



WAY FORWARD TO IMPROVE FOOD AND NUTRITION SECURITY IN SOUTHEAST ASIA

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OUTLINE



Brief overview

State of food security
at global and regional levels



Strategies activities at different levels

Strategies implemented in relation to or
supporting food security at global, regional,
and country levels



Challenges and way forward

In order to enhance food security in
Southeast Asia





SEA-PHN Network Webinar Series 2023
8 August 2023

A BRIEF OVERVIEW OF THE STATE OF FOOD SECURITY GLOBALLY AND IN SOUTHEAST ASIA





Definition of food security

(World Food Summit 1996, modified in 2009)

Food security exists when all people, at all times, have physical, social and economic access to sufficient, safe and nutritious food that meets their dietary needs and food preferences for an active and healthy life.



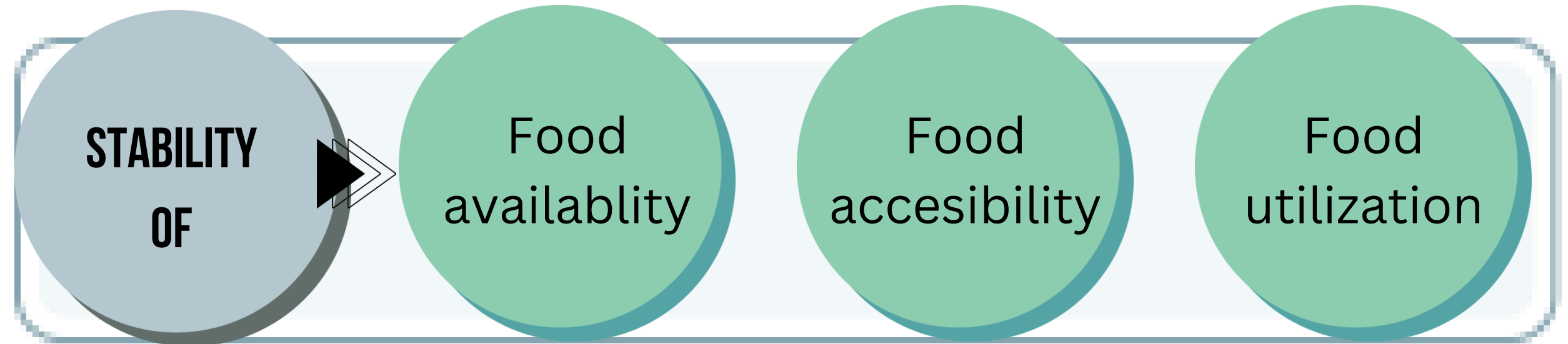
Definition of food and nutrition security

(Committee on World Food Security, 2012)

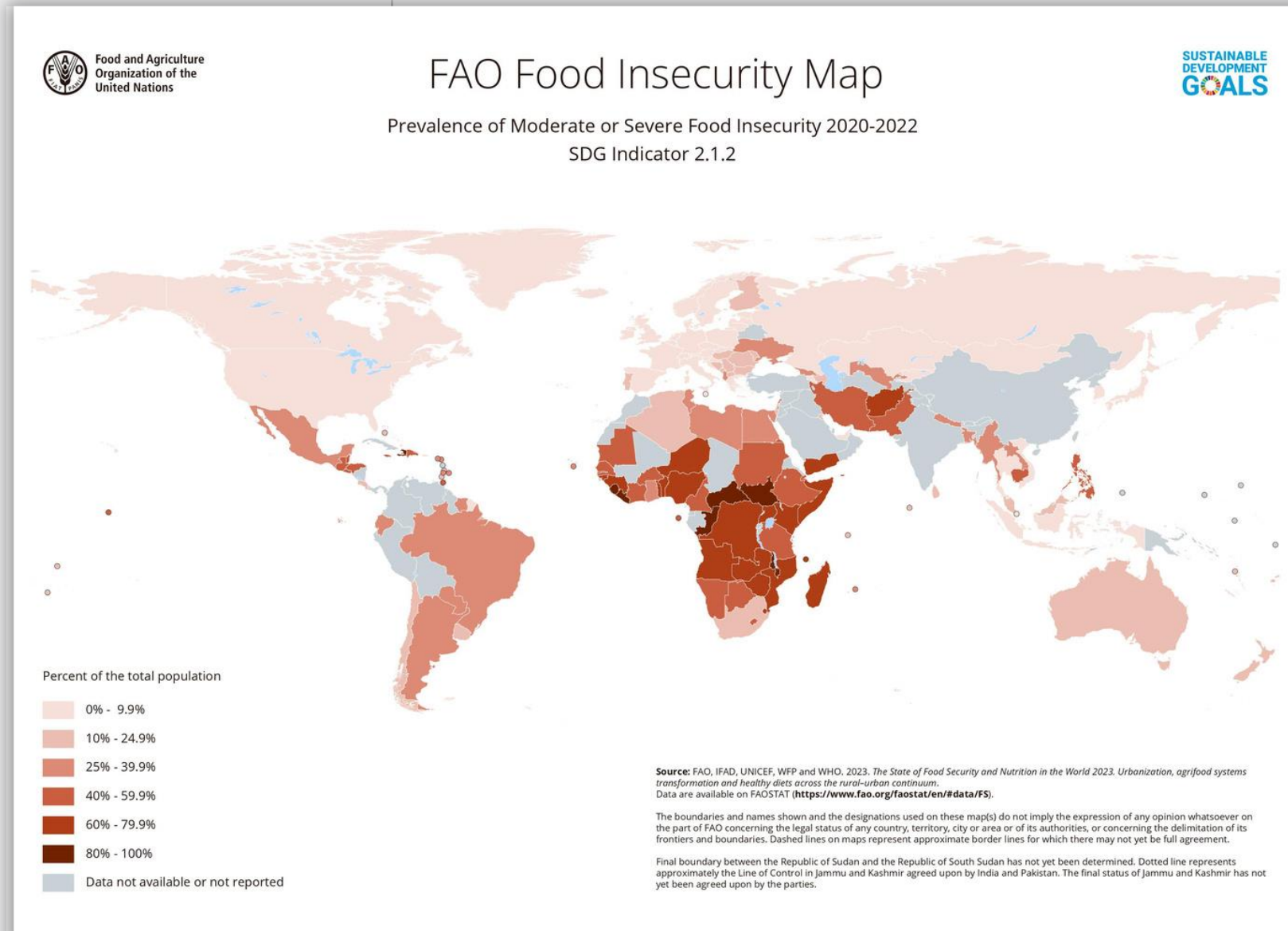
Food and nutrition security exists when all people at all times have physical, social and economic access to food, which is safe and consumed in sufficient quantity and quality to meet their dietary needs and food preferences, and is supported by an environment of adequate sanitation, health services and care, allowing for an active and healthy life.



DIMENSIONS OF FOOD SECURITY



State of Food Security



Goal 2 End hunger, achieve food security and improved nutrition, and promote sustainable agriculture.

ZERO HUNGER

- Up to 783 million people were estimated to still be suffered from hunger in 2022
- Concentration and distribution of food insecurity by severity differ greatly across the regions of the world.
- In 2022, 2.4 billion people were still facing food insecurity, while 1.1 billion were in Asia.
- Prevalence of Moderate or Severe Food Insecurity in the Total Population (%) in ASEAN (average between 2020-2022)
 - Indonesia 4.9%
 - Singapore 6.6%
 - Thailand 7.1%
 - Vietnam 9%
 - Malaysia 16%
 - Myanmar 29.3%
 - Lao PDR 34.1%
 - Philippines 44.7%
 - Cambodia 51.1%



2022 - Status of undernourishment

- The **Prevalence of Undernourishment (PoU) in Asia** slightly decreased from 8.7% in 2021 to 8.5%.
- The **majority of people facing hunger were in Asia** - 402 million, representing 55% of the world's total number of undernourished people.

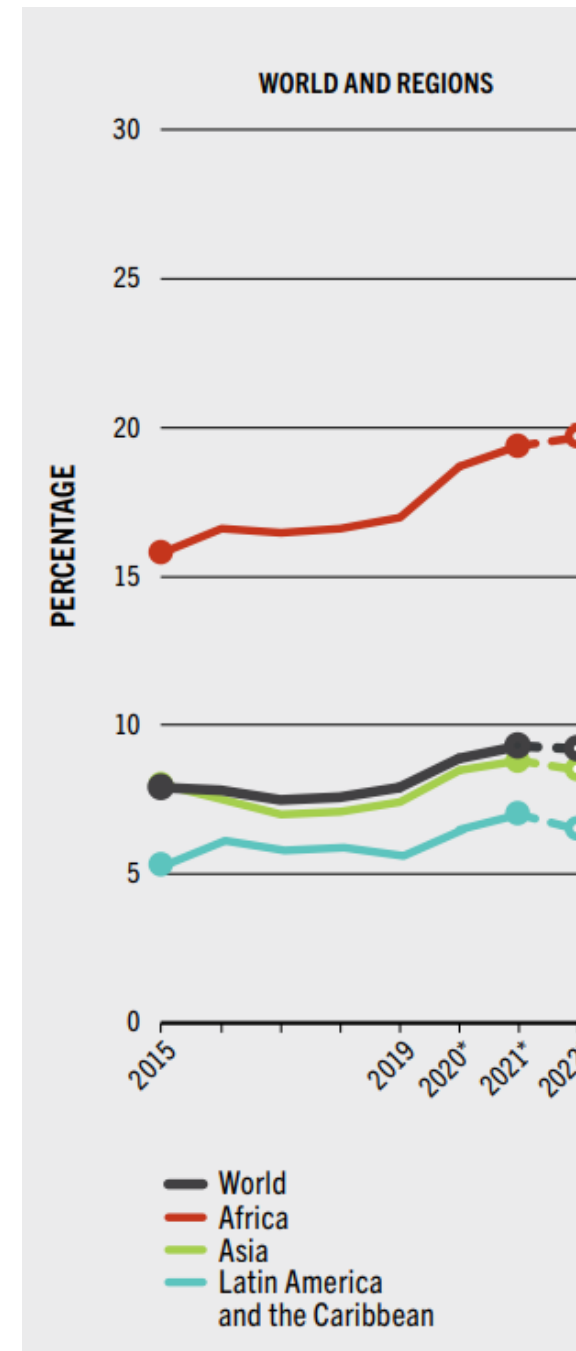
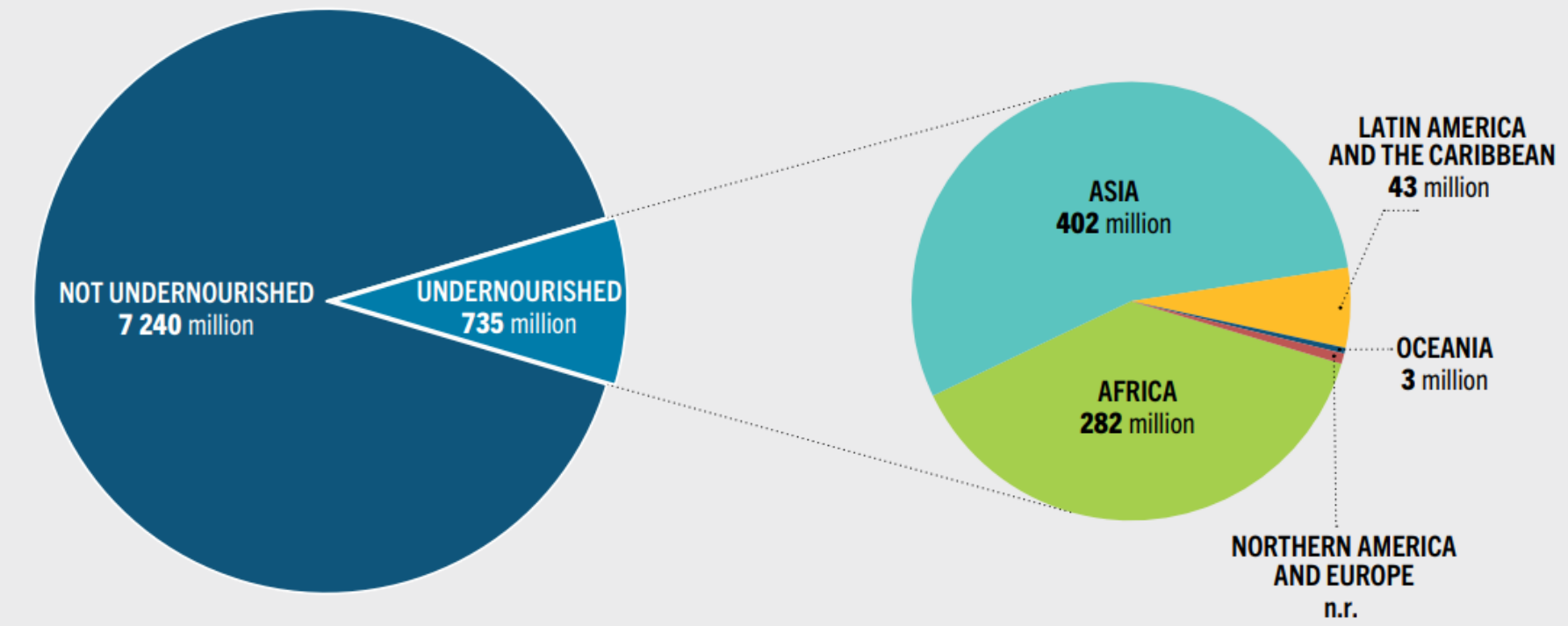


FIGURE 3 IN 2022, ASIA WAS HOME TO 55 PERCENT (402 MILLION) OF THE PEOPLE IN THE WORLD AFFECTED BY HUNGER, WHILE MORE THAN 38 PERCENT (282 MILLION) LIVED IN AFRICA



NOTES: Projected values are based on the projected midranges. The full ranges of the projected 2022 values can be found in Annex 2. n.r. = not reported, as the prevalence is less than 2.5 percent. SOURCE: FAO. 2023. FAOSTAT: Suite of Food Security Indicators. In: FAO. [Cited 12 July 2023]. www.fao.org/faostat/en/#data/FS

Source: FAO (2023) the State of Food security and Nutrition in the World

TARGETS AND INDICATORS

GOAL 2

8 TARGETS AND 13 INDICATORS

- malnutrition and food insecurity measures (2.1, 2.2)
- measures of agricultural food production productivity (2.3, 2.4)
- genetic diversity (2.5)
- means of implementation indicators focus on investment increase (2.a)
- proper functioning of agricultural and food commodity markets (2.b, 2.c)

Food security and Nutrition situation in ASEAN

Globally, all diet-related NCD targets are off course, unlikely to meet any of the targets. A similar situation was also observed in ASEAN region.



Target that is quite on track

- no increase in childhood overweight



Targets that are totally not on track

- reduce and maintain childhood wasting to less than 5%
- a 30% reduction in low birthweight
- a 50% reduction in anaemia in women of reproductive age
- halt the rise in obesity

Member state	Maternal, infant and young child nutrition targets						Non-communicable disease targets				Number "on track"
	Childhood stunting	Childhood wasting	Childhood overweight	Exclusive breastfeeding	Low birthweight	Women of reproductive age anaemia	Adult female obesity	Adult male obesity	Adult female diabetes	Adult male diabetes	
Brunei Darussalam	⊘	⊘	⊘	⊘	●	●	●	●	●	●	1
Cambodia	●	●	●	●	●	●	●	●	●	●	0
Indonesia	●	●	●	●	●	●	●	●	●	●	2
Lao People's Democratic Republic	●	●	●	●	●	●	●	●	●	●	1
Malaysia	●	●	●	⊘	●	●	●	●	●	●	1
Myanmar	●	●	●	●	●	●	●	●	●	●	2
Philippines	●	●	●	⊘	●	●	●	●	●	●	1
Singapore	⊘	⊘	⊘	⊘	●	●	●	●	●	●	2
Thailand	●	●	●	●	●	●	●	●	●	●	2
Viet Nam	●	●	●	●	●	●	●	●	●	●	1
Number "on track"	2	0	5	3	0	0	0	0	2	1	

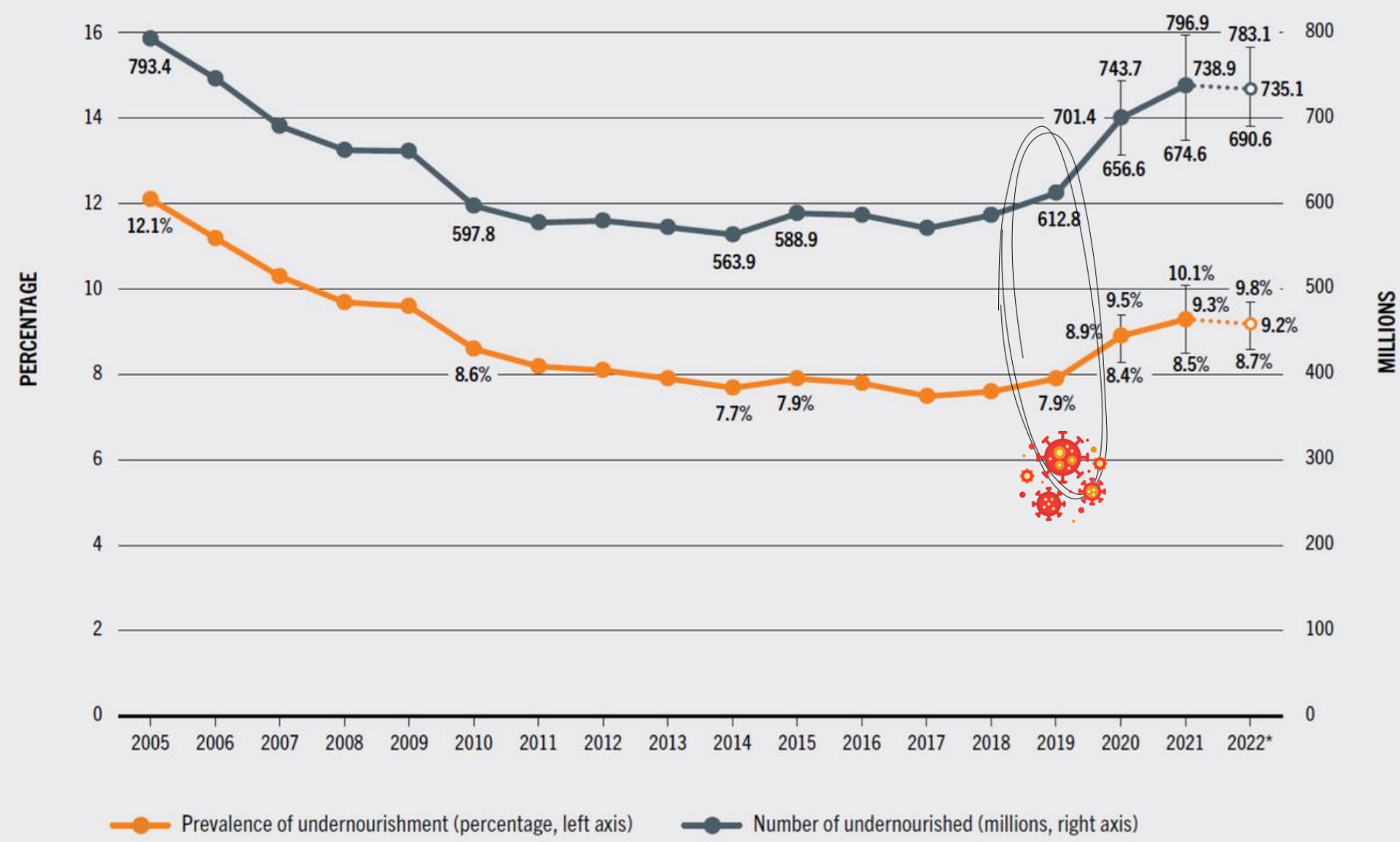
ASEAN progress towards Maternal, Infant and Young Children nutrition and diet-related NCD targets

compared to 2025 global nutrition targets (World Health Assembly MIYCN targets) and the WHO diet-related non-communicable disease targets

DESPITE ALL EFFORTS, WE ARE STILL

FAR FROM

REACHING OUR GOALS



COVID-19

The number of undernourished populations increased sharply after COVID-19 pandemic.

Persistent effects of the pandemic

- Drove the cost of a healthy diet globally up to 4.3% in 2021 in comparison to 2020, and to 6.7% compared to 2019.
- Impact on lower-middle-income countries more than high-income ones.

Impact of political uncertainty on global food security

AFFECTED COMMODITIES



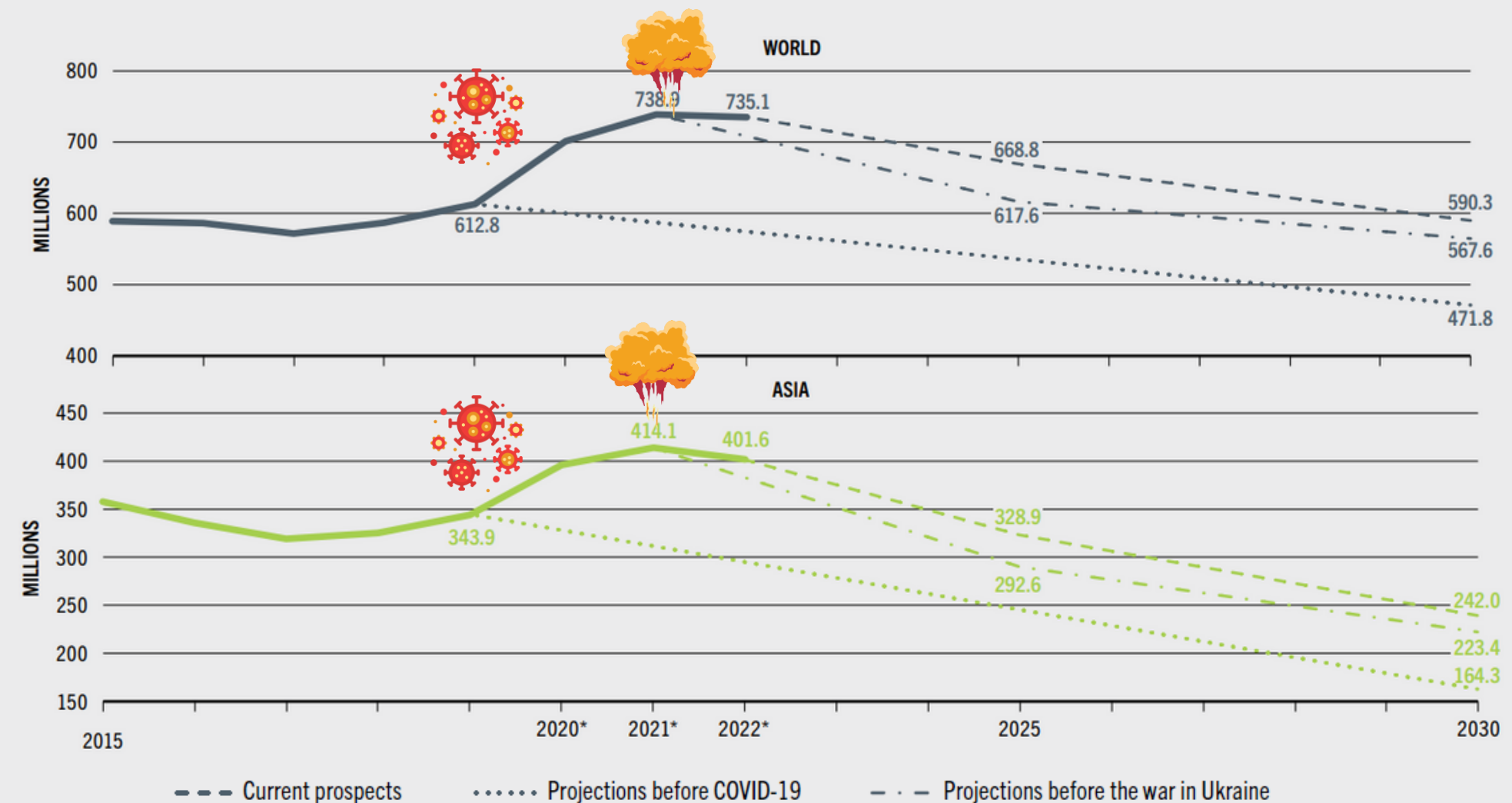
- In 2021, either the Russian Federation or Ukraine, or both, were important exporters of wheat, barley, maize, rapeseed and rapeseed oil, sunflower seed and sunflower oil.
- The Russian Federation was also an important exporter of fertilizers.

FAO (2022) The Importance of Ukraine and the Russian Federation for Global Agricultural Markets and the Risks associated with the War in Ukraine

RUSSIA-UKRAINE WAR

The war added up to the challenge to achieve the SDG target to eradicate hunger.

Around 23 million more people were affected compared to the scenario where the war had not happened





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STRATEGIES, ACTIVITIES IN RELATION TO OR SUPPORTING FOOD SECURITY AT GLOBAL LEVEL



The People's Summit



23 Sep 2021

Aim to deliver progress on all 17 of the SDGs through a **food systems approach**, leveraging the interconnectedness of food systems to global challenges such as hunger, climate change, poverty and inequality. 150 commitments were registered by member countries.



KEY HIGHLIGHTS



Focus on equity and inclusivity



Commitments and initiatives



Transformation of food systems

to ensure sustainability, resilience, and improved nutrition for all



Importance of collaboration



Role of technology and innovation



2023 UN FOOD SYSTEMS SUMMIT +2 STOCKTAKING MOMENT

24 – 26 July 2023

- Following the commitment made by the UN Secretary-General in the UNFSS 2021 to convene a global stock-taking meeting every two years
- Objectives of UNFSS+2:
 - Convene countries and stakeholders to review progress on the commitments to action made during the 2021 UNFSS
 - Socialize the powerful role of sustainable, equitable, healthy and resilient food systems as critical SDG accelerators among world leaders, national decision-makers and practitioners and food systems actors
 - Advocate for urgent action at scale, building on the latest evidence that sustainable food systems contribute to better and more sustainable outcomes for people, planet and prosperity leaving no one behind, by sharing concrete cases of transformation action led by state and non-state actors.

KEY HIGHLIGHTS



Over 2000 participants from 180 countries, including over 20 Heads of State and Government and 125 Ministers

Over three days, the event highlighted the importance of

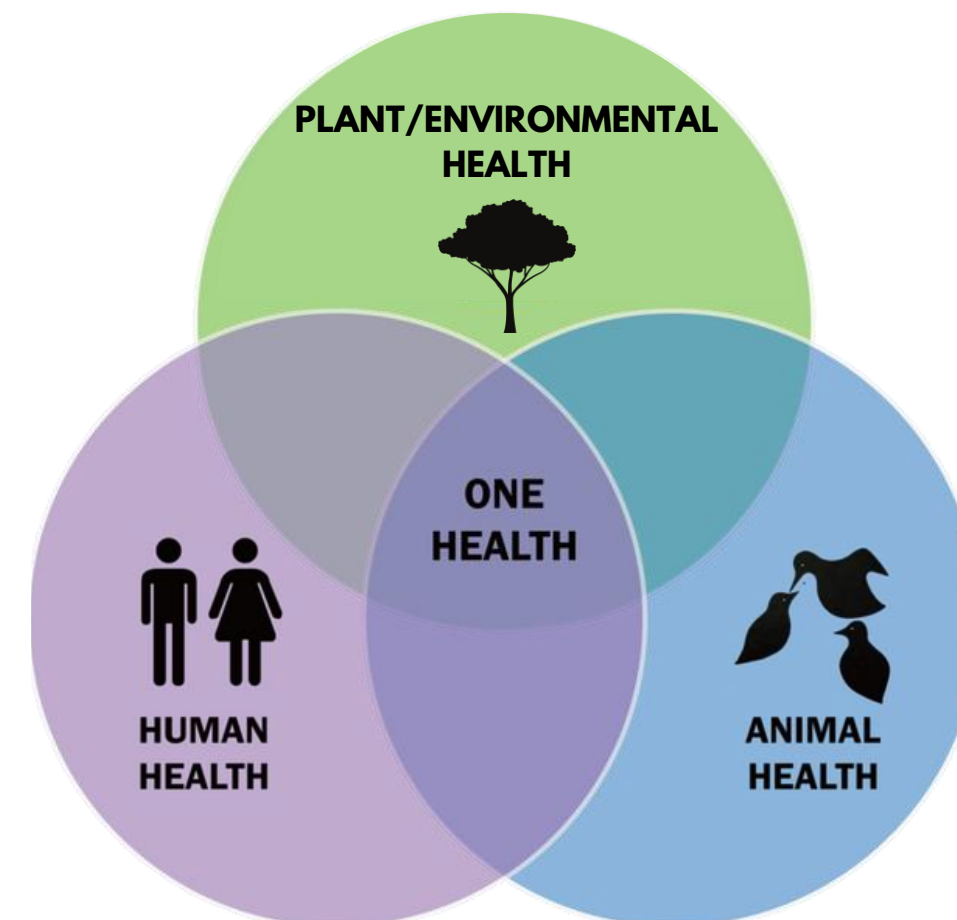
- **Investment in infrastructure** - to ensure what is produced has access to the markets;
- **Circular economy and bio-economy** - to increase efficiency, sustainability and reduce losses and waste;
- **True cost of food** - to make the hidden costs and benefits visible for effective decision-making;
- **Legal infrastructure** - to provide incentives and structures for action;
- **Developing value chains** - to build resilient agrifood systems;
- **Trade** - to increase food diversity, ensure better nutrition and access to healthy diets

Global strategies

to ensure the availability of **safe food**, a fundamental aspect of food security



The "Three Sisters" are working together for the health of humans, animals, plants and the environment under the **"One Health Joint Plan of Action (2022-2026)"**



Sanitary and Phytosanitary Measures (SPS) Agreement

Member countries of WTO are encouraged to base their SPS measures on international standards, guidelines or recommendations.



Standard-setting bodies

The international standard-setting bodies recognized by SPS Agreement are Codex (food safety), WOAHA (animal health and zoonoses), and IPPC (plant health).

CODEX'S WORKS FOR FOOD SAFETY



**379 standards,
recommendations
and guidelines**

56

Code of practices,
emphasising food safety

233

Standards for food safety
and quality

Maximum Limits/Maximum Residues Limits

- Pesticide residues: 5483 MRLs*
- Residues of veterinary drugs: 632 MRLs**
- Contaminants: 113 MLs**
- Food additives: 4,670 MLs*

*as of 2021 **as of 2022

Based on
risk
assessment

CODEX ALIMENTARIUS

INTERNATIONAL FOOD STANDARDS



Food and Agriculture
Organization of the
United Nations



World Health
Organization

CODEx'S WORKS ON NUTRITION

Examples of the Standards and Guidelines



Standard

- Standard for Infant Formula and Formulas for Special Medical Purposes Intended for Infants (CXS 72-1981, rev. 2020)
- Standard for Canned Baby Foods (CXS 73-1981, rev. 2017)
- Standard for Processed Cereal-Based Foods for Infants and Young Children (CXS 74-1981, rev. 2019)
- Standard for Follow-up formula (CXS 156-1987, rev. 2017)
 - To be adopted as Standard for follow-up formula for older infants and product for young children
- Standard for Formula Foods for Use in Weight Control Diets (CXS 181-1991)

Guidelines and Principles

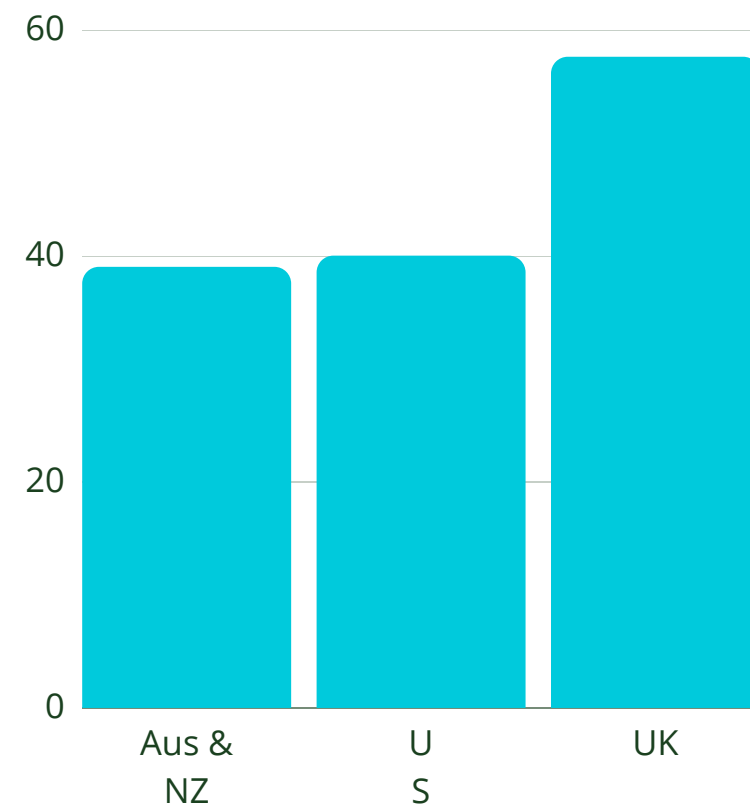
- Guidelines on Formulated Complementary Foods for Older Infants and Young Children (CXG 8-1991, rev. 2017)
- General Principles for the Addition of Essential Nutrients to Foods (CXG 9-1987, rev. 2015)
- Advisory Lists of Nutrient Compounds for Use in Foods for Special Dietary Uses intended for Infants and Young Children (CXG 10-1979, rev. 2015)
- Guidelines for Ready-to-use Therapeutic Foods (RUTF) (CXG 95-2022)

Drafting

- Proposed draft General Principles for Establishing NRVs-R for Persons Aged 6 - 36 Months

Food allergen management and food security

- Ensure food safety for allergenic consumers
- Labelling is an important tool to convey information to safeguard the allergic people
 - **Undeclared allergens are identified as the most common type of recall***



Reason for food recalls in certain countries*

Codex's work on food allergen

allergen

Code of Practice on Food Allergen Management
for Food Business Operators
(CXC 80-2020)



Revision of General Standard for the Labelling of
Prepackaged Foods: allergen labelling

Proposed changes

- Cereals containing gluten; i.e., wheat, rye, barley, ~~oats~~, spelt or their hybridized strains and products of these;
- Crustacea and products of these;
- Eggs and egg products;
- Fish and fish products;
- Peanuts, ~~soybeans and~~ products of these;
- Milk and milk products (~~lactose included~~);
- Tree nuts and nut products: **namely almonds, cashew, hazelnut, pecan, pistachio, walnut**
- **Sesame and products thereof**
- ~~Sulphite in concentrations of 10 mg/kg or more.~~

Proposed new 'regional' list

Buckwheat, Celery, **Oats** and other Avena species (and their hybridized strains), Lupin, Mustard, **Soybean**, Specific tree nuts: Brazil nut, macadamia, pine nut

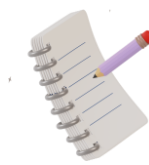
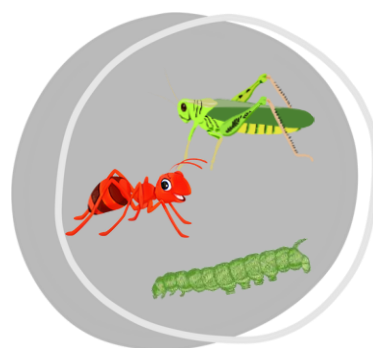
*references
 1) Types of recalls: Soon and Wahab (2021) Global food recalls and alerts associated with labelling errors and its contributory factors
 2) Aus & NZ: <https://www.unimelb.edu.au/newsroom/news/2020/june/incorrect-food-labelling-sparks-calls-for-tighter-regulations>
 3) US: <https://food-safety-news.3m.com/fsn/food-allergens-how-regulations-are-changing-the-global-food-safety-landscape/>
 4) Yue et al. (2022) Food allergen recalls in the United Kingdom: A critical analysis of reported recalls from 2016 to 2021

Latest discussion in Codex related to food security



New food sources and production systems

- **New Food sources**
 - seaweed
 - microalgae
 - edible insect
 - Plant-based protein alternatives
- **New production system**
 - Cell culture-based food products
 - 3-D printed foods



food labelling and information

- **Discussion on sustainability claim**
 - To prevent any misleading claim
- **Discussion on food labelling exemptions in emergencies**
 - To provide flexibility in food labelling during emergencies that cause supply chain shocks
- **Proposed draft guidelines on the prevention and control of food fraud**
 - To provide guidance on the detection, prevention, mitigation and control of food fraud to help protect the health of consumers, and to ensure fair practices in trade of food and feed

How plant pests and diseases affect food security



OF HUMAN NUTRITION IS FROM
PLANTS



OF GLOBAL FOOD PRODUCTION
LOSSES ARE CAUSED BY
**PLANT PESTS
AND DISEASES**

Effects of plant pests and diseases on food security

- damaged crops reduce food availability and access, and increase food costs.
- affect palatability of foods, resulting in changes in food preferences of populations

EXAMPLE



Fruit Flies

- include more than 5,000 species, one-third of which develop in **fresh fruits** and represent important invasive pests
- ***Oriental fruit fly*** is a major pest in ASEAN
- rapid increase in population due to climate change
- dispersion of fruit flies due to the movement of humans and goods



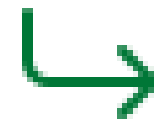
International Plant Protection Convention

MISSIONS OF IPPC

to protect the world's plant resources from the spread and introduction of pests, and promoting safe trade.

ISPM AND IPPC'S TEXTS

- 47 International Standards
- 46 Phytosanitary Treatments
- 31 diagnostic protocols
- 10 CPM recommendations



specific PS measures to reduce pest risks prior to export, during transfer, on arrival, and during handling and processing.



SCIENTIFIC REVIEW OF THE
IMPACT OF CLIMATE CHANGE
ON PLANT PESTS

ISPM 38
INTERNATIONAL MOVEMENT
OF SEEDS



Livestock, livelihoods and food security

- Human population growth, urbanisation, income growth, and changing consumption patterns all lead to an increase in meat consumption
- Livestock sector plays an important role in the national economies and household food security, especially in developing countries.



>62 million birds died or were culled during 2004-06 in Thailand

In 2022, 67 countries reported H5N1 outbreaks, >131 million domestic poultry lost

Avian Influenza

- High mortality rate
- virus can rarely affect humans but can affect other wildlife including sea and land mammals.



~225 million pigs in China died or were culled in 2018

almost 25% of the global pig population died of ASF from 2018-19

African Swine Fever

- High mortality rate
- virus cannot be transmitted to humans

World Organization for Animal Health

WOAH (OIE)



Key missions

- To ensure transparency on global **animal diseases**
- To encourage **international solidarity** in the control of animal diseases
- To **safeguard world trade** by publishing health standards for international trade in animals and animal products (within its mandate under the SPS Agreement)
- To provide a better guarantee of food of animal origin and to promote **animal welfare** through a science-based approach.

WOAH's texts

- **Terrestrial Animal**
 - Health Code
 - Manual of Diagnostic Tests and Vaccines
- **Aquatic Animal**
 - Health Code
 - Manual of Diagnostic Tests

AI



Code

- Chapter 10.4

Manual

- Chapter 3.3.4

ASF



Code

- Chapter 15.1

Manual

- Chapter 3.8.1



STRATEGIES, ACTIVITIES IN RELATION TO OR SUPPORTING FOOD SECURITY AT REGIONAL LEVEL



ASEAN Framework

and cooperations to ensure food and nutrition security



ASEAN Cooperation in Food, Agriculture and Forestry Towards 2025

Vision: A competitive, inclusive, resilient and sustainable Food, Agriculture, and Forestry (FAF) sector integrated with the global economy, based on a single market and production base contributing to food and nutrition security and prosperity in the ASEAN Community.



ASEAN Integrated Food Security (AIFS) Framework and Strategic Plan of Action on Food Security (SPA-FS) 2021-2025

Goal: to ensure long-term food security and nutrition, to improve the livelihoods of farmers in the ASEAN region



ASEAN Plus Three Emergency Rice Reserve (APTERR) to strengthen food security, poverty alleviation, and malnourishment eradication among its members of ASEAN+3 region without distorting normal trade

ASEAN Food Security Information System (AFSIS) to strengthen food security in the ASEAN+3 region through the systematic collection, analysis and dissemination of food security related information

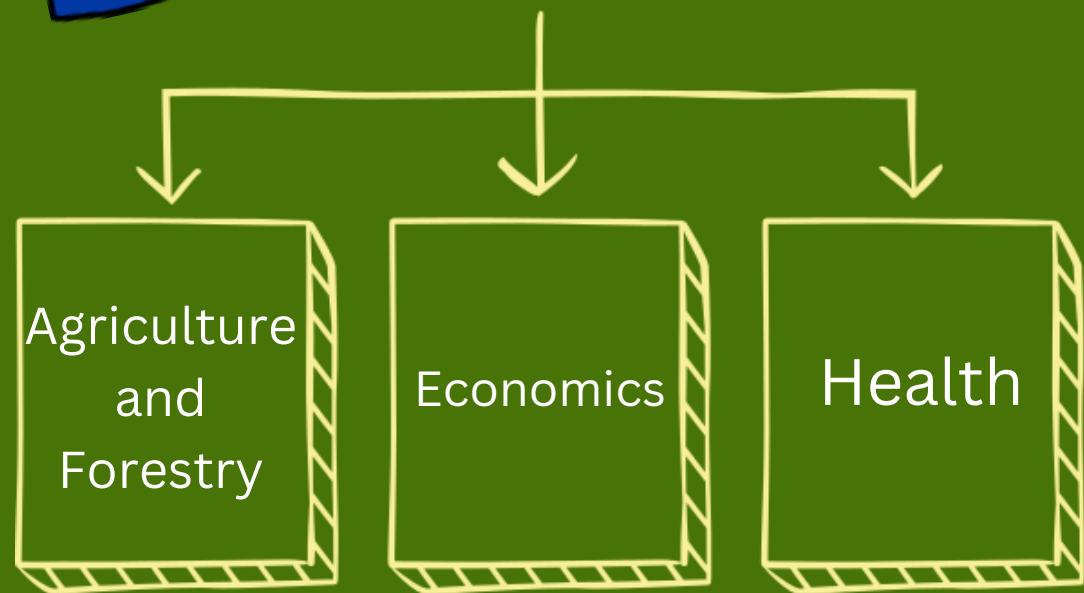
One of the Action Programs is to effectively implement

5 MAJOR CROPS





Ministers



ASEAN Food Safety Policy

ASEAN Food Safety Regulatory Framework (AFSRF)

AFSRF Agreement

in-process

Trade Facilitation, Food Safety, Food Standards ensure **Food Security**

ASEAN Trade in Goods Agreements (ATIGA)

ASEAN Framework Agreement on Mutual Recognition Arrangements

Multilateral Arrangement for the Mutual Recognition of Agri-food Standards and Conformity Assessment (MAMRASCA)

GAP Std/certification/harmonization/recognition



**ASEAN
MRA
RELATED TO
Food**

ASEAN Sectoral MRA for Inspection and Certification Systems on Food Hygiene for Prepared Foodstuff Products

ASEAN Mutual Recognition Arrangement on Organic Agricultural Products (MRA-OAP)

organic agriculture std/cert/harmonization+recognition

Benefits from the implementation of MRAs

- reduced cost and time of repetitive testing or certification process, thus the freer flow of trade
- greater certainty of market access
- improved innovation as competition increased



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STRATEGIES, ACTIVITIES IN RELATION TO OR SUPPORTING FOOD SECURITY AT NATIONAL LEVEL



Actions plans developed in managing the food and nutrition security issues



SUSTAINABLE DEVELOPMENT GOALS



2 ZERO HUNGER
End hunger, achieve food security and improved nutrition and promote sustainable agriculture

3 GOOD HEALTH AND WELL-BEING
Ensure healthy lives and promote well-being for all at all ages

8 DECENT WORK AND ECONOMIC GROWTH
Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all

12 RESPONSIBLE CONSUMPTION AND PRODUCTION
Ensure sustainable consumption and production patterns



Thailand Food Management Action Plan, Phase I (2023-2027)

Actions plans developed in managing the food and nutrition security issues

Vision: Thailand has sustainable food and nutrition security. Thailand is a source of high-quality, safe and nutritious food. Consumers have appropriate consumption behaviours.

Objectives:

- (1) To be used as a guiding plan by relevant agencies throughout the food chain.**
- (2) To serve as a framework for management, collaboration, resource allocation, implementation, and monitoring and evaluation for all relevant agencies along the food chain, leading to food and nutrition security at all levels in both normal and critical circumstances.**
- (3) To encourage inter-sectoral participation and integrate relevant policies and action plans aiming to work efficiently and harmoniously together.**

STRATEGIC ELEMENTS

Food Security

- Promote the production of agricultural products for food security and nutrition
- Increase an efficiency of food production
- Strengthen and build capability of organization involved



Goal 1

The number of malnourished people has decreased.

Hunger ↓



Goal 2

The amount of food loss and food waste has reduced.

Food loss & food waste ↓



Food Quality & Safety

- Develop food safety standards and promote their implementation
- Improve quality and safety of agricultural and food products
- Support food business operators to comply with food laws and regulations

Goal 3

Consumers' confidence in food quality and safety has increased.

Consumers' trust ↑



Goal 4

Food trade has increased

Trade ↑



Food Education

- Promote collaboration and integration of all relevant agencies in food education for all stakeholders along the food chain

Goal 5

The number of people with malnutrition has decreased.

Smart consumer ↑



Management System

- Promote collaboration and integration of all relevant agencies in the food chain
- Revise relevant regulations
- Develop a network of food information and database for decision-making

Goal 6

Having coordination and integration mechanism.

Collaboration ↑





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CHALLENGES, RECOMMENDATIONS AND WAY FORWARD TO ENHANCE FOOD SECURITY IN SOUTHEAST ASIA





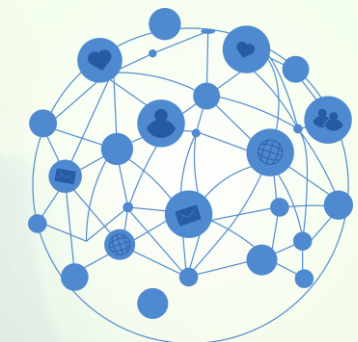
Examples of Action Plan for ASEAN

● Food reserve & supply

- Strengthen local resource-based food reserves and the existing mechanism of ASEAN Plus Three Emergency Rice Reserves
- Increase concerted efforts in sustaining the food supply, strengthen the local and regional food value chain, and reduce food loss and waste
- Addressing immediate bottlenecks in the availability of essential farm input, especially a supply of fertilizer

● Infrastructure

- Ensure unimpeded trade and flow of foodstuffs through a practical regulatory framework
- Enhance market connectivity and distribution networks
- Promote investment in agricultural research and development (R&D) and infrastructure
- Facilitate access to finance for small-scale farmers and other stakeholders
- Accelerate digital transformation and innovation
- Strengthen the existing role, function, and sustainability of the ASEAN Food Security Information System (AFSIS)





Recommendations and Way Forward



- **Improve food production for**
 - safe and nutritious foods
 - plant and animal health protection
 - in accordance with international standards
- **Apply risk-based food standards and regulations**
- **Invest in technology, innovation, and R&D**
- **Promote sustainable production**
- **Promote sustainable consumption and consumer education**
- **Strengthen local food availability**
- **Implement ASEAN Integrated Food Security and Food Safety Framework**



THANK YOU

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