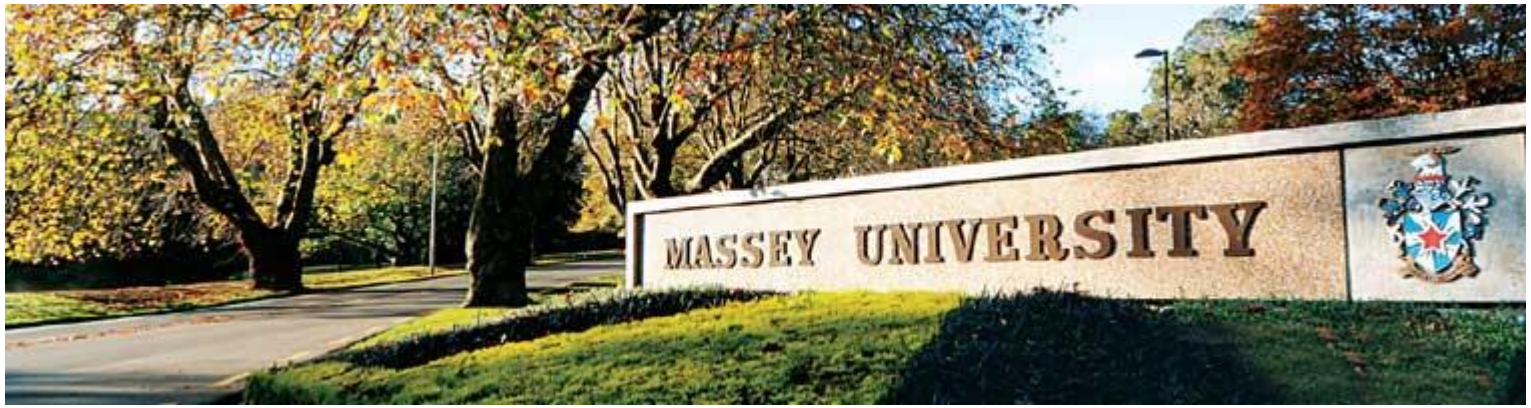
Advance GIS training: Country task



Art Subharat and Chris Compton

EpiCentre, School of Veterinary Science, Massey University

6 August 2021

NEW ZEALAND FOREIGN AFFAIRS & TRADE

OIE

MASSEY UNIVERSITY TE KUNENGA KI PŪREHUROA UNIVERSITY OF NEW ZEALAND

Australian Government Department of Agriculture, Water and the Environment

Timetable

Time	Topics	Instructors
10.00-10.05	Context	Ashish
10.05-10.20	Recap Spatial Risk Assessment	Chris
10.20-10.35	Country task assignment (SRA application), objectives, timeline	Art
10.35-11.35	Break out session by country team: planning, task	All
11.35-11.50	Report back by country team	Art
11.50-12.00	Closing remarks	Ronel

NEW ZEALAND FOREIGN AFFAIRS & TRADE

OIE

MASSEY UNIVERSITY TE KUNENGA KI PŪREHUROA UNIVERSITY OF NEW ZEALAND

Australian Government Department of Agriculture, Water and the Environment

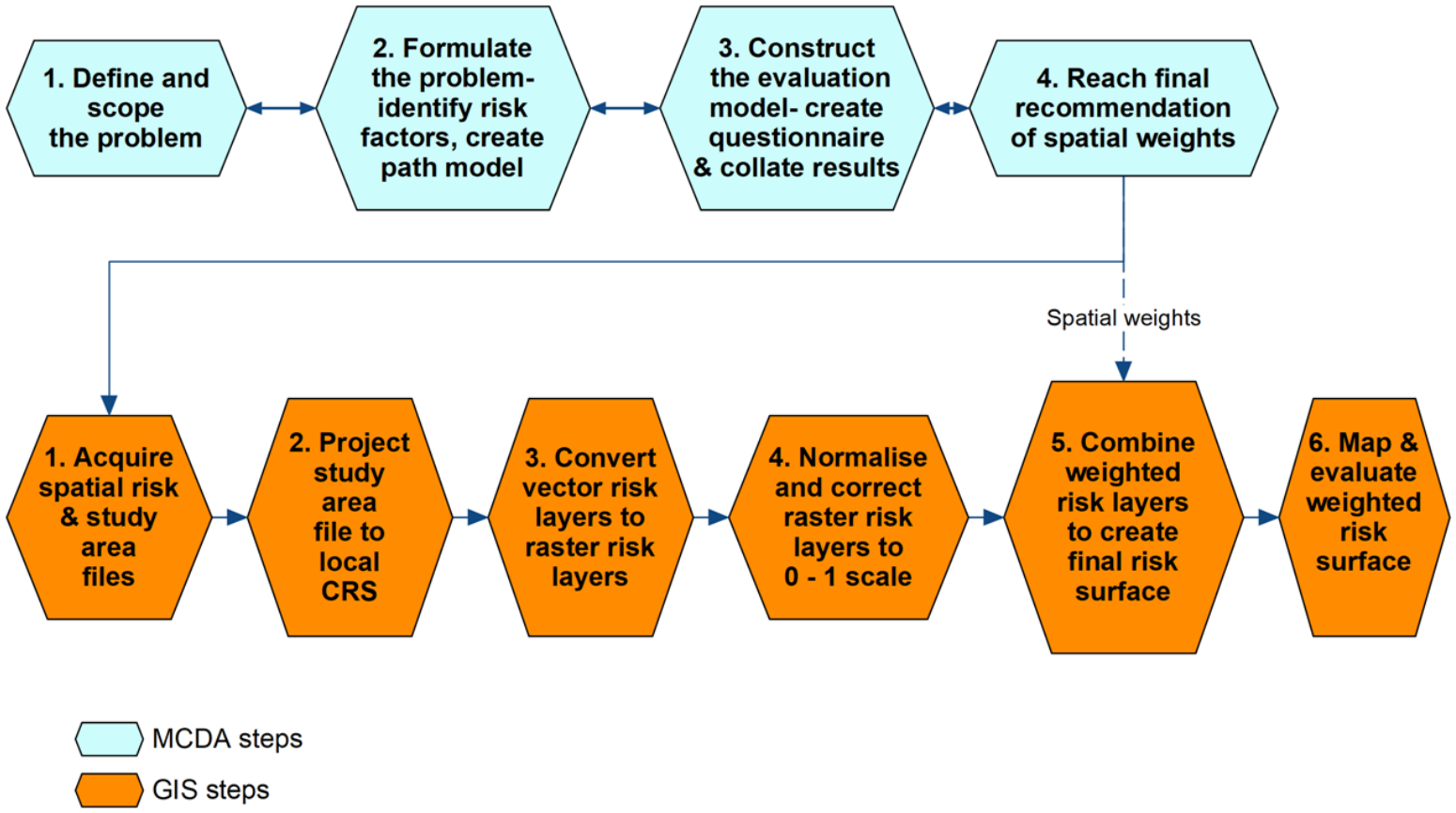
Country task

Objectives:

To apply skills you have learned in conducting spatial risk assessment for a specific (livestock) disease in your own country

*This task is compulsory to complete this OIE GIS training course

SRA framework



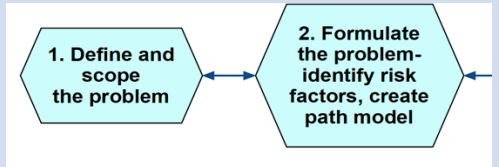
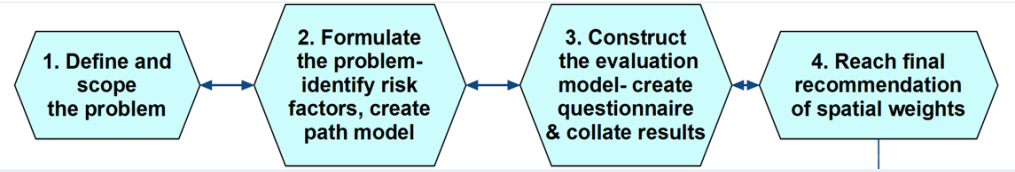
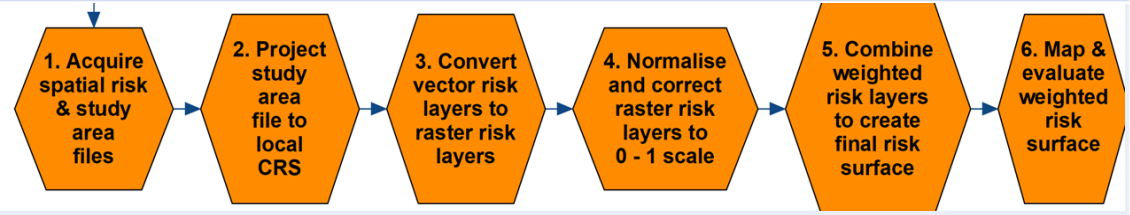
NEW ZEALAND FOREIGN AFFAIRS & TRADE

OIE

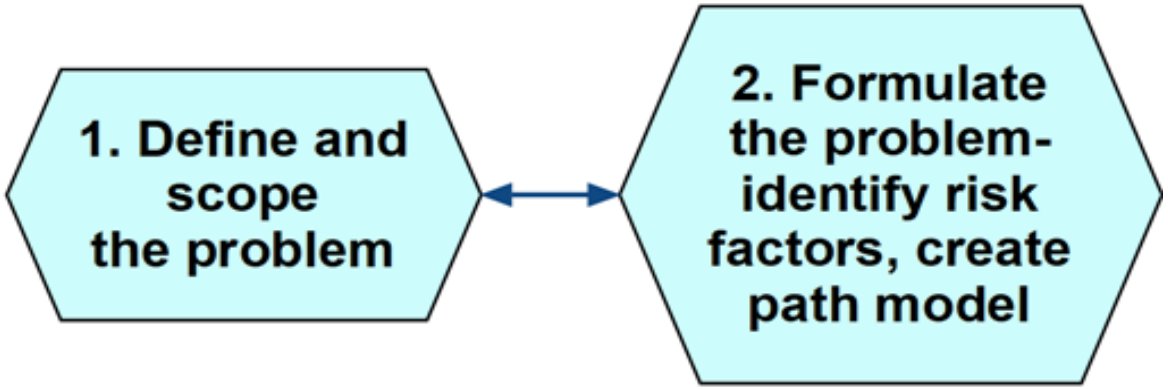
MASSEY UNIVERSITY TE KUNENGA KI PŪREHUROA UNIVERSITY OF NEW ZEALAND

Australian Government Department of Agriculture, Water and the Environment

Proposed timeline:

Date	Steps
6 August 2021 (breakout session)	Starting MCDA 1 - 2 
9 – 13 August 2021	Complete MCDA 1 - 4 
16 August 2021	Zoom 7th session: catch up on MCDA, Start on GIS steps
17 – 20 August 2021	Complete GIS steps 
23 August 2021	Submit PPT for mentor feedback
30 August 2021	Zoom 8th session: country team presentation

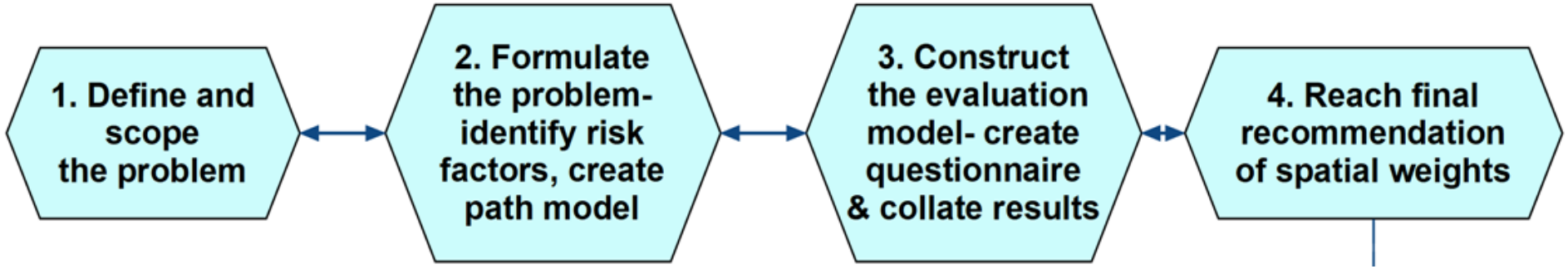
Breakout session



Teamwork:

- Which disease of interest?
- Identify risk factors (RFs)
- Formulate initial causal path diagram
- Determine which risk factors can be mapped
- Identify team leader (point of contact)
- Identify national experts (policy, field) for opinions (RFs and MCDA process)
- Identify potential data for GIS steps, outbreak data for validation

1st week (9 – 13 August)



Team work:

- Contact in-country expert, Focus group to revise spatial risk factors (if needed) (*OIE can support the process)
- Develop questionnaire and ask in-country expert to complete (including team members)
- Collate data and perform analysis using provided Excel Spreadsheet
- Reach final recommendation of spatial weight/ seek data for GIS steps
- Report progress on 16 August (7th zoom live session)

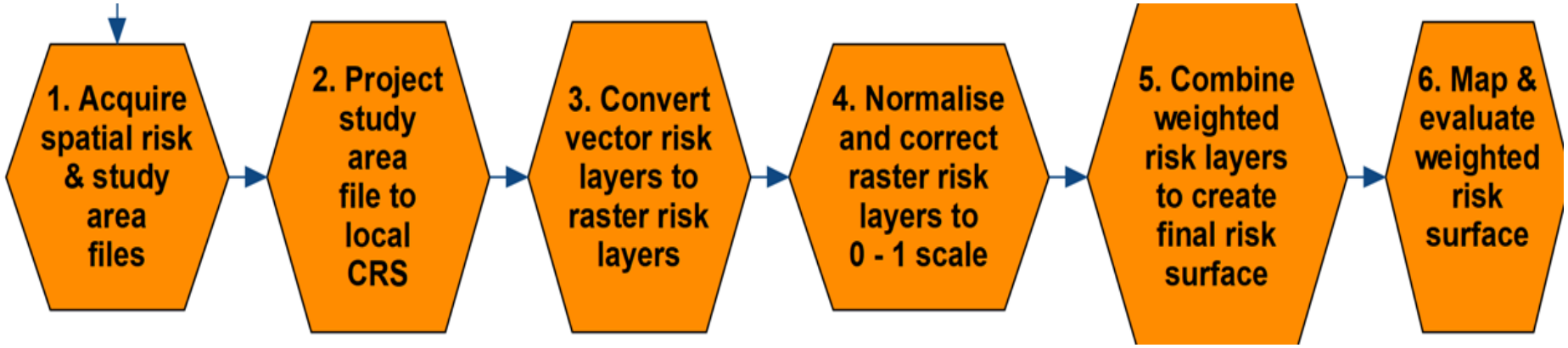
NEW ZEALAND FOREIGN AFFAIRS & TRADE

OIE

MASSEY UNIVERSITY TE KUNENGA KI PŪREHUROA UNIVERSITY OF NEW ZEALAND

Australian Government Department of Agriculture, Water and the Environment

2nd week (16 – 20 August)



Team work:

- Preparation of spatial layers
- Combine spatial layers to create final risk surface
- Validate with available outbreak data
- Prepare PPT presentation

NEW ZEALAND FOREIGN AFFAIRS & TRADE

OIE

MASSEY UNIVERSITY TE KUNENGA KI PŪREHUROA UNIVERSITY OF NEW ZEALAND

Australian Government Department of Agriculture, Water and the Environment

PPT Presentation

Template:

- Background and rationale (current disease situation)
- Methodology
- Results and validation
- Discussion
- Conclusion and potential next step

*Submit 1st draft on 23 August 2021 (mentor will provide feedback)

** Final presentation 30 August 2021

NEW ZEALAND FOREIGN AFFAIRS & TRADE

OIE

MASSEY UNIVERSITY TE KUNENGA KI PŪREHUROA UNIVERSITY OF NEW ZEALAND

Australian Government Department of Agriculture, Water and the Environment

Sources of spatial data

1. Geocoding locations (google maps)

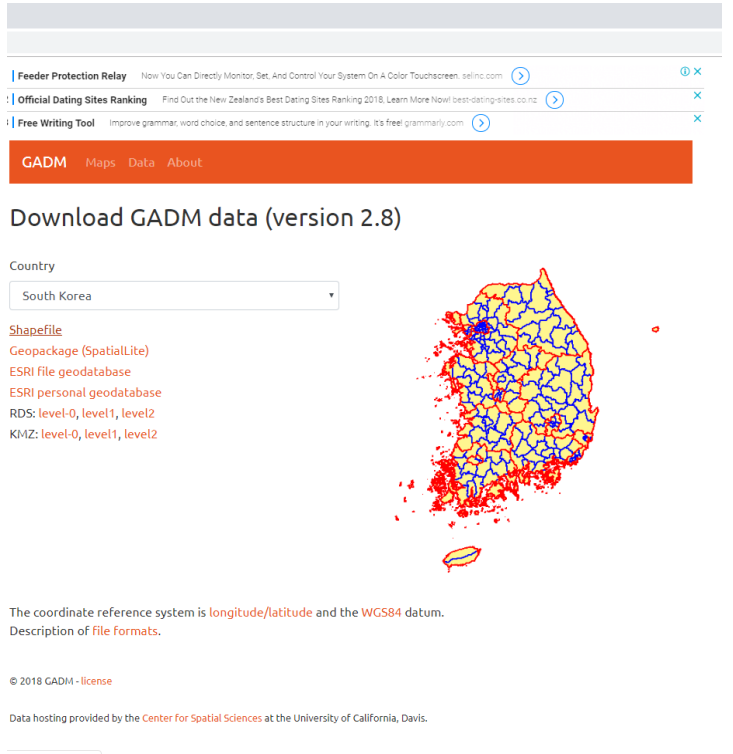
- To obtain geolocation (lat, long) of specific location

2. GADM database of Global Administrative Areas
https://gadm.org/download_country_v2.html

- To obtain shape files of administrative areas of specific country

3.Geofabrik data http://download.geofabrik.de/

- To obtain shape files of road (OpenStreetMap), railway, water way etc.



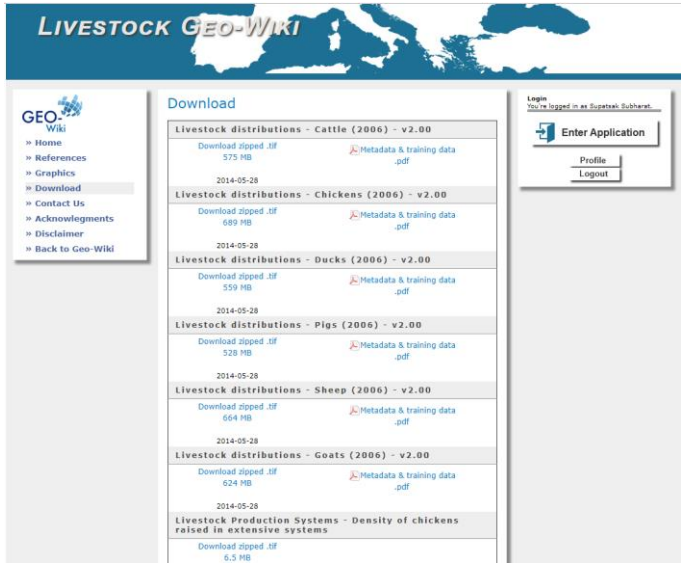
NEW ZEALAND FOREIGN AFFAIRS & TRADE

OIE

MASSEY UNIVERSITY
TE KUNENGA KI PŪREHUROA
UNIVERSITY OF NEW ZEALAND

Australian Government
Department of Agriculture, Water and the Environment

Sources of spatial data



4. FAO Gridded Livestock of the World

https://livestock.geo-wiki.org/download/

- To obtain raster map of livestock density (no. of animals per km^2)
- Need to create username and password

5. OIE WAHIS https://wahis.oie.int/#/analytics

- Web-based application to support vet services
- Timely and reliable source for early warning and response of emerging animal disease e.g. FMD, HPAI and etc.

NEW ZEALAND FOREIGN AFFAIRS & TRADE

OIE

MASSEY UNIVERSITY TE KUNENGA KI PŪREHUROA UNIVERSITY OF NEW ZEALAND

Australian Government Department of Agriculture, Water and the Environment

Thanks for your attention

NEW ZEALAND
FOREIGN AFFAIRS & TRADE

OIE

MASSEY UNIVERSITY
TE KUNENGA KI PŪREHUROA
UNIVERSITY OF NEW ZEALAND

Australian Government
Department of Agriculture,
Water and the Environment