



WORLD ORGANISATION FOR ANIMAL HEALTH
Protecting animals, preserving our future



OIE Sub-Regional training on applying Geographic Information Systems (GIS) for advanced spatial analysis of animal health data

16 – 19 October, 2018

Bangkok Thailand

Course programme

Tuesday 16 October: GIS refresher and analysis of disease count data	
08:00 – 08:30	Registration
08:30 – 08:45	Opening of the course
08:45 – 09:00	Course structure, logistics and practicalities
09:00 – 09:15	Participants introductions
09:15 – 09:30	Introduction to the training: objectives and outcomes
09:30 – 10:00	Lecture 1: Basics of GIS
10:00 – 10:30	Lecture 2: GIS and spatial epidemiology
10:30 – 11:00	<i>Morning tea / coffee</i>
11:00 – 11:45	Presentation: Disease outbreak reporting in
11:45 – 12:30	Practical 1: Creating a project: the 'base map'
12:30 – 13:30	<i>Lunch</i>
13:30 – 15:00	Practical 2: Exploratory analysis of the disease data
15:00 – 15:30	<i>Afternoon tea / coffee</i>
15:30 – 16:00	Lecture 3: Analysis of disease count data
16:00 – 17:00	Practical 3: Analysis of disease count data
Wednesday 17 October: Analysing spatial heterogeneity of disease	
08:30 – 09:00	Lecture 4: Disease distribution in space and time
09:00 – 10:30	Practical 4: Heatmaps and choropleth maps
10:30 – 11:00	<i>Morning tea / coffee</i>
11:00 – 12:30	Practical 5: Spatial point pattern analysis using SAGA
12:30 – 13:30	<i>Lunch</i>
13:30 – 14:00	Lecture 5: Cluster detection using the spatial scan statistic
14:00 – 15:00	Practical 6: SaTScan
15:00 – 15:30	<i>Afternoon tea / coffee</i>
15:30 – 16:15	Lecture 6: Cluster analysis using R
16:15 – 17:00	Group discussion: Disease count and distribution techniques in real-life problems

Thursday 18 October: Spatial modelling	
08:30 – 10:30	Practical 7: Cluster analysis using R
10:30 – 11:00	<i>Morning tea / coffee</i>
11:00 – 11:30	Lecture 7: Spatial disease modelling using R
11:30 – 12:30	Practical 8: Spatial disease modelling using R
12:30 – 13:30	<i>Lunch</i>
13:30 – 17:00	Practical 9: Spatial disease modelling using R
Friday 19 October: Spatial modelling	
09:00 – 12:30	Practical 10: Spatial disease modelling using R
12:30 – 13:30	<i>Lunch</i>
13:30 – 15:00	Trouble shooting
15:00 – 15:30	<i>Afternoon tea / coffee</i>
15:30 – 16:30	Lecture 8: What does it mean? Interpretation and inference of results
16:30 – 17:00	What next? Discussion and perspectives