



# FOOD, PEOPLE AND PLANET



**Barilla**  
**Center**

FOR FOOD  
& NUTRITION

*Roberto Ciati – Board BCFN Foundation*  
*April 8, 2017*



## THE BURNING ISSUES FOR OUR PLANET

### • CLIMATE CHANGE

- 8-20% reduction in *cultivated surface area* by 2050
- 5-25% reduction in *production level* by 2050
- *Environmental impact of agricultural production on the atmosphere*

### • AGRICULTURAL PRODUCTIVITY

- *Productivity growth slowed*
- *Farm land mostly used for livestock and animal feed production*
- *Loss of biodiversity*
- *Human capital*

### • FOOD LOSS AND WASTE

- *Food losses at the cultivation level and lack of infrastructures*
- *Food waste at consumer level*



### • POPULATION GROWTH

- 7.3 billion in 2016
- 9.7 billion in 2050
- *Migration flows*

### • WATER MANAGEMENT

- *less water/more needs*
- *70% of the world water consumption linked with agriculture*

### • URBANIZATION

*Total population in urban areas (%) in 2030:*

- *Africa: 55%*
- *Asia: 66%*
- *South America: 74 %*

### • EATING BEHAVIOURS, QUALITY AND LIFE EXPECTANCY

- *Malnutrition: Hunger vs Obesity*
- *Low levels of physical activity*
- *Growth of life expectancy*
- *Diets' impact on health: sugar, fats etc..*
- *Food policies*



## The BCFN Vision and Mission

### Vision

Enable people to make informed choices about food and nutrition.

### Mission

The BCFN is an **independent multidisciplinary center** which aims to provide multiple outputs and contributions with high scientific contents and become over time a valuable tool for **Institutions**, the **Scientific Community**, **Media** and for **People**.

A privileged **meeting point** for anyone interested in food, the environment, sustainable growth and their implications on people's and society's life, at a national and international level.



## GOVERNANCE

# Board of Directors



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*Chairman*



**Paolo Barilla**  
*Vice Chairman*



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*Coordinator S&D  
Committee on Agriculture  
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European Parliament*



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*Pro-Rector for  
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**Carlo Petrini**  
*Chairman and Founder  
Slow Food*



# GOVERNANCE

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Executive Director,  
Climate Finance -  
Climate Policy Initiative



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FEED Projects and the  
FEED Foundation



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The Food Think Tank



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Milan Center for Food Law  
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Member of the  
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Nobel Prize for Peace 2007



**Stefano Zamagni**  
Professor of Economics John  
Hopkins University and  
Member Pontifical  
Academy of Social Sciences

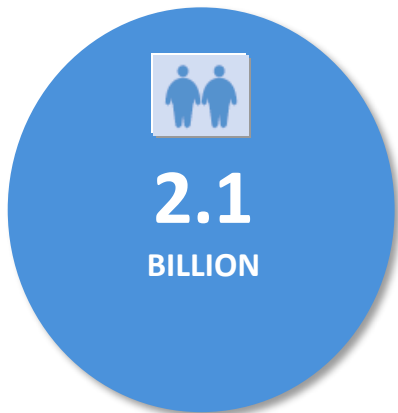


# THE GLOBAL PARADOXES ON FOOD AND NUTRITION

DIE OF HUNGER  
OR OBESITY?

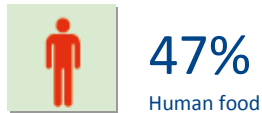


VS

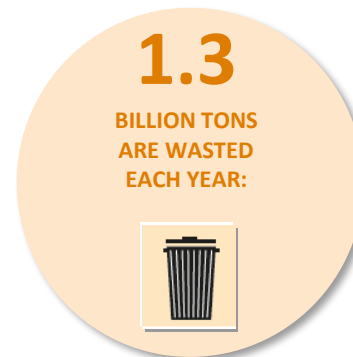


FEED PEOPLE,  
ANIMALS  
OR CARS?

WORLD GRAIN PRODUCTION  
AND ITS USE



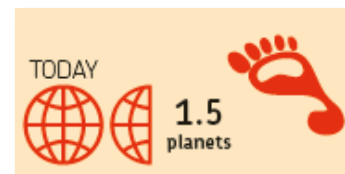
FEED WASTE  
OR FEED THE  
HUNGRY?



=

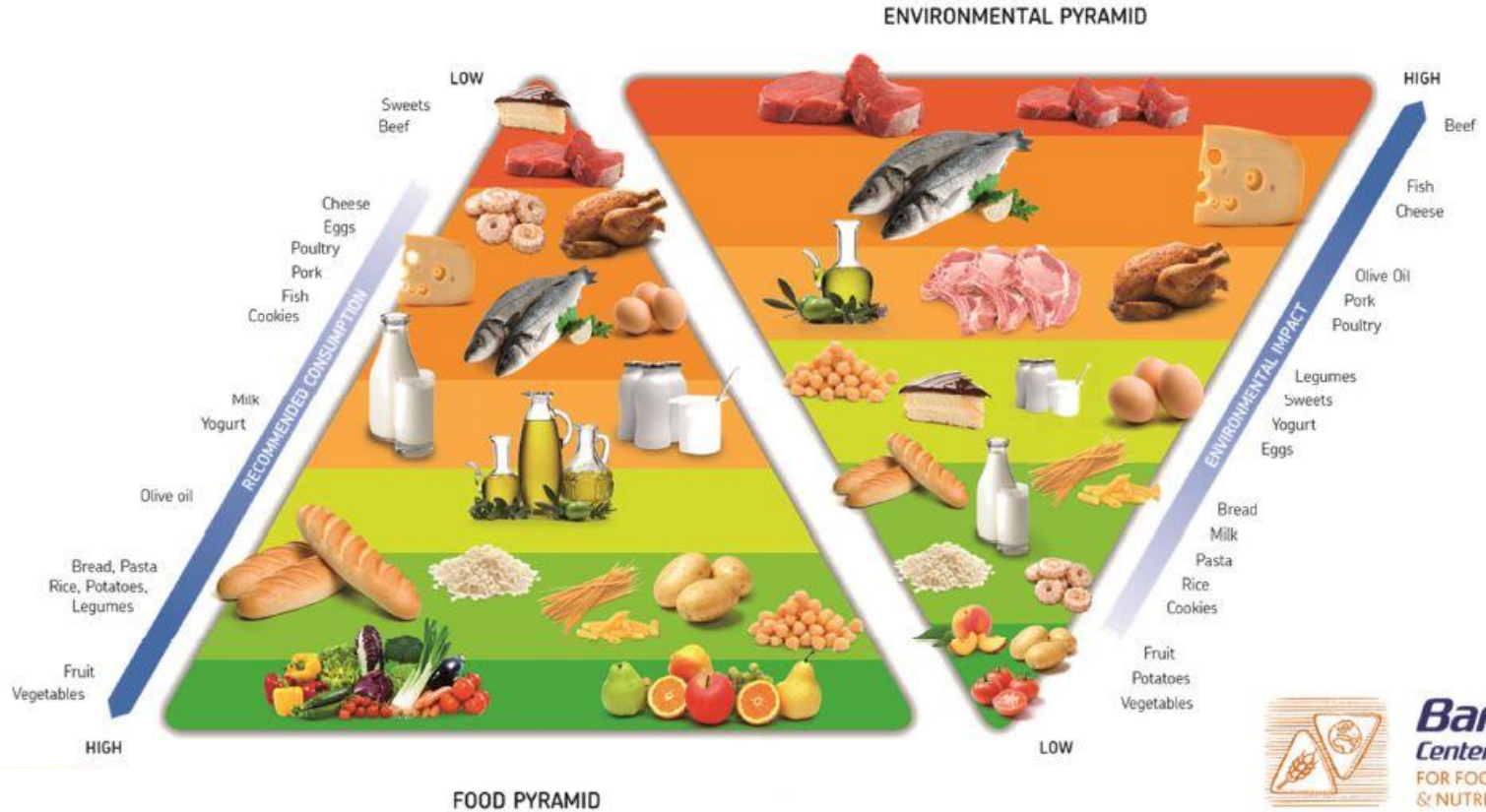


**THE PLANET'S BALANCE IS NEGATIVE!**



# THE BCFN FLAGSHIP CONCEPT

THE DOUBLE PYRAMID FOR ADULTS

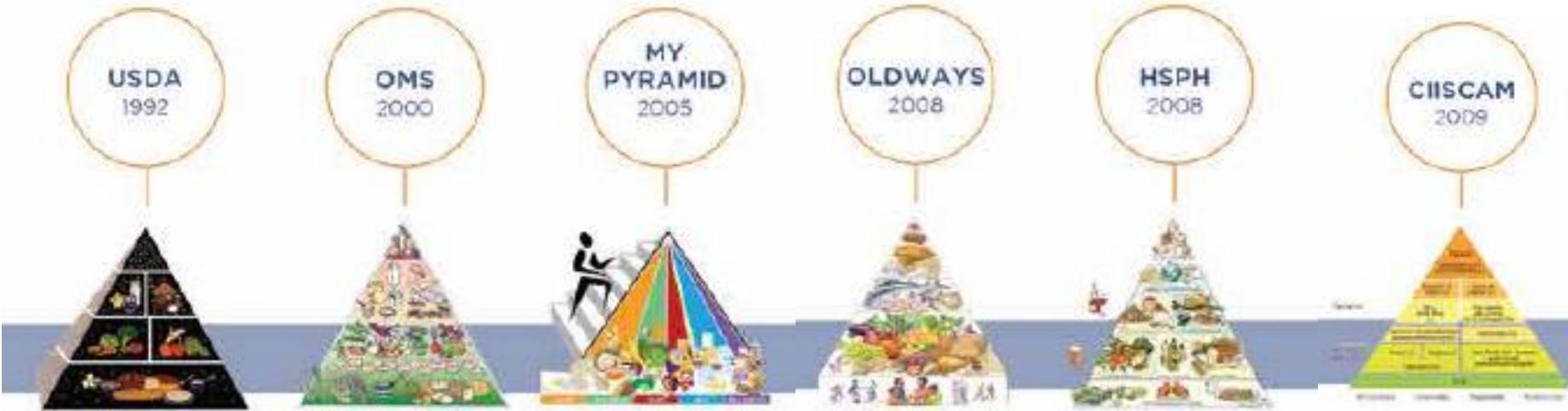


**GOOD FOR YOU, GOOD FOR THE PLANET**

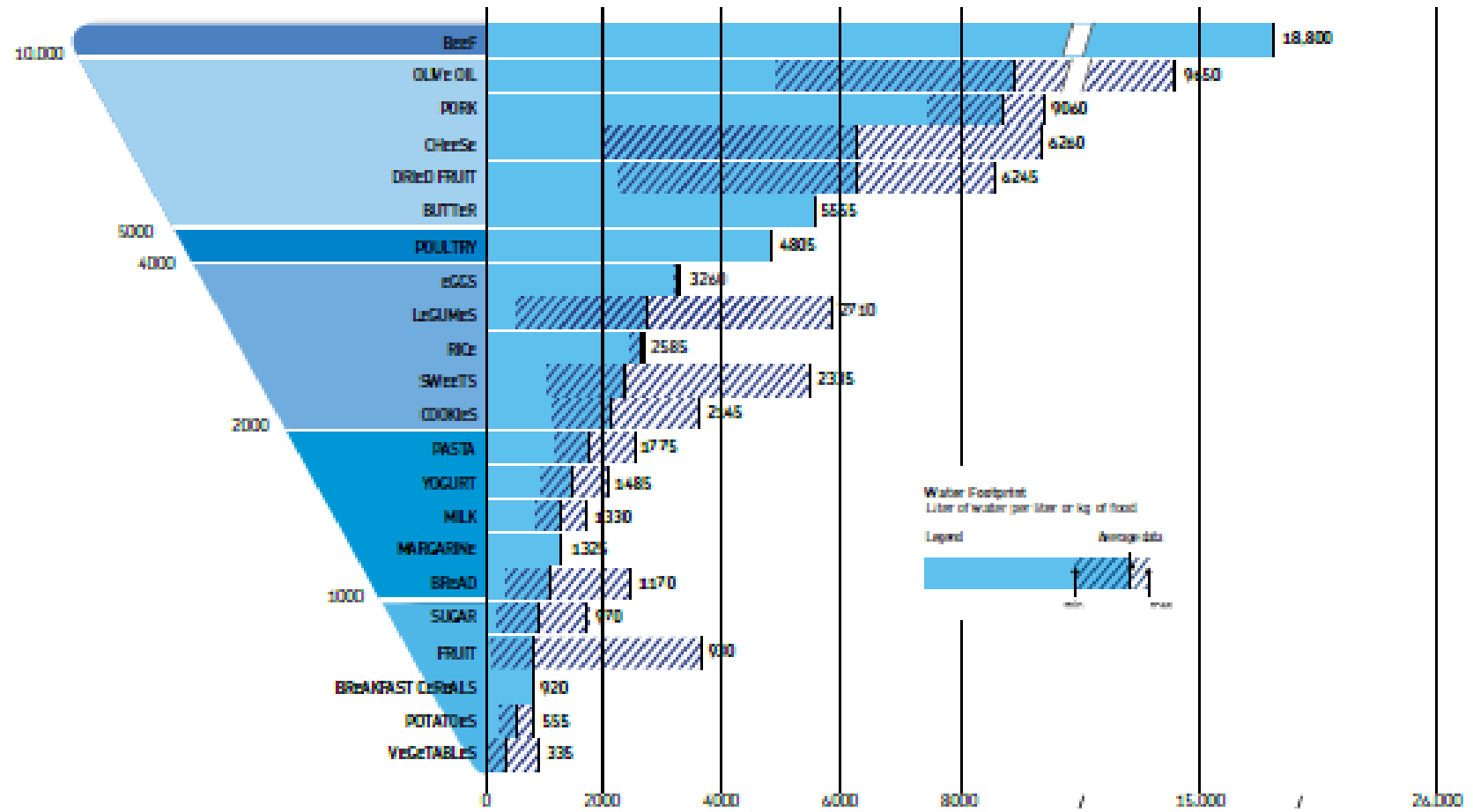




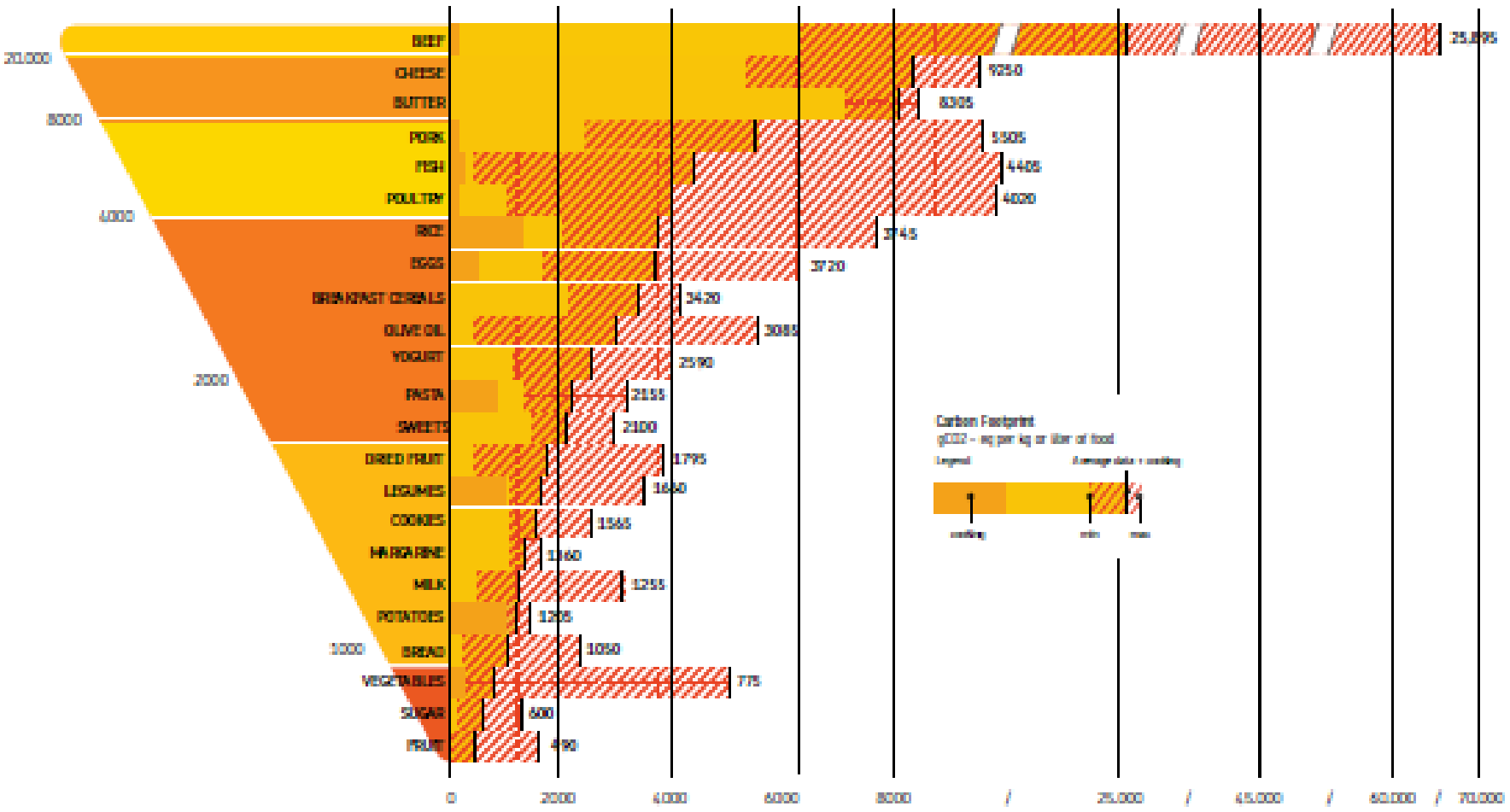
# THE BCFN FLAGSHIP CONCEPT: Food Pyramid



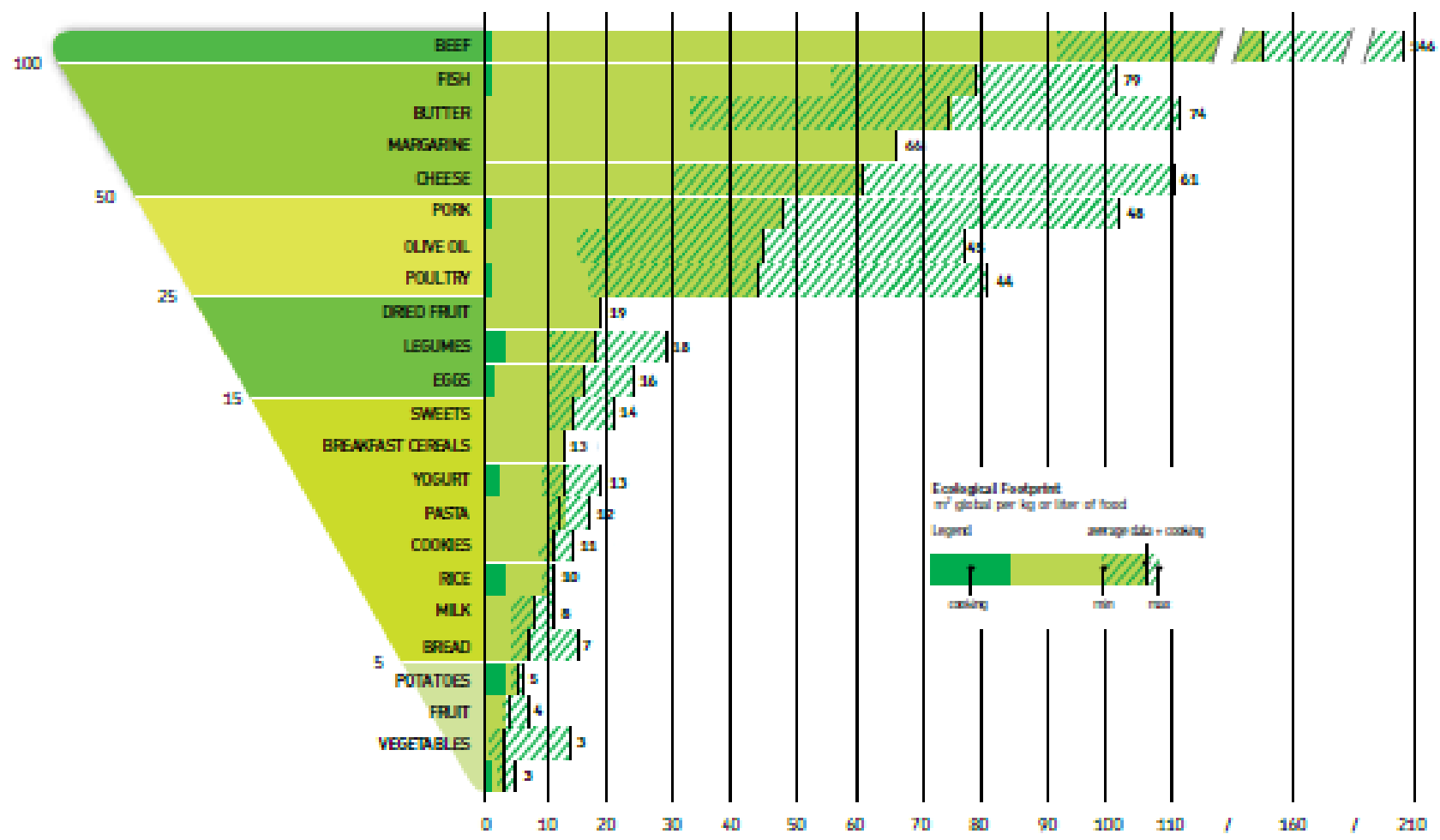
# THE BCFN FLAGSHIP CONCEPT: Water Footprint



# THE BCFN FLAGSHIP CONCEPT: Carbon Footprint

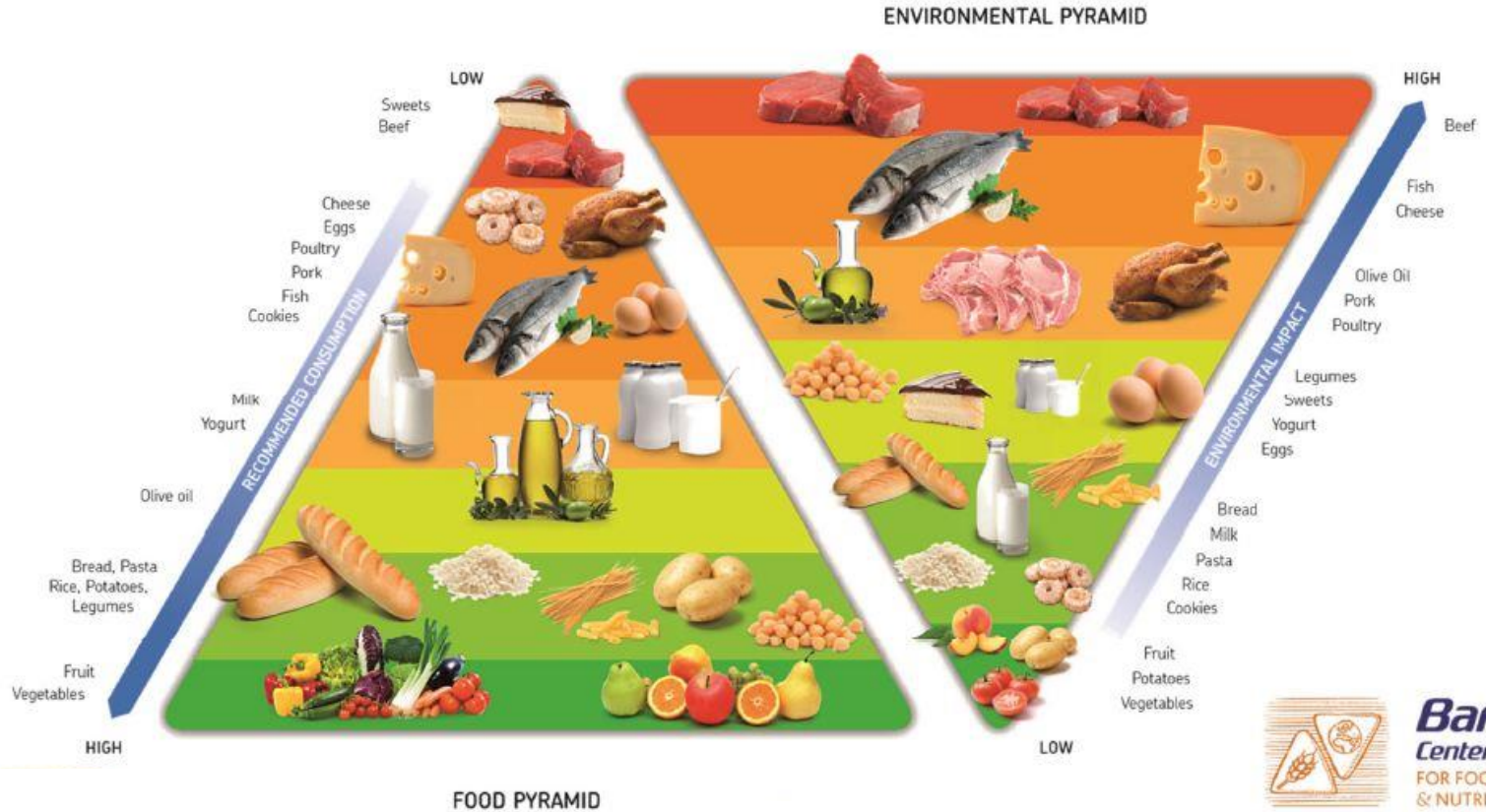


# THE BCFN FLAGSHIP CONCEPT: Ecological Footprint



# THE BCFN FLAGSHIP CONCEPT

THE DOUBLE PYRAMID FOR ADULTS



GOOD FOR YOU, GOOD FOR THE PLANET



## THE PATHWAY TOWARDS THE SUSTAINABLE DEVELOPMENT GOALS

The BCFN aims to support the achievement of the Sustainable Development Goals through **research, dissemination** and **public engagement** in Food, Nutrition and Sustainability, with a multidisciplinary approach.

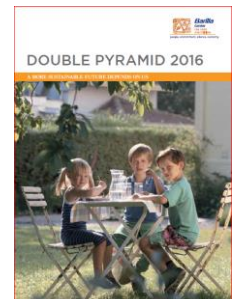


## THE FOOD SYSTEM AND THE SDGs



### ZERO HUNGER AND HEALTHY LIFESTYLES

Access to Food for All and Fight Obesity

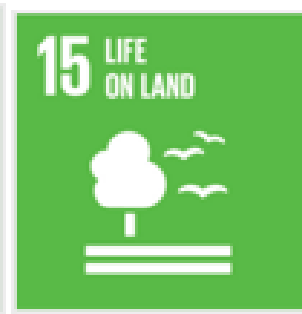


## THE FOOD SYSTEM AND THE SDGs



PROMOTE SUSTAINABLE AGRICULTURE

5% from  
Food Crops  
on Biofuels



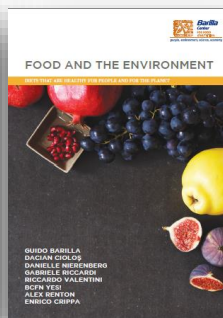


## THE FOOD SYSTEM AND THE SDGs



END FOOD WASTE

Waste's  
Reduction  
by 50%  
by 2020



## 2009-2016: OUR COMMITMENT

### Research and dissemination



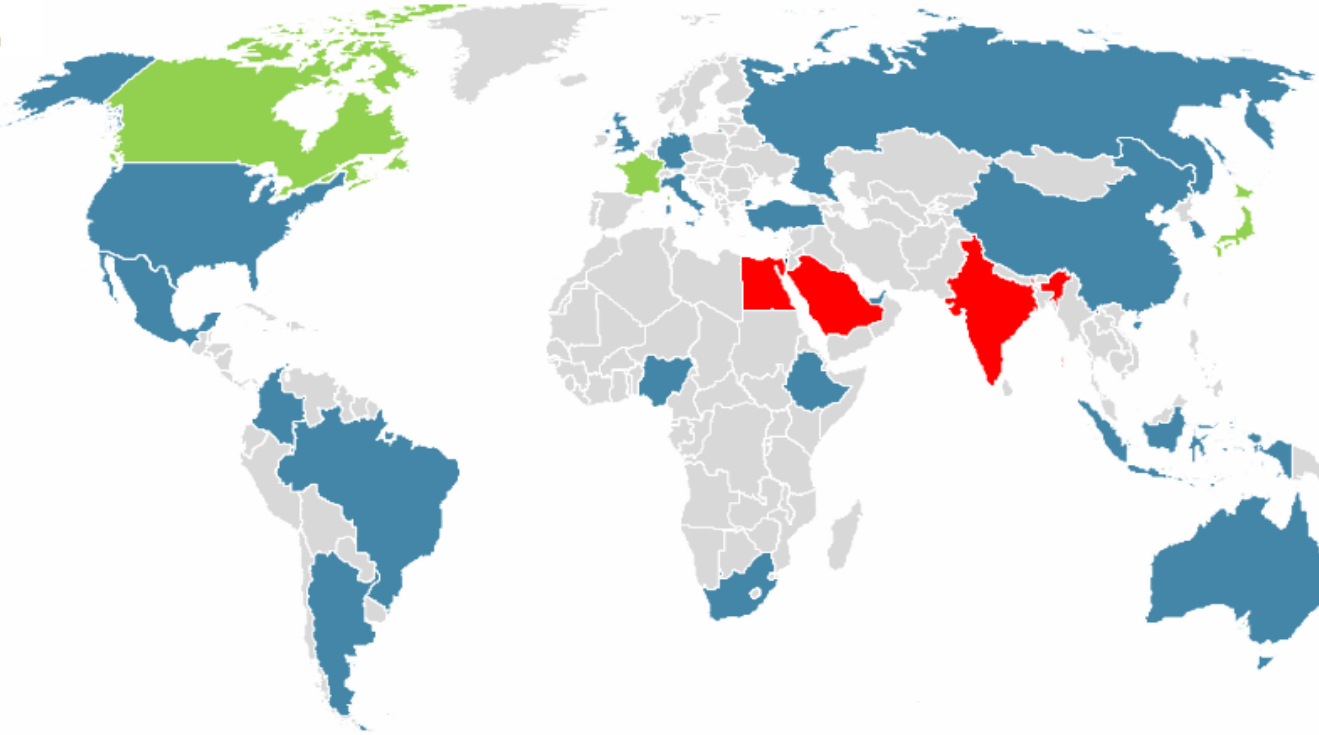
### International Forum on Food and Nutrition



### Networking and Advocacy



## The Food Sustainability Index



**25 Countries**  
87% of global GDP  
over 2/3 of global population

**Top Performers:**

- 1) France
- 2) Japan
- 3) Canada

**Bottom Performers:**

- 23) Egypt
- 24) Saudi Arabia
- 25) India

Developed by



The **Food Sustainability Index** is a tool aiming at highlighting policies and best practices on a global scale related to food paradoxes and the main SDGs on food, climate change, sustainable cities, responsible production and consumption, health, gender equality, education and infrastructures.

[www.foodsustainability.eiu.com](http://www.foodsustainability.eiu.com)



## THE FOOD SUSTAINABILITY INDEX

### The rationale

BCFN's continuous effort to prompt the engagement of civil society, policy makers, and businesses on the food-related challenges that the world is now facing.

### Objectives

The FSI investigates the extent to which food sustainability is realised in 25 countries from different regions in the world, by analysing their performance vis-à-vis three main challenges with which the global food system is currently confronted:

- **Promoting sustainable agricultural practices (Sustainable Agriculture);**
- **Ensuring healthy nutrition and lifestyles (Nutrition Challenges);**
- **Reducing food waste and losses (Food Loss and Waste).**

The FSI's aims are threefold:

- **to highlight the performance of countries** in the three areas identified, through the use of qualitative and quantitative key performance indicators (KPIs) in the economic, social and environmental domain;
- **to offer examples of best practices at the national and city levels** through focus on specific case studies and a "city monitor" tracking the performance and progress of 16 municipalities in the world;
- **to measure progress over time** by updating of the FSI periodically.



# THE FOOD SUSTAINABILITY INDEX

FOOD LOSS AND WASTE	SUSTAINABLE AGRICULTURE	NUTRITIONAL CHALLENGES
Food loss +	Water resources +	Life quality +
End-user waste +	Land (land use, biodiversity, human capital) +	Life expectancy +
	Air (GHG emissions) +	Dietary Patterns +



## THE FOOD SUSTAINABILITY INDEX

0-33    33-67    67+

FOOD LOSS AND WASTE		SUSTAINABLE AGRICULTURE		NUTRITIONAL CHALLENGES	
Food loss	—	Water resources	—	Life quality	—
Food loss	72.64	Environmental impact of agriculture on water	46.04	Prevalence of under- and malnourishment	97.22
Policy response to food loss	100.00	Sustainability of water withdrawal	51.44	Micronutrient deficiency	86.14
Causes of distribution-level loss	100.00	Water scarcity	95.00	Ecological efficiency of supporting people's well-being	46.50
Solutions to distribution-level loss	84.63	Water management	100.00	Healthcare expenditure and costs	90.79
End-user waste	+	Land (land use, biodiversity, human capital)	+	Life expectancy	+
		Air (GHG emissions)	+	Dietary Patterns	+

- Argentina
- Australia
- Brazil
- Canada
- China
- Colombia
- Egypt
- Ethiopia
- France
- Germany
- India
- Indonesia
- Israel
- Italy
- Japan
- Mexico
- Nigeria
- Russia
- Saudi Arabia
- South Africa
- South Korea
- Turkey

United Arab Emirates

United Kingdom

United States of America



## Top and bottom: Overall and across the three pillars

### Top performers overall

#### Top 3

France 67.5  
Japan 66.7  
Canada 64.9

#### Bottom 3

Egypt 48.9  
Saudi Arabia 47.4  
India 43.1

### Food loss and food waste

#### Top 3

France 80.2  
Australia 76.3  
S Africa 75.7

#### Bottom 3

UAE 32.5  
Indonesia 32.5  
Saudi Arabia 27.6

### Sustainable agriculture

#### Top 3

Germany 65.5  
Canada 62.3  
Japan 60.6

#### Bottom 3

Egypt 44.8  
UAE 41.4  
India 40.5

### Nutritional challenges

#### Top 3

France 72.0  
Japan 70.3  
S Korea 69.6

#### Bottom 3

S Africa 53.2  
Nigeria 52.9  
India 45.0

## FOOD SUSTAINABILITY MEDIA AWARD



**Media play a key role in promoting food sustainability**

**The Food Sustainability Media Award**  
is a Global media contest  
to award outstanding and under-reported  
news, photographs and videos related to food, nutrition and  
sustainability

**[www.goodfoodmediaaward.com](http://www.goodfoodmediaaward.com)**





## THE BCFNYES! CONTEST AND THE BCFN ALUMNI

Barilla Center FOR FOOD & NUTRITION YOUNG EARTH SOLUTIONS

YES! PROJECT PREVIOUS EDITIONS LOGIN | SIGN UP

Like 3,900 people like this. Sign Up to see what your friends like.

Download the new competition rules of BCFN YES! 2015:  
Find out how to participate in the competition of the Barilla Center for Food & Nutrition aimed at young ideas to improve the sustainability of the agri-food sector

DISCOVER THE WINNER OF BCFNYES! > DISCOVER THE WINNER OF BEST ON THE WEB > DISCOVER MILAN PROTOCOL >

NEWS & EVENTS | Genoa ISIA | **March 18** RomeMUN | **March 23** University of Florence - MSc Nutrition Sciences | **March 31** ISIA Pescara - EXPO in tour

**YOUNG RESEARCHERS  
ARE INVITED  
TO PRESENT**

**THEIR RESEARCH  
IDEAS ON THE THREE**

**BCFN PARADOXES**

**BY SUBMITTING  
PROJECTS ENABLING**

- . HEALTHY LIFESTYLES**
- . SUSTAINABLE AGRICULTURE**
- . THE END OF FOOD WASTE**

[www.bcfnyes.com](http://www.bcfnyes.com)

**THE BCFN ALUMNI ARE 100 YOUNG  
PASSIONATE RESEARCHERS  
FROM ALL OVER THE WORLD  
PARTICIPATING IN THE  
BCFNYES! CONTEST**



# SAVE THE DATE



8<sup>TH</sup> INTERNATIONAL FORUM ON FOOD & NUTRITION  
MILAN, DECEMBER 4-5 2017

[www.barillacfn.com/en/forum](http://www.barillacfn.com/en/forum)