Climate Change Mitigation and Adaptation in Agriculture: A UK Perspective

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Action in the UK

• Net zero by 2050

• Agriculture Bill

• Sustainable Farming Incentive

• 25 Year Environment Plan

• Research and Development

• £90m Transforming Food Production challenge
Innovative technologies: REACT-FIRST

• Converts CO2 to protein for animal feed.

• No requirements for arable land and minimal water usage.

• Less carbon intensive compared to fishmeal and soy imported from overseas

• Nutritional, vitamin rich food

• Reliable manufacturing
1. Transform CO2 into PROTON via proprietary gas fermentation process
2. Develop PROTON-based feed
3. Sustainable animals products

Source: Technology – Deep Branch
Supporting action abroad

- Sustainable Cattle Ranching Project in Colombia using Silvo Pastoral Systems techniques

- Cattle ranching is a big industry in Colombia

- Grazing cattle on open pasture is environmentally destructive and is economically inefficient

- It incentivises deforestation
Silvo Pastoral Systems (SPS) in Colombia

SPS techniques

• reverse land degradation
• sequester carbon dioxide
• enable higher intensity cattle farming on existing farmland
• alleviate poverty

UK funding for this project:

• promoted SPS to induce cultural change
• trained farmers on financial management
• provided financial incentives through an environmental services mechanism.
Outcomes

• Biodiversity increased

• Prevented 1 million tonnes of CO2 equivalent emissions

• Raised milk productivity and livestock carrying capacity

• Increased farms incomes

• Inspired Colombian Government to double the sustainable cattle ranching target
About Us – Deep Branch

REACT-FIRST – Deep Branch

DevTracker Project GB-GOV-13-ICF-0020-SPS (fcdo.gov.uk)

25 Year Environment Plan - GOV.UK (www.gov.uk)

Agriculture Act 2020 - Parliamentary Bills - UK Parliament

For any questions, please contact G7G20@defra.gov.uk