

A photograph of a field filled with numerous rectangular hay bales. The bales are arranged in rows, receding into the distance. The sky is bright and hazy, suggesting a sunny day. The overall color palette is warm, with yellows and oranges.

# **Climate Change Mitigation and Adaptation in Agriculture: A UK Perspective**

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**2nd September 2021**



# Action in the UK

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- Net zero by 2050
- Agriculture Bill
- Sustainable Farming Incentive
- 25 Year Environment Plan
- Research and Development
- £90m Transforming Food Production challenge



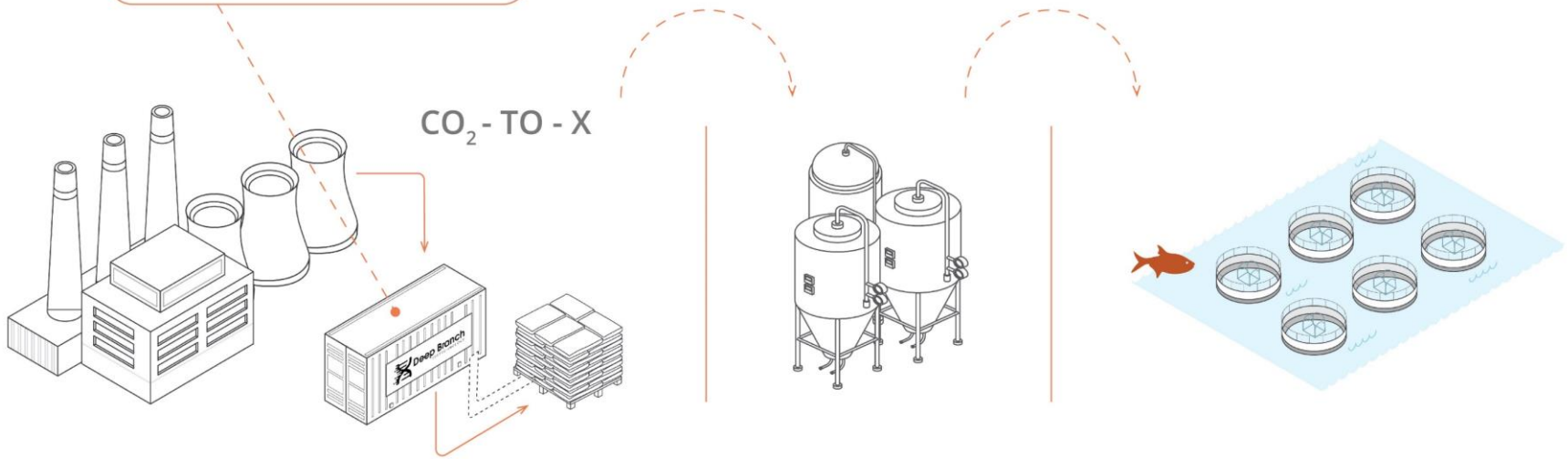
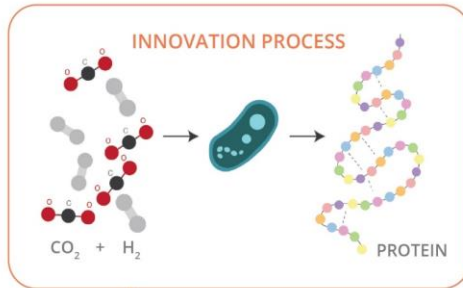


# Innovative technologies: REACT-FIRST

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- Converts CO<sub>2</sub> 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 CO<sub>2</sub> into PROTON via proprietary gas fermentation process

2. Develop PROTON - based feed

3. Sustainable animals products



# Supporting action abroad

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- 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

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## 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

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- 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](mailto:G7G20@defra.gov.uk)

