CODECHECK certificate for Landscape Character Assessment - Nigeria

Item	Value
Title	Landscape Character Assessment - Nigeria
Authors	Patrick Samson Udama Eneche et al.
Ref. paper	https://doi.org/10.17605/OSF.IO/E2K73
Codechecker	Betelham Gebretsadik, Dilli Paudel, Jay Gohil, Pitchaporn Likitpanjamanon
Date of Check	2024-09-26
Summary	Partial reproduction
Repository	https://github.com/PatrickEneche/landscape-character-nigeria
Ref. certificate	https://doi.org/10.17605/OSF.IO/MWBUQ

Table 1: CODECHECK summary

Output	Comment
2nd_level_lc_admin_legend_v2.png 1st_level_lc_without_legend.png	These are the outputs that the author puts on the pre-registration. Please refer to the output section.

Table 2: Summary of output files generated

Summary

The CODECHECK utilized the supplied dataset, but certain steps were omitted as they would take several hours to compute on the available hardware. Despite this, the generated output aligns with the reported results. However, it is not clear which output should be compared in the Python notebooks.

CODECHECKER notes

Installation prerequisites and computational environment

- The list of required libraries and their versions was not provided.
- The computational environment information was little to none.
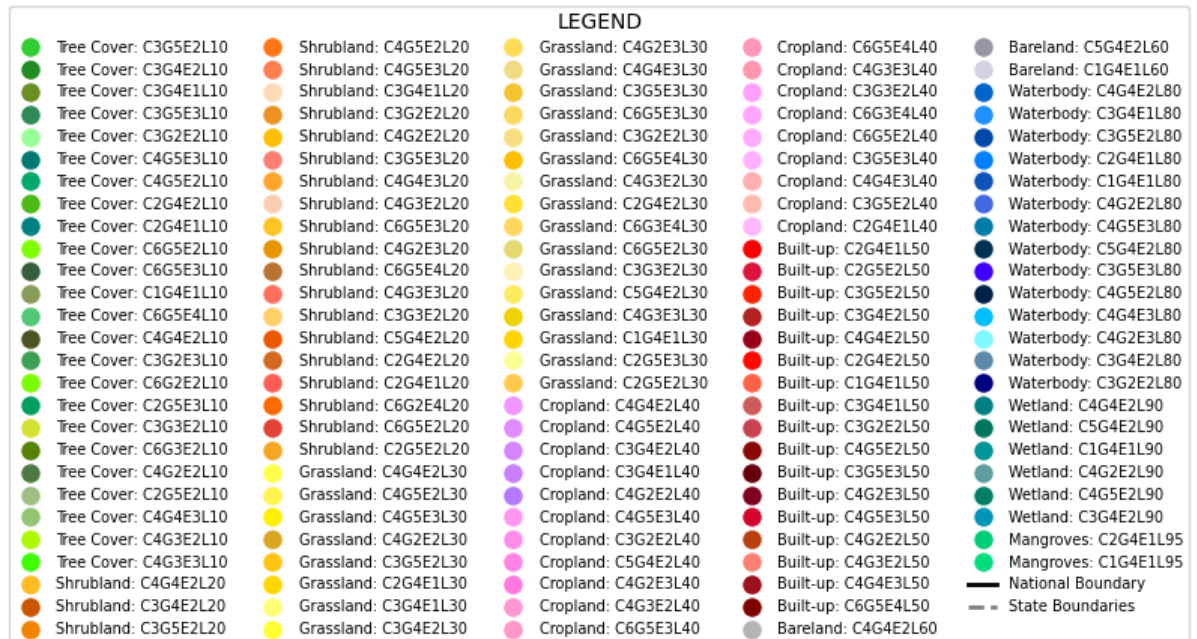
Data preparation

- It was not clear whether data needed to be downloaded or not.
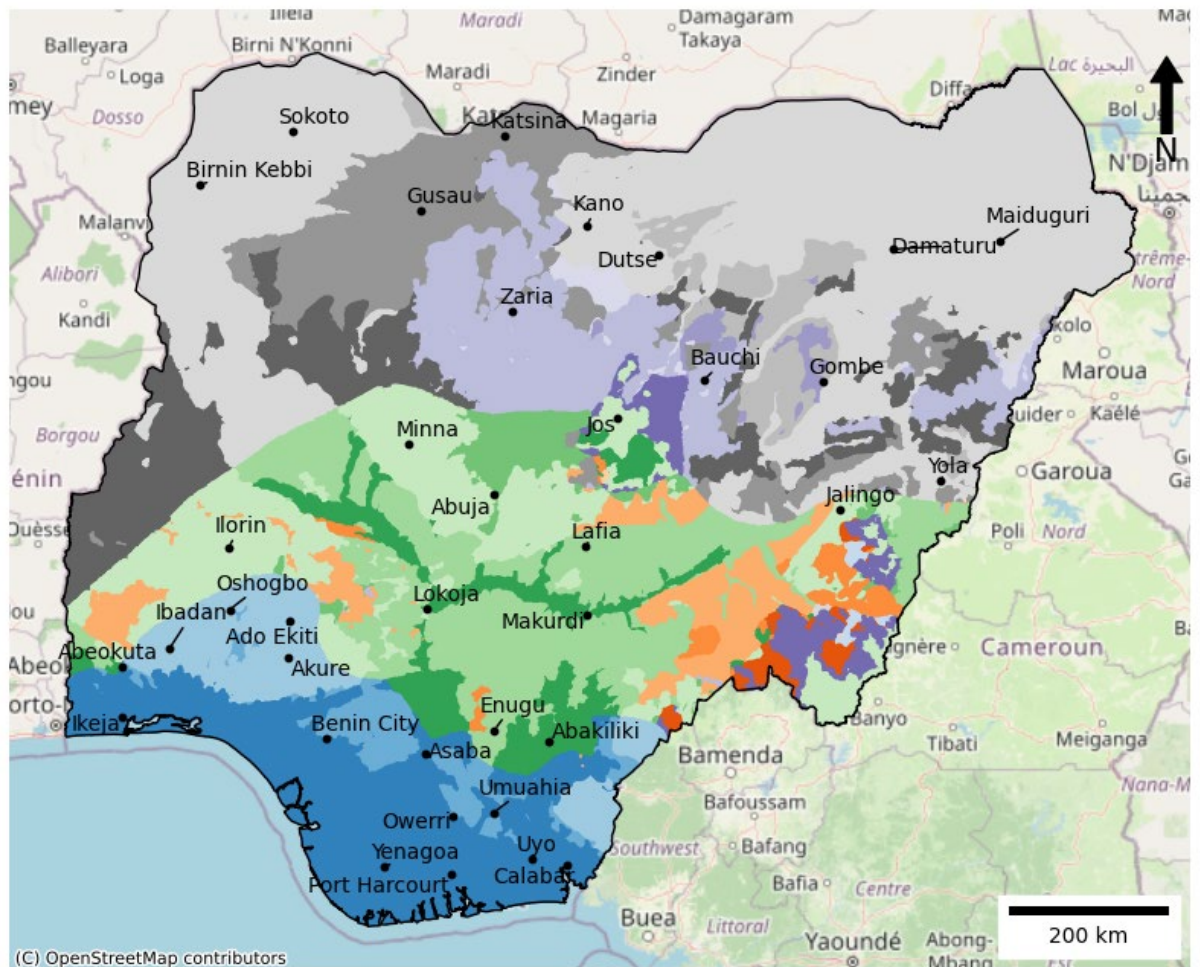
Running the code

- For cluster_determination.ipynb, at step 2, it would be better if the code was recompiled after updating (A summary of statistics is shown in the output, but the line of code that printed summary stats was not presented)
- For landscape_stats.ipynb, different version of pylandstats resulted in different keyword argument for ZonalAnalysis.
- Error while writing the file, issues with WKT for CRS (could be a versioning issue as others did not get this issue).
- Notebook on cluster determination: 3.1.1. "To download the result of this phase, just as other results, see the project repos - Git/Zenodo/DANS" was not clear where these results are.
- landscapes_stats notebook 2.3: za = pls.ZonalAnalysis
  This crashes due to memory constraints. It would be better to mention how much memory is needed to run the code.
- One of desired output, gap_statistics500_1comparison_plot.png, was not reproduced because it required a significant amount of time and/or computational resources. Hence, it was skipped.

Outputs

- 2nd_level_lc_admin_legend_v2.png

- 1st_level_lc_without_legend.png

Acknowledgements