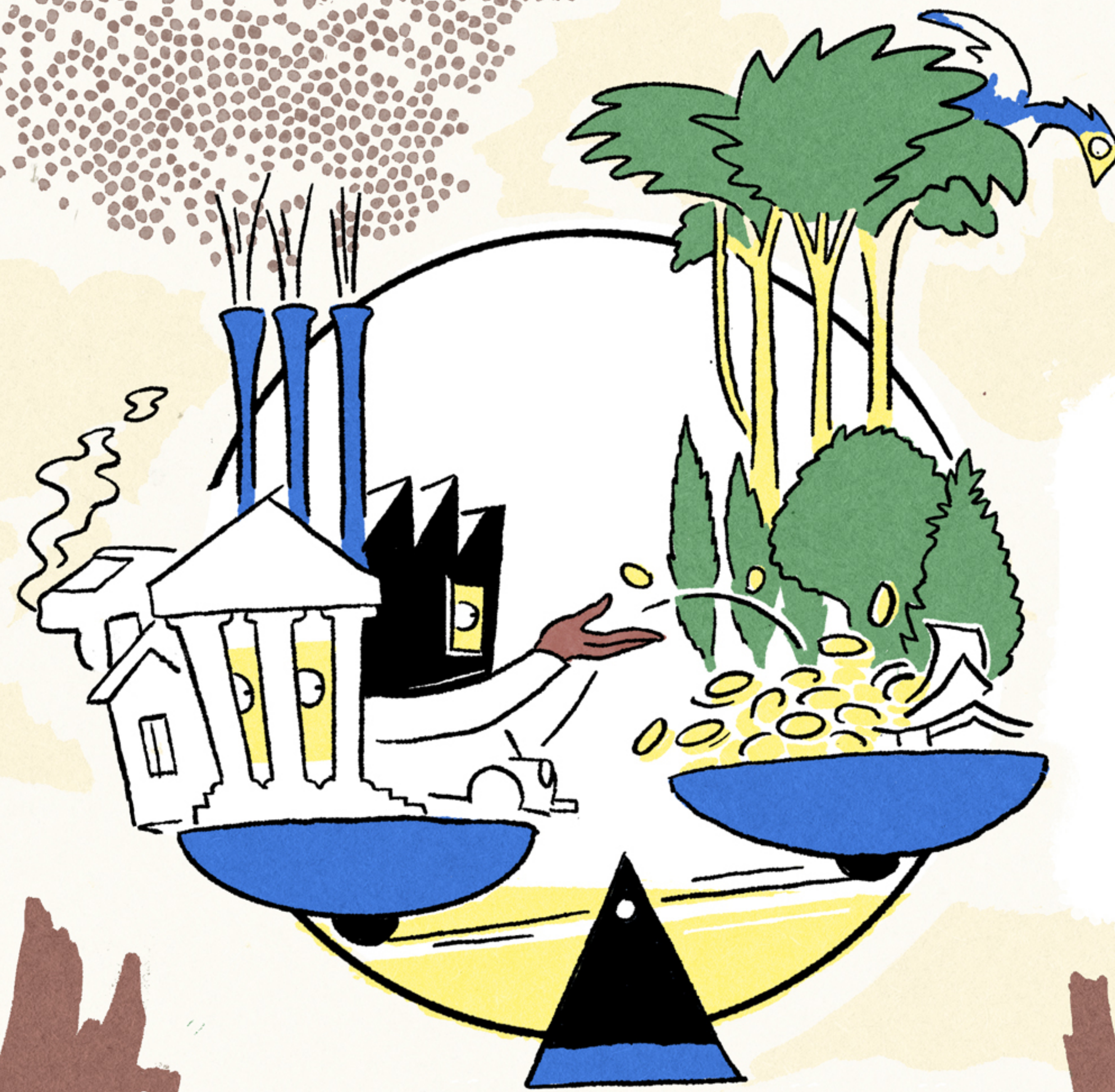


# Grounded in Science: Discovering effective, long-term Nature-based Solutions to carbon storage



## What's the project?

The Carbon Storage in Pasture through Ecological Restoration project (CASPER) is based at the University of Exeter in the UK, working with 3 partner institutions in Brazil. The teams are gathering scientific evidence of what happens in soil to encourage carbon capture, and how long carbon will stay there once it's stored. Methods must have positive impacts for climate, nature and people to be a successful 'Nature based Solution.'

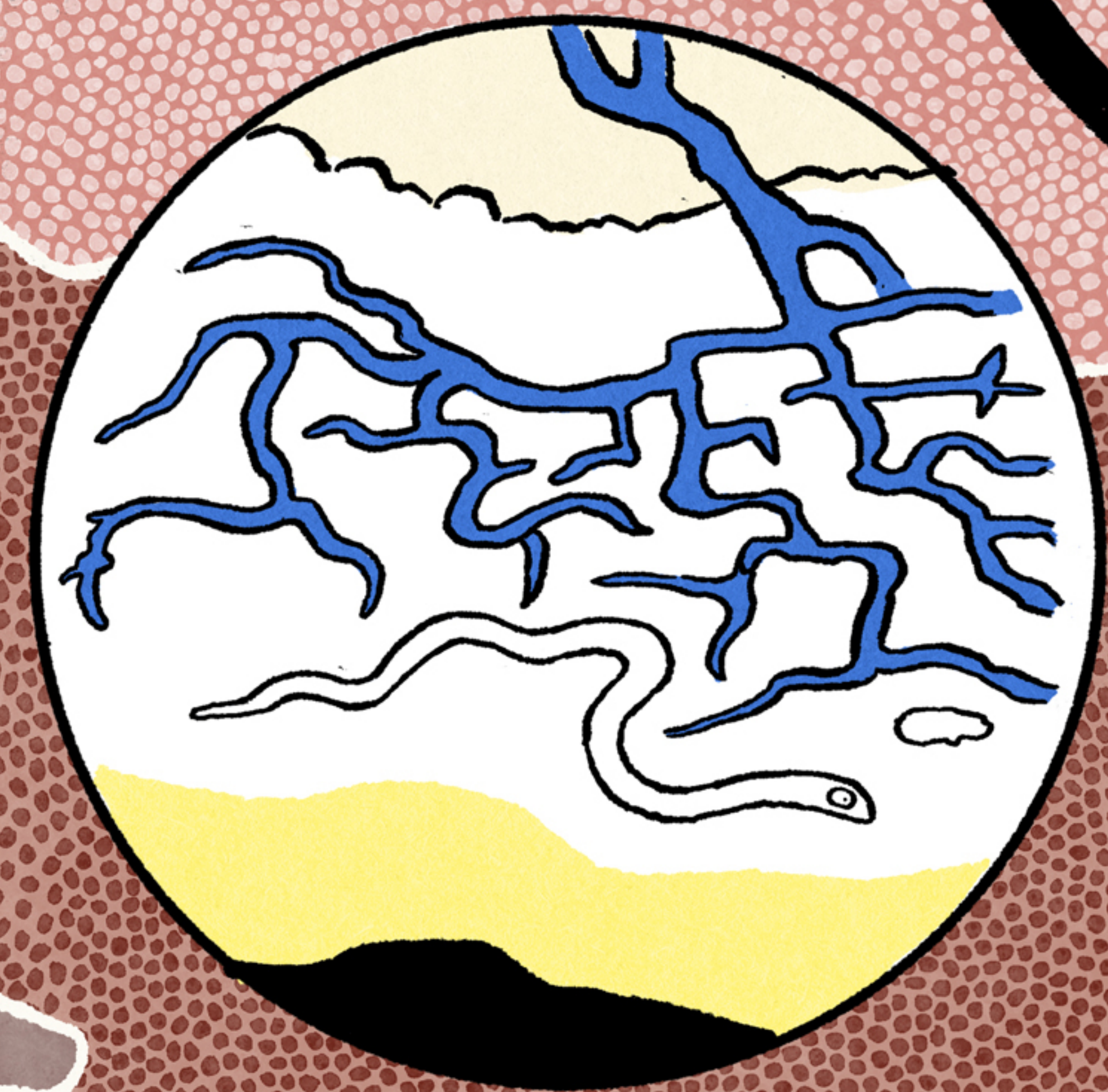
## What's the challenge?

Governments, companies and individuals are increasingly investing and trusting in methods of removing carbon from the atmosphere to tackle climate change. But we still don't properly understand how impactful these methods are.



## It's all about the soil!

The UK lab team studies soil chemistry, soil microbiome and greenhouse gas changes when carbon goes into the soil. The lab studies will be combined with soil, plant and field studies in Brazil, with a focus on degraded pastures. Vast areas of soil in Brazil have lost nutrients and structure or have been altered by chemical fertilizers. Reviving these soils back to a productive state is extremely difficult.



## What's the output?

CASPER will provide demonstration sites and a body of scientific evidence about methods of soil management and restoration, and their practical implementation in areas of Brazil. The aim is to find or improve Nature-based-Solutions that are economically viable, able to improve the well-being of local communities, and are able to capture and store carbon for the long term.

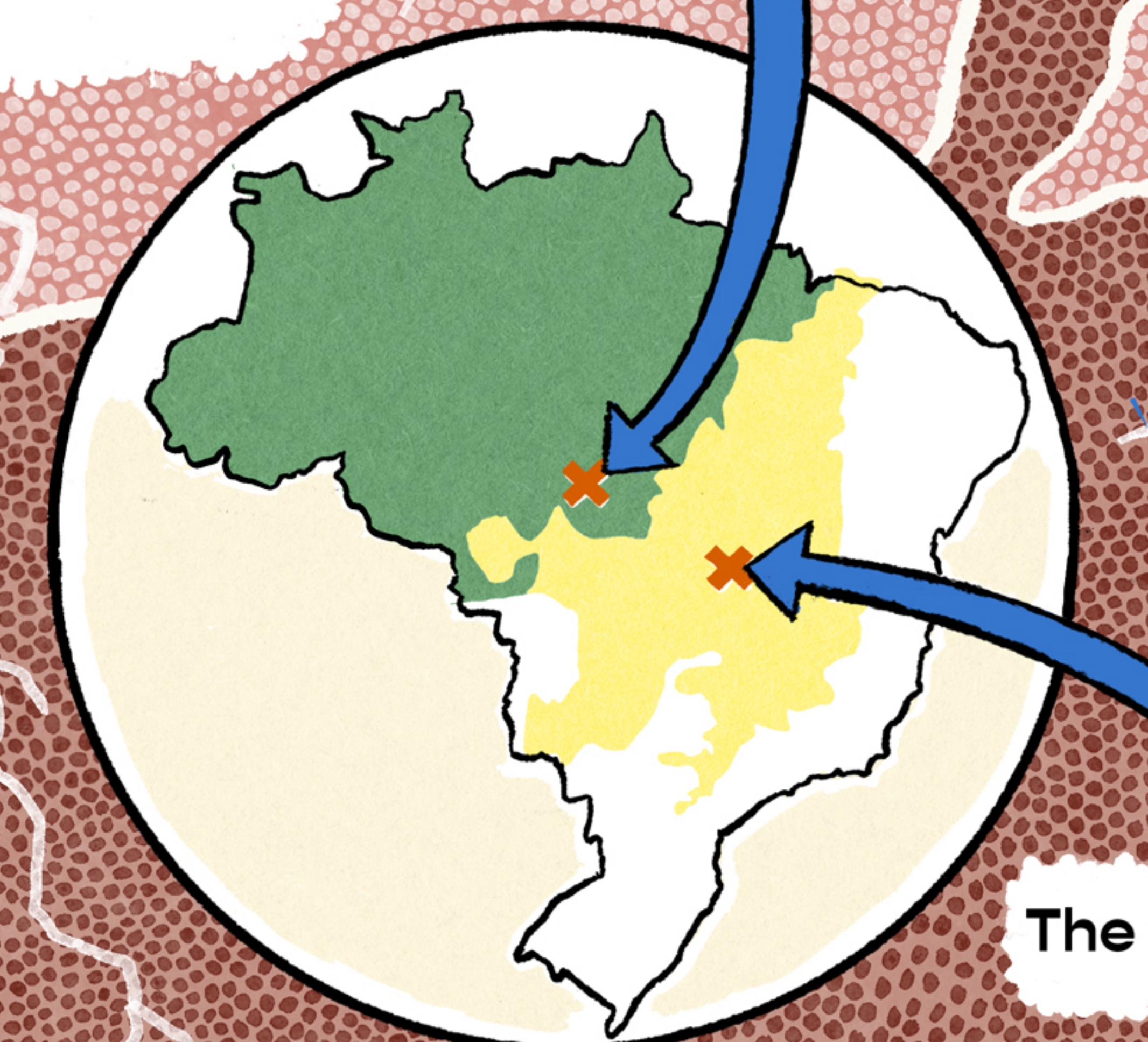


## International collaboration

The Brazilian and UK teams are working in the Amazon 'arc of deforestation' and a savannah area called the Cerrado. The Cerrado is the second largest biome of South America and hugely biodiverse, but is often overlooked by anti-deforestation regulations.

## Why focus on Brazil?

Brazil is a country at the front line of climate change. Better solutions to protect or restore Brazil's vast natural resources are urgently needed, but must be practical for local people and ecosystems. Guided by the Brazilian partners, the teams are working closely with small scale farmers to encourage land restoration methods which are positive for locals and for nature, and which capture carbon.



The Amazon

The Cerrado