

Processed food revolution in sub-Saharan Africa and the Double burden of malnutrition

IUNS Event

16 November 2021

Professor Anna Lartey

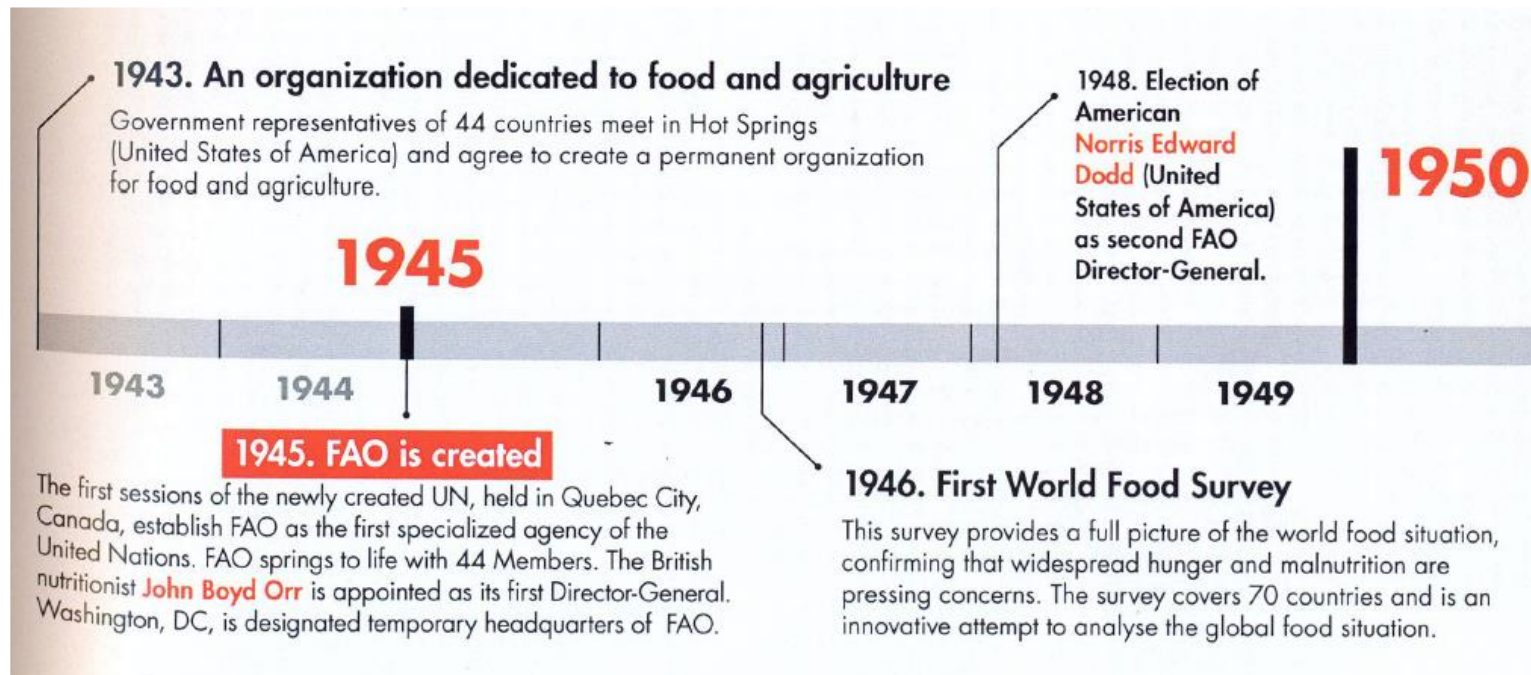
University of Ghana

75 yrs ago (July 1946) when IUNS was formed, widespread hunger and malnutrition were pressing concerns

First FAO D-G (1945)



Sir John Boyd Orr
renowned nutrition scientist

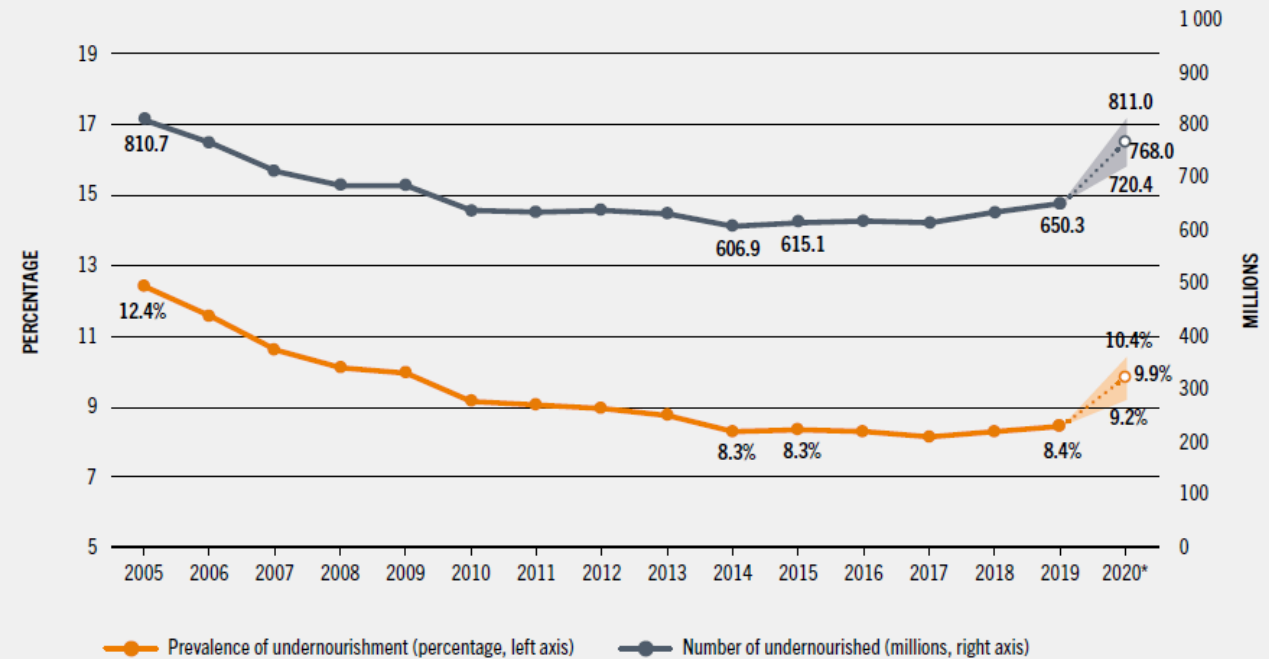


Source: Towards Zero Hunger 1945-2030 (FAO 2017)

2020 saw the biggest increase in hunger numbers ever reported in 50 years: 118 million more in 2020 than in 2019

Sub-Saharan Africa:
2019 219.8 million
2020 264.2 million

FIGURE 1 THE NUMBER OF UNDERNOURISHED PEOPLE IN THE WORLD CONTINUED TO RISE IN 2020. BETWEEN 720 AND 811 MILLION PEOPLE IN THE WORLD FACED HUNGER IN 2020. CONSIDERING THE MIDDLE OF THE PROJECTED RANGE (768 MILLION), 118 MILLION MORE PEOPLE WERE FACING HUNGER IN 2020 THAN IN 2019 – OR AS MANY AS 161 MILLION, CONSIDERING THE UPPER BOUND OF THE RANGE



NOTES: * Projected values for 2020 in the figure are illustrated by dotted lines. Shaded areas show lower and upper bounds of the estimated range.

SOURCE: FAO.

Reaching the 2025 and the 2030 Global Nutrition Targets remains a challenge

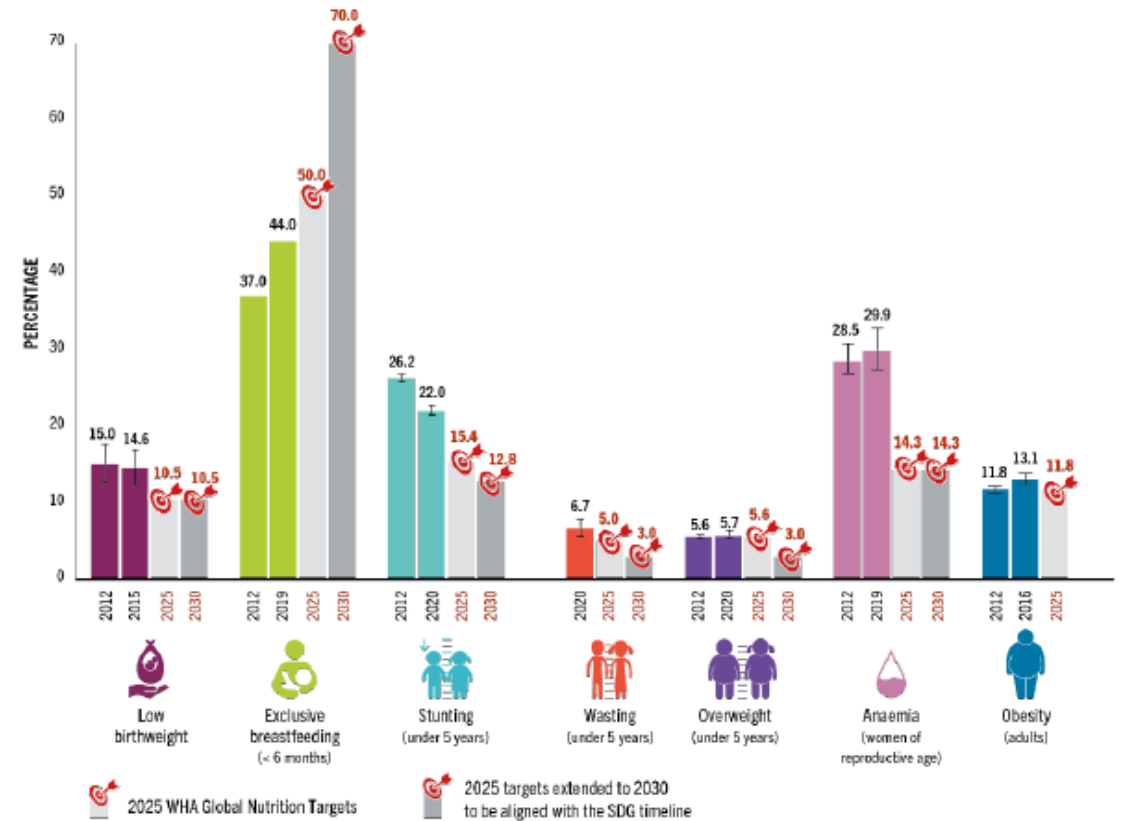
In 2020, children under 5 yrs:

~22% stunting

~6.7% wasting

~5.7% overweight

~30% of women of reproductive age were anemic in 2019



Source: FAO, IFAD, UNICEF and WHO 2021. State of Food Security and Nutrition 2021

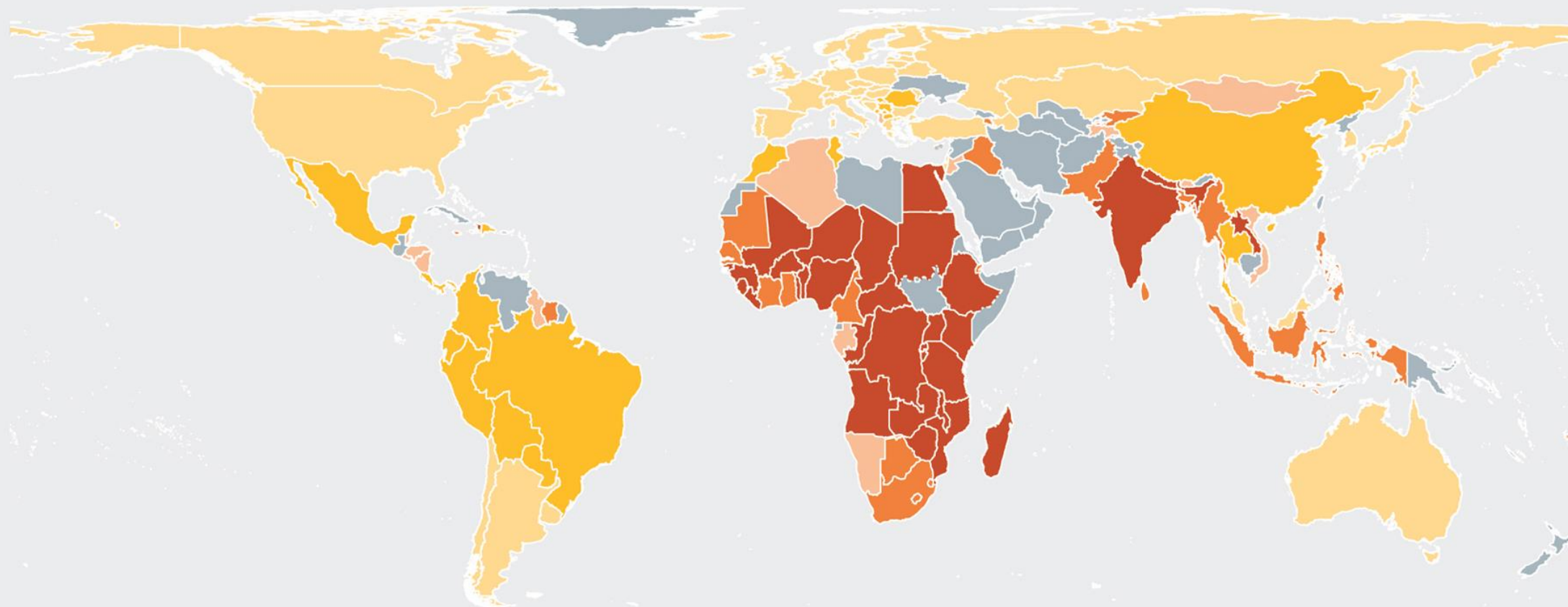
The “Standing together for Nutrition Consortium”:

STfN uses modelling to assess the impact of COVID on Nutrition, their findings show that “COVID-19 leads to far greater rise in child deaths and malnutrition in mothers and young children. Latest analysis done show COVID-19 impact on malnutrition has been worse than expected. The regions most affected by these are Africa and Asia

Additional numbers affected as a result of COVID since 2020

	Optimistic scenario (1st half of 2020)	Moderate scenario	Pessimistic scenario
Wasted children	6.4 million	9.3 million	13.6 million
Stunted children	1.5 million	2.6 million	3.6 million
Child deaths	47,000	188,000	283,000
Maternal anemia	1.0 million	2.1 million	4.8 million

More than 3 billion people in the world cannot afford a healthy diet



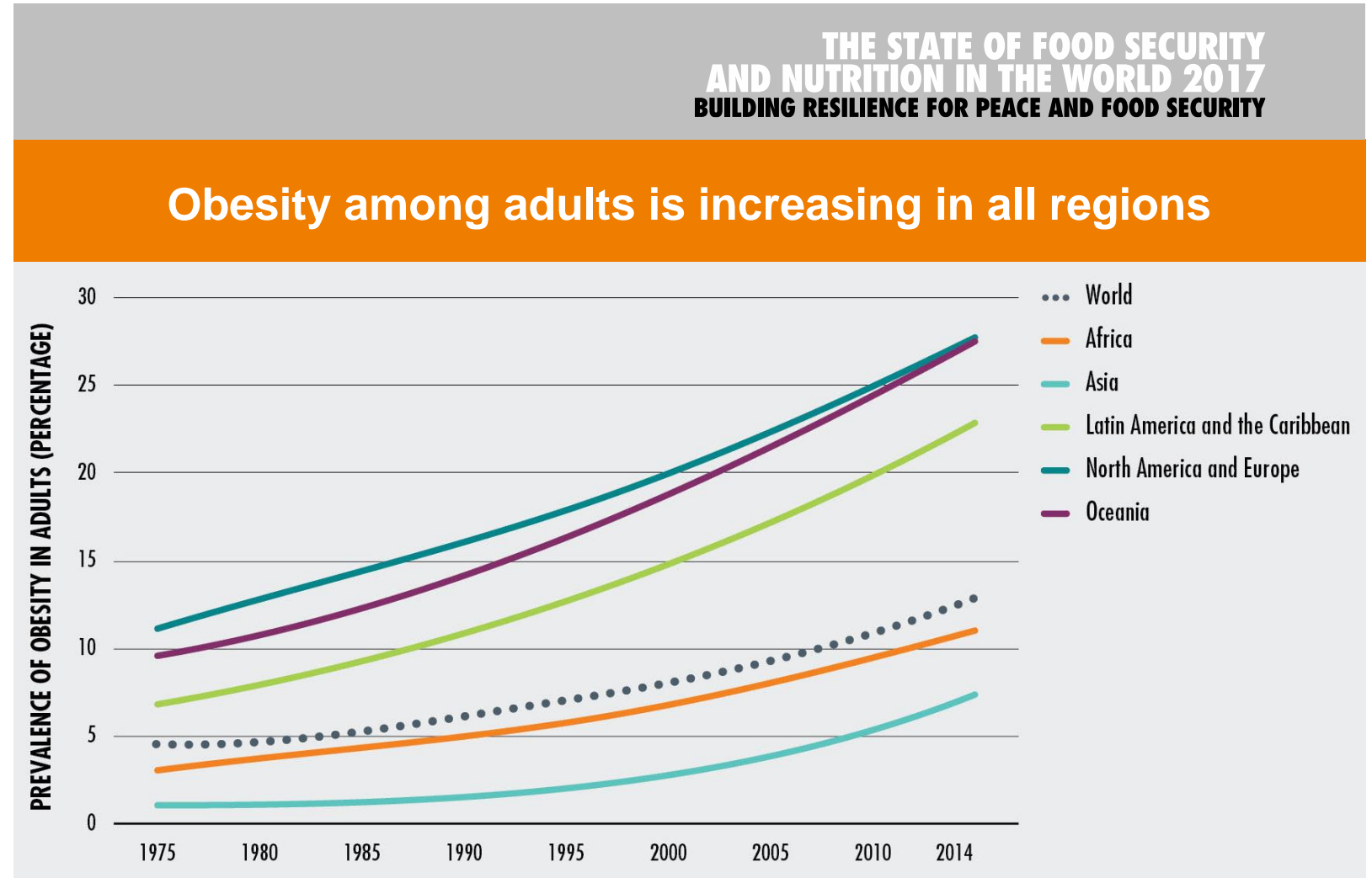
Average percentage of the population who could not afford a healthy diet in 2017

■ No data ■ < 10% ■ 10–25% ■ 25–50% ■ 50–75% ■ 75–100%

**Obesity prevalence:
most severe in Northern
America, Europe and
Oceania – 28% of adults**

Asia with 7% in Asia and

Africa 11% of adults



Source: FAO, IFAD, UNICEF and WHO 2021. State of Food Security and Nutrition 2017

The processed food revolution in African food systems and the double burden of malnutrition

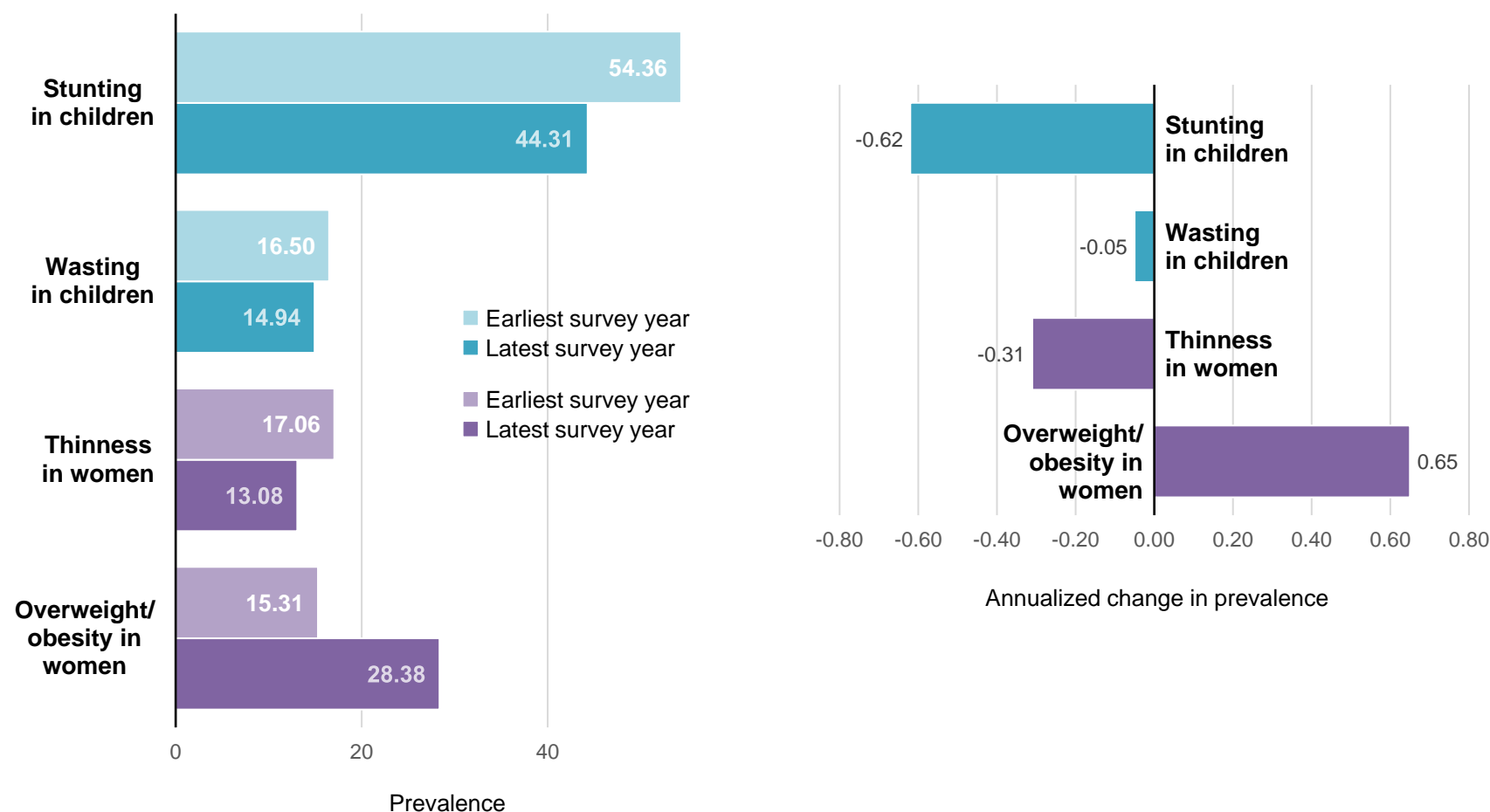
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Lead of this study: **Tom Reardon and Barry Popkin**

Ref: Global Food Security 28 (2021) 100466

<https://www.sciencedirect.com/science/article/pii/S2211912420301206>

Figure 1. Regional changes in prevalence of wasting and stunting among children (ages 0–4 years) and thinness and overweight/obesity among women (ages 15–49 years) in sub-Saharan Africa, 1990s to most recent survey year



The double burden of malnutrition

- Prevalence of undernutrition declining slowly from a high level
- Low prevalence of overweight-obesity but rapidly rising to a significant level
- Although overweight-obesity is still more among higher SES sub populations, there is a shift toward lower SES
- The DBM is rising fastest among the lower GNP/capita countries within the region

Figure 10. The double burden of malnutrition* in low- and middle-income sub-Saharan African countries based on 1990s and 2010s weight and height data

6a. 1990s



6b. 2010s



* Double burden of malnutrition (DBM) = at least 1 child, adolescent, or adult in a household with a severe levels of wasting/ stunting/thinness and 1 with overweight/obesity (shown at 20%, 30%, or 40% adult overweight/obesity prevalence); this only includes countries with DBM data available for both time periods (1990s and 2010s).

Source: Based on UNICEF, WHO, World Bank, and NCD-RisC estimates supplemented with selected DHS and other country direct measures for the 1990s.

Changes in the food Systems is a key driver to the Double burden of malnutrition in SSA

Drivers of processed foods SSA: Supply side factors in SSA

- **Urbanization:**

SSA has the fastest rate of urbanization in the world

Urban population in SSA

1990	200 million
2018	548 million

Migrants from rural to urban areas change their diets to more processed foods

Food environment in urban areas encourage consumption of HPF (supermarkets, influence of food advertisements)

- **Income growth and employment shifts**

Income in SSA has tripled in the past two decades

income per capita USD

1990	616
2000	596
2018	1574

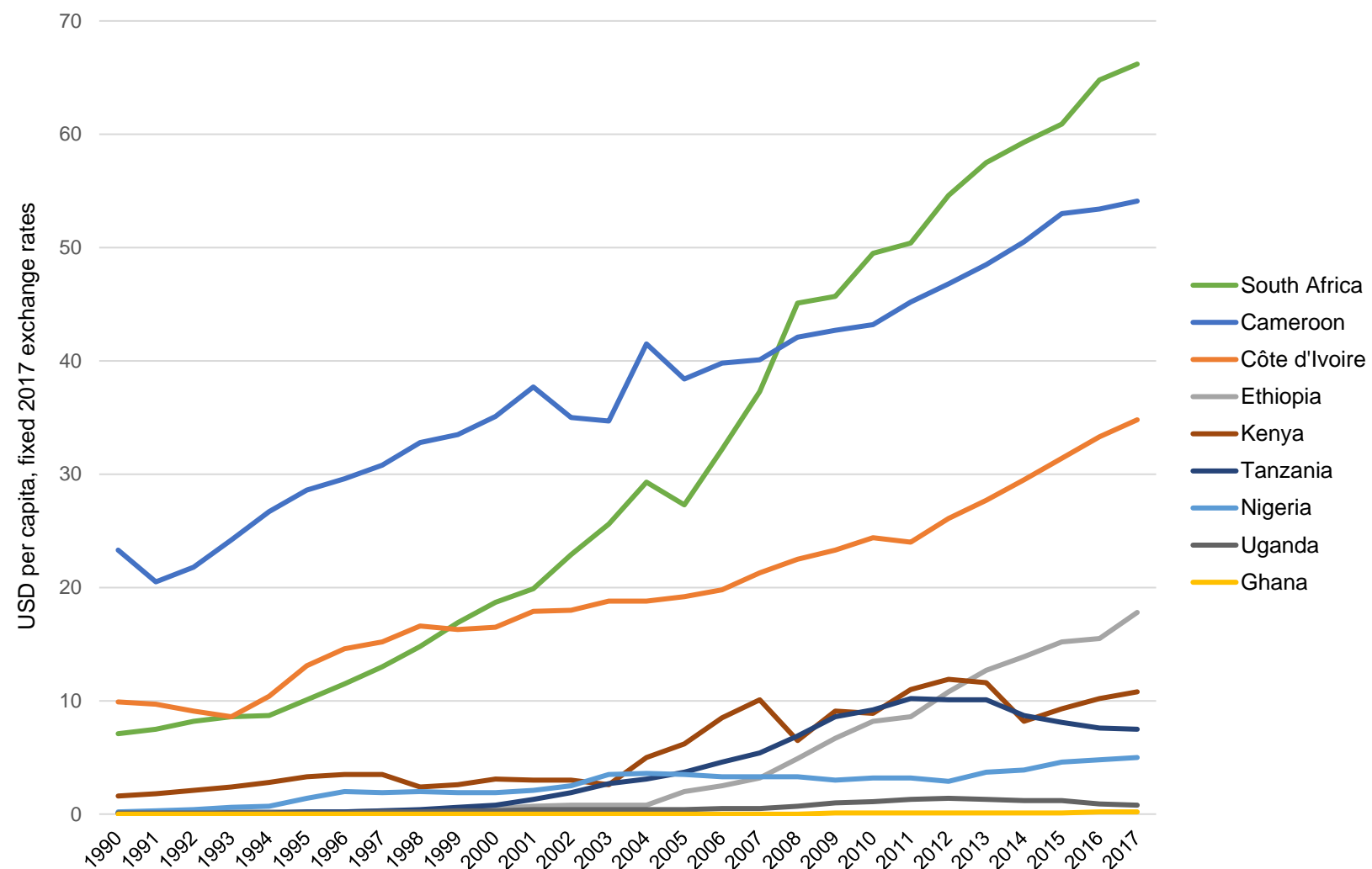
Drivers of processed foods SSA: Supply side factors in SSA

- **Employment outside the home for women and men:**
Households finding ways to save time with home food preparation;
- **Privatization of agri-food sector and import liberalization by governments**
Led to proliferation of SMEs in food processing industry;
Led to the importation of highly processed foods –SSB, sugar confectionary products;
- **Improved infrastructure**
E.g. roads, electricity, storage resulted in lowered transaction costs for processors to sell processed foods, this quickly expanded to rural areas.

Drivers of processed foods in SSA: Demand side factors in SSA

- Purchase of “food away from home” on the increase:
 - employment outside the home for **women** and men
 - households finding ways to save time with cooking moving from coarse grains to ready to use cereals - rice, wheat
 - processed foods are now common- moving from traditional ways of food processing to use of processed ingredients.

Figure 16. Per capita consumer expenditures on away-from-home* food and nonalcoholic beverages, 1990–2017



* Data are from the Euromonitor Passport category Consumer Expenditure on Catering, which includes consumer spending on foods and beverages (meals, snacks, drinks, and refreshments) at restaurants, cafés, buffets, bars, tearooms, theaters, cinemas, canteens, etc.
Source: Euromonitor International Limited 2019 © All rights reserved.

Quite revolution in processing in SSA: proliferation of SMEs

- **Rapid spread of SMEs in food processing:**
E.g cereal mills in east Africa, SSB production in Ghana.
- **Food service sector selling of highly processed foods SSA:**
Highly processed foods are also sold in small local shops which make up 90% of the food retail market.
- **The spread of super markets in SSA:**
Both local shops and super markets are carriers of highly processed foods.
Supermarkets hold 10-20% of total urbanized processed food retail
Traditional sector holds 80-90% of total urban processed food retail

Finding ways to save time through labour saving devices: e.g. of fufu making in Ghana



Final Product- Fufu



Soak maize for 24 hours



Grind into flour and
make a dough ferment
for 3 days



Cook into dumpling
called Banku



Banku is ready to eat

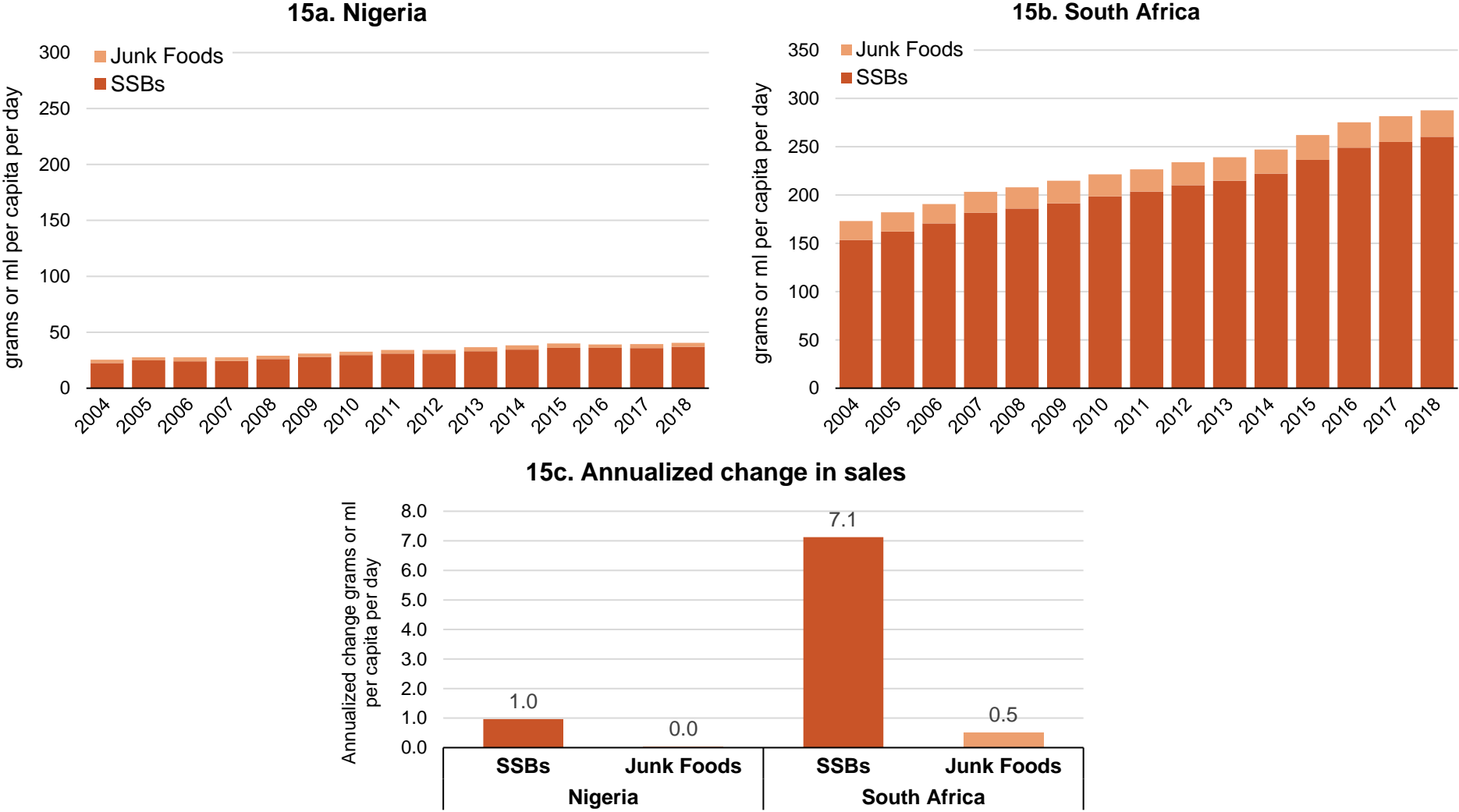


Banku making in Ghana

- Local SMEs have made Banku making easing through processing



Figure 15. Total estimated daily per capita components of ultraprocessed foods: SSB* and junk food sales in Nigeria and South Africa and annualized change in sales, 2004–2018**



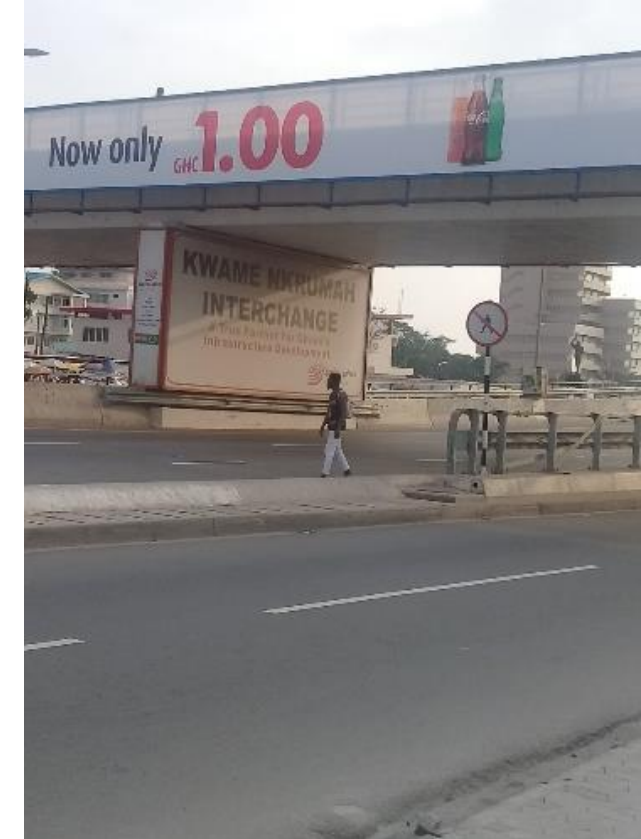
* Sugar-sweetened beverage categories include regular cola carbonates, noncola carbonates (lemonade/lime, ginger ale, tonic water/other bitters, orange, and other noncola carbonates), juice drinks (up to 24% juice), nectars, ready-to-drink tea, energy drinks, and sports drinks.

** Junk food categories include (when available) cakes, pastries, confectionery, chilled and shelf-stable desserts and snacks, frozen desserts, ice cream, flavored yogurts, sweet biscuits, snack bars, processed fruit snacks, salty snacks, savory biscuits, popcorn, and other savory snacks.

Source: Euromonitor International Limited 2019 © All rights reserved. Nonmodeled sales volume data were only available for Nigeria and South Africa.







Today's Food
Environments do not
enable healthy
choices



Medium size watermelon at
\$3.00
1 bottle SSB at 0.25

Conclusion from study:

- DBM has developed rapidly in SSA , and is possibly linked to rapid growth in the processed food consumption
- Processed food revolution in SSA has been around over 50 years
- Drivers:
 - * Rising opportunity costs in time for processing and cooking (time and convenience)
 - * Low cost of processed foods
 - * Increasing incomes
 - * Changing food environment- increased advertising, ubiquitousness of processed foods, especially Highly processed foods

- Processed foods have positive and negative sides:
Positive- time saving, convenience, Livelihoods for many SMEs in food processing; Food safety aspects due to being shelf stable

Negative – Highly and ultra processed foods have deleterious effects on health and contribute to the DMB in SSA

Policy Actions:

Processed foods in SSA will stay

Processed food consumption in SSA will increase

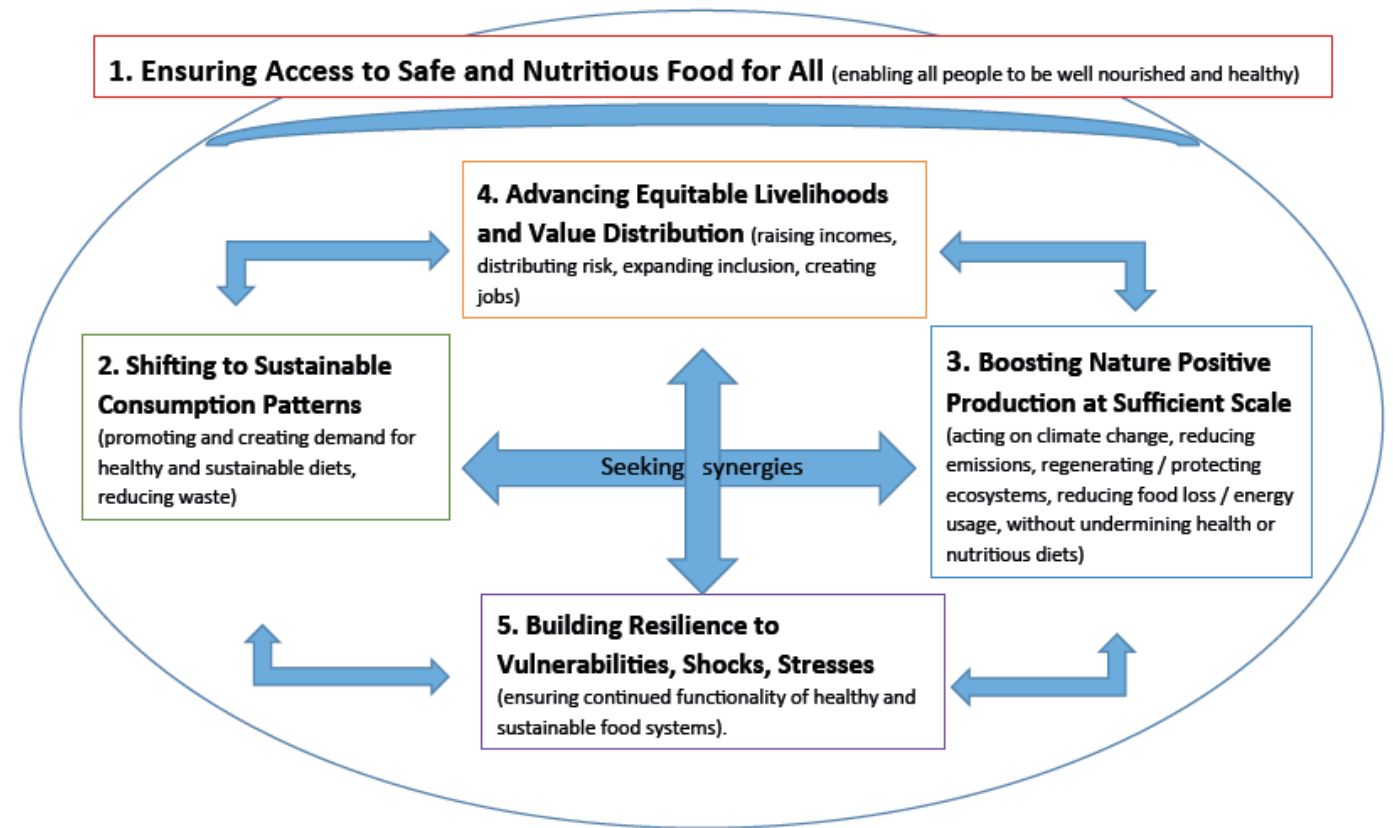
- * Actions needed to reduce the supply and demand for unhealthy processed foods
- * Fiscal policies such as SSB taxes, and alcohol tax
- * Regulations to reduce demand- labelling provisions e.g FOP,
 - Advertising and marketing laws
- * Incentives to SMEs to go into healthy food processing
- * Invest in public infrastructures (roads, distribution and storage chains, linkage to markets) to bring efficiency into the healthy food supply chains

23 September 2021

Messages from Food Systems Summit:

Food Systems transformation is a driver to the achievement of the SDGs.

A transformed food system can be a powerful force towards ending hunger, food insecurity and malnutrition in all its forms.



The Action Tracks in Food Systems Perspectives
Source: von Braun et. al 2021

Thank you