Characterising complex agroforestry systems using remote sensing and Deep Learning

TETIS – Funded by **#DigitAg**

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Overall project

Context & Goal

- Provide reliable agricultural production data to government agencies.
- Support national adoption of next-generation monitoring systems via research, technology, and partnerships.

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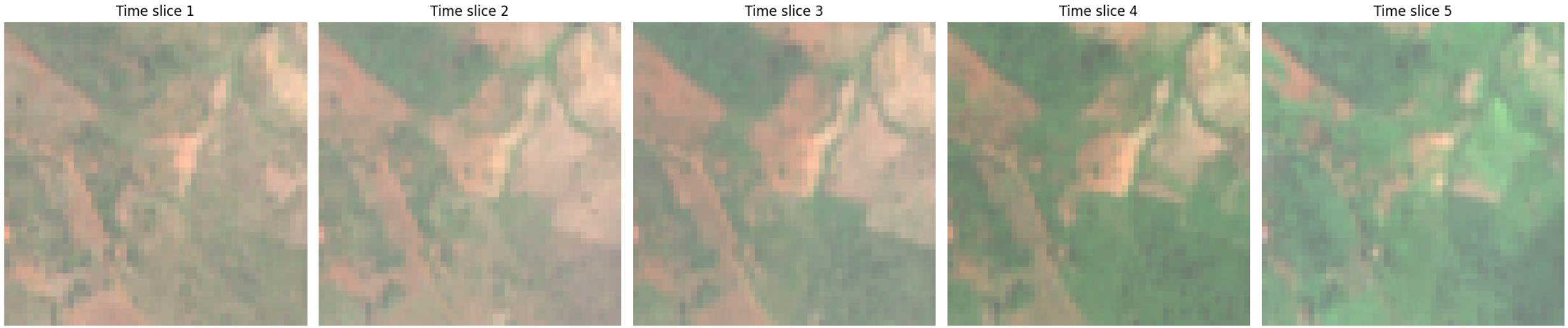
Collection and formatting of statellite data (Sentinel-2)

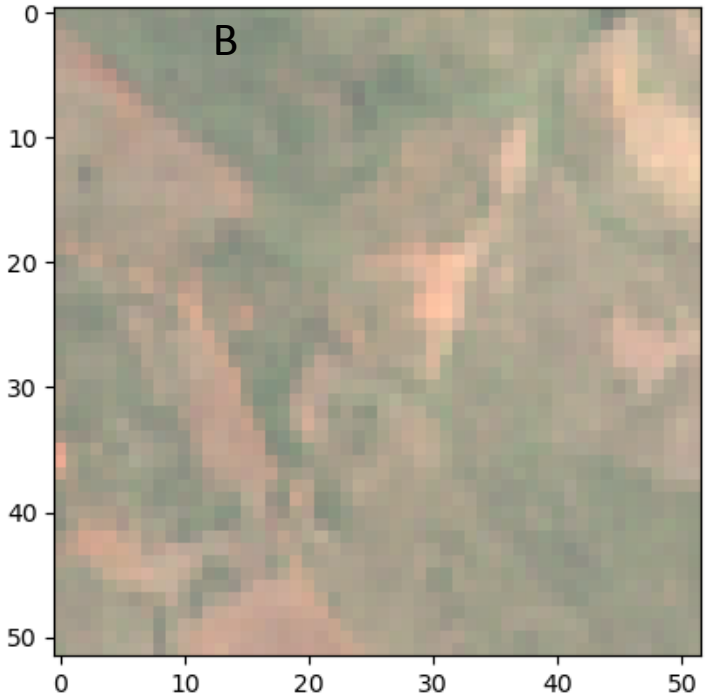


Bands

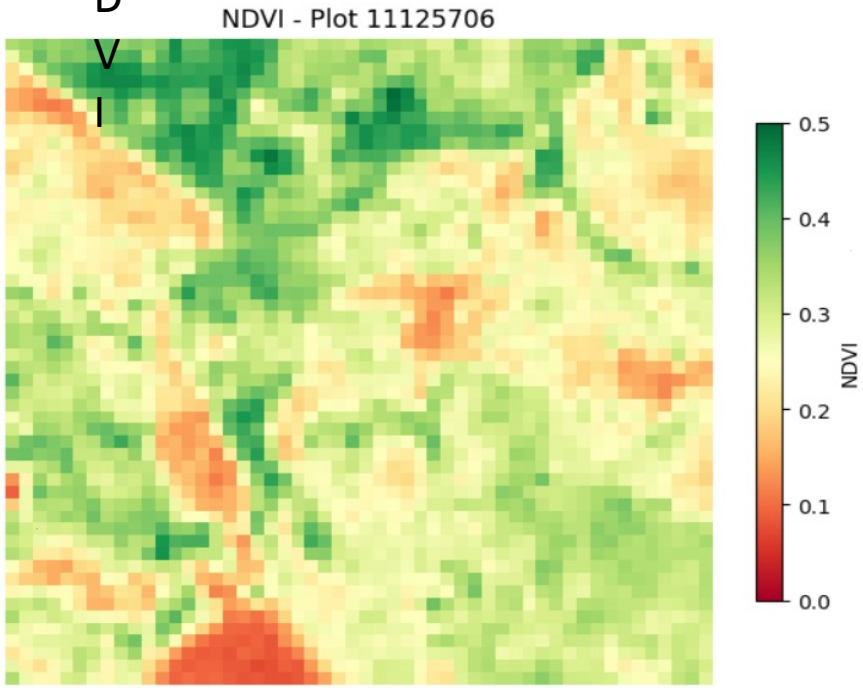
- B02 – Blue
- B03 – Green
- B04 – Red
- B08 – Near Infrared
- B05 – Red Edge 1
- B06 – Red Edge 2
- B07 – Red Edge 3
- B8A – Narrow NIR

- B11 –Short-Wave Infrared 1
- B12 – Short-Wave Infrared 2
- SCL – Scene Classification Map

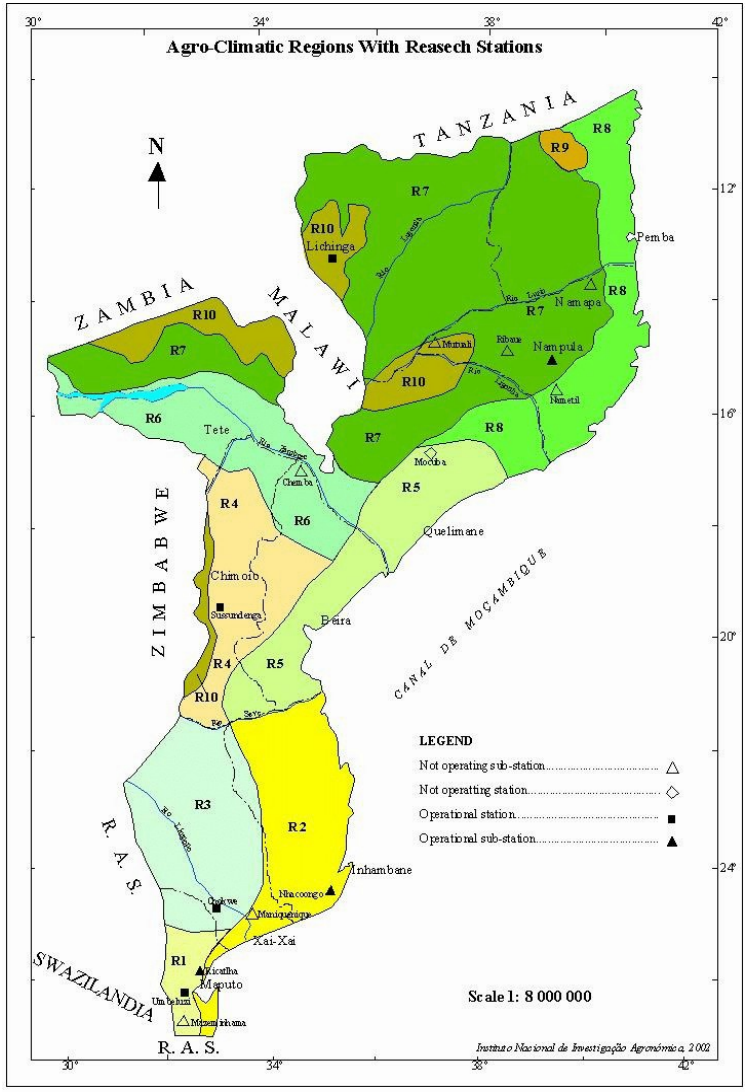
RGB



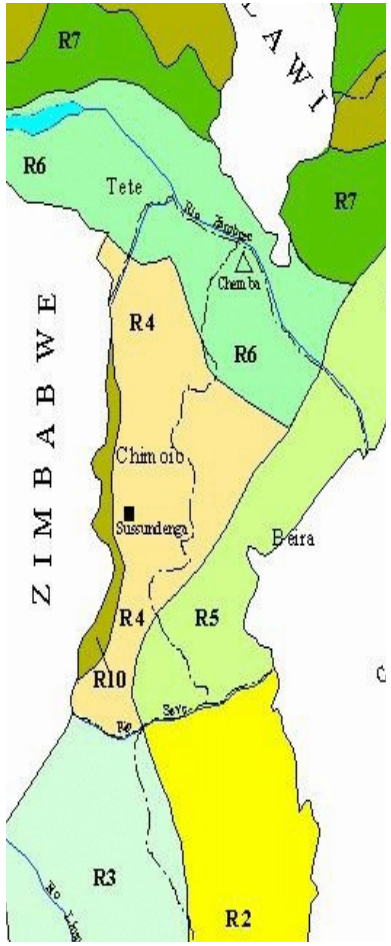
NDVI



Meteorological zones



ZOOM



Data selection is important

Next steps

- Bibliography of the recent methods for multi-label classification tasks based on time series.
- Proposal and design of a deep learning model or framework for analysing satellite data and mapping agroforestry systems.
- Evaluation of the proposed approach relative to a set of baseline.