

Satellite imagery and its influence on the perception of landscape

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CONVERGENCE'**

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LANDSCAPE: PHYSICAL GEOGRAPHY & SOCIAL GEOGRAPHY

“A heterogeneous area comprising interacting ecosystems that are repeated in similar form throughout, including both natural and anthropogenic land cover, across which humans interact with their environment” - Mitchell et al. (2015)

“Symbolic environment created by human act of conferring meaning on nature and the environment”- Greider & Garkovich. (2010)

“The physical objects on a terrain just are there; but they can be meaningful as belonging to something that is called a landscape only if somebody views and understands them in such a way”- Viik (2011)

LANDSCAPE PERCEPTION

Meining (1979) states

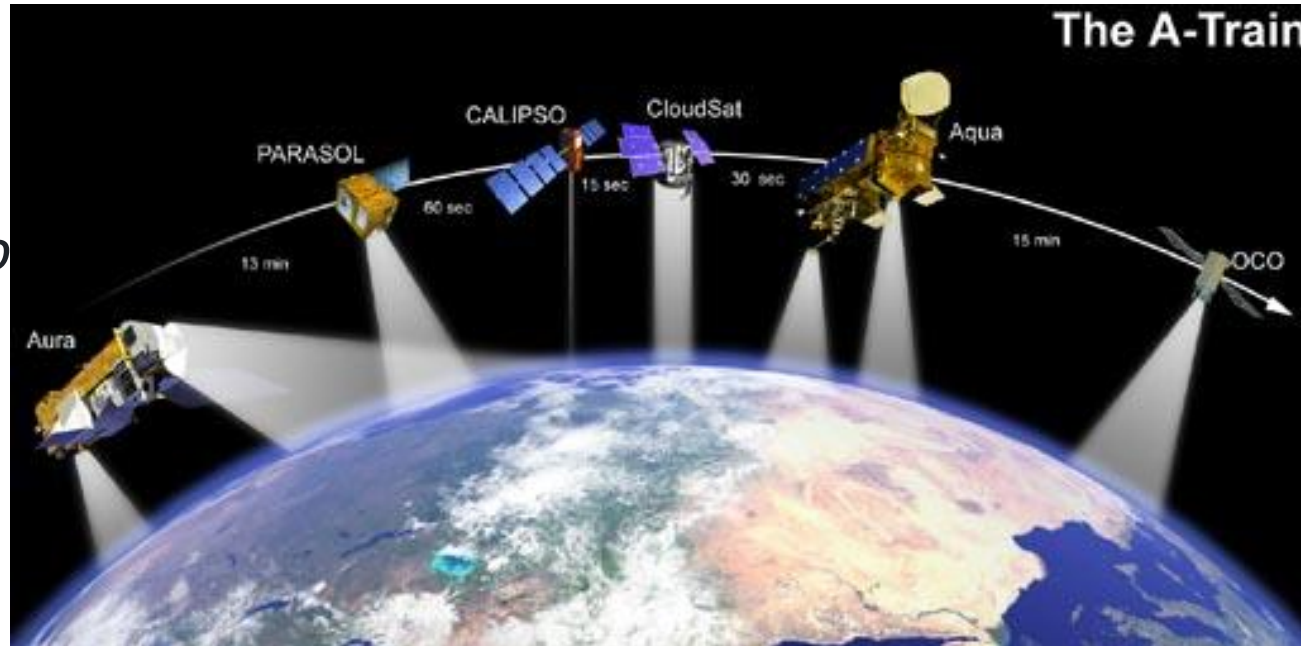
“...even though we gather together and look in the same direction at the same instant, we will not – we cannot – see the same landscape.”

Yungay, Chile



Human Perception And Technology

*Human-Technology
Relations*



DOES SATELLITE IMAGERY INFLUENCE LANDSCAPE PERCEPTION?

METHOD SUMMARY

- Measurement of satellite influence of perception before and after viewing satellite imagery.
- Quantitative responses to the survey and qualitative perceptions were recorded.
- Mixed-methods approach; social aspect to be examined while producing quantifiable metrics on the influence of the imagery.
- A survey which aimed to determine people's perceptions (Once the participant had completed the first survey)

Questions on attachment and survey profile

Cover Landscape



Español ▼

Bosque natural regenerado de especies nativas, donde no hay indicios claramente visibles de actividades humanas y los procesos ecológicos no se alteran significativamente.

¿Cuál es el porcentaje de suelo en la comuna de yungay que está cubierta por vegetación nativa?

10% 20% 30% 40% 50% 60% 70% 80% 90%

☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐



Types of cover

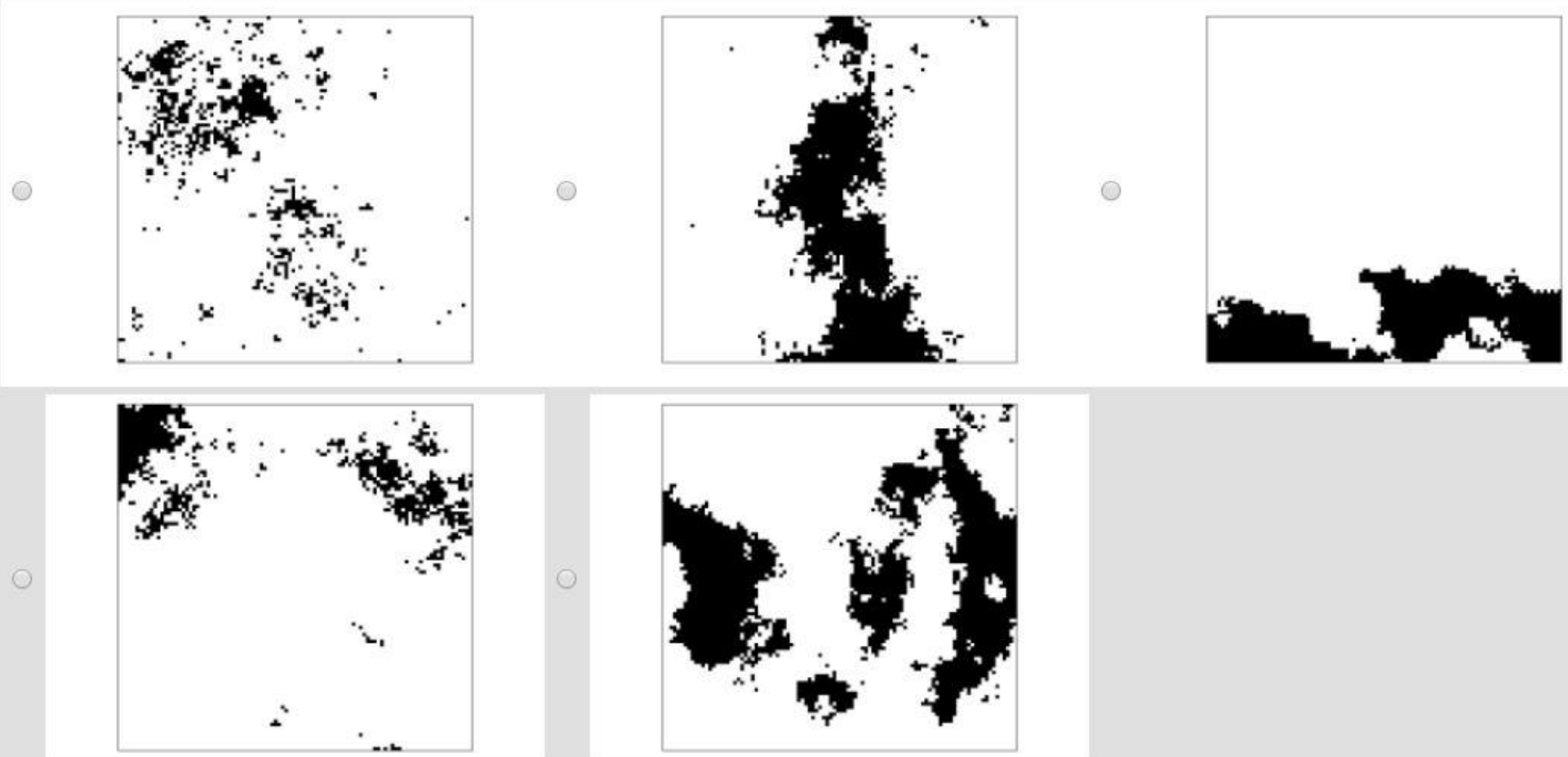
- Native vegetation
- Plantation
- Urban Settlements
- Agriculture

Example Question

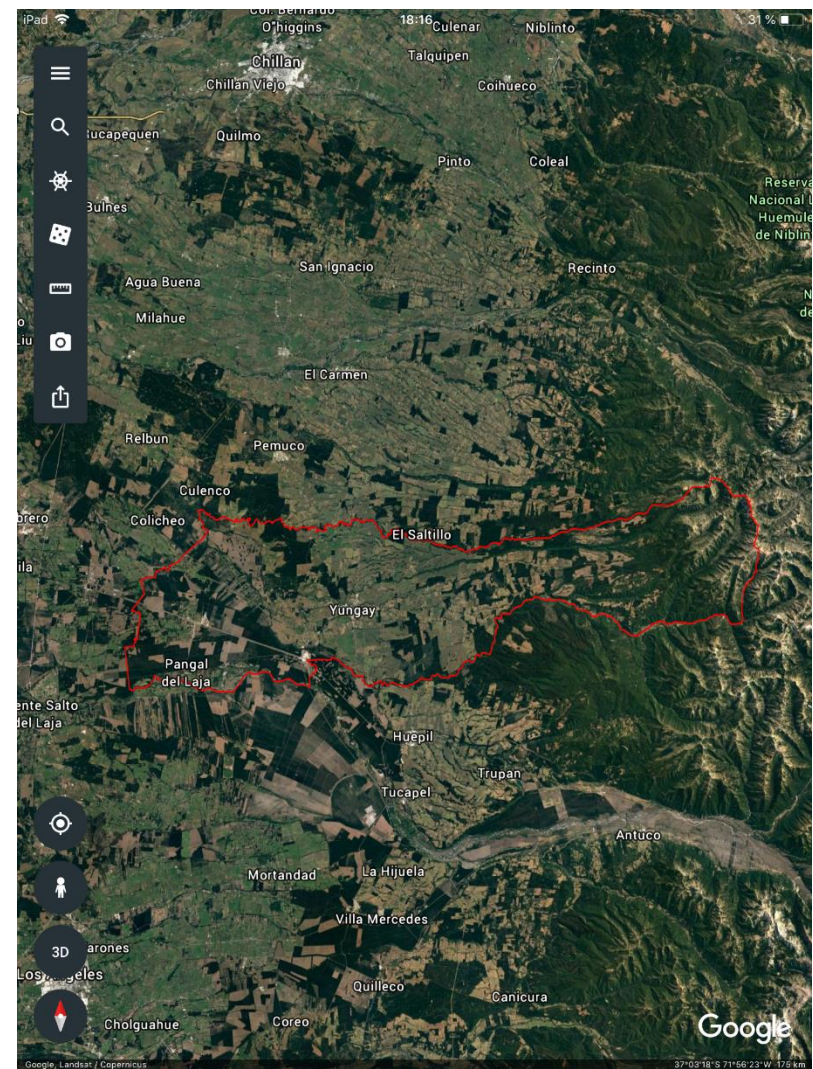
What is the cover percent of native vegetation in the area?

Fragmentation of the Landscape

In the following images, the black area represents parts of Yungay covered by urban settlement. Which image best matches the distribution of urban settlement in Yungay?



Google Earth Exploration



Case Study

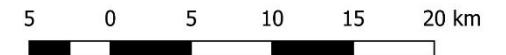
- Yungay is a city located in the 16th region of Chile ($37.122^{\circ}\text{S}, 72.0132^{\circ}\text{W}$)
- Yungay is located in the Andean foothills and covers an area of 823.5 km.

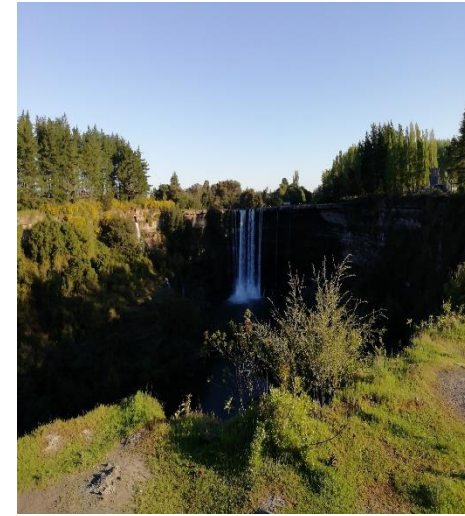


LEGEND

-  Yungay
-  Chile

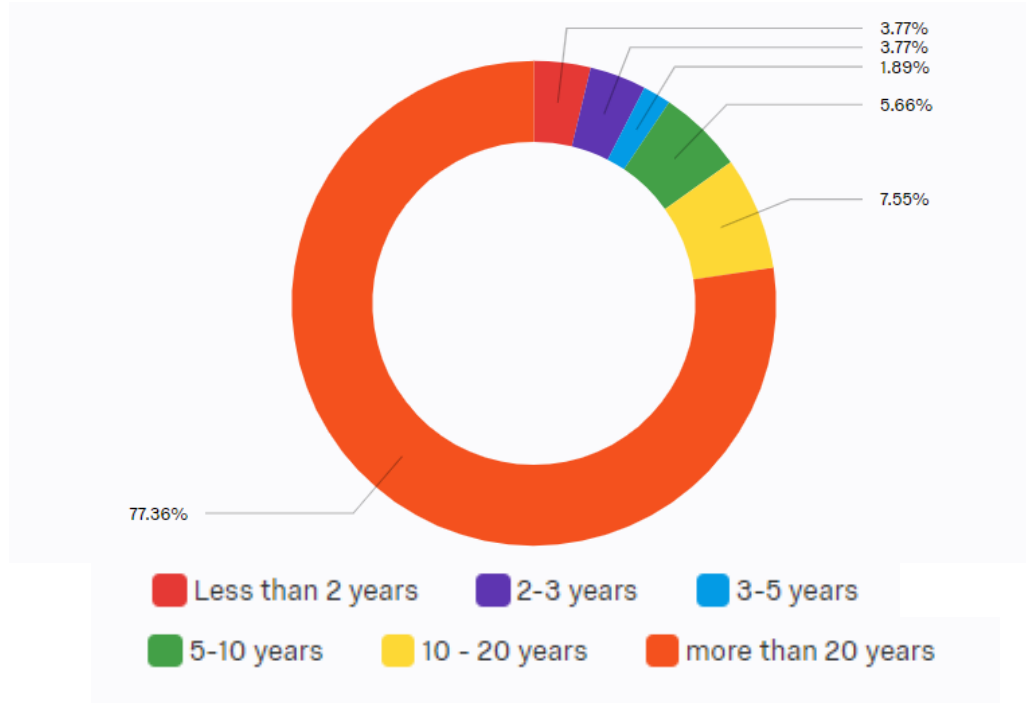
Google Satellite



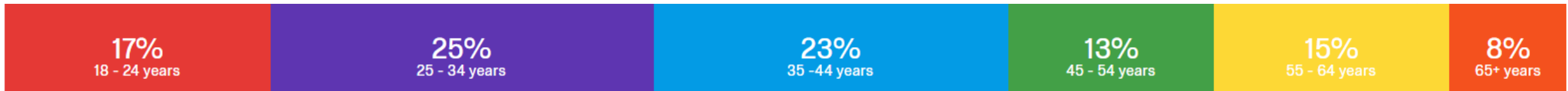
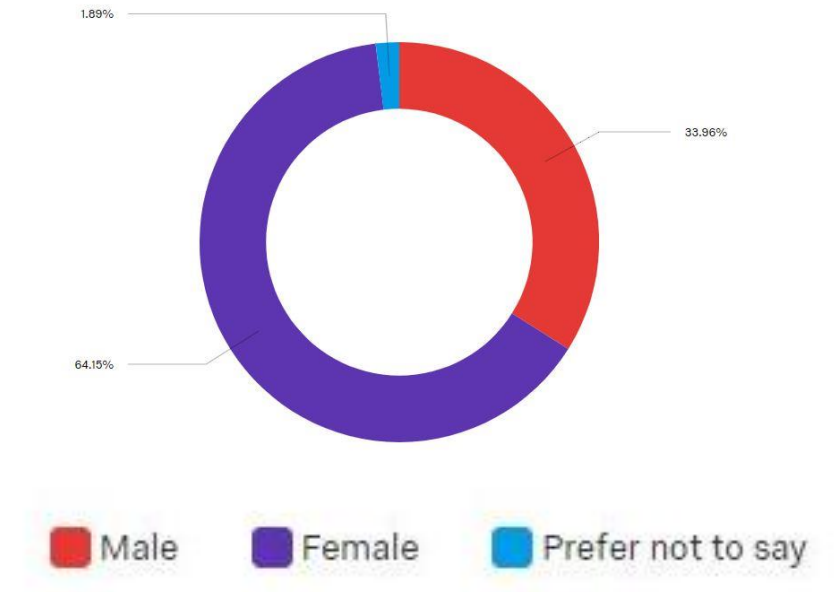


Results

Yungay Population



- 54 people surveyed
- 48 Completed both parts

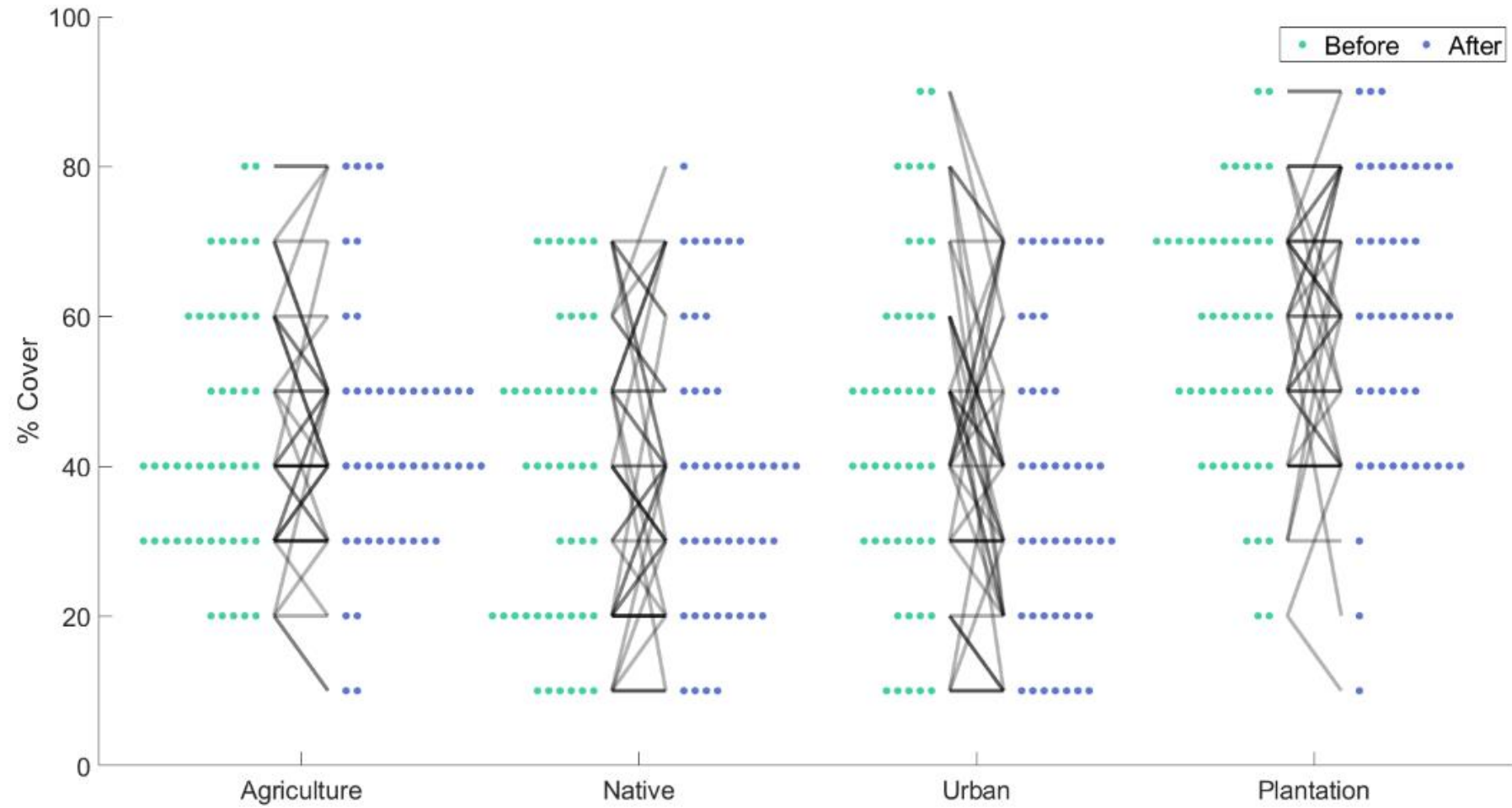


Attachment to landcover types

Results

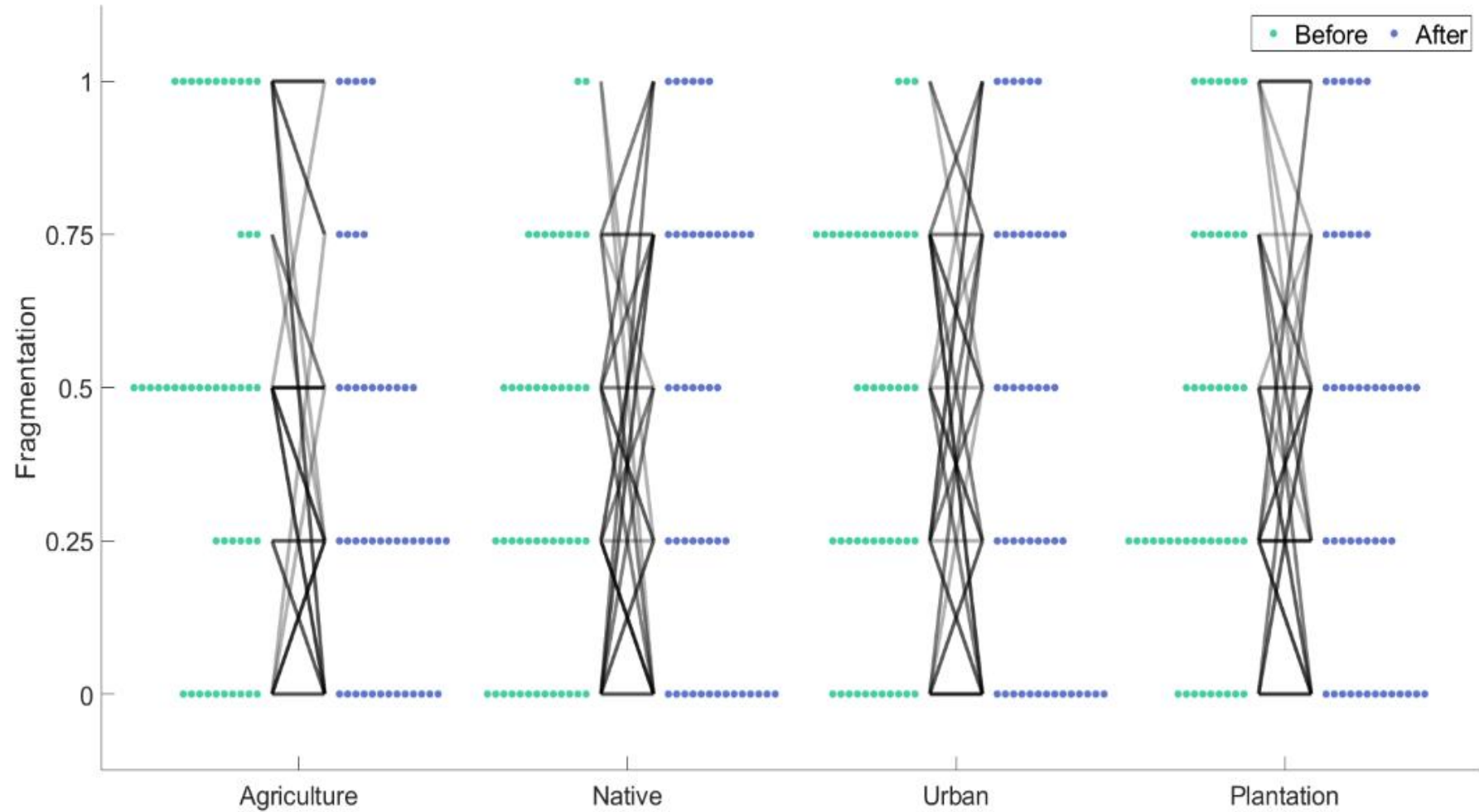


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— 1 — 2 — 3 — 4 — 5 or more

R



— 1 — 2 — 3 — 4 — 5 or more

Discussion and conclusion

Thanks



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