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Linking Nitrogen and Nutrition

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Outline of Presentation

- The Challenge of Malnutrition
- Sustainability of Food Production and Consumption
- Guiding Principles of Sustainable Healthy Diets
- Upcoming symposia, high-level meetings
- Information needs, gaps and barriers for including Nitrogen
- Suggestions





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821 million people in the world suffer from hunger and about 2 billion experience moderate or severe food insecurity



2 billion people lack key micronutrients like iron and vitamin A

155 million children are stunted

52 million children are wasted

2 billion adults are overweight or obese

41 million children are overweight

88% of countries face a serious burden of either two or three forms of malnutrition

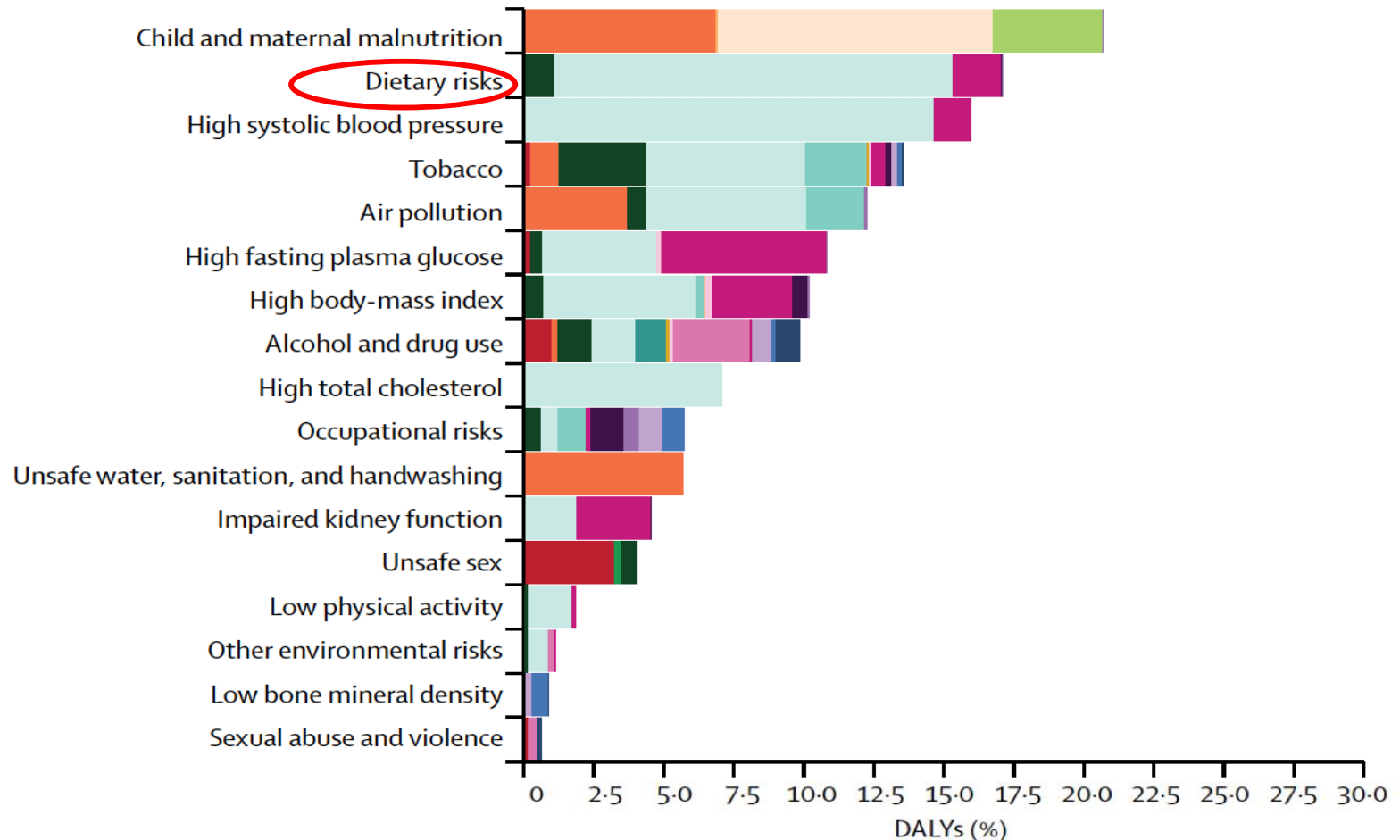
And the world is off track to meet
all global nutrition targets



Source: The State of Food Security and Nutrition (SOFI 2019)



Unhealthy Diets are a Major Risk Factor for Disease



Source: GBD 2016 Risk Factors Collaborators (2017). Global, regional, and national comparative risk assessment of 84 behavioural, environmental and occupational, and metabolic risks or clusters of risks, 1990–2016: a systematic analysis for the Global Burden of Disease Study 2016. Lancet





What do we know about Food Consumption and Climate?

The greenhouse gas (GHG) emission impacts for average diets significantly increase with income

	Lower Middle Income	Upper Middle income	High Income Countries
GHG	1.1 kg CO ₂ eq per person per day	1.6 CO ₂ eq per person per day	2.4 kg CO ₂ eq per person per day
Meat, Fish and dairy account for emission	22%	65%,	70%

HOWEVER: Emissions don't necessarily correspond to income as some countries have emissions up to 200% higher than the average of their respective income groups.





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There is a **growing consensus** by the international and scientific community that **a shift is needed** to meet the global challenges that we face today including malnutrition, climate change, degraded lands and the reduction of agricultural biodiversity in our food systems.

If significant transformation is not made in our current food systems, this would be the first in human history when the next generation would have shorter life expectancy than their parents (Lawrence O. Gostin, 2018).





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SUSTAINABLE HEALTHY DIETS GUIDING PRINCIPLES

FAO/WHO International Expert Consultation, 1-3
July, 2019 Rome, Italy

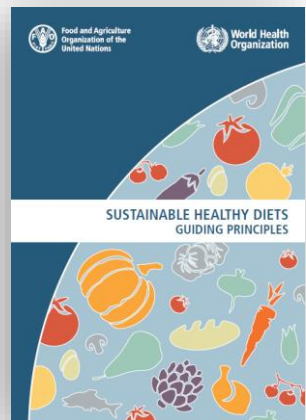




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Sustainable Healthy Diets:

- 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**.

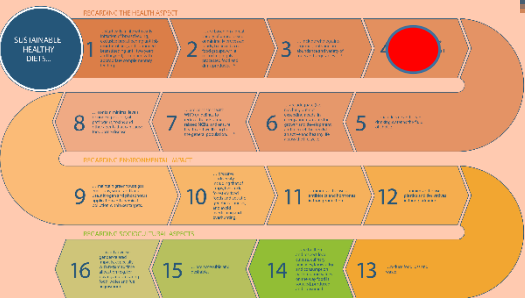
The aims of Sustainable Healthy Diets are to:

- ✓ 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;
- ✓ contribute to **preventing all forms of malnutrition** (i.e. undernutrition, micronutrient deficiency, overweight and obesity);
- ✓ **reduce the risk of diet-related NCDs**; and support the **preservation of biodiversity and planetary health**.

Sustainable healthy diets must combine all the dimensions of sustainability to avoid unintended consequences.



REGARDING THE HEALTH ASPECT



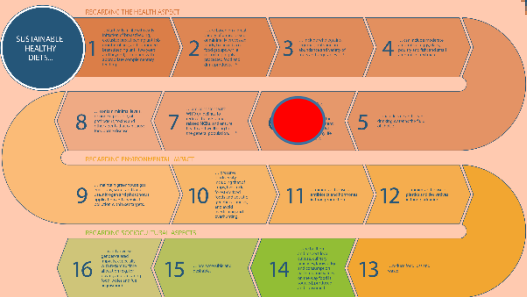
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... can include moderate amounts of eggs, dairy, poultry and fish; and small amounts of red meat.





REGARDING THE HEALTH ASPECT



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... are adequate (i.e. reaching but not exceeding needs) in energy and nutrients for growth and development, and to meet the needs for an active and healthy life across the lifecycle.



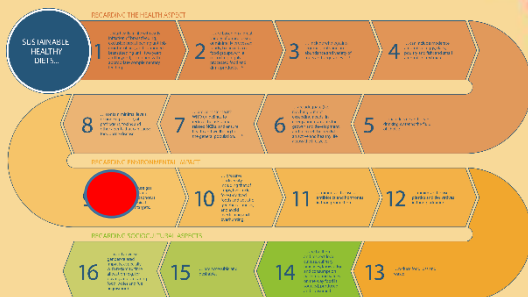


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REGARDING THE ENVIRONMENTAL IMPACT



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... maintain greenhouse gas emissions, water and land use, nitrogen and phosphorus application and chemical pollution within set targets.



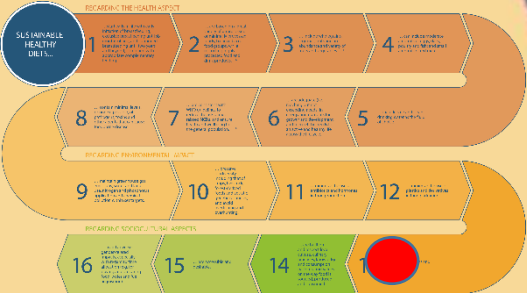


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REGARDING THE ENVIRONMENTAL IMPACT



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...reduce food loss and waste.





ICN2

Second International Conference on Nutrition jointly organized by FAO and WHO, 19-21 November 2014

Better nutrition better lives



UNITED NATIONS DECADE OF **ACTION ON NUTRITION**



2016-2025



TOKYO
**NUTRITION
FOR GROWTH**
SUMMIT 2020

Food, Health, & Prosperity for All

CFS

COMMITTEE ON
WORLD FOOD
SECURITY

**UN Food
Systems
Summit 2021**



**Global Nutrition and Food
Systems Agenda**



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Information needs, gaps and barriers

- Impact pathways from nitrogen to diets and from diets to nitrogen
- Food security, malnutrition and health consequences of nitrogen's inefficient use
- Local vs global consequences
- Multisectoral dialog and collaboration





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Thank you

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