



FINLAND-CHINA  
FOOD AND HEALTH NETWORK

# SUSTAINABLE FOOD SYSTEMS

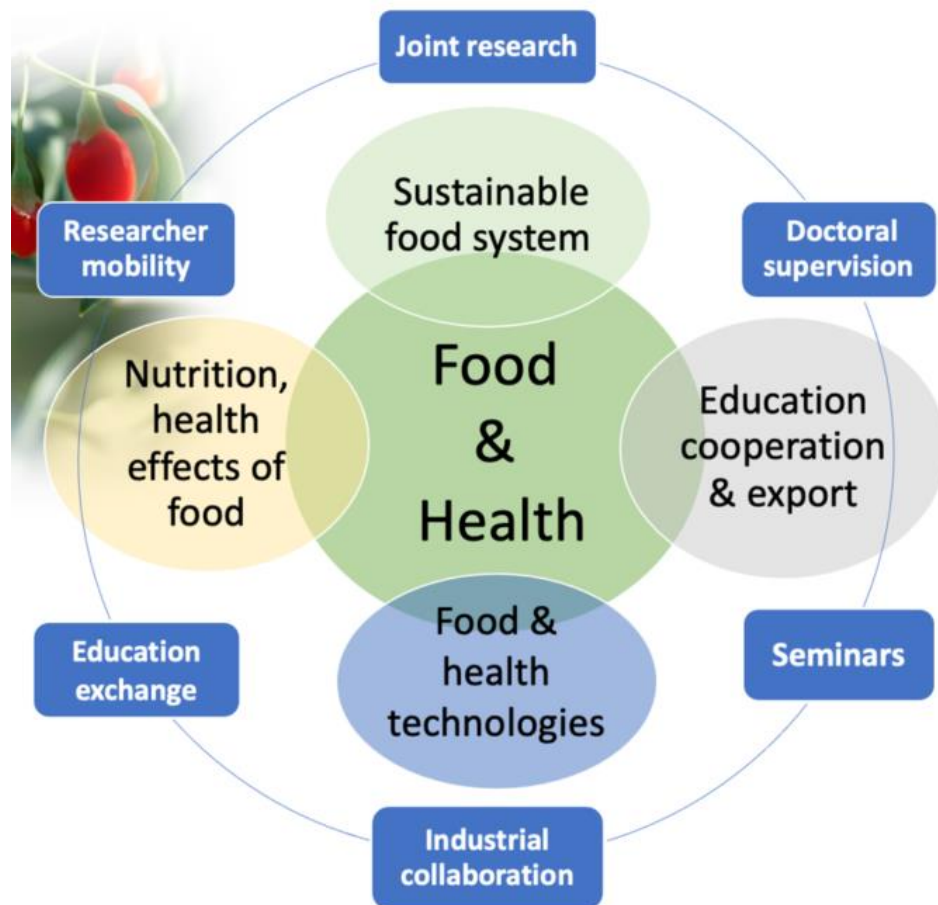
Webinar organized by Finland-China Food and Health network (FCFH) and  
University of Helsinki

5th June 2023

# OPERATION 2021-2024



# LONG TERM GOALS



- To **enhance cooperation** between Finnish and Chinese HEIs
- To build up a unique platform for multidisciplinary **research and academia-industrial collaboration**
- To generate top level **science and innovation with strong impact**
- To support **business partnerships** between Finland and China
- To enhance awareness and branding of Finland and China to enhance **mobility of experts** between the two countries

Academic leader: Prof. Baoru Yang

fcfh-coordinator@utu.fi <https://fcfh.utu.fi/>





# PROGRAMME



FINLAND-CHINA  
FOOD AND HEALTH NETWORK

## **9:00 Opening**

Prof. Marina Heinonen, Department of Food and Nutrition, University of Helsinki

## **9:05 Why sustainable food systems matter**

Dr. Silvia Gaiani, Senior Researcher, Ruralia Institute, University of Helsinki

## **9:15 Market opportunities of Finnish food in China**

Esa Wrang, Head of Food Programme, Business Finland

## **9:35 FAO's work on food system transitions and nutrition-sensitive value chains**

Dr. Bin Liu, Nutrition and Food Systems Officer, FAO

## **9:55 The compost maturity improving and nutrient retention in food waste aerobic composting**

Prof. Jing Yuan, College of Resources and Environmental Sciences, China Agricultural University

## **10:15 Break (10 min)**

## **10:25 Sustainable food production from lab to market:**

### **Case - Business Finland EXPRO project**

Prof. Nesli Sözer, VTT Technical Research Centre of Finland

## **10:45 Research and technology for sustainable food production: The Oats & Beans case**

Zhongqing Jiang, R&D, New Business Innovations, Valio Ltd

## **11:05 Physicochemical and structural characteristics of hybrid burger of beef and pea proteins**

Dr. Jian Lyu, Postdoctoral Researcher, Department of Food and Nutrition, University of Helsinki

## **11:25 Empowering consumer for making sustainable food choices**

Dr. Saska Tuomasjukka, Senior Researcher, Functional Foods Forum, University of Turku

## **11:45 Q&A and discussion**

## **11:55- 12:00 Concluding remarks**





# WHY SUSTAINABLE FOOD SYSTEMS MATTER

Finland China Food and Health Network

Dr Silvia Gaiani

Ruralia Institute/UH

05.06.2023

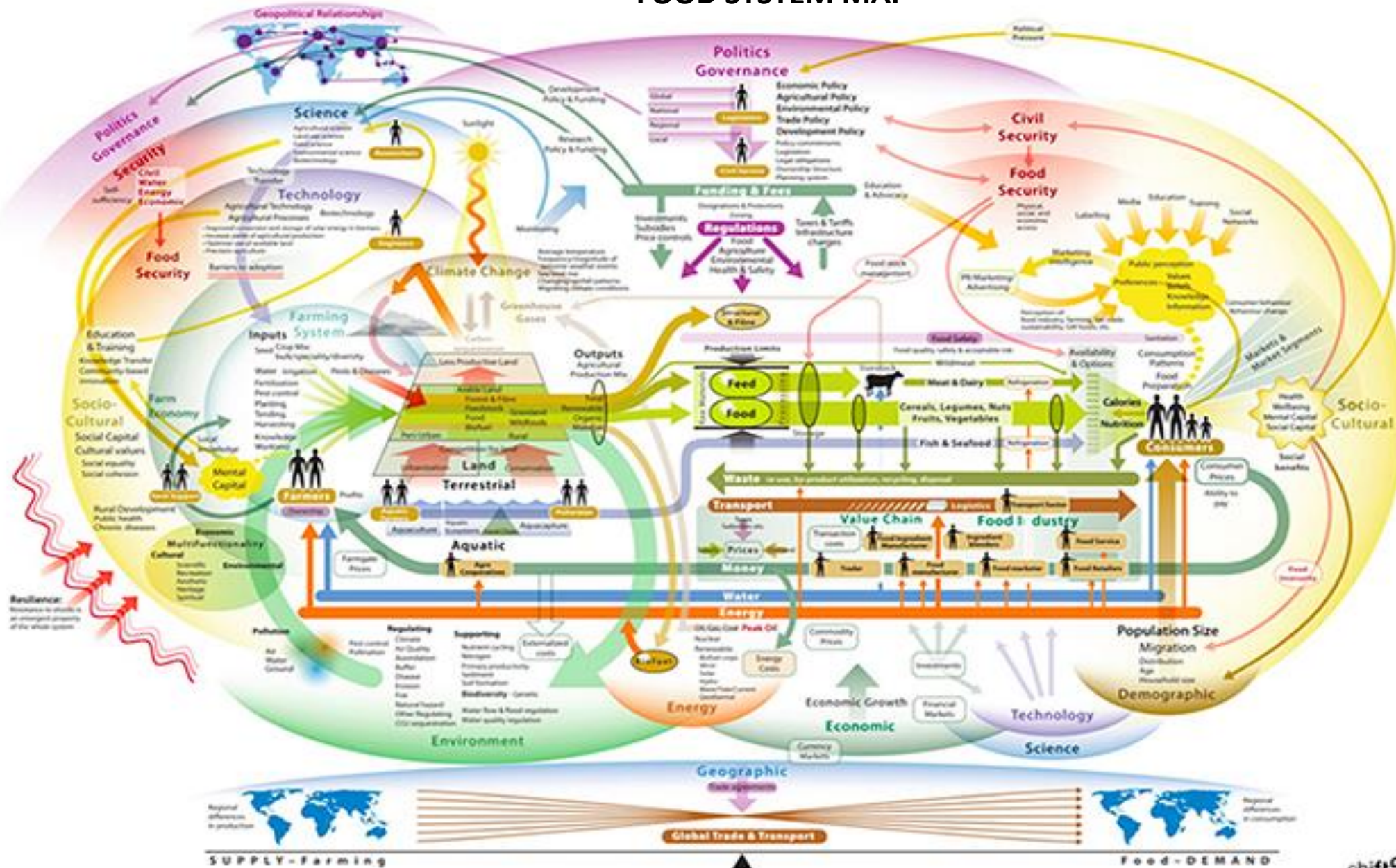
RURAL SOLUTIONS FOR SUSTAINABLE FUTURE

# SUSTAINABLE FOOD SYSTEMS

- Food systems are considerably broader than only agriculture and food value chains. They encompass all the stages of food transformation: growing, harvesting, packing, processing, marketing, consuming and disposing of food residues.
- Food systems are essentially multidimensional, including sociocultural, economic, environmental and political aspects, having complex interactions with multiple actors operating within dynamic food environments.
- A food system must be considered in the context of rapid population growth, urbanization, growing wealth, changing consumption patterns, and globalization as well as climate change and the depletion of natural resources.
- **A Sustainable food system (SFS) is a food system that delivers food security and nutrition for all in such a way that the economic, social and environmental bases to generate food security and nutrition for future generations are not compromised.** This means that:
  - ✓ It is profitable throughout (economic sustainability);
  - ✓ It has broad-based benefits for society (social sustainability); and
  - ✓ It has a positive or neutral impact on the natural environment (environmental sustainability).



## FOOD SYSTEM MAP



The food system is gigantic because it sits at the nexus of many interrelated industries and social problems.

Food system  
is responsible  
for a third of  
total  
greenhouse  
gas emissions

# WHY SUSTAINABLE FOOD SYSTEMS MATTER

- **Over the last 50 years, global food production has gone up by nearly 300% thanks to our incredible ability to innovate...**but today's food systems are not functioning well. They are fragile and inequitable.
- The food systems are beset by **internal and external challenges** (value chain upgrading, food prices management, food governance...climate change, biodiversity loss). They are complex, and the groups of stakeholders within them have differing perspectives on how the challenges are best analysed and tackled.
- A sustainable food system starts in a pre-production stage –it includes genetic resources and their ability to improve productivity- and ends with consumers (healthy diets and consumers behaviours)
- Food systems that are more diverse will foster resilience through a combination of regional and global supply chains.

# THE POWER OF PARTNERSHIP AND NEW CONTRACTS

- Achieving the great ambition of a sustainable food system hinges on cooperation and partnerships between multiple actors and across a broad range of areas.
- Multi-stakeholder mechanisms and new forms of governance structures should mobilize capacities, information, technologies, and access to financial and production resources.
- **Finland and China have good reasons to become good partners in promoting sustainable food systems.**
- Finnish food exports to China have increased during the past five years, and in 2021 they reached a value of 148 million euros (\$144 million).
- Cross-border e-commerce and digitalization are supporting the commercialization of food products
- Finnish functional foods may be combined with traditional Chinese medicine in the future.
- A broad variety of foods - such as lactose-free and gluten-free products - could be created through collaborations.



# KARELIAN PIES IN A SWEET AND SOUR SAUCE?



Source: Image created with midjourney app



THANK YOU!

Silvia Gaiani

[silvia.gaiani@helsinki.fi](mailto:silvia.gaiani@helsinki.fi)

RURAL SOLUTIONS FOR SUSTAINABLE FUTURE





# PURE NATURE ON YOUR PLATE

## Market Opportunities of Finnish Food in China

**Esa Wrang,**  
Head of Food from Finland Program,  
Business Finland





芬兰国家商务促进局 芬享美食项目 总监

**Mr. Esa Wrang**

Head of Food from Finland Program  
Business Finland





# Food From Finland Program

## 芬享美食项目



**Food from Finland program focuses on the development and growth of the Finnish food industry and on the promotion of exports and services offering high added value.**

由国家投入，持续大力支持芬兰食品产业的发展，出口以及高附加值产品的推广

**Actively promotes Finnish food and beverages offering internationally**

积极地在国际市场上推动芬兰食品饮料品牌的知名度

**Team Finland partner network supports the operations locally.**

**Business Finland is funding Finnish companies and their international operations.**

与芬兰国家各机构单位组织保持密切合作。同时，芬兰国家商务促进局也为企业提供国际化发展基金

# Food From Finland Program 芬享美食项目



**Finnish food industry is committed to produce sustainable food from generation to generation**  
芬兰食品行业专注于生产可持续的食物造福下一代

**The Finnish food industry strives for carbon neutrality and aims to reduce greenhouse gas emissions by 75 percent by 2035**

目标在**2035年降低75%**的温室气体排放

**Finnish food innovations is a major contributor to sustainable food production. Finland aims for the most transparent, responsible and safe food chain in the world.**

芬兰的**食品科技创新**为可持续食品发展奠定坚实基础，同时芬兰目标成为世界上**最透明，最负责且最安全**的食品供应链



# Food From Finland Program 芬享美食项目



**In Finland, the health care and welfare of farm animals are part of the national quality strategy. Finnish food production strives for the well-being of the environment, people and animals.**

健康以及畜牧福祉是国家品质战略, 芬兰食品行业追求环境, 社会以及动物的健康及福祉

**The strength of the Finnish food sector is responsibility.**  
芬兰食品行业遵循负责任的理念,

**Benefitted from long and cold winter, with the help of precision farming and sensor technology, the use of chemicals and fertilizers can be reduced. The use of pesticides is very low compared to the EU average**

受益于漫长寒冷的冬季以及精准畜牧养殖技术, 芬兰农业在培育过程中大大降低了农药以及化肥的使用, 相比欧洲平均水平还要低





# Food from Finland Program

芬享美食项目



# 160+ Finnish companies with us



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# INNOVATIVE FINNISH FOOD



- **Innovative Dairy products**
- **Pure and safe Finnish Meat and Fish**
- **Functional foods**

## **Healthy and innovative grain and cereal products**

- Oats & rye products
- Snacks, flakes, malt
- Biscuits, bread, flakes

## **Free from - products**

- Gluten free, lactose free
- Plant-based dairy alternatives
- Plant-based meat alternatives

## **Confectionary products**

- Finnish delicacies
- Liquorice, chocolate
- Free From confectionery

## **Products from wild berries**

- Juices, smoothies
- Desserts and snacks
- Ingredients for food and cosmetics industry

## **Innovative beverages**

- Innovative alcoholic and non-alcoholic beverages
- Gins, vodkas, whiskies, others
- Spring waters
- Beverages from wild berries



# FOOD FROM FINLAND PROGRAM TARGET MARKETS 2023





## Market opportunities of Finnish Food in China



# Key Tendencies in China Food and Drinks Market



According to Euromonitor, retail sales in the packaged food market in China had been estimated reaching US\$ 332 billion (2022).

China is the 2nd largest packaged food market in the world, with growth rate of 21.1% since 2018 (+ US\$ 57.9 billion).

The forecast for growth in this market is outstanding. By the year 2026, the retail sales in the packaged food market in China is expected to reach US\$ 409.5 billion, a growth rate of 23.2% from 2022 (+ US\$77 billion).

Highest growth is estimated for the following categories:

- Cheese
- Breakfast cereals
- Baked goods
- Savory snacks
- Processed Fruit and Vegetables
- Sauces, Dressings & Condiments
- Processed Meat, Seafood & Alternatives to Meat
- Dairy products.

## Mainland China's Food Imports, by Value



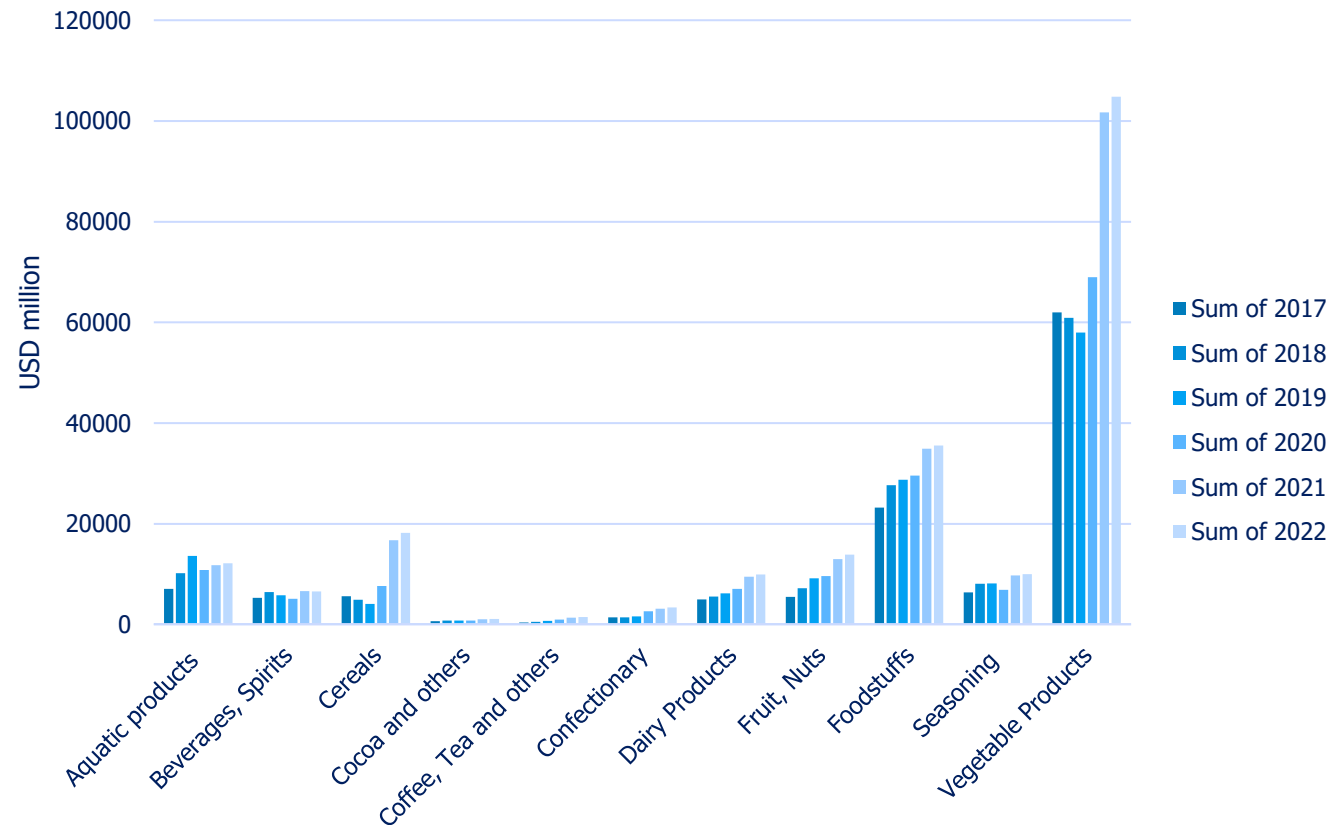
Source: General Administration of Customs of China

# Finland Export to China 2022 - 2023



- Food & beverages export is **€168,3 Million** (2022), export increased with **+13.5%** last year
- China is **our second largest export market**
- Food export from Finland to China export has increased with **+ 230 % during last 8 years**
- **TOP 6 category export from Finland to China**
  - **Dairy (76%), pork meat**
  - **berries, grains, infant food and**
  - **alcoholic beverages**

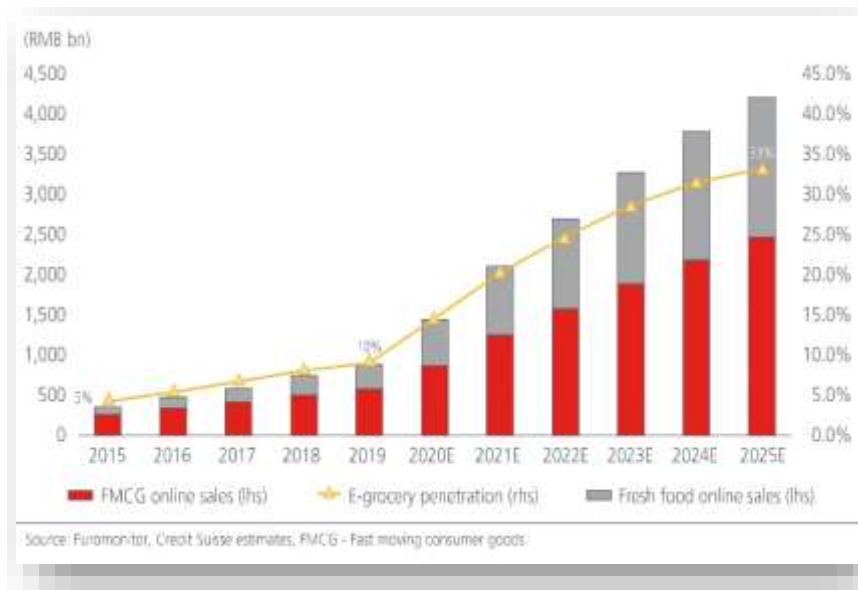
# Imported Food to China



## Potential New Categories for Finnish Export

- Dairy and meat alternatives
- Oat products
- Wild berries + berry products
- Spring Waters
- Alcoholic beverages
- Food supplements
- Health & sustainable food.

# E-commerce in China



- Digital e-commerce takes 1/3 of food purchase channels
- packaged food online sales overtake fresh food online sales

Source: Euromonitor, Business Finland



# Food from Finland activities in China



**Double Digit  
Promotional  
Events Per Year  
Since 2014**

**Market Entry  
Work Together with  
Team Finland**

- **Buyer meetings and networking events**
- **Coachings and workshops**
- **Exploration of new business model on e-commerce, especially cross-border e-commerce platforms**
- **Media work such as Food from Finland Wechat Official Account and event related press-release**
- **China Roadshows and Country pavilions in international BtoB trade shows.**



# China eCommerce Retail Campaign

**Food from Finland program is in collaboration with Epermarket and Nogogo platforms in Southern China to promote natural, pure, delicious and sustainable food from Finland.**

**The campaign started on 16th May, duration 1 month.**

**The campaign will reach 300,000 impressions and covers 7+ cities including Shenzhen, Shanghai, Beijing, and reach China southern province HaiNan also.**



# Pictures from social media and online promotions



60mins livestreaming attracted more than 210,000 online viewers





# 芬兰国家馆

FINLAND NATIONAL PAVILION

芬兰大使馆支持

Supported by the Embassy of Finland

芬兰国家商务促进局合作

A partner of Business Finland

# Finland National Pavilion (FNP) at JD.COM







roberts  
Berrie 蓝宝氏

Valio 蔚优™



To be updated ....



# Market Opportunities for Finland



## SUMMARY

1

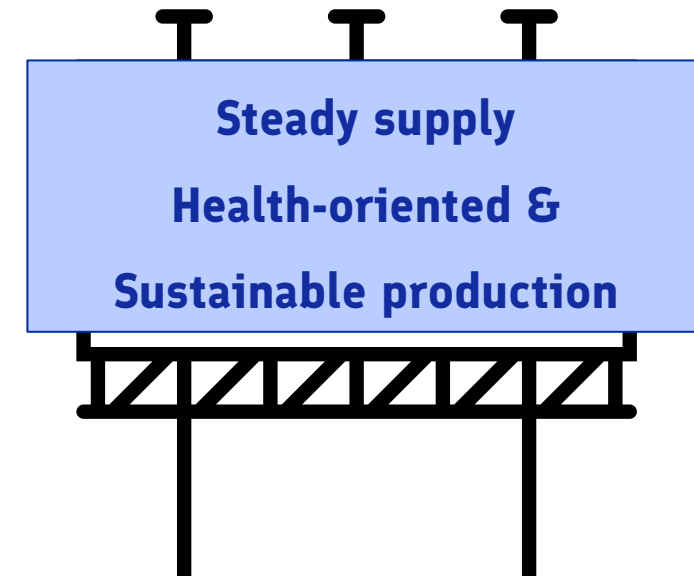
- **Product Selection**
- **Focus to Premium and Value-added products**
- **Growth Potential is huge**

2

- **Regulation Environment is complicated**
- **GACC custom registration is a must**
- **Cross-border e-commerce is a good sales channel**
- **Sustainability is an added value**

3

- **From market access to market acceptance**
- **Brand story need to be built well**
- **Packaging / design is highly important (tests)**
- **Culture needs to be considered carefully.**







**THANK YOU!**

[www.foodfromfinland.co](http://www.foodfromfinland.co)

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# FAO's Work on Food System Transitions and Nutrition-sensitive Value Chains

Bin Liu, Ph.D.

Nutrition and Food Systems Officer  
Food and Nutrition Division (ESN), FAO

FCFH Webinar on Sustainable Food Systems, 5 June 2023





# Why food systems transformation?

- Not sustainable: Placing heavy burden on the natural environment.
  - Combined with the backdrop of climate change
- Not delivering healthy diets: Pandemic of obesity and noncommunicable diseases
- Not fair: Levels of food accessibility differ enormously between different social classes
- Recent crises: COVID-19, wars





# Food Systems Summit 2021

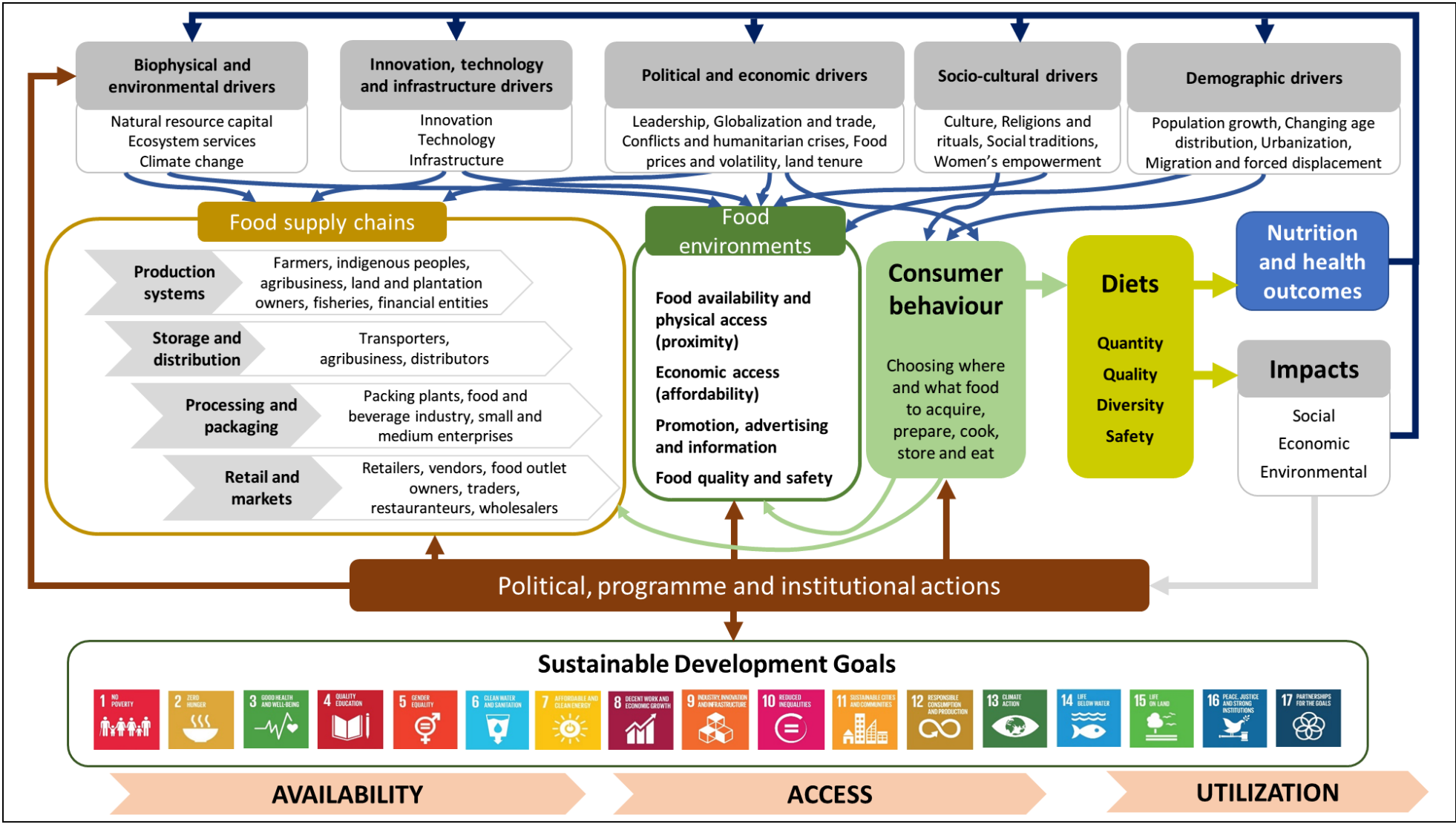
Five action areas:

- Nourish **all people**
- Boost **nature-based solutions**
- Advance **equitable livelihoods, decent work and empowered communities**
- Build **resilience** to vulnerabilities, shocks and stresses
- Accelerating the **means of implementation**

<https://www.un.org/en/food-systems-summit/news/making-food-systems-work-people-planet-and-prosperity>



# What do food systems consist of?



HLPE. 2017. *Nutrition and food systems. A report by The High Level Panel of Experts on Food Security and Nutrition of the Committee on World Food Security*. HLPE Report 12. Rome. <https://www.fao.org/3/i7846e/i7846e.pdf>



# FAO's priorities in food systems

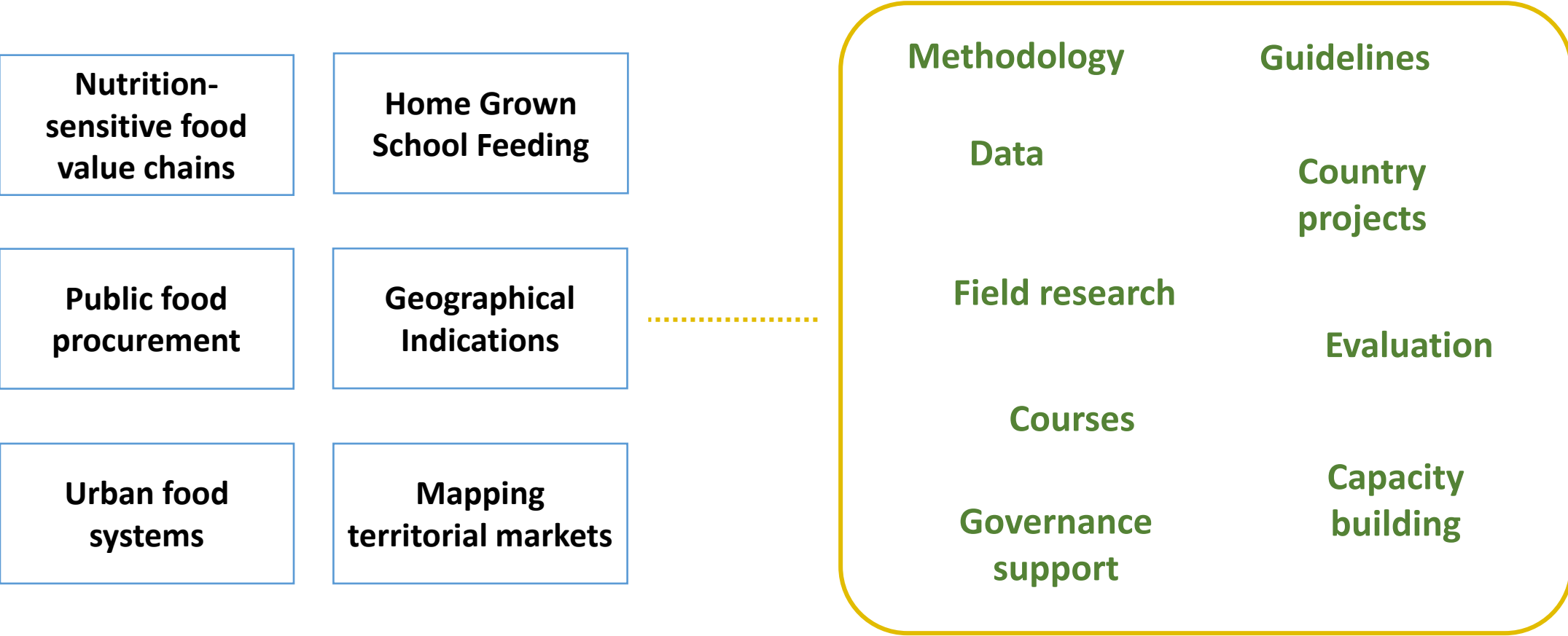
- Trade and Agribusiness: **Investing** in sustainable value chains
- **Urban Food Agenda** for inclusive and efficient food systems
- One Health - **Food Safety, Plant and Animal Health**
- Sustainable Food Systems in the **SIDS** (Small Island Developing States)
- Global Initiative on **Food Loss and Waste**
- Global **Dialogue and Partnerships** for Sustainable Food Systems

<https://www.fao.org/food-systems/our-priorities/en/>



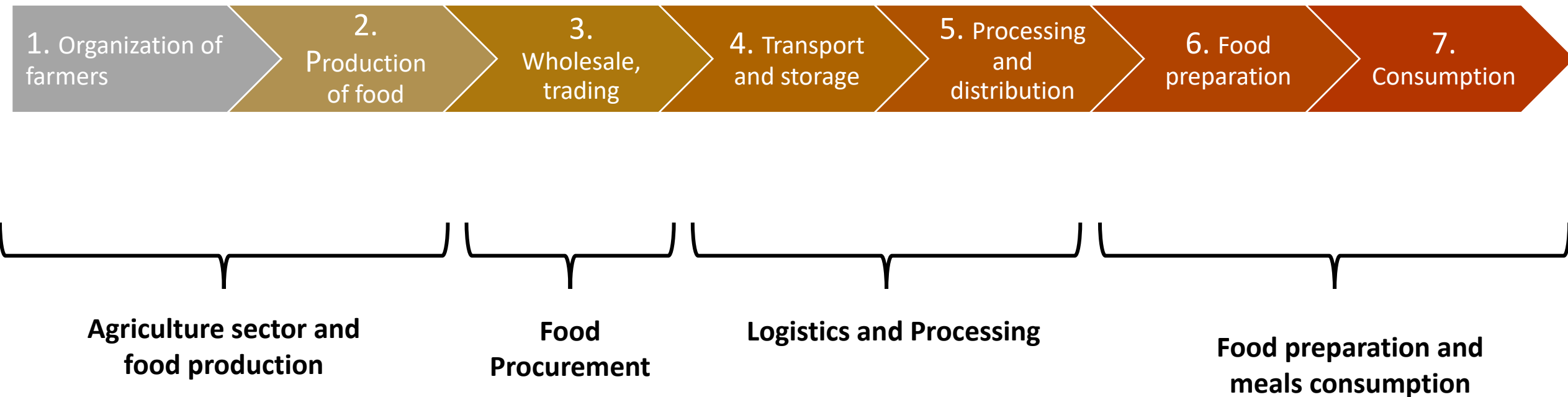


# Market Linkages and Value Chain Group, ESN, FAO





# Nutrition-sensitive Value Chains (NSVC)





# Example: Home-Grown School Feeding (HGSF)

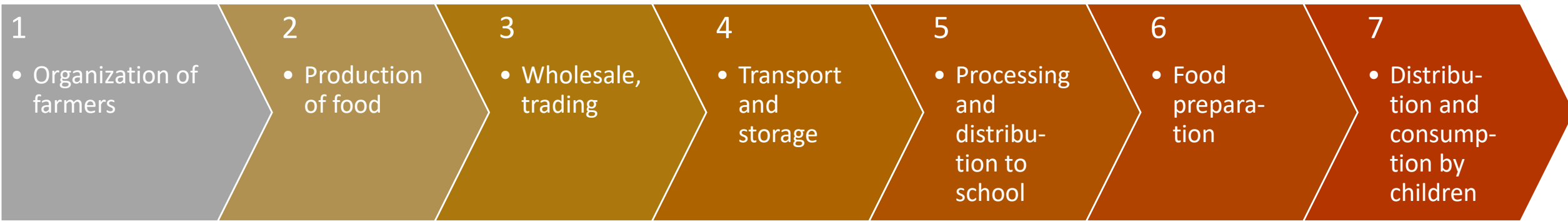
[Home-Grown School Feeding Resource Framework - Technical Document](#)  
(WFP, FAO, IFAD, NEPAD, GCN, PCD)

- “(...) “School feeding” is the traditional term for programmes that provide food to children or their households through schools

(...) **HGSF** constitutes a school feeding model that is designed to provide children in schools with safe, diverse and nutritious food, **sourced locally from smallholders.**”







**Increase the supply of  
nutritious food**



## RESULTS

Local smallholders get higher profits when working with HGSP

Food from local smallholders are safe, nutritious, and diversified meeting the quantity and quality requirements of HGSP

## INTERVENTIONS

Transfer of capabilities to **increase bargaining power**;  
Training and workshop to **increase the skills** of local smallholders

Raising awareness of the local smallholders on the **economic, social, and environmental benefit of NSVC**;  
Support the **consideration of nutrition lens in the production system** of local smallholders (training, input supply, nutrition education, etc)

## 1- Organization of farmers

## 2 - Production

## CHALLENGES

Local smallholders are generally low-skilled and with low bargaining power

Traditional production system of local smallholders do not allow them to supply the HGSP of enough foods and adequate quality



## RESULTS

Local smallholders can participate in all stage of the public food procurement enabling them to supply regularly HGSF of adequate, affordable, safe, nutritious, and enough foods.

## INTERVENTIONS

Transfer of capabilities to **initiate local smallholders to administrative procedures** (bidding, tendering, etc.);  
Encourage smallholders to **join or form producer organization/associations** to facilitate and coordinate activities linking them to HGSF

## 3 – Wholesale trading

## CHALLENGES

Legal and bureaucratic aspects of public food procurement systems are too cumbersome for local smallholders;  
Food safety standards are not meet by the local smallholders





## RESULTS

- Food handlers (transporters, processors, etc) can supply safe and nutritious foods to HGSP
- Nutrition and food loss are reduced

## INTERVENTIONS

- Train local smallholders in **good handling and good practices**;
- Raise awareness on **the importance of food handling** (Workshop, mass media, etc)

- Raising awareness and providing nutrition education to food processors and handlers
- Training on the use and construction of upgraded processing facilities and good practice preserving Nutrient value

### 4- TRANSPORT AND STORAGE

### 7 – PROCESSING AND DISTRIBUTION TO SCHOOL

## CHALLENGES

- Lack of facilities/equipment for a proper handling of foods;
- Lack of awareness on how food handling impact the nutritional value of the food

- Inadequate handling of food inducing food safety issues and nutrition loss;
- Inadequate processing facilities/methods inducing nutrition loss



**Increase the demand of  
nutritious food**



## RESULTS

Foods serve to children at school are safe and nutritious

Food served to children are culturally appropriate with high acceptance

## INTERVENTIONS

Local authorities needs to **invest in facilities (long-term); Awareness raising and training on good handling** (cooking demonstration, food tasting, etc.)

**Nutrition education and awareness raising on healthy diets** for children and local communities (workshop, mass media, etc.);  
**Tasting evaluation of recipes** proposed to children

## 6- FOOD PREPARATION

## 7 – DISTRIBUTION AND CONSUMPTION BY CHILDREN

## CHALLENGES

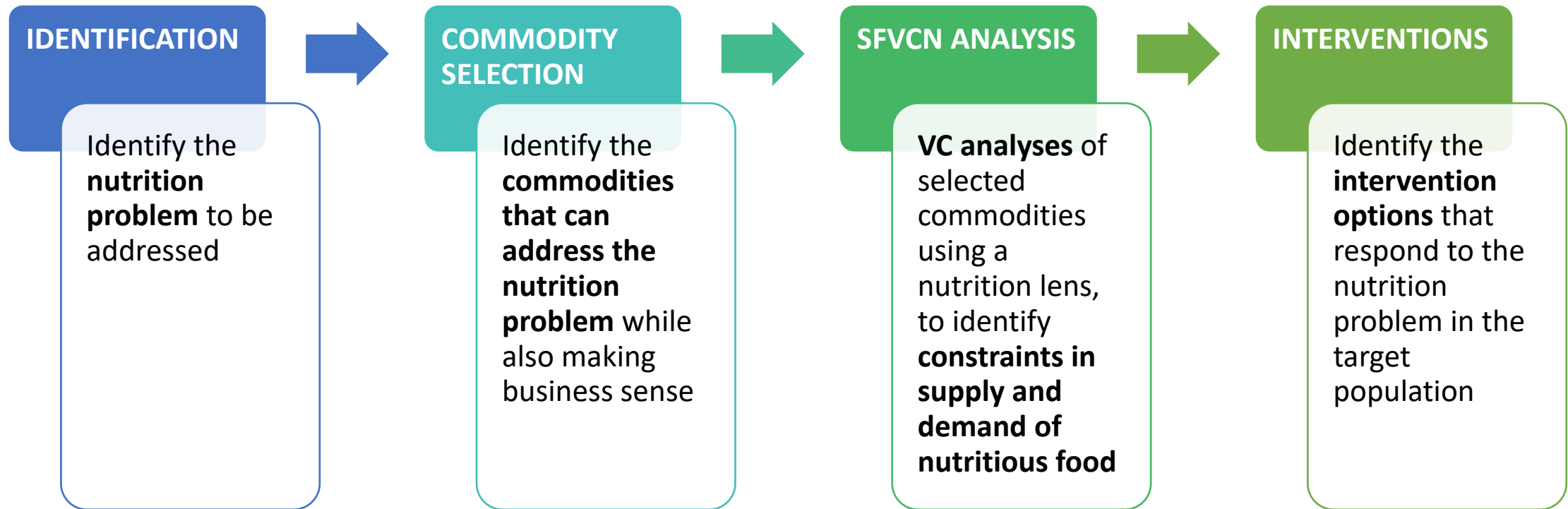
Low awareness of food handlers (cook, etc.) on how preparation impact nutritious value of food;  
Lack of facilities

Students have inadequate diets;  
Low awareness of local and under-utilized food species;  
Lack of facilities in the kitchen





# Methodological steps



# E-learning courses

- Sustainable Food Value Chains for Nutrition  
<https://elearning.fao.org/course/view.php?id=566>
- Home-grown school feeding  
<https://elearning.fao.org/course/view.php?id=529>
- Design and monitor nutrition-sensitive agriculture and food systems programmes  
<https://elearning.fao.org/course/view.php?id=603>

Theme: nutrition

<http://t.ly/WgWa>

The image displays three overlapping course cards for FAO e-learning courses. Each card features a 'NEW' badge in the top left corner, a photograph, the course title, the release date, and the duration.

- Card 1 (Left):** The photograph shows a woman in a brown headscarf and a man in a red shirt at a market stall filled with fresh produce. The title is 'Design and monitor nutrition-sensitive agriculture and food systems programmes'. The date is 'SEPTEMBER 2020' and the duration is '4 h 30 m'.
- Card 2 (Middle):** The photograph shows a woman in a blue shirt hanging laundry on a line. The title is 'Sustainable Food Value Chains for Nutrition'. The date is 'APRIL 2020' and the duration is '2 h 30 m'.
- Card 3 (Right):** The photograph shows two young children sitting at a table, eating from plates. The title is 'Home-grown school feeding'. The date is 'FEBRUARY 2020' and the duration is '1 h 30 m'.



<https://www.fao.org/nutrition>

<https://www.fao.org/nutrition/markets/en/>

Email: [MLVC@FAO.org](mailto:MLVC@FAO.org) [nutrition@fao.org](mailto:nutrition@fao.org)