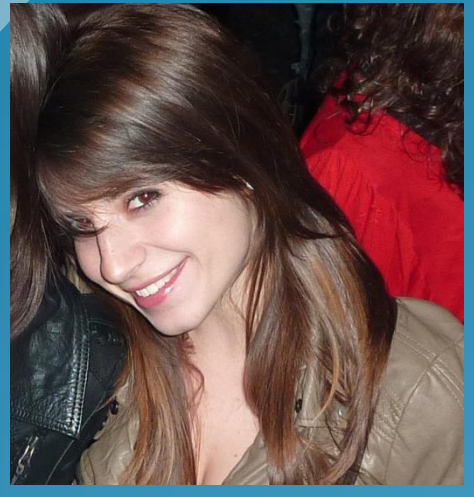




Estimating dog population in Maio Island, Cape Verde



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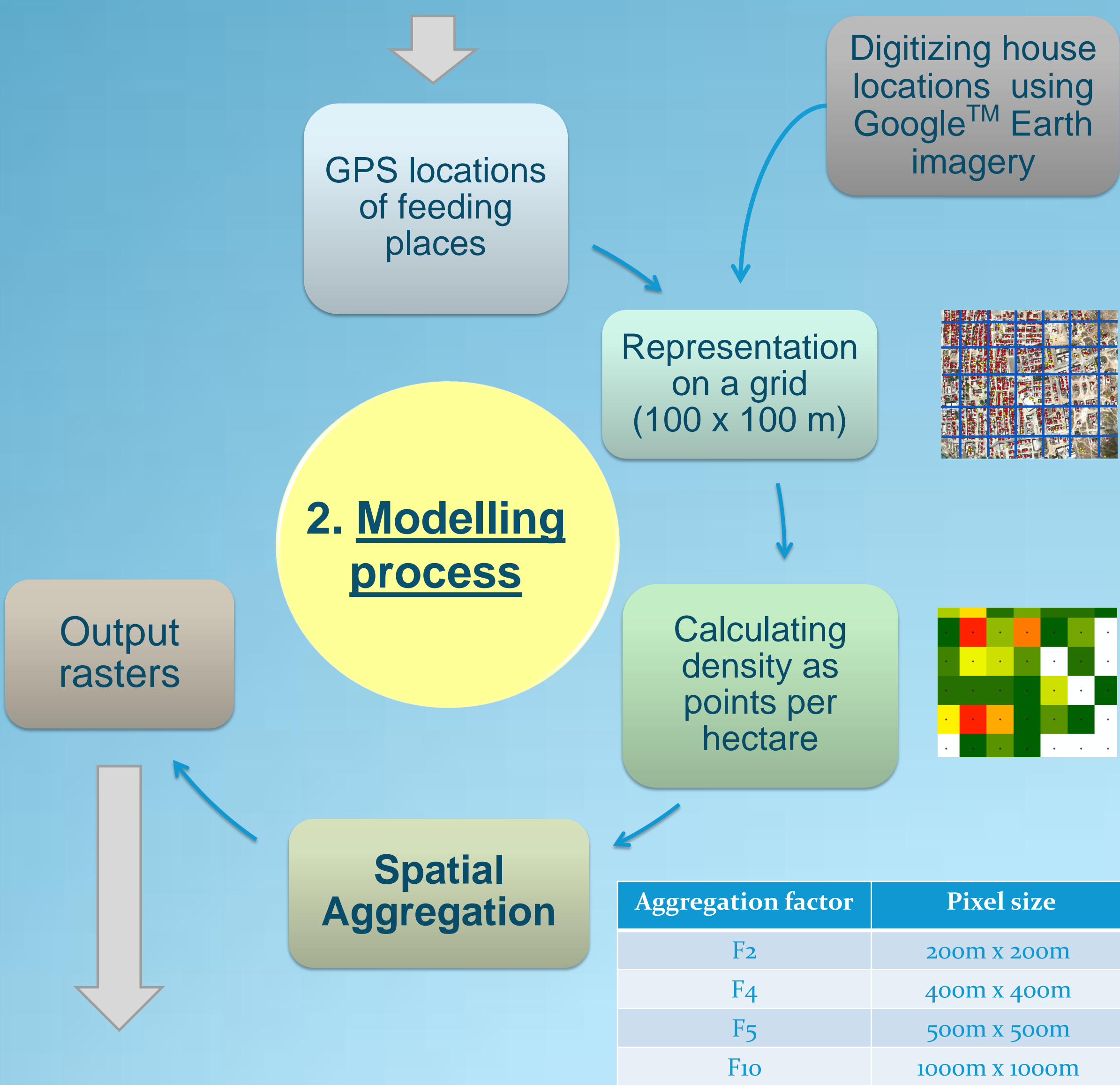
Objective

Estimating the total dog population on Maio Island, Cape Verde, based on their relationship with humans.

Workflow

1. Field work

- Six sampled villages
- Questionnaires applied in 1614 houses
- A total of 466 dogs were identified



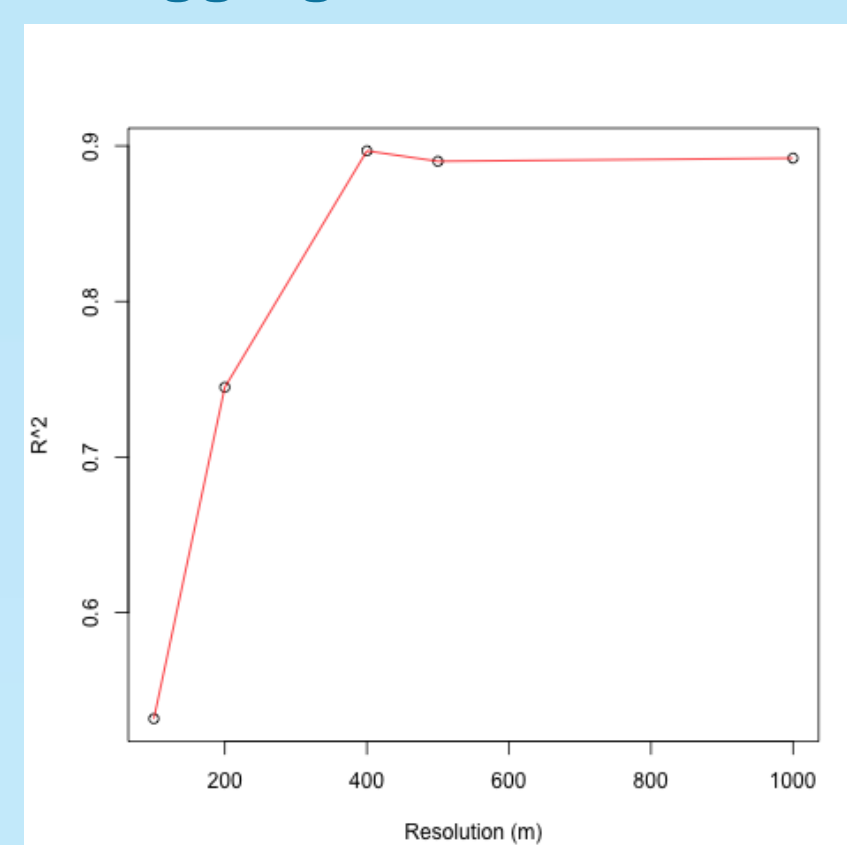
- Correlation between the number of dogs and number of households is highest for Aggregation factor F4.
- It is necessary to find a balance between high correlation and good resolution at village level.

3. Results

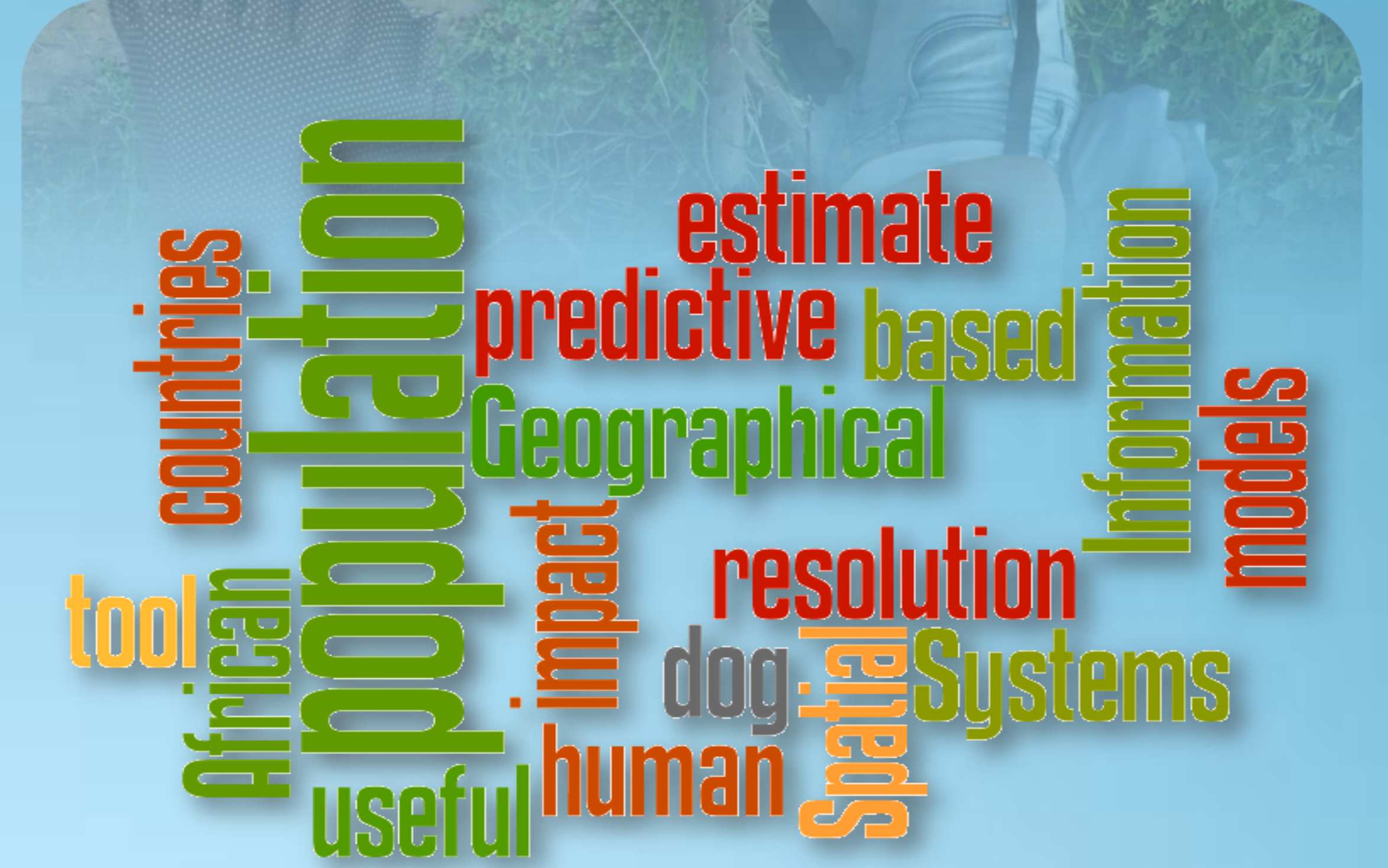
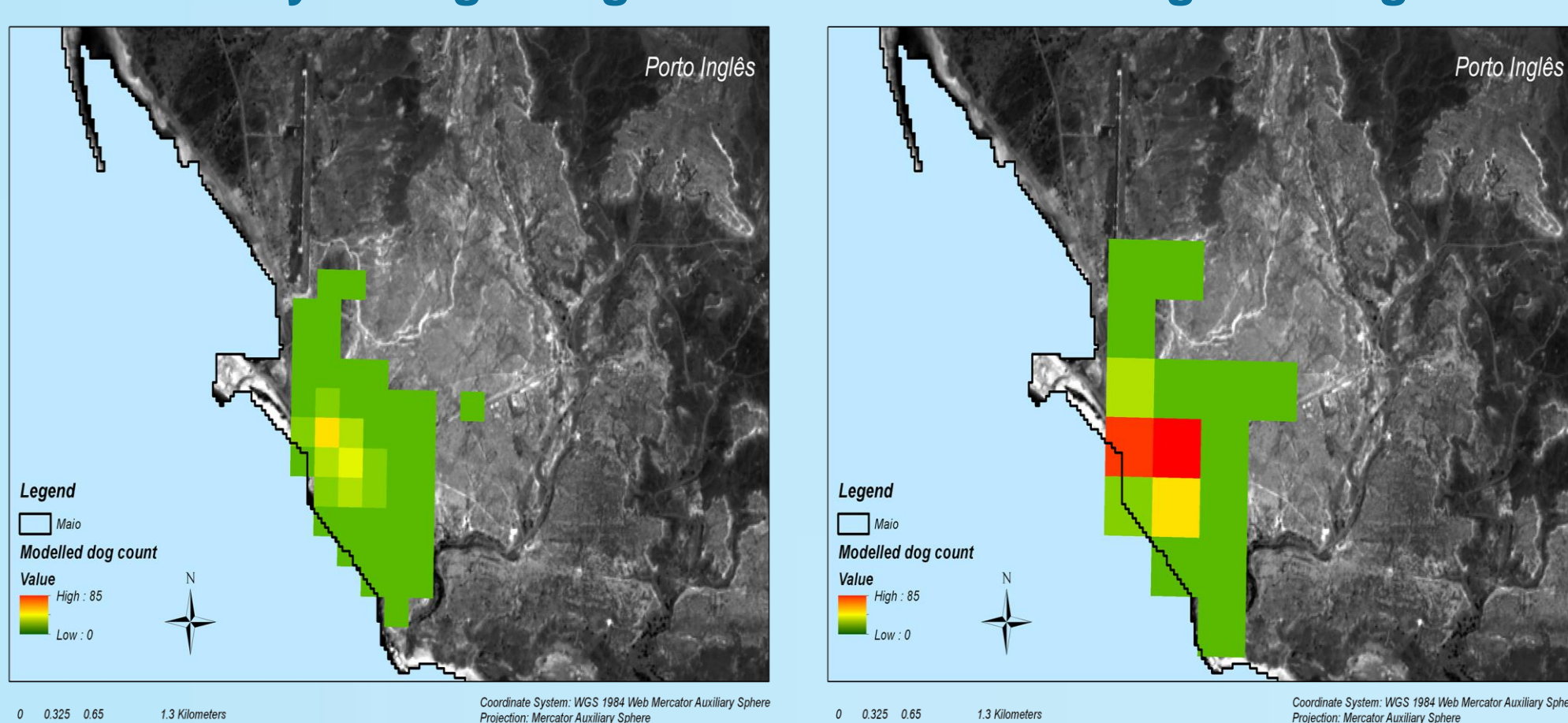
Total number of dog using 200 m and 400 m of Spatial Resolution.

Factor	Pixel size	Dog population in sampled villages	Dog population in Maio Island
F2	200m x 200m	462	542
F4	400m x 400m	430	528

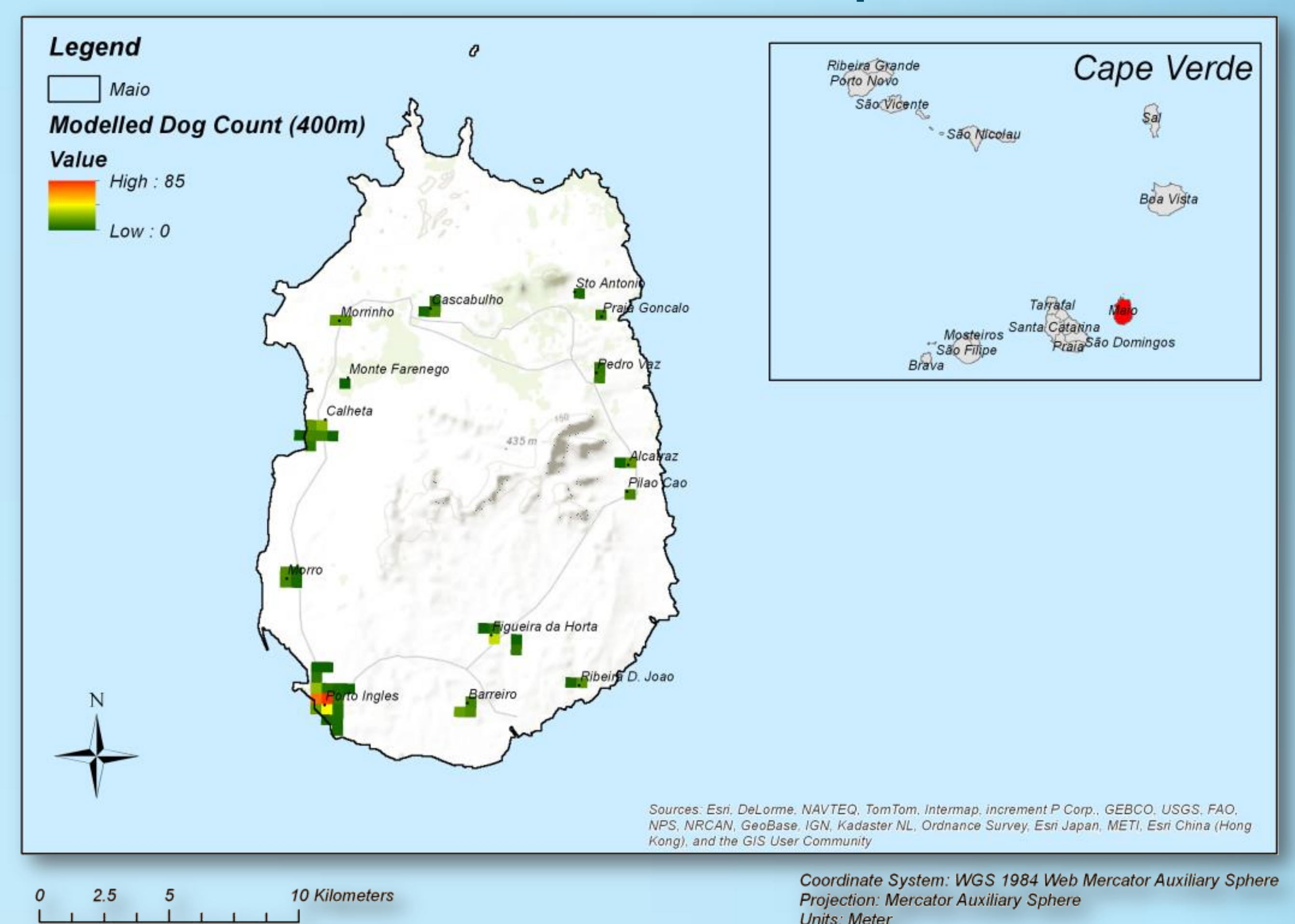
Correlation coefficients for aggregation factors.



Density of dog using F2 and F4 for Porto Inglês village.



Estimating dog distribution on Maio Island, Cape Verde, based on their relationship with humans.



Relevance

- First study using GIS tools to predict dog population in African Countries to our knowledge.
- Geographical Information Systems can be a useful tool to estimate dog population based on number of households.
- Spatial resolution has an impact on the precision of predictive models.

Acknowledgments



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