



### Nutrition and health potentials of GI, the way forward

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#### Food and Agriculture in the 2030 Agenda



Food and agriculture targets relate to practically all 17 SDGs

A food systems approach is needed to achieve SDGs



Importance of territorial approaches to contribute rural transformations towards SDGs

Source:

SOW-BFA 2019 The State of the World's Biodiversity for Food and Agriculture SOFA 2017, Leveraging food systems for inclusive rural transformation



Food and Agriculture Organization of the United Nations

**Nutrition situation** 

#### Up to **811 million** people are **undernourished** in 2020 (20% increase)



Childhood stunting

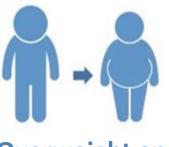
- Reverse the decreasing curve for the first time in 3 decades
- 2.6 million additional stunted children under 5 by 2022



- **9.3 million** additional wasted children under 5 by 2022
- **168,000** additional child-deaths



- 2.1 million additional maternal anemia cases
- 2.1 million children born to low BMI women



Overweight and obesity

- Childhood obesity worsen due to the negative impact on diet and physical activity
- Overweight and obesity significantly increases the severity of COVID



#### Nutrition and healthy diets

A Food systems approach

• Good nutrition starts with what we eat

A healthy diet is a prerequisite to good nutrition

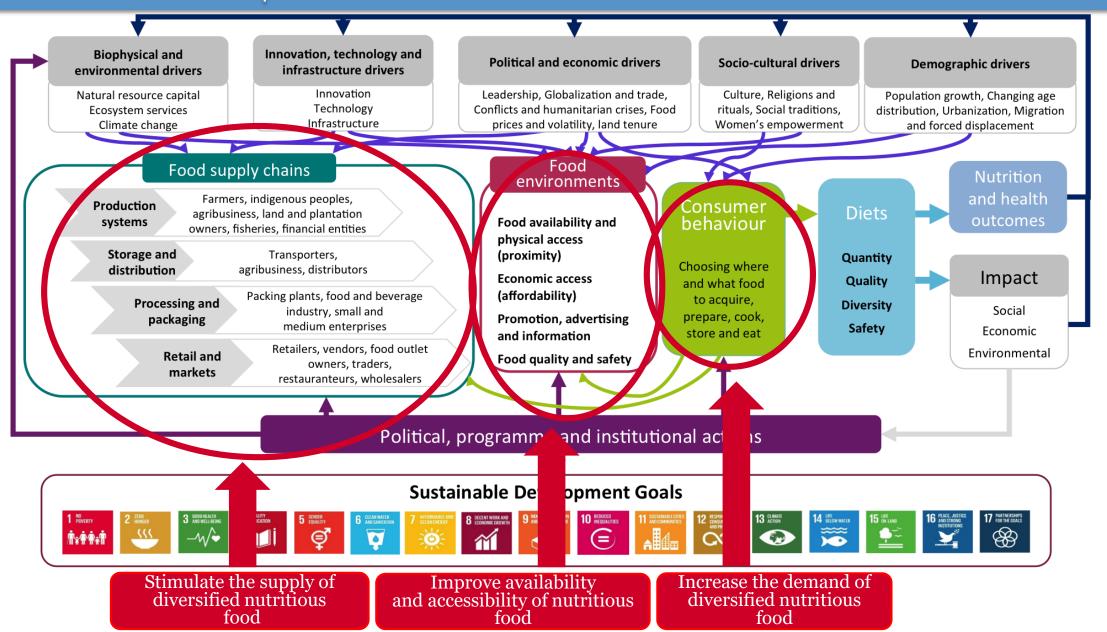








#### Food systems for nutrition and healthy diets





- Traditional food systems across the globe are very diverse
- Embedded in unique historical, religious, social, cultural and economic contexts
- Healthy diets are shaped by the way food is produced, procured, distributed, marketed, chosen, prepared and consumed.
- The social/cultural aspects and the economic impacts of food and food systems must be taken into account in the dialogue on responses to improve diets (FAO-WHO 2019).



*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 (FAO-WHO, 2019)



# GI and healthy diets: the starting point

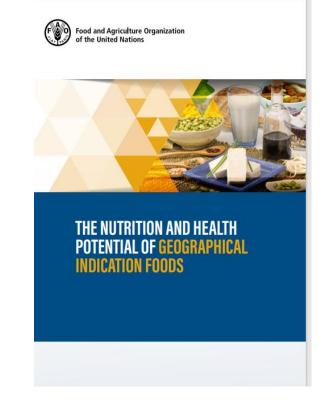
- GI products relate to diversity which is at heart in balanced diet
- Some GI products have strong link with local biodiversity which has an important linkage to nutrition
- Intuitively :
  - GI products are rather unprocessed or minimally processed food, vs highly processed foods,
  - With a small list of ingredients and limited artificial ones
  - Traditional processing methods tend to better preserve the food matrix with a positive impact on health

→ Can we establish a link between GI products and healthy diets?



# Some preliminary work

- The nutrition and health potential of geographical indication foods. By Bin Liu, 2021, FAO Carnalentejana (Portuguese beef), Furu (Chinese fermented tofu), Parmigiano Reggiano and Grana Padano (Italian fermented cheese), Rooibos (South African herbal tea), Indigenous rice varieties from the Borneo highlands (Malaysia/Indonesia).
- FAO-oriGIn webinar on GI and nutrition, in the framework of the series on sustainable GIs (Diet diversity and biodiversity, fermented products and microbiote, consumer perception)



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## Conclusions from this preliminary work

# How GI food products can contribute to healthy diets:

- influence of biodiversity on the nutritional quality of the raw material and final food product
- the influence of natural conditions are crucial in the nutritional quality (type of soils and climatic conditions) together with the human practices (production with no or low use pesticides, and harvest at maturity)
- influence of animal feeding on the final product composition (milk, meat) - botanical composition of fodder ingested by animals, directly impacts nutritional quality of milk but also indirectly through the production of molecules by the animal (type of fatty acids such as oleic acid, plasmin, casein...)





# Conclusions from this preliminary work

- the traditional methods of processing and conservation can increase nutritional values (quantity and availability of nutrients and bioactive compounds): in particular fermentation, which represents an important part of GI products (cheese, soja and furu, teas...)
- importance of the GI specifications in preserving nutritional quality – because of the rules mentioned or because the final characteristics mentioned
- However, nutrition is never a consideration as such when producers develop their product specifications (while health in relation with food safety is at the core of concerns)







- Awareness raising of producers about the nutritional quality of their GI products and to preserve it (e.g. only use of "natural" ingredients, only low-processing methods, care on maturation degree when harvesting etc.)
- Facilitate nutrition considerations in GI specifications and related requirements
- Communicate better to **consumer**
- Better, updated food composition tables for GI products
- Capacity building for researchers, esp. the local institutions
- Invest on key topics, such as:
  - Fermented food and possible health benefits, for example for the microbiome
  - the link between traditional food products and preparation/eating practices, as cultural references and reputation of the products may impact the way it is prepared and consumed, including frequency and combination with other types of foods, to contribute to a balanced/diversified diets.



# Conclusions



- GI and food safety : food safety is crucial for health, and in practice GI development increase food safety along the VC
- Raising awareness of all actors on this topic (academic, practioners, authorities)
- More research needed, basic and practical from case studies

# Thank you!



#### www.fao.org/geographical-indications

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