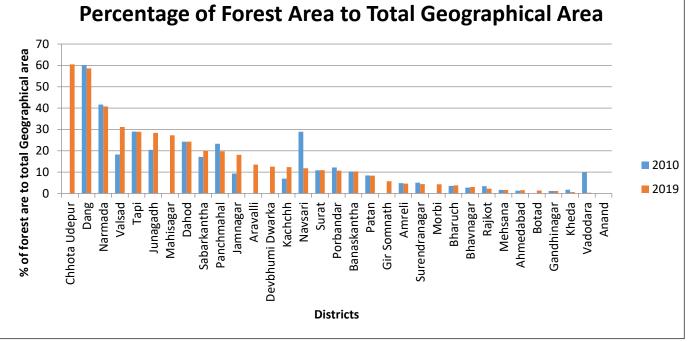
There is a significant growth in the forest area in Gujarat from 2010 to 2019 which has happened because of various forest management interventions like departmental plantations, regeneration of plants etc.

Though the southeast part and few districts of western part of Gujarat show more forest cover than the other parts, forest is more in the hilly parts of southeast Gujarat which includes Dahod, Panchmahals, Chhota Udepur, Narmada, Tapi, Dang etc. This is mainly due to more amount of rainfall in the hills than in the plain area.



Source: Gujarat Forest Statistics, 2010-11, 2019-20

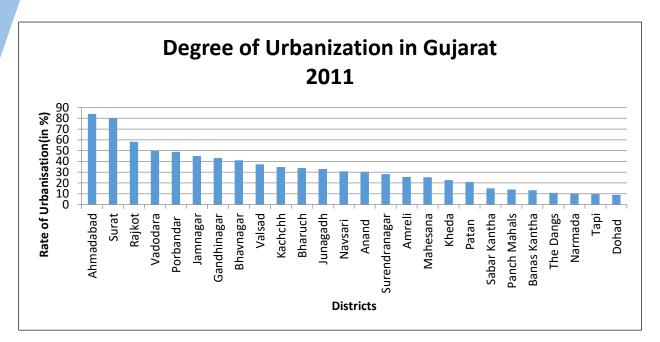
Kachchh shows maximum amount of forest area in both the years 2010 and 2019, but there is no dense forest in Kachchh, only open forest cover due to lesser amount of rainfall. Secondly, as Kachchh has the maximum geographical area, it shows more forest area, but its forest percentage to the geographical area is quite moderate (only 12.36% in 2019-20). Thirdly, the maximum concentration of mangrove forest and scrub forest is seen in this



Source: Gujarat Forest Statistics, 2010-11; 2019-20

District, as a result it shows comparatively more forest area.

There are districts like Ahmedabad, Gandhinagar, Vadodara, Surat who have lesser forest cover, that is mainly because the rate of urbanisation is more in these districts, as a result more land are allotted to infrastructure development, industrial growth, commercialisation and administrative purposes.



Source: Census of India, 2011

#### Conclusion

The forestry has been under constant threat by different natural and anthropogenic factors and protecting the forest cover is a social responsibility for everyone. In the districts where infrastructure development is more, forest cover should not be compromised. The Forest Policy of 1988, Joint Forest Management in 1990 and Projects like Gujarat Afforestation and Development project, steps taken during Van Mahotsav in Gujarat have created a long term effect on green environment in Gujarat. Gujarat is also opting for Green development and together with community special drive for afforestation has been introduced to increase the green cover in the state. In the World Environment Day, 2021 long term State Acton plan on Climate Change was introduced which included aspects like renewable energy, energy conservation, forestry, coastal areas, tribal areas, animal husbandry, agriculture and health for the purpose of building a sustainable and climate resilient future to achieve UN's Sustainable Development Goals.

#### Data Source

Gujarat Forest Statistics, 2010-11; 2019-20

## Bibliography

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