



The Sustainable Development Goals- SDG ACCELERATOR

OUR VISION

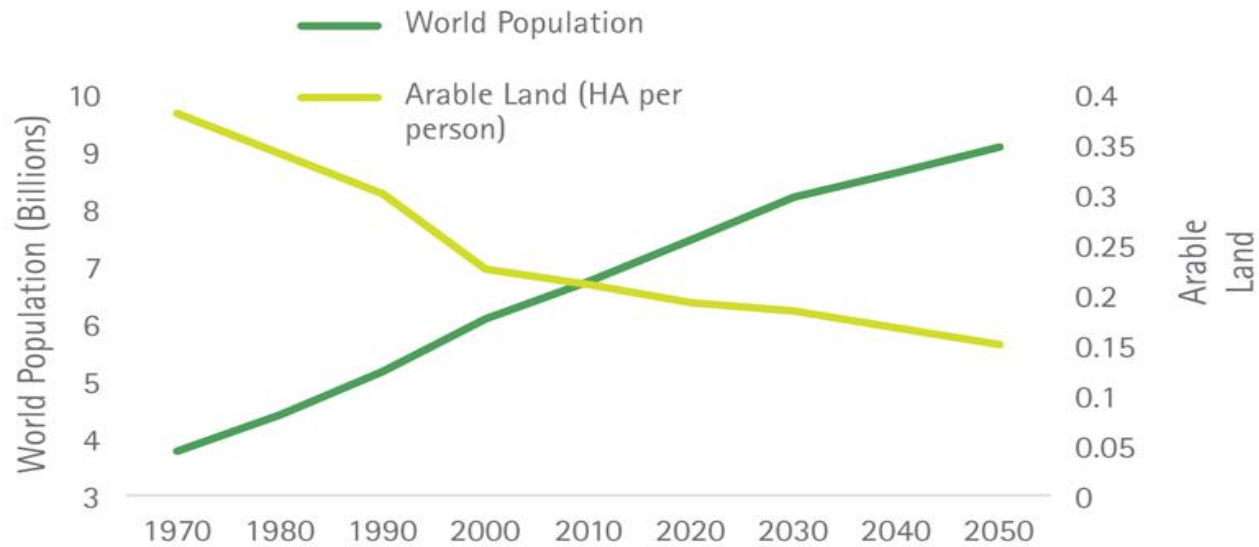
DECOUPLING PROTEIN
PRODUCTION FROM
FARMING AND FISHING

THE PROBLEM

Today's main sources of protein supply for people and animals add to the global sustainability pressure



Photo: Wikipedia



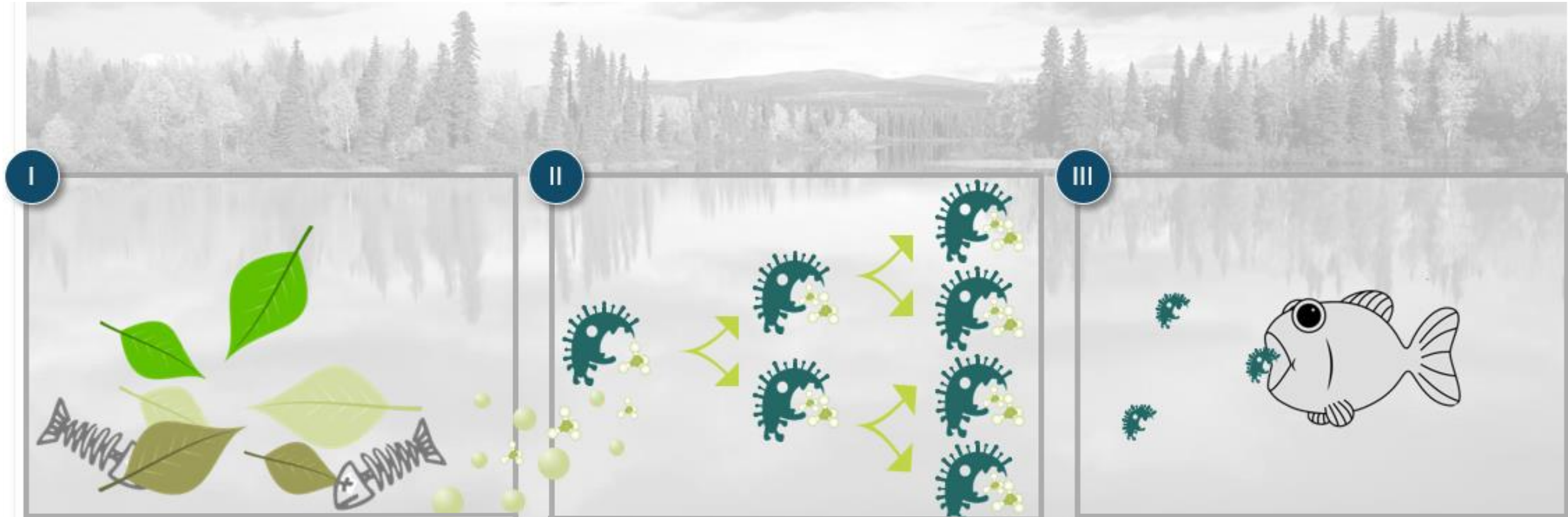
The Amazon Rainforest
(Photo: Dado Galdier, the Guardian/AP)

OUR SOLUTION

WHAT IF THE
ABUNDANCE OF
METHANE COULD
ADDRESS SOME OF THE
BIGGEST CHALLENGES
OF OUR TIME?

FROM METHANE TO PROTEIN – THE CONCEPT OF NATURE

Conversion of methane (CH_4) to biomass (“protein”) occurs in nature

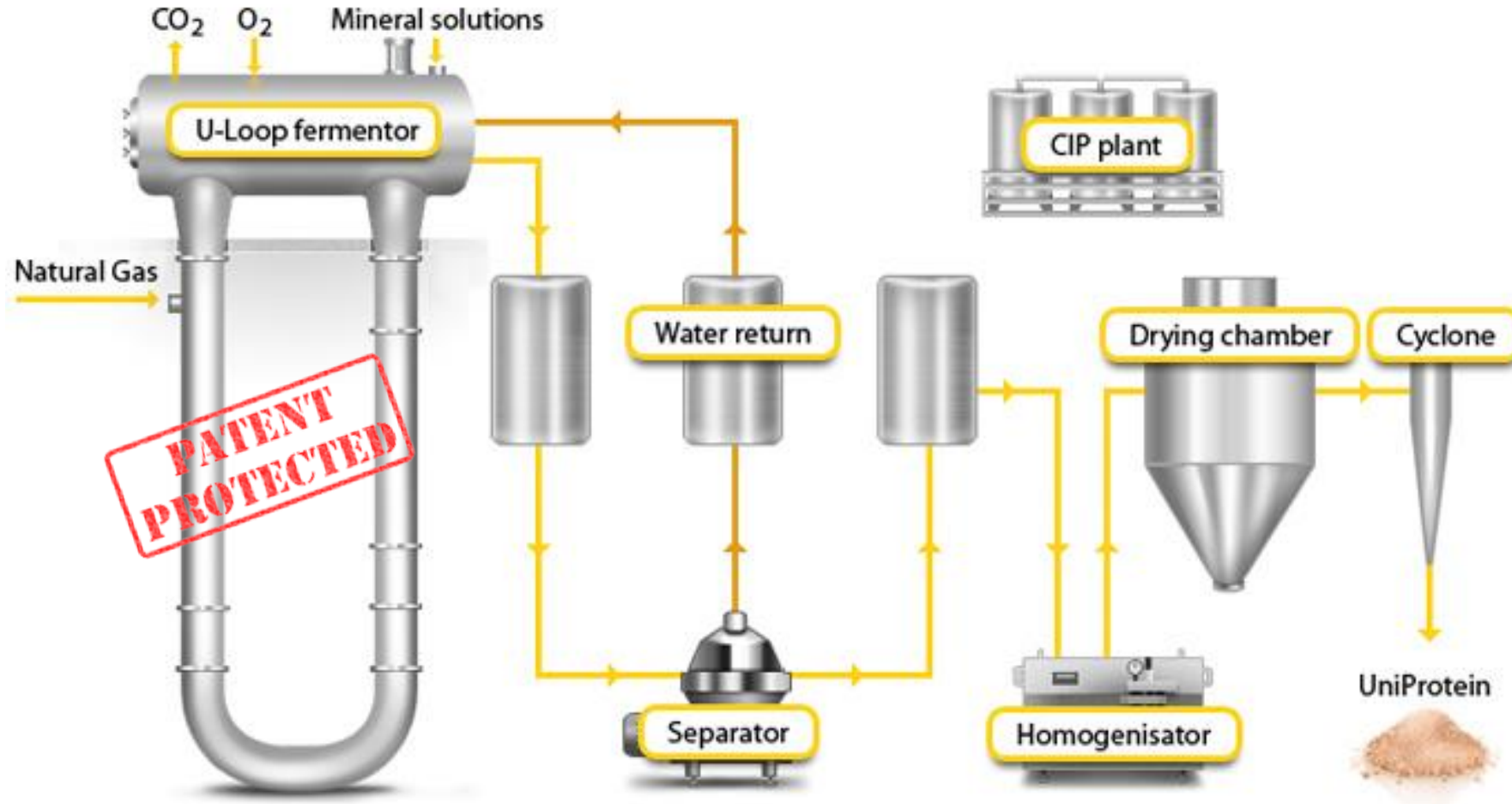


Natural gas (methane) occurrence

Methane is eaten by bacteria

Bacteria become protein-rich

OUR SOLUTION - THE U-LOOP[®] TECHNOLOGY



OUR SOLUTION – THE PROTEIN

- **The world needs sustainable solutions to the large-scale food challenges of the 21st century**
 - 10 billion people by 2050
 - More and more middle-class people = increased demand for meat = protein
- **Protein production is increasingly challenging**
 - Fish stocks reducing, water becoming a scarce resource and cropland limited

- 
- **Unibio's technology can provide protein at a very large scale with a very small footprint**
 - **Unibio decouples protein production from agriculture and fishing**
 - **Unibio offers a unique alternative to existing sources of protein by the use of an abundant raw material**



Meeting the food security needs of the soon-to-be 10 billion people

PART OF SDG ACCELERATOR



PART OF SDG ACCELERATOR



- Unibio part of SDG ACCELERATOR 2019

CASE:

Good Valley sustainable swine production in Poland.

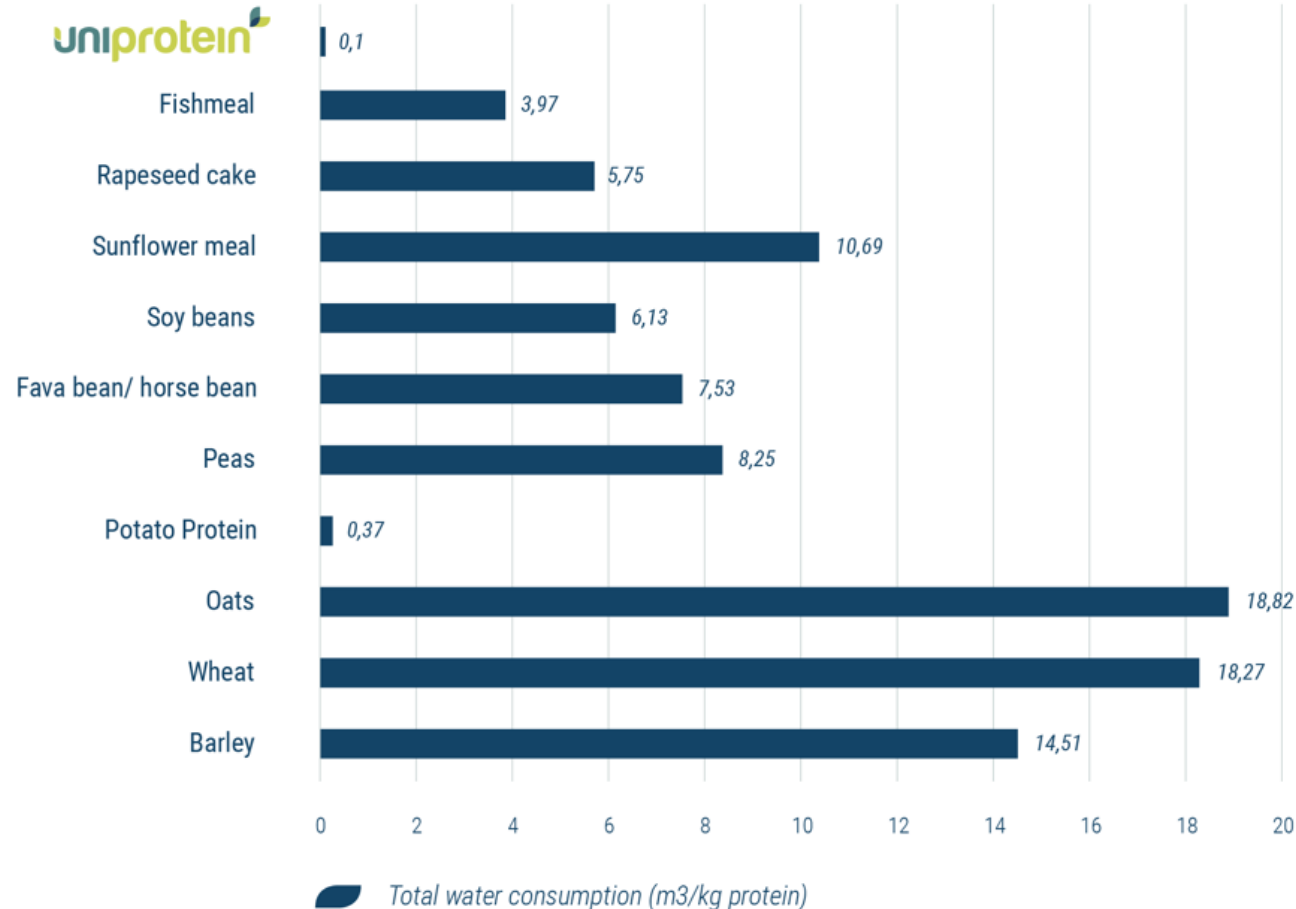




Reduced water usage

The production of Uniprotein[®] requires 5 litres of water for production of 1kg of protein, while production of soy requires 1500-3000litres of water for production of 1kg of protein including rain water.

Most of the water is recycled to the U-Loop[®] fermentor to reduce its consumption.



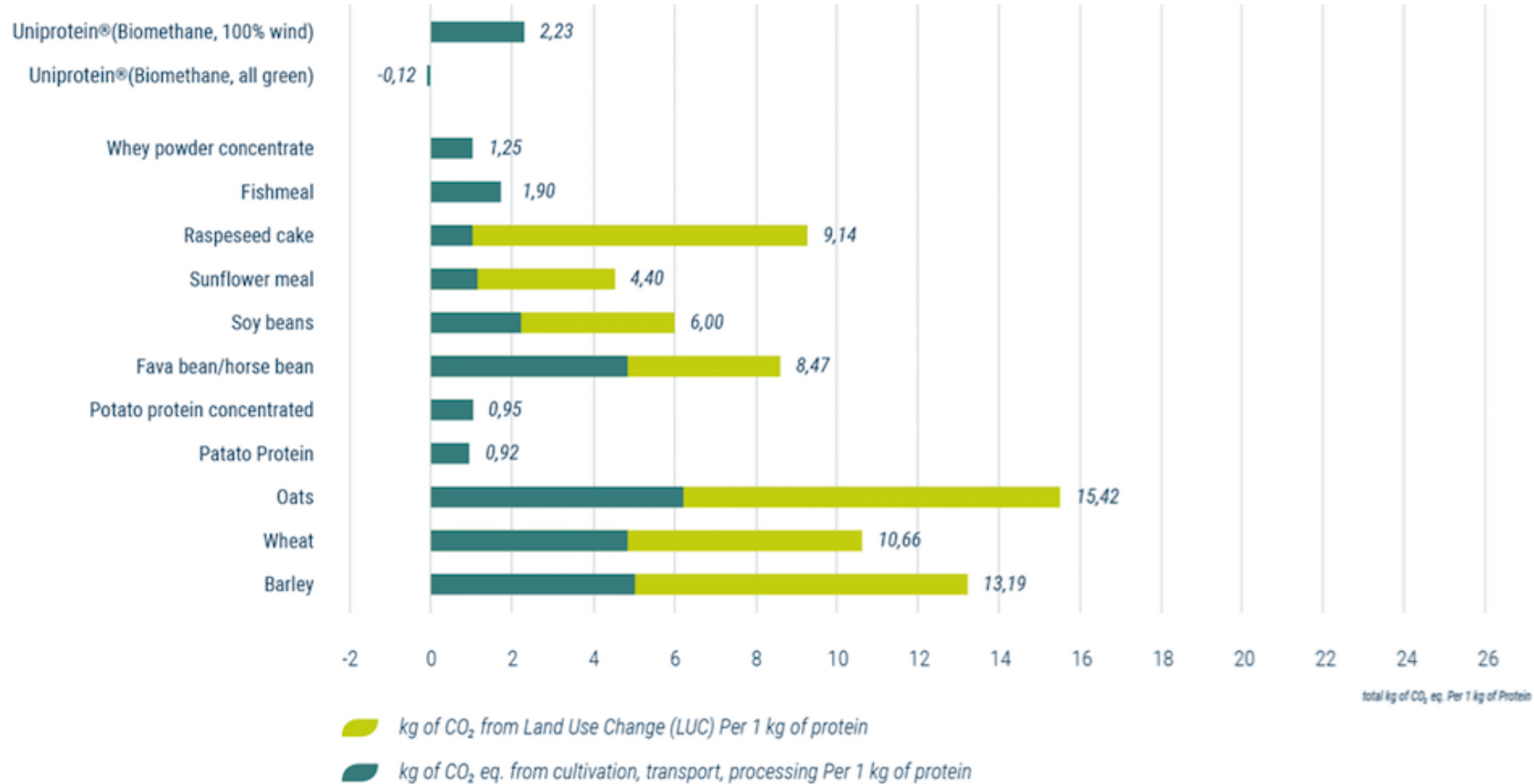
Responsible consumption and production



CO₂ effect

Unibio is committed in reducing the CO₂ emissions in the production of Uniprotein® and to a sustainable feed production for the future. Therefore, Unibio is monitoring the sustainability of Uniprotein® through life cycle assessments (LCA) and adoption of sustainable practices during production and transportation of Uniprotein®.

The CO₂ profile of Uniprotein® varies dependent upon source of methane. If biomethane or flare gas are utilized then production of Uniprotein® leads to actual GHG reduction.



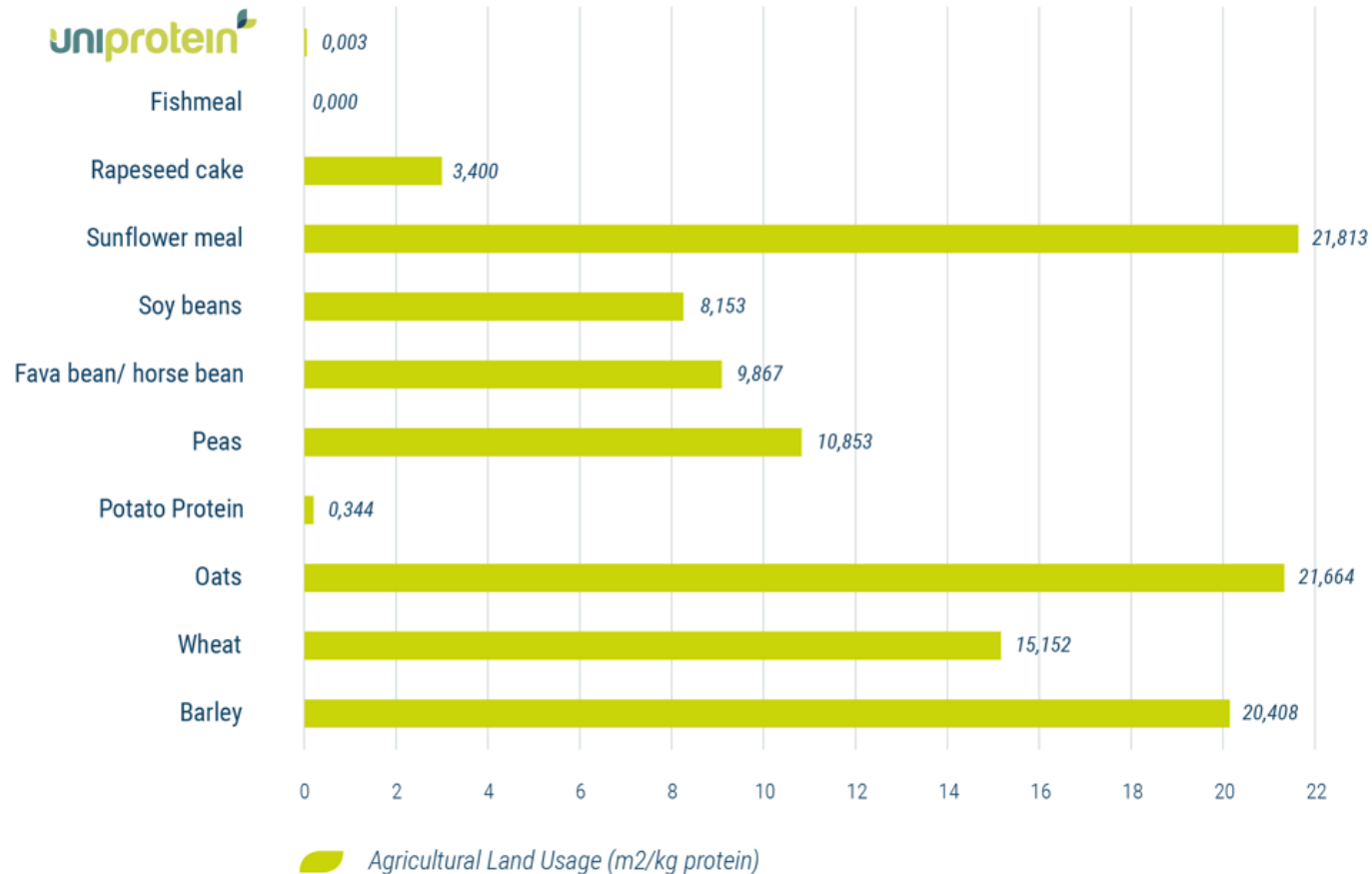


Low land Footprint

A 10000m² land plot (ex. Utilities) is needed for production of 25000 tonnes per annum of Uniprotein[®], while a similar space of land only allows for a production of 700-3000kg of soy.

Hence Uniprotein[®] holds the potential to eliminate/reduce the deforestation caused by current soy production.

Reverse and not induce desertification. Promote RE-Forestation!





Thank you for listening

For more information visit www.unibiogroup.com