LA SOSTENIBILITA' E IL WATERFOOTPRINT DEL SETTORE LATTIERO CASEARIO

BRAZZALE PIERCRISTIANO
Presidente Fil-Idf

SCIENZA E TECNICA
LATTIERO - CASEARIA

What is the IDF?

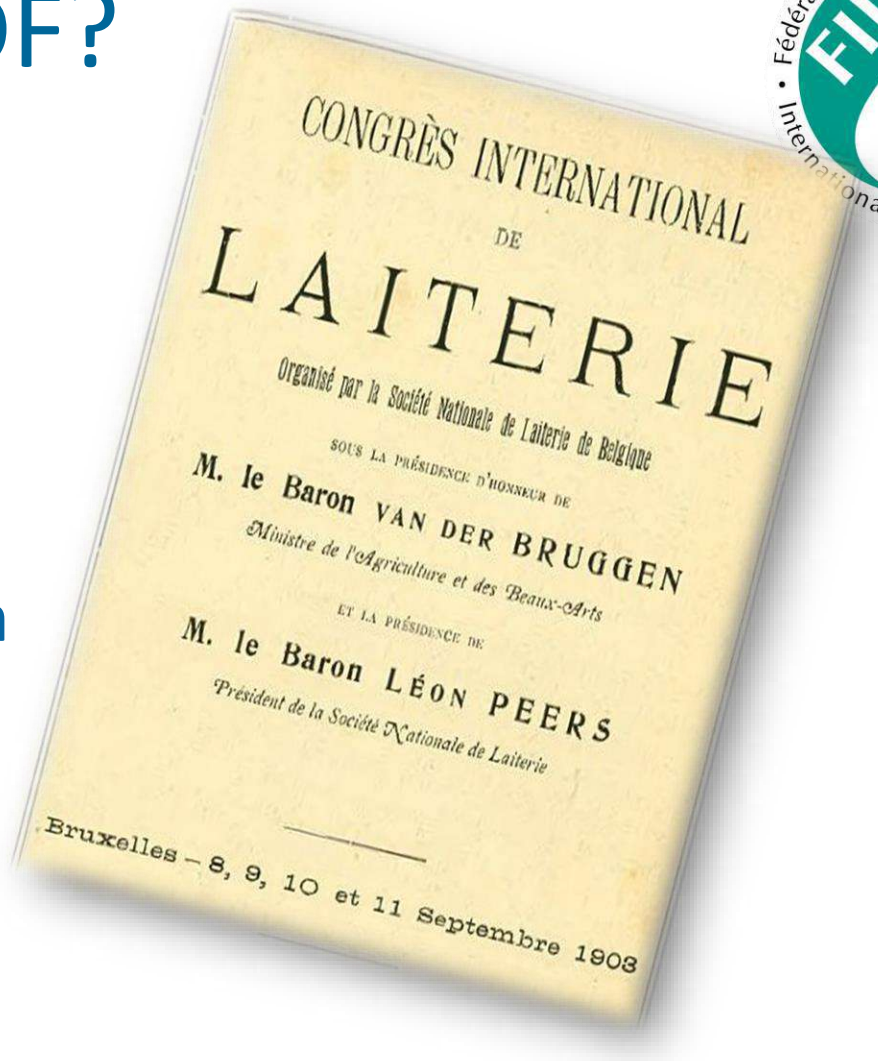
Established in 1903

More than 40 member countries

75% of world milk production

1,200 experts working in 17 Standing Committees and 3 Task Forces

Accredited to the FAO, Codex, OIE, UNEP



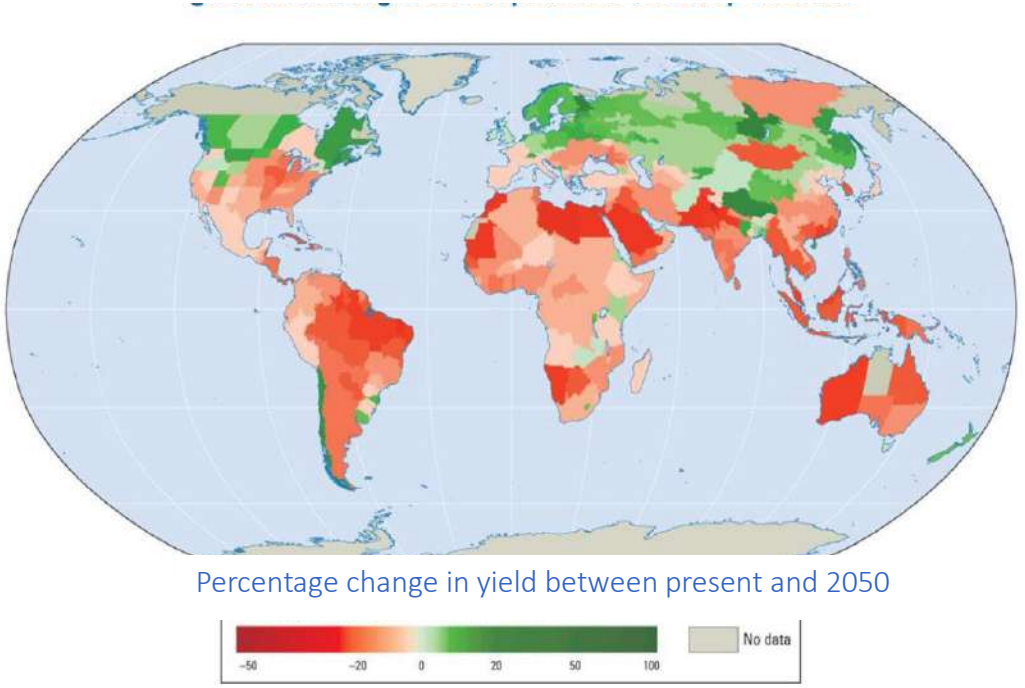
GLOBAL KEY DRIVERS:

POPULATION GROWTH, CLIMATE CHANGE:

SUSTAINABLE FARMING, PROCESSING,DISTRIBUTION

By 2050 >9 billion

Projected percentage in agricultural yields by 2050 given current agricultural practices and crop varieties



Percentage change in yield between present and 2050

Source: World Bank (Development Report 2010)

Agriculture …

uses 70% of fresh water

generates 24% of GHGs

uses 33% of land area

uses 30% of global energy

… But feeds 100% of us

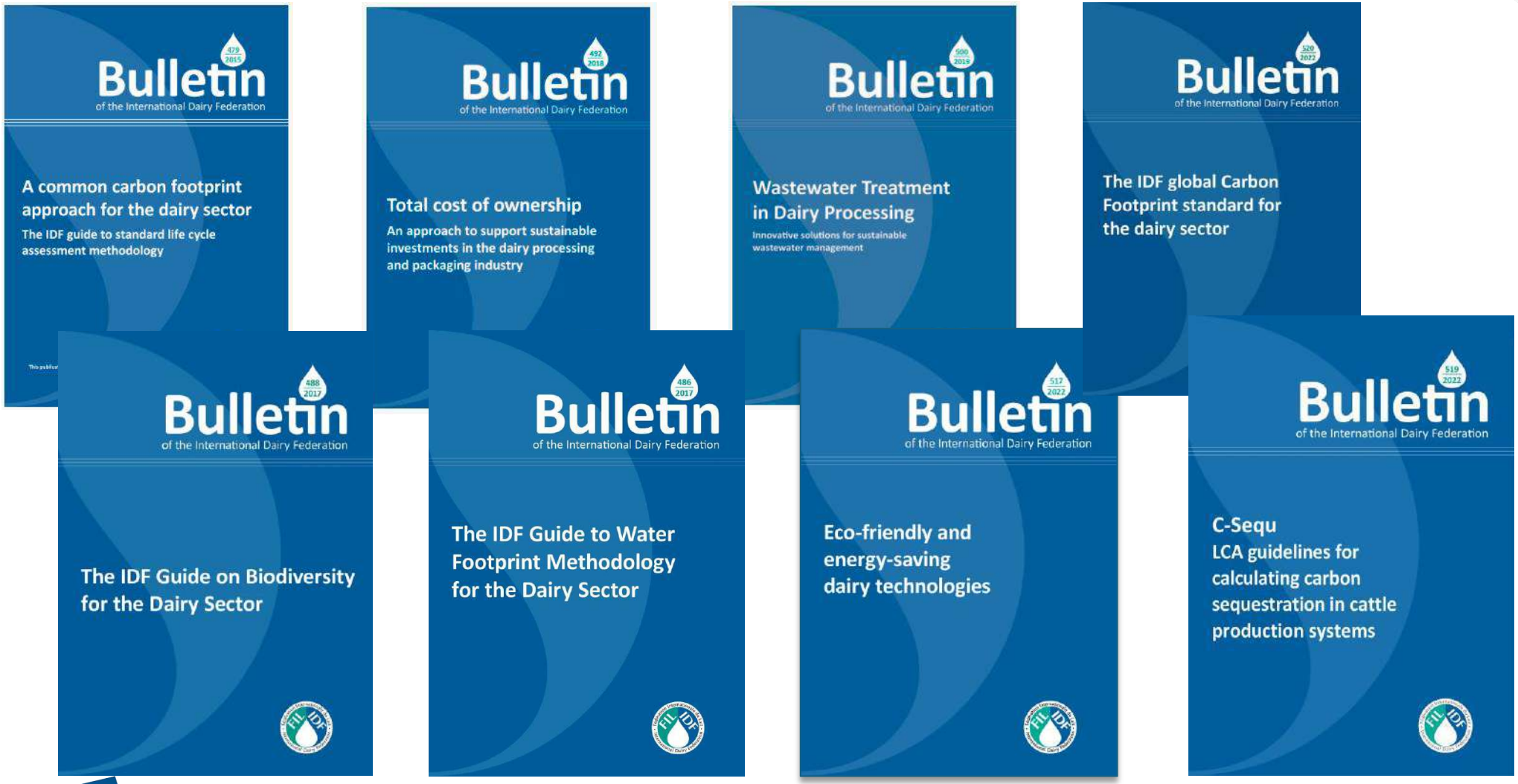
Latte PIÙ

DAIRY'S COMMITMENT TO SUSTAINABILITY

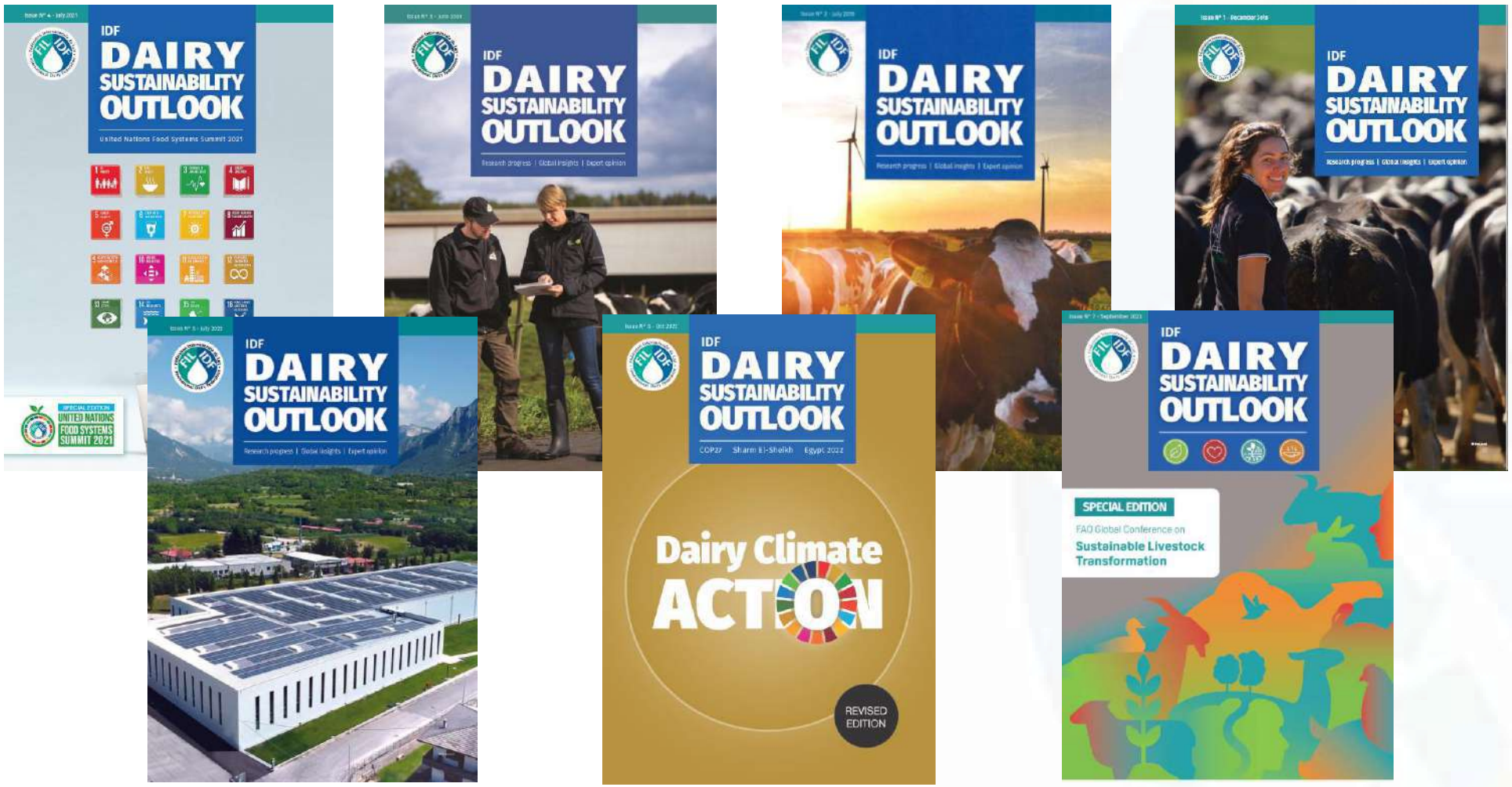
The dairy sector and the FAO signed on to the **Dairy Declaration of Rotterdam** in 2016:

"We, representative of the one-billion-person global dairy community, gathered in Rotterdam at the World Dairy Summit, are committed to the sustainable development of the dairy sector to generate widespread benefits for people and the planet."

IDF METHODOLOGIES AND SUSTAINABLE PRACTICES



THE SERIES EXPLORES CASE STUDIES OF SUSTAINABLE PRACTICES & INNOVATIONS ACROSS THE DAIRY SECTOR



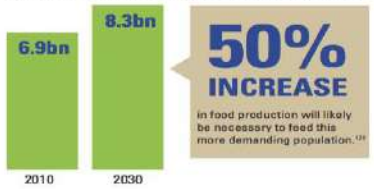
Global megatrend #8
Resource stress

The combined pressures of population growth, economic growth and climate change will place increased stress on essential natural resources including water, food, arable land and energy. These issues will place sustainable resource management at the center of government agendas.

By 2030, significant changes in global production and consumption, along with the cumulative effects of climate change, are expected to create further stress on already limited global resources. Stress on the supply of these resources directly impacts the ability of governments to deliver on their core policy pillars of economic prosperity, security, social cohesion and environmental sustainability.

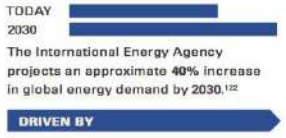
The evidence of change

The population is growing and so is the middle class:



50% INCREASE
in food production will likely be necessary to feed this more demanding population.[120]

40%
Estimated global gap between water supply and demand by 2030.[121]



The International Energy Agency projects an approximate **40%** increase in global energy demand by 2030.[122]

DRIVEN BY

Future State 2030:
The global megatrends shaping governments

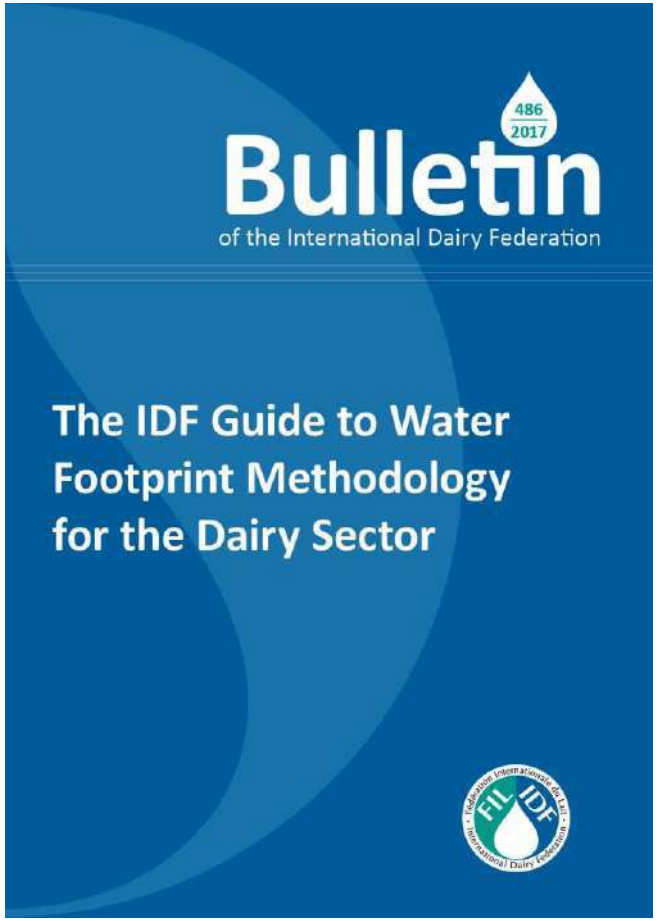
> If nothing is done we will run out of water faster than we will run out of oil.[123]
> **Peter Brabeck-Letmathe,**
> **Chairman of the Board, Nestlé**

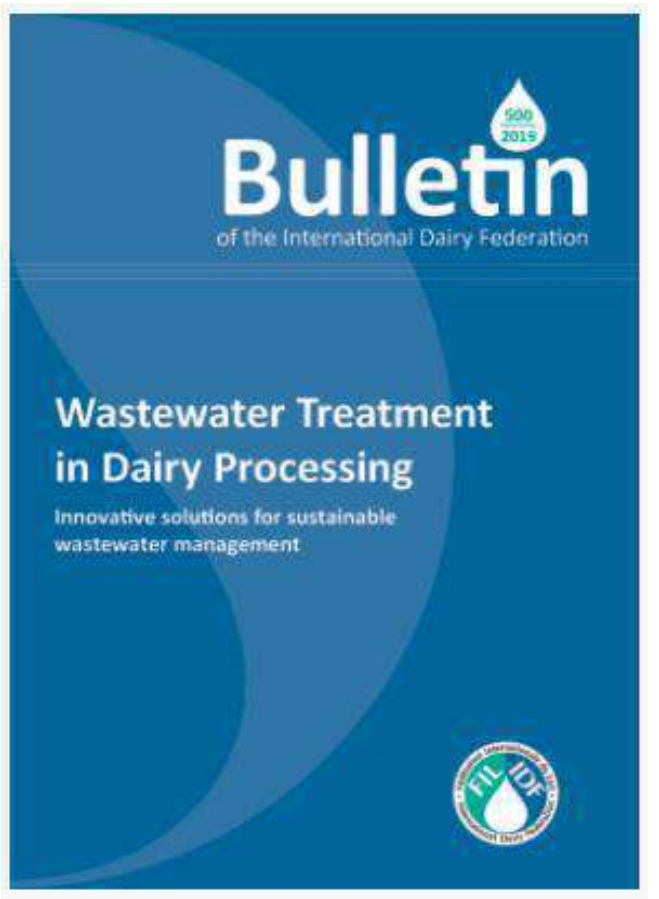
About **1 billion** more people will live in areas of water stress by 2030 in a business-as-usual scenario.[124]

= 200 million

Both growing demands and unstable production patterns due to climate change will cause global food prices to double between 2010 and 2030.[125]

The consequences of resource stress


Bulletin
486
2017
of the International Dairy Federation
The IDF Guide to Water Footprint Methodology for the Dairy Sector


Bulletin
500
2015
of the International Dairy Federation
Wastewater Treatment in Dairy Processing
Innovative solutions for sustainable wastewater management

Water footprint components

Green water footprint

- volume of rainwater evaporated

or incorporated into product

Blue water footprint

- volume of surface or groundwater evaporated or incorporated into product

Grey water footprint

- volume of polluted water

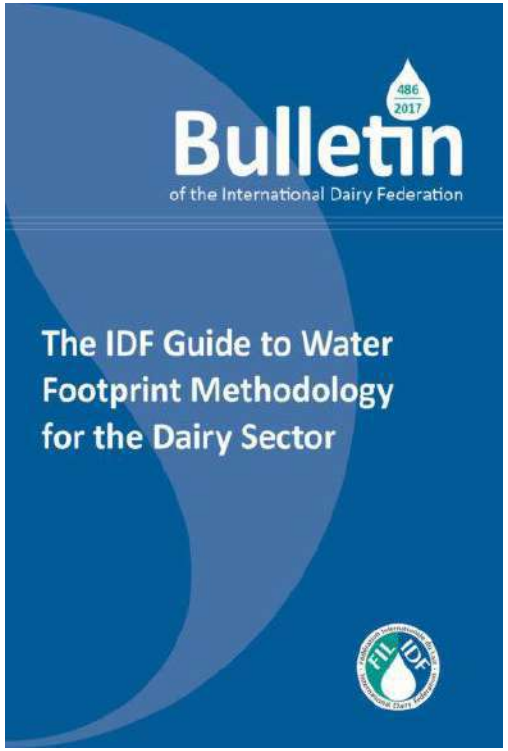
Latte PIÙ

Quine
EMPOWERING MINDS

IDF Water Footprint Guide

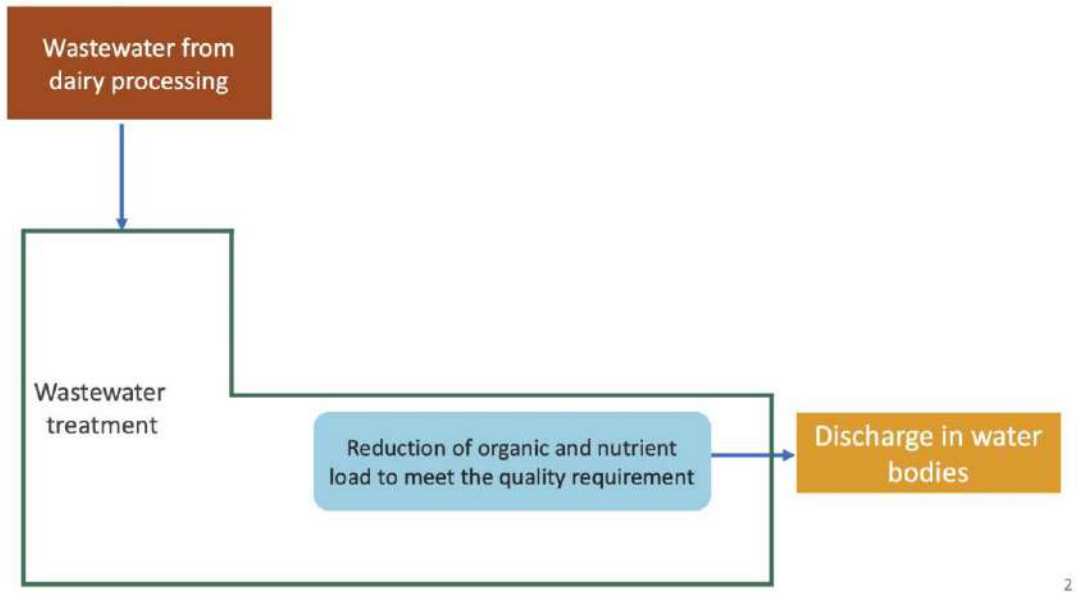
2017 guidance document:

- ✓ Life cycle assessment methodology
- ✓ Consumptive and degradative water use
- ✓ Water stress (identify hotspots of water use and establishment of progress indicators)
- ✓ Links to IDF Carbon Footprint Guide:
  - functional unit (1l of FPCM)
  - system boundary (Feed production to factory gate exit)
  - allocation
- ✓ International standards and guidance as a basis: ISO 14046, WULCA (UNEP/SETAC)



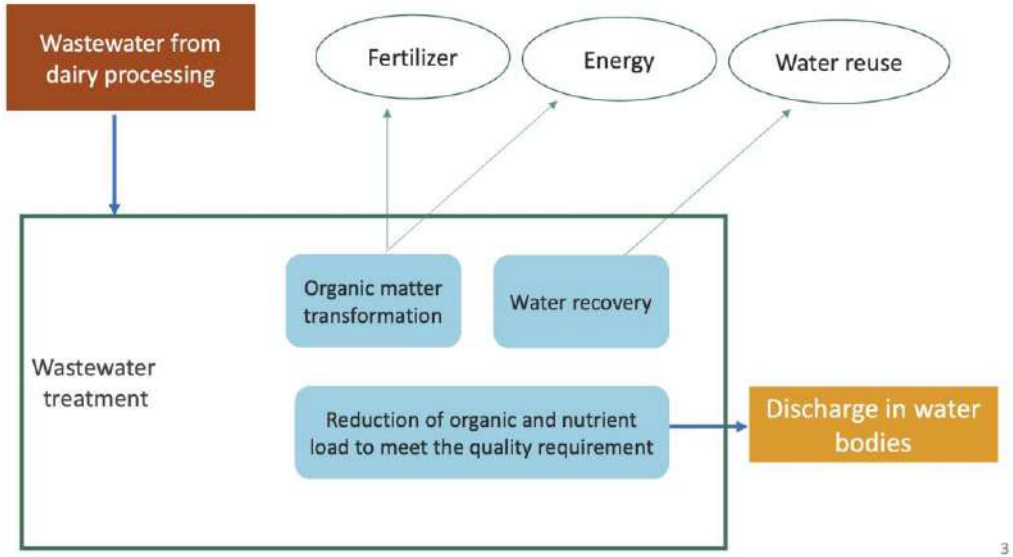
WASTEWATER MANAGEMENT : A CHALLENGE FOR THE DAIRY SECTOR

How to turn necessity...



WASTEWATER MANAGEMENT : A CHALLENGE FOR THE DAIRY SECTOR

How to turn necessity into an opportunity



Conventional Wastewater Treatments

Advanced options

2. MEMBRANES TECHNOLOGIES

Future Treatments

FROM

« WASTE » WATER

TO

« RESSOURCE » WATER