

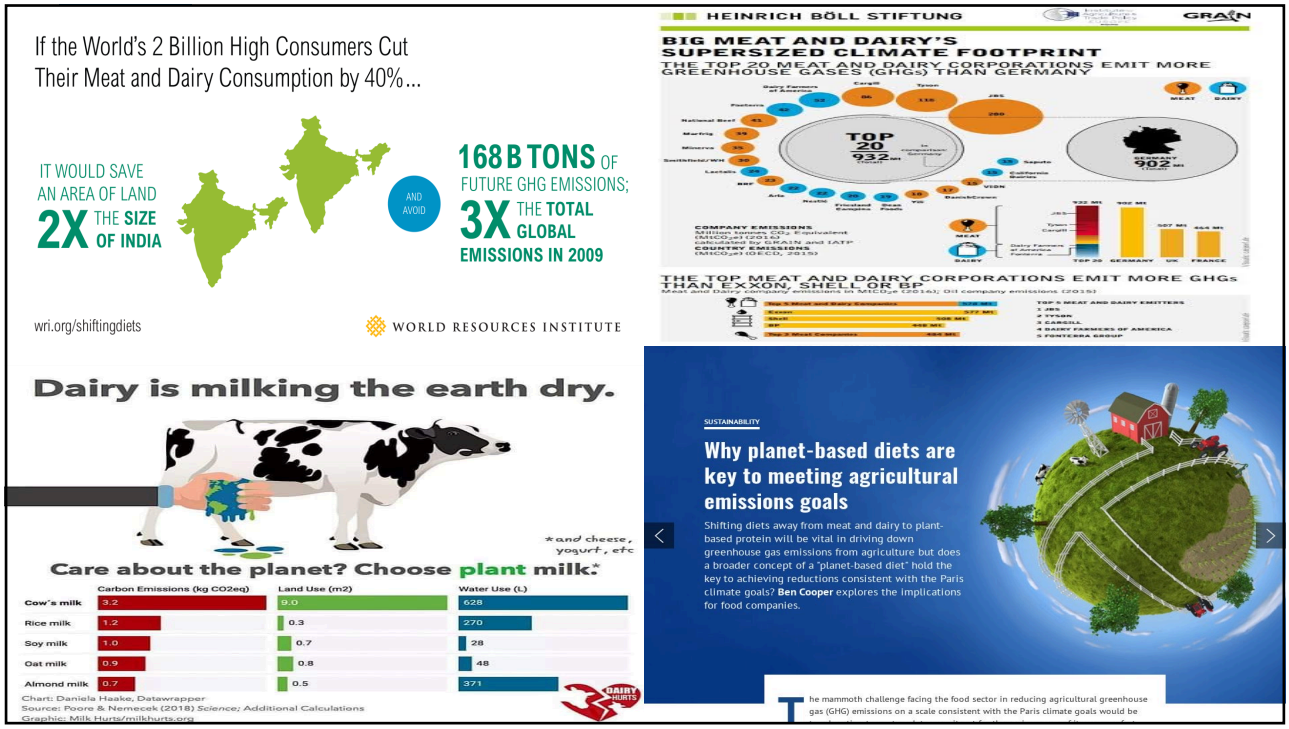
LE PROSPETTIVE DELLE PRODUZIONI ANIMALI IN TERMINI DI SOSTENIBILITA' AMBIENTALE,NUTRIZIONE E SALUTE

PIERCRISTIANO BRAZZALE

CONVEGNO FIDSPA

3 OTTOBRE 2026, VERONA

1



2

uses 70% of fresh water



generates 24% of GHGs



uses 33% of land area



uses 30% of global energy



… But feed 100% of us

3

Food and Agriculture Organization of the United Nations | SUSTAINABLE DEVELOPMENT GOALS



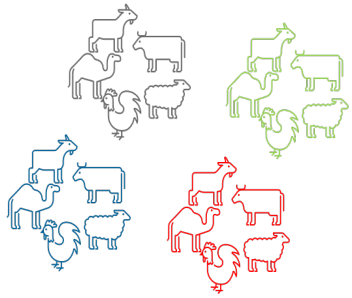


They're a solution or they're a problem!

4

What do we want to achieve?

Sustainable Livestock Transformation Initiative



Sustainable livestock sector that ***satisfies global demand*** for animal source foods and other animal products, ***distributes benefits equitably***, and ***contributes positively to the environment*** while ***using natural resources efficiently and sustainably***.



5

CONTRIBUTION GLOBAL DAIRY SECTOR TO SUSTAINABLE DEVELOPMENT GOALS

1 NO POVERTY
- Many rural areas rely on dairy production and processing for their income

2 ZERO HUNGER
- Dairy products are naturally nutrient dense foods, supplying significant amounts of high-quality protein and micronutrients, including calcium, magnesium, selenium, riboflavin, and vitamins B5 and B12
- Animal by-products can be used as fertilizers for crop production

3 GOOD HEALTH AND WELL-BEING
- Dairy products provide essential nutrients, especially for adolescents, women of reproductive age and the elderly
- The dairy sector also ensures the good health and well-being of its animals
- Dairy intake is associated with a decreased risk of type 2 diabetes and colorectal cancer

4 QUALITY EDUCATION
- A healthy diet, of which dairy is key, is vital for a person's learning capacities
- Dairy production provides incomes that can support education

5 GENDER EQUALITY
- Milk production supports women empowerment.

6 CLEAN WATER AND SANITATION
- Dairy livestock can contribute to the protection of water quality through grazing
- In dairy manufacturing plants, the reuse of water provides opportunity to significantly reduce the stress of water availability in certain parts of the world and/or under certain environmental circumstances.

7 AFFORDABLE AND CLEAN ENERGY
- Dairy production can provide an alternative to fossil fuels, such as the recycling of manure

8 DECENT WORK AND ECONOMIC GROWTH
- The dairy sector from farming through processing and distribution provides socially just and economically rewarding opportunities for owners, managers, wo-rkers and the communities in which they live.

9 INDUSTRY, INNOVATION AND INFRASTRUCTURE
- The entire dairy value chain, from production, processing to retail, provide valuable inputs
- There is an increasing amount of innovation in the sector

10 REDUCED INEQUALITIES
- Dairy production is a source of income, creates employment opportunities and provides market participation

11 SUSTAINABLE CITIES AND COMMUNITIES

12 RESPONSIBLE CONSUMPTION AND PRODUCTION
- Wastes and losses along the dairy production chain are still relatively high (of 1 l milk, 100ml - 250 ml is wasted, depending on the region)
- The dairy sector is has been a major stakeholder in food waste reduction initiatives

13 CLIMATE ACTION
- The dairy sector is a significant contributor to global Greenhouse gases emissions (2.7%)
- Dairy producers have been the forefront of developing and implementing more environmentally friendly practices

15 LIFE ON LAND
- Efficient grazing management can contribute to grassland restoration, carbon sequestration in soils and can reduce deforestation through agroforestry
- Ruminant grazing can turn unusable peripheral land into high quality protein for human consumption

17 PARTNERSHIPS FOR THE GOALS
- The dairy sector stakeholders have come together under the Global Dairy Agenda for Action (GDAA) and created the Dairy Sustainability Framework, a roadmap towards greater sustainability in the sector

6

TODAY'S CHALLENGES FOR AGRIFOOD & LIVESTOCK SECTORS



Productivity vs. Sustainability
Increased food outputs with less environmental impacts - soil degradation, water scarcity, and emissions.

Fragmented & Inefficient Supply Chains
Post-harvest loss, lack of cold storage, low prices for farmers & producers, & high prices for consumers.

Aging Farmer Population & Rural Poverty
Youth are migrating away from agriculture, leading to an aging workforce, threatening future food production.

Climate Change Vulnerability
Increasingly frequent and severe droughts, floods, weather pattern changes impacting yields and food security.

Changing Diets & Health Concerns
Rapid urbanization is driving a shift towards processed foods, contributing to malnutrition, undernutrition & rising obesity.

7

1)Serve comunicare l'impatto in valore del settore lattiero caseario e agrozootecnico in generale

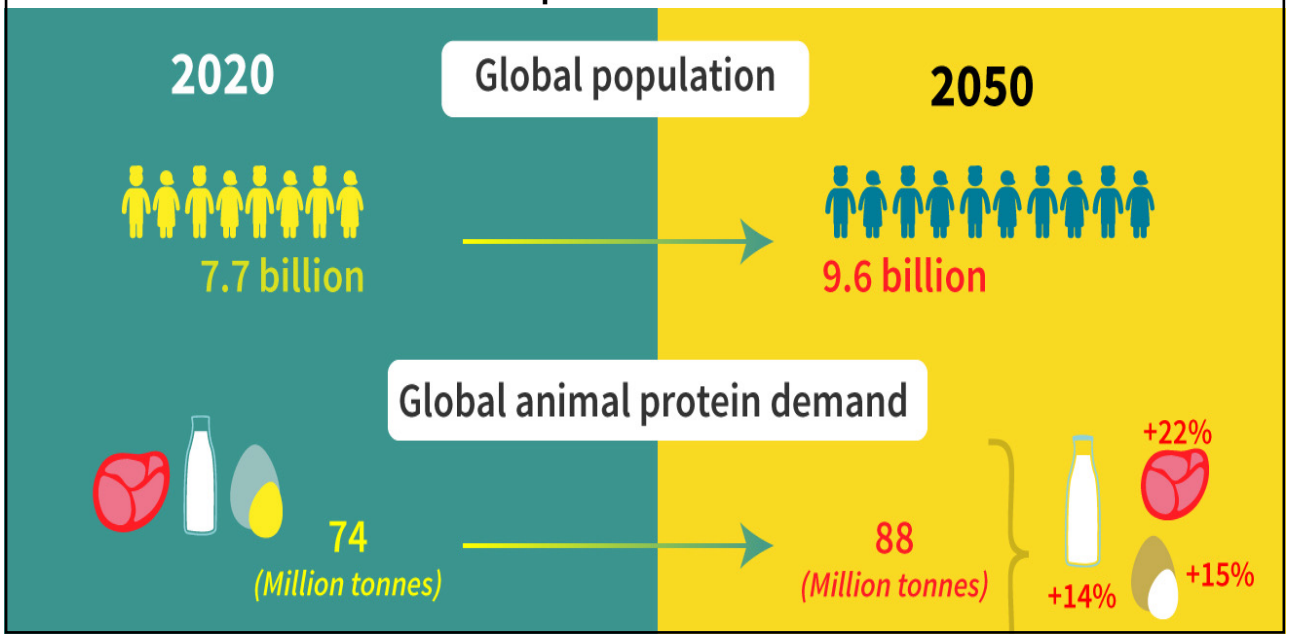
- 8,3 billion people on the planet
  - Food insecurity is on the rise
  - Climate change challenges
  - Geopolitical influences
- Nourishes 6 billion people worldwide
- Provides livelihoods for over 1 billion individuals
- 132 million farm households
- 750 million people engaged in milk production



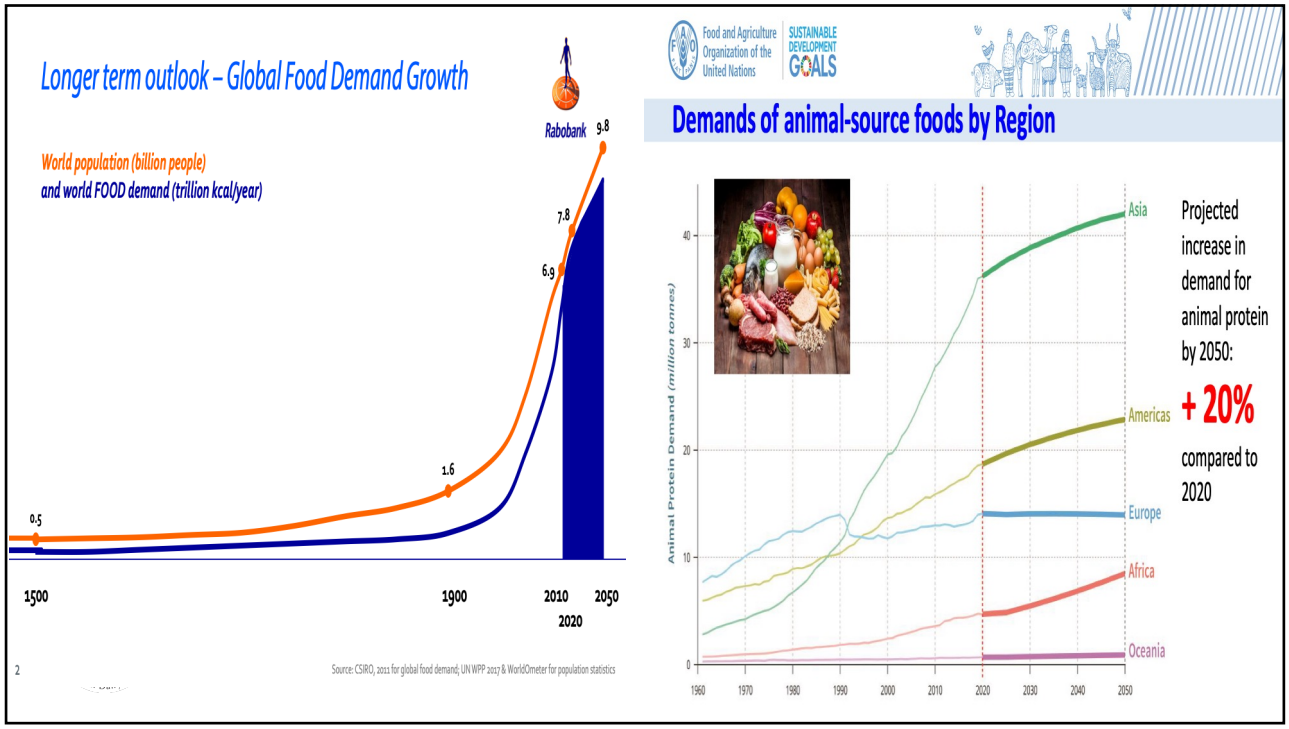
Sources: FAO, IFCN

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2)Serve contestualizzare: la popolazione mondiale in crescita e il conseguente aumento della domanda della proteina animale



9



10



The challenge

We need to produce More with Less

2020

Natural resources

Food

Today

842 mln people chronically hungry<-

> 1.4 bln overweight

Every minute 158 More mounths to feed

of which 154 in developing And emerging economies

2050

Natural resources

Food

2050

More mounths with more money Living in (mega) cities

+ 50-70% food by 2050 versus 2020

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MANGIAMO ALIMENTI DI ORIGINE VEGETALE E ANIMALE





GLI UMANI SONO ONNIVORI

12

Value of terrestrial animal source food in human health

Food and Agriculture Organization of the United Nations

Contribution of terrestrial animal source food to healthy diets for improved nutrition and health outcomes

An evidence and policy overview on the state of knowledge and gaps



Nutrients found concentrated and bioavailable in terrestrial animal source food play important roles in human health



MACRONUTRIENTS

High-quality proteins
- Increase muscle mass
- Prevent loss of muscle mass

Long-fatty acids and ratios of essential fatty acids
- Cognition
- Neurodevelopment
- Anti-inflammatory processes

MICRONUTRIENTS

Zinc
- Vital functions in growth, development and immunity

Vitamin B12
- Neurodevelopment
- Cell formation

Choline
- Growth
- Brain function
- Gene interactions

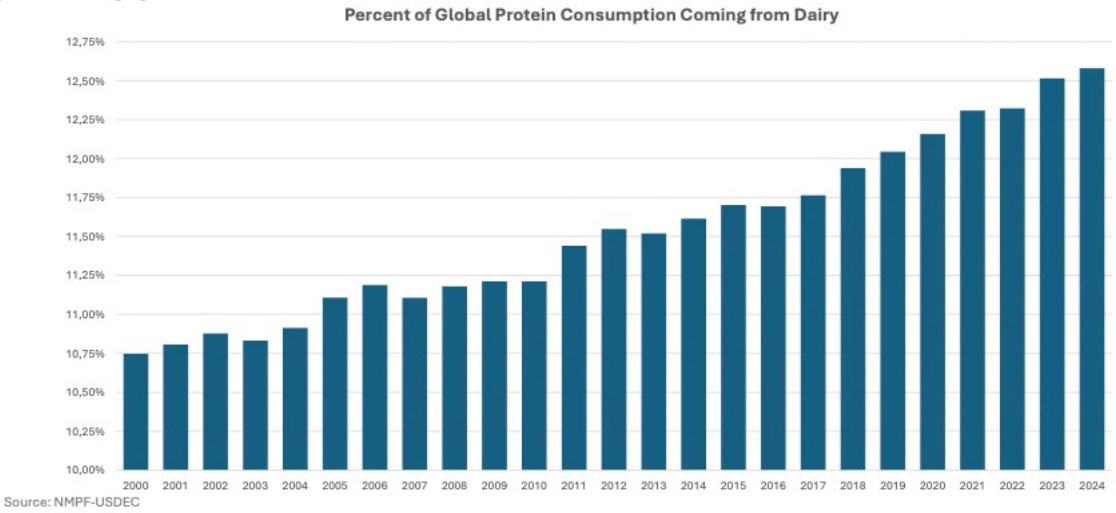
Calcium
- Bone health

Iron
- Prevents iron deficiency anaemia

Selenium
- Anti-inflammatory
- Genome-level processes

13

Positively, Dairy's Share of the Diet Continues to Rise

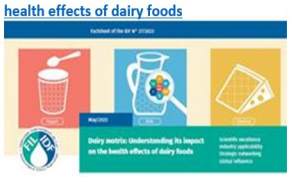


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LA MATRICE ALIMENTARE dei prodotti a base di latte

La serie (2023) delle 4 schede informative della FIL-IDF: generale, latte, yogurt, formaggio.

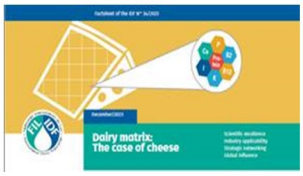
Factsheet of the IDF N° 27/2023: Dairy matrix: Understanding its impact on the health effects of dairy foods



Factsheet of the IDF N° 33/2023: Dairy matrix: The case of milk



Factsheet of the IDF N° 34/2023: Dairy Matrix: The case of cheese



Factsheet of the IDF N° 35/2023: Dairy matrix: The case of yoghurt



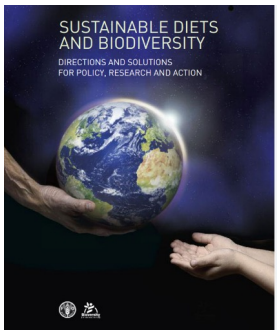
Le schede riportano la sintesi delle più recenti evidenze scientifiche sulla matrice lattiero-casearia.

Concetto fondamentale: ogni categoria e, all'interno di questa, **ogni tipo di alimento è una matrice diversa** che si traduce in effetto matrice distinto.

I prodotti lattiero caseari sono fondamentali in una dieta sana e sostenibile.

15

Dieta sostenibile: il passaggio chiave della FAO



da una
dieta sostenibile
ad una
dieta salutare e sostenibile



FAO, 2010:
DEFINITION OF SUSTAINABLE DIETS

Sustainable Diets are those diets with low environmental impacts which contribute to food and nutrition security and to healthy life for present and future generations. Sustainable diets are protective and respectful of biodiversity and ecosystems, culturally acceptable, accessible, economically fair and affordable; nutritionally adequate, safe and healthy; while optimizing natural and human resources.
Burlingame B., Dernini S., FAO 2010

FAO – WHO, 2019
AIMS OF SUSTAINABLE **HEALTHY** DIETS

Sustainable Healthy Diets are dietary patterns that promote all dimensions of individuals' health and wellbeing; have low environmental pressure and impact; are accessible, affordable, safe and equitable; and are culturally acceptable. The aims of Sustainable Healthy Diets are to achieve optimal growth and development of all individuals and support functioning and physical, mental, and social wellbeing at all life stages for present and future generations;
FAO and WHO. 2019. Sustainable healthy diets – Guiding principles. Rome.

FAO e WHO hanno introdotto il «concetto di salutare»

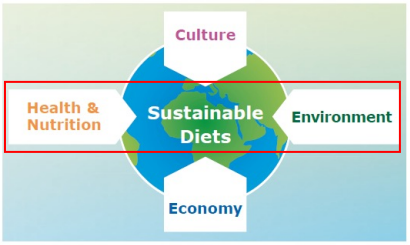
16

Dieta salutare e sostenibile

significa considerare nello stesso quadro

1. **NUTRIZIONE** (nutrizionalmente adeguata)
2. **AMBIENTE** (con il minor impatto ambientale possibile)
3. **ECONOMIA** (economicamente accessibile e sostenibile)

Figure 1. The 4 principal dimensions of sustainable diets



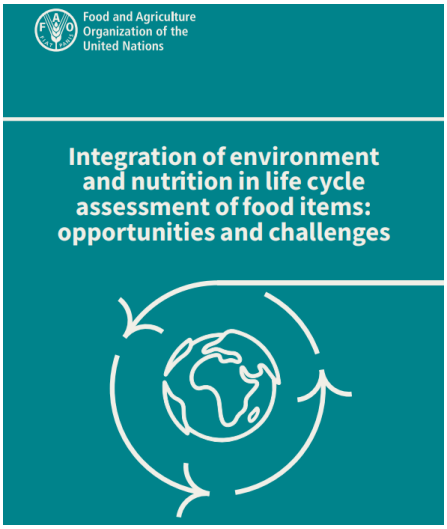
Peters S., Voeding Magazine 2 - 2019

4. **CULTURA** (culturalmente accettabile, nel rispetto delle abitudini e delle tradizioni delle diverse popolazioni)

EQUILIBRIO TRA NUTRIZIONE E AMBIENTE

17

FAO e Nutritional LCA (nLCA)



McLaren, S. et al, 2021, FAO, Rome

FAO (2021): integrare nutrizione e ambiente

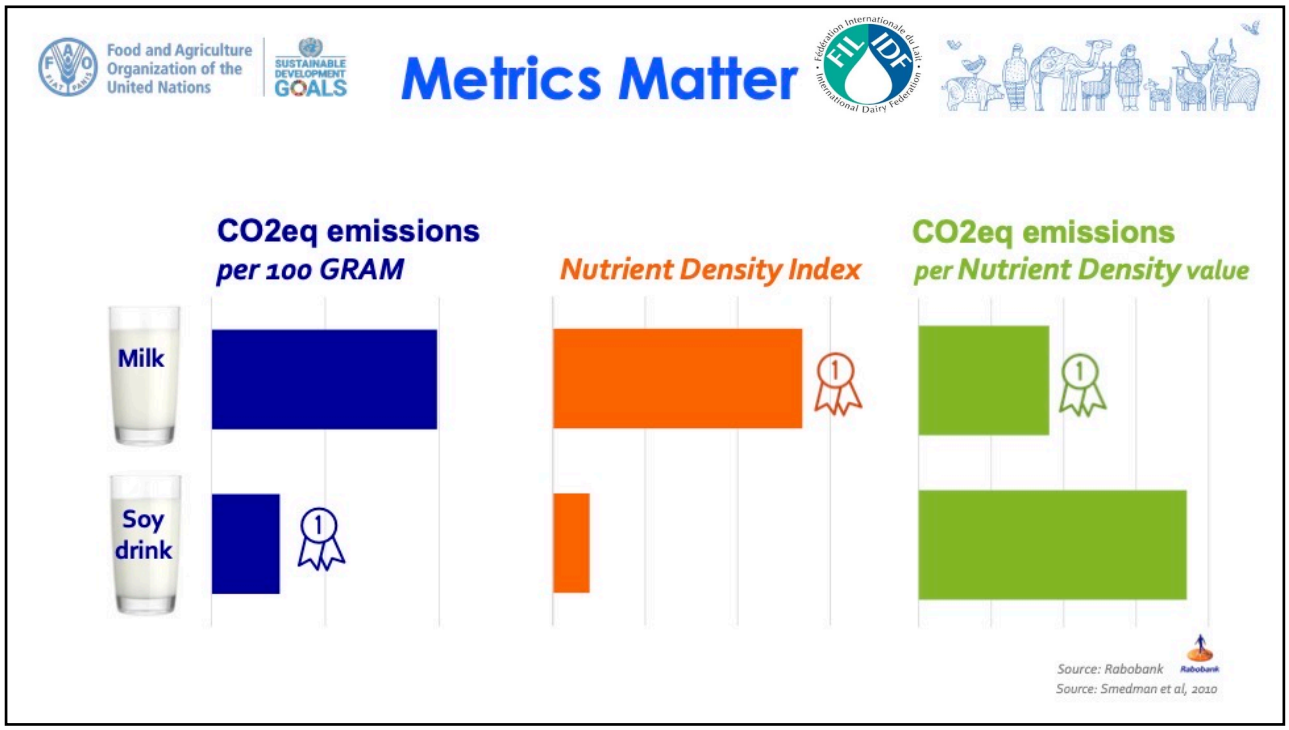
nella valutazione della sostenibilità degli alimenti.

Gli studi sul life ciclo di vita di un alimento (life cycle assessment), noti come LCA, dovrebbero diventare nutritional LCA (nLCA)

"This report defines a nutritional LCA (nLCA) study as an LCA study where the provision of nutrient(s) is considered as either the main function or one of the main functions of a food item."

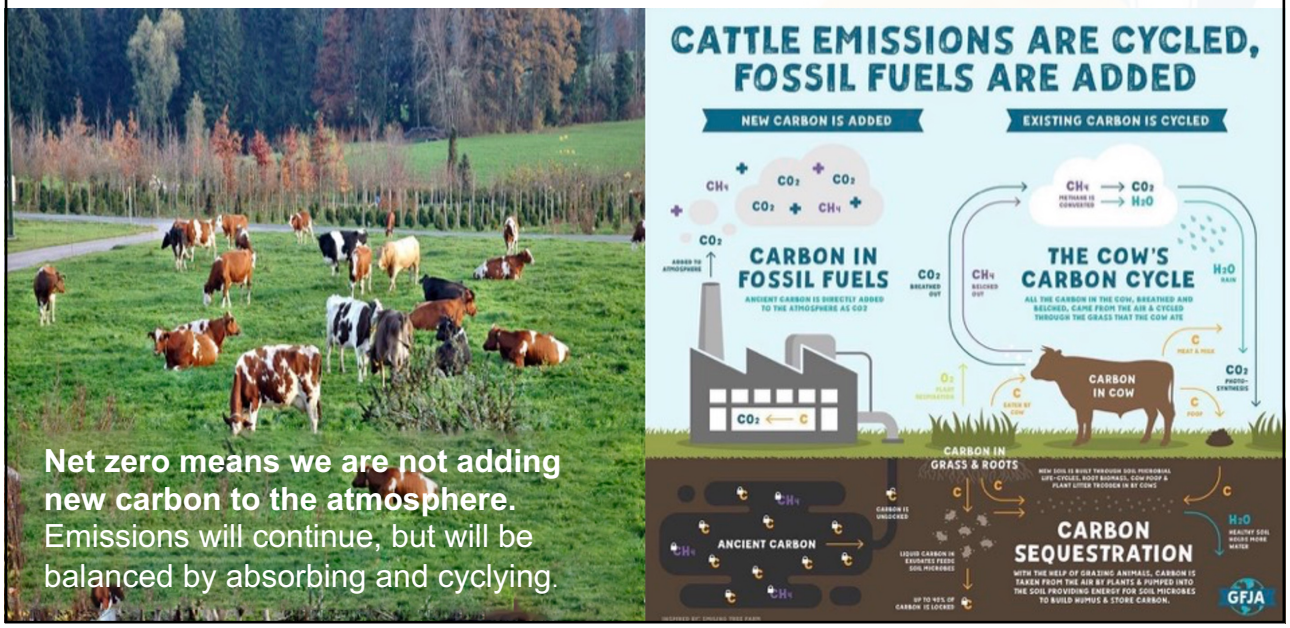
"nLCA studies should be undertaken by multidisciplinary teams involving nutritional and health scientists as well as environmental scientists".

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3) Spiegare e far capire il concetto di Circolarità delle emissioni della vacca e della zootecnia piu' in generale.



20

Il Sistema agroalimentare è parte del problema ma… è anche l'unico comparto che è parte della soluzione

*«…**le emissioni agricole** di gas a effetto serra (CO_2, metano, protossido d'azoto) interessano **carbonio in precedenza catturato con la fotosintesi**, il che si presta a 3 deduzioni principali:*

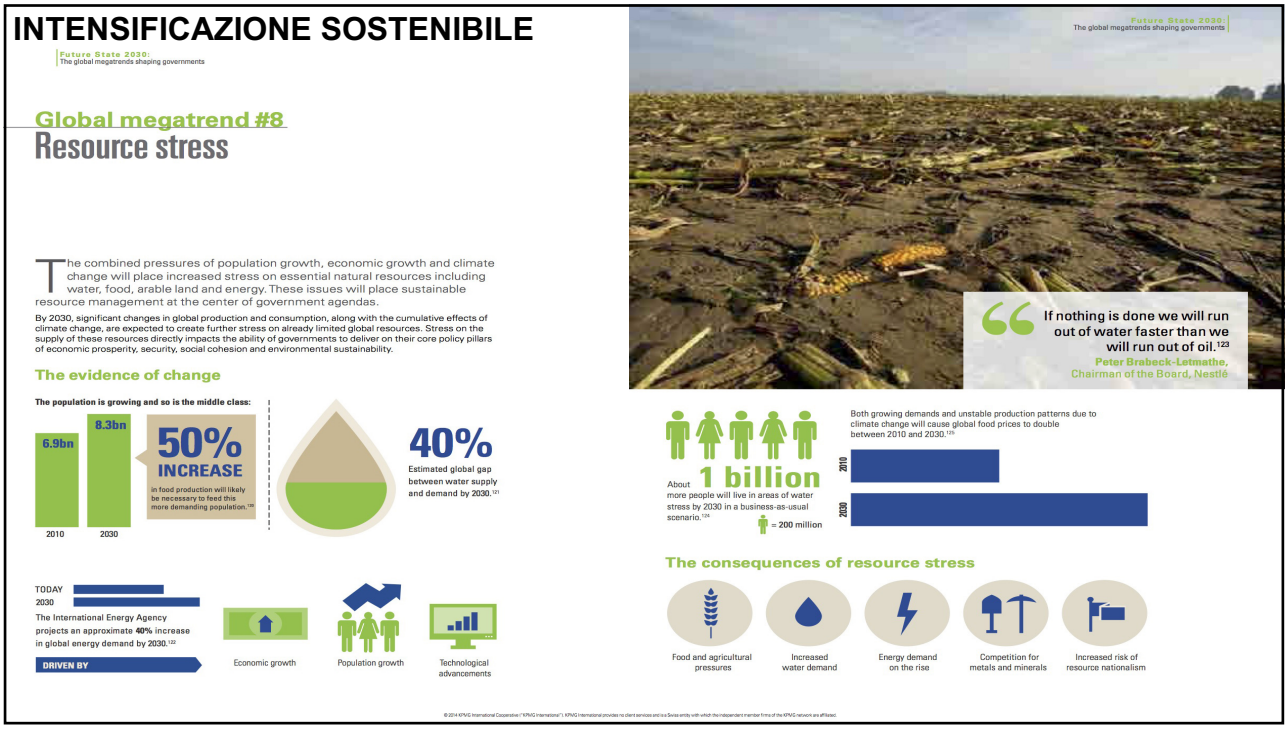
1. ***l'agricoltura emette solo una piccola parte** di quanto ha in precedenza assorbito con la fotosintesi (15,% circa). Le auto non assorbono CO_2!!*
2. ***l'agricoltura è in grado di contenere l'aumento dei livelli atmosferici di CO_2** potenziando la funzione fotosintetica e accumulando CO_2 sia nei prodotti che genera sia, in misura minore, nel terreno.*
3. *l'agricoltura dovrebbe essere ritenuta responsabile degli assorbimenti e delle emissioni che realizza fino al cancello dell'azienda».*

***«Le attività zootecniche** sono viste solo come grandi emettitori mentre dovrebbero invece essere viste come **parte di un ciclo** che le vede emettere quantitativi di gas a effetto serra che costituiscono solo una parte dell'anidride carbonica assorbita dall'agricoltura con la fotosintesi»*

(Luigi Mariani, Agrarian science, 2024)

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INTENSIFICAZIONE SOSTENIBILE



22

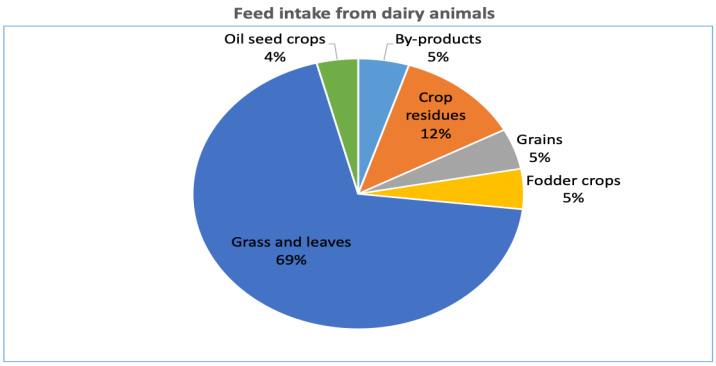
4)Le ricadute socio,economiche, ambientali e nutrizionali del settore lattiero caseari



23

LATTIERO CASEARIO SISTEMA SOST-EDIBILE

Feed requirements



96% of the global dairy feed intake is made of materials that are currently not eaten by humans

Source: GLEAM 3.0 Dashboard

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Food and Agriculture Organization of the United Nations

THE PARIS DAIRY DECLARATION ON SUSTAINABILITY

We, representatives of the global dairy community, gathered in Paris at the World Dairy Summit, from 15 to 18 October 2024, reiterate and reinforce our commitments for a sustainable transformation of the dairy sector.

We recognise

- The 2023 UN Secretary's General Call to Action for accelerated food systems transformation as a key driver to achieve the Sustainable Development Goals;
- The role of approximately 130 million dairy farms in the provision of nutritious food to billions of consumers and livelihoods for around 1 billion people, including farmers, processors, service providers, wholesalers, retailers and others;
- The role of the dairy sector in environmental sustainability and the need to decelerate climate change;
- The 2016 Declaration of Rotterdam, through which IDF and FAO committed to the sustainable development of the dairy sector;
- That current global progress falls far short of what is required to meet the targets of the 2030 Agenda.

We agree to:

- Communicate and highlight the quantified and timetabled commitments made by the dairy sector, including companies and associations, towards sustainability;
- Document and share sustainable dairy practices aligned with SDG's for wider adoption by dairy stakeholders;
- Foster and support open consultation among dairy, other stakeholders and decision-makers for making the dairy sector a proactive player in the transformative shift towards sustainable food systems.

We call upon global, regional, national and local stakeholders to:

- Recognize the critical role of the dairy sector in accelerating a sustainable transformation of food systems, from a socio-economic, environmental and public health perspective.
- Enhance public-private dialogue and collaboration for the creation of an enabling environment that supports the wide adoption of sustainable dairy practices that reflect local needs and realities.
- Support risk-taking, innovation and an incentive-driven approach for rapidly and sustainably transforming the dairy sector, whilst preserving and improving the livelihoods of dairy stakeholders and the sustainability of the entire dairy chain.

Paris, October 18th 2024.

Thanawat Tiensin
Assistant Director General and Director of NSA

Piercristiano Brazzale
FIL-IDF President



PARIS DAIRY DECLARATION ON SUSTAINABILITY

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A NEW CHALLENGE THE PARIS DAIRY DECLARATION

- ✓ The dairy sector has shown strong commitment to sustainability
  - Global Dairy Agenda for Action (2009)
  - Dairy Sustainability Framework (2013)
  - Dairy Declaration of Rotterdam (2016)
  - Pathways to Dairy Net Zero (2021)
  - Global Methane Pledge (2022)
- ✓ The **Paris Dairy Declaration on Sustainability**, signed by IDF and FAO in October 2024, solidifies a global commitment to sustainable dairy development with **public, quantified, and time-tabled objectives**.
- ✓ IDF **calls on** all members, leaders, and stakeholders to **endorse the Paris Dairy Declaration on Sustainability** and commit to achieving its sustainability goals.





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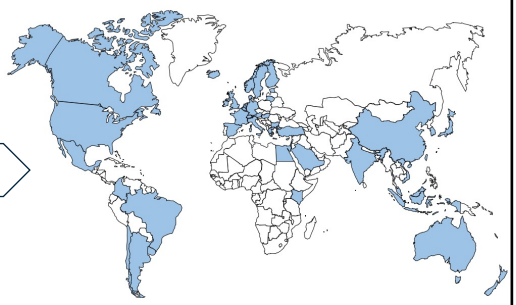
Coverage is broader and more representative

172 companies collecting and/or processing milk (global leaders and small regional companies)

+

11 collective organizations (interbranch organizations, farmers' or processors' federations, etc.)

44 countries across all continents



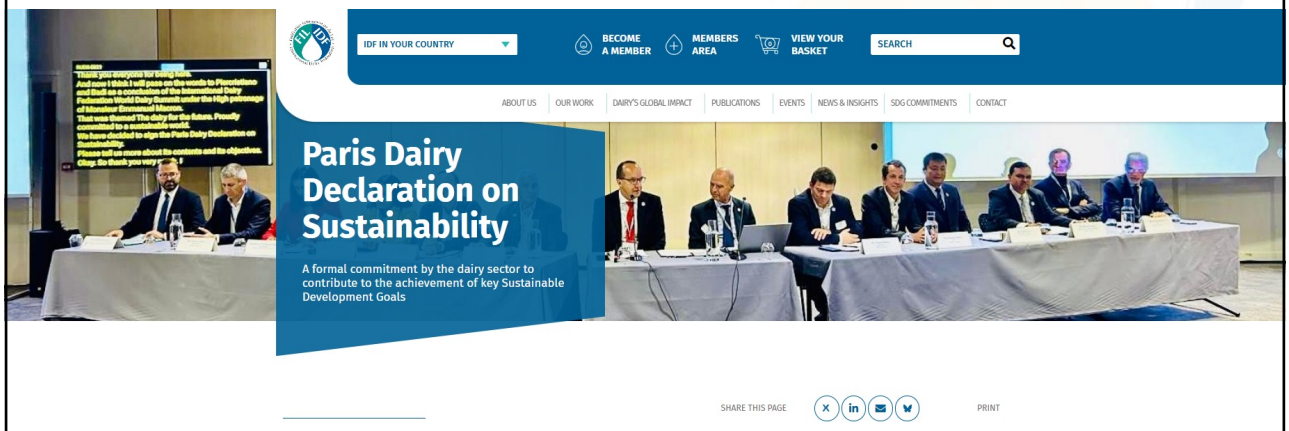
A precise description of the commitments in four areas of sustainability

	Health / Nutrition	Economic security	Natural resources stewardship	Climate change
Number of operators engaged by areas	31	58	133	157

SO WHAT: The stocktaking is becoming a credible, living accountability tool—not a static catalogue

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4. PDDS WEBPAGE



https://fil-idf.org/dairys-global-impact/paris-dairy-declaration/ -

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IDF WDS DAEJEON 2018
Milk is Perfection
Milk is critical and essential for international efforts to combat poverty and hunger.
THE GLOBAL GOALS
For Sustainable Development
IDF WDS DAEJEON 2018
Dairy for the Next Generation!
IDF WDS DAEJEON 20
Dairy for the Next Generati

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