



# Food Sustainability Index : An annual measure of 3 food production and consumption paradoxes

Overview & Key Findings

Presentation for

International Life Sciences Institute Annual Meeting, Bermuda

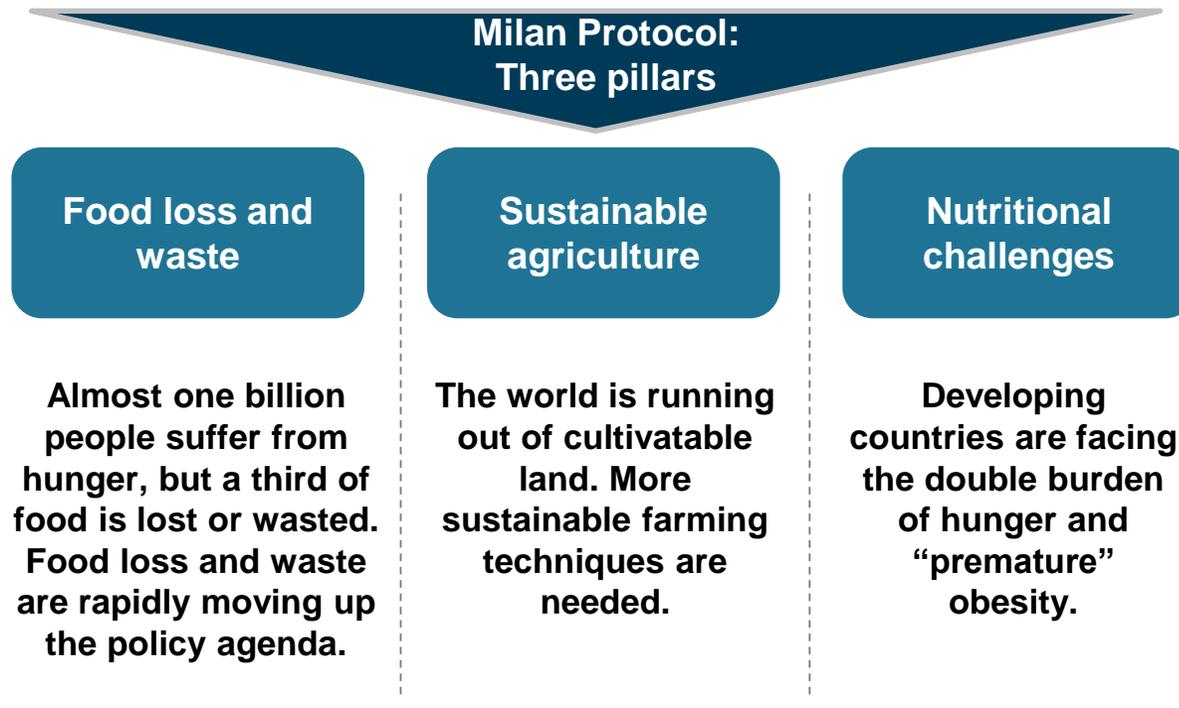
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January 23, 2018

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# Overview

- **The Food Sustainability Index (FSI)** measures the sustainability of food systems in 34 countries
- Addresses three key issues outlined in the 2015 Barilla Center for Food and Nutrition (BCFN)'s Milan Protocol and designed around the Sustainable Development Goals (SDGs).
- The Index contains 35 indicators, and over 55 sub-indicators.
- These KPIs address societal, environmental and economic themes.



## What is sustainability?

*Sustainability is defined as the ability of a country's food system to be maintained without depletion and exhaustion of natural resources or compromises to health and integrity, and without compromising future generations' access to food.*

# Food Sustainability Index: indicator framework



- Water footprint
- Ag water withdrawals
- Initiative to recycle water for ag
- Fish stocks
- Nitrogen Use Efficiency
- Land under organic ag
- Sustainable urban farming initiatives
- Laws to protect smallholders
- Quality of ag subsidies
- Biodiversity
- R&D expenditure
- Total factor productivity

- Food lost as % of total food
- Policy response to food loss
- Causes of distribution-level loss

- Solutions to distribution-level loss
- Food waste per capita per year
- Policy response to food waste



- Undernourishment
- Stunting
- Iodine deficiency
- Health life expectancy
- Prevalence of overweight
- DALYs for nutrition deficiencies
- Physical activity
- Sugar in diets
- Meat consumption
- Salt consumption
- GINI coefficient
- Policy response to dietary patterns
- Nutrition education

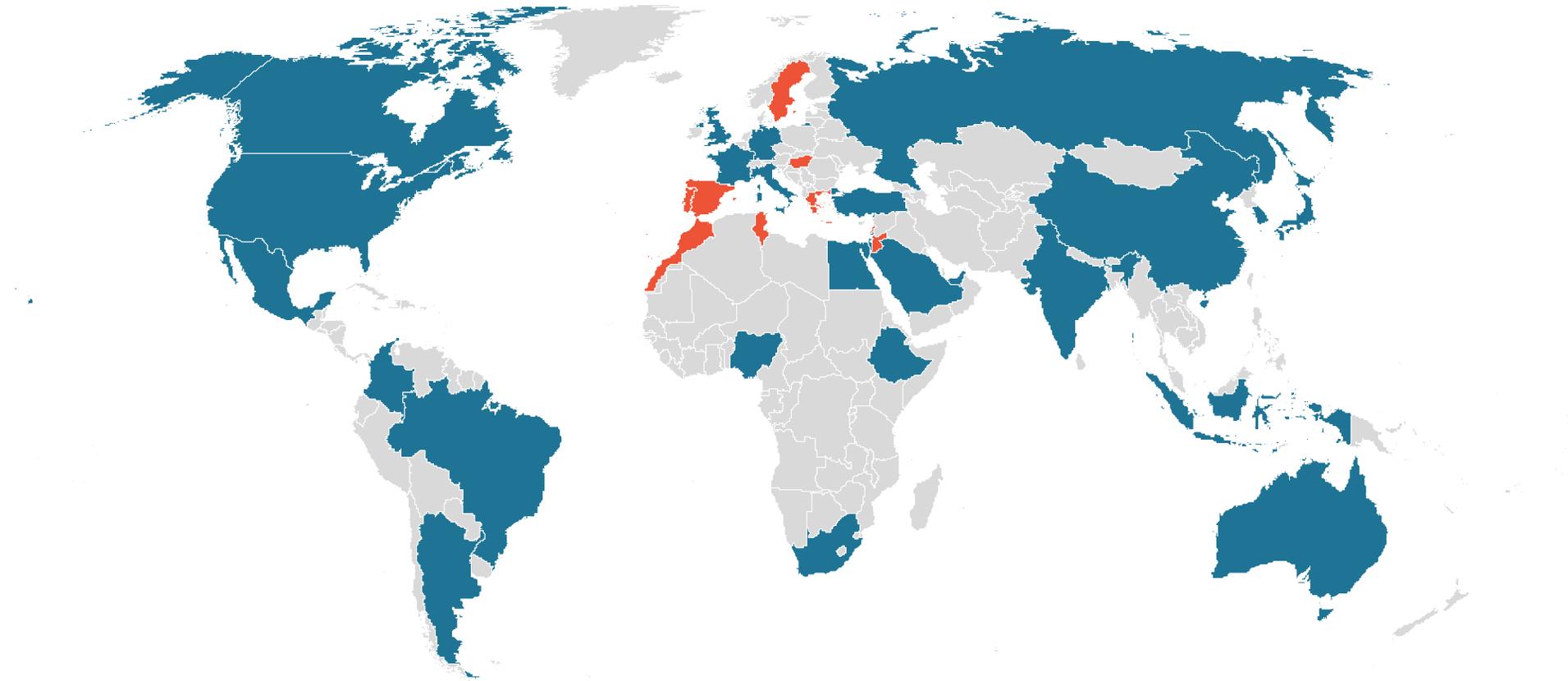
- Women in farming
- GHG emissions from ag
- Ag techniques for climate change mitigation

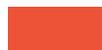
\* Select indicators only.

The index and related materials can be found @ [foodsustainability.eiu.com](http://foodsustainability.eiu.com)

# Geographic scope

The FSI represents over 85% of global GDP and two-thirds of the global population.



 Represents countries added in 2017

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# Key Finding: Policy impacts

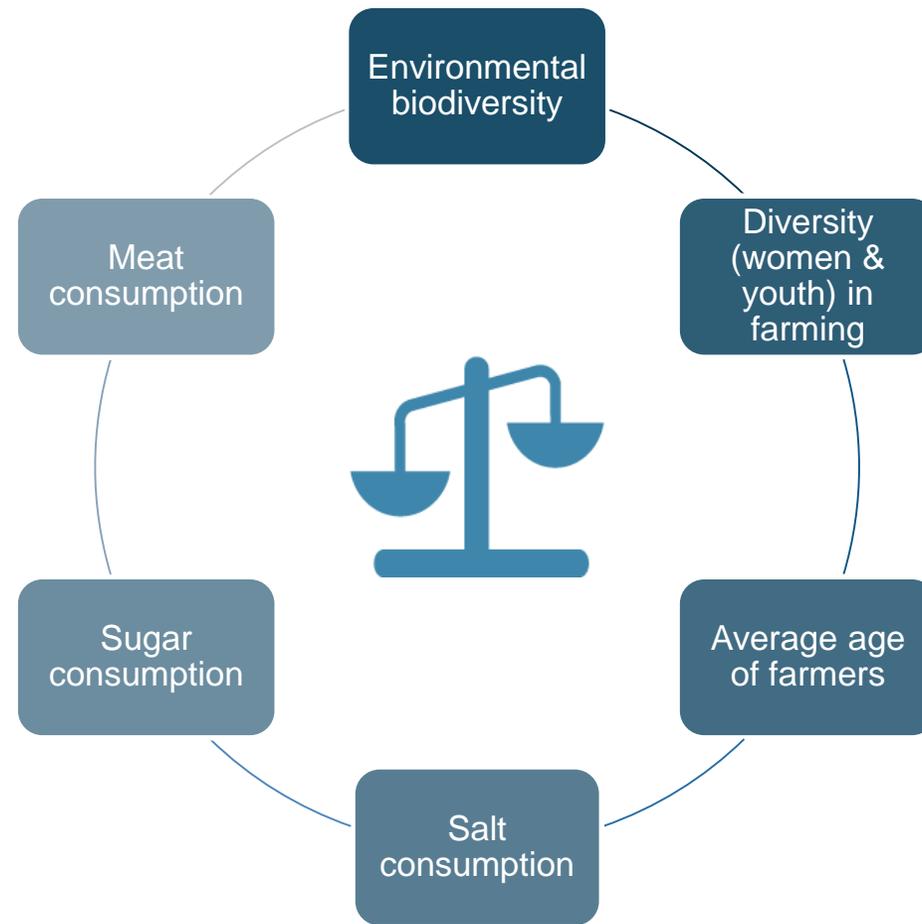
Countries with robust policy environments have more sustainable food systems.



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# Key Finding: Food system gaps

Even high-performing countries have challenge areas that still need to be addressed to maximise long-term food sustainability.



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# Spotlight: Food sustainability in the Mediterranean

While the northern Mediterranean countries perform well across the three index pillars, the southern and eastern countries have less sustainable food systems.

## FOOD LOSS & WASTE



- Insufficient policies to address food waste plague the SEMCs
- The northern Mediterranean countries have proactive government policies to limit food loss and waste
- Poor road infrastructure and low investment in transport hurt the SEMCs

## WATER



- The water footprint of many SEMCs is lower than their northern counterparts
- Water withdrawals in the Middle East are particularly unsustainable
- Many SEMCs are engaged in local initiatives to recycle water, but projects are small-scale

## LAND



- Most countries across the region have embraced organic agriculture
- SEMCs have fewer policies to protect smallholders and poor animal welfare regulations
- Educated farmers support the overall sustainability of food systems

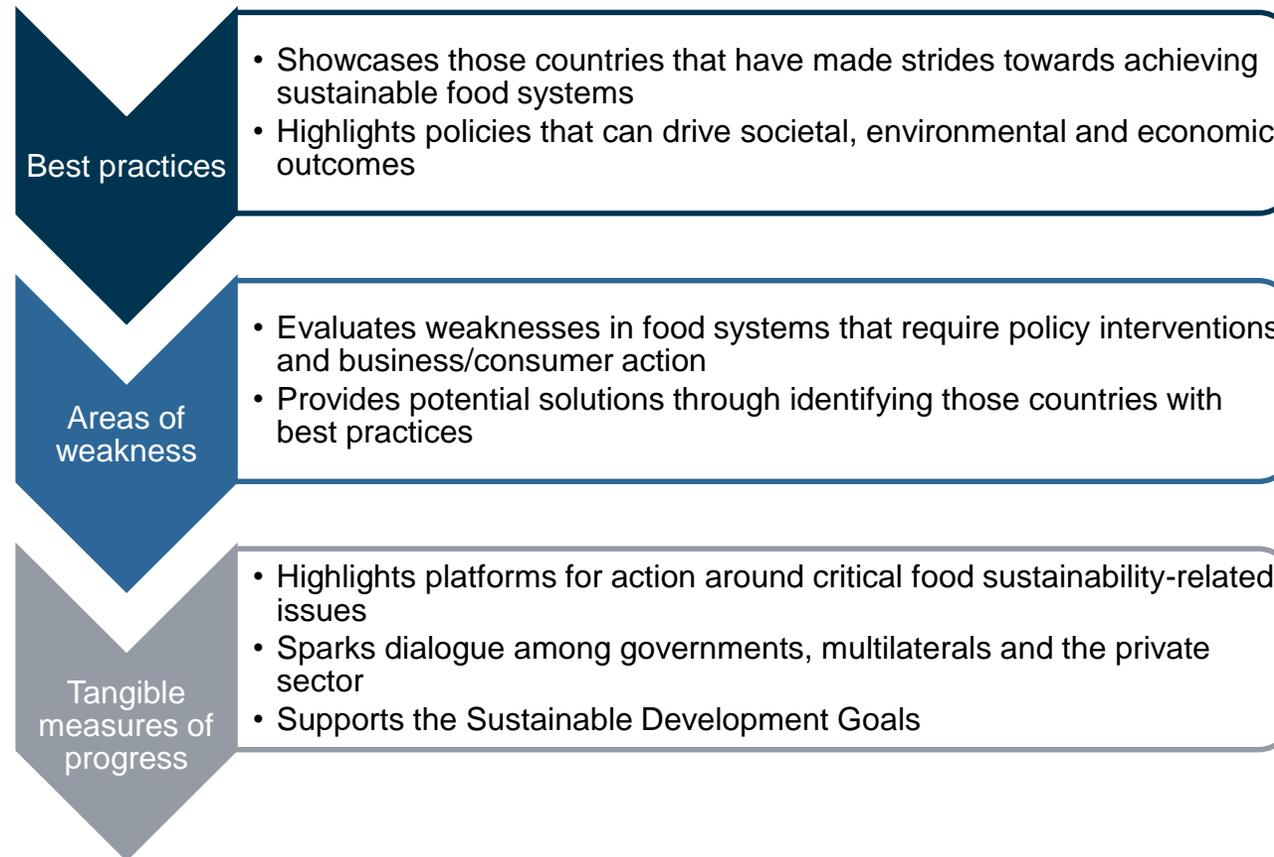
## NUTRITIONAL CHALLENGES



- Malnourishment plagues the SEMCs
- Mediterranean countries suffer from higher obesity rates than Asian countries, but the SEMCs have the fewest DALYs from nutritional deficiencies globally
- SEMCs consume the recommended meat intake, unlike their northern neighbours

# Using the FSI

The FSI helps stakeholders understand sustainability challenges and identify best practices that can improve food systems globally.



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# Mapping the SDGs to the FSI

FSI theme	Corresponding SDGs
<b>Food loss and waste</b>	
Food loss	12, 2, 15
End-user food waste	12, 2, 15
<b>Sustainable agriculture</b>	
Water	6, 12, 14
Land	3, 4, 8, 9, 10, 12, 13, 15
Air	13, 15, 11, 12, 7
<b>Nutritional challenges</b>	
Life quality	1, 2, 3
Life expectancy	3, 4
Dietary patterns	1, 3



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