



Information received on 12/01/2017 from Mr Devendra Chaudhry, Secretary, Animal Husbandry, Dairying & Fisheries, Ministry of Agriculture and Farmers Welfare, New Delhi, India

Summary

Report type	Follow-up report No. 1
Date of start of the event	19/10/2016
Date of confirmation of the event	24/10/2016
Report date	12/01/2017
Date submitted to OIE	12/01/2017
Reason for notification	Reoccurrence of a listed disease
Date of previous occurrence	05/09/2016
Manifestation of disease	Clinical disease
Causal agent	Highly pathogenic avian influenza virus
Serotype	H5N8
Nature of diagnosis	Laboratory (basic), Laboratory (advanced)
This event pertains to	a defined zone within the country
Related reports	<a href="#">Immediate notification (04/11/2016)</a> <a href="#">Follow-up report No. 1 (12/01/2017)</a>

New outbreaks (23)

Outbreak 1	Thalayazham, Thalayazham, Kottayam, KERALA					
Date of start of the outbreak	19/10/2016					
Outbreak status	Continuing (or date resolved not provided)					
Epidemiological unit	Village					
Affected animals	Species	Susceptible	Cases	Deaths	Destroyed	Slaughtered
	Birds	17308	2046	2046	15262	0

Outbreak 2	Neendoor, KERALA					
Date of start of the outbreak	19/10/2016					
Outbreak status	Continuing (or date resolved not provided)					
Epidemiological unit	Village					
Affected animals	Species	Susceptible	Cases	Deaths	Destroyed	Slaughtered
	Birds	4240	1220	1220	3020	0

Outbreak 3	Paippad, Paippad, Kottayam, KERALA					
Date of start of the outbreak	19/10/2016					
Outbreak status	Continuing (or date resolved not provided)					
Epidemiological unit	Village					
Affected animals	Species	Susceptible	Cases	Deaths	Destroyed	Slaughtered
	Birds	21268	418	418	20850	0

<b>Outbreak 4</b>	<b>Veliyanad, Veliyanad, Alappuzha, KERALA</b>					
<b>Date of start of the outbreak</b>	21/10/2016					
<b>Outbreak status</b>	Continuing (or date resolved not provided)					
<b>Epidemiological unit</b>	Village					
<b>Affected animals</b>	<b>Species</b>	<b>Susceptible</b>	<b>Cases</b>	<b>Deaths</b>	<b>Destroyed</b>	<b>Slaughtered</b>
	Birds	4623	1816	1816	2807	0

<b>Outbreak 5</b>	<b>Cheruthana, Cheruthana, Alappuzha, KERALA</b>					
<b>Date of start of the outbreak</b>	22/10/2016					
<b>Outbreak status</b>	Continuing (or date resolved not provided)					
<b>Epidemiological unit</b>	Village					
<b>Affected animals</b>	<b>Species</b>	<b>Susceptible</b>	<b>Cases</b>	<b>Deaths</b>	<b>Destroyed</b>	<b>Slaughtered</b>
	Birds	24280	8123	8123	16157	0

<b>Outbreak 6</b>	<b>Neelamperoor, Neelamperoor, Alappuzha, KERALA</b>					
<b>Date of start of the outbreak</b>	24/10/2016					
<b>Outbreak status</b>	Continuing (or date resolved not provided)					
<b>Epidemiological unit</b>	Village					
<b>Affected animals</b>	<b>Species</b>	<b>Susceptible</b>	<b>Cases</b>	<b>Deaths</b>	<b>Destroyed</b>	<b>Slaughtered</b>
	Birds	10770	700	700	10070	0

<b>Outbreak 7</b>	<b>Pallippad, Pallippad, Alappuzha, KERALA</b>					
<b>Date of start of the outbreak</b>	24/10/2016					
<b>Outbreak status</b>	Continuing (or date resolved not provided)					
<b>Epidemiological unit</b>	Village					
<b>Affected animals</b>	<b>Species</b>	<b>Susceptible</b>	<b>Cases</b>	<b>Deaths</b>	<b>Destroyed</b>	<b>Slaughtered</b>
	Birds	15740	1435	1435	14305	0

<b>Outbreak 8</b>	<b>Nedumudy, Nedumudy, Alappuzha, KERALA</b>					
<b>Date of start of the outbreak</b>	26/10/2016					
<b>Outbreak status</b>	Continuing (or date resolved not provided)					
<b>Epidemiological unit</b>	Village					
<b>Affected animals</b>	<b>Species</b>	<b>Susceptible</b>	<b>Cases</b>	<b>Deaths</b>	<b>Destroyed</b>	<b>Slaughtered</b>
	Birds	50671	10	10	50661	0

<b>Outbreak 9</b>	<b>Ambalapuzha North, Ambalapuzha North, Alappuzha, KERALA</b>					
<b>Date of start of the outbreak</b>	26/10/2016					
<b>Outbreak status</b>	Continuing (or date resolved not provided)					
<b>Epidemiological unit</b>	Village					
<b>Affected animals</b>	<b>Species</b>	<b>Susceptible</b>	<b>Cases</b>	<b>Deaths</b>	<b>Destroyed</b>	<b>Slaughtered</b>
	Birds	65014	13505	13505	51509	0

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<b>Outbreak 10</b>	<b>Aymanam, Aymanam, Kottayam, KERALA</b>					
<b>Date of start of the outbreak</b>	26/10/2016					
<b>Outbreak status</b>	Continuing (or date resolved not provided)					
<b>Epidemiological unit</b>	Village					
<b>Affected animals</b>	<b>Species</b>	<b>Susceptible</b>	<b>Cases</b>	<b>Deaths</b>	<b>Destroyed</b>	<b>Slaughtered</b>
	Birds	34388	6197	6197	28191	0

<b>Outbreak 11</b>	<b>Arpookkara, Arpookkara, Kottayam, KERALA</b>					
<b>Date of start of the outbreak</b>	26/10/2016					
<b>Outbreak status</b>	Continuing (or date resolved not provided)					
<b>Epidemiological unit</b>	Village					
<b>Affected animals</b>	<b>Species</b>	<b>Susceptible</b>	<b>Cases</b>	<b>Deaths</b>	<b>Destroyed</b>	<b>Slaughtered</b>
	Birds	28051	2506	2506	25545	0

<b>Outbreak 12</b>	<b>Champakkulam, Champakkulam, Alappuzha, KERALA</b>					
<b>Date of start of the outbreak</b>	27/10/2016					
<b>Outbreak status</b>	Continuing (or date resolved not provided)					
<b>Epidemiological unit</b>	Village					
<b>Affected animals</b>	<b>Species</b>	<b>Susceptible</b>	<b>Cases</b>	<b>Deaths</b>	<b>Destroyed</b>	<b>Slaughtered</b>
	Birds	38523	418	418	38105	0

<b>Outbreak 13</b>	<b>Edathua, Edathua, Alappuzha, KERALA</b>					
<b>Date of start of the outbreak</b>	27/10/2016					
<b>Outbreak status</b>	Continuing (or date resolved not provided)					
<b>Epidemiological unit</b>	Village					
<b>Affected animals</b>	<b>Species</b>	<b>Susceptible</b>	<b>Cases</b>	<b>Deaths</b>	<b>Destroyed</b>	<b>Slaughtered</b>
	Birds	77239	6935	6935	70304	0

<b>Outbreak 14</b>	<b>Veeyapuram, Veeyapuram, Alappuzha, KERALA</b>					
<b>Date of start of the outbreak</b>	27/10/2016					
<b>Outbreak status</b>	Continuing (or date resolved not provided)					
<b>Epidemiological unit</b>	Village					
<b>Affected animals</b>	<b>Species</b>	<b>Susceptible</b>	<b>Cases</b>	<b>Deaths</b>	<b>Destroyed</b>	<b>Slaughtered</b>
	Birds	900	170	170	730	0

<b>Outbreak 15</b>	<b>Pulincunnu, Pulincunnu, Alappuzha, KERALA</b>					
<b>Date of start of the outbreak</b>	29/10/2016					
<b>Outbreak status</b>	Continuing (or date resolved not provided)					
<b>Epidemiological unit</b>	Village					
<b>Affected animals</b>	<b>Species</b>	<b>Susceptible</b>	<b>Cases</b>	<b>Deaths</b>	<b>Destroyed</b>	<b>Slaughtered</b>
	Birds	28080	4500	4500	23580	0

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<b>Outbreak 16</b>	<b>Chennithala, Chennithala, Alappuzha, KERALA</b>					
<b>Date of start of the outbreak</b>	29/10/2016					
<b>Outbreak status</b>	Continuing (or date resolved not provided)					
<b>Epidemiological unit</b>	Village					
<b>Affected animals</b>	<b>Species</b>	<b>Susceptible</b>	<b>Cases</b>	<b>Deaths</b>	<b>Destroyed</b>	<b>Slaughtered</b>
	Birds	169460	783	783	168677	0

<b>Outbreak 17</b>	<b>Vechur, Vechur, Kottayam, KERALA</b>					
<b>Date of start of the outbreak</b>	31/10/2016					
<b>Outbreak status</b>	Continuing (or date resolved not provided)					
<b>Epidemiological unit</b>	Village					
<b>Affected animals</b>	<b>Species</b>	<b>Susceptible</b>	<b>Cases</b>	<b>Deaths</b>	<b>Destroyed</b>	<b>Slaughtered</b>
	Birds	38321	11009	11009	27312	0

<b>Outbreak 18</b>	<b>Purakkad, Purakkad, Alappuzha, KERALA</b>					
<b>Date of start of the outbreak</b>	01/11/2016					
<b>Outbreak status</b>	Continuing (or date resolved not provided)					
<b>Epidemiological unit</b>	Village					
<b>Affected animals</b>	<b>Species</b>	<b>Susceptible</b>	<b>Cases</b>	<b>Deaths</b>	<b>Destroyed</b>	<b>Slaughtered</b>
	Birds	10455	32	32	10423	0

<b>Outbreak 19</b>	<b>Punnappra South, Punnappra South, Alappuzha, KERALA</b>					
<b>Date of start of the outbreak</b>	06/11/2016					
<b>Outbreak status</b>	Continuing (or date resolved not provided)					
<b>Epidemiological unit</b>	Village					
<b>Affected animals</b>	<b>Species</b>	<b>Susceptible</b>	<b>Cases</b>	<b>Deaths</b>	<b>Destroyed</b>	<b>Slaughtered</b>
	Birds	3482	132	132	3350	0

<b>Outbreak 20</b>	<b>Thalavady, Thalavady, Alappuzha, KERALA</b>					
<b>Date of start of the outbreak</b>	06/11/2016					
<b>Outbreak status</b>	Continuing (or date resolved not provided)					
<b>Epidemiological unit</b>	Village					
<b>Affected animals</b>	<b>Species</b>	<b>Susceptible</b>	<b>Cases</b>	<b>Deaths</b>	<b>Destroyed</b>	<b>Slaughtered</b>
	Birds	6609	110	110	6499	0

<b>Outbreak 21</b>	<b>Karuvatta, Karuvatta, Alappuzha, KERALA</b>					
<b>Date of start of the outbreak</b>	17/11/2016					
<b>Outbreak status</b>	Continuing (or date resolved not provided)					
<b>Epidemiological unit</b>	Village					
<b>Affected animals</b>	<b>Species</b>	<b>Susceptible</b>	<b>Cases</b>	<b>Deaths</b>	<b>Destroyed</b>	<b>Slaughtered</b>
	Birds	49762	880	880	48882	0

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<b>Outbreak 22</b>	<b>Ambalappuzha South, Ambalappuzha South, Alappuzha, KERALA</b>					
<b>Date of start of the outbreak</b>	23/11/2016					
<b>Outbreak status</b>	Continuing (or date resolved not provided)					
<b>Epidemiological unit</b>	Village					
<b>Affected animals</b>	<b>Species</b>	<b>Susceptible</b>	<b>Cases</b>	<b>Deaths</b>	<b>Destroyed</b>	<b>Slaughtered</b>
	Birds	12626	3146	3146	9480	0

<b>Outbreak 23</b>	<b>Kumarakom, Kumarakom, Kottayam, KERALA</b>					
<b>Date of start of the outbreak</b>	24/11/2016					
<b>Outbreak status</b>	Continuing (or date resolved not provided)					
<b>Epidemiological unit</b>	Village					
<b>Affected animals</b>	<b>Species</b>	<b>Susceptible</b>	<b>Cases</b>	<b>Deaths</b>	<b>Destroyed</b>	<b>Slaughtered</b>
	Birds	2280	480	480	1800	0

<b>Summary of outbreaks</b>	<b>Total outbreaks: 23</b>					
<b>Total animals affected</b>	<b>Species</b>	<b>Susceptible</b>	<b>Cases</b>	<b>Deaths</b>	<b>Destroyed</b>	<b>Slaughtered</b>
	Birds	714090	66571	66571	647519	0
<b>Outbreak statistics</b>	<b>Species</b>	<b>Apparent morbidity rate</b>	<b>Apparent mortality rate</b>	<b>Apparent case fatality rate</b>	<b>Proportion susceptible animals lost*</b>	
	Birds	9.32%	9.32%	100.00%	100.00%	
*Removed from the susceptible population through death, destruction and/or slaughter						

## Epidemiology

<b>Source of the outbreak(s) or origin of infection</b>	Unknown or inconclusive
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## Control measures

<b>Measures applied</b>	Movement control inside the country Screening Disinfection / Disinfestation Dipping / Spraying Quarantine Stamping out Vaccination prohibited No treatment of affected animals
<b>Measures to be applied</b>	No other measures

## Diagnostic test results

<b>Laboratory name and type</b>	<b>Species</b>	<b>Test</b>	<b>Test date</b>	<b>Result</b>
Animal Disease Diagnostic Laboratory (Local laboratory)	Birds	real-time reverse transcriptase/polymerase chain reaction (RRT-PCR)	24/10/2016	Positive
Animal Disease Diagnostic Laboratory (Local laboratory)	Birds	reverse transcription - polymerase chain reaction (RT-PCR)	24/10/2016	Positive
Animal Disease Diagnostic Laboratory (Local laboratory)	Birds	real-time reverse transcriptase/polymerase chain reaction (RRT-PCR)	16/11/2016	Positive
Animal Disease Diagnostic Laboratory (Local laboratory)	Birds	reverse transcription - polymerase chain reaction (RT-PCR)	16/11/2016	Positive
National Institute of High Security Animal Diseases, Bhopal (National laboratory)	Birds	real-time reverse transcriptase/polymerase chain reaction (RRT-PCR)	29/10/2016	Positive

National Institute of High Security Animal Diseases, Bhopal (National laboratory)	Birds	real-time reverse transcriptase/polymerase chain reaction (RRT-PCR)	03/11/2016	Positive
National Institute of High Security Animal Diseases, Bhopal (National laboratory)	Birds	reverse transcription - polymerase chain reaction (RT-PCR)	29/10/2016	Positive
National Institute of High Security Animal Diseases, Bhopal (National laboratory)	Birds	reverse transcription - polymerase chain reaction (RT-PCR)	03/11/2016	Positive

### Future Reporting

The event is continuing. Weekly follow-up reports will be submitted.

### Map of outbreak locations

