



FrieslandCampina 

The circle economy
in dairy farming &
dairy processing NL





FrieslandCampina

The Farmers Challenge



Ensure future perspective for young dairy farmers

750-900 mln people depend on dairy farming

Average age of farmers worldwide is 57 years..

The Nutrient Security Challenge



From 7 to 9 bn people; 70% in cities (2050)

Food security (affordable nutrition)

Food safety & consumer trust



The Sustainability Challenge



Less CO2 & more renewable energy

Scarcity in land, water, natural resources

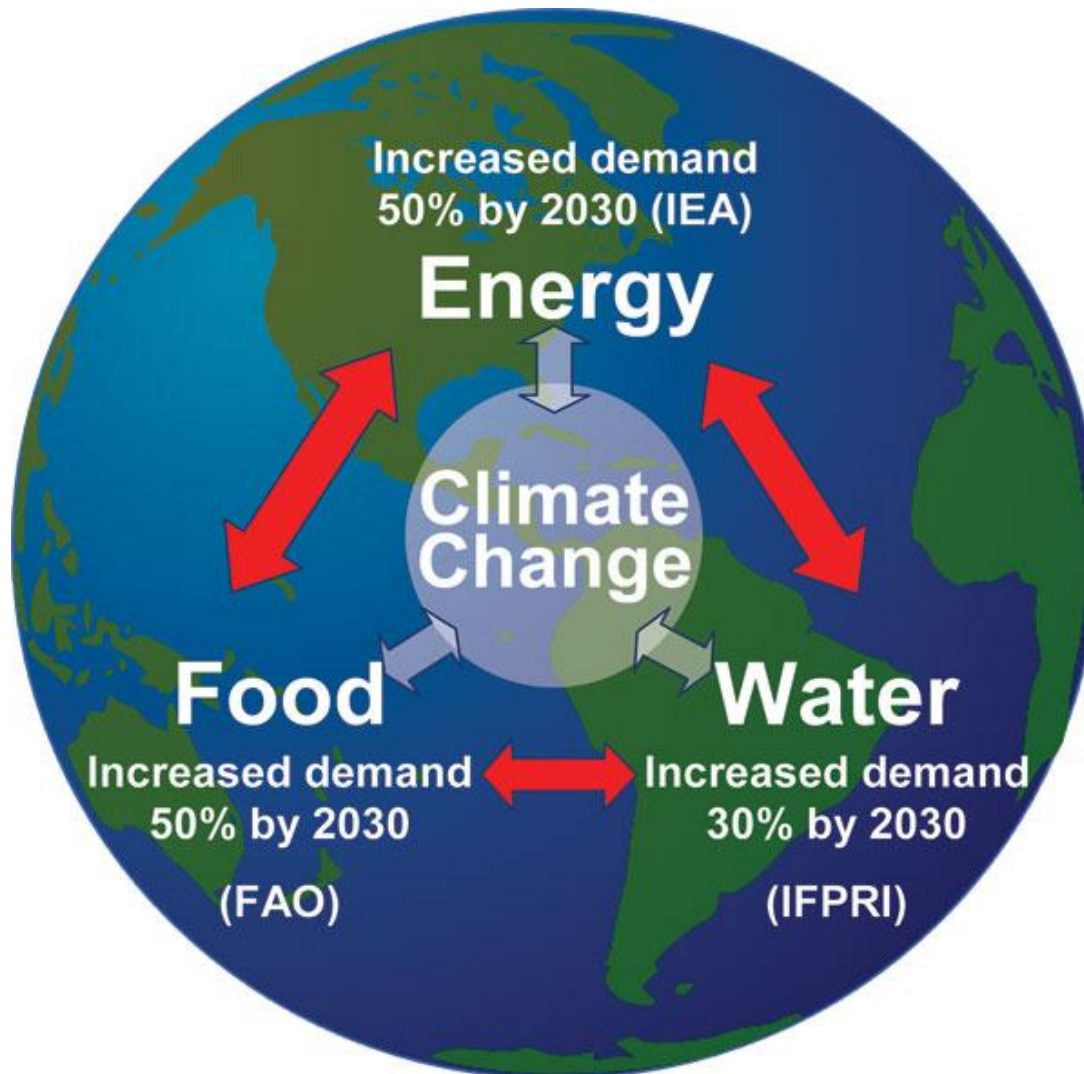
Nature, biodiversity and ecosystems at risk

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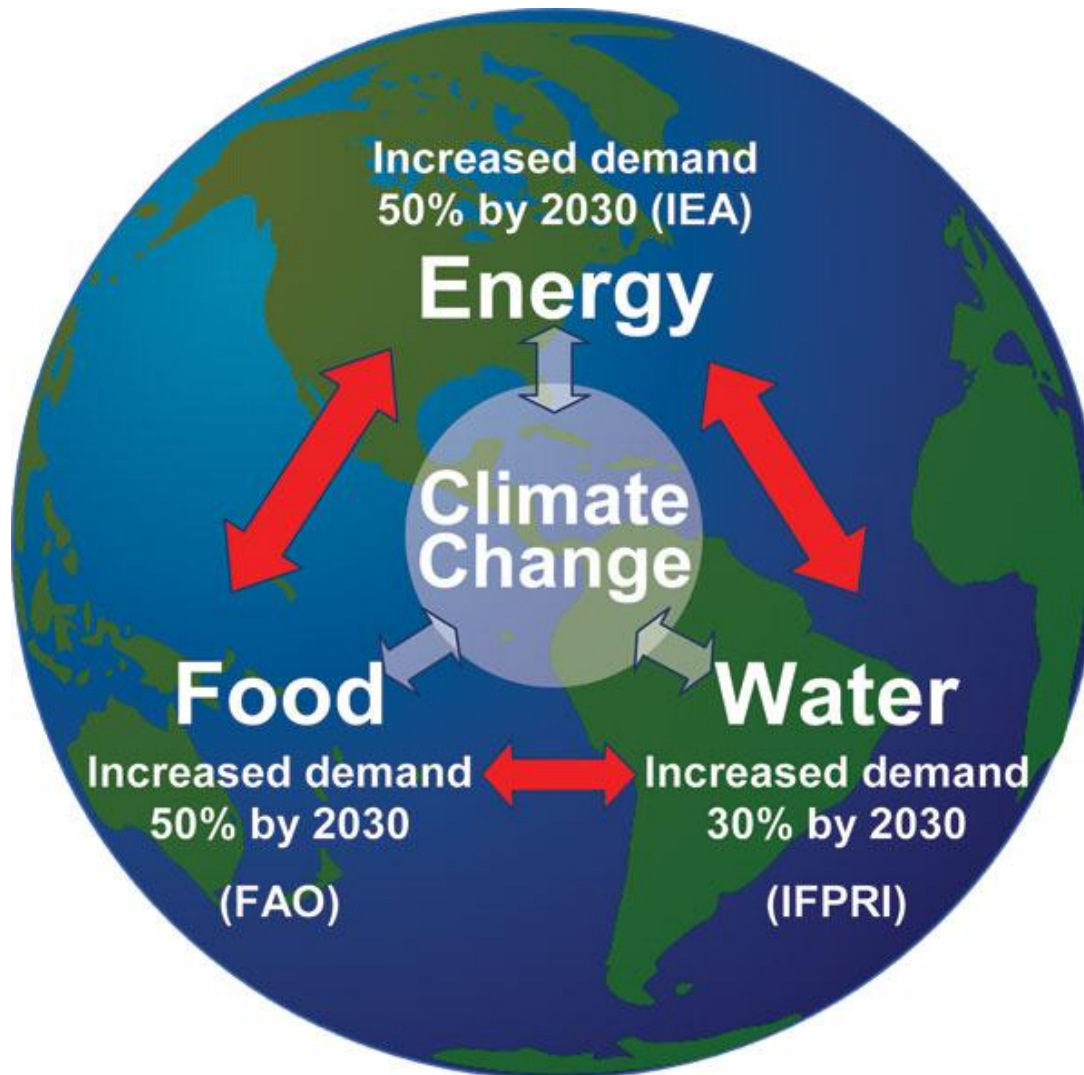
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Getting caught in the triangle of global constraints



Getting caught in the triangle of global constraints



Worldwide, 750-900 million people are dependent on dairy farming (FAO)

- Fundamental global need for healthy foods
- Milk is one of the most nutrient-rich foods
- As one of the leading multinational dairy businesses, we aim to contribute to sustainable farming and processing
- We want to show leadership in the field of Corporate Social Responsibility:

Health & nutrition

Tackling nutrient deficiency & obesity



Sustainable dairy chain

More efficient use of natural resources



Dairy development

Asia, Africa



Responsible dairy farming

Sets the standard



4 pillars of the sustainable dairy farming approach

1. Energy and climate

Excluding offset

Reduction of GHG with 30% between 1990 and 2020

2% energy reduction per year

2. Animal health and -wellness

Reduction antibiotics
Mastitis/claw problems: back to naturally occurring levels

3. Biodiversity

Visible care for nature

Responsible soy from 2015

Improved mineral balance



4. Outdoor grazing: at actual level



Our combined CSR promises:

Greening Our Farming



Cleaning Our Processing



**“Bringing Essential Nutrients from
Natural Dairy to People
Everywhere”**



*Supporting 40,000 Small Dairy Farmers
Asia & Africa*



The ultimate goal...

- Green energy from the farm
- Manure as source of energy
- To power processing plants
- And provide green gas as fuel
- Zero water dairy factories (re-use water from milk)
- Contributing to global food (nutrient) security



De groene motor

- Mestvervaardingscoöperatie



Coöperatie
Groene motor

onderneming



coöperatieleden



Kunstmest
vervangers



Biobrandstof



Grondstof
vervanging

Don't forget that we are building a robust business case of sustainability

- Innovation catalyst (e.g. green gas from manure as truck fuel)
- increased revenue opportunities for sustainable products;
- improved customer attraction and **loyalty**;
- attracting, developing and retaining talent and knowledge;
- increased reputation and **brand value**;
- improved operational efficiency and cost reduction;
- maintaining license to operate / license to import milk powder; compliance with (future) regulation;
- stronger stakeholder (government) relationships;
- creating **new markets** (e.g. meadow milk in NL; organic)
- easier access to capital because of better risk mngt



Businesscase; not finding but building

- Market!
 - Products!
 - Technology
 - Organisation
-
- Facilitation
 - Initiation
 - Chain-innovation and systemic innovation
 - Transcountability
 - Social innovation

Closing the loop

- Circular; biobased; cradle tot cradle
- Innovation of the economic system; from linear towards a circular perspective with the latest processes and business-models