Towards satellite lidar with continuous, repeat coverage: The Global Lidar Altimetry MISsion (GLAMIS) - Novel laser sources and small-sats

Global Lidar Altimetry MISsion: GLAMIS

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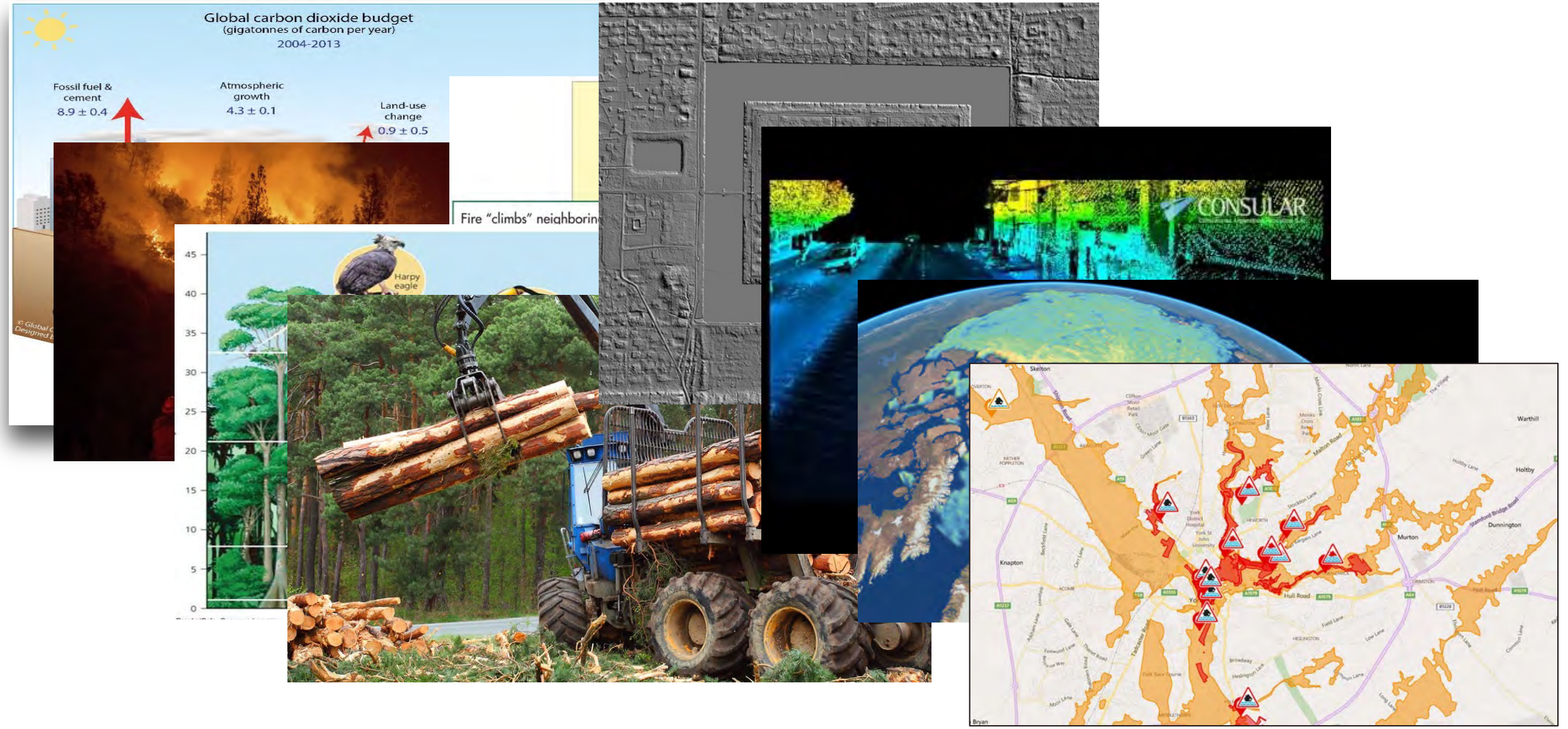
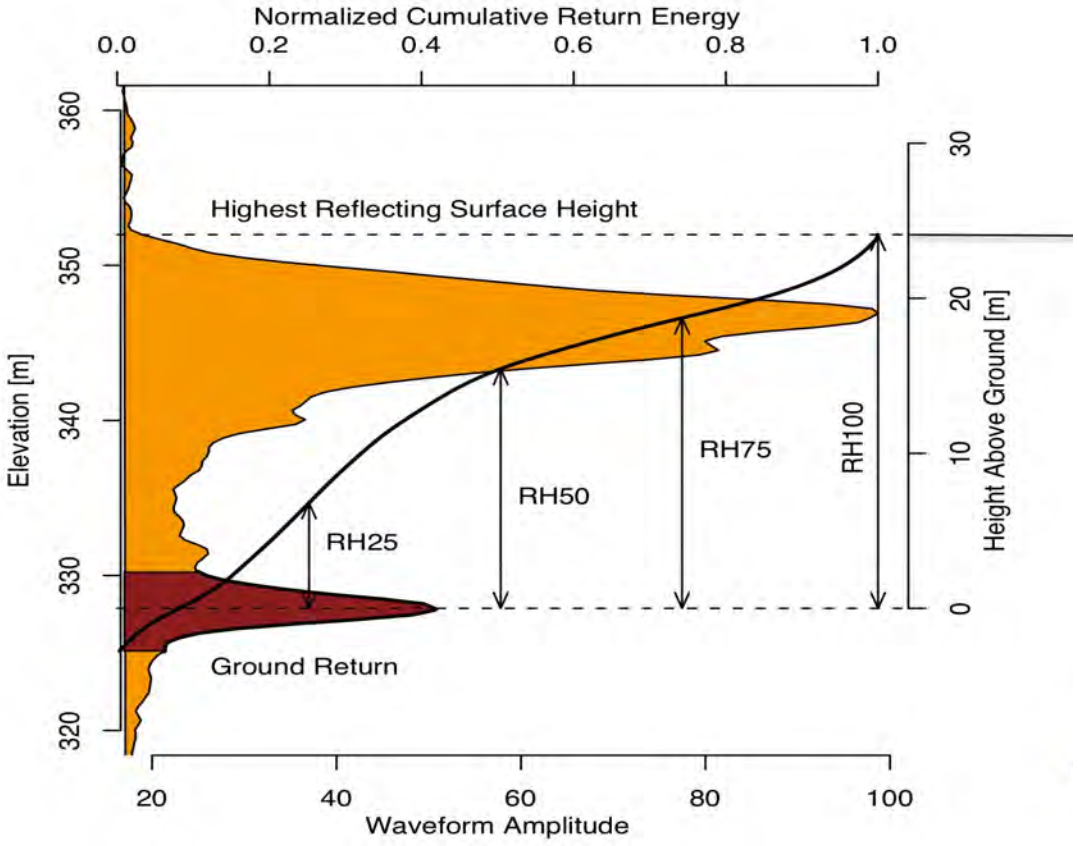
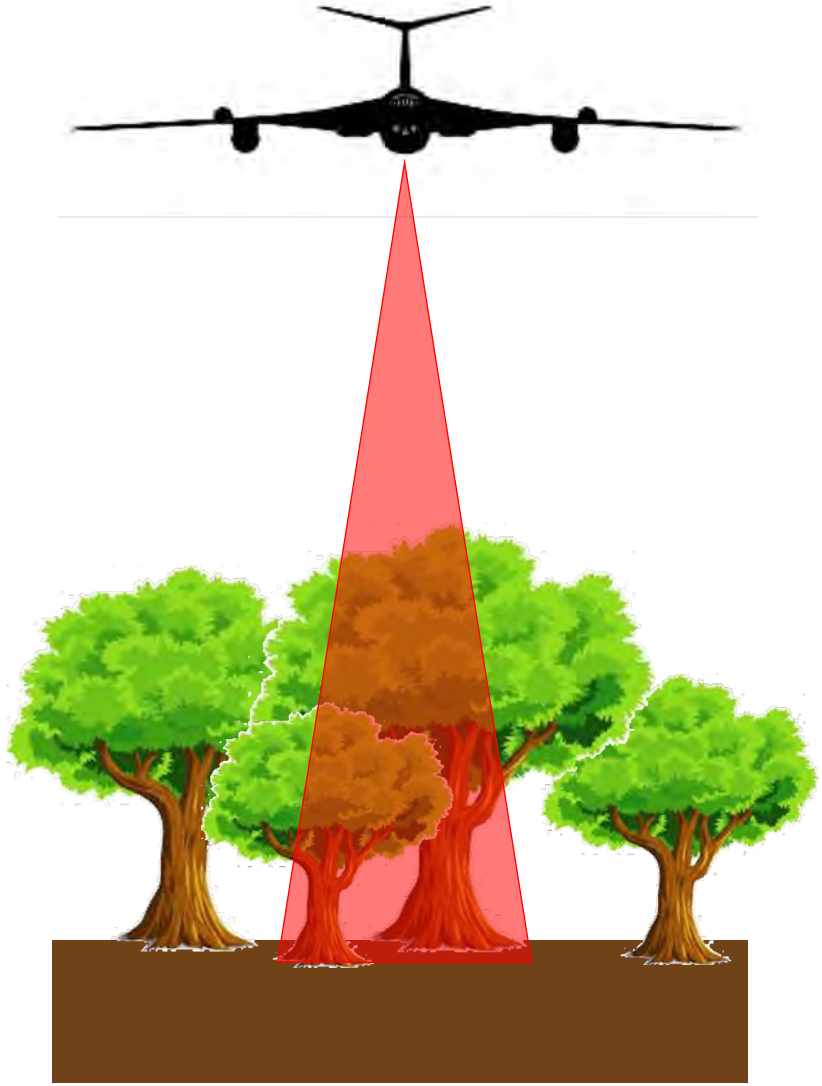
Need for structure data



Lidar measurement





Lidar data

Lidar is the only way to directly measure

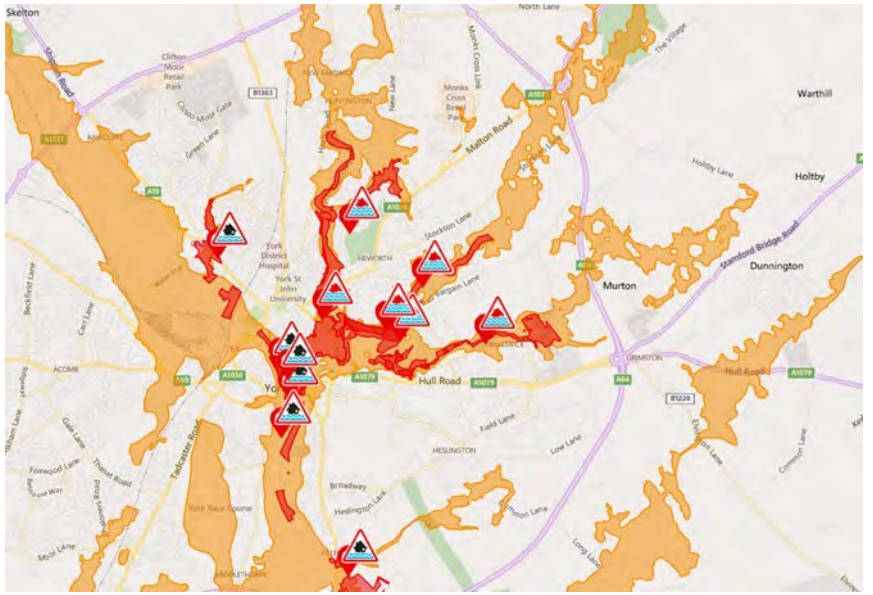
- Bare-Earth topography
- Tree height and cover

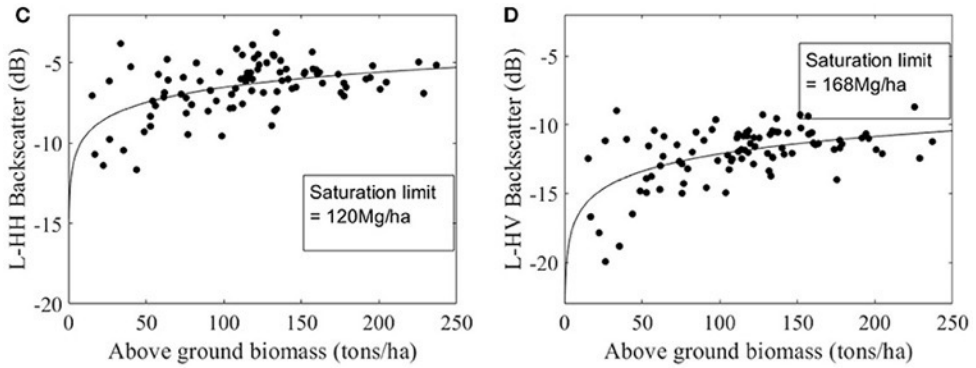
This enables (amongst others)

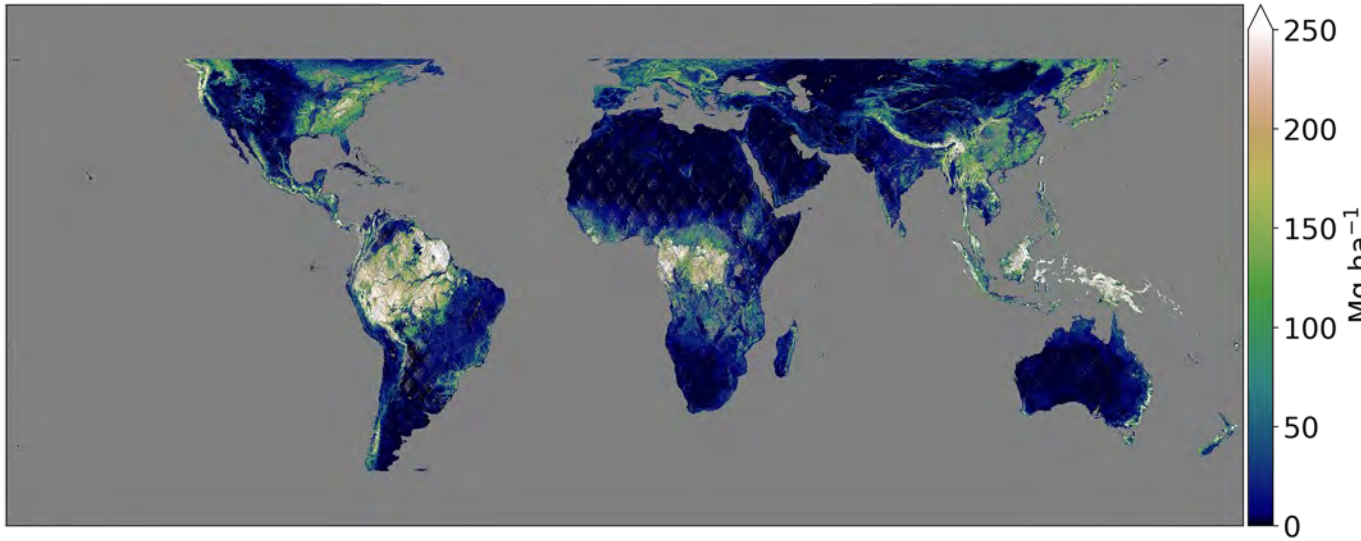
- Flood modelling
- Biomass mapping (underpins many other efforts)

Many remote sensing techniques are collected operationally

- There are no globally continuous lidar datasets
- There is no long-term (decadal) lidar dataset





Musthafa, M. and Singh, G., 2022. Improving Forest Above-Ground Biomass Retrieval Using Multi-Sensor L-and C-Band SAR Data and Multi-Temporal Spaceborne LiDAR Data. Front. For. Glob. Change, 5, p.822704.

Above-Ground Biomass Density