GLOBAL ENVIRONMENTAL CHANGE (003GS)

Dr Alexander Antonarakis
Department of Geography, School of Global Studies

What's the module about

- This module is designed to enable students to understand and use remote sensing datasets to monitor and answer fundamental issues, with serious implications to the social and natural world.

- By the end of the module, students should have gained:
  - Understanding in differing remote sensing technologies and data characteristics.
  - Understanding in how remote sensing can be used to answer scientific questions on environment, society, and climate change.
  - Ability in preparing and analysing digital data using ArcGIS and Matlab.
  - Ability to analyse and evaluate current debates in remote sensing and land change science.

We will monitor and assess changes to the atmosphere, cryosphere (ice), hydrosphere (water), and biosphere (plants)
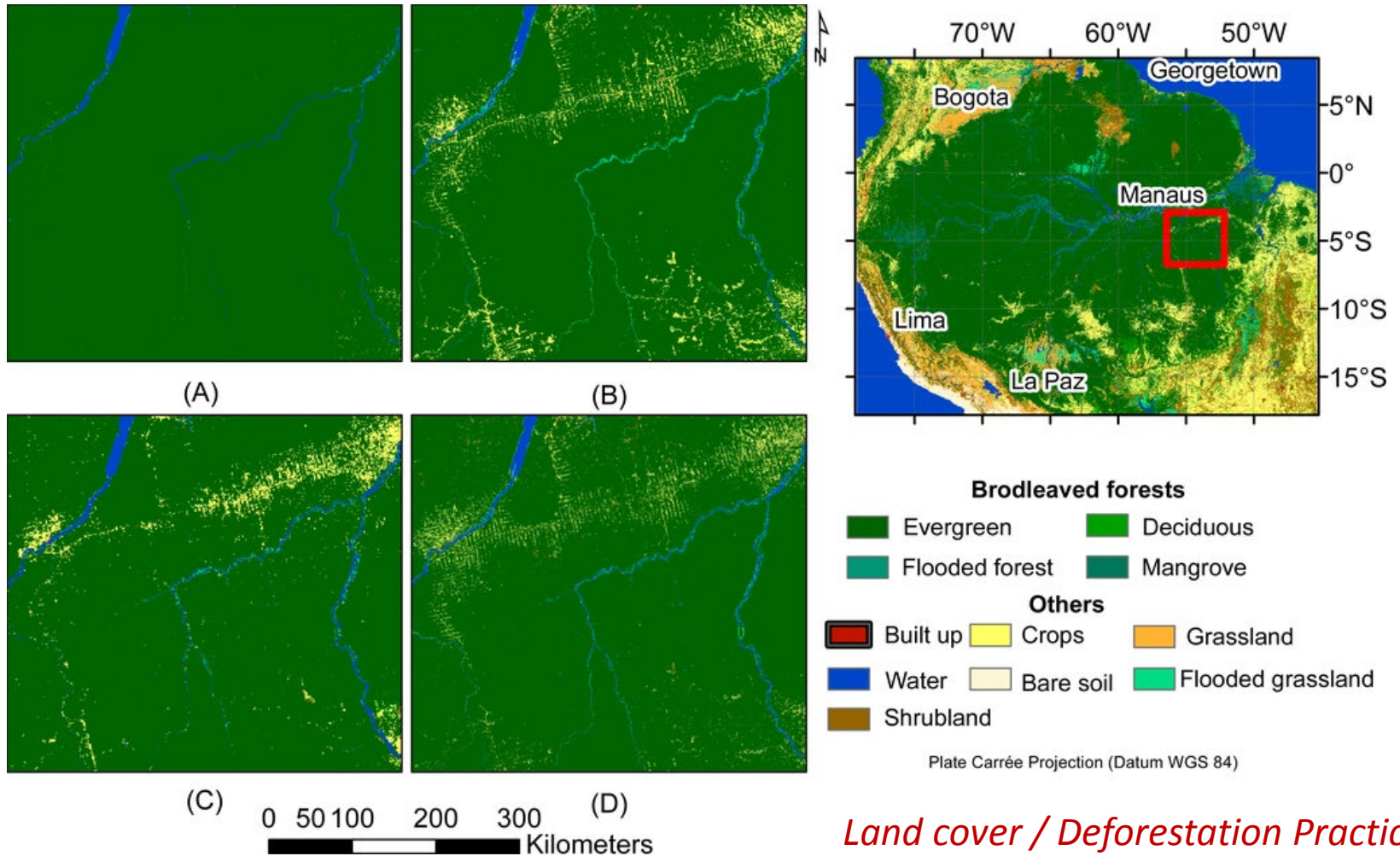
How will it be taught

- Weekly 3-4 hour sessions encompassing
  - 6 Seminars
  - 4 Practicals on land cover analysis / aerosols / plant biomass / ice caps
  - 1 Local Field Campaign to collect tree data

- Assessment
  - 10 min presentation (10%)
  - 3 out of 4 practical write-ups 4000 words (90%)
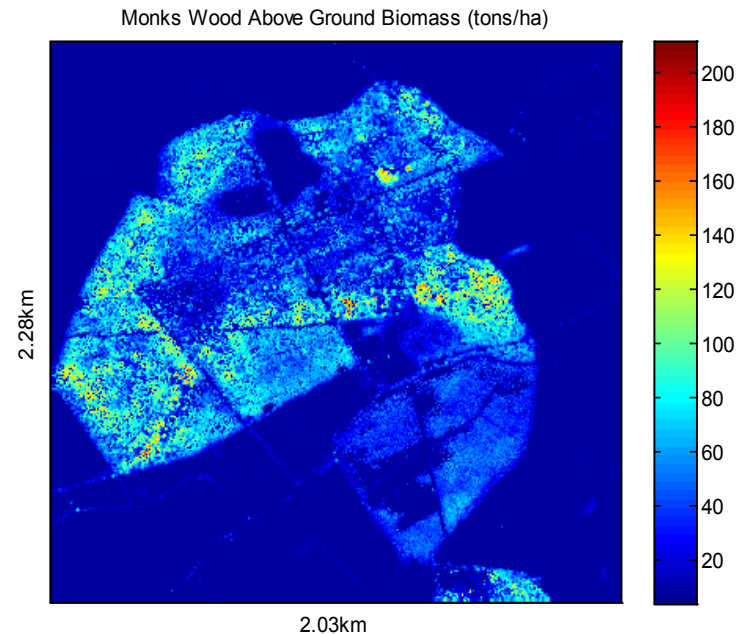
Biomass Practical Output example

Further Example of Practical Work

Land cover / Deforestation Practical

About the convenor

- Dr. Alexander Antonarakis
  - My research is in forest ecology, land use and climate change as well as river flooding. This module really lets me expand on my own interests. I feel the diverse teaching allows students fully understand our changing environments, and what can be done to monitor present situations and how we can predict changes.

- GIS
  - Please do not feel frightened. Second year GIS is set as a prerequisite, but can still come without it. The module is technical enough for you to obtain valuable work skills, and learn fascinating facts about our environment.

- Questions?
  - Email: a.antonarakis@sussex.ac.uk (or see me in my office on Tuesdays 3-4 and Wednesdays 3-4).