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LIVESTOCK DISEASE FOREWARNING BULLETIN- July 2018

(SIMPLIFIED SOLUTION! MAGNIFIED OPPORTUNITY!)

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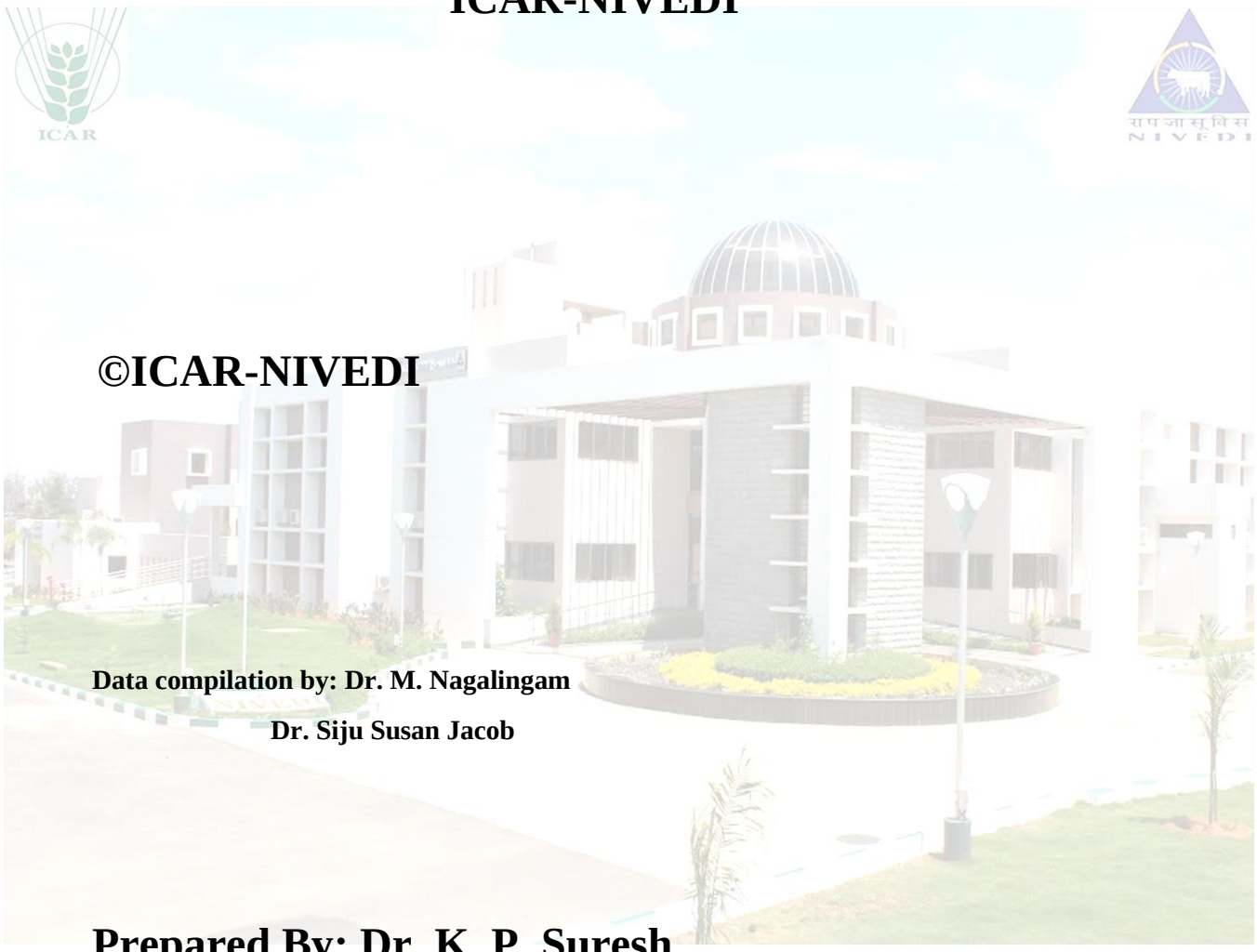

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Disclaimer

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 July not be realistic. Further the forewarning will not take into consideration the control measures that are *in situ*.

Acknowledgement

We would like to acknowledge the constant support and inspiration from honourable Secretary, DARE & DG, ICAR, Government of India, New Delhi.

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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 19th 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 indexand 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 unsinged integer	0.02
Lai_1km	1 sq. km	Leaf Area Index	m2plant/m2ground	8-bit unsigned integer	0.1

II) Method.

Disease outbreak was predicted by combining predicted results fromGeneralised Linear Model (Logistic Regression), Gradient Boosting and Random Forestmodels 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	94.59
2.	Babesiosis	96.91
3.	Black Quarter	93.82
4.	Bluetongue	99.69
5.	Enterotoxemia	96.75
6.	Fasciolosis	94.75
7.	Foot and mouth disease	92.28
8.	Haemorrhagic septicaemia	87.19
9.	Peste des petits ruminants	94.59
10.	Sheep & Goat pox	96.75
11.	Swine fever	95.37
12.	Theileriosis	96.75
13.	Trypanosomosis	97.68

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

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

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 Haemorrhagic septicaemia (87.19%).

4. Forewarning of livestock disease for the month of July 2018

i) District wise Livestock Disease forewarning:

District wise Livestock Disease forewarning for July 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	NR	VHR	NR	VLR	NR	VLR	VLR	NR	VLR
North & Middle Andaman	NR	LR	VLR	NR	NR	VHR	VLR	VLR	VLR	NR	VLR	VLR	NR
South Andaman	NR	LR	NR	NR	NR	VHR	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 July 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	LR	VLR	VLR	VLR	LR	VLR	VLR	MR	VLR	VLR	NR	VLR	NR
Chittoor	MR	NR	LR	VLR	MR	NR	LR	LR	VLR	VLR	VLR	NR	VLR
East Godavari	VLR	NR	LR	NR	VLR	VLR	VLR	MR	VLR	VLR	VLR	NR	VLR
Guntur	VLR	NR	VLR	VLR	MR	VLR	VLR	HR	VLR	VLR	VLR	NR	VLR
Krishna	VLR	NR	VLR	VLR	LR	VLR	VLR	HR	MR	VLR	NR	NR	NR
Kurnool	MR	NR	VLR	VLR	MR	VLR	VLR	MR	HR	VLR	NR	VLR	VLR
Prakasam	VLR	NR	VLR	VLR	VLR	NR	VLR	MR	VLR	VLR	NR	NR	VLR
Sri PottiSriramulu Nellore	HR	NR	VLR	VLR	VLR	VLR	VLR	MR	VLR	LR	VLR	NR	NR
Srikakulam	LR	VLR	VLR	VLR	LR	NR	LR	LR	LR	VLR	VLR	VLR	VLR
Visakhapatnam	VLR	NR	VLR	NR	VLR	NR	VLR	HR	VLR	VLR	VLR	NR	NR
Vizianagaram	LR	VLR	LR	NR	LR	VLR	VLR	MR	VLR	VLR	VLR	VLR	NR
West Godavari	VLR	VLR	LR	VLR	MR	VLR	VLR	HR	VLR	VLR	VLR	NR	NR
Y.S.R.	LR	VLR	VLR	VLR	LR	VLR	VLR	MR	MR	LR	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 July 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	VLR	VLR	NR	VLR	VLR	VLR	VLR	VLR	VLR	VLR	VLR	NR
Changlang	NR	VLR	VLR	NR	NR	VLR	NR	NR	VLR	VLR	NR	NR	VLR
Dibang Valley	NR	VLR	NR	NR	NR	VLR	VLR	VLR	VLR	VLR	VLR	NR	NR
East Kameng	VLR	VLR	VLR	NR	NR	LR	VLR	VLR	NR	VLR	VLR	NR	NR
East Siang	NR	VLR	NR	NR	NR	VLR	VLR	VLR	VLR	VLR	VLR	VLR	VLR
KurungKumey	NR	VLR	VLR	NR	NR	VLR	NR	VLR	VLR	VLR	VLR	VLR	NR
Lohit	VLR	VLR	VLR	NR	NR	VLR	VLR	VLR	VLR	VLR	VLR	NR	VLR
Lower Dibang Valley	NR	VLR	NR	NR	VLR	VLR	NR	VLR	NR	NR	VLR	VLR	VLR
Lower Subansiri	NR	VLR	VLR	NR	VLR	HR	NR	NR	NR	NR	VLR	NR	NR
Papum Pare	NR	VLR	VLR	NR	NR	HR	NR	VLR	VLR	VLR	VLR	VLR	VLR
Tawang	VLR	VLR	VLR	VLR	NR	VLR	VLR	VLR	VLR	VLR	VLR	VLR	VLR
Tirap	NR	VLR	VLR	NR	NR	VLR	VLR	VLR	VLR	VLR	VLR	VLR	VLR
Upper Siang	NR	NR	NR	NR	NR	VLR	NR	VLR	VLR	VLR	NR	VLR	VLR
Upper Subansiri	NR	NR	VLR	NR	NR	LR	VLR	NR	NR	VLR	VLR	NR	NR
West Kameng	NR	VLR	VLR	NR	NR	VLR	VLR	VLR	VLR	VLR	VLR	NR	NR
West Siang	NR	VLR	NR	NR	NR	HR	NR	VLR	NR	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 July 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	MR	NR	VLR	LR	VLR	MR	VLR	VLR	VLR	VLR	NR
Barpeta	VLR	VLR	HR	NR	VLR	HR	VLR	HR	VLR	VLR	VLR	VLR	VLR
Bongaigaon	NR	VLR	MR	NR	VLR	LR	VLR	MR	VLR	VLR	VLR	VLR	VLR
Cachar	NR	VLR	MR	NR	VLR	VLR	VLR	VLR	VLR	VLR	VLR	NR	NR
Chirang	VLR	VLR	LR	NR	VLR	LR	VLR	LR	VLR	VLR	VLR	VLR	VLR
Darrang	NR	LR	LR	NR	VLR	LR	VLR	MR	LR	VLR	VLR	VLR	NR
Dhemaji	VLR	VLR	HR	NR	VLR	VHR	VLR	HR	VLR	VLR	VHR	LR	VLR
Dhubri	VLR	VLR	MR	NR	VLR	MR	VLR	LR	VLR	VLR	VLR	VLR	VLR
Dibrugarh	VLR	VLR	MR	NR	LR	HR	VLR	LR	VLR	VLR	LR	VLR	VLR
Dima Hasao	NR	VLR	VLR	NR	VLR	VLR	VLR	VLR	VLR	NR	VLR	VLR	VLR
Goalpara	NR	VLR	MR	NR	VLR	LR	VLR	LR	VLR	VLR	LR	VLR	VLR
Golaghat	NR	VLR	MR	NR	VLR	HR	VLR	LR	VLR	VLR	LR	NR	NR
Hailakandi	NR	VLR	VLR	NR	VLR	VLR	VLR	VLR	VLR	VLR	VLR	VLR	VLR
Jorhat	NR	VLR	HR	NR	VLR	VHR	VLR	LR	VLR	VLR	MR	VLR	VLR
Kamrup	VLR	VLR	LR	NR	NR	VHR	VLR	LR	MR	VLR	LR	VLR	VLR
Kamrup Metropolitan	VLR	VLR	LR	NR	VLR	HR	LR	VLR	LR	LR	MR	VLR	VLR
Karbi Anglong	VLR	VLR	LR	NR	LR	VLR	VLR	LR	VLR	HR	HR	LR	VLR
Karimganj	NR	VLR	LR	NR	LR	VLR	LR	LR	VLR	VLR	LR	VLR	NR
Kokrajhar	NR	VLR	MR	NR	VLR	LR	VLR	HR	VLR	VLR	LR	VLR	NR
Lakhimpur	VLR	VLR	MR	NR	MR	VHR	LR	MR	VLR	VLR	VHR	VLR	VLR
Morigaon	NR	VLR	MR	NR	VLR	LR	VLR	MR	VLR	VLR	VLR	VLR	NR

Continue

Districts of Assam	Livestock Diseases												
	Anthrax	Babesiosis	BQ	BT	ET	Fasciolosis	FMD	HS	PPR	S&G Pox	SF	Theileriosis	Trypanosomosis
Nagaon	VLR	VLR	LR	NR	VLR	LR	VLR	LR	VLR	LR	LR	VLR	VLR
Nalbari	NR	VLR	MR	NR	VLR	LR	VLR	LR	VLR	VLR	VLR	VLR	NR
Sivasagar	VLR	NR	LR	NR	VLR	MR	VLR	LR	VLR	VLR	HR	NR	NR
Sonitpur	VLR	VLR	MR	NR	VLR	HR	VLR	MR	VLR	VLR	LR	VLR	VLR
Tinsukia	VLR	NR	LR	NR	VLR	LR	VLR	LR	VLR	VLR	LR	NR	NR
Udalguri	VLR	VLR	HR	NR	LR	MR	VLR	LR	LR	VLR	LR	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 July 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	VLR	NR	VLR	VLR	VLR	VLR	VLR	VLR	VLR	VLR	VLR
Arwal	NR	NR	VLR	NR	VLR	VLR	VLR	VLR	VLR	NR	NR	VLR	NR
Aurangabad	NR	VLR	VLR	NR	VLR	VLR	VLR	VLR	VLR	NR	VLR	VLR	VLR
Banka	NR	VLR	VLR	NR	VLR	VLR	VLR	VLR	VLR	NR	VLR	NR	NR
Begusarai	VLR	VLR	VLR	NR	NR	NR	VLR	VLR	VLR	NR	NR	NR	VLR
Bhagalpur	VLR	VLR	VLR	NR	NR	VLR	VLR	VLR	VLR	NR	VLR	NR	NR
Bhojpur	VLR	VLR	VLR	NR	VLR	VLR	VLR	VLR	VLR	VLR	VLR	LR	MR
Buxar	NR	VLR	VLR	NR	VLR	VLR	VLR	VLR	NR	NR	NR	VLR	VLR
Darbhanga	NR	NR	VLR	NR	VLR	VLR	VLR	VLR	NR	NR	NR	VLR	VLR
Gaya	NR	VLR	VLR	VLR	VLR	VLR	VLR	VLR	VLR	NR	VLR	VLR	NR
Gopalganj	NR	NR	VLR	NR	VLR	NR	NR	VLR	VLR	NR	VLR	VLR	VLR
Jamui	VLR	VLR	VLR	NR	VLR	VLR	VLR	VLR	VLR	NR	VLR	VLR	VLR
Jehanabad	VLR	VLR	VLR	NR	VLR	VLR	VLR	VLR	VLR	NR	VLR	VLR	VLR
Kaimur (Bhabua)	NR	VLR	NR	NR	VLR	VLR	VLR	VLR	VLR	VLR	NR	VLR	VLR
Katihar	VLR	VLR	VLR	NR	VLR	VLR	VLR	VLR	VLR	NR	VLR	VLR	VLR
Khagaria	VLR	VLR	VLR	NR	NR	NR	VLR	VLR	NR	NR	VLR	VLR	VLR
Kishanganj	VLR	VLR	VLR	NR	VLR	VLR	LR	VLR	VLR	VLR	VLR	VLR	VLR
Lakhisarai	NR	NR	VLR	NR	VLR	VLR	VLR	VLR	VLR	VLR	VLR	VLR	NR
Madhepura	VLR	VLR	VLR	NR	VLR	VLR	VLR	VLR	VLR	NR	VLR	VLR	VLR
Madhubani	NR	VLR	VLR	NR	VLR	VLR	VLR	VLR	VLR	NR	VLR	VLR	NR
Munger	VLR	VLR	VLR	NR	NR	VLR	VLR	VLR	VLR	NR	VLR	VLR	NR
Muzaffarpur	NR	NR	NR	NR	VLR	NR	VLR	VLR	VLR	NR	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	VLR	NR	VLR	VLR	VLR	VLR	VLR	VLR	NR	VLR	VLR
Nawada	NR	NR	VLR	NR	VLR	VLR	VLR	VLR	VLR	NR	NR	VLR	VLR
Pashchim Champaran	NR	VLR	VLR	NR	VLR	VLR	VLR	VLR	MR	VLR	VLR	VLR	VLR
Patna	VLR	VLR	VLR	NR	VLR	VLR	LR	VLR	VLR	VLR	VLR	VLR	VLR
PurbaChamparan	VLR	VLR	NR	NR	VLR	VLR	VLR	VLR	VLR	NR	VLR	VLR	VLR
Purnia	VLR	VLR	VLR	NR	VLR	VLR	VLR	VLR	VLR	NR	VLR	VLR	VLR
Rohtas	VLR	VLR	VLR	NR	VLR	VLR	VLR	VLR	VLR	NR	NR	VLR	VLR
Saharsa	NR	VLR	VLR	NR	NR	VLR	VLR	VLR	VLR	NR	VLR	NR	VLR
Samastipur	VLR	VLR	VLR	NR	VLR	VLR	VLR	VLR	VLR	NR	VLR	VLR	VLR
Saran	NR	VLR	VLR	NR	NR	VLR	NR	VLR	VLR	NR	NR	VLR	VLR
Sheikhpura	NR	VLR	VLR	NR	VLR	NR	VLR	VLR	VLR	NR	NR	VLR	VLR
Sheohar	VLR	VLR	VLR	NR	VLR	NR	VLR	VLR	VLR	VLR	VLR	VLR	NR
Sitamarhi	NR	VLR	VLR	NR	VLR	VLR	VLR	VLR	VLR	VLR	VLR	VLR	NR
Siwan	VLR	NR	VLR	VLR	VLR	VLR	VLR	VLR	VLR	NR	NR	VLR	VLR
Supaul	VLR	VLR	VLR	NR	VLR	NR	VLR	VLR	VLR	NR	NR	VLR	NR
Vaishali	NR	NR	VLR	NR	VLR	VLR	VLR	VLR	NR	NR	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 July 2018: Chandigarh

Districts of Chandigarh	Livestock Diseases												
	Anthrax	Babesiosis	BQ	BT	ET	Fasciolosis	FMD	HS	PPR	S&G Pox	SF	Theileriosis	Trypanosomosis
Chandigarh	VLR	VLR	VLR	NR	NR	VLR	VLR	VLR	NR	VLR	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 July 2018: Chhattisgarh

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

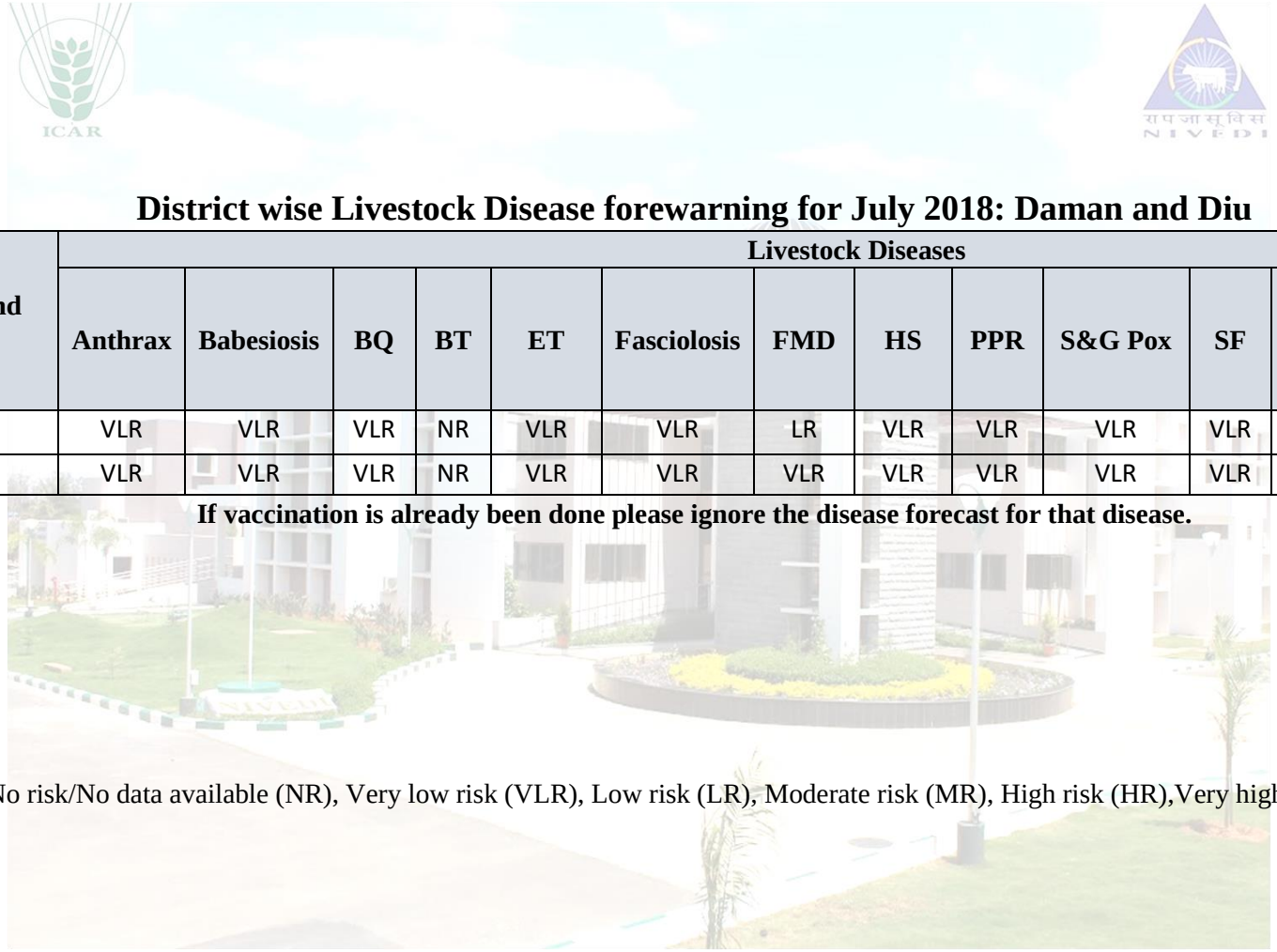
If vaccination is already been done please ignore the disease forecast for that disease.

*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 July 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	LR	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.

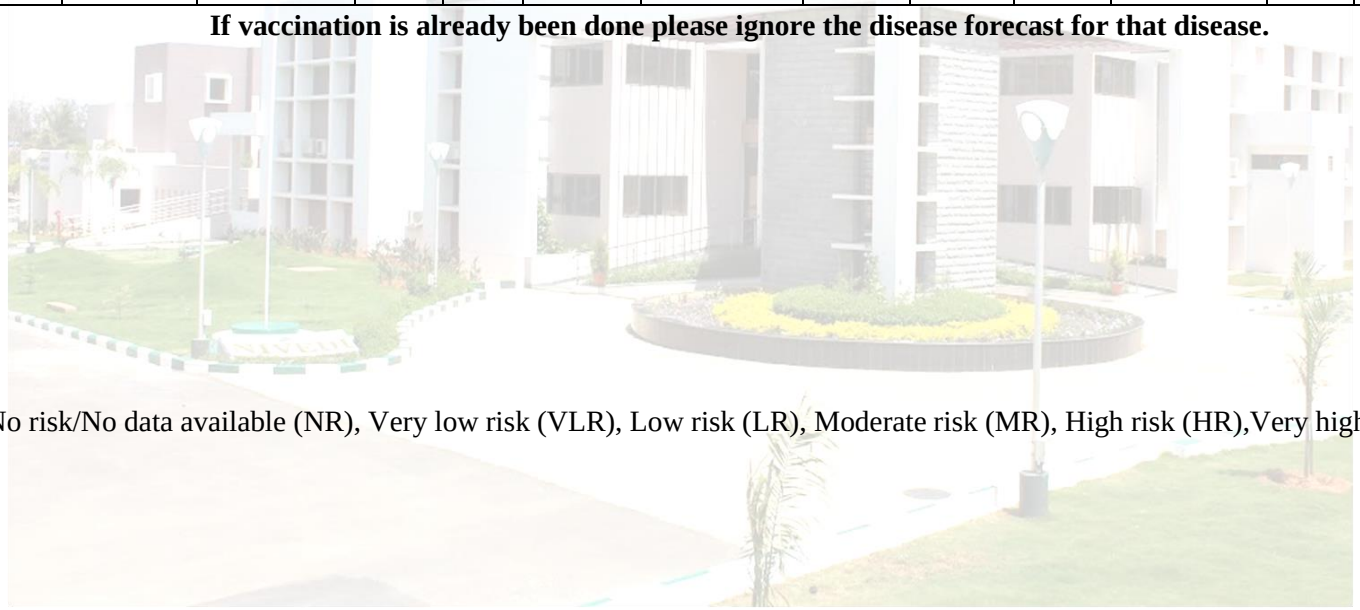


*No risk/No data available (NR), Very low risk (VLR), Low risk (LR), Moderate risk (MR), High risk (HR),Very high risk (VHR)

District wise Livestock Disease forewarning for July 2018: Goa

Districts of Goa	Livestock Diseases												
	Anthrax	**Babesiosis**	**BQ**	**BT**	**ET**	**Fasciolosis**	**FMD**	**HS**	**PPR**	**S&G Pox**	**SF**	**Theileriosis**	**Trypanosomosis**
North Goa	VLR	VLR	VLR	NR	VLR	VLR	VLR	VLR	VLR	VLR	VLR	VLR	NR
South Goa	VLR	LR	VLR	NR	VLR	VLR	VLR	VLR	VLR	VLR	LR	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 July 2018:Gujarat

Districts of Gujarat	Livestock Diseases

	Anthrax	Babesiosis	BQ	BT	ET	Fasciolosis	FMD	HS	PPR	S&G Pox	SF	Theileriosis	Trypanosomosis
Ahmadabad	NR	VLR	VLR	NR	NR	NR	VLR	LR	VLR	VLR	NR	VLR	NR
Amreli	VLR	VLR	VLR	NR	VLR	VLR	VLR	LR	LR	VLR	NR	VLR	VLR
Anand	VLR	NR	VLR	NR	VLR	NR	VLR	VLR	VLR	NR	VLR	VLR	VLR
Banas Kantha	VLR	VLR	VLR	VLR	VLR	VLR	VLR	VLR	VLR	VLR	VLR	NR	VLR
Bharuch	NR	VLR	VLR	NR	NR	VLR	VLR	VLR	VLR	NR	NR	VLR	VLR
Bhavnagar	VLR	NR	VLR	NR	VLR	NR	VLR	MR	LR	VLR	NR	NR	NR
Dohad	VLR	VLR	NR	VLR	VLR	NR	VLR	VLR	VLR	NR	VLR	NR	VLR
Gandhinagar	VLR	NR	NR	NR	NR	NR	VLR	VLR	VLR	NR	NR	NR	VLR
Jamnagar	VLR	VLR	VLR	NR	VLR	NR	VLR	LR	VLR	VLR	VLR	VLR	VLR
Junagadh	VLR	VLR	VLR	NR	VLR	VLR	MR	LR	VLR	VLR	VLR	VLR	VLR
Kachchh	VLR	VLR	VLR	VLR	VLR	VLR	VLR	MR	VLR	VLR	VLR	VLR	VLR
Kheda	VLR	VLR	VLR	VLR	VLR	VLR	VLR	LR	VLR	NR	VLR	VLR	VLR
Mahesana	VLR	NR	VLR	NR	VLR	NR	NR	VLR	VLR	NR	NR	NR	VLR
Narmada	NR	VLR	VLR	NR	NR	VLR	VLR	VLR	VLR	NR	VLR	VLR	VLR
Navsari	VLR	VLR	VLR	NR	NR	VLR	VLR	LR	VLR	VLR	VLR	NR	VLR
PanchMahals	VLR	NR	VLR	NR	NR	NR	VLR	LR	VLR	NR	VLR	NR	VLR
Patan	VLR	VLR	NR	NR	VLR	NR	VLR	MR	VLR	NR	NR	VLR	VLR
Porbandar	VLR	VLR	VLR	NR	NR	VLR	VLR	VLR	VLR	VLR	VLR	VLR	VLR
Rajkot	VLR	NR	VLR	NR	VLR	NR	VLR	MR	VLR	LR	NR	VLR	NR
Sabar Kantha	VLR	NR	VLR	VLR	VLR	NR	VLR	VLR	VLR	NR	VLR	NR	VLR
Surat	NR	VLR	VLR	NR	NR	VLR	VLR	LR	NR	NR	VLR	VLR	NR
Surendranagar	VLR	VLR	VLR	VLR	VLR	VLR	VLR	LR	VLR	NR	NR	NR	NR
Tapi	VLR	NR	VLR	NR	NR	NR	VLR	VLR	VLR	VLR	VLR	VLR	VLR
The Dangs	VLR	VLR	VLR	NR	VLR	VLR	VLR	VLR	VLR	VLR	VLR	VLR	NR
Vadodara	VLR	NR	VLR	NR	VLR	NR	VLR	LR	VLR	NR	VLR	VLR	NR
Valsad	VLR	VLR	VLR	NR	VLR	VLR	VLR	VLR	VLR	NR	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 July 2018: Haryana

Districts of Haryana	Livestock Diseases

	Anthrax	Babesiosis	BQ	BT	ET	Fasciolosis	FMD	HS	PPR	S&G Pox	SF	Theileriosis	Trypanosomosis
Ambala	NR	VLR	NR	NR	VLR	NR	VLR	VLR	NR	VLR	NR	VLR	NR
Bhiwani	VLR	VLR	NR	VLR	LR	VLR	NR	VLR	LR	VLR	VLR	VLR	NR
Faridabad	NR	VLR	NR	NR	NR	VLR	NR	VLR	NR	VLR	VLR	VLR	NR
Fatehabad	NR	VLR	NR	NR	VLR	NR	VLR	VLR	VLR	NR	VLR	VLR	NR
Gurgaon	NR	NR	NR	NR	NR	NR	VLR	VLR	NR	NR	VLR	VLR	NR
Hisar	NR	VLR	NR	NR	VLR	NR	VLR	VLR	LR	NR	LR	VLR	NR
Jhajjar	NR	NR	NR	NR	NR	NR	NR	NR	NR	VLR	VLR	NR	NR
Jind	NR	NR	VLR	NR	VLR	NR	VLR	VLR	VLR	VLR	VLR	VLR	NR
Kaithal	NR	NR	NR	NR	VLR	NR	VLR	VLR	NR	NR	VLR	VLR	NR
Karnal	NR	VLR	VLR	NR	NR	NR	VLR	VLR	NR	VLR	NR	NR	NR
Kurukshetra	NR	VLR	NR	NR	NR	NR	NR	VLR	NR	VLR	VLR	VLR	NR
Mahendragarh	VLR	VLR	NR	NR	NR	NR	NR	VLR	VLR	VLR	NR	VLR	NR
Mewat	VLR	VLR	NR	NR	NR	NR	NR	VLR	NR	NR	VLR	VLR	VLR
Palwal	NR	NR	VLR	NR	NR	NR	NR	VLR	NR	VLR	VLR	VLR	NR
Panchkula	NR	VLR	NR	NR	NR	NR	VLR	VLR	NR	NR	NR	NR	NR
Panipat	NR	VLR	NR	NR	NR	NR	VLR	VLR	NR	NR	VLR	VLR	NR
Rewari	NR	VLR	VLR	NR	NR	NR	VLR	NR	NR	NR	VLR	VLR	NR
Rohtak	NR	VLR	NR	NR	VLR	VLR	VLR	VLR	VLR	VLR	VLR	VLR	NR
Sirsa	NR	VLR	NR	NR	VLR	NR	VLR	VLR	VLR	VLR	NR	VLR	VLR
Sonipat	NR	NR	NR	NR	NR	NR	VLR	VLR	NR	NR	VLR	VLR	NR
Yamunanagar	NR	NR	NR	NR	NR	NR	NR	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 July 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	VLR	VLR	NR	NR	NR	VLR	VLR	VLR	NR	NR	NR	NR
Chamba	VLR	NR	VLR	NR	VLR	NR	VLR	VLR	NR	VLR	VLR	VLR	NR
Hamirpur	VLR	NR	NR	NR	NR	NR	NR	VLR	VLR	NR	VLR	NR	NR
Kangra	NR	NR	VLR	NR	VLR	VLR	VLR	VLR	VLR	VLR	NR	NR	NR
Kinnaur	NR	NR	VLR	NR	VLR	VLR	VLR	VLR	VLR	VLR	VLR	NR	NR
Kullu	VLR	NR	VLR	NR	VLR	VLR	VLR	VLR	VLR	VLR	VLR	NR	NR
Lahul&Spiti	VLR	VLR	VLR	NR	NR	NR	LR	VLR	LR	VLR	VLR	NR	NR
Mandi	VLR	VLR	VLR	VLR	VLR	VLR	LR	VLR	LR	VLR	VLR	NR	VLR
Shimla	VLR	VLR	VLR	VLR	VLR	VLR	LR	LR	LR	VLR	VLR	VLR	VLR
Sirmaur	NR	NR	VLR	NR	VLR	NR	VLR	VLR	VLR	NR	VLR	NR	VLR
Solan	NR	VLR	VLR	VLR	VLR	VLR	VLR	VLR	VLR	VLR	NR	VLR	VLR
Una	VLR	VLR	NR	NR	VLR	NR	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 July 2018: Jammu and Kashmir

Districts of Jammu and	Livestock Diseases

Kashmir	Anthrax	Babesiosis	BQ	BT	ET	Fasciolosis	FMD	HS	PPR	S&G Pox	SF	Theileriosis	Trypanosomosis
Anantnag	VLR	NR	VLR	NR	NR	NR	VLR	VLR	VLR	VLR	VLR	NR	NR
Badgam	VLR	NR	VLR	NR	VLR	VLR	HR	VLR	VLR	VHR	VLR	NR	NR
Bandipore	VLR	VLR	VLR	NR	VLR	VLR	VLR	NR	VLR	HR	NR	NR	VLR
Baramula	NR	NR	VLR	NR	VLR	NR	HR	VLR	VLR	VLR	NR	NR	VLR
Doda	VLR	VLR	VLR	NR	NR	NR	VLR	VLR	VLR	NR	NR	NR	NR
Ganderbal	VLR	NR	VLR	NR	LR	NR	VLR	NR	VLR	HR	NR	NR	NR
Jammu	VLR	NR	VLR	NR	NR	NR	LR	VLR	NR	VLR	NR	NR	NR
Kargil	VLR	NR	VLR	NR	VLR	VLR	MR	VLR	VLR	VLR	VLR	VLR	NR
Kathua	VLR	NR	VLR	NR	NR	NR	VLR	VLR	VLR	VLR	NR	NR	NR
Kishtwar	VLR	NR	VLR	NR	VLR	NR	VLR	VLR	NR	VLR	VLR	NR	NR
Kulgam	VLR	NR	VLR	NR	VLR	NR	LR	VLR	VLR	HR	VLR	NR	NR
Kupwara	VLR	NR	VLR	NR	VLR	VLR	LR	VLR	VLR	VLR	NR	VLR	NR
Leh(Ladakh)	VLR	NR	VLR	NR	VLR	VLR	VLR	VLR	VLR	VLR	VLR	NR	VLR
Pulwama	VLR	NR	VLR	NR	VLR	NR	HR	VLR	LR	VHR	NR	VLR	NR
Punch	VLR	VLR	NR	NR	VLR	NR	VLR	VLR	VLR	NR	NR	NR	NR
Rajouri	VLR	VLR	VLR	VLR	VLR	NR	VLR	VLR	VLR	VLR	VLR	VLR	VLR
Ramban	VLR	NR	VLR	NR	VLR	NR	VLR	VLR	VLR	VLR	NR	NR	NR
Reasi	VLR	NR	VLR	NR	VLR	VLR	VLR	VLR	VLR	VLR	VLR	VLR	NR
Samba	VLR	NR	VLR	NR	NR	NR	NR	VLR	VLR	NR	NR	VLR	VLR
Shupiyan	VLR	NR	VLR	NR	LR	VLR	VLR	VLR	VLR	VHR	VLR	NR	NR
Srinagar	VLR	NR	VLR	NR	VLR	NR	VHR	VLR	VLR	HR	VLR	NR	NR
Udhampur	VLR	VLR	VLR	NR	VLR	NR	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 July 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	MR	LR	LR	VLR	VLR	VHR	VHR
Chatra	LR	VHR	LR	NR	VLR	HR	LR	LR	VLR	VLR	VLR	HR	MR
Deoghar	VLR	VHR	VLR	NR	VLR	VHR	LR	LR	VLR	NR	VLR	VHR	VHR
Dhanbad	LR	HR	MR	NR	LR	VHR	LR	LR	HR	VLR	VLR	HR	HR
Dumka	LR	VHR	VLR	NR	VLR	VHR	LR	LR	VLR	NR	VLR	VHR	VHR
Garhwa	VLR	HR	VLR	NR	VLR	LR	VLR	LR	VLR	VLR	VLR	LR	MR
Giridih	VLR	HR	VLR	NR	VLR	MR	VLR	VLR	VLR	VLR	VLR	MR	HR
Godda	VLR	VHR	LR	NR	VLR	MR	LR	MR	LR	VLR	VLR	HR	VHR
Gumla	LR	VHR	MR	NR	LR	VHR	MR	MR	VLR	VLR	LR	VHR	VHR
Hazaribagh	LR	VHR	LR	NR	VLR	HR	MR	LR	VLR	VLR	VLR	VHR	VHR
Jamtara	VLR	VHR	VLR	NR	VLR	VHR	LR	VLR	VLR	VLR	VLR	VHR	VHR
Khunti	VLR	VLR	VLR	NR	VLR	VLR	VLR	VLR	VLR	VLR	VLR	VLR	VLR
Koderma	VLR	VHR	MR	NR	VLR	HR	MR	VLR	VLR	NR	VLR	VHR	VHR
Latehar	LR	VHR	LR	NR	VLR	HR	LR	LR	VLR	NR	VLR	HR	VHR
Lohardaga	LR	HR	MR	VLR	VLR	HR	LR	VLR	VLR	VLR	VLR	HR	VHR
Pakur	VLR	VHR	VLR	NR	VLR	HR	LR	VLR	VLR	VLR	VLR	VHR	HR
Palamu	VLR	VHR	LR	VLR	VLR	MR	VLR	LR	VLR	NR	VLR	LR	VHR
PashchimiSinghbhum	VLR	VHR	LR	NR	VLR	VHR	LR	VLR	VLR	VLR	VLR	MR	MR
PurbiSinghbhum	MR	HR	LR	NR	VLR	VHR	LR	LR	VLR	VLR	VLR	VHR	HR
Ramgarh	VLR	VLR	VLR	NR	VLR	VLR	VLR	VLR	VLR	VLR	VLR	VLR	VLR
Ranchi	LR	VHR	MR	VLR	LR	VHR	MR	MR	HR	VLR	LR	VHR	VHR
Sahibganj	VLR	VHR	VLR	NR	VLR	HR	VLR	VLR	VLR	VLR	VLR	HR	HR
Seraikela - Kharsawan	LR	VHR	LR	NR	VLR	VHR	LR	LR	VLR	VLR	VLR	VHR	VHR
Simdega	VLR	VHR	VLR	NR	VLR	VHR	VLR	LR	VLR	VLR	LR	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 July 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	MR	NR	VLR	MR	LR	LR	VLR	NR	NR
Bangalore	VLR	VLR	VLR	VLR	VLR	VLR	LR	LR	MR	MR	VLR	VLR	VLR
Bangalore Rural	HR	VLR	VLR	LR	LR	NR	LR	VLR	LR	VLR	VLR	VLR	NR
Belgaum	VLR	NR	LR	VLR	LR	VLR	VLR	HR	LR	HR	VLR	VLR	VLR
Bellary	HR	NR	LR	VLR	LR	NR	VLR	VHR	VLR	MR	VLR	NR	NR
Bidar	VLR	NR	VLR	NR	VLR	NR	VLR	VLR	VLR	NR	VLR	NR	NR
Bijapur	VLR	VLR	VLR	NR	VLR	VLR	LR	HR	VLR	LR	VLR	NR	NR
Chamarajanagar	HR	NR	LR	NR	VLR	VLR	VLR	VLR	LR	LR	VLR	VLR	NR
Chikkaballapura	MR	VLR	VLR	VLR	LR	NR	LR	VLR	LR	HR	VLR	VLR	NR
Chikmagalur	VLR	VLR	LR	NR	LR	NR	MR	LR	VLR	VLR	VLR	VLR	NR
Chitradurga	LR	NR	LR	VLR	HR	NR	VLR	VHR	LR	MR	VLR	NR	NR
Dakshina Kannada	VLR	VLR	VLR	NR	VLR	VLR	MR	VLR	VLR	VLR	VLR	VLR	VLR
Davanagere	VHR	NR	LR	VLR	LR	NR	LR	VHR	VLR	VHR	VLR	NR	NR
Dharwad	VLR	NR	LR	NR	LR	VLR	VLR	HR	VLR	VLR	VLR	VLR	VLR
Gadag	VLR	VLR	VLR	VLR	HR	VLR	VLR	MR	VLR	LR	VLR	VLR	VLR

Continue

Districts of Karnataka	Livestock Diseases												
	Anthrax	Babesiosis	BQ	BT	ET	Fasciolosis	FMD	HS	PPR	S&G Pox	SF	Theileriosis	Trypanosomosis
Gulbarga	VLR	VLR	LR	NR	MR	VLR	MR	HR	HR	LR	VLR	NR	VLR
Hassan	LR	NR	VHR	VLR	LR	NR	VLR	HR	VLR	LR	VLR	NR	NR
Haveri	VLR	NR	LR	VLR	VLR	VLR	VLR	HR	VLR	MR	VLR	VLR	NR
Kodagu	VLR	LR	LR	NR	VLR	VLR	VLR	VLR	VLR	MR	VLR	LR	VLR
Kolar	LR	VLR	VLR	VLR	LR	VLR	MR	VLR	LR	VLR	VLR	NR	NR
Koppal	MR	VLR	LR	VLR	HR	NR	VLR	VHR	LR	HR	VLR	VLR	NR
Mandya	VLR	NR	LR	VLR	VLR	NR	VLR	LR	VLR	LR	VLR	VLR	NR
Mysore	VLR	VLR	LR	VLR	VLR	NR	VLR	MR	VLR	VLR	VLR	NR	VLR
Raichur	LR	VLR	MR	VLR	LR	NR	VLR	VHR	VLR	MR	VLR	NR	NR
Ramanagara	VLR	VLR	LR	VLR	VLR	VLR	LR	VLR	LR	VLR	VLR	VLR	NR
Shimoga	VLR	VLR	LR	VLR	LR	VLR	VLR	VHR	VLR	VLR	VLR	VLR	VLR
Tumkur	LR	NR	LR	VLR	VHR	NR	VLR	HR	HR	LR	VLR	NR	NR
Udupi	VLR	VLR	VLR	NR	NR	VLR	VLR	VLR	VLR	VLR	VLR	VLR	VLR
Uttara Kannada	VLR	VLR	LR	VLR	VLR	VLR	LR	MR	VLR	VLR	VLR	NR	VLR
Yadgir	VLR	NR	LR	VLR	LR	NR	VLR	MR	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 July 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	LR	VLR	NR	VLR	VLR	NR
Ernakulam	VLR	VLR	VLR	NR	VLR	NR	VHR	HR	LR	VLR	LR	VLR	VLR
Idukki	LR	VLR	VLR	NR	NR	VLR	HR	LR	VLR	NR	LR	VLR	VLR
Kannur	VLR	VLR	VLR	NR	NR	VLR	HR	LR	VLR	NR	VLR	VLR	VLR
Kasaragod	VLR	VLR	VLR	NR	NR	VLR	LR	VLR	VLR	VLR	VLR	VLR	VLR
Kollam	LR	VLR	VLR	NR	NR	NR	VHR	HR	MR	NR	VLR	VLR	VLR
Kottayam	VLR	VLR	NR	NR	VLR	NR	VHR	LR	VLR	NR	LR	VLR	VLR
Kozhikode	VLR	VLR	VLR	NR	NR	VLR	VHR	LR	VLR	VLR	VLR	VLR	VLR
Malappuram	VLR	VLR	VLR	NR	NR	VLR	HR	LR	LR	VLR	VLR	VLR	VLR
Palakkad	VLR	VLR	VLR	NR	VLR	VLR	HR	MR	LR	VLR	VLR	LR	VLR
Pathanamthitta	MR	VLR	VLR	NR	NR	VLR	VHR	VLR	VLR	NR	VLR	VLR	NR
Thiruvananthapuram	LR	VLR	VLR	NR	VLR	NR	HR	VHR	MR	VLR	VLR	VLR	VLR
Thrissur	VLR	VLR	VLR	NR	NR	VLR	HR	MR	LR	VLR	VLR	VLR	VLR
Wayanad	VLR	VLR	VLR	NR	NR	VLR	HR	VLR	VLR	VLR	VLR	VLR	VLR

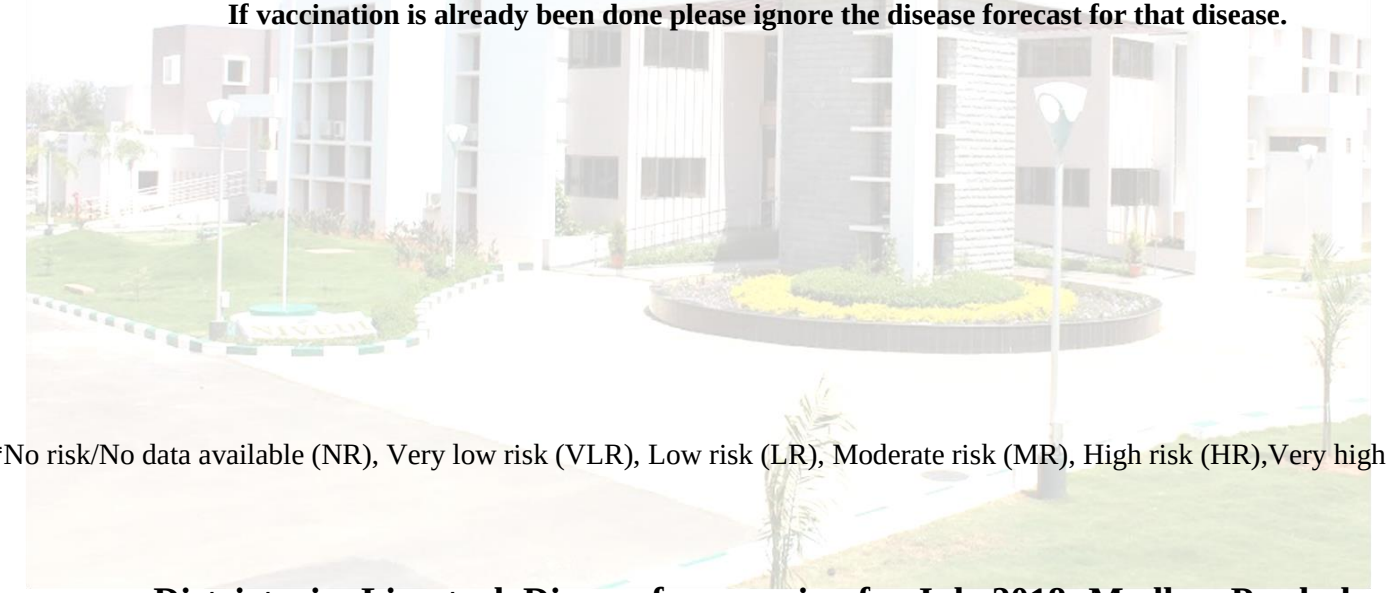
If vaccination is already been done please ignore the disease forecast for that disease.

*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 July 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	VLR	VLR	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 July 2018: Madhya Pradesh

Districts of Madhya	Livestock Diseases

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

Continue

Districts of Madhya	Livestock Diseases

Pradesh	Anthrax	Babesiosis	BQ	BT	ET	Fasciolosis	FMD	HS	PPR	S&G Pox	SF	Theileriosis	Trypanosomosis
Khargone (West Nimar)	VLR	VLR	VLR	NR	VLR	VLR	VLR	MR	VLR	NR	VLR	NR	NR
Mandla	VLR	VLR	VLR	NR	NR	NR	VLR	LR	VLR	VLR	NR	VLR	VLR
Mandsaur	NR	VLR	VLR	NR	VLR	NR	VLR	VLR	VLR	VLR	VLR	NR	VLR
Morena	VLR	NR	VLR	NR	VLR	NR	VLR	VLR	LR	VLR	VLR	VLR	NR
Narsimhapur	NR	VLR	NR	NR	VLR	VLR	VLR	VLR	VLR	NR	NR	NR	VLR
Neemuch	NR	VLR	VLR	NR	NR	NR	VLR	VLR	VLR	NR	VLR	NR	NR
Panna	VLR	VLR	VLR	NR	NR	NR	VLR	LR	VLR	VLR	VLR	NR	NR
Raisen	NR	VLR	VLR	NR	VLR	VLR	VLR	VLR	VLR	NR	VLR	VLR	VLR
Rajgarh	NR	NR	VLR	NR	NR	NR	VLR	VLR	VLR	NR	VLR	NR	NR
Ratlam	VLR	VLR	VLR	NR	NR	NR	VLR	VLR	VLR	VLR	VLR	NR	VLR
Rewa	VLR	NR	MR	VLR	LR	NR	LR	MR	MR	NR	VLR	VLR	VLR
Sagar	VLR	VLR	VLR	NR	NR	NR	VLR	VLR	VLR	VLR	VLR	VLR	VLR
Satna	VLR	VLR	VLR	NR	VLR	NR	MR	LR	VLR	NR	VLR	VLR	VLR
Sehore	VLR	VLR	VLR	NR	VLR	VLR	LR	MR	VLR	NR	VLR	NR	NR
Seoni	VLR	VLR	LR	NR	VLR	VLR	VLR	LR	VLR	VLR	VLR	VLR	NR
Shahdol	VLR	VLR	VLR	NR	VLR	VLR	VLR	VLR	VLR	VLR	VLR	VLR	NR
Shajapur	VLR	VLR	VLR	NR	VLR	NR	VLR	VLR	VLR	NR	VLR	VLR	NR
Sheopur	VLR	NR	VLR	NR	VLR	NR	LR	LR	LR	VLR	VLR	NR	NR
Shivpuri	VLR	VLR	VLR	NR	NR	NR	VLR	VLR	LR	NR	VLR	NR	NR
Sidhi	VLR	VLR	VLR	VLR	NR	VLR	VLR	VLR	VLR	NR	VLR	VLR	VLR
Singrauli	VLR	VLR	VLR	NR	VLR	VLR	VLR	VLR	LR	VLR	VLR	VLR	VLR
Tikamgarh	VLR	VLR	VLR	NR	VLR	VLR	LR	VLR	VLR	VLR	VLR	VLR	NR
Ujjain	NR	VLR	VLR	NR	VLR	VLR	VLR	VLR	VLR	NR	NR	VLR	NR
Umaria	VLR	VLR	VLR	NR	VLR	NR	VLR	LR	VLR	NR	VLR	NR	NR
Vidisha	VLR	VLR	VLR	NR	VLR	VLR	VLR	VLR	VLR	NR	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 July 2018: Maharashtra

Districts of Maharastra	Livestock Diseases

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

Continue

Districts of Maharastra	Livestock Diseases												
	Anthrax	**Babesiosis**	**BQ**	**BT**	**ET**	**Fasciolosis**	**FMD**	**HS**	**PPR**	**S&G Pox**	**SF**	**Theileriosis**	**Trypanosomosis**
Raigarh	VLR	VLR	VLR	NR	VLR	NR	VLR	VLR	VLR	VLR	VLR	VLR	VLR
Ratnagiri	VLR	VLR	VLR	VLR	VLR	VLR	VLR	VLR	VLR	VLR	VLR	VLR	VLR
Sangli	VLR	NR	VLR	NR	VLR	VLR	VLR	LR	LR	VLR	VLR	NR	NR
Satara	VLR	NR	MR	NR	VLR	VLR	VLR	VLR	VLR	VLR	VLR	VLR	VLR
Sindhudurg	VLR	VLR	VLR	VLR	VLR	VLR	VLR	VLR	VLR	VLR	VLR	NR	VLR
Solapur	VLR	VLR	VLR	VLR	VLR	NR	VLR	VLR	LR	VLR	VLR	NR	NR
Thane	VLR	VLR	VLR	NR	VLR	NR	VLR	VLR	VLR	VLR	VLR	NR	VLR
Wardha	VLR	VLR	LR	NR	NR	NR	VLR	VLR	LR	VLR	VLR	NR	NR
Washim	VLR	VLR	VLR	NR	NR	NR	VLR	VLR	VLR	NR	VLR	NR	NR
Yavatmal	VLR	NR	VLR	NR	NR	NR	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 July 2018: Manipur

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

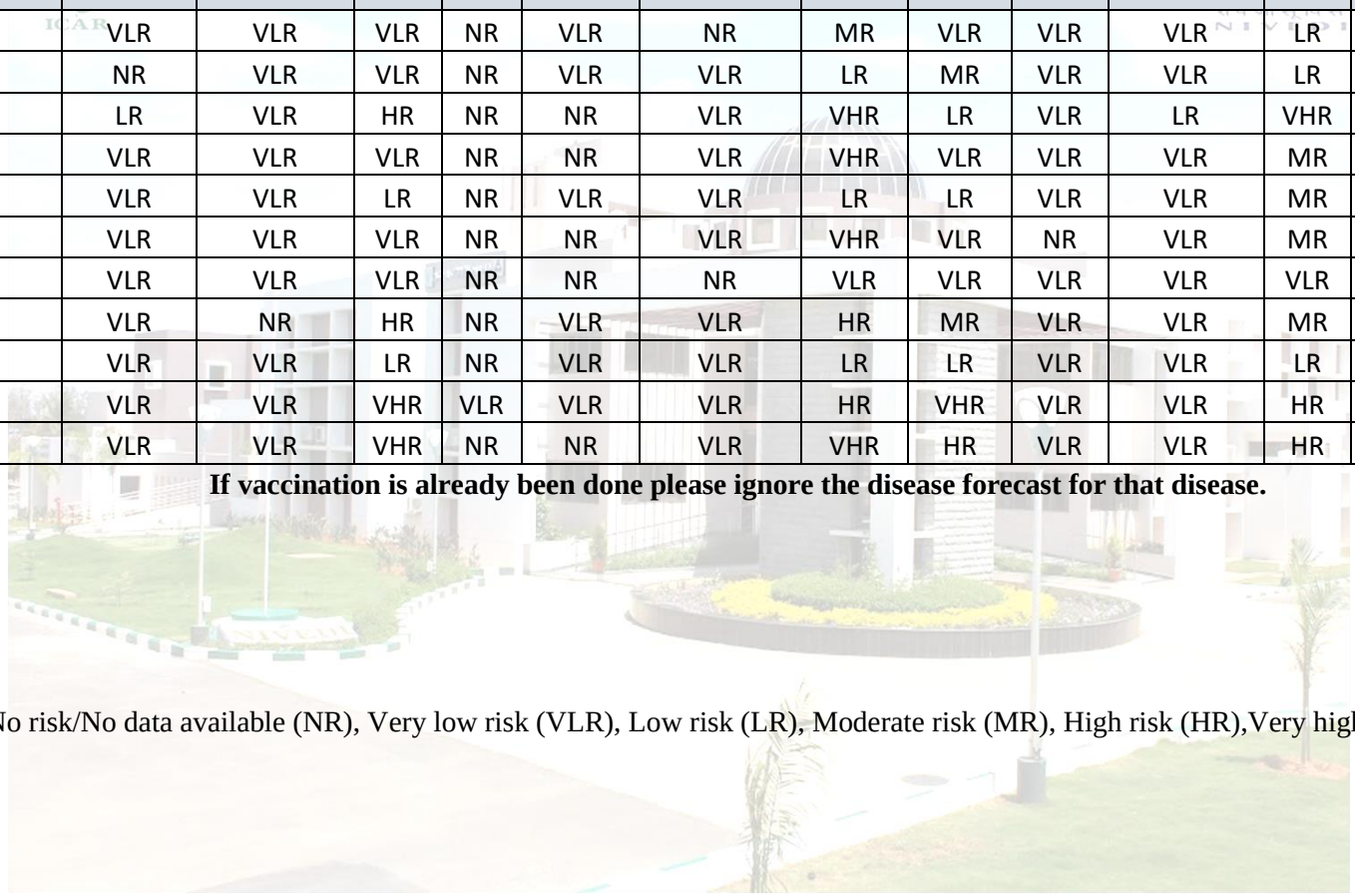
If vaccination is already been done please ignore the disease forecast for that disease.

*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 July 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	VLR	NR	MR	VLR	VLR	VLR	LR	VLR	VLR
East Jaintia Hills	NR	VLR	VLR	NR	VLR	VLR	LR	MR	VLR	VLR	LR	VLR	NR
East Khasi Hills	LR	VLR	HR	NR	NR	VLR	VHR	LR	VLR	LR	VHR	VLR	VLR
Jaintia Hills	VLR	VLR	VLR	NR	NR	VLR	VHR	VLR	VLR	VLR	MR	NR	NR
North Garo Hills	VLR	VLR	LR	NR	VLR	VLR	LR	LR	VLR	VLR	MR	VLR	VLR
Ribhoi	VLR	VLR	VLR	NR	NR	VLR	VHR	VLR	NR	VLR	MR	VLR	NR
South Garo Hills	VLR	VLR	VLR	NR	NR	NR	VLR	VLR	VLR	VLR	VLR	VLR	VLR
Southwest Garo Hills	VLR	NR	HR	NR	VLR	VLR	HR	MR	VLR	VLR	MR	VLR	VLR
Southwest Khasi Hills	VLR	VLR	LR	NR	VLR	VLR	LR	LR	VLR	VLR	LR	VLR	VLR
West Garo Hills	VLR	VLR	VHR	VLR	VLR	VLR	HR	VHR	VLR	VLR	HR	VLR	VLR
West Khasi Hills	VLR	VLR	VHR	NR	NR	VLR	VHR	HR	VLR	VLR	HR	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 July 2018: Mizoram

Districts of Mizoram	Livestock Diseases												
	Anthrax	Babesiosis	BQ	BT	ET	Fasciolosis	FMD	HS	PPR	S&G Pox	SF	Theileriosis	Trypanosomosis
Aizawl	VLR	NR	VLR	NR	NR	VLR	LR	VLR	NR	VLR	LR	NR	NR
Champhai	VLR	VLR	VLR	VLR	NR	VLR	VLR	LR	NR	VLR	HR	NR	NR
Kolasib	VLR	VLR	VLR	NR	VLR	VLR	LR	NR	VLR	VLR	LR	NR	VLR
Lawngtlai	VLR	VLR	VLR	NR	NR	VLR	VLR	VLR	NR	NR	VLR	VLR	NR
Lunglei	VLR	VLR	VLR	NR	NR	VLR	VLR	VLR	NR	NR	LR	VLR	VLR
Mamit	VLR	VLR	VLR	NR	NR	VLR	VLR	VLR	NR	VLR	VLR	VLR	NR
Saiha	VLR	VLR	VLR	NR	NR	VLR	VLR	VLR	NR	NR	LR	VLR	NR
Serchhip	NR	VLR	VLR	NR	NR	VLR	VLR	VLR	VLR	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 July 2018: Nagaland

Districts of Nagaland	Livestock Diseases												
	Anthrax	Babesiosis	BQ	BT	ET	Fasciolosis	FMD	HS	PPR	S&G Pox	SF	Theileriosis	Trypanosomosis
Dimapur	VLR	VLR	VLR	NR	NR	VLR	LR	VLR	VLR	VLR	MR	NR	VLR
Kiphire	VLR	VLR	VLR	VLR	VLR	VLR	VLR	VLR	NR	VLR	VLR	VLR	NR
Kohima	NR	NR	NR	NR	NR	VLR	VLR	VLR	NR	VLR	LR	NR	NR
Longleng	NR	VLR	VLR	NR	NR	NR	VLR	NR	VLR	VLR	HR	NR	NR
Mokokchung	NR	VLR	VLR	NR	NR	VLR	VLR	NR	VLR	NR	VLR	VLR	VLR
Mon	NR	VLR	VLR	NR	NR	VLR	VLR	VLR	NR	NR	VLR	NR	NR
Peren	NR	VLR	VLR	VLR	NR	VLR	VLR	VLR	NR	VLR	LR	VLR	NR
Phek	NR	VLR	VLR	VLR	NR	VLR	VLR	VLR	NR	VLR	VLR	NR	VLR
Tuensang	VLR	NR	VLR	NR	NR	VLR	VLR	VLR	NR	NR	MR	VLR	VLR
Wokha	NR	VLR	NR	NR	NR	VLR	VLR	VLR	NR	VLR	VLR	VLR	NR
Zunheboto	VLR	VLR	VLR	NR	NR	VLR	MR	VLR	NR	NR	MR	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 July 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	VLR	NR	VLR	NR	VLR	VLR	VLR	VLR	VLR	VLR	VLR	VLR	VLR
East	NR	VLR	NR	NR	NR	VLR	NR	NR	NR	NR	NR	VLR	NR
New Delhi	NR	NR	NR	NR	NR	VLR	NR	NR	NR	VLR	VLR	NR	VLR
North	VLR	VLR	NR	NR	NR	NR	VLR	VLR	VLR	VLR	VLR	VLR	NR
North East	VLR	VLR	VLR	NR	NR	VLR	VLR	VLR	NR	VLR	VLR	VLR	VLR
North West	VLR	VLR	NR	NR	NR	NR	VLR	VLR	VLR	NR	VLR	VLR	NR
South	NR	VLR	NR	NR	NR	VLR	NR	NR	NR	VLR	VLR	NR	VLR
South West	VLR	VLR	VLR	NR	VLR	VLR	VLR	VLR	NR	VLR	VLR	VLR	NR
West	VLR	VLR	VLR	NR	VLR	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 July 2018: Odisha

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

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 July 2018: Punjab

Districts of Punjab	Livestock Diseases												
	Anthrax	Babesiosis	BQ	BT	ET	Fasciolosis	FMD	HS	PPR	S&G Pox	SF	Theileriosis	Trypanosomosis
Amritsar	NR	VLR	NR	NR	VLR	NR	VLR	VLR	NR	NR	VLR	VLR	VLR
Barnala	NR	VLR	NR	NR	NR	VLR	NR	VLR	NR	NR	VLR	VLR	VLR
Bathinda	VLR	VLR	NR	NR	NR	NR	VLR	VLR	NR	NR	VLR	VLR	VLR
Faridkot	NR	VLR	NR	NR	NR	NR	NR	VLR	NR	NR	VLR	VLR	VLR
Fatehgarh Sahib	NR	VLR	VLR	NR	NR	NR	VLR	VLR	VLR	NR	VLR	VLR	NR
Firozpur	VLR	VLR	VLR	NR	VLR	NR	VLR	VLR	VLR	NR	VLR	VLR	VLR
Gurdaspur	NR	VLR	VLR	VLR	NR	NR	VLR	VLR	VLR	NR	VLR	VLR	VLR
Hoshiarpur	NR	VLR	NR	NR	NR	NR	NR	VLR	VLR	NR	NR	VLR	VLR
Jalandhar	NR	VLR	NR	NR	NR	NR	VLR	VLR	VLR	NR	NR	VLR	VLR
Kapurthala	NR	VLR	NR	NR	NR	NR	NR	VLR	NR	NR	VLR	VLR	VLR
Ludhiana	NR	VLR	NR	NR	NR	VLR	VLR	LR	VLR	NR	VLR	LR	VLR
Mansa	NR	VLR	NR	NR	NR	VLR	NR	VLR	NR	NR	VLR	VLR	NR
Moga	NR	VLR	NR	NR	NR	NR	VLR	VLR	NR	NR	NR	VLR	VLR
Muktsar	VLR	VLR	VLR	NR	VLR	VLR	VLR	VLR	VLR	NR	VLR	LR	VLR
Patiala	VLR	VLR	VLR	NR	VLR	NR	VLR	VLR	VLR	VLR	VLR	VLR	NR
Rupnagar	VLR	NR	NR	NR	VLR	VLR	NR	VLR	VLR	VLR	VLR	VLR	NR
SahibzadaAjit Singh Nagar	VLR	NR	NR	NR	NR	VLR	NR	VLR	NR	VLR	VLR	LR	NR
Sangrur	NR	VLR	NR	NR	NR	NR	VLR	VLR	VLR	NR	VLR	VLR	VLR
ShahidBhagat Singh Nagar	NR	VLR	NR	NR	NR	VLR	VLR	VLR	VLR	VLR	VLR	VLR	NR
Tarn Taran	NR	VLR	NR	NR	NR	NR	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 July 2018: Rajasthan

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

Continue

Districts of Rajasthan	Livestock Diseases												
	Anthrax	**Babesiosis**	**BQ**	**BT**	**ET**	**Fasciolosis**	**FMD**	**HS**	**PPR**	**S&G Pox**	**SF**	**Theileriosis**	**Trypanosomosis**
Pali	VLR	VLR	VLR	VLR	VLR	NR	VLR	VLR	VLR	VLR	NR	VLR	VLR
Pratapgarh	VLR	NR	VLR	VLR	NR	NR	VLR	VLR	VLR	NR	NR	VLR	VLR
Rajsamand	VLR	VLR	VLR	NR	VLR	VLR	VLR	VLR	VLR	VLR	NR	NR	VLR
SawaiMadhopur	NR	VLR	VLR	NR	VLR	NR	VLR	VLR	VLR	VLR	VLR	NR	NR
Sikar	VLR	VLR	VLR	NR	VLR	NR	VLR	VLR	VLR	VLR	VLR	VLR	NR
Sirohi	VLR	VLR	VLR	NR	VLR	NR	VLR	VLR	VLR	VLR	NR	NR	NR
Tonk	VLR	NR	VLR	VLR	LR	NR	VLR	VLR	VLR	VLR	VLR	NR	VLR
Udaipur	VLR	VLR	LR	NR	VLR	VLR	VLR	LR	LR	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 July 2018: Sikkim

Districts of Sikkim	Livestock Diseases												
	Anthrax	Babesiosis	BQ	BT	ET	Fasciolosis	FMD	HS	PPR	S&G Pox	SF	Theileriosis	Trypanosomosis
East District	VLR	VLR	VLR	NR	NR	NR	VLR	VLR	NR	VLR	LR	VLR	VLR
North District	VLR	VLR	VLR	NR	VLR	NR	VLR	VLR	VLR	VLR	LR	VLR	VLR
South District	NR	VLR	VLR	VLR	NR	VLR	VLR	VLR	VLR	VLR	LR	VLR	NR
West District	NR	VLR	VLR	NR	NR	VLR	VLR	VLR	VLR	VLR	LR	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 July 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	NR	NR	NR	VLR	VLR	VLR	VLR	VLR	NR	NR	VLR	NR
Chennai	VLR	NR	VLR	NR	VLR	VLR	VLR	VLR	VLR	NR	VLR	NR	NR
Coimbatore	LR	VLR	VLR	NR	VLR	NR	VLR	VLR	VLR	VLR	NR	NR	NR
Cuddalore	VLR	VLR	VLR	VLR	VLR	NR	VLR	VLR	VLR	VLR	NR	VLR	VLR
Dharmapuri	LR	VLR	VLR	VLR	VLR	NR	VLR	VLR	VLR	VLR	NR	NR	NR
Dindigul	LR	NR	VLR	VLR	VLR	NR	VLR	VLR	VLR	VLR	VLR	VLR	VLR
Erode	VLR	NR	VLR	NR	VLR	VLR	VLR	VLR	VLR	VLR	NR	NR	NR
Kancheepuram	MR	VLR	VHR	VLR	VLR	VLR	LR	LR	VLR	VLR	NR	VLR	VLR
Kanniyakumari	VLR	VLR	VLR	NR	VLR	NR	VLR	VLR	VLR	VLR	VLR	VLR	VLR
Karur	VLR	NR	VLR	NR	VLR	NR	VLR	VLR	VLR	VLR	VLR	VLR	NR
Krishnagiri	VLR	NR	VLR	VLR	VLR	NR	VLR	LR	VLR	VLR	VLR	VLR	NR
Madurai	VLR	VLR	NR	NR	NR	VLR	VLR	VLR	VLR	VLR	VLR	NR	NR
Nagapattinam	VLR	VLR	VLR	NR	VLR	NR	VLR	VLR	VLR	VLR	VLR	NR	NR
Namakkal	VLR	NR	VLR	NR	VLR	NR	VLR	VLR	VLR	NR	NR	NR	NR
Perambalur	VLR	VLR	VLR	VLR	VLR	NR	VLR	VLR	VLR	VLR	VLR	VLR	VLR
Pudukkottai	MR	NR	VLR	VLR	VLR	VLR	VLR	VLR	VLR	VLR	NR	VLR	NR
Ramanathapuram	VLR	VLR	VLR	NR	VLR	NR	VLR	VLR	VLR	LR	VLR	NR	VLR
Salem	LR	NR	VLR	NR	VLR	VLR	VLR	VLR	LR	VLR	VLR	NR	NR
Sivaganga	VLR	NR	VLR	NR	VLR	VLR	VLR	VLR	VLR	VLR	NR	NR	VLR
Thanjavur	VLR	VLR	VLR	NR	VLR	NR	VLR	VLR	VLR	VLR	VLR	NR	NR
The Nilgiris	VLR	VLR	VLR	NR	VLR	NR	VLR	VLR	VLR	NR	VLR	NR	VLR
Theni	LR	NR	VLR	NR	VLR	NR	VLR	VLR	VLR	VLR	NR	VLR	NR
Thiruvallur	VLR	VLR	VLR	NR	VLR	NR	VLR	VLR	VLR	VLR	VLR	NR	NR
Thiruvarur	VLR	VLR	VLR	NR	VLR	NR	VLR	VLR	VLR	VLR	VLR	NR	NR
Thoothukkudi	VLR	VLR	VLR	NR	VLR	VLR	VLR	VLR	VLR	VLR	VLR	NR	VLR

Continue

Districts of Tamil Nadu	Livestock Disease												
	Anthrax	Babesiosis	BQ	BT	ET	Fasciolosis	FMD	HS	PPR	S&G Pox	SF	Theileriosis	Trypanosomosis
Tiruchirappalli	VLR	VLR	VLR	NR	VLR	NR	NR	VLR	VLR	VLR	VLR	VLR	NR
Tirunelveli	LR	VLR	VLR	NR	VLR	NR	VLR	VLR	VLR	VLR	NR	VLR	VLR
Tiruppur	VLR	VLR	VLR	NR	VLR	NR	VLR	VLR	LR	VLR	NR	VLR	NR
Tiruvannamalai	MR	VLR	LR	NR	VLR	VLR	VLR	VLR	VLR	VLR	NR	VLR	NR
Vellore	MR	VLR	VLR	NR	VLR	VLR	LR	LR	LR	VLR	VLR	VLR	VLR
Viluppuram	HR	VLR	VLR	NR	VLR	VLR	VLR	VLR	VLR	VLR	VLR	VLR	NR
Virudhunagar	VLR	NR	VLR	VLR	VLR	NR	VLR	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 July 2018: Telangana

Districts of Telangana	Livestock Diseases												
	Anthrax	Babesiosis	BQ	BT	ET	Fasciolosis	FMD	HS	PPR	S&G Pox	SF	Theileriosis	Trypanosomosis
Adilabad	VLR	VLR	VLR	VLR	MR	VLR	VLR	MR	VLR	VLR	VLR	VLR	VLR
Hyderabad	VLR	NR	VLR	VLR	VLR	VLR	VLR	LR	VLR	VLR	NR	NR	NR
Karimnagar	VLR	VLR	VLR	VLR	LR	VLR	VLR	VLR	HR	LR	VLR	VLR	VLR
Khammam	VLR	VLR	VLR	VLR	HR	VLR	VLR	MR	HR	LR	VLR	VLR	VLR
Mahbubnagar	HR	VLR	VLR	VLR	HR	VLR	VLR	LR	VHR	LR	VLR	VLR	NR
Medak	VLR	NR	LR	VLR	LR	VLR	VLR	MR	LR	VLR	VLR	VLR	VLR
Nalgonda	MR	NR	VLR	LR	LR	VLR	VLR	LR	HR	VLR	NR	NR	VLR
Nizamabad	VLR	NR	VLR	VLR	LR	VLR	VLR	LR	VLR	VLR	VLR	VLR	VLR
Rangareddy	VLR	NR	VLR	VLR	VLR	VLR	VLR	LR	VLR	VLR	NR	NR	NR
Warangal	VLR	VLR	VLR	VLR	MR	VLR	VLR	HR	MR	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 July 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	VLR	LR	LR	LR	VLR	MR	LR	NR	VLR
North Tripura	VLR	MR	LR	NR	VLR	VLR	LR	LR	VLR	VLR	LR	VLR	NR
South Tripura	VLR	VHR	HR	NR	VLR	MR	VHR	HR	MR	MR	LR	VLR	NR
West Tripura	VLR	VHR	VHR	NR	VLR	HR	VHR	VHR	LR	HR	MR	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 July 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	VLR	NR	NR	VLR	VLR	NR	VLR	VLR	NR	NR	VLR	VLR
Aligarh	NR	VLR	NR	NR	VLR	VLR	NR	VLR	VLR	NR	VLR	VLR	NR
Allahabad	VLR	VLR	VLR	NR	VLR	LR	VLR	VLR	VLR	VLR	VLR	VLR	LR
Ambedkar Nagar	NR	VLR	VLR	NR	VLR	VLR	NR	VLR	VLR	NR	VLR	VLR	VLR
Amethi	VLR	VLR	VLR	NR	VLR	VLR	VLR	VLR	VLR	NR	VLR	VLR	VLR
Auraiya	NR	VLR	NR	NR	NR	VLR	NR	VLR	VLR	NR	NR	NR	VLR
Azamgarh	NR	VLR	VLR	NR	VLR	VLR	VLR	VLR	VLR	VLR	NR	VLR	VLR
Baghpat	NR	VLR	VLR	NR	VLR	VLR	VLR	VLR	VLR	VLR	VLR	NR	VLR
Bahraich	VLR	VLR	VLR	NR	VLR	VLR	VLR	VLR	VLR	VLR	VLR	VLR	VLR
Ballia	NR	LR	VLR	NR	VLR	LR	NR	VLR	NR	NR	VLR	LR	LR
Balrampur	NR	VLR	VLR	NR	VLR	NR	VLR	VLR	VLR	NR	NR	NR	VLR
Banda	VLR	VLR	VLR	NR	VLR	VLR	VLR	VLR	VLR	NR	VLR	VLR	VLR
Bara Banki	NR	VLR	NR	NR	VLR	VLR	VLR	VLR	VLR	NR	VLR	NR	VLR
Bareilly	NR	VLR	NR	NR	VLR	VLR	VLR	VLR	LR	NR	NR	NR	VLR
Basti	VLR	NR	VLR	NR	NR	NR	VLR	VLR	VLR	VLR	NR	VLR	VLR
Bijnor	NR	LR	NR	NR	NR	VLR	VLR	VLR	VLR	NR	NR	VLR	MR
Budaun	VLR	VLR	NR	NR	VLR	NR	NR	VLR	VLR	NR	VLR	VLR	VLR
Bulandshahr	VLR	VLR	NR	NR	VLR	VLR	VLR	VLR	VLR	NR	NR	NR	VLR
Chandauli	NR	VLR	VLR	NR	VLR	VLR	VLR	VLR	VLR	NR	VLR	VLR	VLR
Chitrakoot	VLR	NR	VLR	NR	VLR	VLR	VLR	VLR	VLR	VLR	VLR	VLR	VLR
Deoria	NR	NR	VLR	NR	NR	VLR	VLR	VLR	VLR	NR	VLR	VLR	VLR
Etah	VLR	VLR	NR	NR	VLR	NR	NR	VLR	NR	NR	NR	VLR	VLR
Etawah	NR	VLR	NR	NR	VLR	VLR	NR	VLR	NR	NR	VLR	NR	VLR
Faizabad	NR	NR	VLR	NR	VLR	VLR	NR	VLR	VLR	NR	VLR	NR	NR
Farrukhabad	NR	NR	NR	NR	NR	VLR	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	VLR	NR	NR	NR	NR	NR	VLR	NR	NR	NR	NR	VLR
Gautam Buddha Nagar	NR	VLR	NR	NR	NR	NR	VLR	VLR	NR	NR	VLR	VLR	VLR
Ghaziabad	NR	VLR	NR	NR	NR	NR	NR	VLR	VLR	NR	VLR	VLR	VLR
Ghazipur	NR	VLR	NR	NR	VLR	VLR	VLR	VLR	VLR	NR	NR	NR	VLR
Gonda	VLR	VLR	VLR	NR	NR	VLR	VLR	VLR	VLR	VLR	VLR	VLR	VLR
Gorakhpur	NR	VLR	VLR	NR	NR	VLR	NR	VLR	VLR	VLR	VLR	VLR	VLR
Hamirpur	VLR	VLR	VLR	NR	VLR	VLR	VLR	VLR	VLR	VLR	VLR	VLR	VLR
Hapur	VLR	NR	VLR	NR	NR	VLR	VLR	VLR	VLR	NR	VLR	VLR	VLR
Hardoi	NR	VLR	VLR	NR	VLR	VLR	NR	VLR	VLR	NR	NR	VLR	VLR
Jalaun	NR	VLR	VLR	NR	NR	VLR	NR	VLR	NR	NR	VLR	VLR	VLR
Jaunpur	VLR	VLR	VLR	NR	NR	VLR	NR	VLR	VLR	NR	NR	VLR	VLR
Jhansi	VLR	NR	VLR	NR	NR	NR	NR	VLR	VLR	NR	NR	VLR	VLR
JyotibaPhule Nagar	NR	VLR	NR	NR	VLR	NR	NR	VLR	VLR	NR	VLR	NR	VLR
Kannauj	NR	VLR	NR	NR	VLR	VLR	NR	VLR	VLR	NR	VLR	VLR	VLR
Kanpur Dehat	NR	VLR	VLR	NR	NR	VLR	VLR	VLR	NR	NR	NR	VLR	VLR
Kanpur Nagar	NR	NR	VLR	NR	VLR	VLR	VLR	VLR	NR	NR	NR	VLR	VLR
Kanshiram Nagar	NR	VLR	NR	NR	VLR	NR	VLR	VLR	NR	NR	VLR	VLR	VLR
Kaushambi	VLR	VLR	VLR	NR	VLR	VLR	VLR	VLR	VLR	NR	VLR	VLR	VLR
Kheri	VLR	VLR	VLR	VLR	VLR	VLR	VLR	VLR	VLR	NR	VLR	VLR	VLR
Kushinagar	VLR	VLR	VLR	NR	NR	NR	VLR	VLR	VLR	VLR	VLR	VLR	VLR
Lalitpur	VLR	VLR	VLR	NR	VLR	VLR	VLR	VLR	VLR	NR	VLR	NR	NR
Lucknow	NR	NR	NR	NR	NR	VLR	NR	VLR	NR	NR	VLR	VLR	VLR
MahaJulya Nagar	VLR	VLR	NR	NR	NR	NR	NR	VLR	NR	VLR	VLR	VLR	LR
Mahoba	NR	VLR	VLR	NR	NR	VLR	VLR	VLR	VLR	NR	VLR	VLR	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	NR	VLR	NR	VLR	VLR	NR	VLR	VLR	VLR
Mainpuri	NR	VLR	VLR	NR	NR	NR	NR	VLR	NR	NR	NR	VLR	VLR
Mathura	NR	VLR	NR	NR	NR	VLR	NR	VLR	NR	NR	VLR	NR	VLR
Mau	NR	VLR	VLR	NR	NR	VLR	NR	VLR	VLR	NR	NR	NR	VLR
Meerut	NR	VLR	NR	NR	NR	MR	NR	VLR	VLR	NR	VLR	NR	HR
Mirzapur	VLR	VLR	VLR	NR	VLR	VLR	VLR	VLR	VLR	VLR	NR	VLR	LR
Moradabad	NR	NR	NR	NR	NR	NR	NR	VLR	NR	NR	NR	VLR	VLR
Muzaffarnagar	VLR	VLR	NR	VLR	VLR	VLR	VLR	VLR	VLR	NR	NR	NR	VLR
Pilibhit	NR	VLR	NR	NR	NR	NR	NR	VLR	VLR	NR	VLR	VLR	VLR
Pratapgarh	VLR	NR	VLR	NR	VLR	VLR	VLR	VLR	NR	NR	VLR	VLR	LR
Rae Bareli	NR	VLR	VLR	NR	VLR	LR	NR	VLR	NR	NR	NR	VLR	LR
Rampur	NR	VLR	NR	NR	VLR	VLR	VLR	VLR	VLR	VLR	NR	VLR	NR
Saharanpur	NR	NR	NR	NR	NR	VLR	VLR	VLR	VLR	NR	NR	VLR	VLR
Sambhal	NR	NR	VLR	NR	NR	VLR	NR	VLR	VLR	VLR	NR	VLR	VLR
SantKabir Nagar	NR	NR	VLR	NR	NR	NR	VLR	NR	VLR	NR	VLR	NR	VLR
SantRavidas Nagar	VLR	VLR	VLR	NR	NR	VLR	VLR	VLR	NR	NR	VLR	VLR	VLR
Shahjahanpur	NR	VLR	VLR	NR	VLR	VLR	NR	VLR	VLR	NR	VLR	VLR	VLR
Shamli	VLR	VLR	VLR	NR	VLR	NR	VLR	NR	NR	NR	VLR	NR	NR
Shrawasti	NR	NR	VLR	NR	VLR	VLR	VLR	VLR	VLR	NR	VLR	VLR	VLR
Siddharthnagar	VLR	VLR	VLR	VLR	VLR	VLR	VLR	VLR	VLR	NR	VLR	VLR	VLR
Sitapur	VLR	NR	NR	NR	VLR	VLR	VLR	VLR	VLR	NR	VLR	VLR	VLR
Sonbhadra	VLR	VLR	NR	NR	VLR	VLR	VLR	VLR	NR	NR	VLR	VLR	VLR
Sultanpur	VLR	VLR	VLR	NR	VLR	VLR	NR	VLR	VLR	NR	VLR	VLR	VLR
Unnao	VLR	VLR	NR	NR	VLR	VLR	NR	VLR	VLR	NR	NR	NR	VLR
Varanasi	NR	NR	VLR	NR	NR	VLR	NR	VLR	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 July 2018: Uttarakhand

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

State wise Livestock Disease forewarning for July 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

District wise Livestock Disease forewarning for July 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	HR	VLR	VHR	NR	NR	VLR	HR	HR	VHR	VLR	VLR	LR	VLR
Barddhaman	HR	VLR	VHR	NR	VLR	VLR	HR	HR	VHR	HR	VLR	MR	LR
Birbhum	LR	LR	HR	VLR	VLR	VLR	HR	MR	VHR	LR	VLR	LR	VLR
DakshinDinajpur	VLR	LR	HR	VLR	VLR	VLR	MR	VLR	HR	LR	VLR	LR	LR
Darjiling	VLR	VLR	LR	VLR	VLR	VLR	VLR	VLR	LR	VLR	VLR	VLR	VLR
Haora	VLR	HR	VHR	NR	NR	VLR	HR	VLR	VHR	VHR	VLR	HR	VLR
Hugli	VLR	VLR	VHR	NR	NR	VLR	MR	LR	VHR	VHR	VLR	MR	MR
Jalpaiguri	VLR	LR	MR	VLR	VLR	VLR	HR	LR	VHR	VLR	VLR	VLR	VLR
Koch Bihar	VLR	LR	LR	NR	VLR	VLR	LR	MR	VLR	VLR	VLR	LR	VLR
Kolkata	VLR	VLR	VLR	NR	VLR	VLR	VLR	VLR	MR	VLR	VLR	VLR	VLR
Maldah	VLR	HR	HR	NR	VLR	VLR	MR	LR	VHR	VLR	MR	HR	VLR
Murshidabad	VHR	VLR	HR	NR	NR	VLR	MR	MR	VHR	VLR	VLR	LR	VLR
Nadia	LR	VLR	MR	NR	VLR	VLR	LR	VLR	HR	VLR	VLR	VLR	VLR
North Twenty Four Parganas	VLR	VLR	MR	NR	VLR	VLR	MR	VLR	HR	VHR	VLR	VLR	VLR
Paschim Medinipur	LR	VLR	HR	NR	VLR	VLR	HR	HR	VHR	VLR	VLR	LR	VLR
Purba Medinipur	LR	VLR	HR	NR	VLR	VLR	VLR	VLR	VLR	VLR	VLR	VLR	VLR
Puruliya	VLR	VLR	VHR	NR	VLR	VLR	MR	MR	VHR	MR	VLR	VLR	LR
South Twenty Four Parganas	VLR	LR	MR	NR	VLR	VLR	MR	LR	LR	MR	VLR	HR	VLR
Uttar Dinajpur	VLR	LR	MR	NR	NR	VLR	LR	VLR	MR	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)

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	1	0	0	6	2	2	0	0	0	**14**
3	Arunachal Pradesh	0	0	0	0	0	2	0	0	0	0	0	0	0	**2**
4	Assam	0	0	7	0	0	9	0	3	0	1	5	0	0	**25**
5	Bihar	0	0	0	0	0	1	0	0	0	0	0	0	0	**1**
6	Chandigarh	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
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	6	0	0	0	**10**
15	Jharkhand	0	22	1	0	0	21	0	0	2	0	0	21	21	**88**
16	Karnataka	4	0	12	0	5	0	4	14	2	3	0	0	0	**44**
17	Kerala	0	0	0	0	0	0	14	4	0	0	0	0	0	**18**
18	Lakshadweep	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
19	Madhya Pradesh	0	0	1	0	0	0	0	0	0	0	0	0	0	**1**
20	Maharashtra	0	0	2	0	0	0	0	1	1	0	0	0	0	**4**
21	Manipur	0	0	0	0	0	5	0	0	0	0	5	0	0	**10**
22	Meghalaya	0	0	4	0	0	1	6	2	0	0	7	0	0	**20**
23	Mizoram	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
24	Nagaland	0	0	0	0	0	0	0	0	0	0	1	0	0	**1**
25	Nct of Delhi	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
26	Odisha	1	0	0	0	0	0	0	1	1	0	0	3	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	0	0	0	0	0	0	0	**1**
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	1	4	0	0	0	0	**8**
33	Tripura	0	2	2	0	0	1	2	2	0	1	3	0	0	**13**
34	Uttar Pradesh	0	0	0	0	0	0	0	0	0	0	0	0	1	**1**
35	Uttarakhand	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
36	West Bengal	3	2	14	0	0	0	7	3	13	4	0	4	0	**50**
Total No districts likely to report		**15**	**28**	**45**	**0**	**8**	**44**	**37**	**38**	**25**	**17**	**21**	**28**	**22**	**328**

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

Andaman and Nicobar

A total of 3 districts in Andaman and Nicobar in which all are likely to report Fascioliasis.

Andhra Pradesh

A total of 22 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 which3 districts are prone to Anthrax, 1 district is prone to Enterotoxemia, 7 districts are prone to Haemorrhagic Septicaemia, 6 districts are prone to Peste des petits ruminants and 2 districts are prone to Sheep & Goat pox.

Arunachal Pradesh

A total of 16 districts in Arunachal Pradeshin which 2 districtsare likely to report Fascioliasisdisease.

Assam

A total of 25 districts from Assam are likely to report 5 livestock diseases i.e.Black Quarter, Fasciolosis, Haemorrhagic Septicaemia, Sheep & Goat pox and Swine Feverin which 9districts are prone to Fasciolosis.7 districts are prone to Black Quarter, 3 districts are prone to Haemorrhagic Septicaemia and 5 districts are prone to Swine Fever. 1 district i.e. Karbi Anglong is likely to have Sheep & Goat pox.

Bihar

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

Gujarat

A total of 26 districts in Gujarat in which 1 district i.e. Kachchh is likely to have Haemorrhagic Septicaemia.

Himachal Pradesh

A total of 12 districts in Himachal Pradeshin which 1 district i.e. Mandi is prone toBlack Quarter.

Jammu and Kashmir

A total of 22 districts in Jammu and Kashmir are likely to report 2 diseases i.e., 4 districts are prone to Foot and Mouth disease and 6 districts are prone to Sheep & Goat pox.

Jharkhand

A total of 24 districts in Jharkhand are likely to report 6 diseases i.e.,Black quarter,Babesiosis, Fasciolosis, Theileriosis and Trypanosomosis.Babesiosis is predicted in 22districts.Fasciolosis,Theileriosis and Trypanosomosis are likely to occur in 21 districts.

Karnataka

A total of 30 districts in Karnataka are likely to report 6 diseases i.e.,Anthrax, Black Quarter, Enterotoxaemia, Foot and mouth disease, Haemorrhagic septicaemia, Peste des petits ruminants, Sheep & Goat pox. In which 4 districts are prone to Anthrax, 12 districts are prone to Black Quarter, 5 districts are prone to Enterotoxaemia, 4 districts are prone to Foot and mouth disease, 14 districts are prone to Haemorrhagic septicaemia, 2 districts are prone to Peste des petits ruminants, 3 districts are prone to Sheep & Goat pox.

Kerala

A total of 14 districts in Karnataka are likely to report 2 diseases i.e.,Foot and mouth disease and Haemorrhagic septicaemia. In which 14 districts are prone to Foot and mouth disease, 4 districts are prone to Haemorrhagic septicaemia.

Madhya Pradesh

A total of 50 districts in which 1 district i.e., Betul is prone to Black Quarter.

Maharashtra

A total of 34 districts in Maharashtra are likely to report 3 diseases i.e.,Black QuarterHaemorrhagic septicaemia and Peste des petits ruminants in which 2 districts are prone forBlack Quarter and 1 district i.e., Ahmadnagar is prone to Haemorrhagic septicaemia and Peste des petits ruminants.

Manipur

A total of 9districts in Manipur are likely to report 2 diseases i.e., Fasciolosis and Swine fever which are predicted for 10 districts.

Meghalaya

A total of 11 districts in Meghalaya are likely to report 5 diseases i.e.,Babesiosis, Black Quarter, Fasciolosis,Haemorrhagic septicaemia, Foot and Mouth diseaseand Swine Fever.7 districts are likely to have Swine Fever.6 districts are prone to Foot and Mouth disease, 2 districts are prone to Haemorrhagic septicaemia and 1 district i.e., West Garo Hills is prone to Fasciolosis.

Nagaland

A total of e districts in which 1 district i.e., Longleng is prone to swine fever.

Odisha

A total of 30 districts are likely to report 4 diseases i.e., Anthrax,Haemorrhagic Septicaemia, Peste des petits ruminants and Theileriosis. In which 3 districts are prone to Theileriosis. 1 district i.e., Nabarangapur is prone to Anthrax, Rayagada is prone to Haemorrhagic Septicaemia, Koraput is prone to Peste des petits ruminants.

Puducherry

A total of 4 districts in Puducherry are likely to report 2 diseases i.e. Babesiosis and Fasciolosis.In which 2 districts are prone to Babesiosis. 1 district i.e., Yanam is prone to Fasciolosis.

Rajasthan

A total of 33 districts are likely to report 1 diseases i.e. Anthrax in theBikaner district.

Tamil Nadu

A total of 32 districts inTamil Nadu are likely to report 2 major livestock diseases i.e. Anthrax and Bluetongue. 2 districts are prone to Anthrax while Kancheepuram is the only district prone to Bluetongue.

Telangana

A total of 10 districts in Telangana are likely to report the major 4 livestock disease. i.e., Anthrax, Enterotoxemia,Haemorrhagic Septicaemiaand Peste des petits ruminants.2 districts are prone toHaemorrhagic Septicaemia.1 district i.e. Mahbubnagaris prone to Anthrax, Enterotoxemia and Peste des petits ruminants.

Tripura

Dhalai, North Tripura, South Tripura and West Tripura are likely to report 3 diseases i.e. BlackQuarter,Foot and Mouth disease andHaemorrhagic Septicaemia.2 districts are prone to Swine Fever.West Tripura district is prone to both BlackQuarter and Foot and Mouth disease.

Uttar Pradesh

A total of 75 districts in Uttar Pradesh are likely to report 1 diseases i.e. Trypanosomosis in Meerut district.

West Bengal

A total of 19 districts in West Bengal are likely to report 8 diseases i.e., Anthrax, Babesiosis, Black Quarter,Foot and Mouth Disease, Haemorrhagic Septicaemia, Peste des petits ruminants, Sheep & Goat pox and Theileriosis. 8 districts are prone to Black Quarter.Peste des petits ruminants are likely to occur in 5 districts. 4 districts are prone to Foot and Mouth Disease.Haemorrhagic Septicaemiais threat for 2 districts.Barddhaman district is prone to Anthrax,Sheep & Goat pox and Theileriosis while Maldah district is prone toBabesiosis.

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

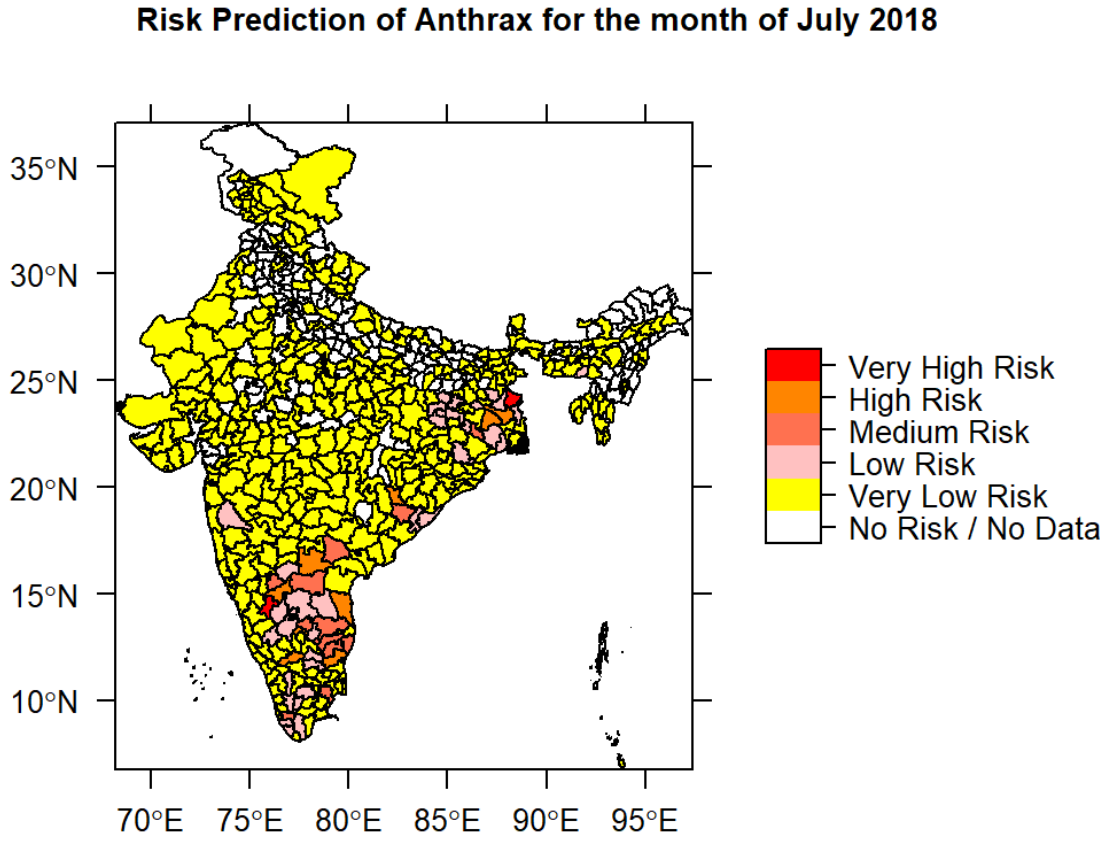
Sl No.	Disease	Species Affected	Clinical Signs	Preventive Measures
1	Anthrax	Most of the mammals.Ruminants are highly susceptible. Pigs and Horses are moderately susceptible. Carnivores are relatively resistant.	Convulsion and sudden death with oozing of blood from natural orifices such as rectum and 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 muco-	Vector control using insecticides and good water management. Vaccination of susceptible animals preferably in the month of may. Do not shear sheep during winter

			cutaneous junction. Affected 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 bystate 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 /Nitroxynil/ Niclofolan /Closantel/Oxyclozanide, under Veterinarian strictsupervision.
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

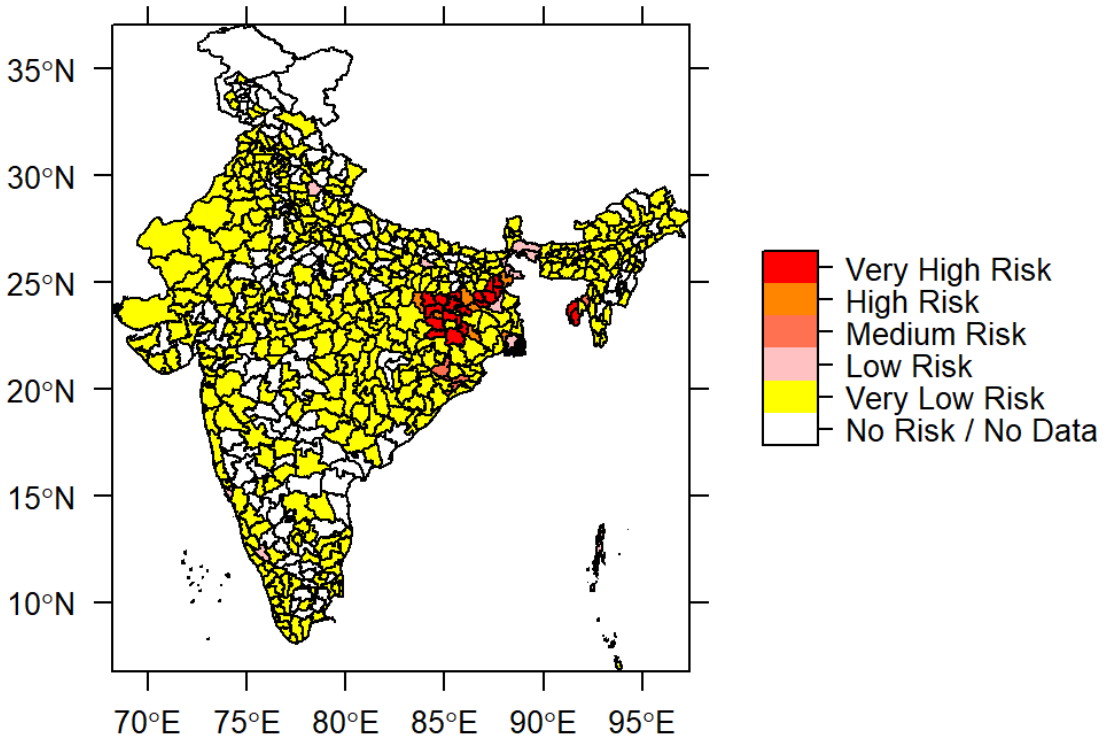
			in inter digital skin and coronary band of the feet. The animal may open and close its mouth with a characteristic smacking sound. Sheep and goats may show lameness. In pigs, lesions may be seen on snout and also on the feet.	may be controlled.
8.	Haemorrhagic septicaemia (HS)	Common disease for cattle 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 haemorrhagesmaybe 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 husbandrypractices.
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, scortum, 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 *Theileria annulata* schizont cell culture vaccine. Therapeuticapplication 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 diaminazine compounds or chloride and sulphate salts of quinapyramine. Periodical spray ofinsecticide in and around animal shed to remove the flies.

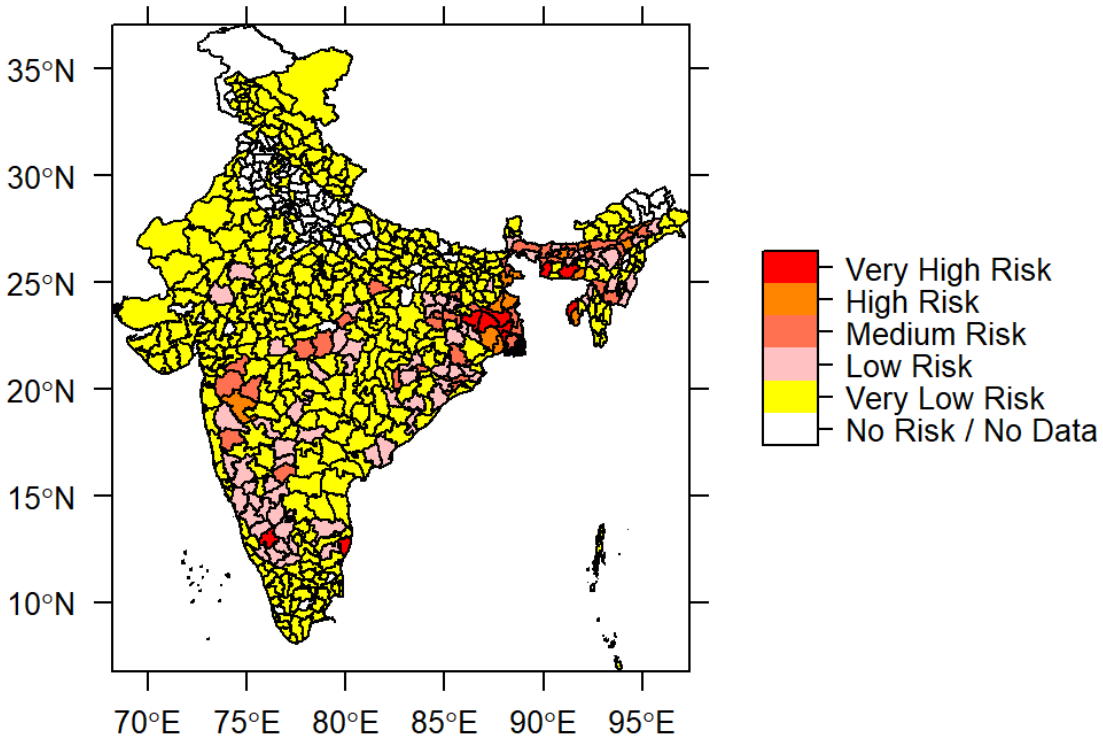
iv) Livestock Risk Prediction - Disease forewarning Maps



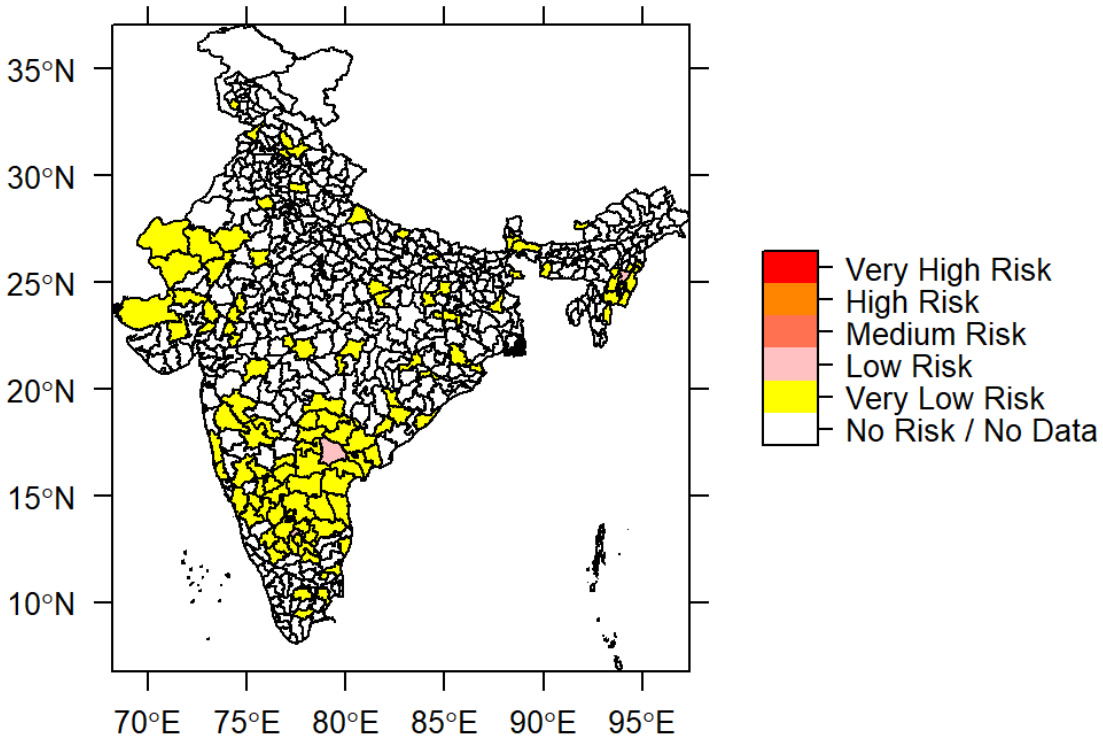
Risk Prediction of Babesiosis for the month of July 2018



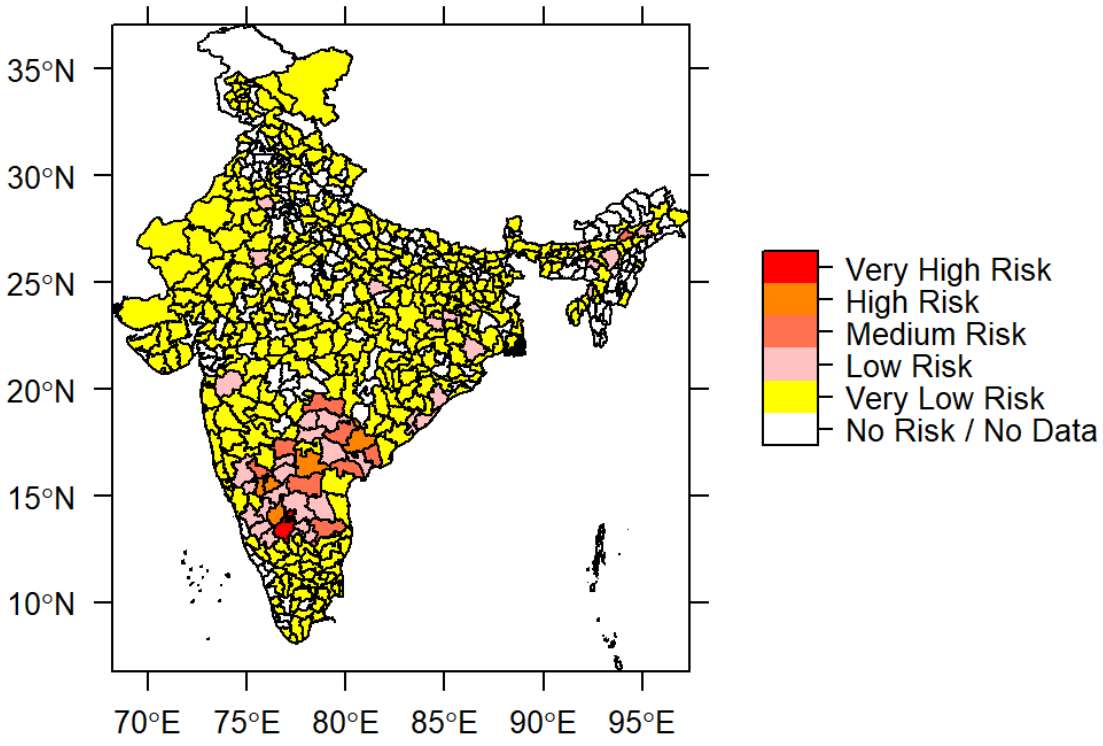
Risk Prediction of Black quarter for the month of July 2018



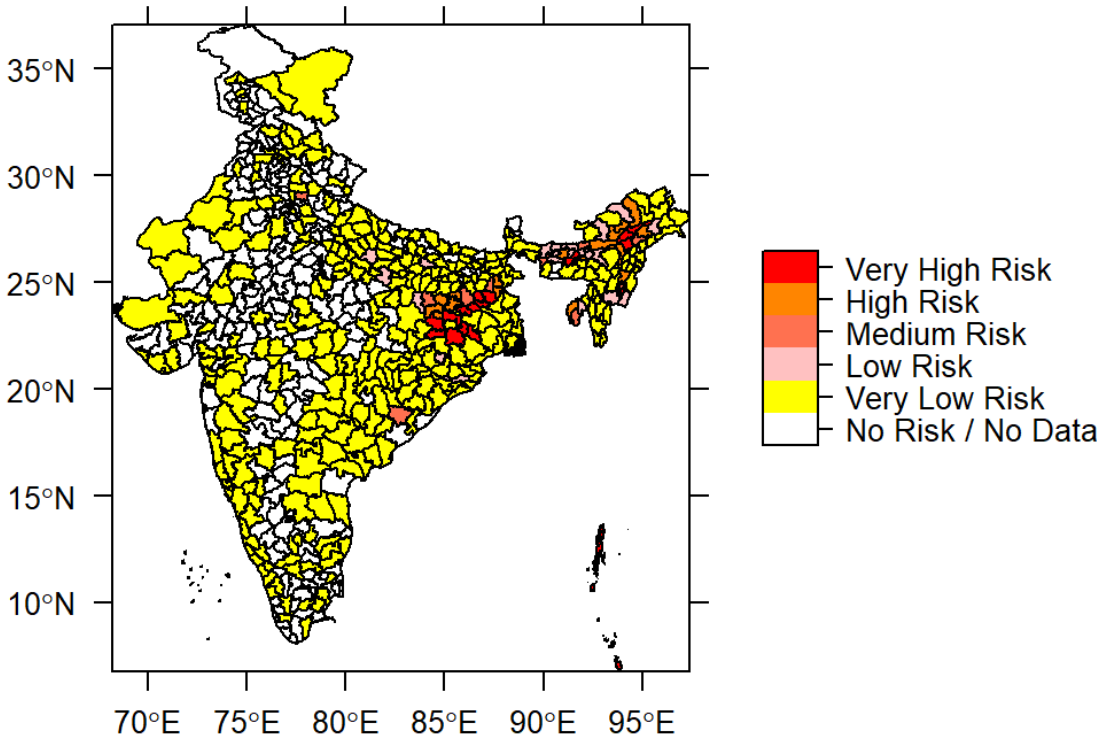
Risk Prediction of Bluetongue for the month of July 2018



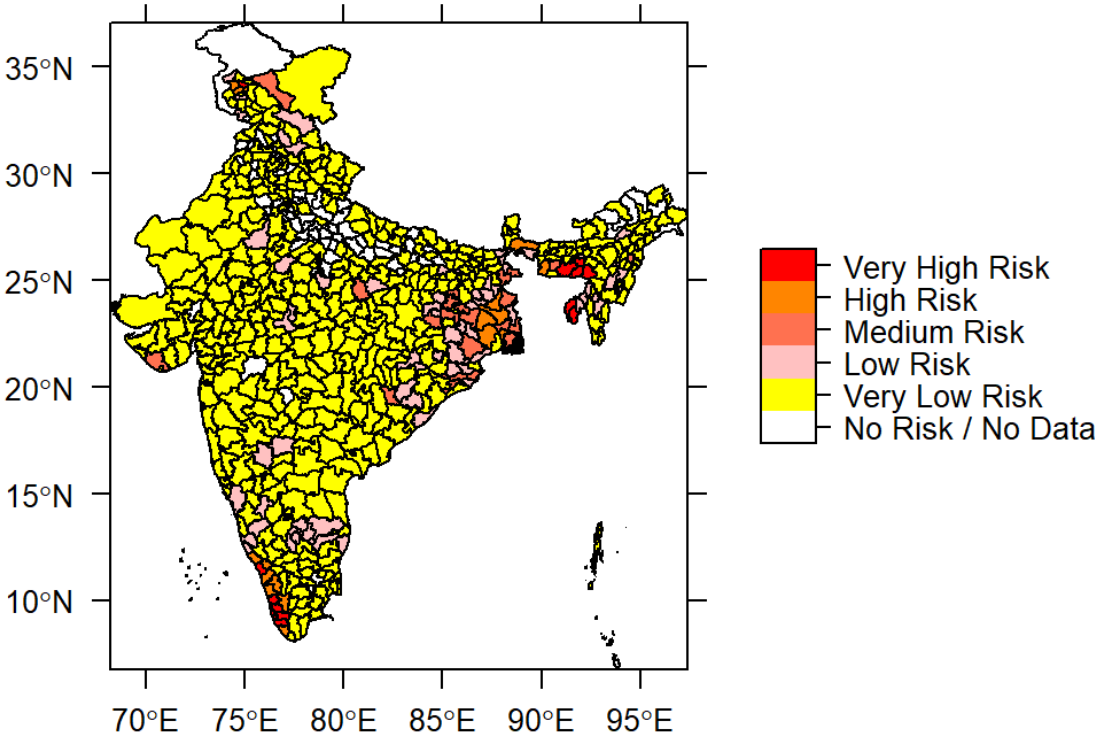
Risk Prediction of Enterotoxemia for the month of July 2018



Risk Prediction of Fascioliasis for the month of July 2018

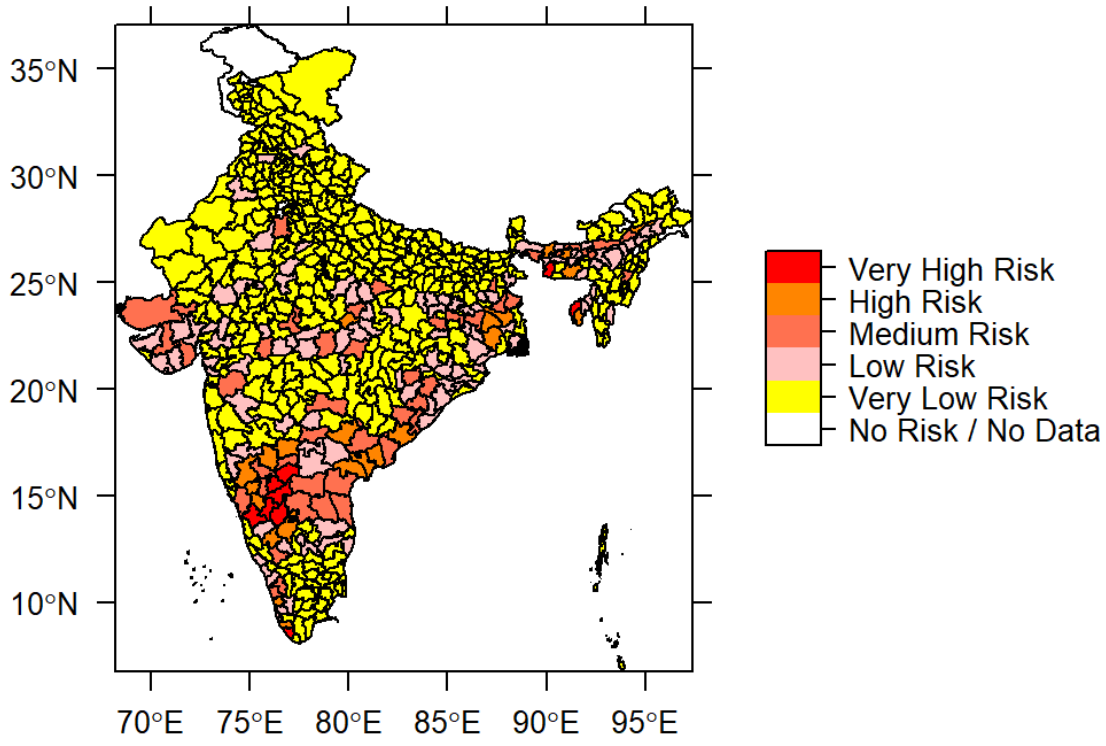


Risk Prediction of Foot and mouth disease for the month of July 2018

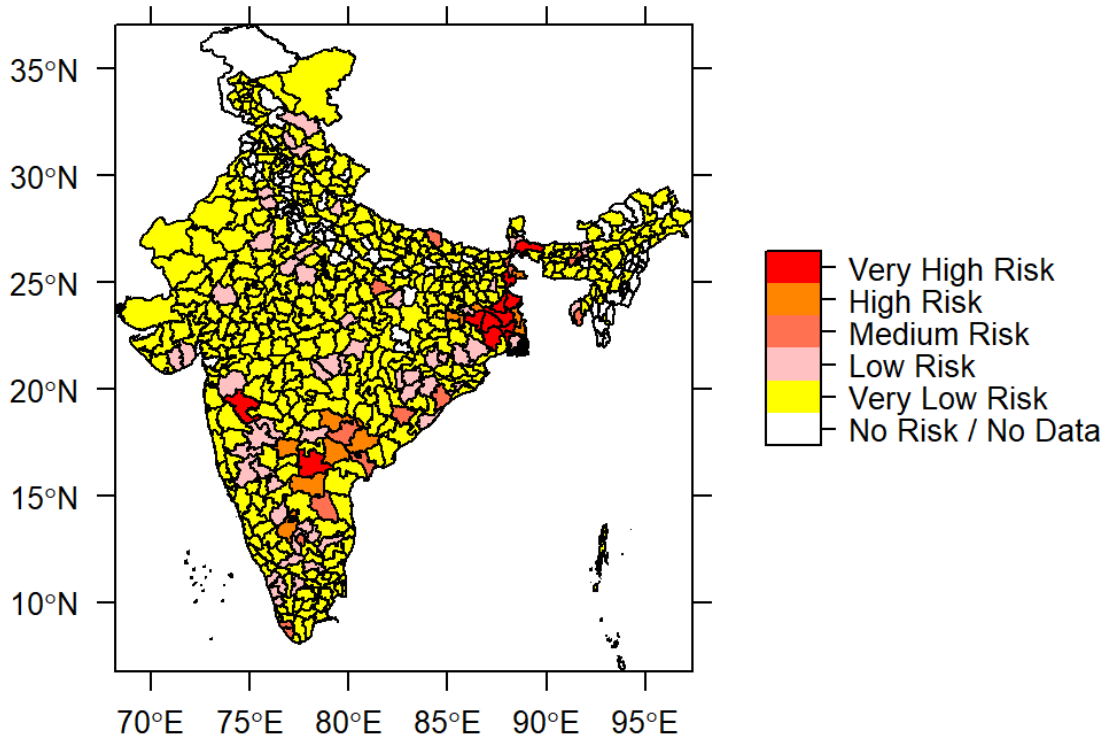


* Risk prediction is downgraded to LR due to mass vaccination against FMD in Karnataka. The same can be applied to other states if mass vaccination is done.

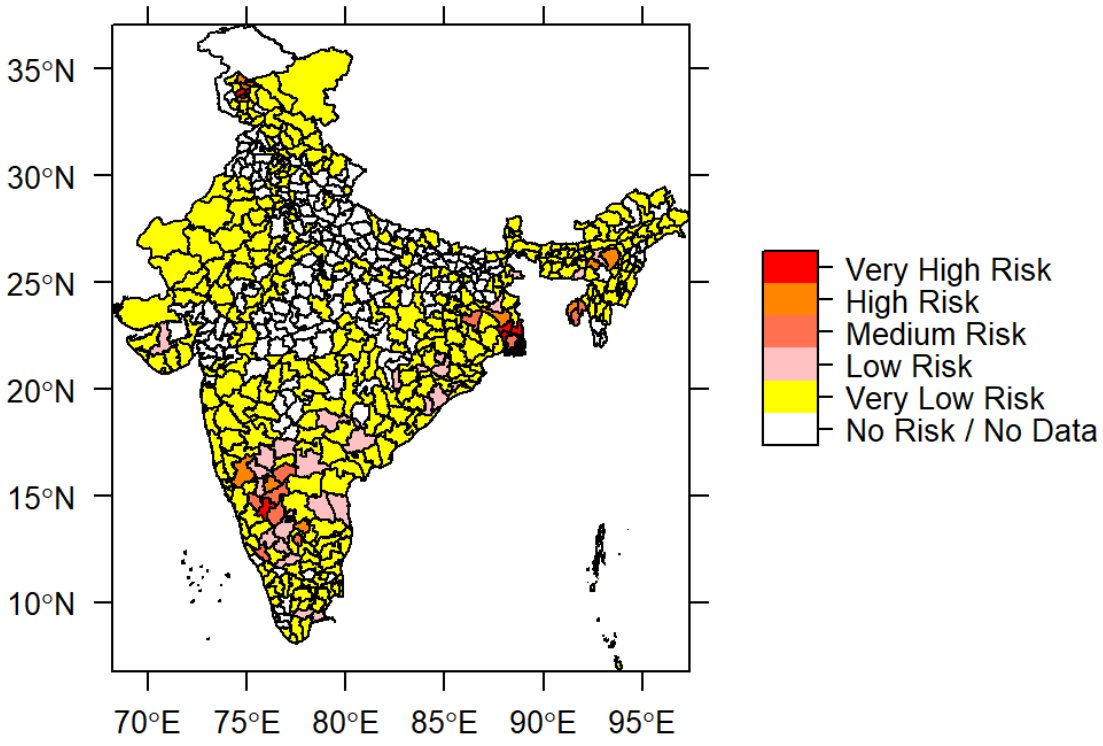
Risk Prediction of Haemorrhagic septicaemia for the month of July 2018



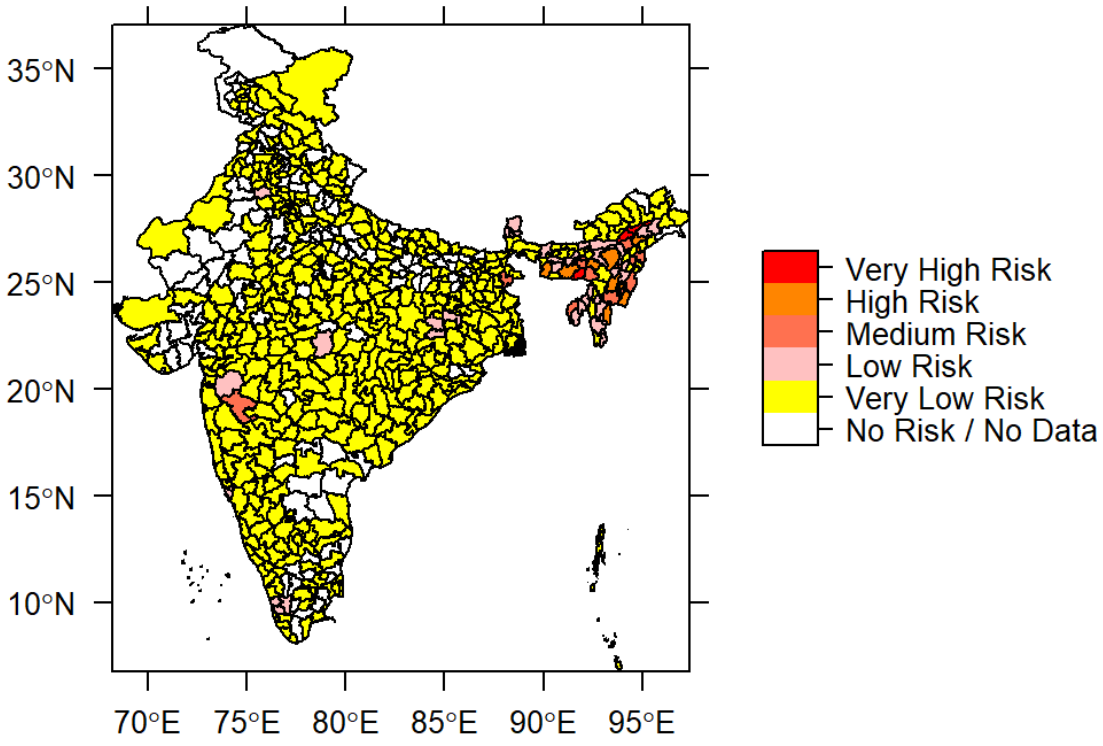
Risk Prediction of Peste des petits ruminants for the month of July 2018



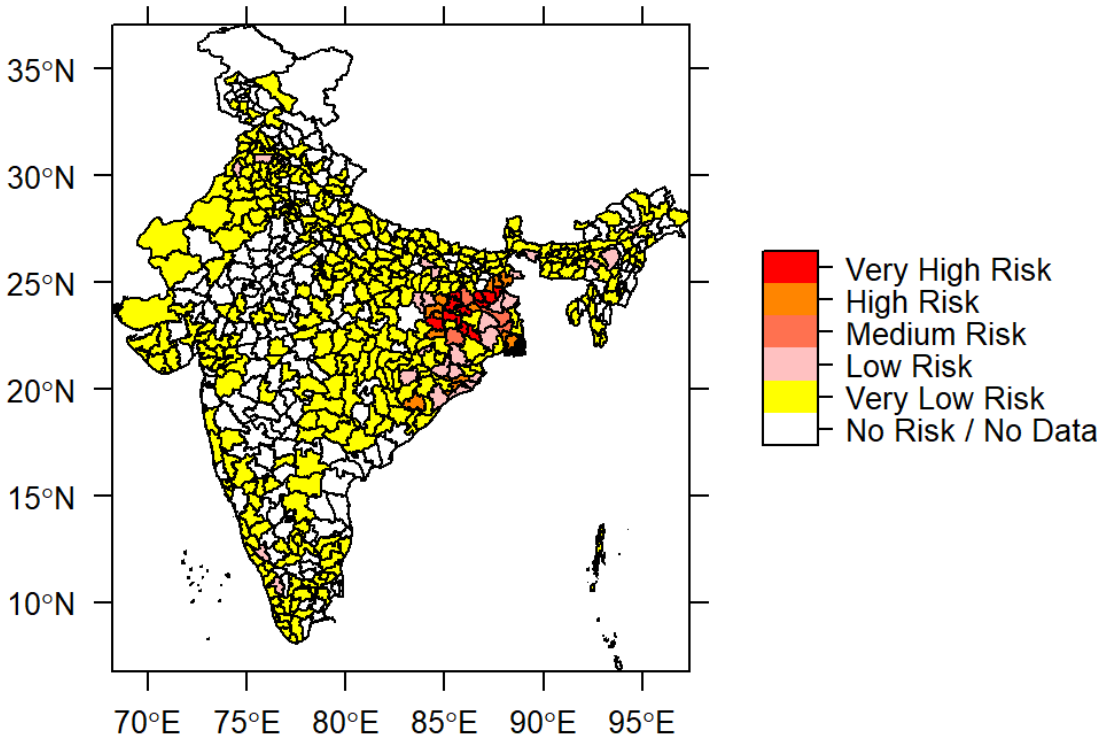
Risk Prediction of Sheep and Goat pox for the month of July 2018



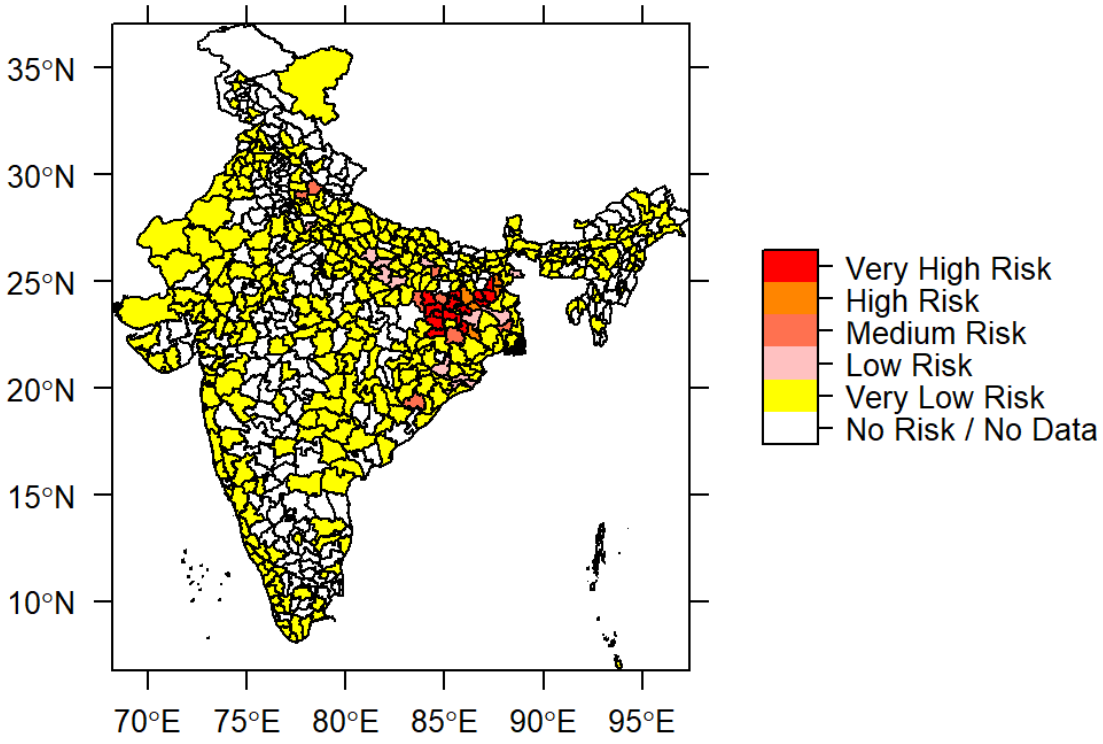
Risk Prediction of Swine fever for the month of July 2018



Risk Prediction of Theileriosis for the month of July 2018



Risk Prediction of Trypanosomiasis for the month of July 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.Further launch of LDF application was done, the news provided below.

6. 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","Octo
ber","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

elsei=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])*1
00)

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(spplot(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 Fewer

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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