## January 2017, Volume 5, Issue 1





ICAR-National Institute of Veterinary Epidemiology and Disease Informatics (ICAR-NIVEDI)



#### LIVESTOCK DISEASE FOREWARNING BULLETIN- March 2017

Published By:

Director ICAR-NIVEDI

**©ICAR-NIVEDI** 

Prepared By: Dr. K. P. Suresh Dr. Divakar Hemadri Dr. S.S. Patil

# 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

We would like to express sincere everlasting gratitude to honourable Deputy Director-General (Animal Sciences), Dr. H. Rahman for his constant encouragement and guidance.

We place on record our sincere thanks to our Director for his support and encouragement.

Animal Husbandry Department of various state governments and also AICRP centers of ADMAS are gratefully acknowledged for the data and feedback. We are thankful to all the scientific and technical staff of NIVEDI for their feedback and support.

Furthermore, we would also like to acknowledge with much appreciation, the crucial role of SRF/YP Latha Gopal Singh, Sakshi Gautam, Rashmi R. Kurli, Reshma.K, Mainak Mondal and Sandeep Santra in preparation this report.

a della della Suresh Divakar Hemadri S. S. Patil

# Contents

1. Introduction	1
2. NADRES Forewarning Procedure	2
3. Forewarning of livestock disease for the month of January 2017	3
i) District wise Livestock Disease Forewarning	3
ii) State wise Livestock Disease Forewarning	39
iii) Livestock Disease Forewarning Maps	46
5. Appendix	59
A. SAS Code	59
B. Abbreviations	60

#### 1. Introduction

The National Institute of Veterinary Epidemiology and Disease Informatics (NIVEDI) is a dedicated institute for veterinary epidemiology and disease informatics. The institute has played vital role in eradication and containment of various livestock diseases in India. With changing national and international scenarios the animal health is a priority for nation's economy and human health.

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. 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. ICAR-NIVEDI has identified priority diseases based on previous 10 year incidence patterns and has built a strong database of these priority diseases starting from 1987.

The said database is the backbone of National Animal Disease Referral Expert System (NADRES), the interactive, dynamic, online animal health and disease forewarning system.

#### 2. NADRES Forewarning Procedure

The Livestock Disease outbreak data of the previous month has to be retrieved from the NADRES website to generate the status of the outbreak by updating the existing NADRES data consisting of the Agro-economic and Metrological information using SAS. (Appendix A)

For predicting the disease outbreak Logistic Regression Analysis was done using the SAS software. The predicted data was depicted in a tabular format and is exported to an excel sheet.

#### **3.** Forewarning of livestock disease for the month of March 2017

i) District wise Livestock Disease forewarning:

#### District wise Livestock Disease forewarning for March 2017: Andaman and Nicobar

						Liv	estock I	Diseas	ses					No. of
Districts of Andaman and Nicobar	Anth rax	Babes iosis	BQ	BT	ET	Fasciol iasis	FMD	HS	PPR	S&G Pox	SF	Theile riosis	Trypano somiasis	Diseases likely to occur
Nicobar	0	0	0	0	0	1	0	0	0	0	0	0	0	1
North & Middle Andaman	0	0	0	0	0	1	0	0	0	0	0	0	0	1
South Andaman	0	0	0	0	0	1	0	0	0	0	0	0	0	1
No.of Disease Districts likely to report	0	0	0	0	0	3	0	0	0	0	0	0	0	3

0 = Not predicted , 1 = Predicted

Districts of Andhra						Liv	estock I	Diseas	ses					No. of Diseases
Pradesh	Anth rax	Babes iosis	BQ	BT	ЕТ	Fasciol iasis	FMD	HS	PPR	S&G Pox	SF	Theile riosis	Trypano somiasis	likely to occur
Adilabad	1	0	1	0	1	0	1	1	0	1	0	0	1	7
Anantapur	0	0	1	1	1	0	1	1	1	1	0	0	0	7
Chittoor	1	0	1	1	1	0	1	1	1	1	0	0	0	8
East Godavari	0	0	0	1	1	0	1	1	1	1	0	0	0	6
Guntur	1	0	1	1	1	0	1	1	1	1	0	0	1	9
Krishna	0	0	1	1	1	0	1	1	1	1	0	0	1	8
Kurnool	1	0	1	1	1	0	1	1	1	1	0	0	0	8
Prakasam	1	0	1	1	1	0	1	1	1	1	0	0	0	8
Sri Potti Sriramalu Nellore	1	0	1	1	1	0	1	1	1	1	0	0	0	8
Srikakulam	1	0	1	1	0	1	1	0	1	1	0	0	0	7
Visakhapatnam	0	0	0	1	0	0	1	1	1	1	0	0	0	5
Vizianagaram	0	0	0	1	1	0	1	1	1	1	0	0	0	6
West Godavari	0	0	1	1	0	0	1	1	1	1	0	0	1	7
Y.s.r.	1	0	1	1	1	0	1	1	1	1	0	0	0	8
No.of Disease Districts likely to report	8	0	11	13	11	1	14	13	13	14	0	0	4	102

## District wise Livestock Disease forewarning for March 2017: Andhra Pradesh

0 = Not predicted , 1 = Predicted

Districts of Arunachal Pradesh						Liv	estock I	Diseas	es					No. of Diseases likely to
	Anth rax	Babes iosis	BQ	BT	ЕТ	Fasciol iasis	FMD	HS	PPR	S&G Pox	SF	Theile riosis	Trypano somiasis	occur
No.of Disease Districts likely to report	0	0	0	0	0	0	0	0	0	0	0	0	0	0

## District wise Livestock Disease forewarning for March 2017: Arunachal Pradesh

0 = Not predicted , 1 = Predicted

												17. A55		No. of
Districts of						Liv	estock I	Diseas	es					No. of Diseases
Assam	Anth rax	Babes iosis	BQ	BT	ЕТ	Fasciol iasis	FMD	HS	PPR	S&G Pox	SF	Theile riosis	Trypano somiasis	likely to occur
Barpeta	0	0	0	0	0	0	1	1	0	0	0	0	0	2
Cachar	0	0	0	0	0	0	1	1	0	0	0	0	0	2
Chirang	0	0	1	0	0	0	1	1	0	0	1	0	0	4
Darrang	0	0	0	0	0	0	1	1	0	0	0	0	0	2
Dhemaji	1	0	1	0	0	1	1	1	0	0	1	0	0	6
Dhubri	0	0	0	0	0	0	1	0	0	0	0	0	0	1
Dibrugarh	0	0	1	0	0	1	1	1	0	0	1	1	0	6
Dima Hasao (North Cachar Hill)	0	0	0	0	0	0	1	0	0	0	1	0	0	2
Goalpara	0	0	0	0	0	0	1	0	0	0	0	0	0	1
Golaghat	0	0	0	0	0	0	1	1	0	0	0	0	0	2
Hailakandi	0	0	0	0	0	0	1	0	0	0	0	0	0	1
Jorhat	0	1	0	0	0	0	0	0	0	1	0	0	0	2
Kamrup(Dispur)	1	0	1	0	0	1	1	1	0	0	0	0	0	5
Karimganj	0	0	0	0	0	0	1	0	0	0	0	0	0	1
Kokrajhar	0	0	0	0	0	0	1	1	0	0	0	0	0	2
Lakhimpur	0	0	0	0	0	1	0	0	0	0	1	0	0	2
Marigaon	0	0	0	0	0	0	1	0	0	0	0	0	0	1
Nagaon	0	0	1	0	0	1	0	1	0	0	0	0	0	3
Nalbari	0	0	0	0	0	1	1	0	0	0	0	0	0	2
Sivasagar	0	0	1	0	0	0	1	1	1	0	1	0	0	5
Sonitpur	0	0	1	0	0	1	1	1	0	0	1	0	0	5
Tinsukia	0	0	1	0	0	1	0	1	0	0	1	0	0	4
No.of Disease Districts likely to report	2	1	8	0	0	8	18	13	1	1	8	1	0	61

#### **District wise Livestock Disease forewarning for March 2017: Assam**

**0** = Not predicted , **1** = Predicted

												/1/. DII		
Districts of						Liv	estock I	Diseas	es					No. of
Bihar	Anth rax	Babes iosis	BQ	BT	ET	Fasciol iasis	FMD	HS	PPR	S&G Pox	SF	Theile riosis	Trypano somiasis	Diseases likely to occur
Araria	0	0	0	0	0	1	1	0	0	0	0	0	1	3
Aurangabad	0	0	0	0	0	0	1	0	0	0	0	0	0	1
Banka	0	0	0	0	0	0	1	1	0	0	0	0	1	3
Begusarai	0	0	0	0	0	0	1	0	0	0	0	0	0	1
Bhagalpur	0	0	0	0	0	0	1	0	0	0	0	0	0	1
Bhojpur	0	0	0	0	0	0	1	1	0	0	0	0	0	2
Darbhanga	0	0	0	0	0	0	1	0	0	0	0	0	0	1
Gaya	0	0	0	0	0	0	1	1	1	0	0	0	1	4
Gopalganj	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Jamui	0	0	0	0	0	0	1	0	0	0	0	0	1	2
Kaimur (Bhabua)	0	0	0	0	0	0	1	0	0	0	0	0	0	1
Katihar	0	0	0	0	0	0	1	0	0	0	0	0	1	2
Khagaria	0	0	0	0	0	0	1	0	0	0	0	0	0	1
Kishanganj	0	0	0	0	0	0	1	0	0	0	0	0	1	2
Lakhisarai	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Madhepura	0	0	0	0	0	0	1	1	0	0	0	0	0	2
Madhubani	0	0	0	0	0	0	1	1	0	0	0	0	0	2
Munger	0	0	0	0	0	0	1	0	0	0	0	0	1	2
Muzaffarpur	0	0	0	0	0	0	1	0	0	0	0	0	1	2
Nalanda	0	0	0	0	0	0	1	0	0	0	0	0	0	1
Nawada	0	0	0	0	0	0	1	0	0	0	0	0	0	1
Pashchim Champaran	0	0	0	0	0	1	1	0	0	0	0	0	1	3

## District wise Livestock Disease forewarning for March 2017: Bihar

#### Continue

Districts of						Liv	estock I	Diseas	ies					No. of Diseases
Bihar	Anth rax	Babes iosis	BQ	BT	ЕТ	Fasciol iasis	FMD	HS	PPR	S&G Pox	SF	Theile riosis	Trypano somiasis	likely to occur
Patna	0	0	0	0	0	0	1	1	0	0	0	0	0	2
Purba Champaran	0	0	0	0	0	1	1	0	0	0	0	0	1	3
Purnia	0	0	0	0	0	0	1	0	0	0	0	0	0	1
Rohtas	0	0	0	0	0	0	1	0	0	0	0	0	0	1
Saharsa	0	0	0	0	0	0	1	0	0	0	0	0	0	1
Samastipur	0	0	0	0	0	0	1	0	0	0	0	0	0	1
Saran (chhapra)	0	0	0	0	0	0	1	0	0	0	0	0	0	1
Sheikhpura	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sheohar	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sitamarhi	0	0	0	0	0	1	1	0	0	0	0	0	1	3
Siwan	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Supaul	0	0	0	0	0	0	1	0	0	0	0	0	1	2
Vaishali	0	0	0	0	0	0	1	0	0	0	0	0	0	1
No.of Disease Districts likely to report	0	0	0	0	0	4	30	6	1	0	0	0	12	53

0 = Not predicted , 1 = Predicted

Districts of						Liv	estock I	Diseas	ses					No. of Diseases
Chhattisgarh	Anth rax	Babes iosis	BQ	вт	ЕТ	Fasciol iasis	FMD	HS	PPR	S&G Pox	SF	Theile riosis	Trypano somiasis	likely to occur
Bastar	0	0	1	0	0	0	1	0	1	0	0	0	0	3
Durg	0	0	0	0	0	0	1	0	0	0	0	0	0	1
Raipur	0	0	0	0	0	0	1	0	0	0	0	0	0	1
No.of Disease Districts likely to report	0	0	1	0	0	0	3	0	1	0	0	0	0	5

#### District wise Livestock Disease forewarning for March 2017: Chhattisgarh

0 = Not predicted , 1 = Predicted

Districts of Dadra and						Liv	estock I	Diseas	ses					No. of Diseases
Nagar Haveli	Anth rax	Babes iosis	BQ	BT	ET	Fasciol iasis	FMD	HS	PPR	S&G Pox	SF	Theile riosis	Trypano somiasis	likely to occur
Dadra andNagar Haveli	0	0	0	0	0	0	1	0	0	0	0	0	0	1
No.of Disease Districts likely to report	0	0	0	0	0	0	1	0	0	0	0	0	0	1

## District wise Livestock Disease forewarning for March 2017: Dadra and Nagar Haveli

0 = Not predicted , 1 = Predicted

								8						
Districts of						Liv	estock I	Diseas	es					No. of
Daman and Diu	Anth rax	Babes iosis	BQ	BT	ЕТ	Fasciol iasis	FMD	HS	PPR	S&G Pox	SF	Theile riosis	Trypano somiasis	Diseases likely to occur
Daman	0	0	0	0	0	0	1	0	0	0	0	0	0	1
Diu	0	0	0	0	0	0	1	0	0	0	0	0	0	1
No.of Disease Districts likely to report	0	0	0	0	0	0	2	0	0	0	0	0	0	2

#### District wise Livestock Disease forewarning for March 2017: Daman and Diu

0 = Not predicted , 1 = Predicted

**Livestock Diseases** No. of **Districts of** Diseases Anth Babes S&G Theile Trypano Fasciol Goa likely to BQ BT ET FMD HS PPR SF rax iosis iasis Pox riosis somiasis occur **No.of Disease** Districts 0 0 0 0 0 0 0 0 0 0 0 0 0 0 likely to report

**District wise Livestock Disease forewarning for March 2017: Goa** 

0 = Not predicted , 1 = Predicted

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

#### District wise Livestock Disease forewarning for March 2017:Gujarat

Districts of Gujarat						Liv	estock I	Diseas	es					No. of Diseases
Gujarat	Anth rax	Babes iosis	BQ	BT	ЕТ	Fasciol iasis	FMD	HS	PPR	S&G Pox	SF	Theile riosis	Trypano somiasis	likely to occur
Ahmedabad	0	0	0	0	0	0	1	1	0	0	0	0	0	2
Amreli	0	0	0	0	0	0	1	1	0	0	0	0	0	2
Anand	0	0	0	0	0	0	1	1	0	0	0	0	0	2
Banas Kantha	0	0	0	0	0	0	1	1	0	1	0	0	0	3
Bharuch	0	0	0	0	0	0	1	0	0	0	0	0	0	1
Bhavnagar	0	0	0	0	0	0	1	0	0	0	0	0	0	1
Dohad	0	0	0	0	0	0	1	0	0	0	0	0	1	2
Gandhinagar	0	0	0	0	0	0	1	1	0	0	0	0	0	2
Jamnagar	0	0	0	0	0	0	1	1	0	0	0	0	0	2
Junagadh	0	0	0	0	0	0	1	1	0	0	0	0	0	2
Kachchh	0	0	0	0	0	0	1	1	0	1	0	0	0	3
Kheda	0	0	0	0	0	0	1	1	0	0	0	0	0	2
Mehsana	0	0	0	0	0	0	1	1	0	0	0	0	0	2
Narmada	0	0	0	0	0	0	1	0	0	0	0	0	0	1
Navsari	0	0	0	0	0	0	1	1	0	0	0	0	0	2
Panch Mahals	0	0	0	0	0	0	1	1	0	0	0	0	0	2
Porbandar	0	0	0	0	0	0	1	1	0	0	0	0	0	2
Rajkot	0	0	0	0	0	0	1	1	0	0	0	0	0	2
Sabar Kantha	0	0	0	0	0	0	1	1	0	0	0	0	0	2
Surat	0	0	0	0	0	0	1	0	0	0	0	0	0	1
Surendranagar	0	0	0	0	0	0	1	1	0	0	0	0	0	2
The Dangs	0	0	0	0	0	0	1	1	0	0	0	0	0	2
Vadodara	0	0	0	0	0	0	1	1	0	0	0	0	0	2
Valsad	0	0	1	0	0	0	1	1	0	0	0	0	0	3
No.of Disease Districts likely to report	0	0	1	0	0	0	24	19	0	2	0	0	1	47

0 = Not predicted , 1 = Predicted

Districts of Haryana						Liv	estock I	Diseas	ses					No. of Diseases
	Anth rax	Babes iosis	BQ	BT	ЕТ	Fasciol iasis	FMD	HS	PPR	S&G Pox	SF	Theile riosis	Trypano somiasis	likely to occur
Bhiwani	0	0	0	0	0	0	1	0	0	0	0	0	0	1
Faridabad	0	0	0	0	0	1	0	0	0	0	0	1	0	2
Gurgaon	0	0	0	0	0	1	0	0	0	0	0	1	0	2
Hisar	0	0	0	0	1	0	1	0	0	0	0	0	0	2
Jhajjar	0	0	0	0	0	1	0	0	0	0	0	0	0	1
Jind	0	0	0	0	0	0	1	0	0	0	0	0	0	1
Kurukshetra	0	0	0	0	0	0	1	0	0	0	0	0	0	1
Rohtak	0	0	0	0	0	1	0	0	0	0	0	0	0	1
Sirsa	0	0	0	0	0	1	0	0	0	0	0	0	0	1
Sonipat	0	0	0	0	0	1	0	0	0	0	0	0	0	1
No.of Disease Districts likely to report	0	0	0	0	1	6	4	0	0	0	0	2	0	13

## District wise Livestock Disease forewarning for March 2017: Haryana

0 = Not predicted , 1 = Predicted

Districts of						Liv	estock I	Diseas	ses					No. of
Himachal pradesh	Anth rax	Babes iosis	BQ	вт	ЕТ	Fasciol iasis	FMD	HS	PPR	S&G Pox	SF	Theile riosis	Trypano somiasis	Diseases likely to occur
Hamirpur(HP)	0	0	0	0	0	0	1	0	0	0	0	0	0	1
Kangra	0	0	0	0	0	0	1	0	0	0	0	0	0	1
Una	0	0	0	0	0	0	1	0	0	0	0	0	0	1
No.of Disease Districts likely to report	0	0	0	0	0	0	3	0	0	0	0	0	0	3

## District wise Livestock Disease forewarning for March 2017: Himachal Pradesh

0 = Not predicted , 1 = Predicted

Districts of						Liv	estock I	Diseas	ses					No. of
Jammu and Kashmir	Anth rax	Babes iosis	BQ	вт	ЕТ	Fasciol iasis	FMD	HS	PPR	S&G Pox	SF	Theile riosis	Trypano somiasis	Diseases likely to occur
Anantnag (Kashmir South)	0	0	0	0	0	0	1	0	0	1	0	0	0	2
Badgam	0	0	0	0	0	0	1	0	0	1	0	0	0	2
Baramula	0	0	0	0	0	0	1	0	0	1	0	0	0	2
Doda	0	0	0	0	0	0	1	0	0	1	0	0	0	2
Jammu	0	0	0	0	0	0	1	0	0	0	0	0	0	1
Kargil	0	0	0	0	0	0	1	0	0	1	0	0	0	2
Kathua	0	0	0	0	0	0	1	0	0	1	0	0	0	2
Kupwara	0	0	0	0	0	0	1	0	0	1	0	0	0	2
Leh (ladakh)	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Pulwama	0	0	0	0	0	0	1	0	0	1	0	0	0	2
Rajouri	0	0	0	0	0	0	1	0	0	1	0	0	0	2
Srinagar	0	0	0	0	0	0	1	0	0	1	0	0	0	2
Udhampur	0	0	1	0	0	0	1	1	0	1	0	0	0	4
No.of Disease Districts likely to report	0	0	1	0	0	0	12	1	0	11	0	0	0	25

## District wise Livestock Disease forewarning for March 2017: Jammu and Kashmir

0 = Not predicted , 1 = Predicted

							estock I					• JIIAI N		No. of
Districts of						LIV	estock I	Jiseas	es			[		Diseases
Jharkhand	Anth rax	Babes iosis	BQ	BT	ЕТ	Fasciol iasis	FMD	HS	PPR	S&G Pox	SF	Theile riosis	Trypano somiasis	likely to occur
Bokaro	0	1	0	0	0	1	1	0	0	0	0	1	1	5
Chatra	0	1	1	0	0	1	1	1	0	0	0	0	1	6
Deoghar	0	0	0	0	0	0	1	0	0	0	0	0	1	2
Dhanbad	0	1	0	0	0	1	1	0	0	0	0	1	1	5
Dumka	0	1	1	0	0	1	1	1	0	0	0	1	1	7
Garhwa	0	1	0	0	0	0	1	0	0	0	0	1	1	4
Giridih	0	1	0	0	0	1	1	0	0	0	0	1	1	5
Godda	0	1	1	0	0	1	1	0	1	0	0	1	1	7
Gumla	0	1	0	0	0	1	1	0	0	0	0	1	1	5
Hazaribagh	0	1	0	0	0	1	1	0	0	0	0	1	1	5
Jamtara	0	1	0	0	0	0	1	0	0	0	0	0	1	3
Koderma	0	0	0	0	0	0	0	0	0	0	0	0	1	1
Latehar	0	1	0	0	0	0	1	0	0	0	0	1	1	4
Lohardaga	0	1	0	0	0	0	1	0	0	0	0	0	1	3
Pakur	0	1	1	0	0	1	1	1	1	0	0	1	1	8
Palamu	0	1	1	0	0	0	1	1	0	0	0	1	1	6
Pashchimi Singhbhum	0	1	0	0	0	1	1	0	0	0	0	1	1	5
Purbi Singhbhum	0	1	0	0	0	1	1	1	0	0	0	1	1	6
Ranchi	0	1	0	0	0	1	1	1	0	0	0	1	1	6
Sahibganj	0	1	1	0	0	1	1	0	1	0	0	1	1	7
Seraikela - Kharsawan	0	1	0	0	0	1	1	0	0	0	0	1	1	5
Simdega	0	1	0	0	0	1	1	0	0	0	0	1	1	5
No.of Disease Districts likely to report	0	20	6	0	0	15	21	6	3	0	0	17	22	110

#### District wise Livestock Disease forewarning for March 2017: Jharkhand

**0** = Not predicted , **1** = Predicted

Districts of						Liv	estock I	Diseas	ses					No. of Diseases
Karnataka	Anth rax	Babes iosis	BQ	BT	ЕТ	Fasciol iasis	FMD	HS	PPR	S&G Pox	SF	Theile riosis	Trypano somiasis	likely to occur
Bagalkot	1	0	1	0	1	0	1	1	0	1	0	0	0	6
Bangalore	1	0	1	0	0	0	1	1	0	0	0	0	0	4
Bangalore Rural	1	0	1	0	0	0	1	1	1	0	0	0	0	5
Belgaum	0	0	1	0	1	0	1	1	0	0	0	0	0	4
Bellary	1	0	1	1	1	0	1	1	1	1	0	0	0	8
Bidar	0	0	1	0	0	0	1	1	0	0	0	0	0	3
Bijapur	1	0	1	0	1	0	1	1	0	0	0	0	0	5
Chamarajnagar	1	0	1	0	0	0	1	1	1	0	0	0	0	5
Chikmagalur	0	0	1	0	0	0	1	1	0	0	0	0	0	3
Chitradurga	1	0	1	0	1	0	1	1	1	1	0	0	0	7
Dakshina Kannada	0	0	1	0	0	0	1	1	0	0	0	0	0	3
Davanagere	1	0	1	0	1	0	1	1	0	1	0	0	0	6
Dharwad	0	0	1	0	0	0	1	1	0	0	0	0	0	3
Gadag	0	0	1	0	0	0	1	1	0	0	0	0	0	3
Gulbarga	0	0	1	0	1	0	1	1	0	0	0	0	0	4

# District wise Livestock Disease forewarning for March 2017: Karnataka

#### Continue

Districts of						Liv	estock l	Diseas	ses					No. of Diseases
Karnataka	Anth rax	Babes iosis	BQ	вт	ЕТ	Fasciol iasis	FMD	HS	PPR	S&G Pox	SF	Theile riosis	Trypano somiasis	likely to occur
Hassan	1	0	1	0	1	0	1	1	1	0	0	0	0	6
Haveri	0	0	1	0	1	0	1	1	0	0	0	0	0	4
Kodagu	0	1	0	0	0	0	1	0	0	0	0	0	0	2
Kolar	1	0	1	0	1	0	1	1	1	1	0	0	0	7
Koppal	1	0	1	0	1	0	1	1	0	1	0	0	0	6
Mandya	1	0	1	0	1	0	1	1	1	1	0	0	0	7
Mysore	1	0	1	0	1	0	1	1	1	1	0	0	0	7
Raichur	1	0	1	0	1	0	1	1	1	1	0	0	0	7
Shimoga	0	0	1	0	1	0	1	1	0	0	0	0	0	4
Tumkur	1	0	1	1	1	0	1	1	1	1	0	0	0	8
Udupi	0	0	1	0	0	0	1	1	0	0	0	0	0	3
Uttara Kannada	0	0	1	0	0	0	1	1	0	0	0	0	0	3
No.of Disease Districts likely to report	15	1	26	2	16	0	27	26	10	10	0	0	0	133

**0** = Not predicted , **1** = Predicted

Districts of						Liv	estock I	Diseas	ses					No. of Diseases
Kerala	Anth rax	Babes iosis	BQ	BT	ЕТ	Fasciol iasis	FMD	HS	PPR	S&G Pox	SF	Theile riosis	Trypano somiasis	likely to occur
Alappuzha	0	0	0	0	0	0	0	0	0	0	0	1	0	1
Ernakulam	1	1	1	0	0	1	1	1	0	0	0	1	0	7
ldukki	1	1	1	0	0	1	1	1	0	0	0	1	0	7
Kannur	0	1	1	0	0	0	1	1	0	0	0	1	0	5
Kasaragod	1	1	1	0	0	1	1	0	0	0	0	1	0	6
Kollam	1	1	1	0	0	1	1	1	0	0	0	1	0	7
Kottayam	1	1	1	0	0	1	1	1	0	0	0	1	0	7
Kozhikode	1	1	1	0	0	1	1	0	0	0	0	1	0	6
Malappuram	1	1	1	0	0	1	1	0	0	0	1	1	0	7
Palakkad	0	1	1	0	0	0	1	1	0	0	0	1	0	5
Pathanamthitta	1	1	0	0	0	1	1	1	0	0	0	1	0	6
Thiruvananthap uram	1	1	1	0	0	1	1	1	0	0	0	1	0	7
Thrissur	1	1	1	0	0	1	1	1	0	0	0	1	0	7
Wayanad	1	1	0	0	0	1	1	0	0	0	0	1	0	5
No.of Disease Districts likely to report	11	13	11	0	0	11	13	9	0	0	1	14	0	83

#### District wise Livestock Disease forewrning for March 2017: Kerala

0 = Not predicted , 1 = Predicted

Districts of Lakshadwee						Liv	estock I	Diseas	es					No. of Diseases
р	Anth rax	Babes iosis	BQ	BT	ET	Fasciol iasis	FMD	HS	PPR	S&G Pox	SF	Theile riosis	Trypano somiasis	likely to occur
No.of Disease Districts likely to report	0	0	0	0	0	0	0	0	0	0	0	0	0	0

#### District wise Livestock Disease forewarning for March 2017: Lakshadweep

0 = Not predicted , 1 = Predicted

Districts of						Liv	estock l	Diseas	ses					No. of
Madhya Pradesh	Anth rax	Babes iosis	BQ	BT	ЕТ	Fasciol iasis	FMD	HS	PPR	S&G Pox	SF	Theile riosis	Trypano somiasis	Diseases likely to occur
Balaghat	0	0	0	0	0	0	1	0	0	0	0	0	0	1
Sagar	0	0	0	0	0	0	0	0	1	0	0	0	0	1
No.of Disease Districts likely to report	0	0	0	0	0	0	1	0	1	0	0	0	0	2

#### District wise Livestock Disease forewarning for March 2017: Madhya Pradesh

0 = Not predicted , 1 = Predicted

Districts of						Liv	estock I	Diseas	ses					No. of Diseases
Maharastra	Anth rax	Babes iosis	BQ	BT	ЕТ	Fasciol iasis	FMD	HS	PPR	S&G Pox	SF	Theile riosis	Trypano somiasis	likely to occur
Ahmadnagar	1	0	1	0	1	0	1	1	1	1	0	0	0	7
Aurangabad(M H)	0	0	1	0	0	0	0	1	0	0	0	0	0	2
Bid	0	0	1	0	0	0	0	1	0	0	0	0	0	2
Buldana	0	0	0	0	0	0	0	1	0	0	0	0	0	1
Dhule	0	0	0	0	0	0	1	1	0	0	0	0	0	2
Gadchiroli	0	0	0	0	0	0	1	0	0	0	0	0	0	1
Jalgaon	0	0	0	0	0	0	0	1	0	0	0	0	0	1
Jalna	0	0	1	0	0	0	0	1	0	0	0	0	0	2
Kolhapur	0	0	0	0	0	0	0	1	0	0	0	0	0	1
Latur	0	0	1	0	0	0	0	1	0	0	0	0	0	2
Nanded	0	0	0	0	0	0	0	1	0	0	0	0	0	1
Nasik	0	0	1	0	0	0	1	1	1	0	0	0	0	4
Osmanabad	0	0	1	0	0	0	0	1	0	0	0	0	0	2
Pune	1	0	1	0	0	0	1	1	1	1	0	0	0	6
Raigarh	0	0	0	0	0	0	1	0	0	0	0	0	0	1
Ratnagiri	0	0	0	0	0	0	1	0	0	0	0	0	0	1
Sangli	0	0	0	0	0	0	1	1	0	0	0	0	0	2
Satara	1	0	0	0	0	0	1	1	1	1	0	0	0	5
Sindhudurg	0	0	0	0	0	0	1	0	0	0	0	0	0	1
Solapur	0	0	1	0	0	0	1	1	0	0	0	0	0	3
Thane	0	0	0	0	0	0	1	1	0	0	0	0	0	2
No.of Disease Districts likely to report	3	0	9	0	1	0	12	17	4	3	0	0	0	49

## District wise Livestock Disease forewarning for March 2017: Maharashtra

0 = Not predicted , 1 = Predicted

Districts of						Liv	estock I	Diseas	ses					No. of Diseases
Manipur	Anth rax	Babes iosis	BQ	BT	ЕТ	Fasciol iasis	FMD	HS	PPR	S&G Pox	SF	Theile riosis	Trypano somiasis	likely to occur
Bishnupur	0	0	0	0	0	0	1	0	0	0	0	0	0	1
Chandel	0	0	0	0	0	0	0	0	0	0	1	0	0	1
Churachandpur	0	0	0	0	0	1	1	0	0	0	0	0	0	2
Senapati	0	0	0	0	0	0	0	0	0	0	1	0	0	1
Temenglong	0	0	0	0	0	0	0	0	0	0	1	0	0	1
Thoubal	0	0	0	0	0	0	0	0	0	0	1	0	0	1
Ukhrul	0	0	0	0	0	0	0	0	0	0	1	0	0	1
No.of Disease Districts likely to report	0	0	0	0	0	1	2	0	0	0	5	0	0	8

## District wise Livestock Disease forewarning for March 2017: Manipur

0 = Not predicted , 1 = Predicted

Districts of Meghalaya						Liv	estock l	Diseas	ses					No. of Diseases
wegnalaya	Anth rax	Babes iosis	BQ	BT	ЕТ	Fasciol iasis	FMD	HS	PPR	S&G Pox	SF	Theile riosis	Trypano somiasis	likely to occur
East Jaintia Hills	0	0	0	0	0	0	1	0	0	0	1	0	0	2
East khasi hills	0	0	0	0	0	0	1	0	0	0	1	0	0	2
Jaintia hills	0	0	0	0	0	0	0	0	0	0	1	0	0	1
Ri bhoi	0	0	0	0	0	0	0	0	0	0	1	0	0	1
West garo hills	0	0	1	0	0	0	1	0	0	0	1	0	0	3
West khasi hills	0	0	0	0	0	0	1	0	0	0	1	0	0	2
No.of Disease Districts likely to report	0	0	1	0	0	0	4	0	0	0	6	0	0	11

# District wise Livestock Disease forewarning for March 2017: Meghalaya

0 = Not predicted , 1 = Predicted

Districts of						Liv	estock I	Diseas	ses					No. of
Mizoram	Anth rax	Babes iosis	BQ	BT	ЕТ	Fasciol iasis	FMD	HS	PPR	S&G Pox	SF	Theile riosis	Trypano somiasis	Diseases likely to occur
Aizawl	0	0	0	0	0	0	0	0	0	0	1	0	0	1
Champhai	0	0	0	0	0	1	0	0	0	0	0	0	0	1
Lawangtlai	0	0	0	0	0	1	1	0	0	0	0	0	0	2
Lunglei	0	0	0	0	0	1	0	0	0	0	0	0	0	1
Mamit	0	0	0	0	0	0	0	0	0	0	1	0	0	1
Saiha	0	0	0	0	0	0	1	0	0	0	0	0	0	1
Serchhip	0	0	0	0	0	1	1	0	0	0	0	0	0	2
No.of Disease Districts likely to report	0	0	0	0	0	4	3	0	0	0	2	0	0	9

## District wise Livestock Disease forewarning for March 2017: Mizoram

**0** = Not predicted , **1** = Predicted

Districts of Nagaland						Liv	estock I	Diseas	ses					No. of Diseases likely to occur
	Anth rax	Babes iosis	BQ	BT	ЕТ	Fasciol iasis	FMD	HS	PPR	S&G Pox	SF	Theile riosis	Trypano somiasis	
Zunheboto	0	0	0	0	0	0	0	0	0	0	1	0	0	1
No.of Disease Districts likely to report	0	0	0	0	0	0	0	0	0	0	1	0	0	1

District wise Livestock Disease forewarning for March 2017: Nagaland

0 = Not predicted , 1 = Predicted

Districts of						Liv	estock I	Diseas	ses					No. of Diseases
Odisha	Anth rax	Babes iosis	BQ	BT	ЕТ	Fasciol iasis	FMD	HS	PPR	S&G Pox	SF	Theile riosis	Trypano somiasis	likely to occur
Baleshwar	0	1	1	0	0	0	1	1	0	0	0	0	0	4
Bargarh	0	0	0	0	0	0	1	0	1	0	0	0	0	2
Bhadrak	0	0	0	0	0	0	1	0	0	0	0	0	0	1
Cuttack	0	0	1	0	0	0	1	1	0	0	0	0	0	3
Gajapati	0	0	0	0	0	0	1	0	0	0	0	1	0	2
Ganjam	0	0	1	0	0	0	1	1	1	0	0	0	0	4
Jagatsinghpur	0	0	0	0	0	0	1	0	0	0	0	0	0	1
Kalahandi	0	0	0	0	0	0	1	0	1	0	0	0	0	2
Kandhamal	0	0	0	0	0	0	1	0	0	0	0	0	0	1
Kendrapara	0	0	0	0	0	0	1	0	0	0	0	0	0	1
Kendujhar	0	0	0	0	0	0	1	0	0	0	0	0	0	1
Khordha	0	0	0	0	0	0	1	0	0	0	0	1	0	2
Koraput	0	0	1	0	0	0	1	1	1	0	0	0	0	4
Mayurbhanj	0	0	1	0	0	0	1	0	1	0	0	0	0	3
Puri	0	0	0	0	0	0	1	1	0	0	0	0	0	2
Rayagada	0	0	0	0	0	0	1	0	0	0	0	0	0	1
Sundargarh	0	0	0	0	0	0	1	0	0	0	0	0	0	1
No.of Disease Districts likely to report	0	1	5	0	0	0	17	5	5	0	0	2	0	35

#### District wise Livestock Disease forewarning for March 2017: Odisha

0 = Not predicted , 1 = Predicted

						Liv	estock I	Diseas	es					No. of
Districts of Puducherry	Anth rax	Babes iosis	BQ	BT	ЕТ	Fasciol iasis	FMD	HS	PPR	S&G Pox	SF	Theile riosis	Trypano somiasis	Diseases likely to occur
Yanam	0	0	0	0	0	0	1	0	0	0	0	0	0	1
No.of Disease Districts likely to report	0	0	0	0	0	0	1	0	0	0	0	0	0	1

## District wise Livestock Disease forewarning for March 2017: Puducherry

0 = Not predicted , 1 = Predicted

Districts of Punjab						Liv	estock I	Diseas	es					No. of Diseases likely to occur
	Anth rax	Babes iosis	BQ	BT	ET	Fasciol iasis	FMD	HS	PPR	S&G Pox	SF	Theile riosis	Trypano somiasis	
No.of Disease Districts likely to report	0	0	0	0	0	0	0	0	0	0	0	0	0	0

#### District wise Livestock Disease forewarning for March 2017: Punjab

0 = Not predicted , 1 = Predicted

Districts of Rajasthan		Livestock Diseases													
	Anth rax	Babes iosis	BQ	BT	ЕТ	Fasciol iasis	FMD	HS	PPR	S&G Pox	SF	Theile riosis	Trypano somiasis	Diseases likely to occur	
Bikaner	0	0	0	0	0	0	0	1	0	0	0	0	0	1	
Jaisalmer	0	0	0	0	0	0	1	0	0	0	0	0	0	1	
Nagaur	0	0	0	0	0	0	1	0	0	0	0	0	0	1	
Sikar	0	0	0	0	0	0	1	0	0	0	0	0	0	1	
Udaipur	0	0	0	0	0	0	1	1	0	0	0	0	0	2	
No.of Disease Districts likely to report	0	0	0	0	0	0	4	2	0	0	0	0	0	6	

## District wise Livestock Disease forewarning for March 2017: Rajasthan

0 = Not predicted , 1 = Predicted

Districts of	Livestock Diseases												No. of Diseases	
Sikkim	Anth rax	Babes iosis	BQ	BT	ЕТ	Fasciol iasis	FMD	HS	PPR	S&G Pox	SF	Theile riosis	Trypano somiasis	likely to occur
No.of Disease Districts likely to report	0	0	0	0	0	0	0	0	0	0	0	0	0	0

# District wise Livestock Disease forewarning for March 2017: Sikkim

0 = Not predicted , 1 = Predicted

	Livestock Disease												No. of	
Districts of Tamil Nadu	Anth rax	Babes iosis	BQ	BT	ET	Fasciol iasis	FMD	HS	PPR	S&G Pox	SF	Theile riosis	Trypano somiasis	Diseases likely to occur
Ariyalur	0	0	0	0	0	0	1	0	0	0	0	0	0	1
Coimbatore	1	0	0	0	0	0	1	0	0	1	0	0	0	3
Cuddalore	1	0	0	0	0	0	1	0	0	0	0	0	0	2
Dharmapuri	1	0	0	0	0	0	1	0	1	0	0	0	0	3
Dindigul	0	0	0	0	0	0	1	0	0	0	0	0	0	1
Erode	1	0	1	0	0	0	1	0	0	1	0	0	0	4
Kancheepuram	1	0	1	0	1	0	1	0	0	0	0	0	0	4
Kanniyakumari	1	0	0	0	0	0	1	0	0	0	0	0	0	2
Karur	0	0	1	0	0	0	0	1	0	0	0	0	0	2
Krishnagiri	1	0	0	0	0	0	1	0	0	0	0	0	0	2
Madurai	0	0	0	0	0	0	1	0	0	0	0	0	0	1
Nagapattinam	0	0	0	0	0	0	1	0	0	0	0	0	0	1
Namakkal	0	0	0	0	0	0	1	0	0	0	0	0	0	1
Perambalur	0	0	0	0	0	0	1	0	0	0	0	0	0	1
Pudukkottai	1	0	1	0	1	0	1	0	1	0	0	0	0	5
Ramanathapur am	0	0	0	0	1	0	1	0	0	0	0	0	0	2
Salem	1	0	1	0	0	0	1	0	1	0	0	0	0	4
Sivaganga	1	0	0	0	0	0	1	0	0	0	0	0	0	2
Thanjavur	0	0	0	0	0	0	1	0	0	0	0	0	0	1
The Nilgiris	0	1	0	0	0	0	1	0	0	0	0	0	0	2
Thiruvallur	1	0	0	0	0	0	1	0	0	0	0	0	0	2
Thiruvarur	0	0	0	0	0	0	1	0	0	0	0	0	0	1
Tiruchirappalli	0	0	0	0	0	0	1	0	0	0	0	0	0	1
Tirunelveli	1	0	1	0	1	0	1	1	0	0	0	0	0	5
No.of Disease Districts likely to report	12	1	6	0	4	0	23	2	3	2	0	0	0	53

# District wise Livestock Disease forewarning for March 2017: Tamil Nadu

0 = Not predicted , 1 = Predicted

						Liv	estock I	Diseas	es					No. of
Districts of Telangana	Anth rax	Babes iosis	BQ	BT	ET	Fasciol iasis	FMD	HS	PPR	S&G Pox	SF	Theile riosis	Trypano somiasis	Diseases likely to occur
Adilabad	1	0	1	0	1	0	1	1	0	1	0	0	1	7
Hyderabad	0	0	1	0	0	0	0	1	0	0	0	0	1	3
Karimnagar	1	0	1	1	1	0	1	1	1	1	0	0	0	8
Khammam	0	0	1	1	1	0	1	1	1	1	0	0	1	8
Mahbubnagar	1	0	1	1	1	0	1	1	1	1	0	0	0	8
Medak	0	0	1	1	1	0	1	1	0	1	0	0	0	6
Nalgonda	1	0	1	1	1	0	1	1	1	1	0	0	0	8
Nizamabad	0	0	1	1	1	0	1	1	0	0	0	0	0	5
Rangareddy	0	0	1	0	1	0	1	1	1	0	0	0	0	5
Warangal	0	0	1	1	1	0	1	1	1	1	0	0	0	7
No.of Disease Districts likely to report	4	0	10	7	9	0	9	10	6	7	0	0	3	65

# District wise Livestock Disease forewarning for March 2017: Telangana

0 = Not predicted , 1 = Predicted

Districts of						Liv	vestock	Disea	se					No. of Diseases
Tripura	Anth rax	rax iosis BQ BT ET iasis FMD HS PPR Pox		SF	Theile riosis	Trypano somiasis	likely to occur							
North Tripura	0	0	0	0	0	0	1	0	0	0	0	0	0	1
South Tripura	0	1	0	0	0	1	1	0	0	0	0	0	0	3
West Tripura	0	0	0	0	0	1	1	0	0	1	0	0	0	3
No.of Disease Districts likely to report	0	1	0	0	0	2	3	0	0	1	0	0	0	7

# District wise Livestock Disease forewarning for March 2017: Tripura

0 = Not predicted , 1 = Predicted

# District wise Livestock Disease forewarning for March 2017: Uttar Pradesh

Districts of						Liv	vestock l	Disea	se					No. of
Uttar Pradesh	Anth rax	Babes iosis	BQ	BT	ET	Fasciol iasis	FMD	HS	PPR	S&G Pox	SF	Theile riosis	Trypano somiasis	Diseases likely to occur
No.of Disease Districts likely to report	0	0	0	0	0	0	0	0	0	0	0	0	0	0

0 = Not predicted , 1 = Predicted

# District wise Livestock Disease forewarning for March 2017: Uttarakhand

						Liv	vestock	Disea	se					No. of
Districts of Uttaranchal	Anth rax	Babes iosis	BQ	BT	ЕТ	Fasciol iasis	FMD	HS	PPR	S&G Pox	SF	Theile riosis	Trypano somiasis	Diseases likely to occur
No.of Disease Districts likely to report	0	0	0	0	0	0	0	0	0	0	0	0	0	0

0 = Not predicted , 1 = Predicted

						Liv	estock	Disea	se					No. of
Districts of West Bengal	Anth rax	Babes iosis	BQ	BT	ET	Fasciol iasis	FMD	HS	PPR	S&G Pox	SF	Theile riosis	Trypano somiasis	Diseases likely to occur
Bankura	1	0	1	0	0	0	1	1	1	1	0	0	0	6
Barddhaman	1	0	1	0	0	0	1	1	1	1	1	1	0	8
Birbhum	0	0	1	0	0	0	1	0	1	1	0	0	0	4
Dakshin Dinajpur	0	0	1	0	0	0	1	0	1	0	0	0	0	3
Darjiling	0	0	1	0	0	0	1	0	0	0	0	0	0	2
Haora	0	0	0	0	0	0	0	0	1	0	0	0	0	1
Hugli	1	0	1	0	0	0	1	1	1	1	0	0	0	6
Jalpaiguri	1	0	1	0	0	0	1	1	1	0	0	0	0	5
Koch Bihar	1	0	1	0	0	0	1	0	1	0	0	0	0	4
Maldah	0	0	0	0	0	0	1	0	1	0	0	0	0	2
Murshidabad	1	0	1	0	0	0	1	1	1	0	0	1	0	6
Nadia	0	0	0	0	0	0	1	0	1	0	0	0	0	2
North 24 Parganas	1	0	1	0	0	0	1	1	1	1	0	1	0	7
Pashchim Medinipur	1	0	1	0	0	0	1	1	1	0	0	0	0	5
South 24 Parganas	0	0	1	0	0	0	1	1	1	1	0	0	0	5
Uttar Dinajpur	0	0	1	0	0	0	1	0	1	0	0	0	0	3
No.of Disease Districts likely to report	8	0	13	0	0	0	15	8	15	6	1	3	0	69

# District wise Livestock Disease forewarning for March 2017: West Bengal

0 = Not predicted , 1 = Predicted

Sl.No	State Name	Anthrax	Babesiosis	BQ	BT	ЕТ	Fascioliasis	FMD	HS	PPR	S&G Pox	SF	Theileriosis	Trypanosomiasis	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	8	0	11	13	11	1	14	13	13	14	0	0	4	102
3	Arunachal Pradesh	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	Assam	2	1	8	0	0	8	18	13	1	1	8	1	0	61
5	Bihar	0	0	0	0	0	4	30	6	1	0	0	0	12	53
6	Chhattisgarh	0	0	1	0	0	0	3	0	1	0	0	0	0	5
7	Dadra and Nagar Haveli	0	0	0	0	0	0	1	0	0	0	0	0	0	1
8	Daman and Diu	0	0	0	0	0	0	2	0	0	0	0	0	0	2
9	Goa	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10	Gujarat	0	0	1	0	0	0	24	19	0	2	0	0	1	47
11	Haryana	0	0	0	0	1	6	4	0	0	0	0	2	0	13
12	Himachal Pradesh	0	0	0	0	0	0	3	0	0	0	0	0	0	3
13	Jammu and Kashmir	0	0	1	0	0	0	12	1	0	11	0	0	0	25
14	Jharkhand	0	20	6	0	0	15	21	6	3	0	0	17	22	110
15	Karnataka	15	1	26	2	16	0	27	26	10	10	0	0	0	133
16	Kerala	11	13	11	0	0	11	13	9	0	0	1	14	0	83
17	Lakshadweep	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18	Madhya Pradesh	0	0	0	0	0	0	1	0	1	0	0	0	0	2
19	Maharashtra	3	0	9	0	1	0	12	17	4	3	0	0	0	49
20	Manipur	0	0	0	0	0	1	2	0	0	0	5	0	0	8
21	Meghalaya	0	0	1	0	0	0	4	0	0	0	6	0	0	11
22	Mizoram	0	0	0	0	0	4	3	0	0	0	2	0	0	9
23	Nagaland	0	0	0	0	0	0	0	0	0	0	1	0	0	1
24	Orissa	0	1	5	0	0	0	17	5	5	0	0	2	0	35
25	Puducherry	0	0	0	0	0	0	1	0	0	0	0	0	0	1
26	Punjab	0	0	0	0	0	0	0	0	0	0	0	0	0	0
27	Rajasthan	0	0	0	0	0	0	4	2	0	0	0	0	0	6
28	sikkim	0	0	0	0	0	0	0	0	0	0	0	0	0	0
29	Tamil Nadu	12	1	6	0	4	0	23	2	3	2	0	0	0	53
30	Telangana	4	0	10	7	9	0	9	10	6	7	0	0	3	65
31	Tripura	0	1	0	0	0	2	3	0	0	1	0	0	0	7
32	Uttar Pradesh	0	0	0	0	0	0	0	0	0	0	0	0	0	0
33	Uttarakhand	0	0	0	0	0	0	0	0	0	0	0	0	0	0
34	West Bengal	8	0	13	0	0	0	15	8	15	6	1	3	0	69
Tota	al No districts likely to report	63	38	109	22	42	55	266	137	63	57	24	39	42	957

# State wise Livestock Disease forewarning for March 2017

### Andaman and Nicobar

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

### Andhra Pradesh

A total of 14 districts in Andhra Pradesh are likely report the major 10 livestock diseases. i.e., Anthrax, Black Quarter, Blue tongue, Enterotoxaemia, Fascioliasis, Foot and Mouth Disease, Haemorrhagic Septicaemia, Peste des petits ruminants, Sheep & Goat pox and Trypanosomiasis in which Foot and Mouth Disease and Haemorrhagic Septicaemia are predicted for 14 districts while Blue tongue, Haemorrhagic Septicaemia and Peste des petits ruminants are predicted in all the 13 districts. Black Quarter and Enterotoxaemia is likely to occur in 11 districts while anthrax is likely to occur in 8 districts.Srikakulam is the only district prone to Fascioliasis.

#### Assam

A total of 22 districts from Assam are likely to report 10 livestock diseases i.e., Anthrax, Babesiosis, Black Quarter, Fascioliasis, Foot and Mouth disease, Haemorrhagic Septicaemia, Peste des petits ruminants, Sheep & Goat pox, Swine Fever and Theileriosis; in which Foot and Mouth disease is predicted in 18 districts and 13 districts are prone to Haemorrhagic Septicaemia. 8 districts are prone to Black Quarter, Fascioliasis and Swine Fever. Anthrax is predicted in 2 districts. Babesiosis, Peste des petits ruminants, Sheep & Goat pox and Theileriosis are predicted for 1 districts.

#### Bihar

A total of 35 districts in Bihar are likely to report 5 diseases i.e. Fascioliasis, Foot and Mouth disease, Haemorrhagic Septicaemia, Peste des petits ruminants, Swine Fever and Trypanosomiasis. Foot and Mouth disease is threat for 30 districts in Bihar.12 districts are prone to Trypanosomiasis.6 are prone to Haemorrhagic Septicaemia and 4 districts are prone to Fascioliasis. Gaya is the only district prone to Peste des petits ruminants.

#### Chhattisgarh

A total of 3 districts in Chhattisgarh i.e., Bastar, Durg and Raipur district are likely to report 3 diseases. All the districts mentioned are prone to Foot and Mouth diseases. Black Quarter and Peste des petits ruminants diseases are predicted in Bastar.

## Dadra and Nagra Haveli

Dadra and Nagra Haveli is likely to report Foot and Mouth disease.

### Daman and Diu

Daman and Diu is likely to report Foot and Mouth disease.

## Gujarat

A total of 24 districts in Gujarat are likely to report 5 diseases i.e., Black Quarter, Foot and Mouth disease, Haemorrhagic Septicaemia, Sheep & Goat pox and Trypanosomiasis. Foot and Mouth disease is likely to occur in 24 districts. Haemorrhagic Septicaemia is predicted in 19 districts. Sheep & Goat pox is predicted for 2 districts. Black Quarter and Trypanosomiasis is likely to occur in 1 district.

## Haryana

A total of 10 districts in Haryana are likely to report 4 diseases i.e., Enterotoxaemia, Fascioliasis, Foot & Mouth disease and Theileriosis. Fascioliasis is predicted for 6 districts. Foot & Mouth disease is predicted in 4 districts. Theileriosis is likely to occur in 2 districts. Enterotoxaemia is likely to occur only in Hisar district.

#### **Himachal Pradesh**

A total of 3 districts in Himachal Pradesh i.e., Hamirpur(HP), Kangra and Una district are likely to report 1 diseases which is Foot and Mouth diseases.

# Jammu and Kashmir

A total of 13 districts in Jammu and Kashmir are likely to report 4 diseases i.e., Black Quarter, Foot and Mouth disease, Haemorrhagic Septicaemia and Sheep & Goat pox. Foot and Mouth disease is predicted in 12 districts. Sheep & Goat pox disease is predicted in 11 districts. Black Quarter and Haemorrhagic Septicaemia are likely to occur only in Udhampur district.

## Jharkhand

A total of 22 districts in Jharkhand are likely to report 8 diseases i.e., Babesiosis, Black Quarter, Fascioliasis, Foot and Mouth disease, Haemorrhagic Septicaemia, Peste des petits ruminants, Theileriosis and Trypanosomiasis. Trypanosomiasis is likely to report in 22 districts. Foot and Mouth disease is predicted for 21 districts Babesiosis is likely to occur in 20 districts while Theileriosis disease is likely to occur in 17 districts. Fascioliasis is predicted in 15 districts. Black Quarter and Haemorrhagic Septicaemia are predicted for 6 districts. Peste des petits is likely to occur in Godda, Pakur and Sahibganj districts.

## Karnataka

A total of 27 districts in Karnataka are likely to report 9 diseases i.e., Anthrax, Babesiosis, Black Quarter, Bluetongue, Enterotoxaemia, Foot and Mouth disease, Haemorrhagic Septicaemia, Peste des petits ruminants and Sheep & Goat pox. 27 districts are prone to Foot and Mouth disease. 26 districts are prone to Black Quarter and Haemorrhagic Septicaemia. Enterotoxaemia is likely to occur in 16 districts. Anthrax is likely to occur in 15 districts while 9 districts are prone to Sheep & Goat pox. Peste des petits ruminants is threat for 10 districts. Bluetongue is threat for 2 districts. Kodagu is prone to Babesiosis.

#### Kerala

A total of 14 districts in Kerala are likely to report 8 diseases i.e., Anthrax, Babesiosis, Black Quarter, Fascioliasis, Foot & Mouth disease, Haemorrhagic Septicaemia, Swine Fever and Theileriosis. 14 districts are prone to Theileriosis. All the 13 districts are prone to Babesiosis and Foot & Mouth disease. Anthrax, Black Quarter and Fascioliasis is threat to 11 districts. Haemorrhagic Septicaemia is likely to occur in 9 districts. Malapurram is the places prone to Swine Fever.

#### Madhya Pradesh

Balaghat and Sagar districts in Madhya Pradesh are likely to report 2 diseases i.e., Foot & Mouth disease and Peste des petits ruminants.

## Maharashtra

A total of 21 districts in Maharashtra are likely to report 7 diseases i.e., Anthrax, Black Quarter, Enterotoxaemia, Foot and Mouth disease, Haemorrhagic Septicaemia, Peste des petits ruminants and Sheep and Goat pox. Haemorrhagic Septicaemia disease is threat to 17 districts. Foot and Mouth disease is likely to occur in 12 districts. Black Quarter is likely to occur in 9 districts while 4 districts are prone to Peste des petits ruminants. Anthrax and Sheep and Goat pox is threat to 3 districts. Enterotoxaemia is likely to occur in Ahmadnagar district.

## Manipur

A total of 7 districts in Manipur are likely to report 3 diseases i.e., Fascioliasis, Foot and Mouth disease and Swine fever. Swine fever is likely to occur in 5 districts of Manipur viz., Chandel, Senapati, Temenglong, Ukhrul and Thoubal. Two district are prone to Foot and Mouth disease and one district is prone to Fascioliasis.

## Meghalaya

A total of 6 districts in Meghalaya are likely to report 3 diseases i.e., Black Quarter, Foot and Mouth disease and Swine Fever. Foot and Mouth disease is threat to 4 districts. Swine Fever disease are predicted in all 6 districts. West Garo hills is likely to prone for Black Quarter.

# Mizoram

A total of 7 districts in Mizoram are likely to report 3 diseases i.e., Fascioliasis, Foot and Mouth disease and Swine Fever. Fascioliasis is predicted in 4 districts while Swine Fever is likely to occur in 2 districts i.e Aizawl and Mamit districts. 3 districts are prone to Foot and Mouth disease.

#### Nagaland

Zunheboto district in Nagaland is prone to Swine Fever.

#### Odisha

A total of 17 districts in Orissa are likely to report 6 diseases i.e., Babesiosis, Black Quarter, Foot and Mouth Disease, Haemorrhagic Septicaemia, Peste des petits ruminants and Theileriosis. Foot and Mouth Disease is likely to occur in 17 districts. Black Quarter, Haemorrhagic Septicaemia and Peste des petits ruminants are threat for 5 districts. Theileriosis is threat for Gajapati and Khordha districts.Baleswar is the district prone to Babesiosis.

#### Puducherry

Yanam district is likely to report Foot and Mouth Disease.

#### Rajasthan

A total of 5 districts in Rajasthan are likely to report 2 diseases i.e., Foot and Mouth Disease predicted in Jaisalmer, Sikar, Nagaur and Udaipur districts.Haemorrhagic Septicaemia is threat in Bikaner and Udaipur district.

#### Tamil Nadu

A total of 24 districts in Tamil Nadu are likely to report 8 diseases i.e., Anthrax, Babesiosis, Black Quarter, Enterotoxaemia, Foot and Mouth Disease, Haemorrhagic Septicaemia, Peste des petits ruminants, Sheep and Goat pox, Swine Fever and Theileriosis. Peste des petits ruminants is threat for 23 districts. Anthrax is threat for 12 districts and Black Quarter is threat for 6 districts. Enterotoxaemia is threat for 4 districts.3 districts are likely to have Peste des petits ruminants.The Nilgiris district is only prone to Babesiosis.

#### Telangana

A total of 10 districts in Telangana are likely report the major 9 livestock disease. i.e., Anthrax, Black Quarter, Bluetongue, Enterotoxaemia, Foot and Mouth Disease, Haemorrhagic Septicaemia, Peste des petits ruminants, Sheep and Goat pox and Trypanosomiasis; in which Foot and Mouth Disease, Enterotoxaemia and Foot and Mouth Disease are predicted in all the 9 districts. Black Quarter is likely to occur in 10 districts. 7 districts are prone to Bluetongue and Sheep and Goat pox.4 districts are predicted for Anthrax while 3 districts are likely to have Trypanosomiasis.

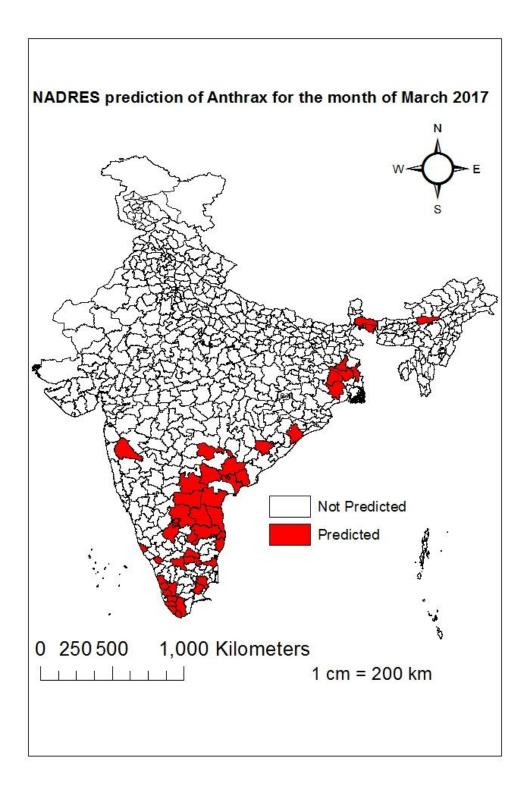
## Tripura

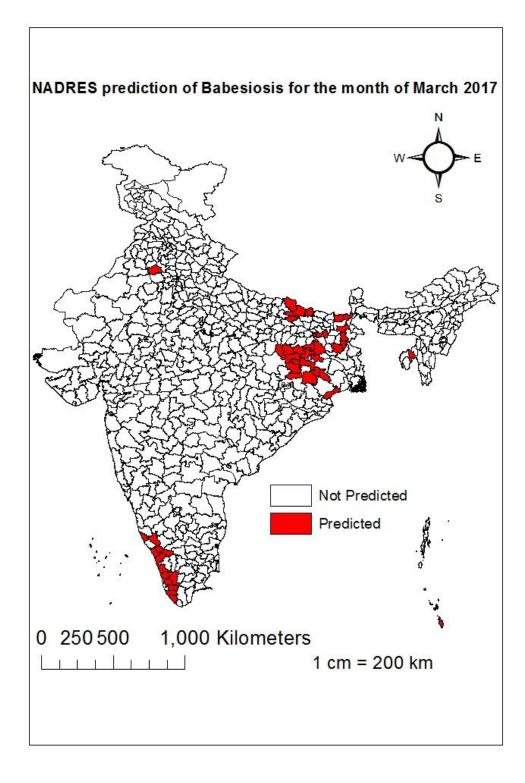
North Tripura, South Tripura and West Tripura are likely to report 4 diseases i.e., Babesiosis, Fascioliasis, Foot and Mouth disease and Sheep & Goat pox. Food and mouth disease is likely to occur in all 3 districts. South Tripura is prone to Babesiosis. West Tripura is prone to Sheep & Goat pox.

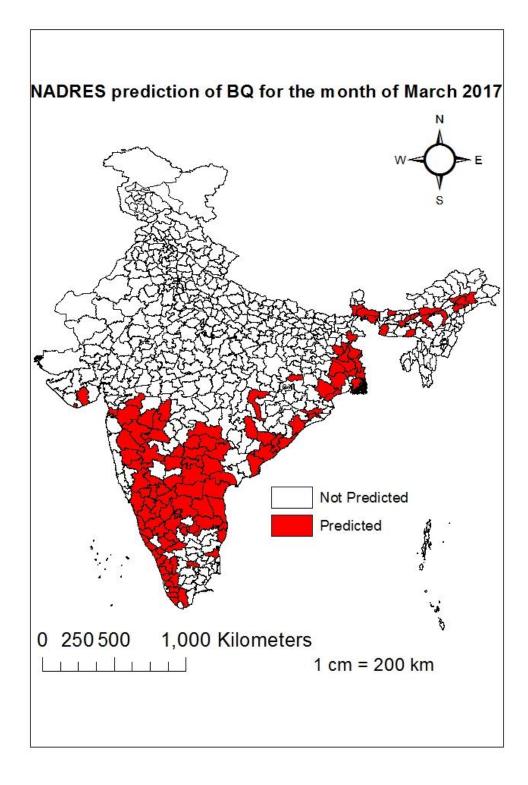
## West Bengal

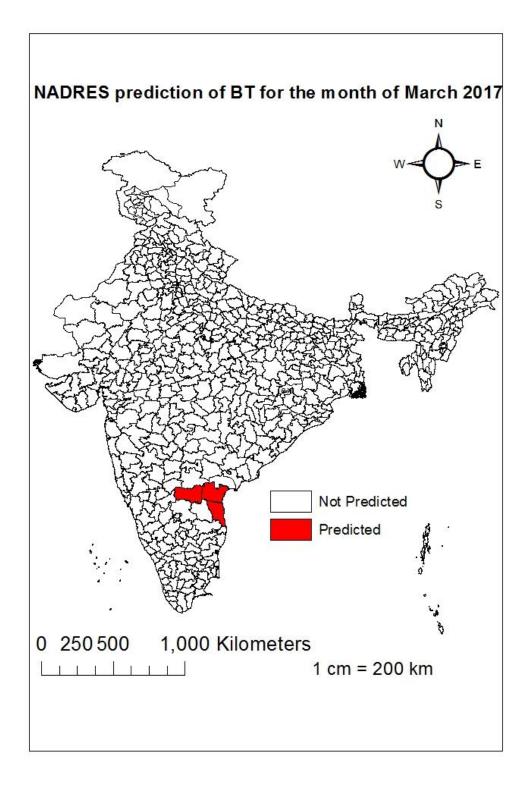
A total of 16 districts in West Bengal are likely to report 8 diseases i.e., Anthrax, Black Quarter, Foot and Mouth Disease, Haemorrhagic Septicaemia, Peste des petits ruminants, Sheep & Goat pox, Swine Fever and Theileriosis. Peste des petits ruminant's disease and Foot and Mouth Disease are predicted in 15 districts. Black quarter is likely to occur in 13 districts. Haemorrhagic Septicaemia and Anthrax is predicted in 8 districts. Sheep & Goat pox is threat for 6 districts while Theileriosis is prone to Barddhaman, Murshidabad and North 24 Parganas districts. Barddhaman is the only district prone to Swine Fever.

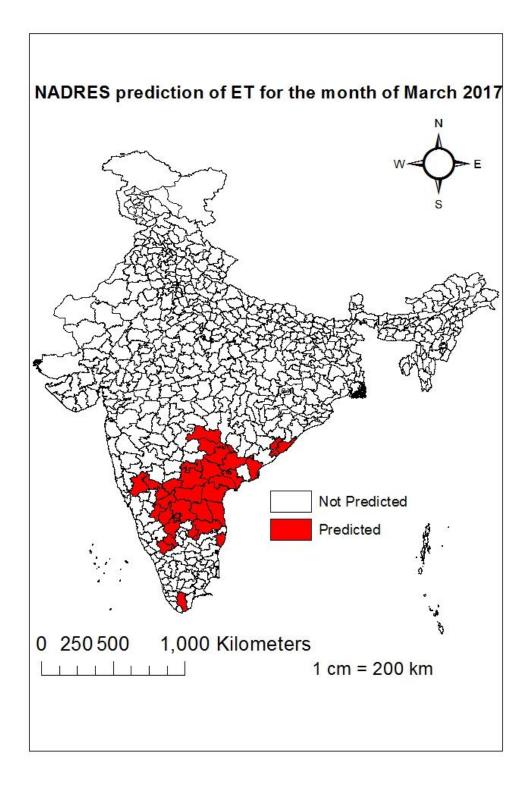
# iii) Livestock disease forewarning Maps

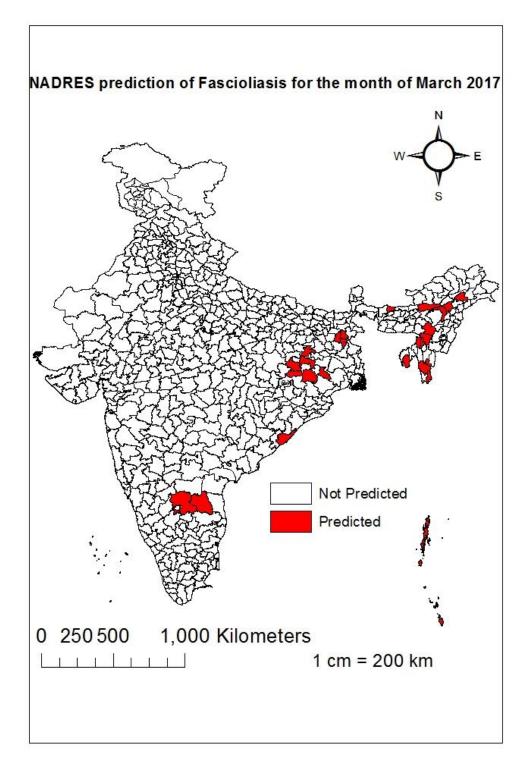


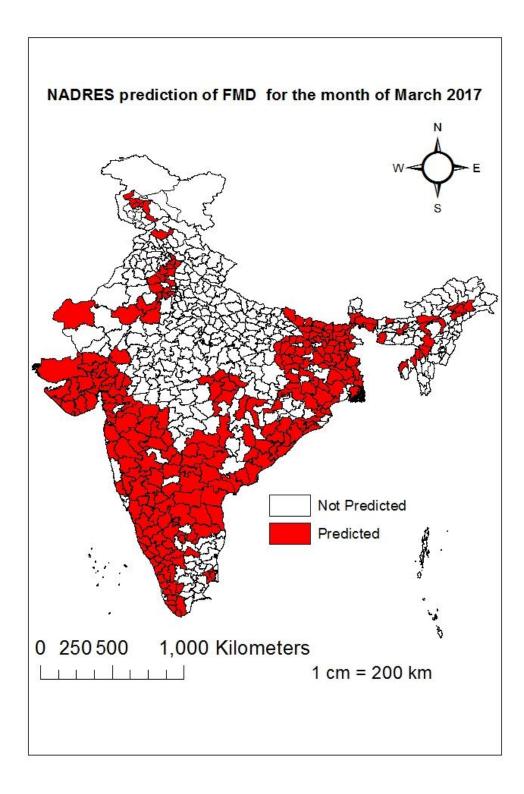


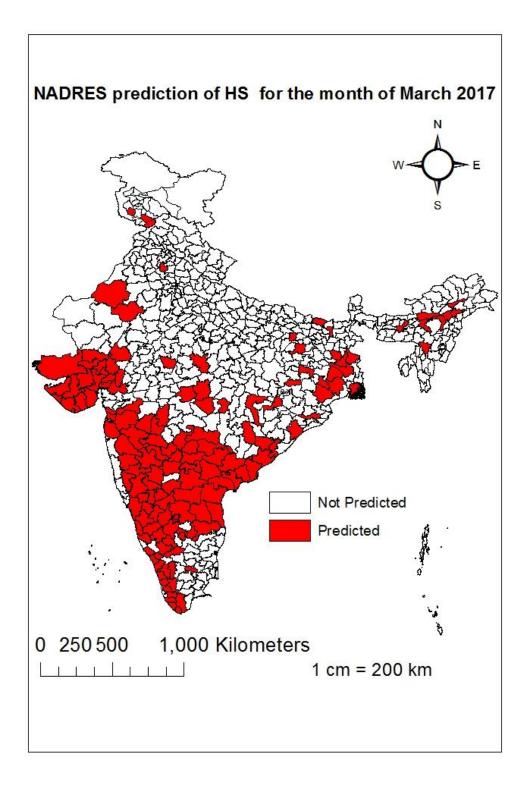


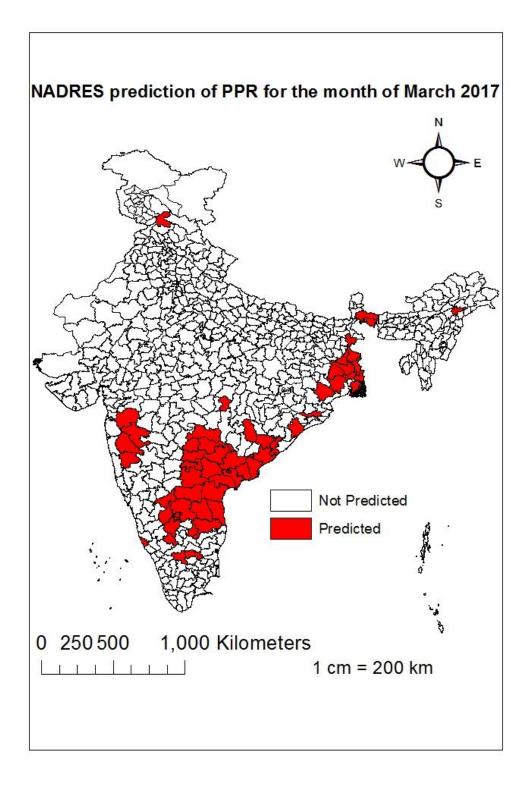


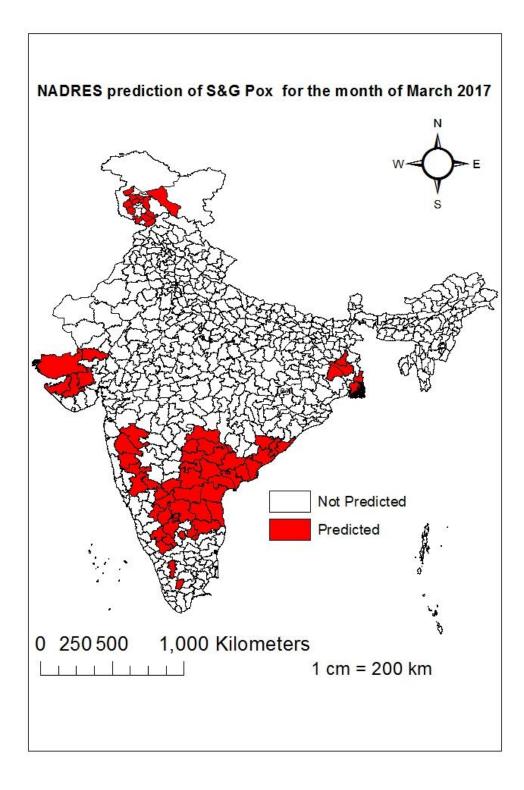


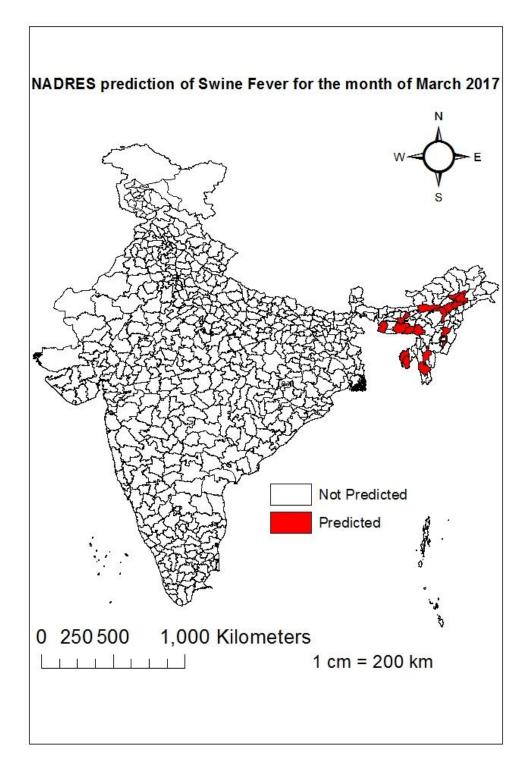


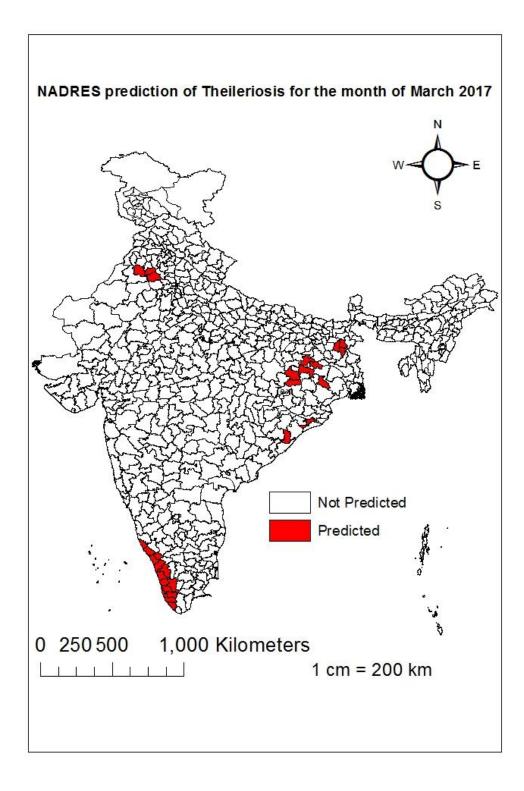


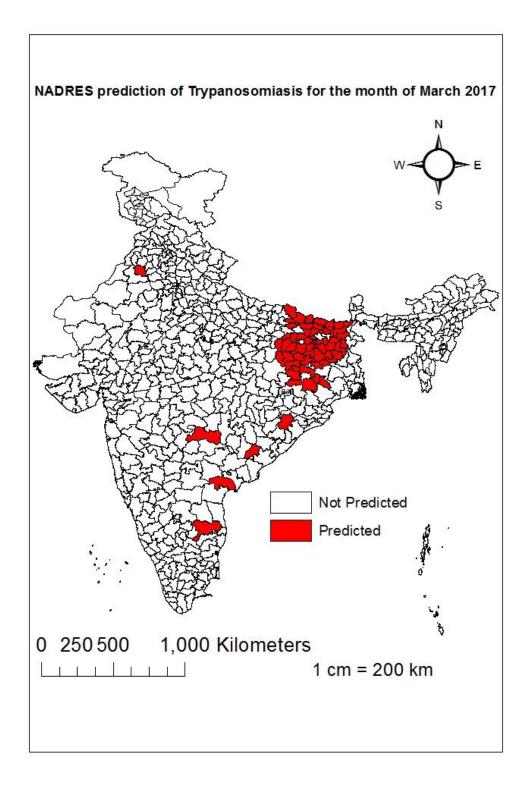












# **Appendix**

# A. SAS Code

libname July"C:\Users\admin\Desktop\nadres\July"; run; \*\import the final data and outbreak data\*/ proc sort data= July.finalnadres; by state\_name district\_name disease\_name month; run; proc sort data= July.mayoutbreak; by state\_name district\_name disease\_name month; run; data July.temp; merge July.finalnadres July.mayoutbreak; by state\_name district\_name disease\_name month; run; proc sql; update July.temp set number\_of\_outbreaks=0 where number\_of\_outbreaks=.; run; data July.finalJuly; set July.temp; outbrk1=outbreaks+number\_of\_outbreaks; run: **data** July.July\_final; set July.finalJuly; if outbrk1>=1 then outbrk=1; else outbrk=0; run;

proc export data=July.July\_final outfile="C:\Users\admin\Desktop\nadres\July\July1.xlsx";
run;

# **B.** Abbreviations

NADRES	: National Animal Disease Referral Expert System
SAS	: Statistical Analysis System
SPSS Social	: Statistical Product and Service Solutions (or Statistical Package for the Sciences)
BQ	: Black Quarter
BT	: Blue tongue
ET	: Enterotoxaemia
FMD	: Foot and Mouth disease
HS	: Haemorrhagic Septicaemia
PPR	: Peste des petits ruminants
S&G POX	: Sheep and Goat pox
SF	: Swine Fewer



ICAR-National Institute of Veterinary Epidemiology and Disease Informatics (ICAR\_NIVEDI),

P. B. No.6450, Yelahanka, Bengaluru-560064

Phone: +91-80-23093111, Fax: +91-80-23093222, Email: director.nivedi@icar.gov.in