

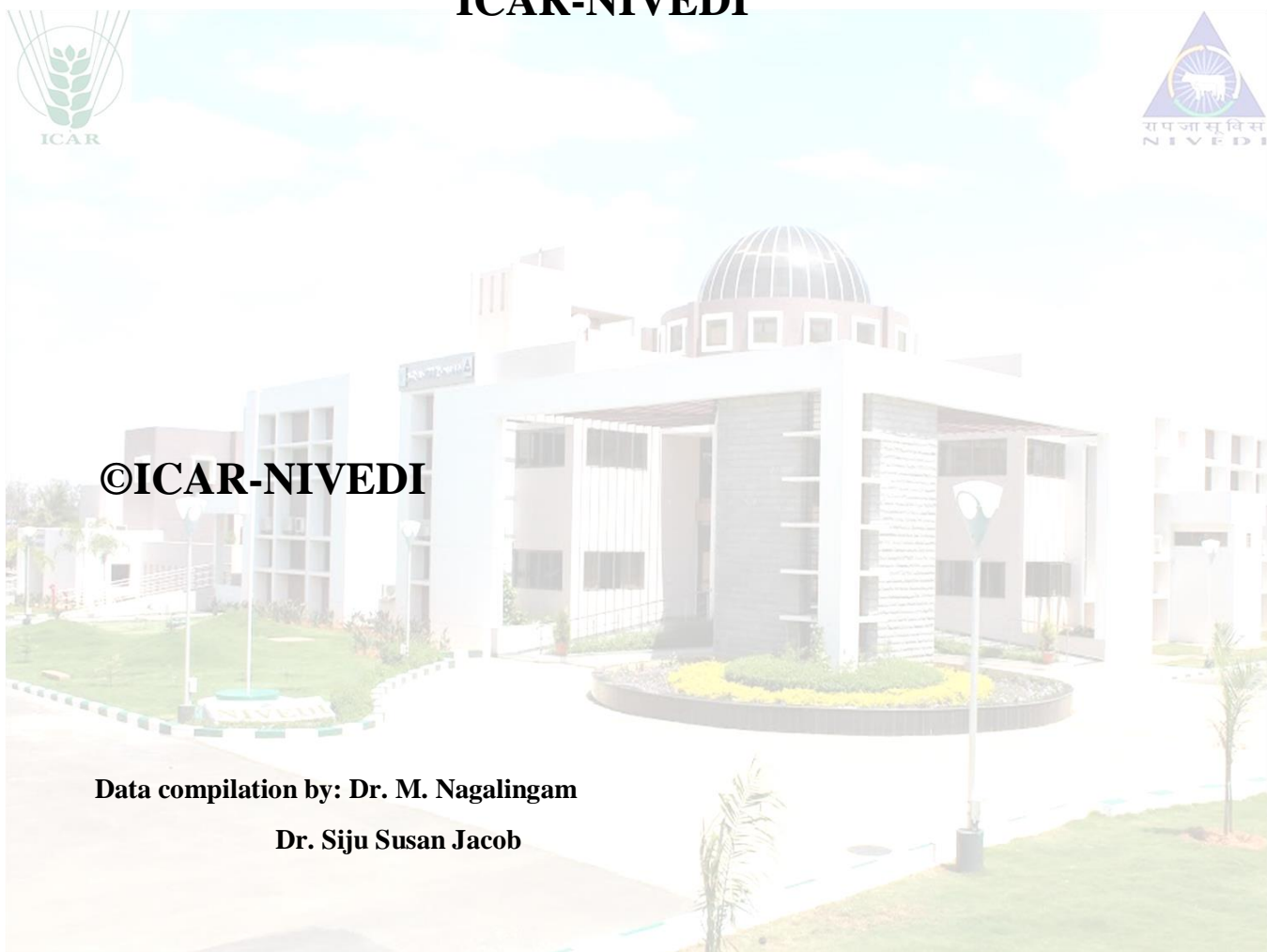
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LIVESTOCK DISEASE FOREWARNING BULLETIN- August 2018

(SIMPLIFIED SOLUTION! MAGNIFIED OPPORTUNITY!)

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# Disclaimer

The forewarnings are based on the retrospective disease data available in the NADRES database. Hence, for those states wherein data is limited/less, the forewarning may not be realistic. Further the forewarning will not take into consideration the control measures that are *in situ*.

# Acknowledgement

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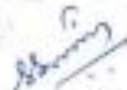
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## 1. About the bulletin...

Livestock sector also plays a critical role in the welfare of India's rural population. This enterprise provides a flow of essential food products, draught power, manure, employment, income, and export earnings. As it is an important component in poverty alleviation programmes, continuous emphasis is being laid on this sector for enhancing the quality of the primary and secondary products in international market, which in turn demands safe animal health for better products. Therefore, livestock development programmes cannot succeed unless a well-organized animal health service is built up and protection of livestock against diseases and pests particularly against the deadly infections is assured.

India has achieved eradication of rinderpest (RP), CBPP, AHS and Dourine. However, there are several other infectious and non-infectious diseases prevailing in the country causing huge economic loss annually. Prevention, control and eradication of the animal diseases need a thorough understanding of the epidemiology as well their economic impact.

National Institute of Veterinary Epidemiology and Disease Informatics (NIVEDI) has the mandate to carry out research activities in the area of veterinary epidemiology and disease informatics. With the eradication of RP successfully, India has not only proved its ability to face the challenges, but also to succeed, despite various limitations. Similar efforts are needed to control and eradicate the diseases like FMD, PPR, Brucellosis, CSF, BT, HS etc., which cause huge economic loss annually to the livestock industry. To this end, ICAR-NIVEDI has identified 13 priority diseases, based on the past incidence patterns and has built a strong database of these diseases. The database, which is backbone of the National Animal Disease Referral Expert System (NADRES), is used for providing monthly livestock disease forewarning, which is compiled in this monthly bulletin to alert the animal husbandry departments, both at the National/state level, to take appropriate control measures. We hope users/stakeholders find this bulletin useful in their quest to control livestock diseases.

After realising the difficulties in implementing the forewarning results at district level and also considering the importance of forewarning at block level, ICAR-NIVEDI attempted to develop models for predictive analytics at block levels. Similar risk factors like Meteorological and remote sensing variables were used for forewarning at block level. We started providing the forewarning results for Karnataka state on Foot & Mouth disease, Black quarter, HS and PPR on pilot basis.

## 2. Forewarning Methodology

### I) Materials.

Livestock disease data

Previous 10 years livestock disease outbreak data retrieved from the NADRES database linked with Risk factors data.

Livestock population data

District wise livestock population data from 19<sup>th</sup> Livestock census (2012)

Meteorological data

Variables such as precipitation (mm/month), pressure (millibar), relative humidity(%), sea level pressure(millibar), minimum temperature (°C), maximum temperature(°C), wind speed(m/s), vapour pressure (hPa), soil moisture(%), perceptible water(mm), potential evaporation transpiration(mm/day) and cloud (%) were extracted from NCEP-National centre environmental prediction/IMD-Indian meteorological Database/NICRA-National Innovation Climate Resilient Agriculture and other sources for the past five years. Monthly average for the past five years have been calculated and used.

Remote sensing data

Remote sensing variables such as NDVI-Normalised difference vegetation index, EVI-Enhanced vegetation index and LST - Land surface temperature were calculated using MODIS LANDSAT/IRS satellite images for the past five years. Monthly average for the past five years have been calculated and used. Details of the parameters are tabulated below.

SDS Layer Name	Resolution	Description	Units	Data Type	Scaling Factor
500m_16_days_NDVI	500 sq. m	16 day NDVI average	NDVI	16-bit signed integer	0.0001
500m_16_days_EVI	500 sq. m	16 day EVI average	EVI	16-bit signed integer	0.0001
LST_Day_1km	1 sq. km	Day Land Surface Temperature	Kelvin	16-bit unsigned integer	0.02
Lai_1km	1 sq. km	Leaf Area Index	m <sup>2</sup> plant/m <sup>2</sup> ground	8-bit unsigned integer	0.1

### II) Method.

Disease outbreak was predicted by combining predicted results from Generalised Linear Model (Logistic Regression), Gradient Boosting and Random Forest models to form the master chart containing the above parameters using a R programme and the probability of disease outbreak was categorised in 6 risk levels- No risk (NR), Very low risk (VLR), Low risk (LR), Moderate risk (MR), High risk (HR) and Very high risk (VHR) for enabling the stake holders to take appropriate control measures by suitably allocating available resources.

Given below is the probability distribution of risk interpretations.

S. No.	Probability of risk	Interpretation
1	0	No risk/No or inadequate data
2	0-0.20	Very low risk
3	0.21-0.40	Low risk

4	0.41-0.60	Moderate risk
5	0.61-0.80	High risk
6	0.8-1.0	Very high risk

### 3. Accuracy of Prediction.

Serial No.	Diseases	Accuracy (%)
1.	Anthrax	93.51
2.	Babesiosis	97.53
3.	Black Quarter	88.88
4.	Bluetongue	99.53
5.	Enterotoxemia	95.67
6.	Fasciolosis	97.06
7.	Foot and mouth disease	90.27
8.	Haemorrhagic septicaemia	82.71
9.	Peste des petits ruminants	93.51
10.	Sheep & Goat pox	96.14
11.	Swine fever	93.82
12.	Theileriosis	97.83
13.	Trypanosomosis	97.68

- **Formula Used:** The **Accuracy** of disease prediction was calculated using the following formula.

$$\frac{TP + TN}{Total} * 100$$

TP-True Positive Observations, TN-True Negative Observations, Total- Total observations.

- Internal Accuracy was performed using 10 years of data. Accuracy obtained was > 90% for all the diseases predicted except Black Quarter (88.88%) and Haemorrhagic septicaemia (82.71%).



#### 4. Forewarning of livestock disease for the month of August 2018

##### i) District wise Livestock Disease forewarning:

#### District wise Livestock Disease forewarning for August 2018: Andaman and Nicobar

Districts of Andaman and Nicobar	Livestock Diseases												
	Anthrax	Babesiosis	BQ	BT	ET	Fasciolosis	FMD	HS	PPR	S&G Pox	SF	Theileriosis	Trypanosomosis
Nicobars	VLR	VLR	VLR	NR	VLR	VHR	VLR	NR	NR	VLR	VLR	VLR	NR
North & Middle Andaman	VLR	VLR	VLR	NR	VLR	VHR	NR	VLR	VLR	VLR	VLR	VLR	VLR
South Andaman	VLR	VLR	VLR	NR	VLR	VHR	VLR	NR	VLR	VLR	VLR	VLR	NR

**If vaccination is already been done please ignore the disease forecast for that disease.**

\*No risk/No data available (NR), Very low risk (VLR), Low risk (LR), Moderate risk (MR), High risk (HR), Very high risk (VHR)

## District wise Livestock Disease forewarning for August 2018: Andhra Pradesh

Districts of Andhra Pradesh	Livestock Diseases												
	Anthrax	Babesiosis	BQ	BT	ET	Fasciolosis	FMD	HS	PPR	S&G Pox	SF	Theileriosis	Trypanosomosis
Anantapur	VHR	NR	VLR	VLR	VHR	NR	VLR	VHR	HR	HR	NR	NR	NR
Chittoor	HR	NR	LR	VLR	HR	NR	VLR	MR	MR	VLR	NR	NR	NR
East Godavari	VLR	NR	VLR	NR	VLR	NR	VLR	MR	VLR	VLR	NR	NR	NR
Guntur	VLR	NR	NR	VLR	VLR	NR	VLR	HR	VLR	VLR	NR	NR	NR
Krishna	VLR	NR	NR	VLR	VLR	NR	VLR	HR	VLR	VLR	NR	NR	NR
Kurnool	HR	NR	VLR	VLR	MR	NR	VLR	LR	HR	VLR	NR	NR	NR
Prakasam	VLR	NR	NR	VLR	VLR	NR	VLR	LR	VLR	VLR	NR	NR	NR
Sri Potti Sriramulu Nellore	MR	NR	NR	VLR	VLR	NR	VLR	HR	VLR	VLR	NR	NR	NR
Srikakulam	VLR	NR	VLR	NR	VLR	NR	VLR	LR	VLR	VLR	NR	NR	NR
Visakhapatnam	VLR	NR	VLR	NR	VLR	NR	VLR	MR	VLR	VLR	VLR	NR	NR
Vizianagaram	VLR	NR	VLR	NR	VLR	VLR	VLR	VLR	VLR	VLR	NR	NR	NR
West Godavari	VLR	NR	VLR	NR	VLR	NR	VLR	LR	VLR	VLR	NR	NR	NR
Y.S.R.	VLR	NR	NR	VLR	VLR	NR	VLR	VLR	VLR	VLR	NR	NR	NR

**If vaccination is already been done please ignore the disease forecast for that disease.**



\*No risk/No data available (NR), Very low risk (VLR), Low risk (LR), Moderate risk (MR), High risk (HR), Very high risk (VHR)

## District wise Livestock Disease forewarning for August 2018: Arunachal Pradesh

Districts of Arunachal Pradesh	Livestock Diseases												
	Anthrax	Babesiosis	BQ	BT	ET	Fasciolosis	FMD	HS	PPR	S&G Pox	SF	Theileriosis	Trypanosomosis
Anjaw	NR	NR	VLR	NR	VLR	NR	NR	VLR	NR	NR	VLR	NR	NR
Changlang	NR	VLR	NR	NR	NR	VLR	NR	VLR	VLR	NR	VLR	NR	NR
Dibang Valley	NR	NR	VLR	NR	VLR	NR	VLR	NR	VLR	NR	VLR	NR	NR
East Kameng	NR	VLR	NR	NR	NR	VLR	VLR	VLR	NR	NR	VLR	NR	NR
East Siang	NR	VLR	NR	NR	NR	VLR	VLR	VLR	NR	NR	VLR	NR	NR
Kurung Kumey	NR	NR	VLR	NR	NR	VLR	NR	VLR	NR	NR	VLR	VLR	NR
Lohit	VLR	VLR	NR	NR	NR	VLR	NR	NR	VLR	NR	VLR	VLR	NR
Lower Dibang Valley	NR	VLR	NR	NR	NR	VLR	NR	VLR	NR	NR	VLR	VLR	NR
Lower Subansiri	NR	VLR	NR	NR	NR	MR	NR	NR	NR	NR	VLR	NR	NR
Papum Pare	NR	VLR	VLR	NR	NR	HR	NR	VLR	VLR	NR	VLR	NR	NR
Tawang	NR	NR	VLR	NR	NR	VLR	VLR	VLR	NR	VLR	VLR	NR	NR
Tirap	NR	VLR	NR	NR	NR	VLR	VLR	VLR	NR	NR	VLR	NR	NR
Upper Siang	NR	NR	VLR	NR	NR	VLR	VLR	NR	VLR	NR	VLR	NR	NR
Upper Subansiri	VLR	VLR	NR	NR	NR	VLR	NR	NR	NR	NR	NR	NR	NR
West Kameng	NR	NR	VLR	NR	NR	VLR	VLR	VLR	VLR	NR	VLR	NR	NR
West Siang	NR	VLR	NR	NR	NR	LR	NR	VLR	NR	NR	NR	VLR	NR

**If vaccination is already been done please ignore the disease forecast for that disease.**

\*No risk/No data available (NR), Very low risk (VLR), Low risk (LR), Moderate risk (MR), High risk (HR), Very high risk (VHR)

### District wise Livestock Disease forewarning for August 2018: Assam

Districts of Assam	Livestock Diseases												
	Anthrax	Babesiosis	BQ	BT	ET	Fasciolosis	FMD	HS	PPR	S&G Pox	SF	Theileriosis	Trypanosomosis
Baksa	NR	VLR	HR	NR	VLR	VLR	VLR	VLR	VLR	VLR	LR	VLR	NR
Barpeta	VLR	NR	LR	NR	VLR	VLR	VLR	MR	VLR	VLR	VLR	VLR	NR
Bongaigaon	VLR	NR	VLR	NR	VLR	VLR	VLR	MR	VLR	VLR	VLR	NR	NR
Cachar	VLR	VLR	LR	NR	NR	VLR	VLR	VLR	NR	VLR	VLR	VLR	NR
Chirang	NR	NR	VLR	NR	NR	LR	VLR	VLR	VLR	NR	VLR	NR	NR
Darrang	VLR	VLR	MR	NR	VLR	VLR	VLR	MR	VLR	VLR	VLR	VLR	NR
Dhemaji	NR	VLR	VHR	NR	VLR	VHR	VLR	LR	VLR	VLR	VHR	VLR	VLR
Dhubri	VLR	VLR	VHR	NR	VLR	VLR	VLR	VLR	VLR	VLR	VLR	VLR	NR
Dibrugarh	NR	VLR	HR	NR	VLR	HR	VLR	VLR	VLR	VLR	HR	VLR	NR
Dima Hasao	NR	VLR	VLR	NR	NR	VLR	VLR	VLR	VLR	NR	VLR	VLR	NR
Goalpara	VLR	VLR	LR	NR	VLR	VLR	VLR	LR	VLR	VLR	VLR	VLR	VLR
Golaghat	VLR	VLR	MR	NR	VLR	LR	VLR	LR	VLR	VLR	LR	VLR	VLR
Hailakandi	NR	VLR	VLR	NR	NR	VLR	VLR	VLR	VLR	VLR	VLR	VLR	NR
Jorhat	VLR	VLR	HR	NR	VLR	HR	VLR	LR	VLR	VLR	MR	VLR	VLR
Kamrup	VLR	VLR	VLR	NR	NR	HR	VLR	VLR	VLR	VLR	VLR	VLR	VLR
Kamrup Metropolitan	VLR	VLR	LR	NR	VLR	HR	VLR	VLR	VLR	VLR	LR	VLR	VLR
Karbi Anglong	VLR	VLR	HR	NR	VLR	MR	VLR	LR	VLR	MR	VHR	VLR	NR
Karimganj	VLR	VLR	VLR	NR	NR	VLR	VLR	VLR	VLR	VLR	VLR	VLR	NR
Kokrajhar	NR	VLR	MR	NR	VLR	MR	VLR	MR	VLR	VLR	LR	VLR	NR
Lakhimpur	VLR	VLR	VHR	NR	VLR	VHR	VLR	MR	VLR	VLR	VHR	VLR	VLR
Morigaon	NR	VLR	HR	NR	VLR	LR	VLR	VLR	VLR	VLR	VLR	VLR	VLR



Continue

Districts of Assam	Livestock Diseases												
	Anthrax	Babesiosis	BQ	BT	ET	Fasciolosis	FMD	HS	PPR	S&G Pox	SF	Theileriosis	Trypanosomosis
Nagaon	VLR	VLR	MR	NR	VLR	VLR	VLR	VLR	VLR	VLR	VLR	VLR	NR
Nalbari	NR	VLR	MR	NR	VLR	VLR	VLR	HR	VLR	VLR	VLR	VLR	NR
Sivasagar	VLR	VLR	MR	NR	VLR	LR	VLR	LR	VLR	NR	HR	NR	NR
Sonitpur	VLR	VLR	HR	NR	VLR	HR	VLR	MR	VLR	VLR	MR	VLR	VLR
Tinsukia	NR	VLR	MR	NR	VLR	MR	VLR	VLR	VLR	VLR	VLR	VLR	VLR
Udalguri	VLR	VLR	VLR	NR	VLR	HR	VLR	VLR	VLR	VLR	VLR	VLR	NR

If vaccination is already been done please ignore the disease forecast for that disease.

\*No risk/No data available (NR), Very low risk (VLR), Low risk (LR), Moderate risk (MR), High risk (HR), Very high risk (VHR)

### District wise Livestock Disease forewarning for August 2018: Bihar

Districts of Bihar	Livestock Diseases												
	Anthrax	Babesiosis	BQ	BT	ET	Fasciolosis	FMD	HS	PPR	S&G Pox	SF	Theileriosis	Trypanosomosis
Araria	VLR	VLR	NR	NR	NR	VLR	VLR	VLR	VLR	NR	VLR	NR	VLR
Arwal	NR	NR	VLR	NR	NR	VLR	VLR	VLR	VLR	NR	NR	VLR	NR
Aurangabad	NR	VLR	VLR	NR	NR	NR	VLR	VLR	VLR	VLR	NR	VLR	NR
Banka	VLR	NR	VLR	NR	VLR	VLR	VLR	VLR	NR	NR	NR	VLR	NR
Begusarai	VLR	NR	VLR	NR	NR	NR	VLR	VLR	VLR	NR	VLR	NR	NR
Bhagalpur	NR	VLR	VLR	NR	VLR	NR	VLR	VLR	VLR	NR	VLR	VLR	VLR
Bhojpur	VLR	VLR	VLR	NR	VLR	HR	VLR	VLR	VLR	VLR	MR	VLR	VLR
Buxar	VLR	VLR	VLR	NR	VLR	MR	VLR	VLR	VLR	NR	VLR	VLR	NR
Darbhanga	NR	NR	NR	NR	VLR	VLR	NR	VLR	NR	NR	NR	VLR	VLR
Gaya	VLR	VLR	VLR	NR	VLR	VLR	VLR	VLR	VLR	NR	VLR	VLR	NR
Gopalganj	VLR	VLR	NR	NR	VLR	VLR	VLR	VLR	VLR	NR	NR	VLR	VLR
Jamui	NR	VLR	VLR	NR	VLR	VLR	VLR	VLR	NR	NR	VLR	VLR	NR
Jehanabad	NR	VLR	NR	NR	NR	VLR	VLR	VLR	VLR	NR	NR	NR	NR
Kaimur (Bhabua)	NR	VLR	VLR	NR	VLR	VLR	NR	VLR	VLR	NR	NR	VLR	VLR
Katihar	VLR	VLR	VLR	NR	VLR	VLR	VLR	VLR	VLR	NR	VLR	VLR	NR
Khagaria	VLR	VLR	VLR	NR	VLR	NR	VLR	VLR	VLR	NR	NR	NR	VLR
Kishanganj	NR	VLR	VLR	NR	VLR	VLR	VLR	VLR	VLR	NR	VLR	VLR	VLR
Lakhisarai	NR	VLR	NR	NR	NR	NR	VLR	VLR	NR	NR	VLR	NR	NR
Madhepura	NR	NR	NR	NR	VLR	VLR	VLR	VLR	VLR	NR	VLR	NR	VLR
Madhubani	VLR	NR	VLR	NR	VLR	NR	NR	VLR	NR	NR	NR	NR	NR
Munger	VLR	NR	VLR	NR	NR	NR	VLR	VLR	NR	NR	VLR	NR	NR
Muzaffarpur	VLR	NR	NR	NR	NR	VLR	VLR	VLR	VLR	VLR	NR	NR	NR

Continue



Districts of Bihar	Livestock Diseases												
	Anthrax	Babesiosis	BQ	BT	ET	Fasciolosis	FMD	HS	PPR	S&G Pox	SF	Theileriosis	Trypanosomosis
Nalanda	NR	NR	NR	NR	NR	VLR	VLR	VLR	VLR	VLR	VLR	VLR	VLR
Nawada	VLR	NR	VLR	NR	VLR	VLR	VLR	VLR	NR	VLR	NR	NR	NR
Pashchim Champaran	NR	VLR	VLR	NR	VLR	NR	VLR	VLR	VLR	NR	VLR	VLR	VLR
Patna	VLR	VLR	VLR	NR	VLR	VLR	VLR	VLR	VLR	VLR	VLR	VLR	VLR
Purba Champaran	NR	VLR	VLR	NR	VLR	NR	VLR	VLR	VLR	NR	NR	NR	NR
Purnia	NR	NR	VLR	NR	NR	NR	VLR	VLR	VLR	NR	VLR	NR	VLR
Rohtas	VLR	VLR	VLR	NR	NR	NR	VLR	VLR	VLR	NR	VLR	NR	NR
Saharsa	VLR	NR	VLR	NR	VLR	NR	VLR	VLR	NR	NR	NR	NR	NR
Samastipur	VLR	NR	VLR	NR	VLR	VLR	VLR	VLR	VLR	VLR	NR	VLR	VLR
Saran	NR	NR	VLR	NR	NR	NR	VLR	VLR	VLR	NR	NR	NR	NR
Sheikhpura	NR	VLR	VLR	NR	NR	NR	VLR	VLR	VLR	NR	NR	VLR	VLR
Sheohar	VLR	VLR	NR	NR	NR	NR	VLR	VLR	VLR	VLR	VLR	VLR	VLR
Sitamarhi	NR	VLR	VLR	NR	VLR	VLR	NR	VLR	VLR	VLR	NR	NR	VLR
Siwan	VLR	VLR	VLR	NR	VLR	NR	VLR	VLR	VLR	NR	NR	VLR	VLR
Supaul	NR	NR	VLR	NR	VLR	VLR	VLR	VLR	VLR	VLR	VLR	NR	VLR
Vaishali	NR	NR	VLR	NR	NR	VLR	VLR	VLR	VLR	NR	NR	VLR	VLR

**If vaccination is already been done please ignore the disease forecast for that disease.**

\*No risk/No data available (NR), Very low risk (VLR), Low risk (LR), Moderate risk (MR), High risk (HR), Very high risk (VHR)



## District wise Livestock Disease forewarning for August 2018: Chandigarh

Districts of Chandigarh	Livestock Diseases												
	Anthrax	Babesiosis	BQ	BT	ET	Fasciolosis	FMD	HS	PPR	S&G Pox	SF	Theileriosis	Trypanosomosis
Chandigarh	VLR	HR	NR	NR	NR	VLR	NR	VLR	VLR	LR	NR	VLR	NR

If vaccination is already been done please ignore the disease forecast for that disease.

\*No risk/No data available (NR), Very low risk (VLR), Low risk (LR), Moderate risk (MR), High risk (HR), Very high risk (VHR)



## District wise Livestock Disease forewarning for August 2018: Chhattisgarh

Districts of Chhattisgarh	Livestock Diseases												
	Anthrax	Babesiosis	BQ	BT	ET	Fasciolosis	FMD	HS	PPR	S&G Pox	SF	Theileriosis	Trypanosomosis
Bastar	VLR	NR	VLR	NR	VLR	VLR	VLR	VLR	VLR	VLR	VLR	VLR	NR
Bijapur	NR	VLR	VLR	NR	VLR	VLR	NR	VLR	VLR	NR	VLR	NR	VLR
Bilaspur	VLR	NR	VLR	NR	VLR	NR	VLR	VLR	VLR	NR	VLR	VLR	VLR
Dakshin Bastar Dantewada	VLR	NR	VLR	NR	VLR	NR	VLR	VLR	NR	VLR	VLR	NR	NR
Dhamtari	NR	NR	VLR	NR	VLR	VLR	VLR	VLR	VLR	NR	VLR	VLR	VLR
Durg	NR	VLR	VLR	NR	NR	NR	VLR	VLR	VLR	NR	VLR	VLR	VLR
Janjgir-champa	VLR	NR	VLR	NR	VLR	VLR	VLR	VLR	VLR	VLR	VLR	VLR	VLR
Jashpur	VLR	VLR	VLR	NR	VLR	VLR	VLR	VLR	VLR	VLR	VLR	NR	VLR
Kabeerdham	VLR	VLR	VLR	NR	VLR	VLR	VLR	VLR	VLR	VLR	VLR	VLR	VLR
Korba	VLR	NR	VLR	NR	VLR	NR	VLR	LR	VLR	NR	VLR	VLR	NR
Koriya	VLR	VLR	VLR	NR	VLR	VLR	VLR	MR	VLR	NR	VLR	VLR	VLR
Mahasamund	VLR	NR	VLR	NR	VLR	NR	VLR	LR	VLR	NR	VLR	VLR	NR
Narayanpur	VLR	NR	VLR	NR	NR	VLR	VLR	VLR	VLR	VLR	VLR	VLR	NR
Raigarhh	VLR	VLR	VLR	NR	VLR	VLR	VLR	VLR	VLR	VLR	VLR	VLR	VLR
Raipur	VLR	NR	VLR	NR	NR	NR	VLR	VLR	VLR	NR	VLR	NR	NR
Rajnandgaon	VLR	VLR	VLR	NR	VLR	VLR	VLR	VLR	VLR	VLR	VLR	VLR	NR
Surguja	VLR	VLR	VLR	NR	VLR	VLR	VLR	VLR	VLR	NR	VLR	VLR	VLR
Uttar Bastar Kanker	VLR	NR	VLR	NR	NR	VLR	NR	VLR	VLR	NR	VLR	NR	NR

**If vaccination is already been done please ignore the disease forecast for that disease.**

\*No risk/No data available (NR), Very low risk (VLR), Low risk (LR), Moderate risk (MR), High risk (HR), Very high risk (VHR)



### District wise Livestock Disease forewarning for August 2018: Dadra and Nagar Haveli

Districts of Dadra and Nagar Haveli	Livestock Diseases												
	Anthrax	Babesiosis	BQ	BT	ET	Fasciolosis	FMD	HS	PPR	S&G Pox	SF	Theileriosis	Trypanosomosis
Dadra and Nagar Haveli	VLR	VLR	VLR	NR	NR	VLR	VLR	VLR	NR	VLR	VLR	VLR	VLR

**If vaccination is already been done please ignore the disease forecast for that disease.**

\*No risk/No data available (NR), Very low risk (VLR), Low risk (LR), Moderate risk (MR), High risk (HR), Very high risk (VHR)



### District wise Livestock Disease forewarning for August 2018: Daman and Diu

Districts of Daman and Diu	Livestock Diseases												
	Anthrax	Babesiosis	BQ	BT	ET	Fasciolosis	FMD	HS	PPR	S&G Pox	SF	Theileriosis	Trypanosomosis
Daman	VLR	VLR	VLR	NR	VLR	VLR	VLR	VLR	VLR	VLR	VLR	VLR	VLR
Diu	VLR	VLR	VLR	NR	VLR	VLR	VLR	VLR	VLR	VLR	VLR	VLR	VLR

**If vaccination is already been done please ignore the disease forecast for that disease.**

\*No risk/No data available (NR), Very low risk (VLR), Low risk (LR), Moderate risk (MR), High risk (HR), Very high risk (VHR)



### District wise Livestock Disease forewarning for August 2018: Goa

Districts of Goa	Livestock Diseases												
	Anthrax	Babesiosis	BQ	BT	ET	Fasciolosis	FMD	HS	PPR	S&G Pox	SF	Theileriosis	Trypanosomosis
North Goa	NR	VLR	VLR	NR	NR	VLR	VLR	VLR	NR	VLR	VLR	VLR	NR
South Goa	VLR	VLR	NR	NR	VLR	VLR	VLR	VLR	NR	VLR	VLR	VLR	NR

**If vaccination is already been done please ignore the disease forecast for that disease.**

\*No risk/No data available (NR), Very low risk (VLR), Low risk (LR), Moderate risk (MR), High risk (HR), Very high risk (VHR)

## District wise Livestock Disease forewarning for August 2018:Gujarat

Districts of Gujarat	Livestock Diseases												
	Anthrax	Babesiosis	BQ	BT	ET	Fasciolosis	FMD	HS	PPR	S&G Pox	SF	Theileriosis	Trypanosomosis
Ahmadabad	VLR	NR	NR	NR	VLR	NR	VLR	VLR	VLR	VLR	NR	NR	NR
Amreli	VLR	NR	VLR	NR	VLR	NR	VLR	LR	VLR	VLR	VLR	NR	NR
Anand	VLR	NR	NR	NR	NR	NR	VLR	VLR	VLR	VLR	VLR	NR	NR
Banas Kantha	VLR	NR	VLR	NR	VLR	NR	VLR	MR	VLR	VLR	NR	NR	NR
Bharuch	VLR	NR	NR	NR	NR	NR	VLR	VLR	NR	NR	NR	NR	NR
Bhavnagar	VLR	NR	VLR	NR	VLR	NR	VLR	VLR	VLR	VLR	NR	NR	NR
Dohad	VLR	NR	VLR	NR	NR	NR	VLR	VLR	VLR	VLR	NR	NR	NR
Gandhinagar	VLR	NR	NR	NR	VLR	NR	VLR	VLR	NR	NR	NR	NR	NR
Jamnagar	VLR	NR	VLR	NR	VLR	NR	VLR	VLR	VLR	VLR	VLR	NR	NR
Junagadh	VLR	NR	VLR	NR	NR	NR	VLR	HR	VLR	VLR	NR	NR	NR
Kachchh	VLR	NR	VLR	NR	VLR	NR	VLR	LR	VLR	VLR	NR	NR	NR
Kheda	VLR	NR	VLR	NR	VLR	NR	VLR	MR	VLR	NR	VLR	NR	NR
Mahesana	VLR	NR	NR	NR	NR	NR	VLR	VLR	NR	NR	NR	NR	NR
Narmada	VLR	NR	VLR	NR	NR	VLR	VLR	VLR	VLR	NR	VLR	NR	NR
Navsari	VLR	NR	VLR	NR	VLR	VLR	NR	VLR	NR	NR	VLR	NR	NR
Panch Mahals	VLR	NR	VLR	NR	VLR	NR	VLR	VLR	VLR	NR	NR	NR	NR
Patan	VLR	NR	NR	NR	VLR	NR	VLR	VLR	VLR	NR	NR	NR	NR
Porbandar	VLR	NR	VLR	NR	VLR	VLR	VLR	VLR	VLR	VLR	VLR	NR	NR
Rajkot	VLR	NR	VLR	NR	VLR	NR	VLR	LR	VLR	VLR	NR	NR	NR
Sabar Kantha	VLR	NR	VLR	NR	VLR	NR	VLR	LR	VLR	NR	VLR	NR	NR
Surat	NR	NR	VLR	NR	VLR	NR	VLR	VLR	VLR	NR	NR	NR	NR
Surendranagar	VLR	NR	NR	NR	NR	NR	VLR	VLR	VLR	NR	NR	NR	NR
Tapi	VLR	NR	VLR	NR	VLR	VLR	VLR	VLR	VLR	NR	VLR	NR	NR
The Dangs	VLR	NR	VLR	NR	NR	NR	VLR	VLR	VLR	VLR	VLR	NR	NR
Vadodara	VLR	NR	NR	NR	NR	NR	VLR	VLR	NR	VLR	NR	NR	NR
Valsad	VLR	VLR	VLR	NR	NR	NR	VLR	VLR	VLR	NR	VLR	NR	NR

**If vaccination is already been done please ignore the disease forecast for that disease.**

\*No risk/No data available (NR), Very low risk (VLR), Low risk (LR), Moderate risk (MR), High risk (HR), Very high risk (VHR)

### District wise Livestock Disease forewarning for August 2018: Haryana

Districts of Haryana	Livestock Diseases												
	Anthrax	Babesiosis	BQ	BT	ET	Fasciolosis	FMD	HS	PPR	S&G Pox	SF	Theileriosis	Trypanosomosis
Ambala	NR	NR	NR	NR	NR	VLR	VLR	VLR	VLR	NR	VLR	NR	NR
Bhiwani	VLR	NR	NR	NR	VLR	NR	VLR	VLR	VLR	VLR	VLR	NR	NR
Faridabad	NR	NR	NR	NR	NR	NR	NR	VLR	NR	VLR	VLR	NR	NR
Fatehabad	NR	NR	NR	NR	NR	NR	VLR	VLR	VLR	VLR	VLR	NR	VLR
Gurgaon	NR	NR	NR	NR	NR	NR	NR	NR	NR	VLR	VLR	NR	NR
Hisar	NR	NR	NR	NR	VLR	NR	VLR	VLR	VLR	VLR	VLR	NR	NR
Jhajjar	NR	NR	NR	NR	NR	NR	VLR	VLR	VLR	NR	VLR	NR	NR
Jind	NR	NR	NR	NR	VLR	NR	VLR	VLR	VLR	VLR	VLR	NR	NR
Kaithal	NR	NR	NR	NR	VLR	NR	VLR	VLR	VLR	VLR	VLR	NR	NR
Karnal	NR	NR	NR	NR	VLR	NR	VLR	VLR	VLR	VLR	VLR	NR	VLR
Kurukshetra	NR	NR	NR	NR	VLR	VLR	NR	VLR	VLR	NR	VLR	NR	NR
Mahendragarh	VLR	NR	VLR	NR	VLR	NR	NR	VLR	VLR	VLR	VLR	NR	NR
Mewat	NR	NR	NR	NR	NR	NR	NR	VLR	VLR	VLR	VLR	NR	VLR
Palwal	NR	NR	VLR	NR	NR	NR	VLR	VLR	NR	VLR	VLR	NR	NR
Panchkula	NR	NR	NR	NR	VLR	NR	VLR	VLR	NR	VLR	VLR	NR	NR
Panipat	NR	NR	NR	NR	NR	NR	NR	VLR	NR	NR	VLR	NR	VLR
Rewari	NR	NR	VLR	NR	NR	NR	VLR	VLR	NR	VLR	VLR	NR	NR
Rohtak	NR	NR	VLR	NR	NR	NR	VLR	VLR	VLR	VLR	VLR	NR	NR
Sirsa	VLR	NR	VLR	NR	NR	NR	NR	VLR	VLR	NR	VLR	NR	VLR
Sonipat	NR	NR	NR	NR	NR	NR	VLR	VLR	VLR	VLR	VLR	NR	NR
Yamunanagar	VLR	NR	NR	NR	NR	NR	VLR	VLR	VLR	NR	VLR	NR	NR

**If vaccination is already been done please ignore the disease forecast for that disease.**

\*No risk/No data available (NR), Very low risk (VLR), Low risk (LR), Moderate risk (MR), High risk (HR), Very high risk (VHR)

## District wise Livestock Disease forewarning for August 2018: Himachal Pradesh

Districts of Himachal Pradesh	Livestock Diseases												
	Anthrax	Babesiosis	BQ	BT	ET	Fasciolosis	FMD	HS	PPR	S&G Pox	SF	Theileriosis	Trypanosomosis
Bilaspur	NR	NR	VLR	NR	NR	VLR	VLR	VLR	VLR	VLR	VLR	NR	NR
Chamba	VLR	NR	VLR	NR	VLR	VLR	VLR	VLR	VLR	VLR	NR	NR	NR
Hamirpur	NR	NR	VLR	NR	VLR	VLR	VLR	VLR	VLR	NR	VLR	NR	NR
Kangra	NR	NR	VLR	NR	VLR	VLR	VLR	VLR	VLR	VLR	VLR	NR	NR
Kinnaur	NR	NR	VLR	NR	VLR	NR	VLR	VLR	VLR	VLR	VLR	NR	NR
Kullu	VLR	NR	VLR	NR	VLR	VLR	VLR	VLR	VLR	VLR	VLR	NR	NR
Lahul & Spiti	NR	NR	NR	NR	NR	NR	NR	NR	VLR	VLR	NR	NR	NR
Mandi	VLR	NR	HR	NR	VLR	NR	VLR	VLR	VLR	VLR	VLR	NR	NR
Shimla	NR	NR	VLR	NR	VLR	NR	VLR	VLR	VLR	VLR	VLR	NR	NR
Sirmaur	VLR	NR	VLR	NR	NR	NR	NR	VLR	VLR	NR	VLR	NR	NR
Solan	VLR	NR	NR	NR	VLR	NR	VLR	VLR	VLR	VLR	VLR	NR	NR
Una	NR	NR	NR	NR	NR	VLR	VLR	VLR	VLR	VLR	VLR	VLR	NR

**If vaccination is already been done please ignore the disease forecast for that disease.**

\*No risk/No data available (NR), Very low risk (VLR), Low risk (LR), Moderate risk (MR), High risk (HR), Very high risk (VHR)

## District wise Livestock Disease forewarning for August 2018: Jammu and Kashmir

Districts of Jammu and Kashmir	Livestock Diseases												
	Anthrax	Babesiosis	BQ	BT	ET	Fasciolosis	FMD	HS	PPR	S&G Pox	SF	Theileriosis	Trypanosomosis
Anantnag	VLR	NR	VLR	NR	VLR	NR	VLR	VLR	VLR	VLR	VLR	NR	NR
Badgam	NR	NR	VLR	NR	VLR	NR	HR	VLR	VLR	VHR	NR	NR	NR
Bandipore	VLR	NR	VLR	NR	VLR	VLR	VLR	NR	VLR	VHR	NR	NR	NR
Baramula	VLR	NR	VLR	NR	VLR	NR	HR	VLR	VLR	VLR	NR	NR	NR
Doda	VLR	NR	VLR	NR	VLR	NR	VLR	VLR	VLR	VLR	NR	VLR	NR
Ganderbal	VLR	NR	VLR	NR	VLR	NR	VLR	NR	VLR	VLR	NR	NR	NR
Jammu	VLR	VLR	VLR	NR	VLR	VLR	VLR	VLR	VLR	VLR	VLR	NR	VLR
Kargil	VLR	NR	VLR	NR	VLR	NR	VLR	VLR	VLR	VLR	VLR	NR	NR
Kathua	VLR	NR	VLR	NR	VLR	VLR	VLR	VLR	VLR	VLR	VLR	VLR	NR
Kishtwar	NR	NR	VLR	NR	VLR	NR	VLR	VLR	VLR	VLR	VLR	NR	NR
Kulgam	NR	NR	VLR	NR	VLR	NR	VLR	VLR	VLR	VHR	NR	NR	NR
Kupwara	NR	NR	VLR	NR	VLR	VLR	VLR	VLR	VLR	VLR	VLR	NR	NR
Leh(Ladakh)	VLR	NR	NR	NR	VLR	VLR	VLR	VLR	VLR	VLR	NR	NR	NR
Pulwama	NR	NR	VLR	NR	VLR	VLR	HR	VLR	VLR	VHR	NR	NR	NR
Punch	VLR	NR	VLR	NR	VLR	NR	VLR	VLR	VLR	NR	VLR	NR	NR
Rajouri	VLR	NR	VLR	NR	VLR	VLR	VLR	VLR	VLR	VLR	VLR	VLR	NR
Ramban	VLR	NR	VLR	NR	VLR	NR	VLR	VLR	VLR	VLR	VLR	VLR	NR
Reasi	VLR	NR	VLR	NR	VLR	VLR	VLR	VLR	VLR	VLR	VLR	NR	NR
Samba	NR	VLR	VLR	NR	VLR	VLR	VLR	VLR	VLR	NR	NR	NR	NR
Shupiyan	NR	NR	VLR	NR	VLR	VLR	VLR	VLR	VLR	MR	VLR	NR	NR
Srinagar	NR	NR	NR	NR	VLR	NR	VHR	VLR	VLR	HR	VLR	NR	NR
Udhampur	VLR	VLR	VLR	NR	VLR	NR	VLR	VLR	VLR	VLR	VLR	NR	VLR

**If vaccination is already been done please ignore the disease forecast for that disease.**

\*No risk/No data available (NR), Very low risk (VLR), Low risk (LR), Moderate risk (MR), High risk (HR), Very high risk (VHR)



## District wise Livestock Disease forewarning for August 2018: Jharkhand

Districts of Jharkhand	Livestock Diseases												
	Anthrax	Babesiosis	BQ	BT	ET	Fasciolosis	FMD	HS	PPR	S&G Pox	SF	Theileriosis	Trypanosomosis
Bokaro	VLR	VHR	VLR	NR	VLR	VHR	VLR	VLR	VLR	VLR	VLR	VHR	VHR
Chatra	VLR	VHR	VLR	NR	VLR	HR	LR	LR	VLR	NR	VLR	HR	HR
Deoghar	VLR	VHR	VLR	NR	VLR	VHR	VLR	VLR	VLR	NR	VLR	VHR	VHR
Dhanbad	VLR	VHR	VLR	NR	VLR	VHR	MR	VLR	HR	VLR	VLR	VHR	VHR
Dumka	VLR	VHR	VLR	NR	VLR	VHR	LR	LR	VLR	NR	VLR	VHR	VHR
Garhwa	VLR	VHR	LR	NR	VLR	HR	VLR	LR	VLR	NR	VLR	HR	HR
Giridih	VLR	VHR	VLR	NR	VLR	HR	VLR	LR	VLR	VLR	VLR	HR	VHR
Godda	VLR	VHR	LR	NR	VLR	HR	LR	MR	VLR	NR	VLR	VHR	VHR
Gumla	VLR	VHR	VLR	NR	VLR	VHR	LR	MR	VLR	NR	VLR	VHR	VHR
Hazaribagh	VLR	VHR	VLR	NR	VLR	VHR	VLR	LR	VLR	VLR	VLR	VHR	VHR
Jamtara	VLR	VHR	VLR	NR	VLR	VHR	LR	MR	VLR	VLR	VLR	VHR	VHR
Khunti	VLR	VLR	VLR	NR	VLR	VLR	VLR	VLR	VLR	VLR	VLR	VLR	VLR
Koderma	VLR	VHR	VLR	NR	VLR	HR	VLR	VLR	VLR	NR	VLR	VHR	VHR
Latehar	VLR	VHR	VLR	NR	VLR	HR	VLR	MR	VLR	VLR	VLR	HR	VHR
Lohardaga	VLR	HR	VLR	NR	VLR	HR	VLR	VLR	VLR	VLR	VLR	HR	VHR
Pakur	VLR	VHR	VLR	NR	VLR	HR	MR	MR	VLR	NR	VLR	VHR	VHR
Palamu	VLR	VHR	LR	NR	VLR	HR	VLR	LR	VLR	NR	VLR	HR	VHR
Pashchimi Singhbhum	VLR	VHR	VLR	NR	VLR	VHR	VLR	VLR	VLR	VLR	VLR	LR	LR
Purbi Singhbhum	VLR	VHR	VLR	NR	VLR	VHR	HR	HR	VLR	VLR	VLR	VHR	VHR
Ramgarh	VLR	VLR	VLR	NR	NR	VLR	VLR	VLR	VLR	NR	VLR	VLR	VLR
Ranchi	VLR	VHR	VLR	NR	VLR	VHR	HR	LR	HR	VLR	VLR	VHR	VHR
Sahibganj	VLR	VHR	VLR	NR	VLR	HR	LR	LR	VLR	VLR	VLR	VHR	VHR
Seraikela - Kharsawan	VLR	HR	VLR	NR	VLR	VHR	MR	VLR	VLR	VLR	NR	VHR	VHR
Simdega	VLR	VHR	LR	NR	VLR	VHR	VLR	LR	VLR	VLR	VLR	HR	VHR

**If vaccination is already been done please ignore the disease forecast for that disease.**

\*No risk/No data available (NR), Very low risk (VLR), Low risk (LR), Moderate risk (MR), High risk (HR), Very high risk (VHR)



### District wise Livestock Disease forewarning for August 2018: Karnataka

Districts of Karnataka	Livestock Diseases												
	Anthrax	Babesiosis	BQ	BT	ET	Fasciolosis	FMD	HS	PPR	S&G Pox	SF	Theileriosis	Trypanosomosis
Bagalkot	VLR	NR	VLR	VLR	VLR	NR	VLR	VHR	VLR	VLR	NR	NR	NR
Bangalore	VLR	VLR	VLR	NR	VLR	VLR	MR	VLR	VLR	VLR	VLR	VLR	VLR
Bangalore Rural	HR	NR	VLR	NR	VLR	NR	VLR	VLR	VLR	VLR	VLR	NR	NR
Belgaum	VLR	NR	VLR	VLR	LR	NR	VLR	HR	VLR	VLR	NR	NR	NR
Bellary	HR	NR	HR	VLR	VLR	NR	VLR	VHR	VLR	LR	NR	NR	NR
Bidar	VLR	NR	VLR	NR	VLR	VLR	VLR	VLR	VLR	VLR	VLR	NR	NR
Bijapur	VLR	NR	VLR	VLR	VLR	NR	VLR	HR	VLR	VLR	VLR	VLR	NR
Chamarajanagar	VLR	NR	VLR	NR	VLR	NR	VLR	VLR	VLR	VLR	NR	NR	NR
Chikkaballapura	MR	NR	VLR	NR	VLR	NR	MR	VLR	VLR	VLR	NR	NR	NR
Chikmagalur	VLR	NR	VHR	NR	VLR	NR	LR	LR	VLR	VLR	VLR	NR	NR
Chitradurga	VLR	NR	VHR	VLR	HR	NR	VLR	VHR	VLR	LR	NR	NR	NR
Dakshina Kannada	VLR	VLR	VLR	NR	VLR	VLR	VLR	VLR	VLR	VLR	VLR	VLR	NR
Davanagere	HR	NR	VHR	VLR	MR	NR	VLR	VHR	VLR	VHR	VLR	NR	NR
Dharwad	VLR	NR	MR	NR	VLR	NR	VLR	MR	VLR	VLR	VLR	NR	NR
Gadag	VLR	NR	VLR	VLR	VLR	VLR	VLR	VLR	VLR	VLR	NR	NR	NR

Continue

Districts of Karnataka	Livestock Diseases												
	Anthrax	Babesiosis	BQ	BT	ET	Fasciolosis	FMD	HS	PPR	S&G Pox	SF	Theileriosis	Trypanosomosis
Gulbarga	VLR	NR	VHR	NR	VLR	NR	LR	HR	VLR	MR	NR	NR	NR
Hassan	VLR	NR	VHR	NR	VLR	NR	LR	VHR	VLR	VLR	VLR	NR	NR
Haveri	VLR	NR	MR	NR	VLR	NR	VLR	HR	VLR	VLR	VLR	NR	NR
Kodagu	VLR	VLR	VLR	NR	VLR	VLR	VLR	VLR	VLR	VLR	VLR	VLR	NR
Kolar	VLR	NR	NR	VLR	VLR	NR	MR	VLR	VLR	VLR	NR	NR	NR
Koppal	HR	NR	VLR	VLR	HR	NR	VLR	VHR	VLR	MR	NR	NR	NR
Mandya	VLR	NR	VLR	VLR	VLR	NR	LR	VLR	VLR	VLR	VLR	NR	NR
Mysore	VLR	NR	VHR	NR	VLR	NR	LR	LR	VLR	VLR	VLR	NR	NR
Raichur	VLR	NR	MR	VLR	LR	NR	VLR	VHR	VLR	VLR	NR	NR	NR
Ramanagara	VLR	NR	VLR	NR	VLR	NR	MR	VLR	VLR	VLR	NR	VLR	NR
Shimoga	VLR	NR	VHR	NR	VLR	NR	VLR	VHR	VLR	VLR	VLR	NR	NR
Tumkur	MR	NR	VHR	VLR	VHR	NR	VLR	VHR	LR	MR	NR	NR	NR
Udupi	VLR	VLR	VLR	NR	VLR	VLR	LR	VLR	VLR	VLR	VLR	VLR	VLR
Uttara Kannada	VLR	NR	VLR	NR	VLR	NR	LR	LR	VLR	VLR	VLR	VLR	VLR
Yadgir	VLR	NR	HR	NR	VLR	NR	VLR	VLR	VLR	VLR	NR	VLR	NR

If vaccination is already been done please ignore the disease forecast for that disease.

\*No risk/No data available (NR), Very low risk (VLR), Low risk (LR), Moderate risk (MR), High risk (HR), Very high risk (VHR)

\*\*Risk prediction is downgraded to LR due to mass vaccination against FMD in Karnataka.

## District wise Livestock Disease forewarning for August 2018: Kerala

Districts of Kerala	Livestock Diseases												
	Anthrax	Babesiosis	BQ	BT	ET	Fasciolosis	FMD	HS	PPR	S&G Pox	SF	Theileriosis	Trypanosomosis
Alappuzha	VLR	VLR	VLR	NR	NR	NR	VHR	VLR	VLR	VLR	VLR	VLR	NR
Ernakulam	VLR	VLR	VLR	NR	VLR	NR	VHR	MR	VLR	VLR	VLR	VLR	VLR
Idukki	VLR	VLR	VLR	NR	NR	NR	VHR	VLR	VLR	NR	VLR	VLR	NR
Kannur	VLR	VLR	VLR	NR	NR	NR	HR	VLR	VLR	NR	VLR	VLR	VLR
Kasaragod	VLR	VLR	VLR	NR	NR	VLR	MR	VLR	VLR	VLR	VLR	VLR	NR
Kollam	VLR	VLR	NR	NR	VLR	NR	VHR	VHR	VLR	NR	VLR	NR	NR
Kottayam	VLR	VLR	VLR	NR	VLR	NR	HR	MR	VLR	NR	VLR	VLR	VLR
Kozhikode	VLR	VLR	VLR	NR	NR	VLR	VHR	LR	VLR	VLR	VLR	VLR	VLR
Malappuram	VLR	VLR	VLR	NR	VLR	VLR	VHR	VLR	VLR	VLR	VLR	VLR	VLR
Palakkad	VLR	VLR	VLR	NR	VLR	VLR	HR	LR	MR	VLR	VLR	MR	VLR
Pathanamthitta	VLR	VLR	VLR	NR	NR	NR	VHR	VLR	VLR	NR	VLR	VLR	NR
Thiruvananthapuram	VLR	VLR	VLR	NR	VLR	NR	HR	HR	VLR	NR	VLR	VLR	NR
Thrissur	VLR	VLR	VLR	NR	NR	NR	VHR	HR	VLR	VLR	VLR	VLR	VLR
Wayanad	VLR	VLR	VLR	NR	NR	NR	VHR	VLR	VLR	VLR	VLR	VLR	NR

**If vaccination is already been done please ignore the disease forecast for that disease.**

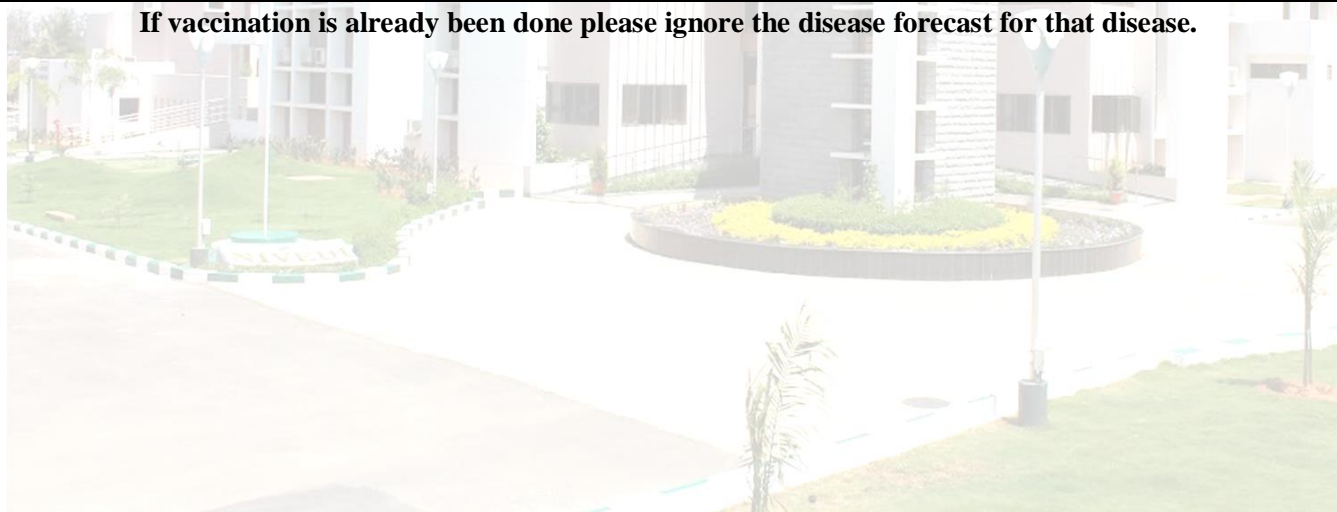
\*No risk/No data available (NR), Very low risk (VLR), Low risk (LR), Moderate risk (MR), High risk (HR), Very high risk (VHR)



## District wise Livestock Disease forewarning for August 2018: Lakshadweep

Districts of Lakshadweep	Livestock Diseases												
	Anthrax	Babesiosis	BQ	BT	ET	Fasciolosis	FMD	HS	PPR	S&G Pox	SF	Theileriosis	Trypanosomosis
Lakshadweep	VLR	VLR	NR	NR	NR	VLR	VLR	VLR	VLR	VLR	VLR	VLR	NR

If vaccination is already been done please ignore the disease forecast for that disease.



\*No risk/No data available (NR), Very low risk (VLR), Low risk (LR), Moderate risk (MR), High risk (HR), Very high risk (VHR)

### District wise Livestock Disease forewarning for August 2018: Madhya Pradesh

Districts of Madhya Pradesh	Livestock Diseases												
	Anthrax	Babesiosis	BQ	BT	ET	Fasciolosis	FMD	HS	PPR	S&G Pox	SF	Theileriosis	Trypanosomosis
Alirajpur	NR	NR	NR	NR	NR	NR	VLR	NR	NR	NR	VLR	NR	NR
Anuppur	VLR	VLR	VLR	NR	VLR	NR	VLR	VLR	VLR	NR	VLR	NR	NR
Ashoknagar	VLR	NR	NR	NR	VLR	NR	VLR	VLR	VLR	NR	VLR	NR	NR
Balaghat	VLR	NR	LR	NR	VLR	NR	VLR	HR	VLR	VLR	VLR	NR	NR
Barwani	VLR	NR	VLR	NR	VLR	NR	VLR	VLR	NR	NR	VLR	VLR	VLR
Betul	VLR	NR	HR	NR	NR	NR	VLR	MR	VLR	NR	VLR	NR	VLR
Bhind	NR	NR	VLR	NR	NR	NR	VLR	VLR	VLR	NR	VLR	NR	NR
Bhopal	VLR	VLR	NR	NR	VLR	NR	VLR	VLR	VLR	NR	VLR	NR	NR
Burhanpur	VLR	VLR	VLR	NR	VLR	NR	VLR	VLR	VLR	VLR	VLR	VLR	VLR
Chhatarpur	VLR	NR	VLR	NR	VLR	NR	VLR	LR	VLR	NR	VLR	NR	NR
Chhindwara	VLR	NR	HR	NR	VLR	NR	VLR	HR	VLR	NR	VLR	NR	VLR
Damoh	VLR	NR	VLR	NR	VLR	NR	VLR	LR	VLR	NR	VLR	NR	NR
Datia	NR	NR	VLR	NR	VLR	NR	VLR	VLR	VLR	NR	VLR	VLR	NR
Dewas	VLR	NR	VLR	NR	VLR	NR	VLR	LR	VLR	NR	VLR	NR	NR
Dhar	NR	NR	VLR	NR	VLR	NR	VLR	VLR	VLR	NR	VLR	NR	NR
Dindori	VLR	VLR	VLR	NR	VLR	NR	VLR	VLR	VLR	NR	VLR	NR	VLR
East Nimar	VLR	NR	VLR	NR	VLR	NR	VLR	LR	VLR	NR	VLR	VLR	VLR
Guna	NR	NR	VLR	NR	VLR	NR	VLR	LR	VLR	NR	VLR	NR	NR
Gwalior	NR	NR	NR	NR	VLR	NR	VLR	VLR	VLR	NR	VLR	NR	NR
Harda	VLR	NR	VLR	NR	VLR	NR	VLR	VLR	VLR	NR	VLR	NR	NR
Hoshangabad	VLR	NR	VLR	NR	VLR	NR	VLR	VLR	VLR	NR	VLR	NR	NR
Indore	NR	NR	VLR	NR	VLR	NR	VLR	VLR	VLR	NR	VLR	NR	NR
Jabalpur	VLR	NR	VLR	NR	NR	NR	VLR	HR	VLR	NR	VLR	NR	VLR
Jhabua	VLR	NR	VLR	NR	VLR	NR	VLR	VLR	VLR	NR	NR	NR	NR
Katni	VLR	NR	VLR	NR	VLR	NR	VLR	HR	VLR	NR	VLR	VLR	VLR

Continue

Districts of Madhya Pradesh	Livestock Diseases												
	Anthrax	Babesiosis	BQ	BT	ET	Fasciolosis	FMD	HS	PPR	S&G Pox	SF	Theileriosis	Trypanosomosis
Khargone (West Nimar)	VLR	NR	VLR	NR	VLR	NR	VLR	LR	VLR	NR	VLR	NR	VLR
Mandla	VLR	NR	VLR	NR	NR	NR	VLR	VLR	VLR	NR	NR	NR	NR
Mandsaur	NR	NR	VLR	NR	VLR	NR	VLR	VLR	VLR	NR	VLR	NR	NR
Morena	NR	VLR	VLR	NR	VLR	NR	VLR	VLR	VLR	NR	VLR	NR	NR
Narsimhapur	NR	NR	NR	NR	VLR	NR	VLR	VLR	NR	NR	NR	VLR	NR
Neemuch	NR	NR	VLR	NR	NR	NR	VLR	VLR	VLR	VLR	VLR	NR	NR
Panna	VLR	NR	VLR	NR	NR	NR	VLR	LR	VLR	NR	VLR	NR	NR
Raisen	VLR	NR	VLR	NR	VLR	NR	VLR	LR	VLR	NR	VLR	NR	NR
Rajgarh	NR	NR	VLR	NR	VLR	NR	VLR	VLR	VLR	NR	VLR	NR	NR
Ratlam	VLR	NR	VLR	NR	VLR	NR	VLR	MR	VLR	VLR	VLR	NR	VLR
Rewa	VLR	NR	LR	NR	VLR	NR	VLR	MR	VLR	VLR	VLR	NR	NR
Sagar	VLR	NR	VLR	NR	VLR	NR	VLR	VLR	VLR	NR	VLR	NR	VLR
Satna	VLR	NR	VLR	NR	VLR	NR	VLR	VLR	VLR	VLR	VLR	NR	NR
Sehore	VLR	VLR	VLR	NR	VLR	NR	LR	HR	VLR	NR	VLR	NR	NR
Seoni	VLR	VLR	VLR	NR	VLR	VLR	VLR	LR	VLR	VLR	VLR	VLR	NR
Shahdol	VLR	NR	VLR	NR	VLR	NR	VLR	VLR	VLR	NR	VLR	NR	NR
Shajapur	NR	NR	VLR	NR	VLR	NR	VLR	VLR	VLR	NR	VLR	NR	NR
Sheopur	VLR	NR	VLR	NR	VLR	NR	VLR	LR	VLR	NR	VLR	NR	NR
Shivpuri	VLR	NR	VLR	NR	VLR	NR	VLR	LR	VLR	NR	VLR	VLR	VLR
Sidhi	VLR	VLR	VLR	NR	VLR	VLR	VLR	VLR	VLR	NR	VLR	VLR	VLR
Singrauli	VLR	VLR	VLR	NR	NR	NR	VLR	VLR	VLR	NR	VLR	VLR	VLR
Tikamgarh	NR	NR	VLR	NR	VLR	NR	VLR	VLR	VLR	VLR	VLR	NR	NR
Ujjain	VLR	NR	VLR	NR	VLR	NR	VLR	VLR	VLR	VLR	VLR	NR	NR
Umaria	NR	NR	VLR	NR	VLR	NR	VLR	VLR	VLR	NR	VLR	NR	NR
Vidisha	NR	NR	VLR	NR	VLR	NR	VLR	LR	VLR	NR	VLR	NR	NR

**If vaccination is already been done please ignore the disease forecast for that disease.**

\*No risk/No data available (NR), Very low risk (VLR), Low risk (LR), Moderate risk (MR), High risk (HR), Very high risk (VHR)

## District wise Livestock Disease forewarning for August 2018: Maharashtra

Districts of Maharashtra	Livestock Diseases												
	Anthrax	Babesiosis	BQ	BT	ET	Fasciolosis	FMD	HS	PPR	S&G Pox	SF	Theileriosis	Trypanosomosis
Ahmadnagar	VLR	NR	HR	NR	VLR	NR	VLR	HR	HR	VLR	VLR	NR	NR
Akola	NR	NR	VLR	NR	VLR	VLR	VLR	VLR	VLR	NR	VLR	NR	NR
Amravati	VLR	NR	VLR	NR	NR	NR	VLR	VLR	VLR	VLR	VLR	VLR	NR
Aurangabad	VLR	NR	LR	NR	VLR	NR	VLR	LR	VLR	VLR	VLR	NR	NR
Bhandara	VLR	NR	VLR	NR	VLR	NR	VLR	VLR	VLR	NR	VLR	NR	NR
Bid	VLR	NR	VLR	NR	VLR	NR	NR	VLR	VLR	NR	VLR	NR	NR
Buldana	VLR	NR	VLR	NR	VLR	NR	VLR	VLR	VLR	VLR	VLR	NR	NR
Chandrapur	VLR	NR	VLR	NR	VLR	NR	VLR	VLR	VLR	NR	VLR	NR	NR
Dhule	VLR	NR	VLR	NR	VLR	VLR	VLR	VLR	VLR	VLR	VLR	NR	NR
Gadchiroli	VLR	NR	VLR	NR	VLR	NR	VLR	VLR	VLR	NR	VLR	VLR	VLR
Gondiya	NR	NR	VLR	NR	VLR	NR	VLR	LR	VLR	VLR	VLR	NR	NR
Hingoli	NR	NR	VLR	NR	NR	NR	VLR	VLR	VLR	NR	VLR	VLR	NR
Jalgaon	NR	NR	VLR	NR	NR	NR	VLR	VLR	VLR	VLR	VLR	NR	NR
Jalna	VLR	NR	VLR	NR	NR	NR	NR	VLR	VLR	NR	VLR	NR	NR
Kolhapur	VLR	NR	VLR	NR	VLR	NR	VLR	VLR	VLR	VLR	VLR	NR	NR
Latur	VLR	NR	VLR	NR	VLR	NR	VLR	VLR	VLR	NR	VLR	NR	NR
Mumbai	VLR	VLR	VLR	NR	NR	HR	VLR	VLR	VLR	VLR	VLR	VLR	VLR
Mumbai Suburban	VLR	NR	VLR	NR	VLR	VLR	VLR	VLR	VLR	VLR	VLR	VLR	VLR
Nagpur	VLR	NR	VLR	NR	NR	NR	VLR	VLR	VLR	VLR	VLR	VLR	NR
Nanded	VLR	NR	VLR	NR	VLR	NR	VLR	LR	VLR	VLR	VLR	NR	NR
Nandurbar	VLR	NR	VLR	NR	VLR	NR	VLR	VLR	VLR	NR	VLR	NR	NR
Nashik	VLR	NR	HR	NR	VLR	NR	VLR	MR	MR	VLR	VLR	NR	NR
Osmanabad	VLR	NR	VLR	NR	NR	NR	VLR	VLR	VLR	VLR	VLR	NR	NR
Parbhani	VLR	NR	VLR	NR	NR	VLR	NR	VLR	VLR	VLR	NR	NR	NR
Pune	VLR	NR	VLR	NR	VLR	NR	VLR	LR	VLR	VLR	VLR	NR	NR





Continue

Districts of Maharashtra	Livestock Diseases												
	Anthrax	Babesiosis	BQ	BT	ET	Fasciolosis	FMD	HS	PPR	S&G Pox	SF	Theileriosis	Trypanosomosis
Raigarh	VLR	NR	VLR	NR	NR	NR	VLR	VLR	VLR	VLR	VLR	VLR	VLR
Ratnagiri	VLR	VLR	VLR	NR	VLR	NR	VLR	VLR	VLR	VLR	VLR	VLR	VLR
Sangli	VLR	NR	VLR	NR	VLR	NR	NR	VLR	VLR	VLR	VLR	NR	NR
Satara	VLR	NR	VLR	NR	VLR	NR	VLR	VLR	VLR	VLR	VLR	NR	NR
Sindhudurg	VLR	VLR	VLR	NR	NR	NR	VLR	VLR	VLR	NR	VLR	VLR	VLR
Solapur	VLR	NR	VLR	NR	VLR	NR	VLR	VLR	VLR	VLR	VLR	NR	NR
Thane	VLR	VLR	VLR	NR	VLR	NR	VLR	LR	VLR	NR	VLR	VLR	VLR
Wardha	VLR	NR	VLR	NR	VLR	NR	VLR	LR	VLR	NR	VLR	VLR	NR
Washim	VLR	NR	VLR	NR	NR	NR	VLR	VLR	VLR	NR	VLR	NR	VLR
Yavatmal	VLR	NR	VLR	NR	VLR	NR	NR	VLR	VLR	VLR	VLR	NR	NR

If vaccination is already been done please ignore the disease forecast for that disease.

\*No risk/No data available (NR), Very low risk (VLR), Low risk (LR), Moderate risk (MR), High risk (HR), Very high risk (VHR)

## District wise Livestock Disease forewarning for August 2018: Manipur

Districts of Manipur	Livestock Diseases												
	Anthrax	Babesiosis	BQ	BT	ET	Fasciolosis	FMD	HS	PPR	S&G Pox	SF	Theileriosis	Trypanosomosis
Bishnupur	NR	NR	VLR	NR	NR	HR	VLR	VLR	VLR	VLR	LR	NR	NR
Chandel	NR	NR	HR	NR	NR	VLR	VLR	VLR	NR	VLR	VHR	NR	NR
Churachandpur	NR	NR	MR	NR	NR	VLR	VLR	VLR	NR	VLR	VHR	NR	NR
Imphal East	NR	NR	HR	NR	NR	HR	VLR	VLR	NR	VLR	VHR	NR	NR
Imphal West	NR	VLR	HR	NR	NR	HR	VLR	VLR	NR	VLR	VHR	NR	NR
Senapati	NR	NR	MR	NR	NR	VLR	VLR	VLR	VLR	VLR	HR	NR	NR
Tamenglong	NR	VLR	MR	NR	NR	VLR	VLR	VLR	NR	VLR	HR	NR	NR
Thoubal	NR	VLR	VLR	NR	NR	HR	VLR	VLR	NR	VLR	VHR	NR	NR
Ukhrul	VLR	NR	MR	NR	NR	VLR	VLR	VLR	NR	VLR	HR	NR	NR

**If vaccination is already been done please ignore the disease forecast for that disease.**

\*No risk/No data available (NR), Very low risk (VLR), Low risk (LR), Moderate risk (MR), High risk (HR), Very high risk (VHR)

## District wise Livestock Disease forewarning for August 2018: Meghalaya

Districts of Meghalaya	Livestock Diseases												
	Anthrax	Babesiosis	BQ	BT	ET	Fasciolosis	FMD	HS	PPR	S&G Pox	SF	Theileriosis	Trypanosomosis
East Garo Hills	VLR	VLR	VLR	NR	NR	NR	MR	VLR	VLR	VLR	HR	VLR	NR
East Jaintia Hills	NR	VLR	VLR	NR	NR	VLR	HR	VHR	VLR	VLR	VHR	VLR	NR
East Khasi Hills	NR	VLR	HR	NR	NR	VLR	VHR	MR	VLR	VLR	VHR	NR	NR
Jaintia Hills	NR	VLR	VLR	NR	NR	VLR	VHR	VLR	NR	VLR	VHR	VLR	NR
North Garo Hills	VLR	NR	NR	NR	NR	NR	VLR	VLR	NR	NR	VLR	NR	VLR
Ribhoi	NR	VLR	NR	NR	NR	VLR	VHR	VLR	NR	VLR	HR	NR	NR
South Garo Hills	VLR	VLR	VLR	NR	NR	VLR	LR	VLR	VLR	VLR	LR	VLR	VLR
Southwest Garo Hills	VLR	NR	MR	NR	NR	VLR	HR	HR	VLR	VLR	MR	VLR	VLR
Southwest Khasi Hills	NR	NR	VLR	NR	NR	NR	LR	VLR	VLR	NR	VLR	NR	NR
West Garo Hills	VLR	VLR	VHR	NR	VLR	MR	VHR	VHR	VLR	VLR	VHR	VLR	VLR
West Khasi Hills	NR	VLR	VHR	NR	NR	VLR	VHR	MR	VLR	VLR	VHR	VLR	NR

■ If vaccination is already been done please ignore the disease forecast for that disease.

\*No risk/No data available (NR), Very low risk (VLR), Low risk (LR), Moderate risk (MR), High risk (HR), Very high risk (VHR)



## District wise Livestock Disease forewarning for August 2018: Mizoram



Districts of Mizoram	Livestock Diseases												
	Anthrax	Babesiosis	BQ	BT	ET	Fasciolosis	FMD	HS	PPR	S&G Pox	SF	Theileriosis	Trypanosomosis
Aizawl	VLR	VLR	VLR	NR	NR	VLR	VLR	VLR	NR	VLR	MR	NR	NR
Champhai	VLR	NR	VLR	NR	NR	VLR	VLR	MR	NR	VLR	HR	NR	NR
Kolasib	NR	VLR	NR	NR	NR	NR	VLR	VLR	NR	VLR	VLR	VLR	NR
Lawngtlai	VLR	VLR	VLR	NR	NR	VLR	VLR	VLR	NR	VLR	LR	VLR	NR
Lunglei	VLR	VLR	VLR	NR	NR	NR	VLR	VLR	NR	VLR	VLR	VLR	NR
Mamit	VLR	VLR	VLR	NR	NR	VLR	VLR	VLR	NR	VLR	LR	NR	NR
Saiha	VLR	VLR	VLR	NR	NR	NR	VLR	VLR	NR	VLR	LR	NR	NR
Serchhip	VLR	VLR	VLR	NR	NR	VLR	VLR	VLR	NR	VLR	LR	NR	NR

**If vaccination is already been done please ignore the disease forecast for that disease.**

\*No risk/No data available (NR), Very low risk (VLR), Low risk (LR), Moderate risk (MR), High risk (HR), Very high risk (VHR)



## District wise Livestock Disease forewarning for August 2018: Nagaland

Districts of Nagaland	Livestock Diseases												
	Anthrax	Babesiosis	BQ	BT	ET	Fasciolosis	FMD	HS	PPR	S&G Pox	SF	Theileriosis	Trypanosomosis
Dimapur	NR	VLR	VLR	NR	NR	VLR	VLR	VLR	NR	VLR	HR	NR	NR
Kiphire	NR	NR	VLR	NR	NR	VLR	VLR	VLR	NR	VLR	LR	NR	NR
Kohima	NR	VLR	VLR	NR	NR	VLR	VLR	VLR	NR	NR	LR	NR	NR
Longleng	NR	VLR	VLR	NR	NR	VLR	VLR	VLR	NR	VLR	HR	NR	NR
Mokokchung	NR	VLR	VLR	NR	NR	VLR	VLR	VLR	VLR	VLR	VLR	VLR	NR
Mon	NR	NR	NR	NR	NR	NR	VLR	VLR	NR	NR	VLR	NR	NR
Peren	VLR	VLR	VLR	NR	VLR	VLR	LR	VLR	NR	NR	MR	VLR	NR
Phek	NR	VLR	VLR	NR	NR	VLR	VLR	VLR	NR	VLR	MR	NR	NR
Tuensang	NR	VLR	VLR	NR	NR	VLR	VLR	VLR	VLR	VLR	LR	NR	NR
Wokha	NR	NR	VLR	NR	NR	VLR	VLR	VLR	VLR	VLR	VLR	VLR	VLR
Zunheboto	NR	VLR	VLR	NR	NR	VLR	VLR	VLR	NR	VLR	MR	VLR	NR

**If vaccination is already been done please ignore the disease forecast for that disease.**

\*No risk/No data available (NR), Very low risk (VLR), Low risk (LR), Moderate risk (MR), High risk (HR), Very high risk (VHR)



### District wise Livestock Disease forewarning for August 2018: NCT of Delhi

Districts of NCT of Delhi	Livestock Diseases												
	Anthrax	Babesiosis	BQ	BT	ET	Fasciolosis	FMD	HS	PPR	S&G Pox	SF	Theileriosis	Trypanosomosis
Central	NR	VLR	NR	NR	VLR	VLR	VLR	VLR	NR	NR	VLR	VLR	NR
East	NR	NR	NR	NR	NR	VLR	VLR	NR	VLR	NR	NR	VLR	NR
New Delhi	NR	VLR	NR	NR	VLR	NR	VLR	VLR	NR	NR	VLR	NR	VLR
North	VLR	VLR	VLR	NR	NR	NR	VLR	VLR	VLR	VLR	VLR	VLR	NR
North East	VLR	VLR	NR	NR	NR	NR	VLR	VLR	NR	VLR	VLR	VLR	NR
North West	NR	VLR	NR	NR	NR	NR	VLR	VLR	VLR	VLR	VLR	VLR	NR
South	NR	VLR	NR	NR	NR	VLR	VLR	NR	NR	VLR	NR	VLR	VLR
South West	VLR	VLR	VLR	NR	NR	NR	VLR	VLR	NR	VLR	VLR	VLR	NR
West	NR	VLR	VLR	NR	NR	VLR	VLR	VLR	NR	VLR	VLR	NR	VLR

**If vaccination is already been done please ignore the disease forecast for that disease.**

\*No risk/No data available (NR), Very low risk (VLR), Low risk (LR), Moderate risk (MR), High risk (HR), Very high risk (VHR)

## District wise Livestock Disease forewarning for August 2018: Odisha

Districts of Odisha	Livestock Diseases												
	Anthrax	Babesiosis	BQ	BT	ET	Fasciolosis	FMD	HS	PPR	S&G Pox	SF	Theileriosis	Trypanosomosis
Anugul	VLR	VLR	LR	NR	VLR	VLR	VLR	VLR	VLR	VLR	NR	VLR	VLR
Balangir	VLR	NR	VLR	NR	VLR	VLR	VLR	VLR	VLR	VLR	VLR	VLR	VLR
Baleshwar	VLR	VLR	LR	NR	VLR	VLR	LR	LR	VLR	VLR	VLR	VLR	VLR
Bargarh	VLR	VLR	VLR	NR	VLR	VLR	VLR	VLR	VLR	VLR	VLR	VLR	VLR
Baudh	VLR	VLR	VLR	NR	VLR	NR	VLR	VLR	VLR	VLR	VLR	VLR	VLR
Bhadrak	VLR	VLR	VLR	NR	VLR	VLR	LR	LR	VLR	VLR	NR	VLR	VLR
Cuttack	VLR	MR	HR	NR	VLR	VLR	LR	VLR	VLR	VLR	VLR	HR	MR
Debagarh	VLR	VLR	VLR	NR	VLR	VLR	VLR	VLR	VLR	VLR	VLR	VLR	VLR
Dhenkanal	VLR	VLR	MR	NR	VLR	VLR	VLR	LR	VLR	VLR	NR	VLR	VLR
Gajapati	VLR	VLR	VLR	NR	VLR	VLR	VLR	VLR	VLR	VLR	VLR	VLR	VLR
Ganjam	VLR	VLR	LR	NR	VLR	VLR	LR	LR	HR	VLR	VLR	VLR	VLR
Jagatsinghapur	VLR	VLR	VLR	NR	NR	VLR	MR	LR	VLR	VLR	VLR	VLR	VLR
Jajapur	VLR	VLR	LR	NR	VLR	VLR	LR	VLR	VLR	VLR	NR	VLR	VLR
Jharsuguda	VLR	VLR	VLR	NR	NR	VLR	VLR	VLR	VLR	VLR	VLR	VLR	VLR
Kalahandi	VLR	VLR	VLR	NR	VLR	VLR	VLR	VLR	VLR	VLR	VLR	VLR	VLR
Kandhamal	VLR	NR	VLR	NR	NR	VLR	VLR	LR	VLR	VLR	VLR	VLR	VLR
Kendrapara	VLR	VLR	LR	NR	VLR	VLR	MR	LR	VLR	VLR	VLR	VLR	VLR
Kendujhar	VLR	VLR	VLR	NR	VLR	VLR	VLR	VLR	LR	VLR	VLR	VLR	VLR
Khordha	VLR	MR	MR	NR	VLR	VLR	HR	VLR	VLR	VLR	VLR	MR	VLR
Koraput	MR	VLR	LR	NR	VLR	VLR	VLR	LR	MR	VLR	VLR	VLR	VLR
Malkangiri	VLR	VLR	VLR	NR	VLR	VLR	VLR	LR	VLR	VLR	VLR	VLR	VLR
Mayurbhanj	VLR	VLR	VLR	NR	NR	VLR	MR	VLR	VLR	VLR	VLR	VLR	VLR
Nabarangapur	VLR	VLR	VLR	NR	VLR	VLR	VLR	VLR	VLR	VLR	VLR	VLR	VLR
Nayagarh	VLR	VLR	VLR	NR	VLR	VLR	VLR	LR	VLR	VLR	VLR	VLR	VLR
Nuapada	VLR	VLR	VLR	NR	VLR	VLR	VLR	VLR	VLR	VLR	VLR	VLR	VLR



Continue

Districts of Odisha	Livestock Diseases												
	Anthrax	Babesiosis	BQ	BT	ET	Fasciolosis	FMD	HS	PPR	S&G Pox	SF	Theileriosis	Trypanosomosis
Puri	VLR	VLR	VLR	NR	VLR	VLR	VLR	VLR	VLR	VLR	VLR	VLR	VLR
Rayagada	VLR	VLR	VLR	NR	VLR	VLR	HR	MR	VLR	VLR	VLR	HR	VLR
Sambalpur	VLR	VLR	VLR	NR	VLR	VLR	VLR	LR	VLR	VLR	VLR	VLR	VLR
Subarnapur	VLR	VLR	VLR	NR	NR	VLR	VLR	VLR	VLR	VLR	VLR	VLR	VLR
Sundargarh	VLR	VLR	VLR	NR	VLR	VLR	VLR	VLR	VLR	VLR	VLR	VLR	VLR

**If vaccination is already been done please ignore the disease forecast for that disease.**

\*No risk/No data available (NR), Very low risk (VLR), Low risk (LR), Moderate risk (MR), High risk (HR), Very high risk (VHR)



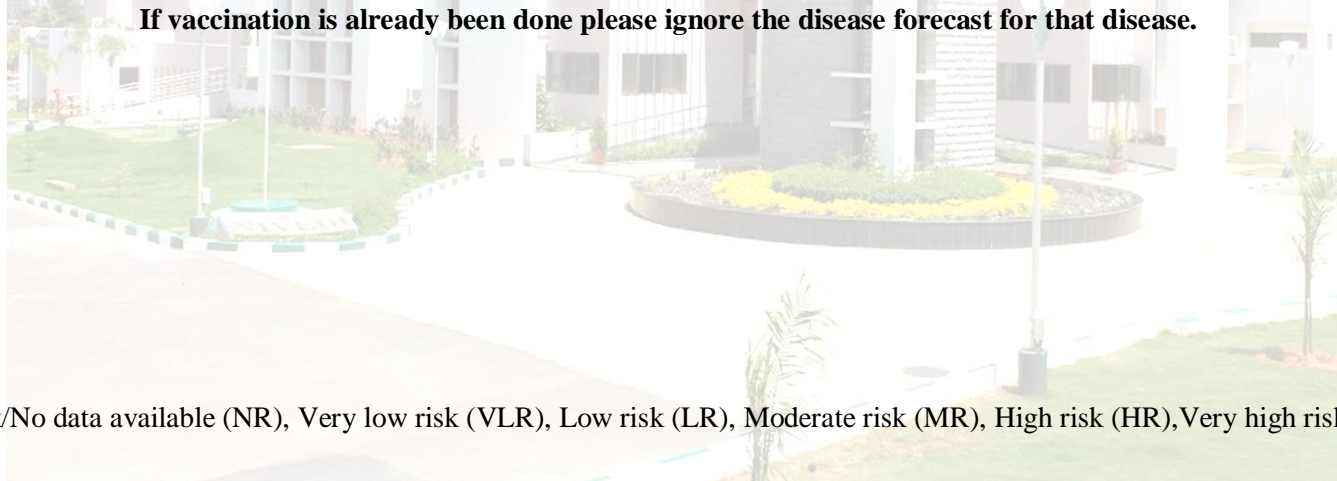


## District wise Livestock Disease forewarning for August 2018: Puducherry



Districts of Puducherry	Livestock Diseases												
	Anthrax	Babesiosis	BQ	BT	ET	Fasciolosis	FMD	HS	PPR	S&G Pox	SF	Theileriosis	Trypanosomosis
Karaikal	VLR	VHR	NR	NR	NR	VLR	VLR	VLR	VLR	VLR	VLR	VLR	VLR
Mahe	VLR	VLR	VLR	NR	NR	VLR	VLR	VLR	VLR	VLR	VLR	VLR	VLR
Puducherry	VLR	VHR	NR	NR	NR	VLR	NR	VLR	VLR	VLR	NR	VLR	NR
Yanam	VLR	VLR	NR	NR	VLR	VHR	VLR	VLR	NR	VLR	VLR	VLR	VLR

**If vaccination is already been done please ignore the disease forecast for that disease.**



\*No risk/No data available (NR), Very low risk (VLR), Low risk (LR), Moderate risk (MR), High risk (HR), Very high risk (VHR)

## District wise Livestock Disease forewarning for August 2018: Punjab

Districts of Punjab	Livestock Diseases												
	Anthrax	Babesiosis	BQ	BT	ET	Fasciolosis	FMD	HS	PPR	S&G Pox	SF	Theileriosis	Trypanosomosis
Amritsar	NR	NR	NR	NR	NR	VLR	VLR	VLR	VLR	VLR	VLR	VLR	VLR
Barnala	NR	NR	NR	NR	NR	NR	VLR	VLR	VLR	VLR	VLR	NR	NR
Bathinda	VLR	NR	NR	NR	NR	NR	VLR	VLR	VLR	NR	VLR	VLR	NR
Faridkot	VLR	VLR	NR	NR	NR	VLR	VLR	VLR	NR	NR	VLR	VLR	VLR
Fatehgarh Sahib	NR	VLR	VLR	NR	NR	NR	VLR	VLR	NR	VLR	VLR	VLR	VLR
Firozpur	NR	NR	VLR	NR	VLR	NR	VLR	VLR	VLR	NR	VLR	VLR	VLR
Gurdaspur	NR	VLR	VLR	NR	NR	VLR	VLR	VLR	VLR	VLR	VLR	VLR	VLR
Hoshiarpur	NR	VLR	NR	NR	NR	NR	VLR	VLR	NR	NR	VLR	VLR	VLR
Jalandhar	VLR	VLR	NR	NR	NR	VLR	VLR	VLR	VLR	NR	VLR	NR	NR
Kapurthala	NR	VLR	NR	NR	VLR	VLR	VLR	VLR	VLR	VLR	VLR	VLR	VLR
Ludhiana	NR	VLR	NR	NR	NR	VLR	VLR	VLR	VLR	NR	VLR	VLR	VLR
Mansa	NR	NR	NR	NR	VLR	NR	VLR	VLR	NR	NR	VLR	NR	NR
Moga	NR	VLR	NR	NR	NR	NR	VLR	VLR	NR	NR	VLR	VLR	VLR
Muktsar	VLR	VLR	VLR	NR	NR	VLR	VLR	VLR	VLR	NR	VLR	VLR	VLR
Patiala	VLR	VLR	VLR	NR	VLR	NR	VLR	VLR	VLR	VLR	VLR	VLR	VLR
Rupnagar	VLR	VLR	NR	NR	NR	NR	VLR	VLR	VLR	NR	VLR	VLR	VLR
Sahibzada Ajit Singh Nagar	NR	NR	NR	NR	NR	VLR	VLR	VLR	NR	NR	VLR	NR	NR
Sangrur	NR	NR	NR	NR	NR	VLR	VLR	VLR	VLR	NR	VLR	VLR	VLR
Shahid Bhagat Singh Nagar	VLR	NR	NR	NR	NR	NR	VLR	VLR	VLR	VLR	VLR	NR	NR
Tarn Taran	NR	NR	NR	NR	NR	NR	NR	VLR	NR	VLR	VLR	NR	VLR

**If vaccination is already been done please ignore the disease forecast for that disease.**

\*No risk/No data available (NR), Very low risk (VLR), Low risk (LR), Moderate risk (MR), High risk (HR), Very high risk (VHR)

## District wise Livestock Disease forewarning for August 2018: Rajasthan

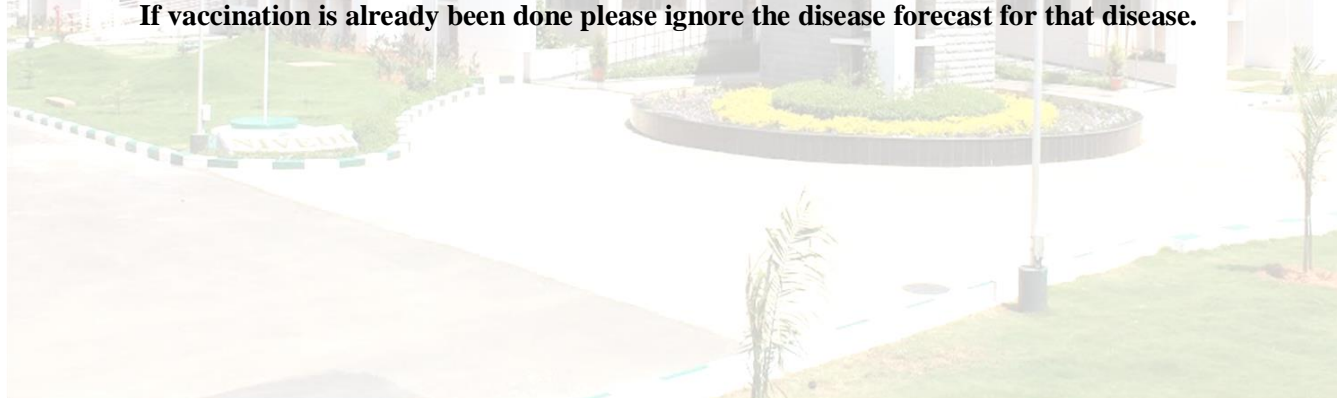
Districts of Rajasthan	Livestock Diseases												
	Anthrax	Babesiosis	BQ	BT	ET	Fasciolosis	FMD	HS	PPR	S&G Pox	SF	Theileriosis	Trypanosomosis
Ajmer	VLR	NR	VLR	NR	VLR	NR	VLR	VLR	VLR	VLR	NR	NR	NR
Alwar	NR	NR	NR	NR	VLR	NR	VLR	LR	VLR	NR	NR	NR	NR
Banswara	VLR	NR	VLR	NR	VLR	NR	VLR	VLR	VLR	VLR	VLR	NR	NR
Baran	VLR	NR	VLR	NR	VLR	NR	VLR	VLR	VLR	NR	VLR	NR	NR
Barmer	VLR	NR	VLR	NR	VLR	NR	VLR	VLR	VLR	NR	NR	NR	NR
Bharatpur	NR	NR	NR	NR	NR	NR	VLR	VLR	VLR	NR	NR	NR	VLR
Bhilwara	VLR	NR	VLR	NR	VLR	NR	VLR	LR	VLR	VLR	NR	NR	NR
Bikaner	HR	VLR	MR	VLR	VLR	NR	HR	MR	VLR	MR	NR	MR	MR
Bundi	VLR	NR	NR	NR	VLR	NR	VLR	VLR	VLR	NR	VLR	NR	NR
Chittaurgarh	VLR	NR	VLR	NR	VLR	NR	VLR	VLR	VLR	VLR	VLR	NR	NR
Churu	VLR	VLR	VLR	NR	VLR	NR	VLR	VLR	VLR	VLR	NR	VLR	VLR
Dausa	VLR	NR	VLR	NR	VLR	NR	VLR	VLR	VLR	NR	NR	NR	VLR
Dhaulpur	NR	NR	NR	NR	VLR	NR	VLR	VLR	VLR	NR	VLR	NR	VLR
Dungarpur	VLR	NR	VLR	NR	VLR	NR	VLR	VLR	VLR	NR	VLR	NR	NR
Ganganagar	VLR	NR	VLR	NR	VLR	NR	VLR	VLR	VLR	VLR	NR	NR	NR
Hanumangarh	VLR	NR	VLR	NR	VLR	NR	VLR	VLR	VLR	VLR	NR	NR	NR
Jaipur	NR	NR	VLR	NR	VLR	NR	VLR	HR	VLR	NR	NR	NR	NR
Jaisalmer	VLR	NR	VLR	NR	VLR	NR	VLR	VLR	VLR	VLR	NR	NR	NR
Jalor	VLR	NR	VLR	VLR	VLR	NR	VLR	VLR	VLR	VLR	NR	NR	VLR
Jhalawar	NR	NR	VLR	NR	VLR	NR	VLR	VLR	VLR	NR	VLR	NR	NR
Jhunjhunun	VLR	NR	VLR	NR	VLR	NR	VLR	VLR	VLR	VLR	NR	NR	NR
Jodhpur	VLR	NR	VLR	NR	VLR	NR	VLR	VLR	VLR	VLR	NR	NR	VLR
Karauli	NR	NR	VLR	NR	VLR	NR	VLR	VLR	VLR	NR	VLR	NR	VLR
Kota	NR	NR	VLR	NR	VLR	NR	VLR	VLR	VLR	NR	VLR	NR	NR
Nagaur	VLR	NR	VLR	NR	VLR	NR	VLR	VLR	VLR	VLR	NR	NR	NR

Continue



Districts of Rajasthan	Livestock Diseases												
	Anthrax	Babesiosis	BQ	BT	ET	Fasciolosis	FMD	HS	PPR	S&G Pox	SF	Theileriosis	Trypanosomosis
Pali	VLR	NR	VLR	NR	VLR	NR	VLR	LR	VLR	VLR	NR	NR	NR
Pratapgarh	NR	NR	VLR	NR	VLR	NR	VLR	VLR	NR	NR	VLR	NR	NR
Rajsamand	VLR	NR	VLR	NR	VLR	NR	VLR	VLR	VLR	NR	VLR	NR	NR
Sawai Madhopur	VLR	NR	NR	NR	NR	NR	VLR	VLR	VLR	VLR	NR	NR	VLR
Sikar	NR	NR	NR	NR	NR	NR	VLR	VLR	VLR	NR	NR	NR	NR
Sirohi	VLR	NR	VLR	NR	VLR	NR	VLR	VLR	VLR	VLR	NR	NR	NR
Tonk	VLR	NR	VLR	NR	VLR	NR	VLR	VLR	VLR	VLR	NR	NR	NR
Udaipur	VLR	NR	VLR	NR	NR	NR	VLR	LR	LR	VLR	VLR	NR	NR

If vaccination is already been done please ignore the disease forecast for that disease.



\*No risk/No data available (NR), Very low risk (VLR), Low risk (LR), Moderate risk (MR), High risk (HR), Very high risk (VHR)



### District wise Livestock Disease forewarning for August 2018: Sikkim

Districts of Sikkim	Livestock Diseases												
	Anthrax	Babesiosis	BQ	BT	ET	Fasciolosis	FMD	HS	PPR	S&G Pox	SF	Theileriosis	Trypanosomosis
East District	NR	NR	VLR	NR	NR	NR	VLR	VLR	VLR	NR	VLR	NR	NR
North District	NR	NR	VLR	NR	VLR	NR	VLR	NR	VLR	VLR	MR	NR	NR
South District	NR	NR	VLR	NR	NR	NR	VLR	VLR	NR	VLR	VLR	NR	NR
West District	NR	NR	VLR	NR	NR	NR	VLR	VLR	VLR	VLR	VLR	NR	NR

If vaccination is already been done please ignore the disease forecast for that disease.

\*No risk/No data available (NR), Very low risk (VLR), Low risk (LR), Moderate risk (MR), High risk (HR), Very high risk (VHR)

### District wise Livestock Disease forewarning for August 2018: Tamil Nadu

Districts of Tamil Nadu	Livestock Disease												
	Anthrax	Babesiosis	BQ	BT	ET	Fasciolosis	FMD	HS	PPR	S&G Pox	SF	Theileriosis	Trypanosomosis
Ariyalur	VLR	VLR	NR	NR	VLR	VLR	VLR	VLR	VLR	VLR	NR	VLR	VLR
Chennai	VLR	NR	VLR	NR	NR	NR	VLR	VLR	VLR	VLR	NR	NR	NR
Coimbatore	MR	NR	NR	NR	VLR	NR	VLR	VLR	VLR	VLR	VLR	NR	NR
Cuddalore	VLR	NR	VLR	NR	VLR	NR	VLR	VLR	VLR	VLR	NR	NR	NR
Dharmapuri	VLR	NR	VLR	NR	VLR	NR	VLR	VLR	VLR	VLR	VLR	NR	NR
Dindigul	VLR	NR	NR	VLR	NR	NR	VLR	VLR	VLR	VLR	NR	NR	NR
Erode	VLR	NR	VLR	NR	NR	NR	VLR	VLR	VLR	VLR	NR	VLR	NR
Kancheepuram	LR	NR	HR	NR	VLR	NR	MR	VLR	VLR	VLR	NR	NR	NR
Kanniyakumari	VLR	VLR	VLR	NR	VLR	NR	VLR	VLR	VLR	VLR	VLR	VLR	NR
Karur	VLR	NR	NR	NR	VLR	NR	VLR	VLR	VLR	VLR	VLR	NR	NR
Krishnagiri	VLR	NR	VLR	NR	NR	NR	VLR	VLR	VLR	VLR	NR	VLR	NR
Madurai	VLR	NR	NR	NR	NR	NR	VLR	VLR	VLR	VLR	NR	NR	NR
Nagapattinam	VLR	VLR	VLR	NR	VLR	NR	VLR	VLR	VLR	NR	NR	VLR	NR
Namakkal	VLR	NR	VLR	NR	VLR	NR	VLR	VLR	VLR	VLR	NR	NR	NR
Perambalur	VLR	NR	NR	NR	NR	NR	VLR	VLR	VLR	NR	VLR	NR	NR
Pudukkottai	HR	NR	VLR	NR	VLR	NR	MR	VLR	VLR	VLR	NR	NR	NR
Ramanathapuram	LR	NR	NR	NR	VLR	NR	VLR	VLR	VLR	VLR	NR	NR	NR
Salem	VLR	NR	VLR	NR	NR	NR	VLR	VLR	LR	VLR	VLR	NR	NR
Sivaganga	VLR	NR	VLR	NR	NR	NR	VLR	VLR	VLR	VLR	NR	NR	NR
Thanjavur	VLR	VLR	VLR	NR	NR	NR	VLR	VLR	VLR	VLR	NR	NR	NR
The Nilgiris	VLR	NR	VLR	NR	VLR	NR	VLR	VLR	VLR	VLR	VLR	VLR	NR
Theni	VLR	NR	VLR	NR	VLR	NR	VLR	VLR	VLR	NR	VLR	NR	NR
Thiruvallur	VLR	NR	VLR	NR	VLR	NR	VLR	VLR	VLR	VLR	NR	NR	NR
Thiruvarur	VLR	VLR	VLR	NR	NR	NR	VLR	VLR	VLR	VLR	NR	VLR	NR
Thoothukkudi	VLR	NR	NR	NR	NR	NR	NR	VLR	VLR	VLR	NR	NR	NR



Continue

Districts of Tamil Nadu	Livestock Disease												
	Anthrax	Babesiosis	BQ	BT	ET	Fasciolosis	FMD	HS	PPR	S&G Pox	SF	Theileriosis	Trypanosomosis
Tiruchirappalli	VLR	NR	VLR	NR	NR	NR	VLR	VLR	VLR	VLR	NR	NR	NR
Tirunelveli	VLR	NR	VLR	NR	VLR	NR	VLR	VLR	VLR	VLR	NR	NR	NR
Tiruppur	VLR	NR	NR	NR	VLR	NR	VLR	VLR	VLR	VLR	NR	NR	NR
Tiruvannamalai	HR	NR	LR	NR	VLR	NR	VLR	VLR	VLR	VLR	NR	NR	NR
Vellore	VLR	NR	VLR	NR	NR	NR	VLR	VLR	VLR	VLR	VLR	NR	NR
Viluppuram	VLR	NR	MR	NR	VLR	VLR	VLR	VLR	LR	VLR	NR	NR	NR
Virudhunagar	VLR	NR	VLR	NR	VLR	NR	VLR	VLR	VLR	VLR	NR	NR	NR

**If vaccination is already been done please ignore the disease forecast for that disease.**

\*No risk/No data available (NR), Very low risk (VLR), Low risk (LR), Moderate risk (MR), High risk (HR), Very high risk (VHR)



## District wise Livestock Disease forewarning for August 2018: Telangana

Districts of Telangana	Livestock Diseases												
	Anthrax	Babesiosis	BQ	BT	ET	Fasciolosis	FMD	HS	PPR	S&G Pox	SF	Theileriosis	Trypanosomosis
Adilabad	VLR	NR	VLR	NR	VLR	NR	VLR	LR	VLR	VLR	NR	NR	NR
Hyderabad	VLR	NR	NR	VLR	VLR	NR	VLR	VLR	VLR	VLR	NR	NR	NR
Karimnagar	VLR	NR	VLR	VLR	VLR	VLR	VLR	MR	LR	VLR	NR	VLR	NR
Khammam	VLR	NR	VLR	NR	HR	NR	VLR	HR	MR	VLR	NR	NR	NR
Mahbubnagar	VHR	NR	VLR	VLR	VHR	NR	VLR	VHR	VHR	HR	NR	NR	NR
Medak	VLR	NR	VLR	NR	VLR	VLR	VLR	MR	VLR	VLR	NR	NR	NR
Nalgonda	LR	NR	VLR	VLR	LR	NR	VLR	MR	LR	VLR	NR	NR	NR
Nizamabad	VLR	NR	VLR	NR	VLR	VLR	VLR	VLR	VLR	VLR	NR	VLR	NR
Rangareddy	VLR	NR	VLR	NR	VLR	NR	VLR	VLR	VLR	VLR	NR	NR	NR
Warangal	VLR	NR	VLR	VLR	LR	VLR	VLR	MR	HR	VLR	NR	NR	NR

**If vaccination is already been done please ignore the disease forecast for that disease.**

\*No risk/No data available (NR), Very low risk (VLR), Low risk (LR), Moderate risk (MR), High risk (HR), Very high risk (VHR)





### District wise Livestock Disease forewarning for August 2018: Tripura

Districts of Tripura	Livestock Disease												
	Anthrax	Babesiosis	BQ	BT	ET	Fasciolosis	FMD	HS	PPR	S&G Pox	SF	Theileriosis	Trypanosomosis
Dhalai	VLR	VLR	VLR	NR	NR	VLR	LR	VLR	VLR	VLR	MR	VLR	NR
North Tripura	VLR	VLR	VLR	NR	NR	VLR	MR	LR	VLR	VLR	HR	VLR	VLR
South Tripura	VLR	VHR	VHR	NR	VLR	VHR	VHR	HR	VLR	VLR	VHR	VLR	NR
West Tripura	VLR	VHR	VHR	NR	VLR	HR	VHR	HR	VLR	VLR	VHR	VLR	VLR

**If vaccination is already been done please ignore the disease forecast for that disease.**

\*No risk/No data available (NR), Very low risk (VLR), Low risk (LR), Moderate risk (MR), High risk (HR), Very high risk (VHR)

## District wise Livestock Disease forewarning for August 2018: Uttar Pradesh

Districts of Uttar Pradesh	Livestock Disease												
	Anthrax	Babesiosis	BQ	BT	ET	Fasciolosis	FMD	HS	PPR	S&G Pox	SF	Theileriosis	Trypanosomosis
Agra	NR	NR	NR	NR	VLR	NR	VLR	VLR	VLR	NR	NR	NR	NR
Aligarh	NR	NR	NR	NR	VLR	NR	NR	NR	NR	NR	NR	NR	VLR
Allahabad	VLR	NR	VLR	NR	VLR	VLR	VLR	VLR	VLR	VLR	NR	VLR	VLR
Ambedkar Nagar	NR	VLR	VLR	NR	NR	VLR	VLR	VLR	VLR	NR	NR	VLR	VLR
Amethi	VLR	VLR	VLR	NR	NR	VLR	VLR	VLR	VLR	NR	VLR	VLR	VLR
Auraiya	NR	VLR	NR	NR	NR	NR	NR	VLR	NR	NR	NR	NR	VLR
Azamgarh	NR	VLR	VLR	NR	NR	VLR	VLR	VLR	VLR	NR	NR	VLR	VLR
Baghpat	NR	VLR	NR	NR	NR	NR	NR	VLR	NR	VLR	VLR	NR	VLR
Bahraich	NR	NR	VLR	NR	NR	VLR	VLR	VLR	VLR	VLR	NR	VLR	NR
Ballia	VLR	MR	VLR	NR	NR	VLR	VLR	VLR	VLR	NR	NR	MR	MR
Balrampur	VLR	NR	VLR	NR	VLR	VLR	VLR	VLR	NR	NR	VLR	NR	VLR
Banda	VLR	NR	NR	NR	VLR	NR	VLR	VLR	NR	NR	NR	NR	VLR
Bara Banki	NR	NR	VLR	NR	NR	VLR	VLR	VLR	VLR	NR	NR	VLR	VLR
Bareilly	NR	VLR	NR	NR	VLR	NR	NR	VLR	VLR	NR	NR	NR	VLR
Basti	VLR	NR	VLR	NR	VLR	VLR	VLR	VLR	VLR	VLR	NR	VLR	NR
Bijnor	VLR	VLR	VLR	NR	VLR	VLR	VLR	VLR	VLR	NR	NR	NR	VLR
Budaun	NR	VLR	VLR	NR	NR	NR	NR	VLR	VLR	NR	NR	VLR	VLR
Bulandshahr	NR	NR	NR	NR	NR	NR	VLR	VLR	NR	NR	NR	NR	VLR
Chandauli	NR	VLR	VLR	NR	NR	VLR	VLR	VLR	VLR	NR	VLR	VLR	VLR
Chitrakoot	VLR	NR	VLR	NR	VLR	NR	VLR	VLR	VLR	VLR	NR	VLR	VLR
Deoria	NR	VLR	VLR	NR	VLR	VLR	NR	VLR	VLR	NR	NR	VLR	VLR
Etah	NR	VLR	NR	NR	NR	NR	NR	VLR	VLR	NR	VLR	NR	VLR
Etawah	NR	VLR	VLR	NR	NR	NR	NR	NR	VLR	NR	VLR	NR	VLR
Faizabad	NR	VLR	VLR	NR	VLR	VLR	NR	VLR	VLR	NR	VLR	NR	VLR
Farrukhabad	NR	VLR	VLR	NR	NR	NR	NR	VLR	VLR	NR	NR	NR	VLR

Continue

Districts of Uttar Pradesh	Livestock Disease												
	Anthrax	Babesiosis	BQ	BT	ET	Fasciolosis	FMD	HS	PPR	S&G Pox	SF	Theileriosis	Trypanosomosis
Fatehpur	VLR	VLR	VLR	NR	VLR	VLR	VLR	VLR	VLR	VLR	VLR	VLR	VLR
Firozabad	NR	NR	NR	NR	NR	VLR	NR	NR	NR	NR	NR	NR	VLR
Gautam Buddha Nagar	NR	NR	NR	NR	NR	NR	VLR	NR	NR	VLR	VLR	VLR	VLR
Ghaziabad	NR	VLR	VLR	NR	NR	NR	VLR	VLR	NR	VLR	VLR	NR	VLR
Ghazipur	VLR	VLR	VLR	NR	VLR	VLR	VLR	VLR	VLR	VLR	NR	VLR	VLR
Gonda	VLR	VLR	VLR	NR	VLR	VLR	VLR	VLR	VLR	VLR	VLR	VLR	VLR
Gorakhpur	VLR	NR	VLR	NR	NR	NR	VLR	VLR	NR	VLR	VLR	VLR	VLR
Hamirpur	VLR	VLR	NR	NR	VLR	NR	NR	VLR	VLR	NR	NR	VLR	NR
Hapur	NR	NR	NR	NR	NR	NR	NR	VLR	VLR	VLR	VLR	NR	NR
Hardoi	VLR	NR	VLR	NR	NR	VLR	VLR	VLR	VLR	NR	VLR	VLR	VLR
Jalaun	NR	NR	VLR	NR	VLR	VLR	NR	VLR	VLR	NR	NR	NR	VLR
Jaunpur	VLR	VLR	VLR	NR	VLR	VLR	VLR	VLR	VLR	NR	NR	VLR	VLR
Jhansi	NR	NR	NR	NR	VLR	NR	VLR	VLR	VLR	NR	NR	NR	NR
Jyotiba Phule Nagar	NR	VLR	NR	NR	NR	VLR	NR	VLR	NR	NR	NR	VLR	VLR
Kannauj	NR	NR	NR	NR	NR	NR	VLR	VLR	NR	NR	NR	NR	VLR
Kanpur Dehat	NR	NR	NR	NR	VLR	NR	NR	VLR	NR	NR	VLR	NR	VLR
Kanpur Nagar	VLR	VLR	VLR	NR	VLR	VLR	VLR	VLR	VLR	NR	VLR	NR	VLR
Kanshiram Nagar	NR	NR	NR	NR	VLR	NR	VLR	VLR	VLR	NR	NR	NR	VLR
Kaushambi	VLR	VLR	VLR	NR	VLR	VLR	VLR	VLR	VLR	NR	VLR	VLR	VLR
Kheri	VLR	VLR	VLR	NR	VLR	VLR	VLR	VLR	VLR	NR	NR	VLR	VLR
Kushinagar	NR	VLR	NR	NR	NR	VLR	VLR	VLR	VLR	VLR	VLR	VLR	VLR
Lalitpur	NR	NR	VLR	NR	NR	NR	VLR	VLR	VLR	NR	VLR	NR	VLR
Lucknow	NR	NR	VLR	NR	VLR	VLR	VLR	VLR	VLR	NR	NR	VLR	VLR
MahaAugusta Nagar	NR	VLR	VLR	NR	VLR	NR	NR	VLR	NR	NR	NR	NR	VLR
Mahoba	NR	NR	VLR	NR	VLR	NR	VLR	VLR	VLR	VLR	VLR	NR	VLR

Continue

Districts of Uttar Pradesh	Livestock Disease												
	Anthrax	Babesiosis	BQ	BT	ET	Fasciolosis	FMD	HS	PPR	S&G Pox	SF	Theileriosis	Trypanosomosis
Mahrajganj	VLR	VLR	VLR	NR	VLR	VLR	VLR	VLR	VLR	NR	VLR	VLR	VLR
Mainpuri	NR	NR	NR	NR	NR	NR	VLR	VLR	NR	NR	VLR	VLR	VLR
Mathura	NR	NR	NR	NR	VLR	NR	VLR	VLR	NR	NR	NR	NR	VLR
Mau	NR	NR	NR	NR	NR	VLR	NR	VLR	VLR	NR	NR	VLR	VLR
Meerut	VLR	VLR	NR	NR	VLR	VHR	NR	VLR	VLR	NR	NR	NR	HR
Mirzapur	VLR	NR	VLR	NR	VLR	VLR	VLR	VLR	VLR	VLR	VLR	VLR	VLR
Moradabad	NR	NR	NR	NR	NR	NR	VLR	NR	VLR	NR	NR	NR	VLR
Muzaffarnagar	NR	NR	VLR	NR	VLR	VLR	VLR	VLR	VLR	NR	NR	NR	VLR
Pilibhit	VLR	VLR	NR	NR	NR	VLR	VLR	VLR	VLR	VLR	VLR	NR	VLR
Pratapgarh	VLR	VLR	VLR	NR	VLR	VLR	VLR	VLR	VLR	VLR	VLR	VLR	VLR
Rae Bareli	NR	VLR	VLR	NR	VLR	VLR	VLR	VLR	VLR	NR	VLR	VLR	VLR
Rampur	NR	NR	NR	NR	NR	NR	VLR	VLR	VLR	VLR	VLR	NR	NR
Saharanpur	NR	VLR	VLR	NR	NR	VLR	VLR	VLR	VLR	VLR	NR	NR	VLR
Sambhal	NR	VLR	VLR	NR	NR	VLR	VLR	VLR	VLR	NR	VLR	NR	VLR
Sant Kabir Nagar	NR	NR	VLR	NR	VLR	NR	VLR	NR	NR	NR	NR	NR	NR
Sant Ravidas Nagar	NR	VLR	VLR	NR	NR	VLR	VLR	VLR	NR	VLR	NR	VLR	VLR
Shahjahanpur	NR	VLR	VLR	NR	NR	VLR	NR	VLR	NR	NR	NR	NR	VLR
Shamli	NR	VLR	VLR	NR	VLR	NR	VLR	VLR	NR	VLR	VLR	VLR	VLR
Shrawasti	NR	VLR	VLR	NR	NR	NR	VLR	VLR	VLR	NR	VLR	VLR	VLR
Siddharthnagar	VLR	NR	VLR	NR	VLR	NR	VLR	VLR	VLR	NR	NR	VLR	VLR
Sitapur	VLR	NR	VLR	NR	NR	VLR	VLR	VLR	VLR	NR	NR	VLR	VLR
Sonbhadra	VLR	VLR	VLR	NR	VLR	VLR	VLR	VLR	VLR	NR	NR	VLR	VLR
Sultanpur	VLR	NR	VLR	NR	VLR	VLR	VLR	VLR	VLR	NR	NR	NR	VLR
Unnao	VLR	VLR	VLR	NR	VLR	VLR	VLR	VLR	VLR	NR	VLR	NR	VLR
Varanasi	NR	VLR	NR	NR	NR	VLR	VLR	NR	NR	NR	NR	VLR	VLR

**If vaccination is already been done please ignore the disease forecast for that disease.**

\*No risk/No data available (NR), Very low risk (VLR), Low risk (LR), Moderate risk (MR), High risk (HR), Very high risk (VHR)



## District wise Livestock Disease forewarning for August 2018: Uttarakhand



Districts of Uttarakhand	Livestock Disease												
	Anthrax	Babesiosis	BQ	BT	ET	Fasciolosis	FMD	HS	PPR	S&G Pox	SF	Theileriosis	Trypanosomosis
Almora	NR	NR	VLR	NR	VLR	NR	VLR	VLR	VLR	VLR	VLR	NR	NR
Bageshwar	VLR	NR	VLR	NR	NR	VLR	VLR	VLR	VLR	VLR	VLR	NR	NR
Chamoli	VLR	NR	VLR	NR	VLR	NR	VLR	VLR	VLR	VLR	VLR	NR	NR
Champawat	VLR	NR	NR	NR	VLR	VLR	VLR	VLR	VLR	VLR	VLR	NR	NR
Dehradun	VLR	NR	VLR	NR	NR	VLR	VLR	VLR	NR	NR	VLR	VLR	NR
Garhwal	NR	NR	VLR	NR	VLR	NR	VLR	VLR	VLR	NR	VLR	NR	NR
Hardwar	NR	VLR	NR	NR	NR	NR	VLR	VLR	NR	NR	VLR	VLR	VLR
Nainital	VLR	NR	VLR	NR	VLR	VLR	VLR	VLR	NR	NR	VLR	NR	NR
Pithoragarh	NR	NR	VLR	NR	NR	NR	VLR	VLR	NR	NR	VLR	NR	NR
Rudraprayag	NR	NR	NR	NR	NR	VLR	VLR	VLR	VLR	NR	VLR	NR	NR
Tehri Garhwal	VLR	NR	VLR	NR	VLR	VLR	VLR	VLR	VLR	NR	VLR	VLR	NR
Udham Singh Nagar	NR	NR	NR	NR	VLR	NR	VLR	VLR	VLR	VLR	VLR	NR	NR
Uttarkashi	NR	NR	VLR	NR	VLR	NR	VLR	VLR	VLR	VLR	VLR	NR	NR

**If vaccination is already been done please ignore the disease forecast for that disease.**

\*No risk/No data available (NR), Very low risk (VLR), Low risk (LR), Moderate risk (MR), High risk (HR), Very high risk (VHR)

## District wise Livestock Disease forewarning for August 2018: West Bengal

Districts of West Bengal	Livestock Disease												
	Anthrax	Babesiosis	BQ	BT	ET	Fasciolosis	FMD	HS	PPR	S&G Pox	SF	Theileriosis	Trypanosomosis
Bankura	VHR	VLR	VHR	NR	VLR	VLR	HR	HR	VHR	VLR	VLR	VLR	VLR
Bardhaman	HR	VLR	VHR	NR	VLR	VLR	VHR	VHR	VHR	HR	VLR	HR	VLR
Birbhum	VLR	VLR	VHR	NR	VLR	VLR	HR	MR	VHR	VLR	VLR	MR	VLR
Dakshin Dinajpur	VLR	VLR	VHR	NR	VLR	VLR	VHR	VLR	MR	VLR	VLR	MR	VLR
Darjiling	VLR	VLR	VLR	NR	VLR	VLR	VLR	VLR	VLR	VLR	VLR	VLR	NR
Haora	VLR	HR	VHR	NR	VLR	VLR	HR	LR	VHR	HR	VLR	HR	VLR
Hugli	VLR	VLR	VHR	NR	VLR	VLR	HR	LR	VHR	VHR	VLR	LR	HR
Jalpaiguri	VLR	VLR	HR	NR	VLR	VLR	HR	MR	VHR	VLR	VLR	VLR	NR
Koch Bihar	VLR	VLR	VHR	NR	VLR	VLR	LR	MR	VLR	VLR	VLR	VLR	NR
Kolkata	VLR	VLR	VLR	NR	VLR	VLR	VLR	VLR	VLR	VLR	VLR	VLR	VLR
Maldah	VLR	HR	LR	NR	NR	VLR	HR	VLR	VHR	VLR	VLR	HR	VLR
Murshidabad	VHR	LR	VHR	NR	NR	VLR	HR	VLR	VHR	VLR	VLR	LR	VLR
Nadia	VLR	VLR	HR	NR	NR	VLR	MR	VLR	VHR	VLR	VLR	VLR	VLR
North Twenty Four Parganas	VLR	VLR	MR	NR	NR	VLR	MR	VLR	VHR	VHR	VLR	VLR	VLR
Paschim Medinipur	HR	VLR	VHR	NR	VLR	VLR	VHR	HR	VHR	VLR	VLR	MR	VLR
Purba Medinipur	VLR	VLR	VHR	NR	VLR	VLR	VLR	LR	VLR	VLR	VLR	VLR	VLR
Puruliya	VLR	VLR	VHR	NR	VLR	VLR	VHR	HR	VHR	VLR	VLR	VLR	VLR
South Twenty Four Parganas	VLR	VLR	MR	NR	NR	NR	HR	LR	LR	MR	VLR	HR	NR
Uttar Dinajpur	VLR	VLR	MR	NR	VLR	VLR	MR	VLR	LR	VLR	VLR	VLR	VLR

**If vaccination is already been done please ignore the disease forecast for that disease.**

\*No risk/No data available (NR), Very low risk (VLR), Low risk (LR), Moderate risk (MR), High risk (HR), Very high risk (VHR)

## State wise Livestock Disease forewarning for August 2018

Sl.No	State Name	Anthrax	Babesiosis	BQ	BT	ET	Fasciolosis	FMD	HS	PPR	S&G Pox	SF	Theileriosis	Trypanosomosis	Total no.of Diseases events likely to occur
1	Andaman and Nicobar	0	0	0	0	0	3	0	0	0	0	0	0	0	3
2	Andhra Pradesh	3	0	0	0	2	0	0	4	2	1	0	0	0	12
3	Arunachal Pradesh	0	0	0	0	0	1	0	0	0	0	0	0	0	1
4	Assam	0	0	9	0	0	8	0	1	0	0	5	0	0	23
5	Bihar	0	0	0	0	0	1	0	0	0	0	0	0	0	1
6	Chandigarh	0	1	0	0	0	0	0	0	0	0	0	0	0	1
7	Chhattisgarh	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8	Dadra and Nagar Haveli	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9	Daman and Diu	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10	Goa	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11	Gujarat	0	0	0	0	0	0	0	1	0	0	0	0	0	1
12	Haryana	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13	Himachal Pradesh	0	0	1	0	0	0	0	0	0	0	0	0	0	1
14	Jammu and Kashmir	0	0	0	0	0	0	4	0	0	5	0	0	0	9
15	Jharkhand	0	22	0	0	0	22	2	1	2	0	0	21	21	91
16	Karnataka	4	0	10	0	3	0	0	13	0	1	0	0	0	31
17	Kerala	0	0	0	0	0	0	13	3	0	0	0	0	0	16
18	Lakshadweep	0	0	0	0	0	0	0	0	0	0	0	0	0	0
19	Madhya Pradesh	0	0	2	0	0	0	0	5	0	0	0	0	0	7
20	Maharashtra	0	0	2	0	0	1	0	1	1	0	0	0	0	5
21	Manipur	0	0	3	0	0	4	0	0	0	0	8	0	0	15
22	Meghalaya	0	0	3	0	0	0	7	3	0	0	7	0	0	20
23	Mizoram	0	0	0	0	0	0	0	0	0	0	1	0	0	1
24	Nagaland	0	0	0	0	0	0	0	0	0	0	2	0	0	2
25	Nct of Delhi	0	0	0	0	0	0	0	0	0	0	0	0	0	0
26	Odisha	0	0	1	0	0	0	2	0	1	0	0	2	0	6
27	Puducherry	0	2	0	0	0	1	0	0	0	0	0	0	0	3
28	Punjab	0	0	0	0	0	0	0	0	0	0	0	0	0	0
29	Rajasthan	1	0	0	0	0	0	1	1	0	0	0	0	0	3
30	Sikkim	0	0	0	0	0	0	0	0	0	0	0	0	0	0
31	Tamil Nadu	2	0	1	0	0	0	0	0	0	0	0	0	0	3
32	Telangana	1	0	0	0	2	0	0	2	2	1	0	0	0	8
33	Tripura	0	2	2	0	0	2	2	2	0	0	3	0	0	13
34	Uttar Pradesh	0	0	0	0	0	1	0	0	0	0	0	0	1	2
35	Uttarakhand	0	0	0	0	0	0	0	0	0	0	0	0	0	0
36	West Bengal	4	2	13	0	0	0	12	4	12	4	0	4	1	56
<b>Total No districts likely to report</b>		<b>15</b>	<b>29</b>	<b>47</b>	<b>0</b>	<b>7</b>	<b>44</b>	<b>43</b>	<b>41</b>	<b>20</b>	<b>12</b>	<b>26</b>	<b>27</b>	<b>23</b>	<b>334</b>

\*Number of predicted disease incidence was summarised considering only High risk and Very high risk (VHR+HR)

## **Andaman and Nicobar**

All the districts in the state are likely to report Fasciolosis diseases.

## **Andhra Pradesh**

A total of 13 districts in Andhra Pradesh are likely report the major 5 livestock diseases. i.e., Anthrax, Enterotoxemia, Haemorrhagic Septicaemia, Peste des petits ruminants and Sheep & Goat Pox in which Anthrax and Haemorrhagic Septicaemia are predicted in 3 and 4 districts respectively. Enterotoxemia and Peste des petits ruminants are predicted for 2 districts. Anantapur is the only district prone to both and Sheep & Goat Pox.

## **Arunachal Pradesh**

A total of 16 districts in Arunachal Pradesh in which 1 district i.e. Papum Pare is likely to report Fasciolosis.

## **Assam**

A total of 27 districts from Assam are likely to report 4 livestock diseases i.e. Black Quarter, Fasciolosis, Haemorrhagic Septicaemia, Sheep & Goat Pox and Swine Fever in which 8 districts are prone to Fasciolosis. 9 districts are prone to Black Quarter. 5 districts are likely to have Swine Fever. Nalbari is the district prone to Haemorrhagic Septicaemia.

## **Bihar**

A total of 38 districts in Bihar in which 1 district i.e. Bhojpur is likely to have Fasciolosis.

## **Chandigarh**

Chandigarh is likely to report 1 diseases i.e. Babesiosis.

## **Gujarat**

A total of 26 districts from Gujarat in which 1 district i.e. Junagadh is likely to report Haemorrhagic Septicaemia.



## **Himachal Pradesh**

A total of 12 districts from Himachal Pradesh in which 1 district i.e. Mandi is likely to report Black Quarter.

## **Jammu and Kashmir**

A total of 22 districts in Jammu and Kashmir are likely to report 2 diseases i.e., Foot and Mouth disease and Sheep & Goat pox. Sheep & Goat pox disease is predicted in 5 districts. Foot and Mouth disease is predicted for 4 districts.

## **Jharkhand**

A total of 24 districts in Jharkhand are likely to report 7 diseases i.e., Babesiosis, Fasciolosis, Foot and Mouth disease, Haemorrhagic Septicaemia, Peste de pestis ruminants, Theileriosis and Trypanosomosis. Babesiosis and Fasciolosis are predicted in 22 districts. Theileriosis and Trypanosomosis are likely to occur in 21 districts. Foot and Mouth disease and Peste de pestis ruminants are prone in 2 districts. 1 district i.e. Purbi Singhbhum is likely to have Haemorrhagic Septicaemia.

## **Karnataka**

A total of 30 districts in Karnataka are likely to report 5 diseases i.e. Anthrax, Black Quarter, Enterotoxemia, Haemorrhagic Septicaemia and Sheep & Goat pox. Sheep & Goat pox is likely to occur in 1 district i.e. Davanagere. 13 districts are prone to Haemorrhagic Septicaemia. Anthrax is prone to 4 districts. Enterotoxemia is likely to occur in 3 districts. 10 districts are prone to both Black Quarter.

## **Kerala**

A total of 14 districts in Kerala are likely to report 2 diseases i.e. Foot & Mouth disease and Haemorrhagic Septicaemia. 13 districts are prone to Foot & Mouth disease. Haemorrhagic Septicaemia is likely to occur in 3 districts.

## **Madhya Pradesh**

A total of 50 districts in Madhya Pradesh likely to have 2 diseases i.e. Black Quarter and Haemorrhagic Septicaemia. 5 districts are prone to Haemorrhagic Septicaemia while 2 districts are prone to Black Quarter.

## **Maharashtra**

A total of 34 districts in Maharashtra are likely to report 4 diseases i.e. Black Quarter, Fasciolosis, Haemorrhagic Septicaemia and Peste des petits ruminants. 2 districts are prone for Black Quarter. 1 district i.e. Mumbai is prone to Fasciolosis. 1 district i.e. Ahmadnagar is prone to both Haemorrhagic Septicaemia and Peste des petits ruminants.

## **Manipur**

A total of 9 districts in Manipur are likely to report 3 major livestock disease i.e., Black Quarter, Fasciolosis and Swine fever. 3 and 8 districts are prone to Black Quarter and Swine fever respectively. 4 districts are prone to Fasciolosis.

## **Meghalaya**

A total of 11 districts in Meghalaya are likely to report 4 diseases i.e., Black Quarter, Foot and Mouth disease, Haemorrhagic Septicaemia, Sheep and Goat Pox and Swine Fever. 7 districts are prone to Foot and Mouth disease and Swine Fever. Black Quarter and Haemorrhagic Septicaemia are predicted in 2 districts.

## **Mizoram**

A total of 8 districts in Meghalaya are likely to report 1 disease i.e. Swine Fever district of Champhai.

## **Nagaland**

A total of 11 districts in Nagaland of which 2 districts are likely to report Swine Fever.

## **Odisha**

A total of 29 districts in Orissa are likely to report 4 diseases i.e. Black Quarter, Foot and Mouth Disease, Peste des petits ruminants and Theileriosis. 2 districts are likely to have Theileriosis and Foot and Mouth Disease. Black Quarter is threat for 1 district i.e. Cuttack. Ganjam district is prone for Peste des petits ruminants.

## **Puducherry**

A total of 4 districts in Puducherry likely to have 2 diseases. 2 districts are prone to Babesiosis while 1 district i.e. Yanam is prone to Fasciolosis.

## **Rajasthan**

A total of 32 districts in Rajasthan are likely to report 3 diseases i.e. Anthrax, Foot and Mouth Diseases and Haemorrhagic Septicaemia. Bikaner district is prone to both Anthrax and Foot and Mouth Diseases. Jaipur district is prone for Haemorrhagic Septicaemia.

## **Tamil Nadu**

A total of 31 districts in Tamil Nadu are likely to report 2 diseases i.e., Anthrax and Black Quarter. Anthrax is predicted for 2 districts. Kancheepuram district is likely to have Black Quarter.

## **Telangana**

A total of 10 districts in Telangana are likely report the major 5 livestock disease i.e. Anthrax, Enterotoxemia, Haemorrhagic Septicaemia, Peste des petits ruminants and Sheep & Goat Pox. 2 districts are prone to Enterotoxemia, Haemorrhagic Septicaemia and Peste des petits ruminants. 1 district i.e. Mahabubnagar is prone to both Anthrax and Sheep & Goat Pox.

## **Tripura**

Dhalai, North Tripura, South Tripura and West Tripura are likely to report 6 diseases i.e. Babesiosis, Black Quarter, Fasciolosis, Foot and Mouth disease, Haemorrhagic Septicaemia and Swine Fever. Swine Fever is likely to occur in 3 districts. 2 districts are prone to Babesiosis, Black Quarter, Fasciolosis, Foot and Mouth disease and Haemorrhagic Septicaemia.

## **Uttar Pradesh**

A total of 83 districts in Uttar Pradesh likely to report 2 major livestock diseases i.e. Fasciolosis and Trypanosomosis. 1 district i.e. Meerut is prone to Fasciolosis and Trypanosomosis.



## West Bengal

A total of 19 districts in West Bengal are likely to report 9 diseases i.e., Anthrax, Babesiosis, Black Quarter, Foot and Mouth Disease, Haemorrhagic Septicaemia, Peste des petits ruminants, Sheep & Goat pox, Theileriosis and Trypanosomosis. 13 districts are prone to Black Quarter. 12 districts are prone to Foot and Mouth Disease and Peste des petits ruminants. 4 districts are prone to Anthrax, Sheep & Goat pox, Haemorrhagic Septicaemia and Theileriosis. 2 districts are prone to Babesiosis. 1 district i.e. Hugli is prone to Trypanosomosis.



### iii) Diseases, Species affected, clinical signs and its preventive measures.

SI No.	Disease	Species Affected	Clinical Signs	Preventive Measures
1	Anthrax	Most of the mammals and ruminants are highly susceptible. Pigs and Horses are moderately susceptible. Carnivores are relatively resistant.	Convulsion and sudden death with oozing of blood from natural orifices such as rectum and nose prior to death. Occasionally oedema develops in the throat and shoulder over a period of one week before death.	Ring vaccination and report of disease is advised. Vaccination to be done in consultation with the veterinarians and as decided by state animal husbandry authorities. Strict biosecurity measures May be followed. Carcass May be disposed by deep burying covered with lime powder. Contaminated area May be disinfected with 4% formalin or 10% caustic soda. Grazing area May be restricted.
2	Babesiosis	Cattle. Cross breeds are more susceptible.	High temperature, jaundice like symptoms, yellowish mucosal membrane of eye, rectum and coffee colour urine.	Periodical application of acaricides in and around the animal shed and on the animals. For therapeutic application, di-aminizine or imidocarb can be useful.
3.	Black Quarter (BQ)	Common disease for cattle and sheep but occasionally goats and pigs also suffer from the disease.	High fever and lameness followed by swelling in the neck, shoulder, lumbar, gluteal and sacral regions. Skin over the affected area become dark and crepitate on palpation. Loss of feed intake, colic, lateral recumbency, dyspnoea and death.	Affected animals May be treated with suitable antibiotics. Vaccination to be done in consultation with the veterinarians and as decided by state animal husbandry authorities. Strict biosecurity measures May be followed. Grazing area May be restricted. Carcass May be disposed hygienically.
4.	Bluetongue(BT)	Sheep are more susceptible than goats.	Fever, swelling of face, neck, eyelids respiratory distress, nasal discharge, Salivation, necrotic ulcers on tongue, dental pad, gum, lips hyperaemia of muzzle and May bleed at mucocutaneous junction. Affected	Vector control using insecticides and good water management. Vaccination of susceptible animals preferably in the month of May. Do not shear sheep during winter

			tongue May become swollen, cyanotic and purple blue in colour – ‘blue tongue’.	months. Restriction in animal movement, segregation of affected animals and symptomatic treatment. Strict bio security measures.
5.	Enterotoxemia (ET)	Common disease of sheep and goats especially among the young animals.	Dullness, opisthotonos, convulsions, coma and sudden death. Affected adult sheep, which survive for several days May show diarrhoea and staggering.	Affected animals May be treated with suitable antibiotics. Vaccination to be done in consultation with the veterinarians and as decided by state animal husbandry authorities. Strict biosecurity measures May be followed. Carcass May be disposed hygienically. Grazing area to be restricted, stall fed, vitamins and probiotics May be provided.
6.	Fasciolosis	Cattle, buffalo, sheep and goats.	Progressive anaemia, pale mucous membrane, sub-mandibular oedema (bottle jaw), loss of appetite, weakness in movement, isolated from flock while grazing, loss in production.	The animal should not be allowed to graze in water stagnant field or sub-merged fodder should not be given directly to the animals. The sub-merged fodder can be processed through hay/silage preparation, where metacercaria will die through the process. The affected animals can be treated by Carbon tetrachloride/ Rafoxanide /Nitroxylin/ Niclofolan /Closantel/Oxyclozanide, under Veterinarian & under strict supervision.
7.	Foot and Mouth Disease(FMD)	Cattle, buffalo, sheep, goats and pigs are often affected domesticated species, but the disease is more severe in cattle and pigs.	Fever, loss of feed intake, drop in milk production, drooling of saliva like ropey string, vesicles develop on the tongue, lips, gums, and palate and eventually rupture. Concurrent to oral lesions, vesicles also appear	Regular vaccination and seromonitoring. Disinfection with sodium carbonate (4%) or 10% washing soda and strict biosecurity measures to be followed and animal movement

			in inter digital skin and coronary band of the feet. The animal May open and close its mouth with a characteristic smacking sound. Sheep and goats May show lameness. In pigs, lesions May be seen on snout and also on the feet.	May be controlled.
8.	Haemorrhagic septicaemia (HS)	Common disease for cattle and buffaloes but also occur among other species such as pigs, sheep, goats and many wild animals.	The disease starts with high fever, respiratory distress and haemorrhages. Maybe seen on the mucous membranes. There is lacrymation, nasal discharge, drop in milk production and anorexia. As the disease progress ear droop, animals are prostrated with cyanosis of mucous membranes. There May be oedema along the head, neck, thorax, vulva and anal areas. Sudden death occurs within few hours of clinical signs.	Affected animals May be treated with suitable antibiotics. Vaccination to be done in consultation with the veterinarians and as decided by state animal husbandry authorities. Strict biosecurity measures May be followed. Carcass May be disposed hygienically and stress factors May be reduced by good animal husbandry practices.
9.	Peste des Petits Ruminants (PPR)	Goats and sheep are most affected domestic animals.	Fever, nasal and ocular discharge, respiratory distress, necrotic lesions in buccal mucosa, gum, dental pad, palate, tongue and diarrhoea. Animals May die because of dehydration and pneumonia.	Vaccination of susceptible animals of above 3 months old age. Restriction on animal movement, strict biosecurity measures and proper disposal of carcass.
10.	Sheep & Goat pox (S & G pox)	Sheep and Goats	Respiratory distress and pock lesions over the non-hairy parts of body, more common in teat, udder, scrotum, head, neck, ear, perineum, inner aspect of thighs and under tail.	Vaccination of susceptible animals of above 3 months old age. Symptomatic treatment of affected animals. Restriction on animal movement, strict biosecurity measures and proper disposal of carcass.
11.	Swine Fever (SF)	Pigs	Fever, Conjunctivitis, purplish discolouration of snout, ears, abdomen, innerside of the legs and staggering gait.	Vaccination of susceptible animals. Restriction on animal movement, strict biosecurity measures and proper disposal of carcass

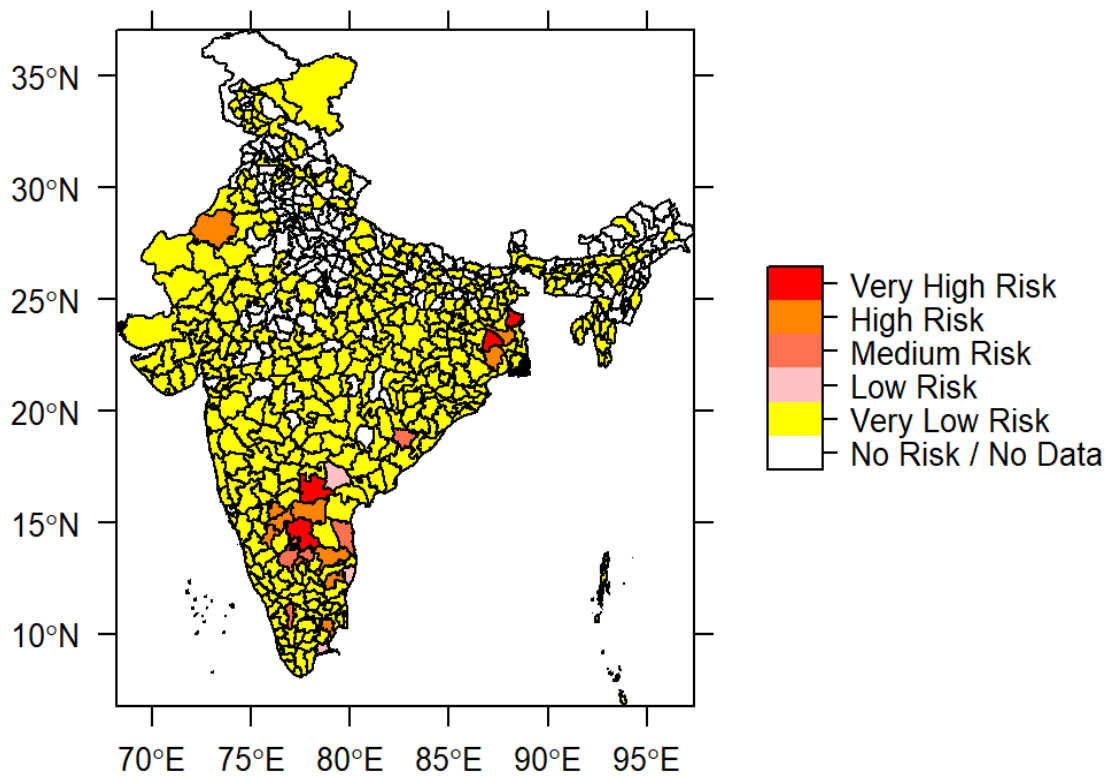
12.	Theileriosis	Large Ruminants. Cross bred cattle are more vulnerable.	High temperature, yellowish eye, sometime eye May be heavily swollen, icteric mucosal membrane of rectum, dark yellowish urine, sometime May reach to coffee colour. Antibiotic is of no use to check fever.	Periodical application of acaricides in and around the animal shed and on the animals. Vaccination in endemic areas with <i>Theileria annulata</i> schizont cell culture vaccine. Therapeutic application of buparvaquone can be useful in both early and advanced stages of the infection.
13.	Trypanosomosis	Domestic and wild carnivores and herbivores including cattle, buffalo, horse, donkey, camel, dog and cats. Buffaloes are known as carriers.	Fluctuating high fever which is not responded by antibiotic, swollen lymph gland, chronic emaciation and weakness, loss of appetite, gradual loss of production.	The affected animal should be treated with diaminazone compounds or chloride and sulphate salts of quinapyramine. Periodical spray of insecticide in and around animal shed to remove the flies.



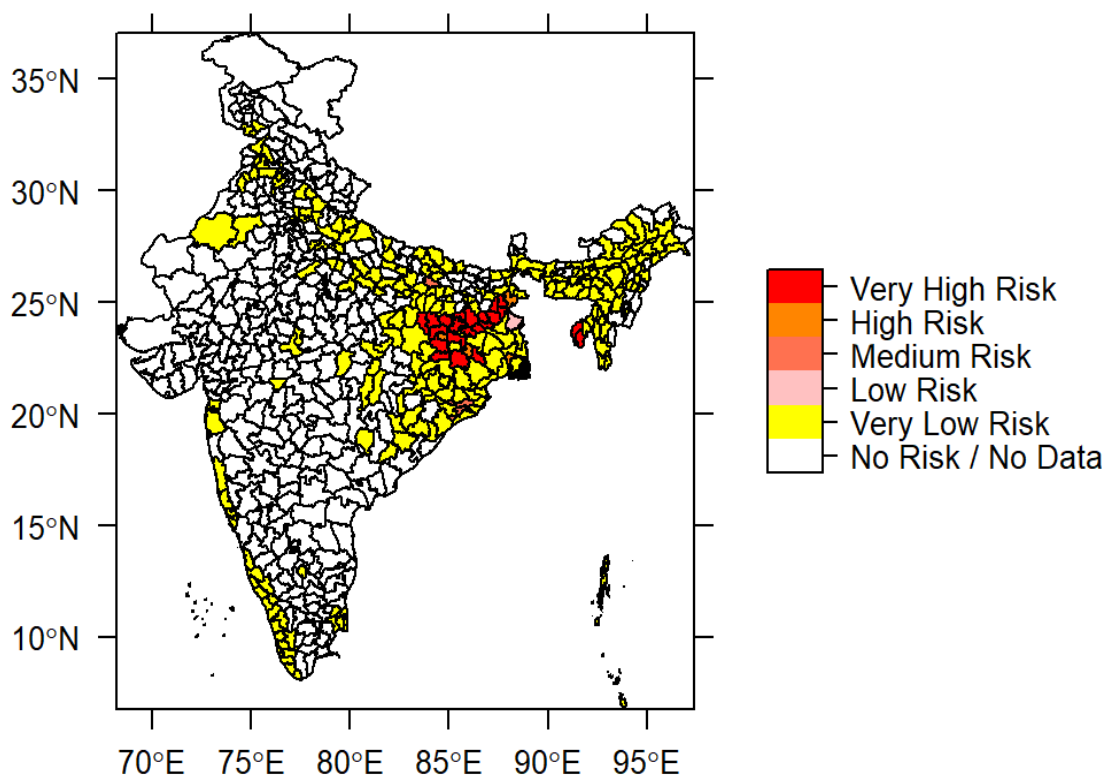


#### iv) Livestock Risk Prediction - Disease forewarning Maps

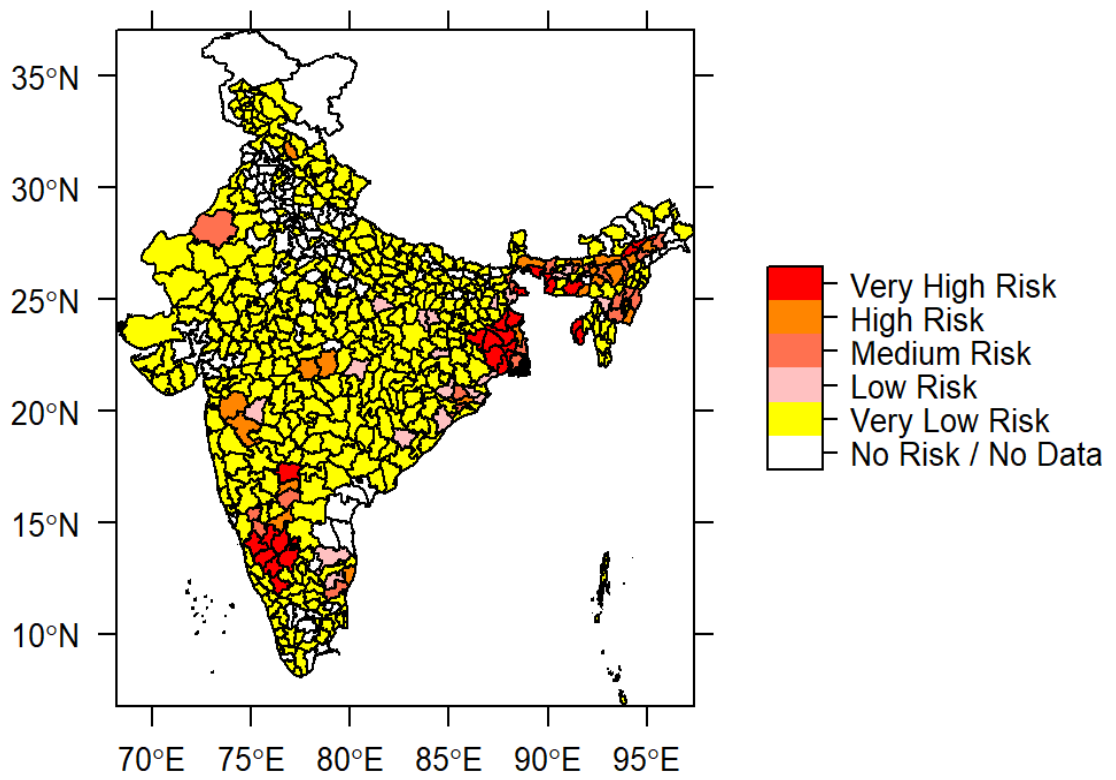
**Risk Prediction of Anthrax for the month of August 2018**



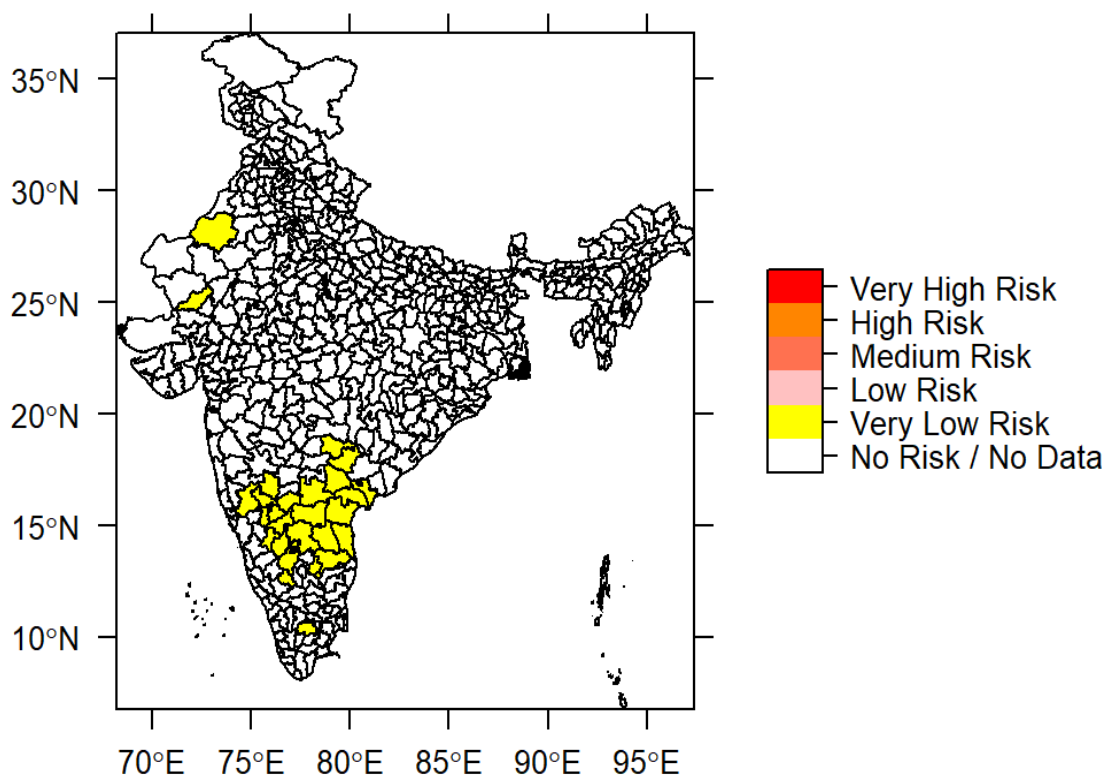
### Risk Prediction of Babesiosis for the month of August 2018



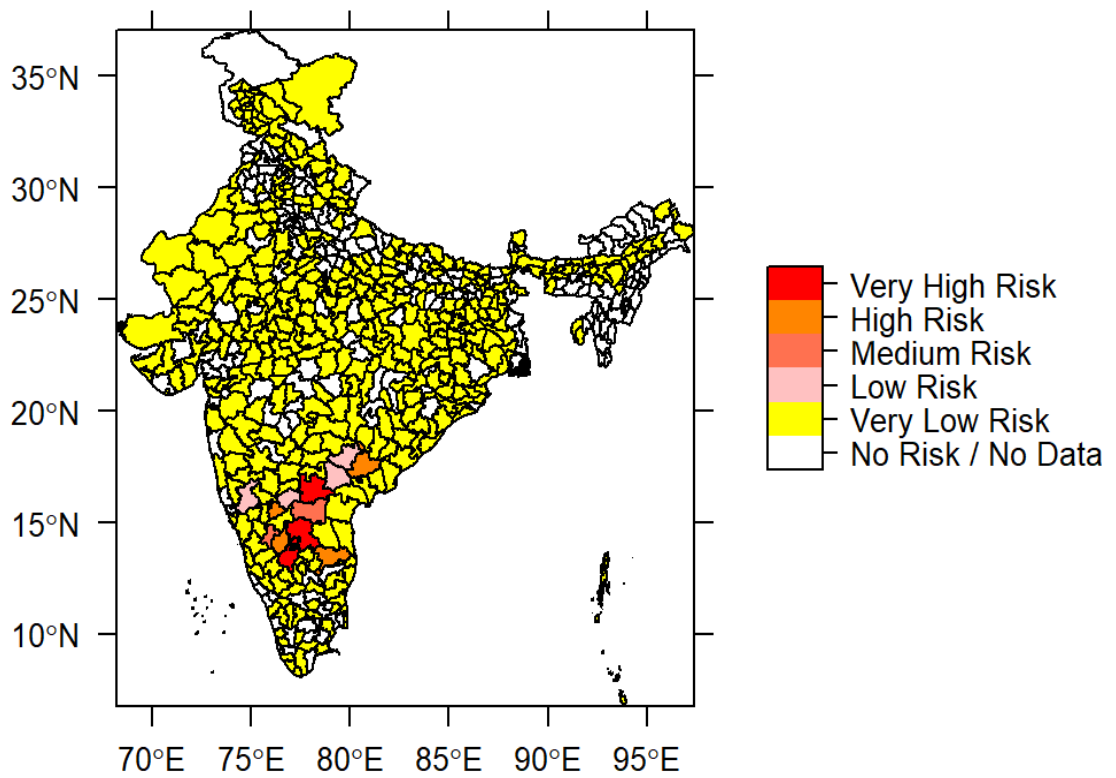
### Risk Prediction of Black quarter for the month of August 2018



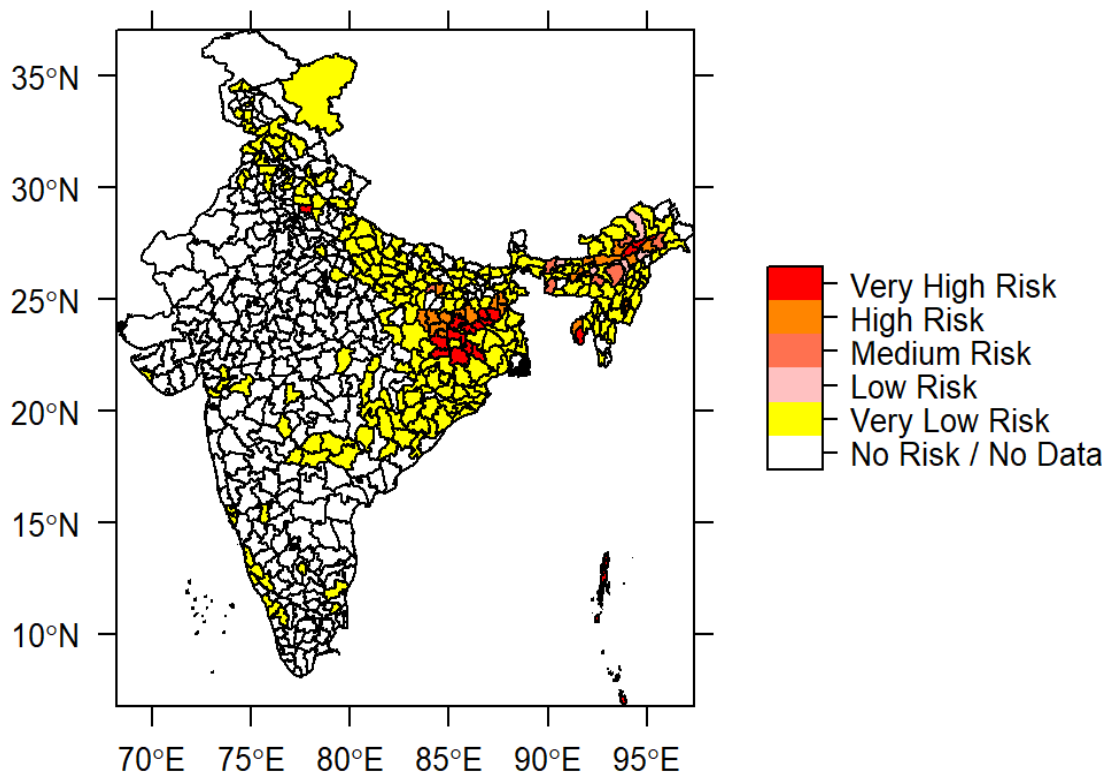
### Risk Prediction of Bluetongue for the month of August 2018



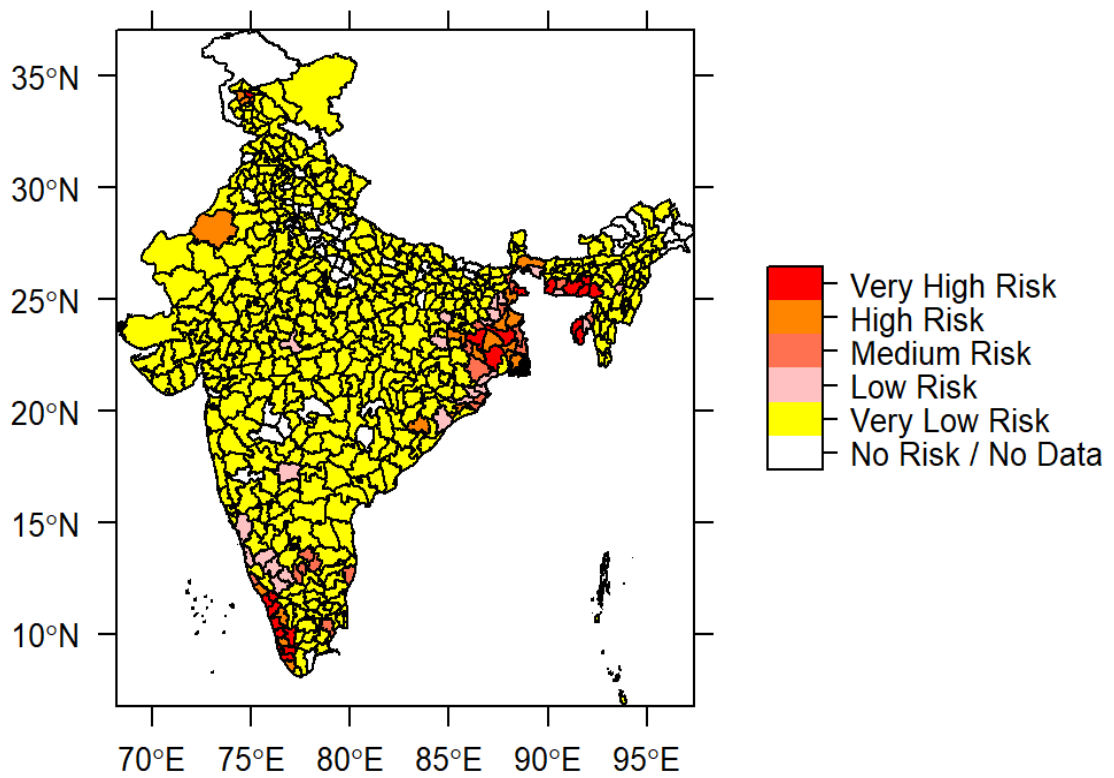
### Risk Prediction of Enterotoxemia for the month of August 2018



### Risk Prediction of Fascioliasis for the month of August 2018

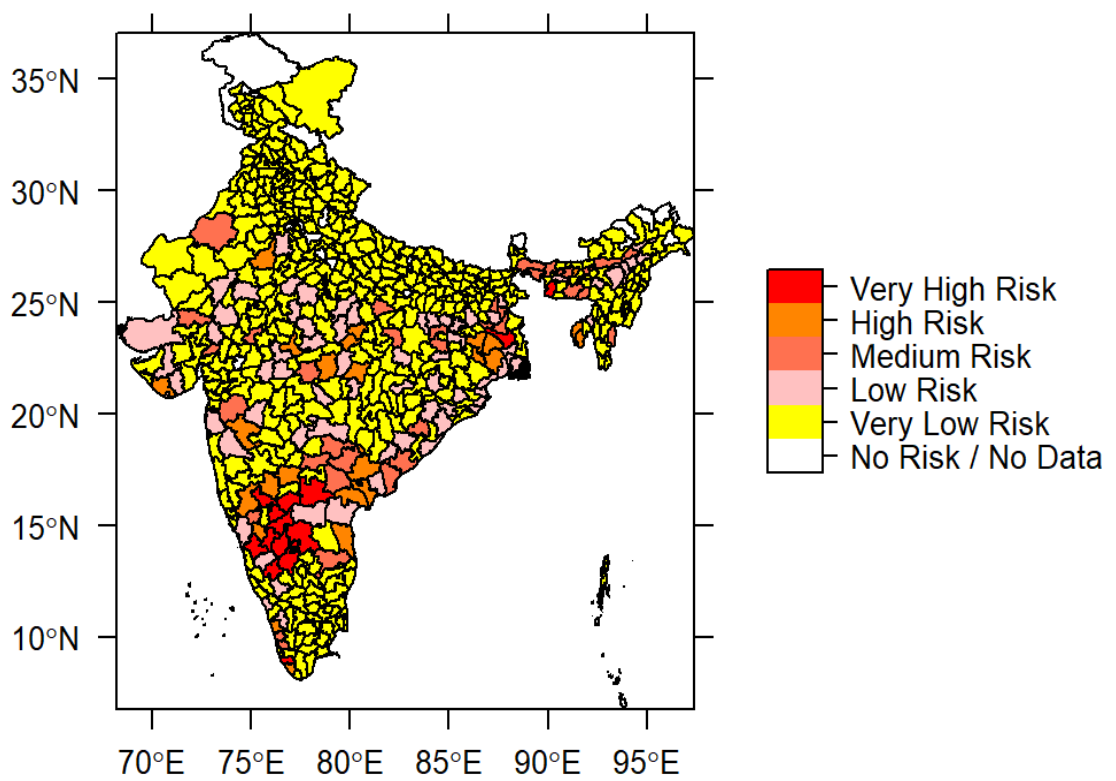


### Risk Prediction of Foot and mouth disease for the month of August 2018



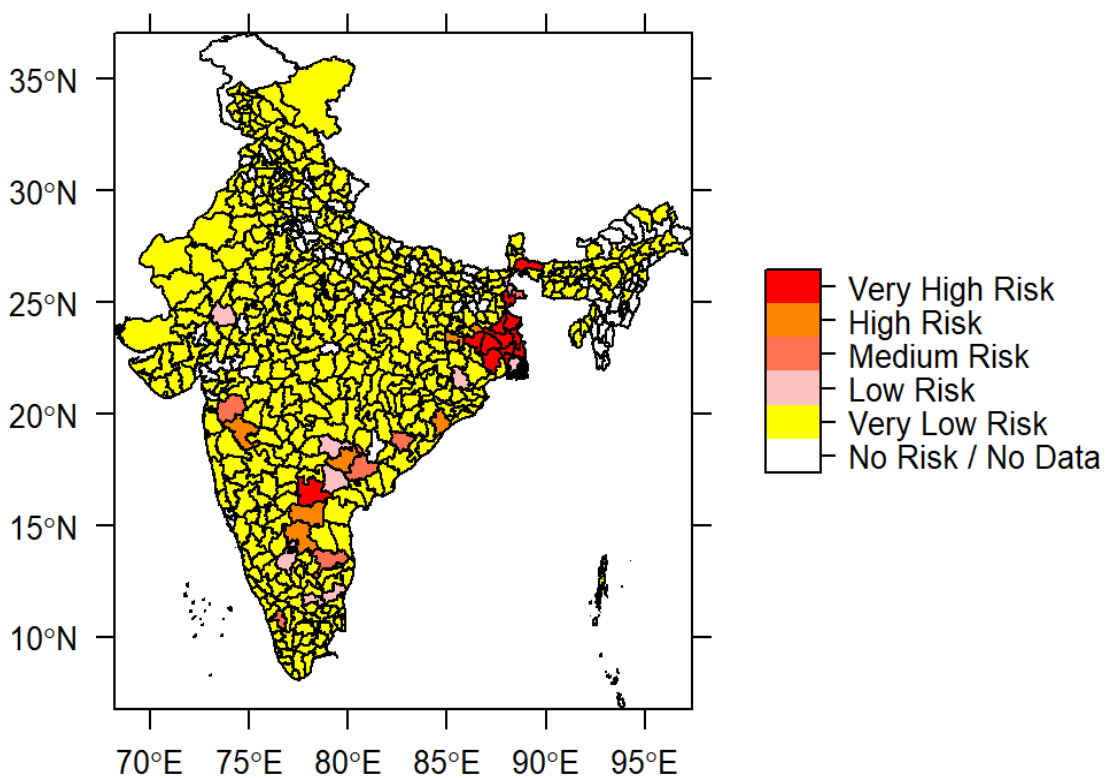
\* Risk prediction is downgraded to LR due to mass vaccination against FMD in Karnataka.  
The same can be applied to other states if mass vaccination is done.

### Risk Prediction of Haemorrhagic septicaemia for the month of August 2018

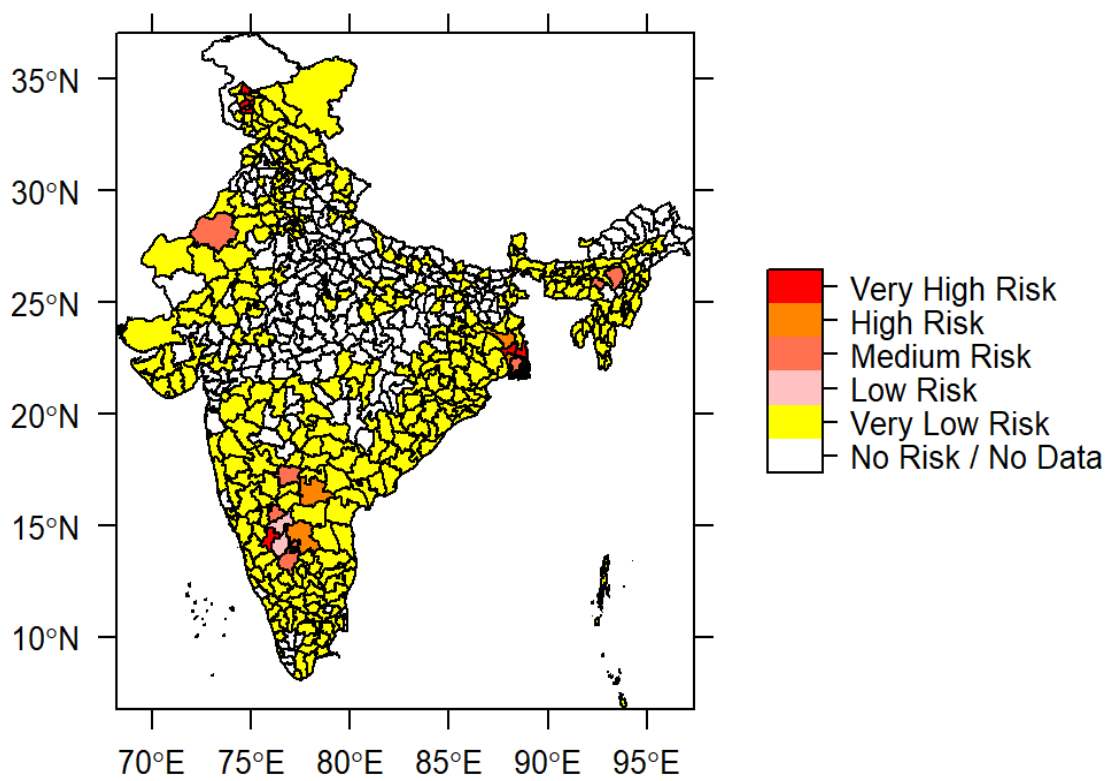




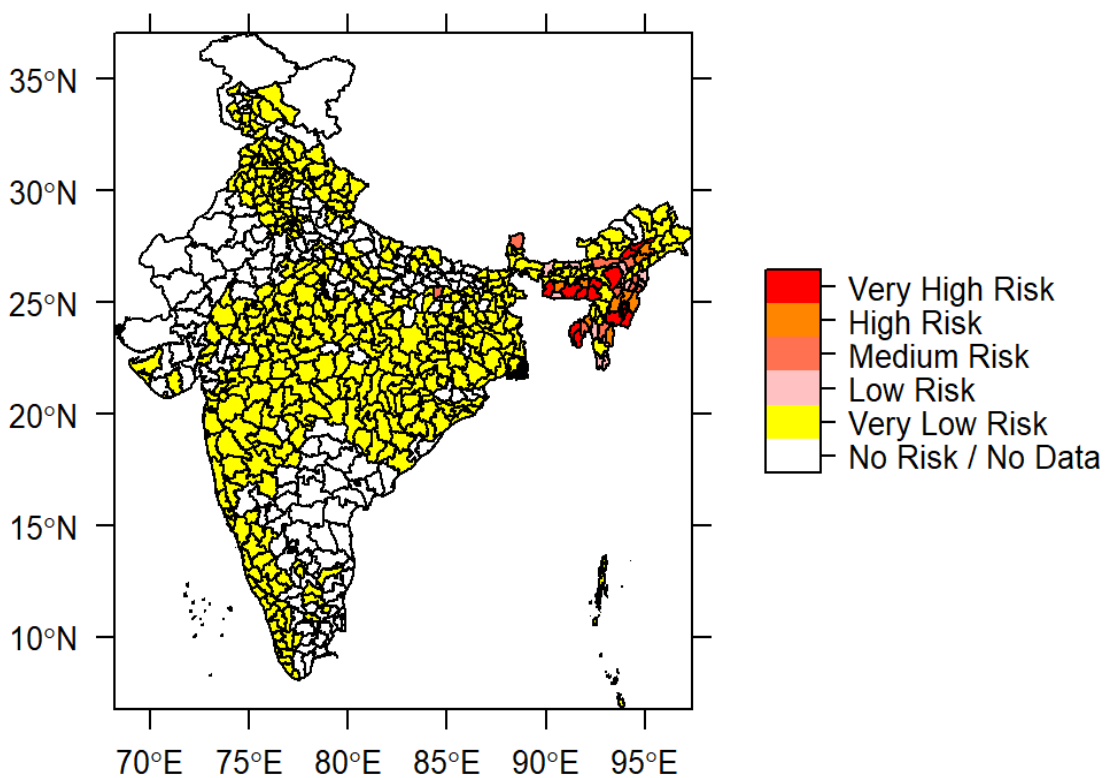
### Risk Prediction of Peste des petits ruminants for the month of August 2018



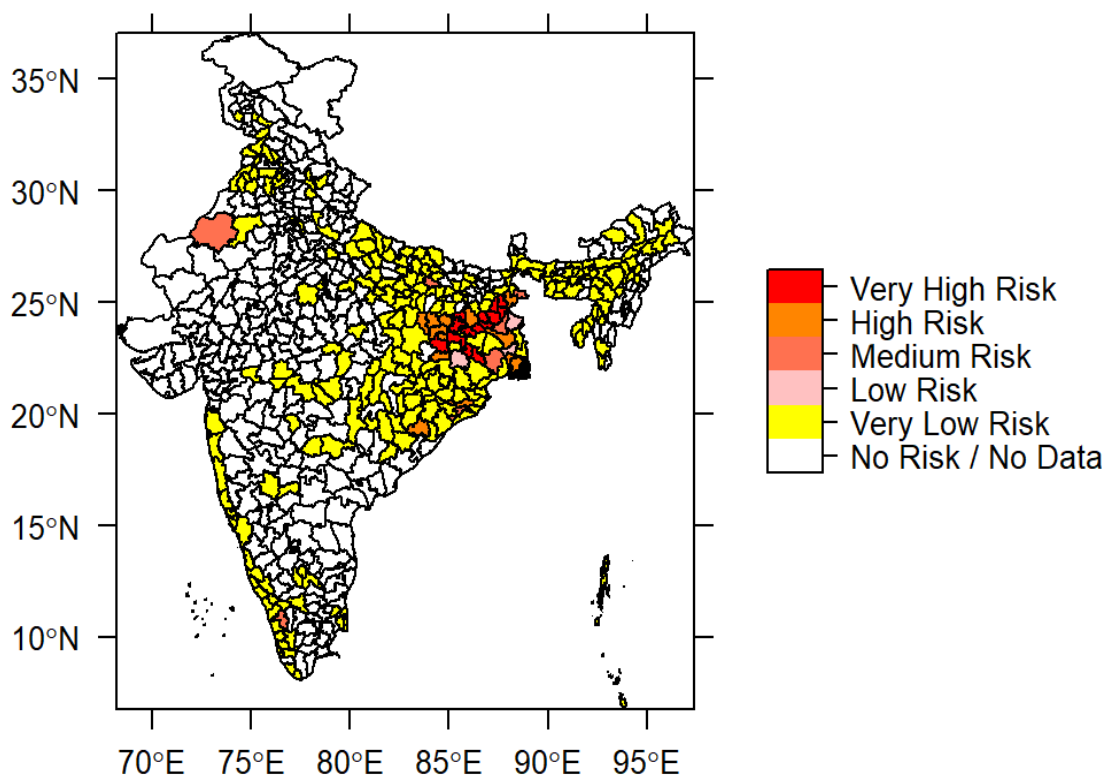
### Risk Prediction of Sheep and Goat pox for the month of August 2018



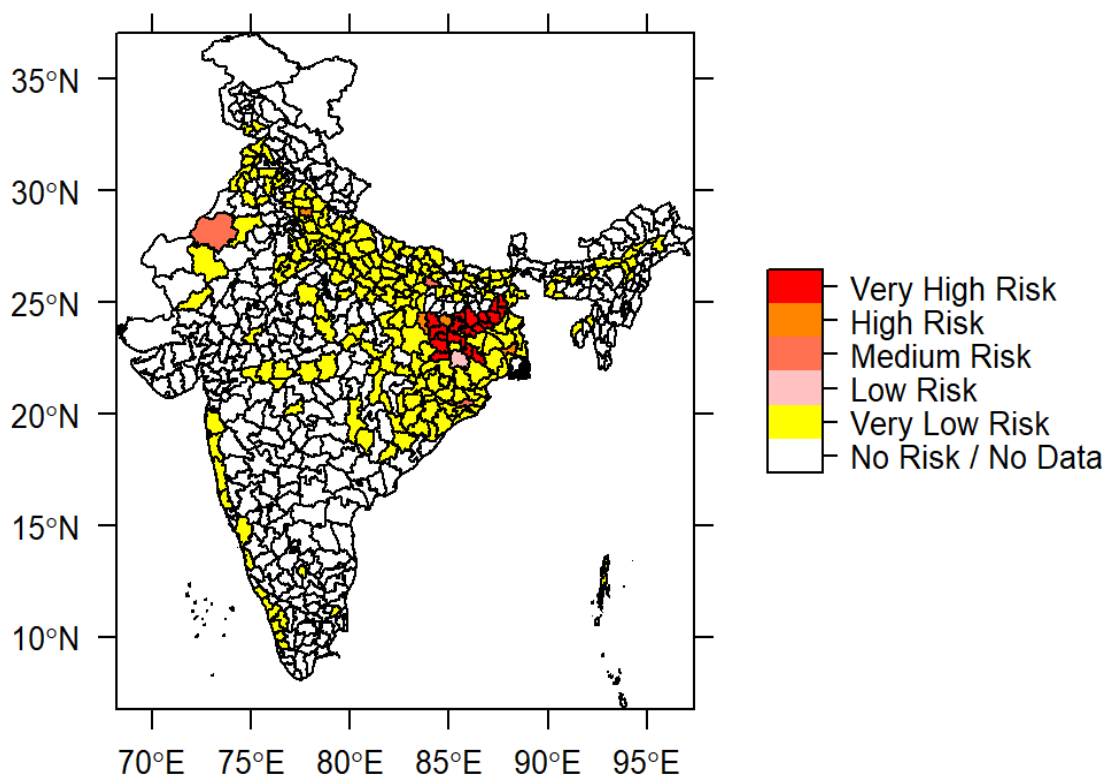
### Risk Prediction of Swine fever for the month of August 2018



### Risk Prediction of Theileriosis for the month of August 2018



### Risk Prediction of Trypanosomiasis for the month of August 2018



## 5. Launch of Mobile Android app.&link to download


Livestock forewarning application (LDF) can be downloaded following the link provided:[http://www.nivedi.res.in/android\\_nadres/nivedi.apk](http://www.nivedi.res.in/android_nadres/nivedi.apk). Further launch of LDF application was done, the news provided below.

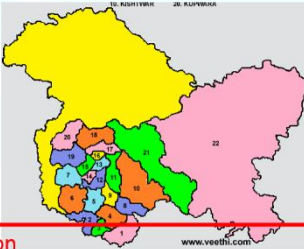


## 6. Post Prediction Highlights

### Foot-and-mouth disease breaks out in Lar

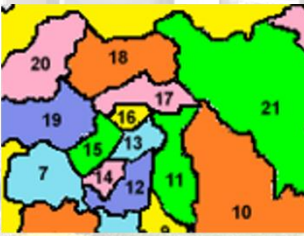
**IRFAN RAINA**  
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**NIVEDI Prediction**

JAMMU REGION	KASHMIR REGION	LADAKH REGION
1. KATHUA	11. ANANTNAG	21. KARGIL
2. JAMMU	12. KULGAM	22. LEH
3. SAMBA	13. PULWAMA	
4. UDHAMPUR	14. SHOPIAN	
5. REASI	15. BUDGAM	
6. RAJOURI	16. SRINAGAR	
7. POONCH	17. GANDERBAL	
8. DODA	18. BANDIPORA	
9. RAMBAN	19. BARAMULLA	
10. KISHTWAR	20. KUPWARA	



Districts of Jammu and Kashmir	FMD
Anantnag	NR
Badgam	HR
Bandipore	VLR
Baramula	HR
Doda	VLR
Ganderbal	VLR
Jammu	LR
Kargil	LR
Kathua	VLR
Kishtwar	NR
Kulgam	MR
Kupwara	HR
Leh(Ladakh)	VLR
Pulwama	HR
Punch	NR
Rajouri	NR
Ramban	NR
Reasi	NR
Samba	NR
Shupiyan	NR
Srinagar	VHR
Udhampur	NR

- Dozens of cattle have been affected by foot-and-mouth disease in Lar area of Ganderbal district. The Krishi Vigyan Kendra (KVK) Ganderbal Wednesday organised a special camp where farmers were made aware about the management, prevention and control of the disease.
- In the programme, a door to door examination of animals was conducted by the experts from SKUAST-K and the ailing animals were treated on spot.
- According to Head and Programme Coordinator, KVK-Ganderbal, Dr Javid Ahmad Bhat, a number of calls were received from the farmers of the area complaining of death and sickness of milch animals.
- Acting on the complaints, a team of experts was deputed to the area for managing the disease.
- Subject Matter Specialist (Animal Science), KVK-Ganderbal, Dr Parvaiz Ahmed Reshi confirmed that the majority of animals in Repora, Waliwar, Chanthan, Gulabpora, Chontwaliwar and adjoining villages of the area were affected by the disease and some mortalities of the young animals, along with worsening of condition of the adult animals, have been reported.
- Talking to Greater Kashmir, Director animal husbandry, Kashmir, Dr M Y Chaproo said that they have already carried vaccination programme of cattle in all the areas. "We will ask the concerned official to visit the areas again to assess the situation and vaccinate the affected cattle," he added.

## 7. Appendix

### A. R Code

```
#pars month_number=8; year_number=2006; current_year=2017;
nadres_func=function (current_year, year_number, month_number)
{
args = commandArgs(trailingOnly=TRUE)
if (length(args)<3) {
stop("Correct number of arguments must be supplied", call.=FALSE)
}
current_year=args[1]
year_number=args[2]
month_number=args[3]
df_total<-NULL
month_name=data.frame(
month=c(1:12),
month_names=c("January","February","March","April","May","July","July","August","September","October","November","December")
)
ss<-fread(file="NADRES.csv",header=T,check.names = F)
col_pars=names(ss)
vars= paste(col_pars[7:ncol(ss)],collapse = "+")
options(verbose = F)
for(disease in c(8,10,11,12,24,31,35,37,48,60,62,65,70,72,79))
{
# disease=8
rs<-dbSendQuery(mydb,"SELECT index_state.state_name,index_state.state_id,index_district.district_id,
index_district.district_name, year_list.year, outbreak_data_final.month,
ls_sp_index.species_name,disease_master.disease_id, disease_master.disease_name,
```





```
outbreak_data_final.number_of_outbreaks, outbreak_data_final.number_susceptible,  
outbreak_data_final.number_of_attacks, outbreak_data_final.number_of_deaths
```

```
FROM ls_sp_index INNER JOIN (year_list INNER JOIN (disease_master INNER JOIN  
(index_district INNER JOIN (index_state INNER JOIN outbreak_data_final ON index_state.state_id =  
outbreak_data_final.state_id) ON index_district.district_id = outbreak_data_final.district_id) ON  
disease_master.disease_id = outbreak_data_final.disease_id) ON year_list.year =  
outbreak_data_final.year) ON ls_sp_index.species_id = outbreak_data_final.species_id;")
```

```
data = fetch(rs, n=-1)
```

```
# year change
```

```
data<-subset(data,data$year>=year_number&data$disease_id==disease)
```

```
df<-sqldf("SELECT  
state_id,state_name,district_id,district_name,disease_id,disease_name,month,sum(number_of_outbrea  
ks)as outbreak FROM data GROUP BY  
state_id,district_id,state_name,district_name,month,disease_id,disease_name",drv="SQLite")
```

```
ss1<-subset(ss,ss$disease_id==disease)
```

```
attach(ss1,warn.conflicts = F)
```

```
attach(df,warn.conflicts = F)
```

```
dd<-merge(ss1, df, by = c("state_id","district_id","disease_id","month"),all.x=TRUE)
```

```
attach(dd,warn.conflicts = F)
```

```
out<-data.frame(outbreak)
```

```
out<-ifelse(outbreak>=1,1,0)
```

```
out[is.na(out)]<-0
```

```
final<-cbind(dd,out)
```

```
final1<-final[which(final$disease_id==disease),]
```

```
cat("For disease: ",as.character(unique(ss1["disease_name"])), "\n")
```

```
ncs= ncol(final1)-5
```

```
temp = data.frame(final1[,8:ncs])
```

```
for(i in 1:ncol(temp)){
```

```
temp[is.na(temp[,i]), i] <- mean(temp[,i], na.rm = TRUE)
```

```
}
```



```

final2<-
cbind(final1$state_id,final1$state_name.x,final1$district_id,final1$district_name.x,final1$disease_id,final1$disease_name.x,final1$out,final1$month,temp)

setnames(final2,old=c("final1$state_id","final1$state_name.x","final1$district_id","final1$district_name.x","final1$disease_id","final1$disease_name.x","final1$out","final1$month"),new=c("state_id","state_name","district_id","district_name","disease_id","disease_name","out","month"))

formula=paste("out ~",vars)

as.formula(formula)

```

```

model<-glm(formula,data = final2, family = binomial(link="logit"),maxit=20)
new<-data.frame(final2[,8:ncol(final2)])
prediction<-predict(model,type="response")

n2=randomForest(as.formula(formula),final2)
prediction_rf<-predict(n2,type="response")

gbm_model=gbm.step(data=final2, gbm.x = 8:ncol(final2), gbm.y = 7, family = "bernoulli", tree.complexity = 1, learning.rate = 0.01,
                    bag.fraction = 0.5, n.trees = 5,keep.fold.fit=T,tolerance.method="fixed"
                    , step.size = 5,n.folds = 10)
prediction_gbm<-predict(gbm_model,n.trees=gbm_model$gbm.call$best.trees,type="response")
prediction=numeric()
for (i in 1:length(prediction_glm)) {
# if(prediction_glm[i]>prediction_rf[i])
# {
#   if(prediction_glm[i]>prediction_gbm[i])
#   {
#     prediction[i]=prediction_glm[i]
#   }
  if(prediction_glm[i] >= prediction_gbm[i] && prediction_glm[i] >= prediction_rf[i])
  {
    prediction[i]=prediction_glm[i];
  }

  if(prediction_gbm[i] >= prediction_glm[i] && prediction_gbm[i] >= prediction_rf[i])
  {
    prediction[i]=prediction_gbm[i];
  }

  if(prediction_rf[i] >= prediction_glm[i] && prediction_rf[i] >= prediction_gbm[i]) {
    prediction[i]=prediction_rf[i];
  }
}

summary(prediction)
vv<-round(prediction,2)

df1<-cbind(final2,vv)

df_total<-rbind(df_total,df1)

gc()

```



```

}

f=function(m){
if(m<=0.0) i=1
else if(m>=0.0 && m<=0.20) i=2
else if(m>=0.21 && m<=0.40) i=3
else if(m>=0.41 && m<=0.60) i=4
else if(m>=0.61 && m<=0.80) i=5
else i=6

df_total$cate=factor(mapply(f,df_total$vv),levels=1:6,labels=c("NR","VLR","LR","MR","VHR","HR"))
write.csv(df_total,"nadres_outbreak.csv")

##### ACCURACY

df_total=read.csv("nadres_outbreak.csv",header = T)
dir.create(path = paste(month_name[month_number,2],current_year))
df_poa=df_total
df_poa$cate=factor(mapply(f,df_poa$vv),levels=1:6,labels=c(0,0,0,0,1,1))
df_poa=df_poa[which(df_poa$month==month_name[month_number,1]),]
df_p=df_poa[,c("disease_name","out","cate")]

df_acc=cbind(data.frame(c(1:nrow(df_tot_res))),data.frame(df_tp_tn[,1]),(df_tp_tn[,2]/df_tot_res[,2])*100)
df_acc=setNames(df_acc,c("No","Disease","Accuracy"))

print(df_acc)

dis_acc=paste(paste(month_name[month_number,2]," ",current_year,"/",sep = ""),"Disease Accuracy",month_name[month_number,2]," ",current_year,".csv",sep="")

write.csv(df_acc,dis_acc,row.names = F)

#####PLOT

i=1

plot_dir=paste(paste(month_name[month_number,2],"",current_year,"/",sep=""),month_name[month_number,2]," ",current_year," N",sep="")

```



```

dir.create(path = plot_dir)

disease = c(8,10,11,12,31,35,37,48,60,65,70,72,79)

while(i<=length(disease))

{

kar=readOGR(dsn = "1shp/2011_Dist.shp",verbose = FALSE)

cols=as.character(unique(df_total[df_total$disease_id==disease[i],"disease_name"]))

df_disease=df_total[which(df_total$month==month_name[month_number,1]
&df_total$disease_id==disease[i]),]

df_disease=df_disease[,c(2:5,(ncol(df_disease)-1))]

df_disease=setNames(df_disease,c("ST_CEN_CD","state_name","DT_CEN_CD","district_name","vv"))

kar@data=merge(data.frame(kar@data),data.frame(df_disease),by=c("ST_CEN_CD","DT_CEN_CD"),all.x
=T)

kar$vv[is.na(kar$vv)]<-0

#View(kar@data)

colours<-c("#FFFFFF", "#FFFF00", "#FFC1C1", "#FF7150", "#FF8500", "#FF0000")

kar$lb=factor(mapply(f, kar$vv), levels=1:6, labels=c("No Risk / No Data", "Very Low
Risk", "LowRisk", "MediumRisk", "HighRisk", "Very High Risk"))

cols=gsub("&", "and", cols)

disname= gsub("\\.", " ", cols)

cat("Plot for disease:", disname, "\n")

plot_loc=paste(plot_dir, "/", disname, "/", sep="")

dir.create(plot_loc)

file_name=paste(plot_loc, disname, ".png", sep="")

plot_title= paste(disname, " risk prediction(", month_name[month_number,2], "
", current_year, ")", sep="")

png(file_name)

print(splot(obj = kar, c("lb"), col.regions=colours, main = plot_title, scales=list(draw = TRUE)))

dev.off()

i=i+1

```



## B. Abbreviations

NADRES : National Animal Disease Referral Expert System

R : R environment for statistical computing

BQ : Black Quarter

BT : Blue tongue

ET : Enterotoxemia

FMD : Foot and Mouth disease

HS : Haemorrhagic Septicaemia

PPR : Peste des petits ruminants

S&G POX : Sheep and Goat pox

SF : Swine Fever

hPa : Hectopascals

NR : No risk/No data available

VLR : Very low risk

LR : Low risk

MR : Moderate risk

HR : High risk

VHR : Very high risk





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