

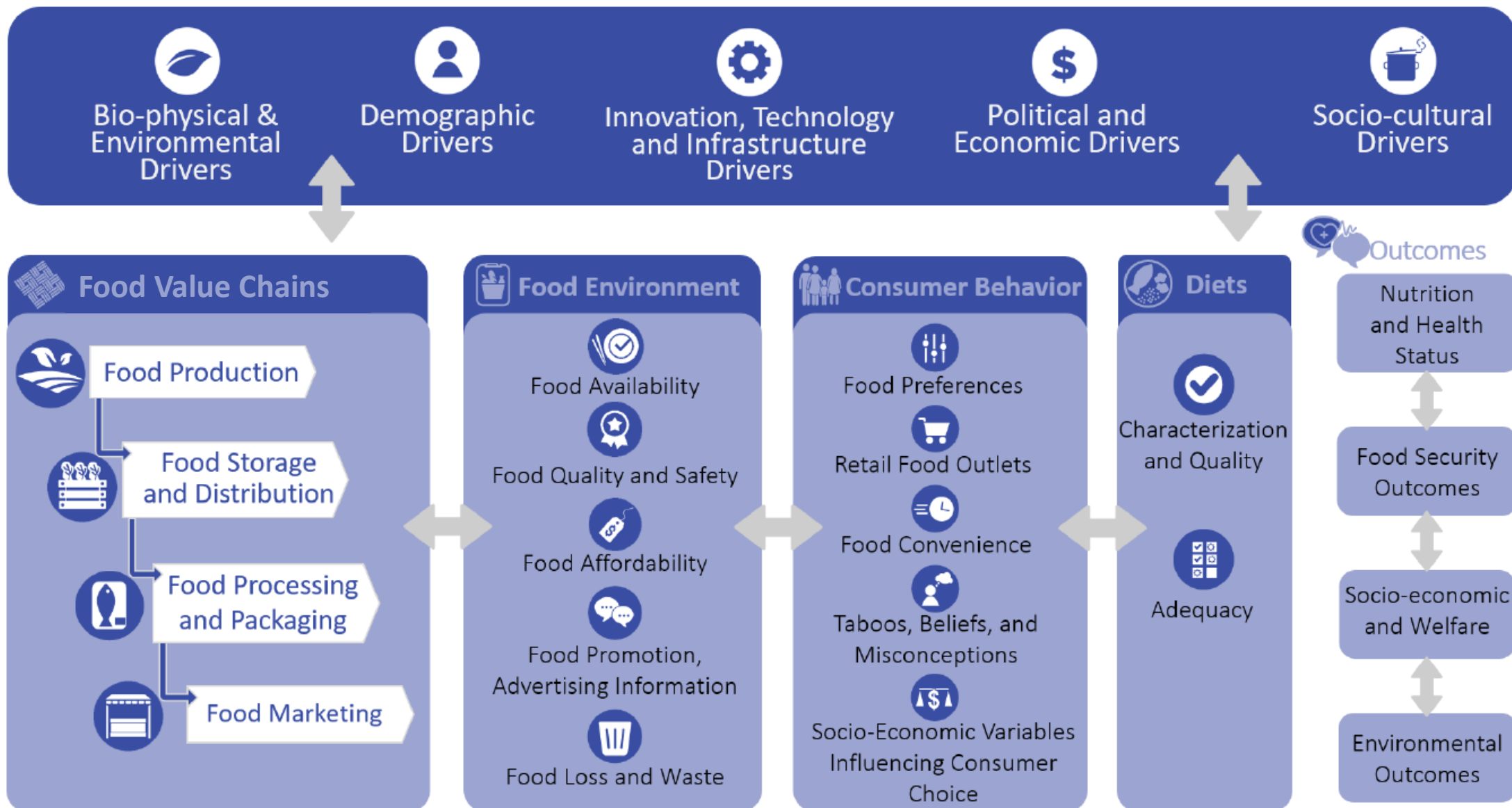


The Vietnam Food System – characteristics and challenges

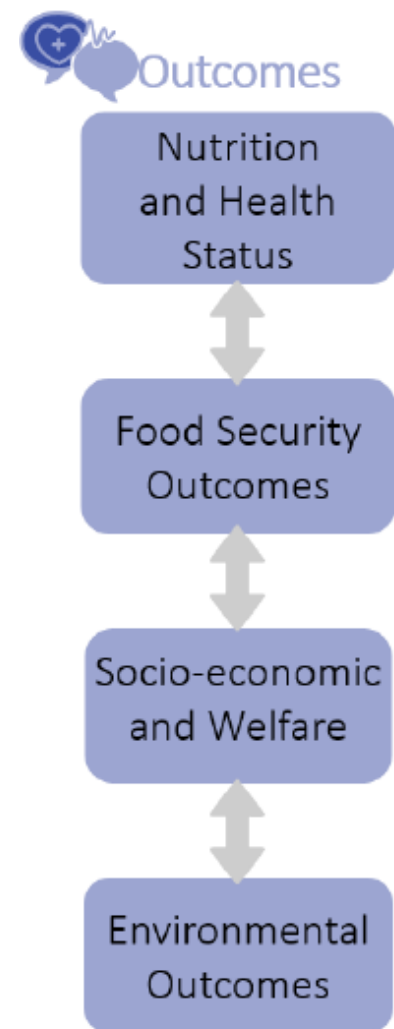
PhD. Dao The Anh (VAAS)

Hanoi, 12 Oct 2022

Conception: Food system framework (CFS)



Vietnam food systems characteristics



Health and nutrition

- Daily per capita intakes of vegetables, fruit and meat have increased by 21%, 80% and 62% between 1990 and 2020.
- Triple burden outcomes of malnutrition, micronutrient deficiency and overweight and obesity emerging.
- Covid19 has negative impacts

Food security

- Over 43 million tons of rice was produced in 2019 of which 6.3 million tons or 14.7% was exported.
- Between 1990 and 2020 rice production increased 56%, yields increased 45% and exports increased 77%.

Economy

- Agriculture, livestock and fisheries sectors contribute 14.6% to national GDP.
- Export value of agriculture and fisheries products is valued at US\$25.4B in 2020.

Employment and livelihoods

- Agri-food sector employs around 28 million people in 2019 - 20 million in production, 3 million in manufacturing and 4 million in distribution.
- Fast reduction in national poverty rates from 58.1 per cent in 1993 to 2.75% in 2021.

Environment

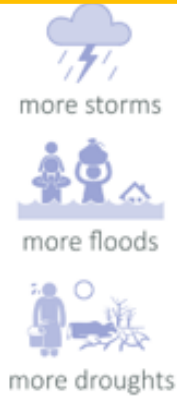
- GHG emissions (~30%) from agriculture.
- Food loss and waste could be >25%.

Forecasts predict annual spring rice yield could decrease by 16.5%, and total rice yields by 5% by 2070 due to climate change. (MONRE)

Vietnamese Food System Drivers

KEY FACTS

Food stability is affected by climate change



Climate change impacts + Price fluctuations



Recently climate change and disasters have caused food insecurity and hunger in vulnerable areas and people.

By 2100, forecast 89,400ha in Mekong Delta at risk of flooding, and lose 7.6 million tons of rice pa if sea level rise is 100cm.

Vietnam's food system is diverse and dynamic



The Vietnamese food culture is defined by the combination of many factors, especially geography, climate, and ethnicity.

One of the fastest growing economies in the region

Urbanization is affecting diet composition and habits



3.2% Annual urbanization growth rate

35% People living in urban areas



Concerns grow

6.9% GDP% growth in 2019

GDP per capita
US\$6,780

Annual inflation rate (over the past 10 years)

Consumer Price Index
5.1%

Producer Price Index
5.7%

Leading global exporter of agricultural commodities

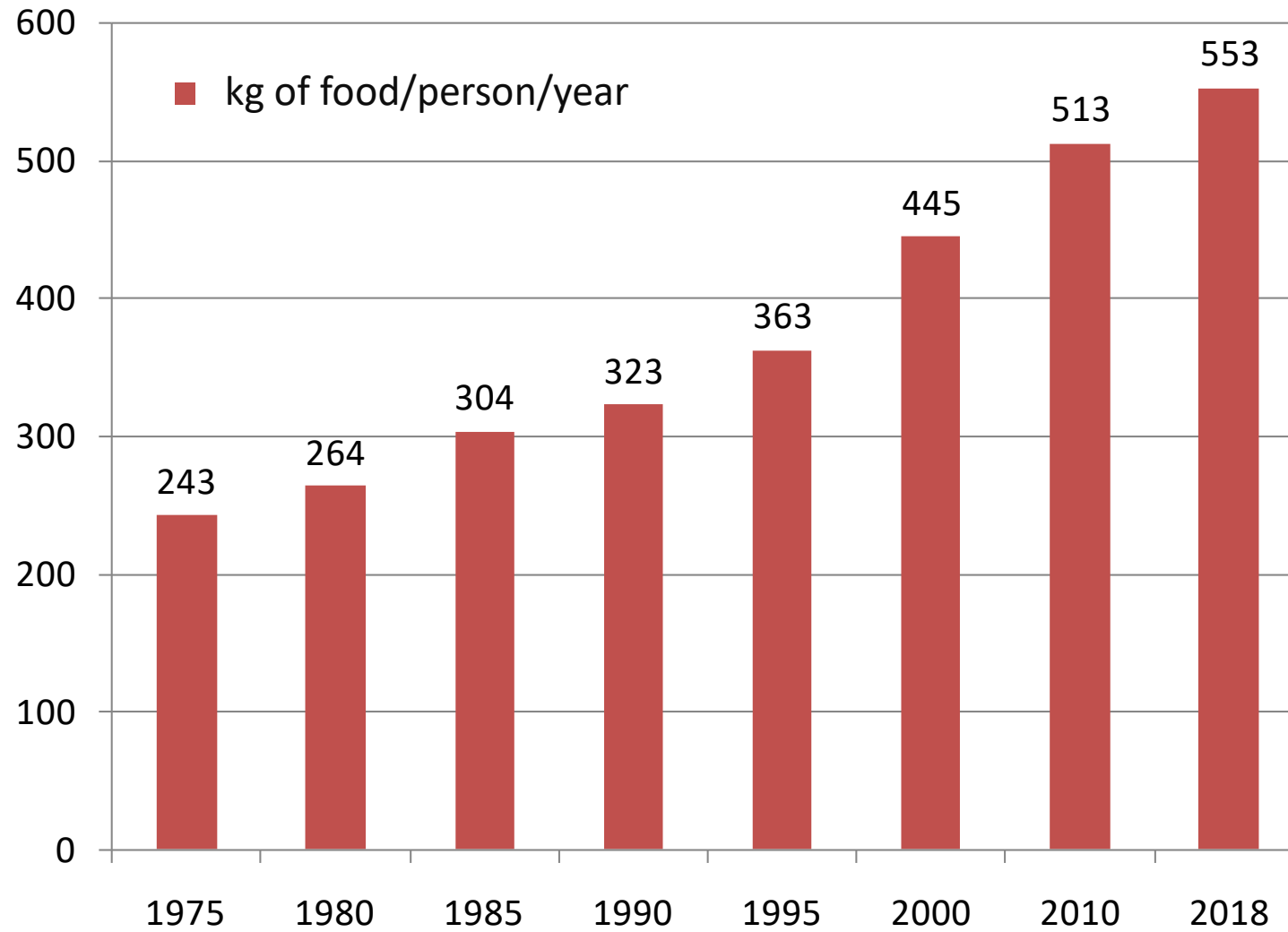


Local prices & policy responses are linked to World food price



US\$25.4 Billion in agricultural/fishery exports.

Stable food security

Grain food per capita over time

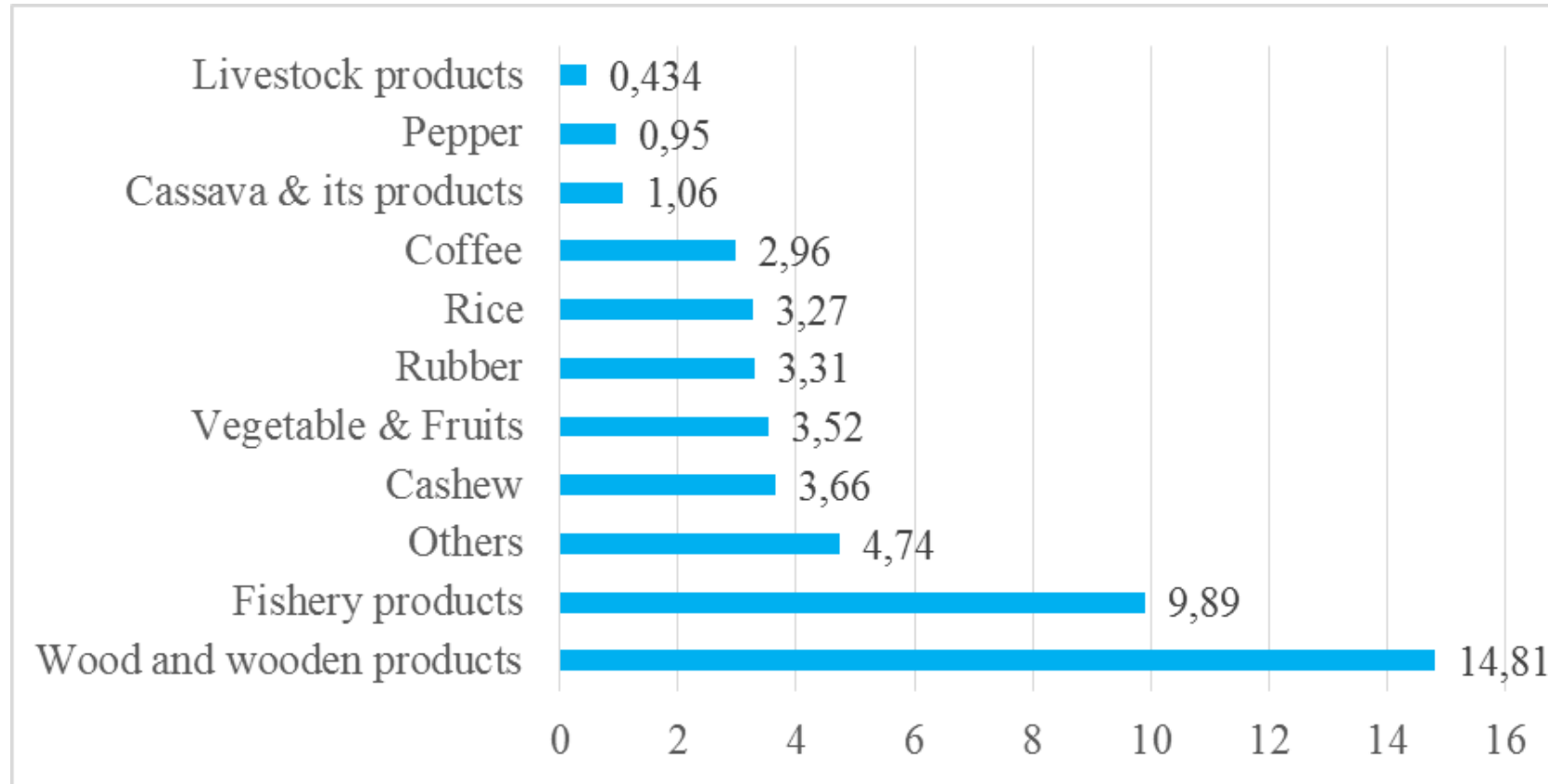


Diversified Crops in Vietnam (2021), under COVID19

| Crop |  Planted area (1,000 ha) |  Output productivity (1,000 tons) |
|---------------------|--|--|
| Rice | 7,239 | 43,860 |
| Maize | 902 | 4,430 |
| Cassava | 530 | 10,600 |
| Sweet potato | 112 | 1,120 |
| Vegetables | 1,120 | 18,600 |
| Fruits | 1,180 | 10,500 |
| Rubber | 925 | 1,260 |
| Coffee | 694 | 1,830 |
| Cashew | 305 | 367 |
| Pepper | 130 | 282 |
| Tea | 121.5 | 1,090 |

Source: Vietnam MARD, Jan 2022)

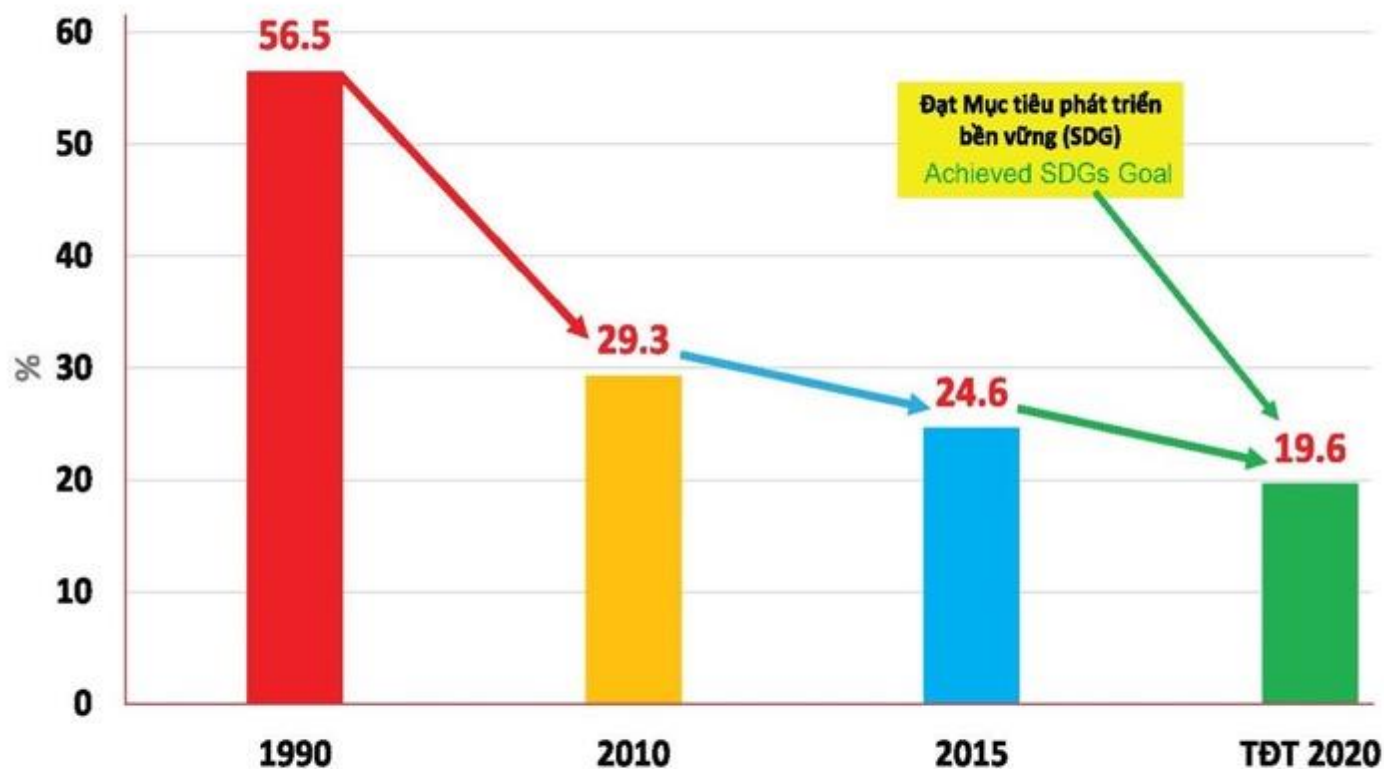
Export Value of Agricultural Commodities in 2021, under COVID19 (Unit: Billion USD)



Total Export Value of Agricultural Commodities in 2021: 48.6 billion USD
Trade balance of the whole sector: 6.44 billion USD

Malnutrition, micronutrient deficiencies and overweight-obesity are important nutrition and health indicators of the food system

Vietnam has successfully reduced the prevalence of stunting among children under 5 years old, 1990-2020, and achieved SDG goals with innovative policies and programs



Nguồn: Tổng điều tra dinh dưỡng (1990; 2010; 2020).
Giám sát dinh dưỡng toàn quốc (2015)
VIỆN DINH DƯỠNG

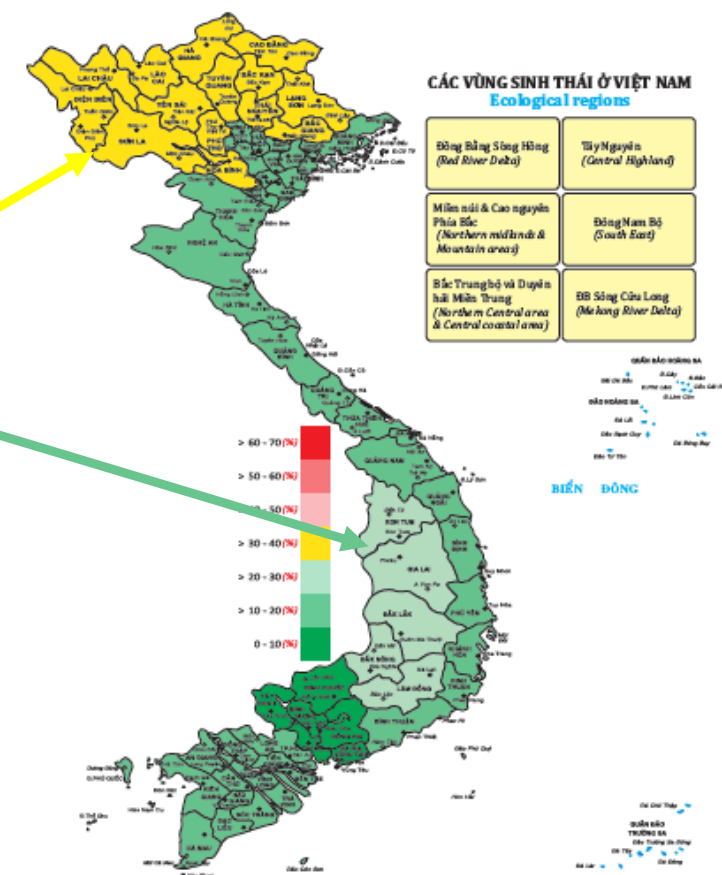
Source: General nutrition survey (1990; 2010; 2020) &
Nutrition Surveillance (2015) - NIN, Viet Nam



Malnutrition: Impacts are unevenly distributed between urban and rural areas, and ethnic groups, and linked to poverty and household income

Prevalence of stunting in children < 5 remains very high in northern and central mountainous regions, where poverty rates are also high. Stunting also highest amongst ethnic minority groups (32%). Stunting in urban areas is low, but overweight and obesity is an increasing problem.

| Vùng sinh thái (Geographical area) | % | 95% CI |
|---|-------------|---------------|
| Toàn quốc (Nationwide) | 19.6 | |
| Theo vùng sinh thái (by Geographical area) | | |
| Miền núi phía bắc (Northern midlands and mountain areas) | 37.4 | (34.0 - 40.8) |
| Đồng Bằng sông Hồng (Red River Delta) | 11.2 | (8.5 - 14.8) |
| Bắc Trung bộ và Duyên hải miền Trung (Northern Central area & Central coastal area) | 17.4 | (14.5 - 20.3) |
| Tây Nguyên (Central Highland) | 28.8 | (20.2 - 39.1) |
| Đông nam bộ (South East) | 9.7 | (6.2 - 11,2) |
| ĐB sông Cửu Long (Mekong River Delta) | 12.4 | (10.2 - 15.1) |
| Theo vùng thành thị/nông thôn (by Urban/Rural area) | | |
| Thành thị (Urban) | 12.4 | (10.2 - 15.1) |
| Nông thôn (Rural) | 14.9 | (12.0 - 18.3) |
| Miền Núi (Mountainous) | 38.0 | (34.0 - 42.0) |
| Giới (by Sex) | | |
| Nam (Boy) | 18.6 | (12.9 - 17.1) |
| Nữ (Girl) | 20.6 | (11.1 - 15.5) |



Food safety concerns



MAIN TOPICS OF CONCERN BY URBAN VIETNAMESE IN 2019



IRL Hot Spots Survey 2019: n = 300 In Hanoi and HCM City, urban, 18 - 60 y.o

(values expressed in % of total respondents)

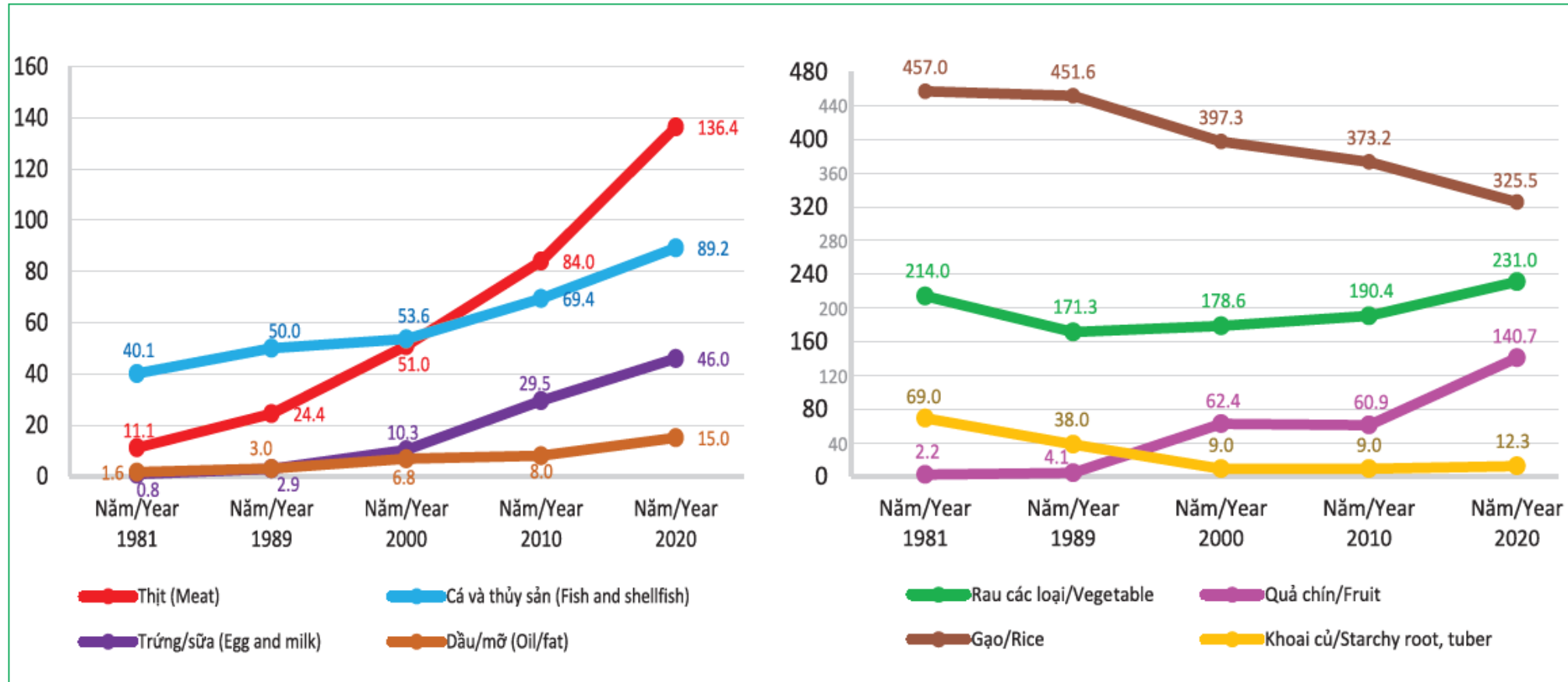
www.indochina-research.com

Healthy diet: Urbanization, increasing incomes and changing consumer preferences are changing diets

Since 1981 daily intake of rice and starchy roots have fallen, whilst intakes of all other food groups, particularly meat has increased

XU HƯỚNG TIÊU THỤ MỘT SỐ THỰC PHẨM CHÍNH (trung bình gam/người/ngày)

Trend of main food group consumption (gram/capita/day)

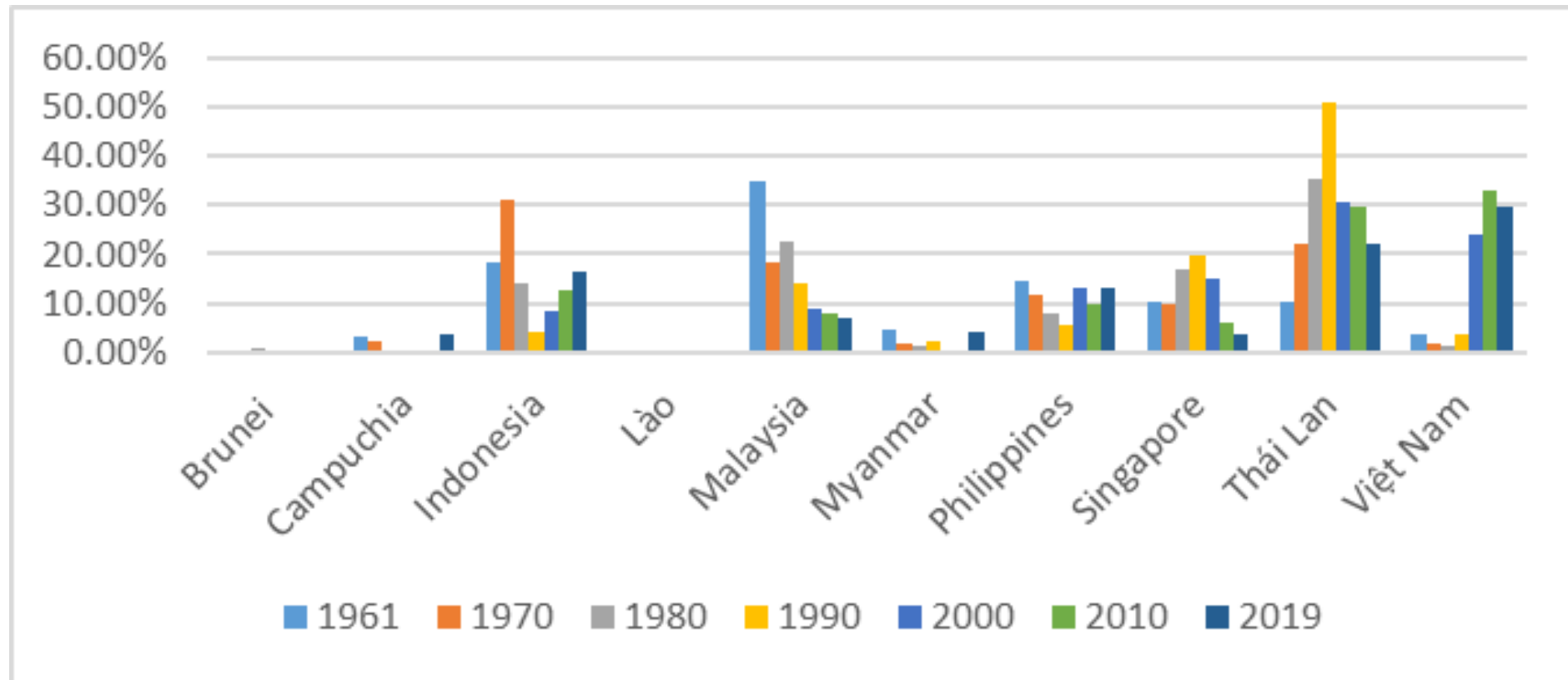


Nguồn: Tổng điều tra Dinh dưỡng (1981; 1989; 2000; 2010; 2020) - VIỆN DINH DƯỠNG

Source: General nutrition survey (1981; 1989; 2000; 2010; 2020) - NIN, Viet Nam

Unstable intensive production:

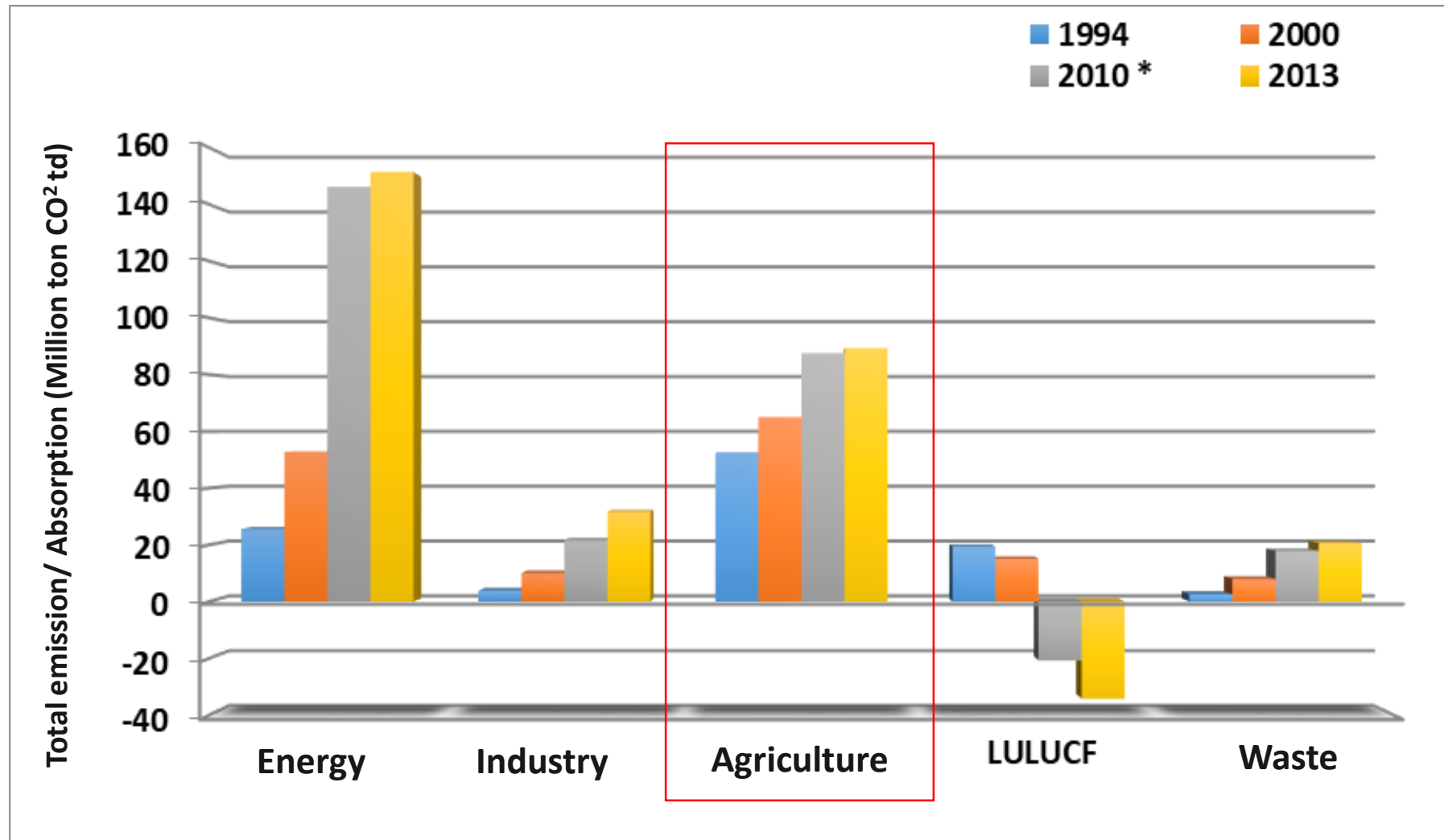
Insecticide importation of ASEAN countries
period 1961-2019 (Source: SEA DATA)



Greenhouse gas emission in Vietnam

Influence of agriculture on climate change

[MONRE, 2017]



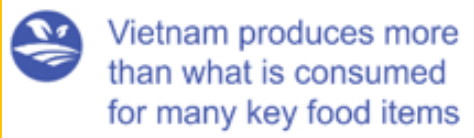
Some food systems cause resource degradation

High rates of deforestation, soil erosion and declining soil fertility and health from heavy use of inputs and unsustainable cropping practices occur on sloping lands in the northern and central mountainous regions.

KEY FACTS

US\$25.4 Billion in food exports;
15% of total rice production exported

Vietnam's Food Supply Chain Systems

 Vietnam produces more than what is consumed for many key food items

Production systems vary dramatically across the country



- Rice
- Integrated fishpond systems
- Intensified small family business
- Home gardening
- Buffalo
- Low-input homestead livestock production

Rapid growth has led to various challenges:



Up to 32% loss for fruit and vegetable and 12% loss for fishery and seafood

 Post-harvest loss is significant


... because of



- specially of perishable products
- Low mechanization of agriculture
- Low capacity in storage and transport

Cold-chain ratio in meat, fruit and vegie only 6-12% compared to 95% for seafood

Over 157 industrial facilities, but only 64% of 1.1Mt utilized.

 Agricultural products processing industry has achieved considerable growth



Yet it accounts for only 5-10% of the total volume of agricultural products







 Formal food retail system include Modern & Traditional forms of food retailing



- Hypermarkets
- Supermarkets
- Chain convenience stores
- Wet markets account for the largest share of urban household food expenditure
- Traditional wet markets are key in urban and rural food provisioning

Food value chain structure:

Changes in purchasing patterns: a move from traditional to modern retail (source: Malica/ADB, 2017)

| Do you buy from the following outlets? | Now | 5 years ago | Trend |
|---|------|-------------|--|
| Wet market retailers | 84.5 | 92.5 |  -8,5% |
| Large supermarket | 83.5 | 70.5 |  +18,5% |
| Convenience shop | 49.5 | 26 |  +90% |
| Specialized shop | 43.5 | 20.5 |  +112% |
| Street vendors | 15.5 | 21 |  -35,5% |
| Direct from the farm | 11.5 | 8.5 |  +35% |
| Online via shop websites | 2 | 0.5 | |
| Online via individuals - social network | 3.1 | 0 | |
| Organic market | 1.5 | 0.5 | |
| Other outlets | 2.5 | 1.5 | |

- Wet markets and street vendors are losing ground
- While purchase at supermarkets still grows
- Most significant growth is in convenience and specialized shops
- Direct purchases from the farm are also rising
- Emergence of online shopping

Weak agri-food value chains coordination: Key role of Cooperatives for inclusiveness

- 17,460 agriculture cooperatives with 3.8 million members in 2020
- 11,820 cooperatives (68%) achieved “good status”; ~98% without financial loss
- Revenue: 2.44 billion VND/cooperative
- Profit: 383 million VND/cooperative
- Labour income: 3.4 million VND/person/month
- 1,718 high-tech applications, nearly 10% (increase from 752 in 2017)
- 3,913 cooperatives (22.8%) established marketing linkages with private sector
- 1612 safe food value chains at country level (2020)



Key point about Vietnam's food systems

- Rapidly transforming
- Vulnerable and unsustainable
- Need responsible investment
- Need more transparent
- Require urgent collaborative action at different levels



There are many existing national strategies, plans and programs relevant to Vietnam's food system

**Socio-Economic
Development Strategy 2021-
2030 (MPI)**

**National Action Plan for
Implementation of the 2030
Agenda for Sustainable
Development (MPI)**

**National Nutrition
Strategy, 2021-2030
(MOH)**

**Strategies, plans
and programs
relevant to food
systems**

**Strategy for sustainable
agriculture and rural
development 2021-2030,
vision 2045 (MARD)**

**Scaling up Nutrition
Vietnam (SUN), (MOH)**

**National Action Plan on
Zero Hunger in Viet Nam by
2025 (MARD)**

**Green Growth and
Climate Change Response
Target Programs 2016-
2020 (MONRE)**

**NDC mitigation and
adaption and commitment
to the Paris Agreement of
Viet Nam, (MONRE).**

**Vietnam Commitment of
low carbon agriculture
at COP26 (MARD)**

**There are numerous stakeholders already involved in
Vietnam's food systems**

**National
Government-
Ministries**

**Bilateral and multi-lateral
donors, research and
development agencies**

**National Research
Institutions and
Universities**

**Policy, research,
development,
innovation, human
development in
food systems**

**International
Research Inst.**

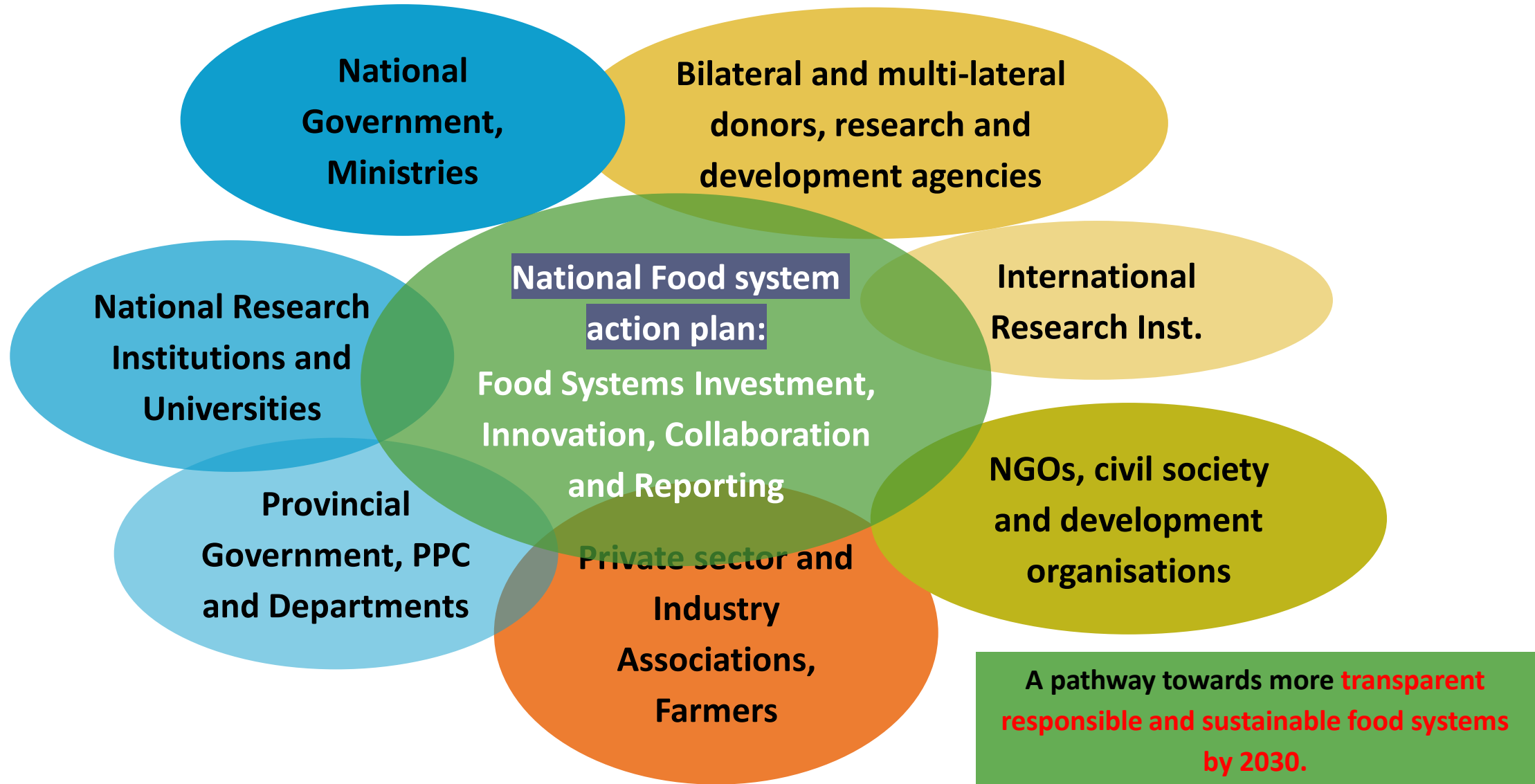
**Provincial
Government, PPC
and Departments**

**Private sector and
Industry
Associations,
Farmers**


**NGOs, civil society
and development
organisations**

National action plan of food system transformation to 2030:

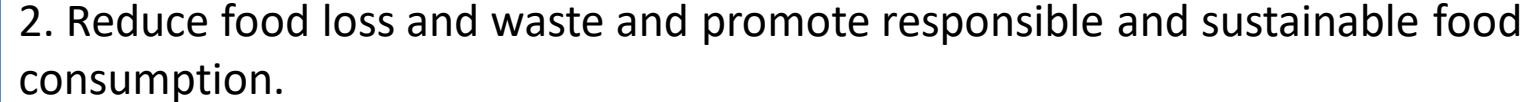
A coordination tool for collective actions



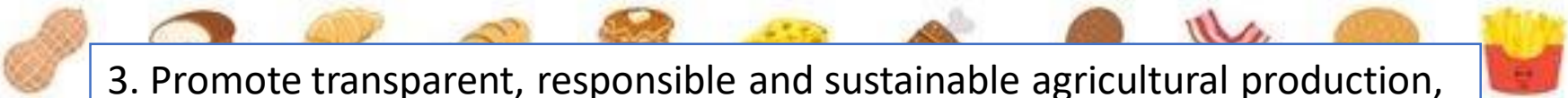
NAP of Transparent, Responsible and Sustainable Food system transition by 2030 objectives



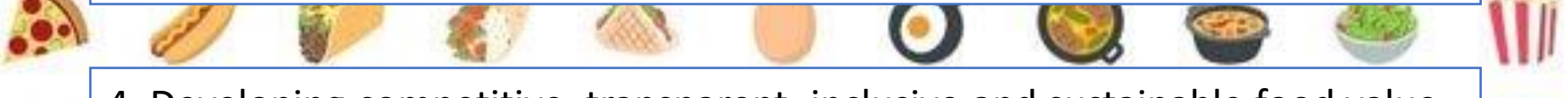
1. Ensure everyone has access to healthy (food safe and nutritious) and sustainable food.



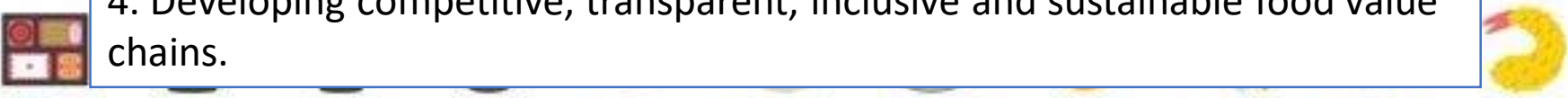
2. Reduce food loss and waste and promote responsible and sustainable food consumption.



3. Promote transparent, responsible and sustainable agricultural production, contribute to the implementation of agroecology and reduce gas emissions.



4. Developing competitive, transparent, inclusive and sustainable food value chains.



5. Strengthen the resilience of people, especially women, young people and disadvantaged groups to fluctuations, shocks and negative impacts caused by climate change, epidemics and supply chain disruptions.

Concluding remarks

- Food system transition need multi-stakeholder actions and multi-disciplinary research
- Food system should be experimented at local levels in diverse agro-ecological regions
- ASSET will be important contributor to the NAP Food system by 2030 in Vietnam



Thank You !

